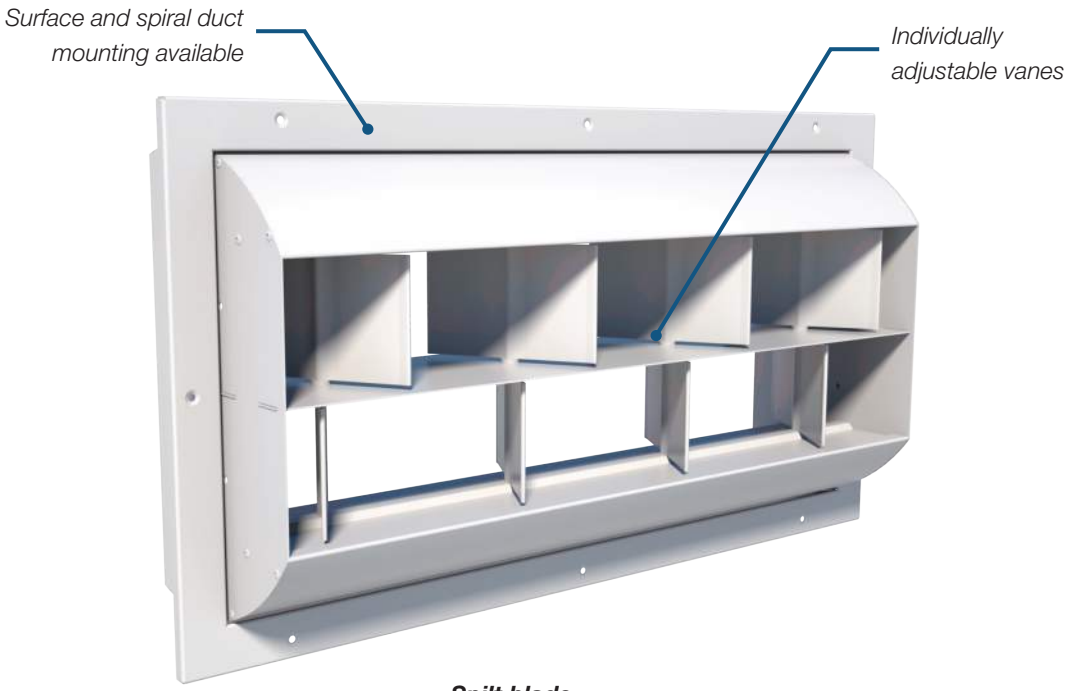
HCD
High Capacity Drum Louver

The High Capacity Drum Louvers (HCD) consist of extruded aluminum blades mounted inside a rotatable drum to produce long air throws with a high degree of directional control.

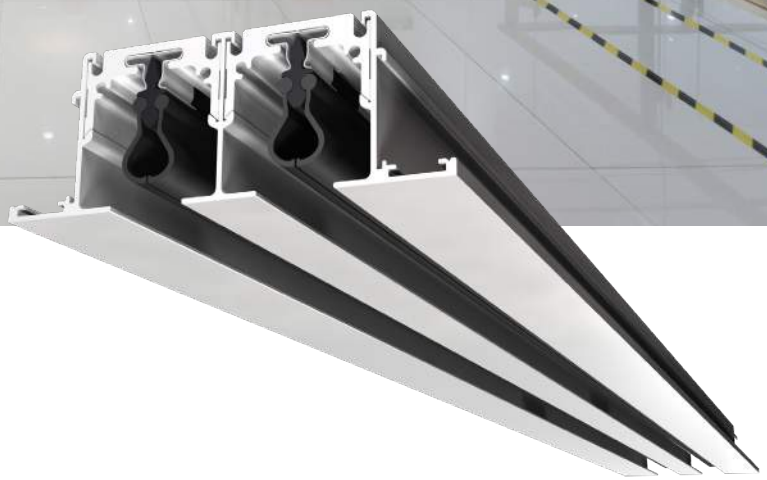
Single blade



Spilt blade

SDS

LINEAR SLOT DIFFUSER



price | DIFFUSERS

SDS
Linear Slot Diffuser

The SDS linear slot diffuser is designed to satisfy architectural applications that require continuous lengths without compromising air distribution performance. These linear slot diffusers feature fully adjustable, aerodynamic pattern controllers fabricated from extruded aluminum, and are available in a large selection of frame styles. The SDS provides the ideal combination of engineering excellence and architectural appeal.

FULLY ADJUSTABLE AIR PATTERN

The precisely shaped, aerodynamic ice-tong pattern controllers provide airflow rate control as well as a full 180° range of air pattern adjustment, anywhere from fully vertical to fully horizontal. Pattern controllers come in discrete sections for multiple patterns on a single slot length.

DESIGN FLEXIBILITY

Ideal for highly architectural applications, the SDS features a one-piece extruded aluminum frame and is available with countless design options to provide ultimate flexibility. Options include:

+ Up to 10 slots for airflow pattern flexibility and additional capacity.
+ Four slot widths.
+ Available for discrete or continuous applications. Continuous installations are supplied with alignment strips for high quality architectural installations.
+ Flexible position for supply plenums allowing active and return sections along the same diffuser. This is popular for continuous slot, perimeter applications.
+ Blank-off strips are used for inactive sections and maintain a continuous look.
+ Inside, outside or flat mitered corners.
+ Flat face curve sections.
+ Multiple finish options, including anodized

Mitered corners

TYPICAL APPLICATIONS

Aerodynamically designed blades provide a tight horizontal pattern that maintains stability even at low airflow rates, making the SDS ideal for VAV applications. Excellent for architectural applications, the SDS has many mounting styles and is available with multiple slot widths and quantities to meet a range of airflow requirements.

CONSTRUCTION OPTIONS

+ Models
  - Supply (SDS)
  - Return (SDR)
  - Curved supply/return (SDC)
+ Slot widths
  - 1/2 in.
  - 3/4 in.
  - 1 in.
  - 1 1/2 in.
+ Slot quantity
  - 1 to 10
+ Accessories
  - Blank-off strips
  - Mitered corner section (MC)

4-WAY LINEAR SLOT DIFFUSER (SDS4)

Price SDS4 Series 4 way linear slot diffusers provide exceptional performance, superior design and crisp appearance for integration with ceiling tile. This unique design combines extruded aluminum construction with a ceiling tile that is field cut and placed into the face of the diffuser.

For design flexibility, the SDS4 is available in three ceiling module sizes, with one to 4 slots in three sizes to accommodate low, medium, and high airflow. Ideal for use in high performance VAV systems, the SDS4 provides full 180° air pattern adjustment and a stable horizontal air pattern. Each slot is individually adjustable for air pattern and air volume using a precisely curved, aerodynamically shaped pattern controller.

A matching return unit is available and is supplied with a sight baffle instead of a plenum and pattern controllers.

CONSTRUCTION

+ Application
  - Supply (SDS4)
  - Return (SDR4)
+ Ceiling module size
  - 20 in. x 20 in.
  - 24 in. x 24 in.
  - 30 in. x 30 in.
+ Slot width
  - ½ in.
  - ¾ in.
  - 1 in.
+ Slot quantity
  - 1, 2, 3*, 4*

  *available on 24 in. and 30 in. only
+ Options
  - Insulated plenum (SDSI4)
  - No plenum

Mechanical Load Calculations

VA HINES, IL

RENOVATE SPACES Building 217

BAE Project # 23-009

STATION PROJECT # 578-20-002

CONTRACT # 36C25223C0071

Location: VA Hines
State: Illinois
Date: May 08, 2024

(60% Construction Drawings)

BANCROFT ARCHITECTS + ENGINEERS

Air System Sizing Summary for ATRIUM AHU

Project Name: 23-009 - Hines - Seperate Atrium
Prepared by: Bancroft

03/25/2024
01:40PM

Air System Information

Air System Name	**ATRIUM AHU**		Number of zones	**1**	
Equipment Class	**PKG ROOF**		Floor Area	**4208.0**	ft²
Air System Type	**VAV**		Location	**Chicago IAP, Illinois**	

Sizing Calculation Information

Calculation Months	**Jan to Dec**		Zone CFM Sizing	**Peak zone sensible load**	
Sizing Data	**Calculated**		Space CFM Sizing	**Coincident space loads**	

Central Cooling Coil Sizing Data

Total coil load	**25.6**	Tons	Load occurs at	**Jul 1600**	
Total coil load	**306.9**	MBH	OA DB / WB	**91.0 / 74.0**	°F
Sensible coil load	**199.8**	MBH	Entering DB / WB	**83.1 / 68.5**	°F
Coil CFM at Jul 1600	**6401**	CFM	Leaving DB / WB	**53.5 / 52.4**	°F
Max block CFM at Jul 1600	**6401**	CFM	Coil ADP	**50.2**	°F
Sum of peak zone CFM	**6401**	CFM	Bypass Factor	**0.100**	
Sensible heat ratio	**0.651**		Resulting RH	**48**	%
CFM/Ton	**250.3**		Design supply temp.	**57.0**	°F
ft²/Ton	**164.5**		Zone T-stat Check	**0 of 1**	OK
BTU/(hr·ft²)	**72.9**		Max zone temperature deviation	**0.0**	°F
Water flow @ 12.0 °F rise	**N/A**				

Preheat Coil Sizing Data

Max coil load	**138.7**	MBH	Load occurs at	**Des Htg**	
Coil CFM at Des Htg	**4756**	CFM	Ent. DB / Lvg DB	**22.3 / 50.0**	°F
Max coil CFM	**6401**	CFM			
Water flow @ 50.0 °F drop	**5.55**	gpm			

Humidifier Sizing Data

Max steam flow at Des Htg	**51.19**	lb/hr	Air mass flow	**20886.50**	lb/hr
Airflow Rate	**4756**	CFM	Moisture gain	**.00245**	lb/lb

Supply Fan Sizing Data

Actual max CFM at Jul 1600	**6401**	CFM	Fan motor BHP	**n/a**	
Standard CFM	**6246**	CFM	Fan motor kW	**6.94**	kW
Actual max CFM/ft²	**1.52**	CFM/ft²			

Return Fan Sizing Data

Actual max CFM at Jul 1600	**6401**	CFM	Fan motor BHP	**n/a**	
Standard CFM	**6246**	CFM	Fan motor kW	**0.00**	kW
Actual max CFM/ft²	**1.52**	CFM/ft²	Fan static	**0.00**	in wg

Outdoor Ventilation Air Data

Design airflow CFM	**2911**	CFM	CFM/person	**19.41**	CFM/person
CFM/ft²	**0.69**	CFM/ft²			

Zone Sizing Summary for ATRIUM AHU

Project Name: 23-009 - Hines - Seperate Atrium 03/25/2024
Prepared by: Bancroft 01:40PM

Air System Information

Air System Name ..... **ATRIUM AHU**
Equipment Class ..... **PKG ROOF**
Air System Type ..... **VAV**
Number of zones **1**
Floor Area ..... **4208.0** ft²
Location ..... **Chicago IAP, Illinois**

Sizing Calculation Information

Calculation Months ..... **Jan to Dec**
Sizing Data ..... **Calculated**
Zone CFM Sizing ..... **Peak zone sensible load**
Space CFM Sizing ..... **Coincident space loads**

Zone Terminal Sizing Data

Zone Name	Design Supply Airflow (CFM)	Minimum Supply Airflow (CFM)	Zone CFM/ft²	Reheat Coil Load (MBH)	Reheat Coil Water gpm @ 50.0 °F	Zone Htg Unit Coil Load (MBH)	Zone Htg Unit Water gpm @ 50.0 °F	Mixing Box Fan Airflow (CFM)
Zone 1	6401	4756	1.52	190.5	7.62	0.0	-	0

Zone Peak Sensible Loads

Zone Name	Zone Cooling Sensible (MBH)	Time of Peak Sensible Cooling Load	Zone Heating Load (MBH)	Zone Floor Area (ft²)
Zone 1	121.4	Jul 1600	125.3	4208.0

Space Loads and Airflows

Zone Name / Space Name	Mult.	Cooling Sensible (MBH)	Time of Peak Sensible Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (ft²)	Space CFM/ft²
Zone 1							
UPPER ATRIUM	1	78.1	Jul 1600	4118	125.3	2104.0	1.96
LOWER ATRIUM	1	43.3	Jul 1600	2282	0.0	2104.0	1.08

Air System Design Load Summary for ATRIUM AHU

Project Name: 23-009 - Hines - Seperate Atrium 03/25/2024
Prepared by: Bancroft 01:40PM

	DESIGN COOLING			DESIGN HEATING		
	COOLING DATA AT Jul 1600 COOLING OA DB / WB 91.0 °F / 74.0 °F			HEATING DATA AT DES HTG HEATING OA DB / WB -6.0 °F / -7.2 °F		
ZONE LOADS	Details	Sensible (BTU/hr)	Latent (BTU/hr)	Details	Sensible (BTU/hr)	Latent (BTU/hr)
Window & Skylight Solar Loads	2838 ft²	49237	-	2838 ft²	-	-
Wall Transmission	917 ft²	1339	-	917 ft²	7246	-
Roof Transmission	1479 ft²	4997	-	1479 ft²	10229	-
Window Transmission	2213 ft²	13819	-	2213 ft²	84094	-
Skylight Transmission	625 ft²	3903	-	625 ft²	23750	-
Door Loads	0 ft²	0	-	0 ft²	0	-
Floor Transmission	0 ft²	0	-	0 ft²	0	-
Partitions	0 ft²	0	-	0 ft²	0	-
Ceiling	0 ft²	0	-	0 ft²	0	-
Overhead Lighting	2630 W	8058	-	0	0	-
Task Lighting	0 W	0	-	0	0	-
Electric Equipment	1052 W	3426	-	0	0	-
People	150	36650	40500	0	0	0
Infiltration	-	0	0	-	0	0
Miscellaneous	-	0	0	-	0	0
Safety Factor	0% / 0%	0	0	0%	0	0
>> Total Zone Loads	**-**	**121429**	**40500**	**-**	**125319**	**0**
Zone Conditioning	-	131767	40500	-	119405	0
Plenum Wall Load	0%	0	-	0	0	-
Plenum Roof Load	0%	0	-	0	0	-
Plenum Lighting Load	0%	0	-	0	0	-
Return Fan Load	6401 CFM	0	-	4756 CFM	0	-
Ventilation Load	2911 CFM	44389	66576	2911 CFM	224019	53991
Supply Fan Load	6401 CFM	23665	-	4756 CFM	-14206	-
Space Fan Coil Fans	-	0	-	-	0	-
Duct Heat Gain / Loss	0%	0	-	0%	0	-
>> Total System Loads	**-**	**199821**	**107076**	**-**	**329218**	**53991**
Central Cooling Coil	-	199821	107080	-	0	0
Preheat Coil	-	0	-	-	138733	-
Humidification Load	-	-	0	-	-	53991
Terminal Reheat Coils	-	0	-	-	190485	-
>> Total Conditioning	**-**	**199821**	**107080**	**-**	**329218**	**53991**
Key:	**Positive values are clg loads Negative values are htg loads**			**Positive values are htg loads Negative values are clg loads**		

Space Design Load Summary for ATRIUM AHU

Project Name: 23-009 - Hines - Seperate Atrium 03/25/2024
Prepared by: Bancroft 01:40PM

TABLE 1.1.A. Component Loads For Space "UPPER ATRIUM" In Zone "Zone 1"						
	DESIGN COOLING			DESIGN HEATING		
	COOLING DATA AT Jul 1600 COOLING OA DB / WB 91.0 °F / 74.0 °F OCCUPIED T-STAT 75.0 °F			HEATING DATA AT DES HTG HEATING OA DB / WB -6.0 °F / -7.2 °F OCCUPIED T-STAT 70.0 °F		
		Sensible	Latent		Sensible	Latent
SPACE LOADS	**Details**	**(BTU/hr)**	**(BTU/hr)**	**Details**	**(BTU/hr)**	**(BTU/hr)**
Window & Skylight Solar Loads	2838 ft²	49237	-	2838 ft²	-	-
Wall Transmission	917 ft²	1339	-	917 ft²	7246	-
Roof Transmission	1479 ft²	4997	-	1479 ft²	10229	-
Window Transmission	2213 ft²	13819	-	2213 ft²	84094	-
Skylight Transmission	625 ft²	3903	-	625 ft²	23750	-
Door Loads	0 ft²	0	-	0 ft²	0	-
Floor Transmission	0 ft²	0	-	0 ft²	0	-
Partitions	0 ft²	0	-	0 ft²	0	-
Ceiling	0 ft²	0	-	0 ft²	0	-
Overhead Lighting	1578 W	4835	-	0	0	-
Task Lighting	0 W	0	-	0	0	-
Electric Equipment	0 W	0	-	0	0	-
People	0	0	0	0	0	0
Infiltration	-	0	0	-	0	0
Miscellaneous	-	0	0	-	0	0
Safety Factor	0% / 0%	0	0	0%	0	0
>> Total Zone Loads	**-**	**78130**	**0**	**-**	**125319**	**0**

TABLE 1.1.B. Envelope Loads For Space "UPPER ATRIUM" In Zone "Zone 1"						
				COOLING	COOLING	HEATING
	Area	U-Value	Shade	TRANS	SOLAR	TRANS
	(ft²)	(BTU/(hr·ft²·°F))	Coeff.	(BTU/hr)	(BTU/hr)	(BTU/hr)
N EXPOSURE						
WALL	231	0.104	-	239	-	1823
WINDOW 1	1038	0.500	0.287	6482	7265	39444
E EXPOSURE						
WALL	233	0.104	-	396	-	1839
WINDOW 1	396	0.500	0.287	2473	6504	15048
S EXPOSURE						
WALL	221	0.104	-	373	-	1744
WINDOW 1	383	0.500	0.287	2392	5039	14554
W EXPOSURE						
WALL	233	0.104	-	331	-	1839
WINDOW 1	396	0.500	0.287	2473	9410	15048
H EXPOSURE						
ROOF	1479	0.091	-	4997	-	10229
SKYLIGHT	625	0.500	0.253	3903	21019	23750

Space Design Load Summary for ATRIUM AHU

Project Name: 23-009 - Hines - Seperate Atrium 03/25/2024
Prepared by: Bancroft 01:40PM

TABLE 1.2.A. Component Loads For Space "LOWER ATRIUM" In Zone "Zone 1"						
	DESIGN COOLING			DESIGN HEATING		
	COOLING DATA AT Jan 2200 COOLING OA DB / WB 32.7 °F / 32.7 °F OCCUPIED T-STAT 75.0 °F			HEATING DATA AT DES HTG HEATING OA DB / WB -6.0 °F / -7.2 °F OCCUPIED T-STAT 70.0 °F		
		Sensible	Latent		Sensible	Latent
SPACE LOADS	Details	(BTU/hr)	(BTU/hr)	Details	(BTU/hr)	(BTU/hr)
Window & Skylight Solar Loads	0 ft²	0	-	0 ft²	-	-
Wall Transmission	0 ft²	0	-	0 ft²	0	-
Roof Transmission	0 ft²	0	-	0 ft²	0	-
Window Transmission	0 ft²	0	-	0 ft²	0	-
Skylight Transmission	0 ft²	0	-	0 ft²	0	-
Door Loads	0 ft²	0	-	0 ft²	0	-
Floor Transmission	0 ft²	0	-	0 ft²	0	-
Partitions	0 ft²	0	-	0 ft²	0	-
Ceiling	0 ft²	0	-	0 ft²	0	-
Overhead Lighting	1052 W	3346	-	0	0	-
Task Lighting	0 W	0	-	0	0	-
Electric Equipment	1052 W	3481	-	0	0	-
People	150	38442	40500	0	0	0
Infiltration	-	0	0	-	0	0
Miscellaneous	-	0	0	-	0	0
Safety Factor	0% / 0%	0	0	0%	0	0
>> Total Zone Loads	-	45268	40500	-	0	0

TABLE 1.2.B. Envelope Loads For Space "LOWER ATRIUM" In Zone "Zone 1"						
				COOLING	COOLING	HEATING
	Area	U-Value	Shade	TRANS	SOLAR	TRANS
	(ft²)	(BTU/(hr·ft²·°F))	Coeff.	(BTU/hr)	(BTU/hr)	(BTU/hr)

Air System Sizing Summary for 23-009 HINES VA CLC

Project Name: 23-009 Hines VA CLC Hines Illinois — 04/08/2024
Prepared by: Bancroft A+E — 02:14PM

Air System Information

Air System Name	**23-009 HINES VA CLC**		Number of zones	**4**	
Equipment Class	**UNDEF**		Floor Area	**20425.0**	ft²
Air System Type	**VAV**		Location	**Chicago IAP, Illinois**	

Sizing Calculation Information

Calculation Months	**Jan to Dec**		Zone CFM Sizing	**Peak zone sensible load**	
Sizing Data	**Calculated**		Space CFM Sizing	**Individual peak space loads**	

Central Cooling Coil Sizing Data

Total coil load	**16.2**	Tons	Load occurs at	**Jul 1800**	
Total coil load	**194.6**	MBH	OA DB / WB	**89.0 / 73.5**	°F
Sensible coil load	**170.1**	MBH	Entering DB / WB	**76.2 / 62.8**	°F
Coil CFM at Jul 1800	**7630**	CFM	Leaving DB / WB	**55.0 / 53.8**	°F
Max block CFM at Jul 1800	**8761**	CFM	Coil ADP	**52.6**	°F
Sum of peak zone CFM	**8828**	CFM	Bypass Factor	**0.100**	
Sensible heat ratio	**0.874**		Resulting RH	**48**	%
CFM/Ton	**470.6**		Design supply temp.	**55.0**	°F
ft²/Ton	**1259.6**		Zone T-stat Check	**4 of 4**	OK
BTU/(hr·ft²)	**9.5**		Max zone temperature deviation	**0.0**	°F
Water flow @ 15.0 °F rise	**25.96**	gpm			

Preheat Coil Sizing Data

No heating coil loads occurred during this calculation.

Supply Fan Sizing Data

Actual max CFM at Jul 1800	**8761**	CFM	Fan motor BHP	**0.00**	BHP
Standard CFM	**8550**	CFM	Fan motor kW	**0.00**	kW
Actual max CFM/ft²	**0.43**	CFM/ft²	Fan static	**0.00**	in wg

Outdoor Ventilation Air Data

Design airflow CFM	**0**	CFM	CFM/person	**0.00**	CFM/person
CFM/ft²	**0.00**	CFM/ft²			

Zone Sizing Summary for 23-009 HINES VA CLC

Project Name: 23-009 Hines VA CLC Hines Illinois 04/08/2024
Prepared by: Bancroft A+E 02:14PM

Air System Information

Air System Name ..... **23-009 HINES VA CLC**
Equipment Class ..... **UNDEF**
Air System Type ..... **VAV**

Number of zones **4**
Floor Area ..... **20425.0** ft²
Location ..... **Chicago IAP, Illinois**

Sizing Calculation Information

Calculation Months ..... **Jan to Dec**
Sizing Data ..... **Calculated**

Zone CFM Sizing ..... **Peak zone sensible load**
Space CFM Sizing ..... **Individual peak space loads**

Zone Terminal Sizing Data

Zone Name	Design Supply Airflow (CFM)	Minimum Supply Airflow (CFM)	Zone CFM/ft²	Reheat Coil Load (MBH)	Reheat Coil Water gpm @ 20.0 °F	Zone Htg Unit Coil Load (MBH)	Zone Htg Unit Water gpm @ 20.0 °F	Mixing Box Fan Airflow (CFM)
Zone 1A114	4768	2292	0.42	96.6	9.67	0.0	0.00	0
Zone 1A121	1687	336	0.41	14.2	1.42	0.0	0.00	0
Zone 2A24	953	118	0.73	5.0	0.50	0.0	0.00	0
Zone 2A20	1420	338	0.38	14.2	1.42	0.0	0.00	0

Zone Peak Sensible Loads

Zone Name	Zone Cooling Sensible (MBH)	Time of Peak Sensible Cooling Load	Zone Heating Load (MBH)	Zone Floor Area (ft²)
Zone 1A114	100.5	Jul 1800	60.4	11333.0
Zone 1A121	35.6	Jul 1800	8.8	4093.0
Zone 2A24	20.1	Oct 1500	3.1	1305.0
Zone 2A20	29.9	Jul 1800	8.9	3694.0

Space Loads and Airflows

Zone Name / Space Name	Mult.	Cooling Sensible (MBH)	Time of Peak Sensible Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (ft²)	Space CFM/ft²
Zone 1A114							
1A100 ENTRANCE	1	13.0	Jun 1800	619	11.6	652.0	0.95
1A100 ENTRANCE LOBBY	1	4.9	Jul 1800	233	3.6	720.0	0.32
1A100 ENTRANCE LOBBY INT	1	1.3	Jan 2200	60	0.0	400.0	0.15
1A104 WAITING / LIB	1	2.2	Jan 2100	105	0.0	253.0	0.41
1A104A RECEPTION	1	2.1	Jan 2100	98	0.0	210.0	0.47
1A105 CLINIC	1	3.0	Jun 1800	143	2.0	179.0	0.80
1A106 CLINIC	1	3.5	Jun 1800	167	2.8	182.0	0.92
1A107 CLINIC	1	3.0	Jun 1800	142	2.2	168.0	0.84
1A108 CLINIC	1	3.0	Jun 1800	142	2.1	177.0	0.80
1A109 CLINIC	1	2.2	Jan 2100	104	0.2	178.0	0.58
1A111 SOCIAL WORKER	1	2.0	Jan 2100	94	0.0	113.0	0.83
1A112 TOILET	1	0.2	Jan 2200	12	0.0	78.0	0.15
1A141 WORKROOM	1	1.8	Jan 2100	86	0.0	130.0	0.67
1A142 VITALS EXAM	1	1.8	Jan 2100	86	0.0	127.0	0.68
1B148 TOILET INT	1	0.2	Jan 2200	11	0.0	76.0	0.15
1B149 BARIATRIC ROOM	1	4.1	Jul 1500	197	2.7	312.0	0.63
1B154 TOILET EXT	1	0.5	Jul 1500	26	0.9	67.0	0.39
1B155 DEMENTIA ROOM	1	3.0	Jul 1600	142	1.3	241.0	0.59
1B156 DEMENTIA ROOM	1	3.0	Jul 1600	142	1.3	239.0	0.59
1B157 TOILET EXT	1	0.5	Jul 2000	26	0.9	65.0	0.40
1B158 TOILET EXT	1	0.5	Jul 1500	26	0.9	67.0	0.39
1B159 DEMENTIA ROOM	1	3.0	Jul 1600	142	1.3	246.0	0.58
1B160 MULTIPURPOSE ROOM	1	2.9	Jul 1600	136	1.8	153.0	0.89
1B161 TOILET INT	1	0.2	Jan 2200	9	0.0	60.0	0.15
1B162 DEMENTIA ROOM	1	3.3	Jul 1600	157	2.3	235.0	0.67
1B163 TOILET EXT	1	0.7	Aug 1500	33	1.2	78.0	0.43
1B164 DEMENTIA ROOM	1	3.8	Oct 1500	178	1.4	251.0	0.71
1B165 TOILET EXT	1	0.7	Aug 1900	34	0.9	72.0	0.47
1B166 TOILET EXT	1	0.7	Aug 1900	31	0.9	64.0	0.49
1B167 DEMENTIA ROOM	1	3.8	Oct 1500	180	1.4	221.0	0.81
1B168 DEMENTIA ROOM	1	3.9	Oct 1500	183	1.4	239.0	0.76
1B169 TOILET EXT	1	0.7	Aug 1900	32	0.9	67.0	0.47
1B170 TOILET EXT	1	0.7	Aug 1900	31	0.9	65.0	0.48
1B171 DEMENTIA ROOM	1	3.8	Oct 1500	182	1.4	236.0	0.77
1B172 DEMENTIA ROOM	1	3.9	Oct 1500	183	1.4	240.0	0.76
1B173 TOILET EXT	1	0.7	Aug 1900	32	0.9	67.0	0.47
1B174 TOILET EXT	1	0.7	Aug 1900	31	0.9	65.0	0.48
1B175 DEMENTIA ROOM	1	3.8	Oct 1500	182	1.4	235.0	0.77
1B176 DEMENTIA ROOM	1	3.9	Oct 1500	183	1.4	243.0	0.75
1B177 TOILET EXT	1	0.6	Aug 1700	31	0.9	75.0	0.41
CORRIDOR UNIT A NORTH	1	0.9	Jan 2200	41	0.0	550.0	0.07
CORRIDOR UNIT A SOUTH	1	1.5	Jan 2200	70	0.0	932.0	0.07
CORRIDOR UNIT B NORTH	1	1.0	Jan 2200	48	0.0	636.0	0.07
CORRIDOR UNIT B SOUTH	1	1.6	Jan 2200	75	0.0	997.0	0.07
1B151 CLEAN LINEN	1	0.1	Jan 2200	4	0.0	27.0	0.15
1B152 CLEAN UTILITY	1	1.3	Jun 0900	62	1.3	109.0	0.56
1B153 SOILED UTILITY	1	0.7	Jul 2000	33	0.9	110.0	0.30
1B178A EQUIP STORAGE	1	4.6	Oct 1500	217	3.2	260.0	0.83
1B178B WOUND CARE STOR	1	0.3	Jan 2200	16	0.0	108.0	0.15
1B179 TOILET INT	1	0.2	Jan 2200	9	0.0	58.0	0.15
Zone 1A121							
1C104 HIGH FALL RISK RM	1	4.1	Jun 1800	197	3.1	455.0	0.43
1C105 TOILET INT	1	0.2	Jan 2200	11	0.0	72.0	0.15
1C148 TOILET INT	1	0.2	Jan 2200	11	0.0	76.0	0.15

Zone Name / Space Name	Mult.	Cooling Sensible (MBH)	Time of Peak Sensible Load	Air Flow (CFM)	Heating Load (MBH)	Floor Area (ft^2)	Space CFM/ft^2
1C149 BARIATRIC ROOM	1	5.3	Sep 1200	252	2.7	302.0	0.83
1C178 HIGH FALL RISK	1	6.6	Jul 1800	313	3.1	478.0	0.65
1C179 TOILET INT	1	0.2	Jan 2200	10	0.0	68.0	0.15
1A118 DINING ROOM	1	12.4	Jan 2100	589	0.0	1589.0	0.37
1A127A KITCHEN SUPPORT	1	4.2	Jan 2100	199	0.0	485.0	0.41
1B135 SHOWER ROOM	1	0.9	Jan 2100	41	0.0	210.0	0.20
1B135A TOILET INT	1	0.1	Jan 2200	7	0.0	45.0	0.15
1B142 STAFF WORK AREA	1	2.6	Jan 2100	124	0.0	313.0	0.40
Zone 2A24							
2A212A CONFERENCE ROOM	1	5.4	Jan 2100	258	0.0	463.0	0.56
2A212B CONFERENCE ROOM	1	5.0	Jan 2100	235	0.0	309.0	0.76
2B041 NOURISHMENT	1	3.7	Jan 2100	175	0.0	61.0	2.87
2B278 FAMILY ROOM	1	6.6	Oct 1500	311	3.1	472.0	0.66
Zone 2A20							
2A218 DINING ROOM	1	14.5	Jan 2100	687	0.0	2247.0	0.31
2C204 HIGH FALL RISK	1	4.1	Jun 1800	197	3.1	454.0	0.43
2C205 TOILET INT	1	0.2	Jan 2200	11	0.0	72.0	0.15
2C248 TOILET INT	1	0.2	Jan 2200	11	0.0	73.0	0.15
2C249 BARIATRIC ROOM	1	5.4	Sep 1200	254	2.7	314.0	0.81
2C278 HIGH FALL RISK	1	6.6	Jul 1800	311	3.1	466.0	0.67
2C279 TOILET INT	1	0.2	Jan 2200	10	0.0	68.0	0.15

1. Summary

Ventilation Sizing Method ..... **Sum of Space OA Airflows**
Design Ventilation Airflow Rate ..... **0** CFM

2. Space Ventilation Analysis

Zone Name / Space Name	Mult.	Floor Area (ft²)	Maximum Occupants	Maximum Supply Air (CFM)	Required Outdoor Air (CFM/person)	Required Outdoor Air (CFM/ft²)	Required Outdoor Air (CFM)	Required Outdoor Air (% of supply)	Uncorrected Outdoor Air (CFM)
Zone 1A114									
1A100 ENTRANCE	1	652.0	0.0	618.8	0.00	0.00	0.0	0.0	0.0
1A100 ENTRANCE LOBBY	1	720.0	6.0	232.5	0.00	0.00	0.0	0.0	0.0
1A100 ENTRANCE LOBBY INT	1	400.0	0.0	59.8	0.00	0.00	0.0	0.0	0.0
1A104 WAITING / LIB	1	253.0	2.0	104.8	0.00	0.00	0.0	0.0	0.0
1A104A RECEPTION	1	210.0	2.0	98.4	0.00	0.00	0.0	0.0	0.0
1A105 CLINIC	1	179.0	3.0	143.4	0.00	0.00	0.0	0.0	0.0
1A106 CLINIC	1	182.0	3.0	167.0	0.00	0.00	0.0	0.0	0.0
1A107 CLINIC	1	168.0	3.0	141.7	0.00	0.00	0.0	0.0	0.0
1A108 CLINIC	1	177.0	3.0	141.7	0.00	0.00	0.0	0.0	0.0
1A109 CLINIC	1	178.0	3.0	103.8	0.00	0.00	0.0	0.0	0.0
1A111 SOCIAL WORKER	1	113.0	3.0	94.2	0.00	0.00	0.0	0.0	0.0
1A112 TOILET	1	78.0	0.0	11.7	0.00	0.00	0.0	0.0	0.0
1A141 WORKROOM	1	130.0	2.0	86.5	0.00	0.00	0.0	0.0	0.0
1A142 VITALS EXAM	1	127.0	2.0	86.0	0.00	0.00	0.0	0.0	0.0
1B148 TOILET INT	1	76.0	0.0	11.4	0.00	0.00	0.0	0.0	0.0
1B149 BARIATRIC ROOM	1	312.0	2.0	196.7	0.00	0.00	0.0	0.0	0.0
1B154 TOILET EXT	1	67.0	0.0	26.0	0.00	0.00	0.0	0.0	0.0
1B155 DEMENTIA ROOM	1	241.0	2.0	141.9	0.00	0.00	0.0	0.0	0.0
1B156 DEMENTIA ROOM	1	239.0	2.0	141.6	0.00	0.00	0.0	0.0	0.0
1B157 TOILET EXT	1	65.0	0.0	26.0	0.00	0.00	0.0	0.0	0.0
1B158 TOILET EXT	1	67.0	0.0	26.0	0.00	0.00	0.0	0.0	0.0
1B159 DEMENTIA ROOM	1	246.0	2.0	142.1	0.00	0.00	0.0	0.0	0.0
1B160 MULTIPURPOSE ROOM	1	153.0	2.0	136.0	0.00	0.00	0.0	0.0	0.0
1B161 TOILET INT	1	60.0	0.0	9.0	0.00	0.00	0.0	0.0	0.0
1B162 DEMENTIA ROOM	1	235.0	2.0	156.6	0.00	0.00	0.0	0.0	0.0
1B163 TOILET EXT	1	78.0	0.0	33.5	0.00	0.00	0.0	0.0	0.0
1B164 DEMENTIA ROOM	1	251.0	2.0	178.0	0.00	0.00	0.0	0.0	0.0
1B165 TOILET EXT	1	72.0	0.0	33.8	0.00	0.00	0.0	0.0	0.0
1B166 TOILET EXT	1	64.0	0.0	31.2	0.00	0.00	0.0	0.0	0.0
1B167 DEMENTIA ROOM	1	221.0	2.0	180.1	0.00	0.00	0.0	0.0	0.0
1B168 DEMENTIA ROOM	1	239.0	2.0	182.6	0.00	0.00	0.0	0.0	0.0
1B169 TOILET EXT	1	67.0	0.0	31.6	0.00	0.00	0.0	0.0	0.0
1B170 TOILET EXT	1	65.0	0.0	31.3	0.00	0.00	0.0	0.0	0.0
1B171 DEMENTIA ROOM	1	236.0	2.0	182.2	0.00	0.00	0.0	0.0	0.0
1B172 DEMENTIA ROOM	1	240.0	2.0	182.8	0.00	0.00	0.0	0.0	0.0
1B173 TOILET EXT	1	67.0	0.0	31.6	0.00	0.00	0.0	0.0	0.0

OVERVIEW

The nCM xx RJB family of nLight ceiling/surface mount occupancy sensors provide a range of networked sensor solutions for applications with finished ceilings (e.g. ceiling tiles, sheetrock, plaster). nCM xx RJB family sensors utilize 100% digital Passive Infrared (PIR) detection and are available with several lens options, providing flexibility for multiple mounting height and coverage pattern requirements. Dual technology occupancy detection can also be added as an option for applications where occupants are stationary for long periods of time. nCM xx RJB family sensors are also available with an optional auxiliary low voltage relay for simple integration with a BMS system or other building system.

nCM xx RJB family sensors are powered via the nLight network bus and typically communicate with one or more nLight enabled luminaires (e.g. Lithonia VTLED Series) or nLight relay/dimming packs to enable control of fixtures individually or in groups. These configurations work standalone and do not require a connection to a larger nLight network.

FEATURES

- 100% digital PIR detection
- Optional dimming photocell (ADCX option)
- Optional auxiliary low voltage relay (AR option) for dry contact output – relay only tracks occupancy by default, ignoring switch and photocell commands
- LED status indicator
- Adjustable settings (e.g. occupancy time delays, photocell set-points) via push-button or SensorView software application
- Broadcasts occupancy and photocell information over a local nLight channel
- Remotely upgradeable firmware

Buy American Act
Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations.

Build America Buy America
Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.

Please refer to www.acuitybrands.com/buy-american for additional information.

Warranty
Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.

Specifications subject to change without notice.

A+ Capable

This item is an A+ capable component, which has been designed and tested to provide out-of-the-box luminaire compatibility with simple commissioning, when included as part of an A+ Certified™ Solution.

To learn more about A+, visit www.acuitybrands.com/aplus.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

nLIGHT

nCM xx RJB
nCM PDT xx RJB

nCM 9 RJB
nCM PDT 9 RJB

nCM 10 RJB
nCM PDT 10 RJB

nCM 6 RJB

BABA BAA A+ CAPABLE c UL us LISTED

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Design Select options indicated by this color background.

ORDERING INFORMATION

nCM xx RJB				Example: nCM PDT 9 ADCX RJB
Series / Detection	**Coverage Type**	**Options (See Below)**	**RJ45 Port Location**	**Buy America(n)[2]**
nCM PIR Detection nCM PDT Dual Tech (PIR/ Microphonics)	9 Small Motion 360° 10 Large Motion 360 ° 6 High Mount 360° (not available with PDT version)		RJB Rear RJ45 (CAT5e patch cable & RJ45 splitter included)	blank Standard BAA Buy America(n) Act and/or Build America Buy America Qualified

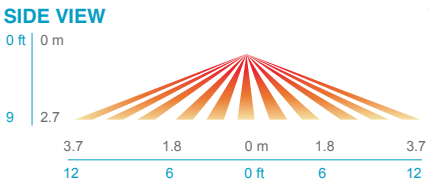
nCM xx RJB Options				
Photocell	**Auxiliary Relay**	**Preset Type [1]**	**Time Delay**	**Temp/ Humidity**
[blank] Standard (No photocell) ADCX Automatic Dimming Control (of remote dimming output)	[blank] None AR Low Voltage Aux. Relay	[blank] Single Time Delay 2P Dual Time Delay	[blank] Standard 15M 15 Minutes 20M 20 Minutes 30M 30 Minutes	[blank] Standard LT Low Temp / High Humidity

NOTES:
1. Not available with **AR** or **ADCX** options.
2. Not available with AR, 2P, Time Delay, or LT options

COVERAGE PATTERNS*

SMALL MOTION 360° (Model # nCM 9/nCM PDT 9[1])

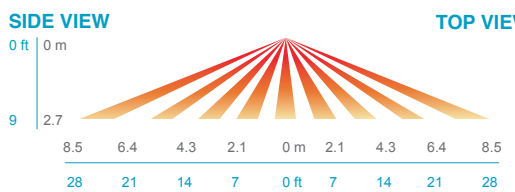
- Best choice for small motion (e.g. hand movements) detection
- 360° conical shaped pattern
- Provides 12 ft (3.66 m) radial coverage (~500 ft²) when mounted to standard 9 ft (2.74 m) ceiling
- 8 to 15 ft (2.44 to 4.57 m) mounting heights provide 10 to 20 ft (3.05 to 6.10 m) radial coverage

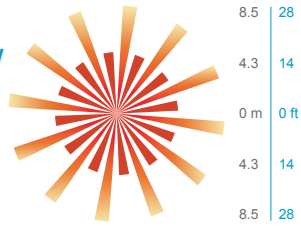


[1] Sensors with Microphonics™ provides overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is also utilized to prevent non-occupant noises from keeping the lights on.

LARGE MOTION 360° (Model # nCM 10/nCM PDT 10[1])

- Best choice for large motion detection (e.g. walking)
- 360° conical shaped pattern
- Provides ~24 ft (7.32 m) radial coverage (~2000 ft²) when mounted at 9 ft (2.74 m)
- 7 to 15 ft (2.13 to 4.57 m) mounting heights provide 16 to 36 ft (4.88 to 10.97 m) radial coverage
- Detection range improves when walking across beams compared to into beams

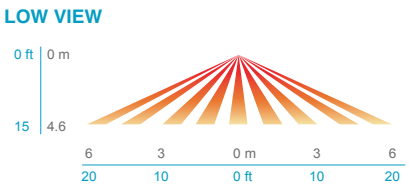


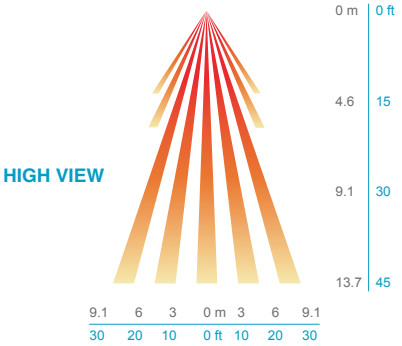


[1] Sensors with Microphonics™ provides overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is also utilized to prevent non-occupant noises from keeping the lights on.

HIGH MOUNT 360° (Model # nCM 6)

- Best choice for 15 to 45 ft (4.57 to 13.72 m) mounting heights
- 15 to 20 ft (4.57 to 6.10 m) radial coverage overlaps area lit by a typical high bay fixture
- Excellent detection of large motion (e.g. walking) up to 35 ft (10.76 m)
- Excellent detection of extra large motion (e.g. forklifts) up to a 45 ft (13.72 m)





* Coverage pattern shown is derived from NEMA WD7 testing

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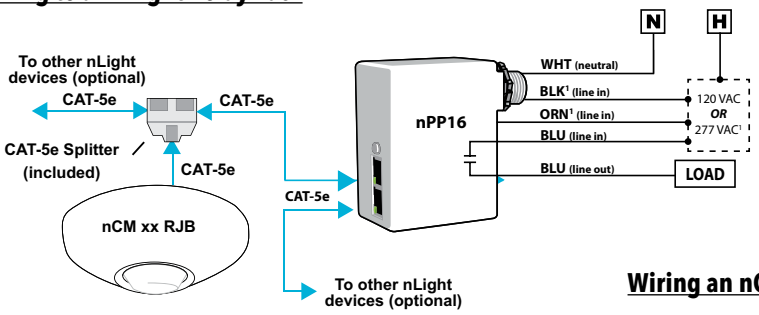
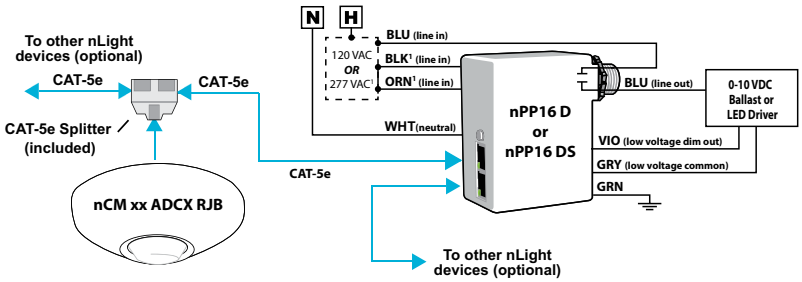
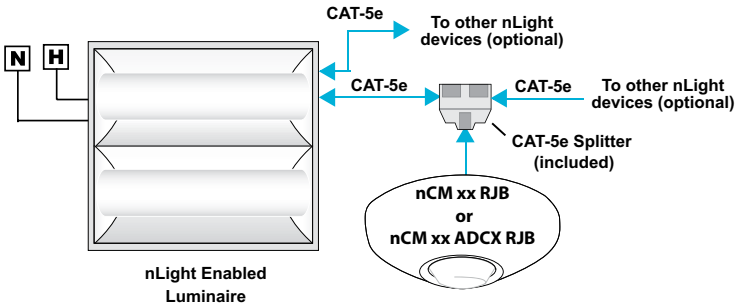
Wiring to an nLight Relay Pack



Wiring an nCM xx ADCX RJB to an nLight Dimming Pack



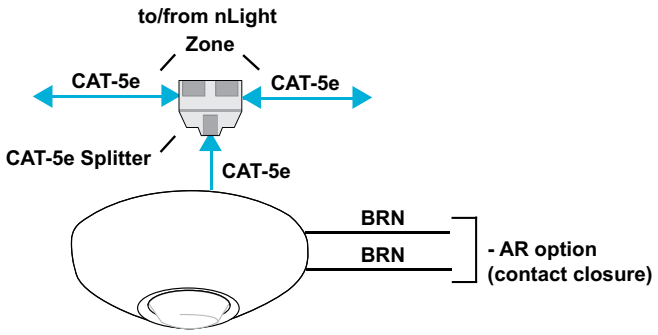
Wiring to an nLight Enabled Luminaire



TYPICAL APPLICATIONS

The following instructions are for mounting sensor directly to a ceiling tile or sheetrock surface.[1] Sensor's mounting holes also align with standard round fixture or single gang handy box (screws not provided).

1. Using template included with unit, mark spots on ceiling tile/sheetrock for cable hole and mounting anchors/screws
2. Drill 1/2" hole through ceiling surface at location indicated on template
3. Insert provided anchors into ceiling surface at locations indicated on template
4. Remove provided RJ-45 splitter from sensor's attached CAT5e cable and then thread cable (and low voltage wires if **-AR** option included) through hole from underside
5. Mount sensor to anchors using two screws provided
6. Attach provided RJ45 splitter device (model **CAT5 Y**) above ceiling to cable from sensor (see diagram on right)
7. Interconnect CAT-5e cables to/from rest of nLight zone to RJ45 splitter[2]
8. Once power is received via CAT-5e connection, all devices in zone will automatically begin functioning together according to each device's defaults
9. Install decorative sensor lid by rotating clockwise
10. Refer to included instruction card for default settings and directions on push-button programming.



Note:

1. Recommended mounting 4' or more away from HVAC vents.
2. T568B pin/pair assignment is recommended for all CAT-5e cables. Sensor power is provided via a CAT-5e connection to an nLight power pack/supply, nLight enabled digital luminaire, or nLight Bridge.

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SPECIFICATIONS

Electrical	**Input Ratings**	15-24VDC, 3mA, Class 2 (nLight network power)
	Output Ratings	24 VAC/VDC, 1A - Resistive (AR option)
	Relay Type	Latching (AR option)
	Standards/ Ratings	Energy Management Equipment, UL916 (E167435)
Mechanical	**Dimensions**	4.55"W x 1.55"D (116mm x 40mm)
	Mounting	Single-Gang or Octagonal Box, Surface Mount
	Color	White
	Finish	Matte
	Connection Type	RJ-45 nLight Network Ports (2 ports via included RJ-45 splitter) Low-Voltage Leads (AR option)
Environmental	**Warrantied Operating Temperature**	Standard: 14°F to 185°F (-10°C to 85°C) PDT option: 14°F to 140°F (-10°C to 60°C) LT option: -4°F to 185°F (-20°C to 85°C) PDT LT options: -4°F to 140°F (-20°C to 60°C)
	Relative Humidity	Up to 90%, Non-Condensing
	Standards/ Ratings	RoHS
General	**Standards/ Ratings**	System Component to aid in compliance with Title 24, ASHRAE 90.1, IECC

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Catalog Number: | Date: | Project:

OVERVIEW

The nPODMA Series WallPods are single gang nLight-enabled decorator wall switches that enable toggle/raise/lower/scene control of lighting zones. Equipped with soft-click push-buttons, and a green LED indicator for each button, these devices allow field replaceable and custom engraved button options. nPODMA WallPods communicate with other nLight devices, via CAT-5e cable, through RJ-45 connectors and can be daisy-chained to work with nLight power packs and/or nLight-enabled fixtures to provide switch control operations.

The scene control option presents a convenient method of selecting a custom lighting control scene for spaces in which installed, or requesting a global profile scene be run across several remote zones. By default, scene control wall switches are configured as on/off toggle switches and are to be customized programmatically through the SensorView software.

*In order to utilize a blink warning, system gateway and additional programming is required.

FEATURES

- Communicates with nLight network
- Remotely configurable/upgradeable
- Soft-click push-button control
- Sets lights to one of two or four preset levels with single button push (nPODMA xL versions only)
- Scene controllers run locally stored scenes or global scenes (stored on gateway)
  - Capable of Programming 4 Different Scene Types
    - Local "Profile" Scene – Modifies the operational configuration of up to 80 devices in the local zone. Stopping scene will revert devices to default settings.
    - Local "Preset" Scene – Modifies on/off/dim levels for up to 16 local switch groups. Exit scene through additional "preset" scene or WallPod control.
    - Global "Profile" Scene – Modifies the operational configuration of any devices on the system. Stopping scene will revert devices to default settings. Scene is stored on the system Gateway.
    - Global "Preset" Scene – Modifies on/off/dim levels for up to 128 global switch groups. Exit scene through additional "preset" scene or WallPod control.
- Easy-to-install screwless wall plate design offers a clean, uninterrupted aesthetic for a more refined look in the space.
- A full range of color options provides a variety of choices for your building designs with the assurance that the housing and the wall plate match.
- 1, 2, or 4 channel on/off
- 1, 2, or 4 channel raise/lower
- "Dynamic" options for custom button names when pairing with Acuity Brands nTUNE fixtures

CUSTOM BUTTON ENGRAVING

- Standard Button labeling is shown on back
- Custom lettering for units can be specified and ordered at: nGrave Form
- To ensure color uniformity, ordering templates facilitate specifying all buttons on a unit as custom lettered. Replacing single buttons not recommended
- Buttons may ship separately and require field installations

A+ Capable

This item is an A+ capable component, which has been designed and tested to provide out-of-the-box luminaire compatibility with simple commissioning, when included as part of an A+ Certified™ Solution.

To learn more about A+, visit www.acuitybrands.com/aplus.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

nLIGHT

nPODMA

Wallpod: On/Off & On/Off+Raise/Lower

Government Procurement
BAA – Buy America(n) Act: Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations.
BABA – Build America Buy America: Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/buy-american for additional information.

Warranty
Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
Specifications subject to change without notice.

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Design Select options indicated by this color background.

ORDERING INFORMATION

nPODMA — Example: nPODMA DX WH

Series	Poles & Scenes	Dimming Control	Dynamic	Color	Temp/Humidity	Buy America(n)[6][7]
nPODMA	[blank] None 2P Two channels 4P Four channels 2L[1] Two levels 2L AB[1] High/low step control 4L[2] Four levels with raise/lower 1SB[1] 1 Scene control (2 buttons) 2S 2 Scene control (2 buttons) 2SB[1] 2 Scene control (4 buttons) 4S 4 Scene control (4 buttons) 4SB[1] 4 Scene control (8 buttons)	[blank] Standard DX On/off + raise/lower control	[blank] Standard CCT[3] Correlated color temperature GRSC[5] Grayscale COLOR[5] Color control EDUTW[4] Tuneable White	WH White IV Ivory GY Gray AL Lt Almond BK Black RD Red	[blank] Normal LT Low temp	[blank] Standard BAA Buy America(n) Act and/or Build America Buy America Qualified

ACCESSORIES

Series	# of Gangs	Mounting	Color		Packaging
WS xPODA Wall Plates (Standard) SSW[10] Sealed Cover	1 GNG Single Gang	[blank] Standard	WH White IV Ivory GY[9] Gray AL[9] Lt Almond	BK[9] Black RD Red VP[9] Variety Pack	[blank] Single Unit[11] M5[9] 5 Pack M6[8,9] 6 Pack

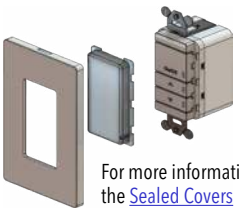
All nPODMA switches are shipped with wall plates and mounting flanges (WS XPODA), and mounting flanges (WS XPODA), however, the following order information is available to acquire replacement wall plates. Also compatible with the WALLP Series.

Notes
1. Not available with DX option.
2. Only available with DX option.
3. Only available with 2P DX version.
4. Only available with 4S and 4S DX versions.
5. Only available with 2P DX and 4S DX versions.
6. Only available in WH, IV, or GY.
7. Not available with LT option.
8. Only available for Variety Packs.
9. Not available for SSW Series.
10. Ships with custom screwless wall plate.
11. Single units only available with SSW series.

WALL SWITCH CLEANING

It will occasionally be necessary to clean the wall switches. All nPODMA switches may be wiped down with a soft cloth or paper towel dampened with glass cleaner, vinegar and water, hydrogen peroxide, or a mild abrasive. Spray a limited amount on the cloth or paper towel prior to applying. Do not spray cleaner on the switches directly, and do not wipe the switches down with a towel saturated (drips when wrung out) with cleaner.

If the ability to clean the switches using chemical spray disinfectants is desired, we recommend the use of the Sealed Screwless Wall Plate (SSW). The Sealed Screwless Wall Plate is a cover for the standard wall plate, designed with an IP54 rating. It consists of a transparent silicone rubber layer that covers the wall switch to prevent liquids from entering the wall switch while maintaining a tactile button feel. The Sealed Screwless Wall Plate is the ideal solution to help protect a wall switch from fluid entering the device while enabling the use of disinfectants recommended by the EPA for use against SARS-CoV-2, the coronavirus that causes COVID-19, which often require spraying or saturating the surface.



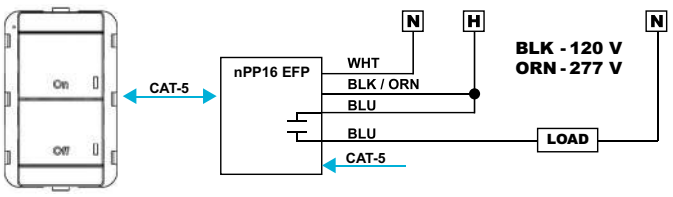
For more information on the Sealed Covers

WIRING

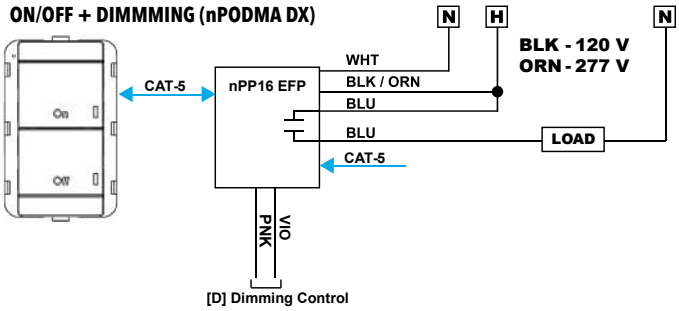
TYPICAL WIRING

Power to WallPod device is provided via the CAT-5e connection to an nLight enabled fixture, nLight power pack (e.g. **nPP16**), power supply (**nPS80**), or Bridge (**nBRG 8**).

ON/OFF

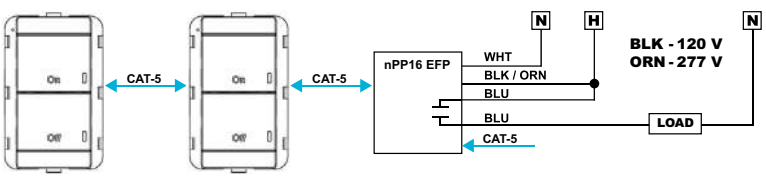


ON/OFF + DIMMMING (nPODMA DX)



3-WAY CONFIGURATION WIRING

WallPods and/or nLight wall switch sensors can be configured together to create zones with multiple switching locations.



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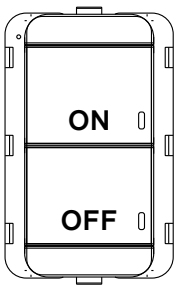
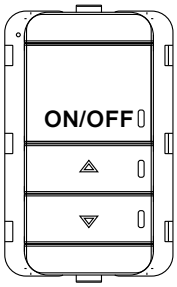
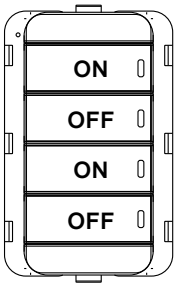
DEFAULT LABELING



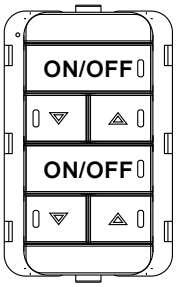
nPODMA



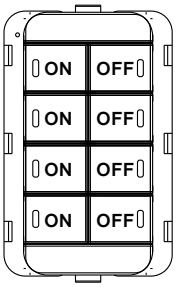
nPODMA DX



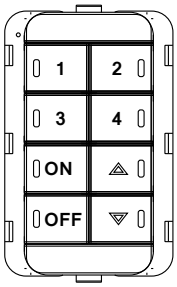
nPODMA 2P



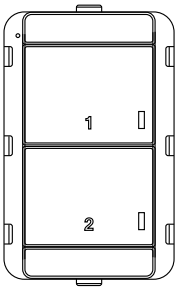
nPODMA 2P DX



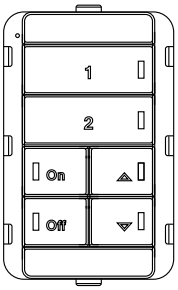
nPODMA 4P



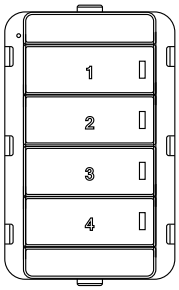
nPODMA 4P DX



nPODMA 2S



nPODMA 2S DX



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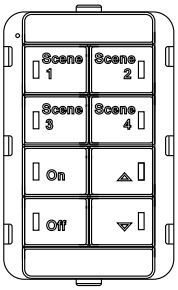

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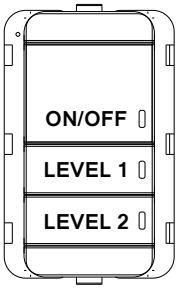
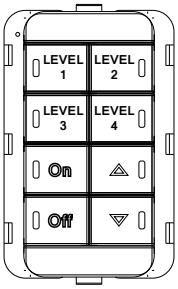


LEVEL 1 100%

LEVEL 2 50%

nPODMA 2L



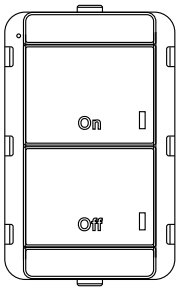
LEVEL 1 100%

LEVEL 2 75%

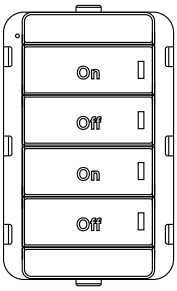
LEVEL 3 50%

LEVEL 4 25%

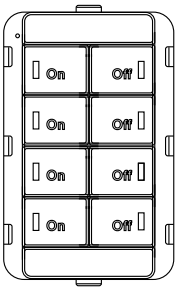
nPODMA 4L DX



nPODMA 1SB

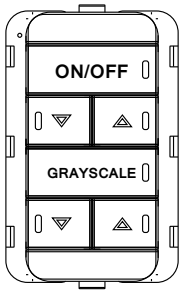


nPODMA 2SB

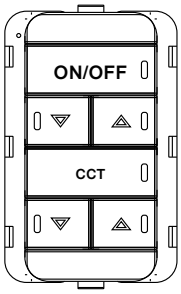


nPODMA 4SB

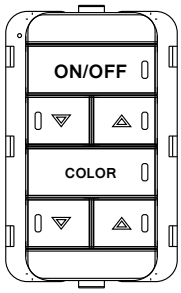
Dynamic wallpods below are paired with Acuity Brands nTUNE fixtures for out-of-box operation. Reference fixture cut sheets for additional details.



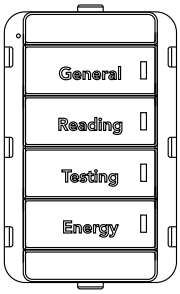
nPODMA 2P DX GRSC



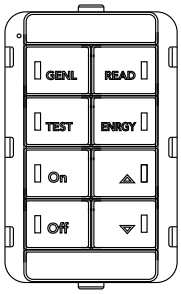
nPODMA 2P DX CCT



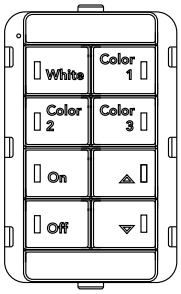
nPODMA 2P DX COLOR



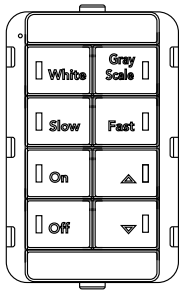
nPODMA 4S EDUTW



nPODMA 4S DX EDUTW



nPODMA 4S DX COLOR



nPODMA 4S DX GRSC

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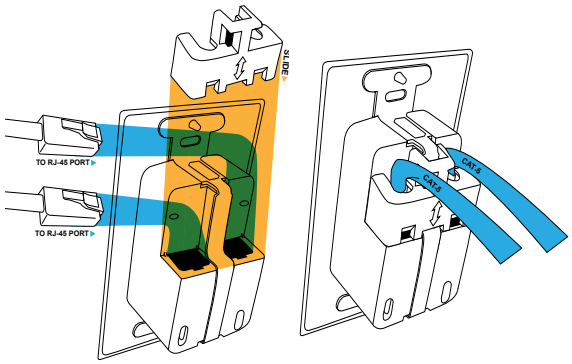
INSTALLATION

- Ensure CAT-5e cable(s) an effectively fed through the gang box
  - Push the CAT5e cables through the back of the gang box
- Remove the wall plate from the device by pulling the sides out to expand the wall plate and release it from the mounting flanges.
- Access RJ-45 port(s) on the WallPod by sliding the plastic guard up
- Insert the CAT-5e cable(s) to the RJ-45 port(s)
- Slide the guard back onto metal strap
- Connect the unit to the gang box
  - The unit will connect to the gang box by screws, one at the top and one at the bottom
  - To ensure correct wall plate installation, drive the screws until the mounting flanges contact the wall surface. If the screws are overdriven, the mounting flanges will disengage, preventing wall plate installation. If this happens, reattach the mounting flange(s) and install to correct position. (The flanges may be reattached by inserting the two tabs in the side of the unit and pushing the part inward to engage the three snaps.)
- Reattach the wall plate
  - Expand the wall plate horizontally
  - Place the wall plate onto the unit
  - Contract the horizontally expanded wall plate onto the unit such that the side flange features seat inside the wall plate

Attention! Only use non-booted CAT5e cables.



PROGRAMMING

- Refer to instruction card IN-11.3 for directions on programming the switch via the upper-most left push-button. All buttons are factory set to the matching switch channel (button 1 - channel 1, button 2 - channel 2, etc). For nPODMA 4P DX, channels to be controlled are selected first, then the control button (on/off or raise/lower).
- For 2L and 4L variants, the preset dim level of a button can be changed by first adjusting the light level with either the unit's raise/lower buttons (nPODM 4L DX) or via another raise/lower WallPod broadcasting on the same switch channel (necessary with a nPODM 2L). Once lights are at desired level, hold a LEVEL button for 8 seconds until the LED flashes. Levels can also be set via SensorView.

SPECIFICATIONS

Electrical	**Input Ratings**	15-24VDC, 5mA, Class 2 (nLight network power)
	Standards/Ratings	Energy Management Equipment, UL916 (E167435)
Mechanical	**Dimensions**	2.74"H x 1.68"W x 1.63"D (70mm x 43mm x 41mm) - does not include ground strap
	Mounting	Single-Gang Box or Low Voltage Ring
	Connection Type	RJ-45 nLight Network Ports (2)
Environmental	**Warrantied Operating Temperature**	32°F to 140°F (0°C to 60°C) LT Option: -4°F to 140°F (-20°C to 60°C)
	Relative Humidity	Up to 90%, Non-Condensing
	Standards/ Ratings	RoHS
	Security	Complies with California Civil Code Title 1.81.26, Security of Connected Devices, approved under Senate Bill No. 327 (2018)

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Catalog Number: | Date: | Project:

OVERVIEW

The nWSXA series nLight wall switch occupancy sensor provides a simple control solution for a small room, in particular one utilizing nLight enabled digital luminaires. Capable of detecting small motion up to 20 ft (6.10 m), this sensor is perfect for private offices, private rest rooms, copy rooms, closets or any small enclosed space. Available as Passive Infrared (PIR), or PIR/Microphonics Dual Technology (PDT), this stylish sensor can be programmed locally, via the front push button(s), or remotely via the nLight software solutions. The nWSXA includes an integrated photocell (inhibit only – disabled by default).

FEATURES

- 100% digital PIR detection, vandal resistant lens standard, includes screwless wall plate
- Push-button programmable, adjustable time delays, multiple operating modes
- Multiple nWSXA sensors or WallPods can be used in 3 way(or greater) configurations w/o traveler wires
- Photocell standard (inhibit only – disabled by default)
- Broadcasts occupancy, photocell, and switch information over a local and/or global nLight channel
- Remotely firmware upgradeable

CONTROL MODES

A control zone with an nWSXA can operate in several modes:

1. Auto On / Auto Off (i.e. Fully Automatic)
2. Manual On (initial state) to Override On (with expiration timer)
3. Auto On (initial state) to Override On (with expiration timer)
4. Manual On / Automatic Off (i.e. Semi-Automatic)
5. Manual On (initial state) to Fully Automatic
6. Predictive Off Switch (returns zone to auto-on unless person remained in room after an off switch press)

*See MLO operation chart on page 2.

Buy American Act
Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations.

Build America Buy America
Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.

Please refer to www.acuitybrands.com/buy-american for additional information.

Warranty
Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.

Specifications subject to change without notice.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

nWSXA

Low Voltage Wall Switch Sensor

nWSXA DX

Design Select options indicated by this color background.

ORDERING INFORMATION

nWSXA — Example: nWSXA LV DX WH

Series	Occupancy Detection	Voltage	Dimming	Color				Temp/Humidity		Buy America(n)[1 2]	
nWSXA Passive Infrared	[blank] PIR Detection	LV Low Voltage	[blank] None	WH White		AL Lt. Almond		[blank] Standard		[blank] Standard	
	PDT Dual Tech - PIR/ Microphonics		DX Raise/Lower dim control	IV Ivory		BK Black		LT Low temp		BAA Buy America(n) Act and/or Build America Buy America Qualified	
				GY Gray		RD Red					

ACCESSORIES

Series	# of Gangs	Mounting	Color				Packaging	
WS xPODA Wall Plates (Standard)	1 GNG Single Gang	[blank] Standard	WH White		BK[4] Black		[blank] Single Unit[7]	
SSW[5] Sealed Covers		OCC[6] Occ. Wall Switch	IV Ivory		RD Red		M5[4] 5 Pack	
			GY[4] Gray		VP[4] Variety Pack		M6[3] 6 Pack	
			AL[4] Lt. Almond					

Notes:
1. Only available in WH.
2. Not available with LT option.
3. Only available for Variety Pack.
4. Not available for SSW Series.
5. Ships with custom screwless wall plate.
6. Only available with SSW series.
7. Single units only available with SSW series.

All nWSXA switches are shipped with wall plates and mounting flanges (WS XPODA), however, the following order information is available to acquire replacement wall plates.
Also compatible with the WALLP Series.

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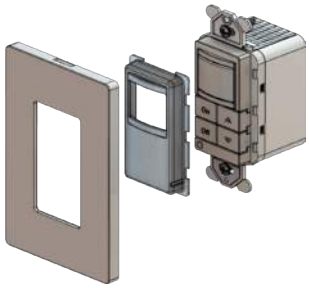
WALL SWITCH CLEANING

It will occasionally be necessary to clean the wall switches. All nWSXA switches may be wiped down with a soft cloth or paper towel dampened with glass cleaner, vinegar and water, hydrogen peroxide, or a mild abrasive. Spray a limited amount on the cloth or paper towel prior to applying. Do not spray cleaner on the switches directly, and do not wipe the switches down with a towel saturated (drips when wrung out) with cleaner.

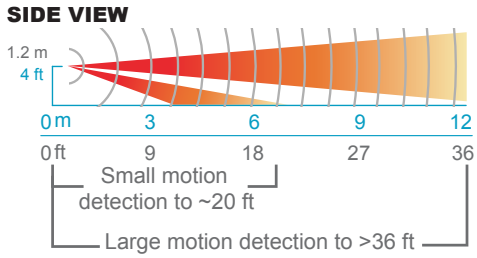
If the ability to clean the switches using chemical spray disinfectants is desired, we recommend the use of the Sealed Screwless Wall Plate (SSW). The Sealed Screwless Wall Plate is a cover for the standard wall plate, designed with an IP54 rating. It consists of a transparent silicone rubber layer that covers the wall switch to prevent liquids from entering the wall switch while maintaining a tactile button feel. The Sealed Screwless Wall Plate is the ideal solution to help protect a wall switch from fluid entering the device while enabling the use of disinfectants recommended by the EPA for use against SARS-CoV-2, the coronavirus that causes COVID-19, which often require spraying or saturating the surface.

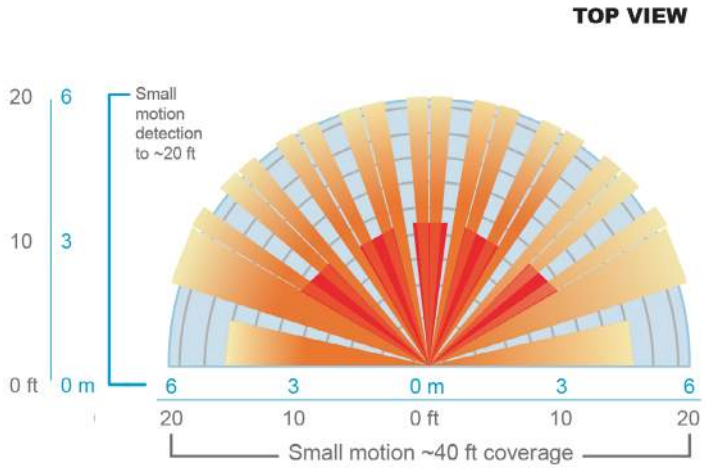


For more information on the Sealed Screwless Wall Plates

COVERAGE PATTERN*

- Small Motion (e.g. hand movements) detection up to 20 ft (6.10 m)
- Large motion (e.g. walking) detection greater than 36 ft (10.97 m)
- Wall to Wall Coverage
- Passive Dual Technology (Microphonics) provides overlapping detection of human activity over the complete PIR coverage area. Advanced filtering is utilized to prevent non-occupant noises from keeping the lights on.



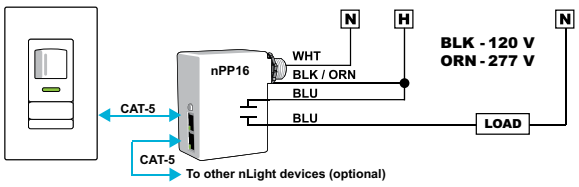


* Coverage pattern shown is derived from NEMA WD7 testing

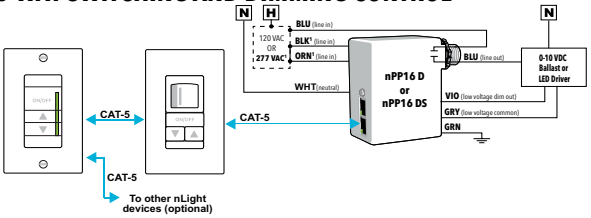
TYPICAL WIRING DIAGRAMS

Sensor power is provided via the CAT-5e connection to an nLight power pack/supply, nLight enabled digital luminaire, or nLight Bridge. T568B pin/pair assignments is recommended for CAT-5e cables.

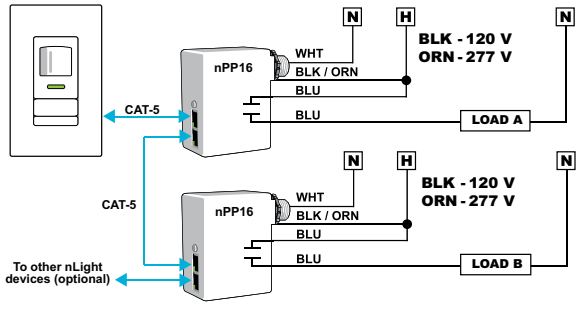
SINGLE LOAD SWITCHING



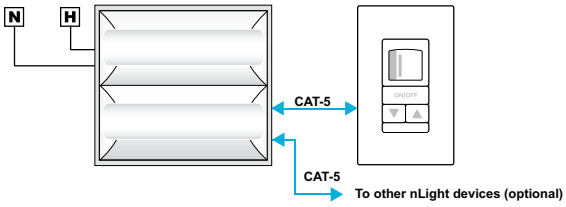
3-WAY SWITCHING AND DIMMING CONTROL



BI-LEVEL SWITCHING USING MULTI-LEVEL OPERATING MODE (MLO)



WIRING to nLIGHT ENABLED DIGITAL LUMINAIRE (e.g. RTLED)



NOTES:

- nLight enabled fixture must have **nIO LEDG/nIO EZ PH** for standalone operation
- Luminaires with **nIO LEDG ER/nIO EZ PH ER** require bus power from another device
- Provides on/off and continuous raise/lower dimming operation by default. For bi-level operation only program **nWSXA** for Multi-Level Operating Mode (**MLO**)

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MLO OPERATIONAL MODES

Additionally, an **nWSXA** can be set to function in Multi-Level Operating Mode (**MLO**) which enables the user to select from multiple on/off lighting states using just the unit's single on/off button. This mode is designed specifically for bi-level applications and eliminates user confusion created when wall stations have multiple buttons. Several different transition sequences are available in order to comply with energy codes or user preference. Depending on the sequence selected and initial lighting state, every subsequent button push steps through states according to below table. **MLO** sequences are also available that enable high/low or low/high step operation via any nLight dimming output.

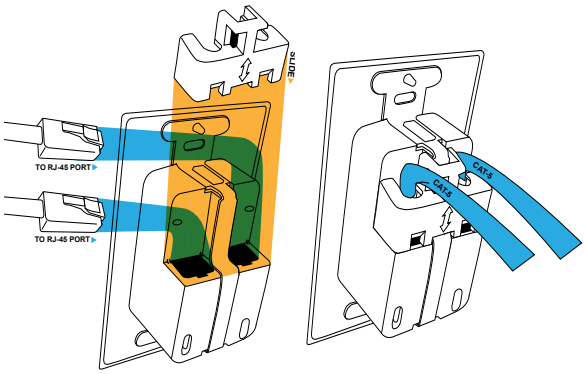
	2 State (Bi-Level) Sequence		2 State - Alternating Sequence		3 State Sequence	
Button Press #	Load A	Load B	Load A	Load B	Load A	Load B
1	On	Off	On	Off	On	Off
2	On	On	Off	On	Off	On
3	Off	Off	Off	Off	On	On
4					Off	Off

nWSXA (PDT) LV – TN-408-01

INSTALLATION

- Mount WallPod using holes that align with standard single gang switch box or low voltage ring
- Access RJ-45 ports by sliding plastic guard up
- Insert CAT-5e cable(s), T568B wiring convention recommended
- Slide guard back onto metal strap
- Interconnect unit with other nLight devices in lighting zone using CAT-5e cables
- Once power is received via CAT-5e connection, all devices in zone will automatically begin functioning together according to respective device's defaults

Attention! Only use non-booted CAT5e cables.



SPECIFICATIONS

Electrical	**Input Ratings**	15-24VDC, 3mA, Class 2 (nLight network power)
Mechanical	**Dimensions**	2.74"H x 1.68"W x 1.63"D (70mm x 43mm x 41mm) - does not include ground strap
	Mounting	Single-Gang Box or Low Voltage Ring
	Connection Type	RJ-45 nLight Network Ports (2)
Environmental	**Warrantied Operating Temperature**	32°F to 140°F (0°C to 60°C) LT Option: -4°F to 140°F (-20°C to 60°C)
	Relative Humidity	Up to 90%, Non-Condensing
	Standards/ Ratings	Energy Management Equipment, UL916 (E167435) RoHS

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Catalog Number: | Date: | Project:

OVERVIEW

The nLight nWV 16 Series Wide View occupancy sensor is designed to mount in a corner and detect small motions up to 40 ft (12.19 m) away, and larger motions up to 70 ft (21.34 m) away. This makes it ideal for 30 ft x 30 ft (9.14 m x 9.14 m) classrooms or corridors up to 70 ft (21.34 m) long. The enclosure's convenient tilting feature enables the sensor to be mounted at any height from 8 to 10 ft (2.44 to 3.05 m). When corner or wall mounting is not possible, the WV BR bracket accessory can be used to mount the nWV 16 to the ceiling. Additionally, the nWV 16 may be used in combination with other nLight sensors to customize coverage for very large or irregularly shaped spaces. For rooms with obstructions, use the nWV PDT 16 Series sensor which adds Microphonics™ detection.

FEATURES

- Patented Dual Technology with PIR / Microphonics™ Detection (PDT version)
- 120° by 40 ft (12.19 m) Coverage for Small Motion
- Integrated On/Off Photocell
- Communicates w/ nLight Network
- Remotely Configurable/Upgradeable
- Push-Button Programmable
- Adjustable Time Delay
- 100 hr Lamp Burn-in Timer

Government Procurement

BAA – Buy America(n) Act: Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations.
BABA – Build America Buy America: Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/buy-american for additional information.

Warranty

Five-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

A+ Capable

This item is an A+ capable component, which has been designed and tested to provide out-of-the-box luminaire compatibility with simple commissioning, when included as part of an A+ Certified™ Solution.

To learn more about A+, visit www.acuitybrands.com/aplus.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

nWV 16
nWV PDT 16
Corner Mount 120° Wide View Sensor

BAA BABA

Design Select options indicated by this color background.

ORDERING INFORMATION

nWV 16 / nWV PDT 16 — **Example: nWV PDT 16 KIT**

Series		Temp/ Humidity		Bracket Kit		Buy America(n)[1]	
nWV 16	120° Wide View Sensor	[blank]	Standard	[blank]	Sensor Only	[blank]	Standard
nWV PDT 16	120° Wide View Sensor Dual-Technology	LT	Low Temp	KIT	Sensor & WV BR Bracket	BAA	Buy America(n) Act and/or Build America Buy America Qualified

Notes:
1. Not available with LT option

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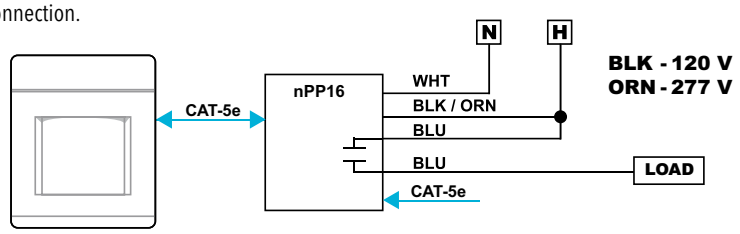
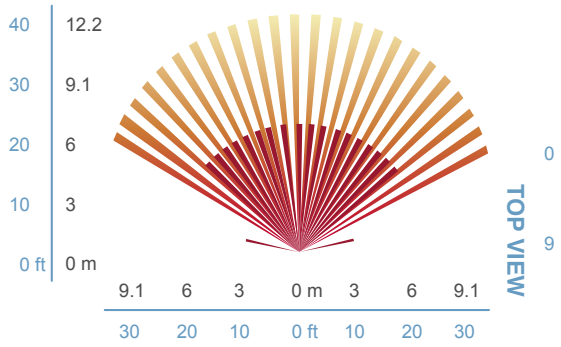
WIRING

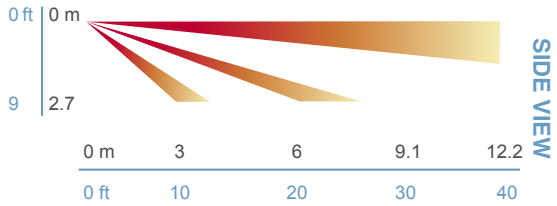
Sensor power is provided via the CAT-5e connection.



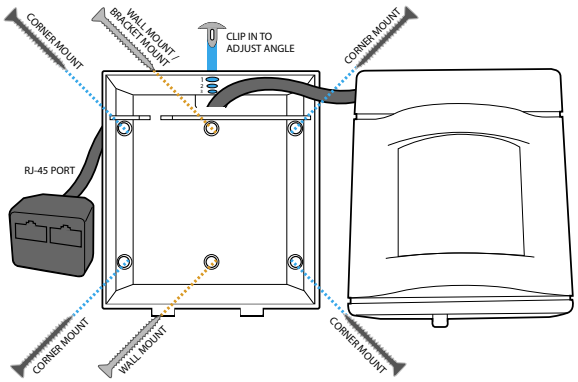
WIDE VIEW LENS

- Small motion (e.g. hand movements) detection up to 40 ft (12.2 m)
- Large motion (e.g. walking) detection up to 70 ft (21.34 m)
- Designed for 8 to 10 ft (2.44 to 3.05 m) high mounting in room corner





- Unit's rear enclosure piece is beveled so as to facilitate corner mounting. Mount between 8 to 10 ft (2.44 to 3.05 m) high using the four screws provided.
- Interconnect unit (via RJ-45 splitter) with other nLight devices in lighting zone using CAT-5e cables.
- Once power is received via CAT-5e connection, all devices in zone will automatically begin functioning together according to each device's defaults.
- Snap front piece into mounted rear piece and set sensor view angle using the plastic tilt adjustment peg (see table below right).
- The WV BR bracket (pictured right, only included in kit option) enables mounting to ceiling, if desired. Route CAT-5e cable through hole in bracket, then using provided screw, mount sensor to the bracket's flat side for 8 to 10 ft (2.44 to 3.05 m) heights. Mount sensor to angled side for mounting above 10 ft (3.05 m).



TILT ADJUSTMENT

Mounting Height	Position
7' - 8'	Vertical
8' - 9'	Center
9' - 10'	Forward
Above 10'	Use WV BR

CEILING MOUNT BRACKET (WV BR)

The **WV BR** Ceiling Mount Bracket allows the **nWV 16** to be mounted in the corner of the area from the ceiling for conditions where mounting to the wall is not possible.

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SPECIFICATIONS

Electrical	**Input Ratings**	15-24VDC, 3mA, Class 2 (nLight network power)
Mechanical	**Dimensions**	3.60H" x 3.00W"x 1.75D" (91mm x 76mm x 45mm) WV BR Bracket (KIT Option): 4.70"W x 3.30"D (119mm x 84mm)
	Mounting	Directly to corner or Surface mount to ceiling if using WV BR bracket (KIT Option)
	Color	White
	Connection Type	RJ-45 nLight Network Ports (2 ports via included RJ-45 splitter)
Environmental	**Warrantied Operating Temperature**	Standard: 14°F to 185°F (-10°C to 85°C) PDT option: 14°F to 140°F (-10°C to 60°C) LT option: -4°F to 185°F (-20°C to 85°C) PDT LT options: -4°F to 140°F (-20°C to 60°C)
	Relative Humidity	Up to 90%, Non-Condensing
	Standards/ Ratings	RoHS
General	**Standards/ Ratings**	System Component to aid in compliance with Title 24, ASHRAE 90.1, IECC

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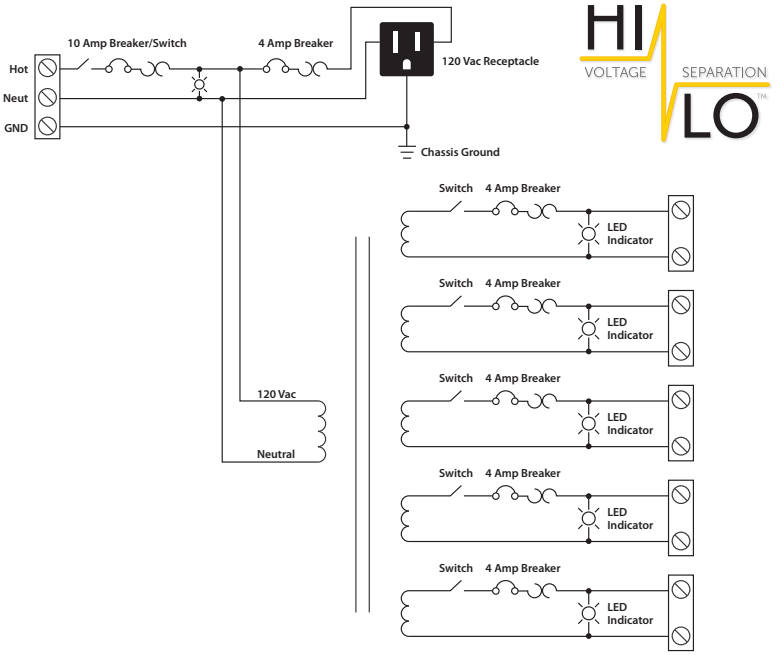
RIB Functional Devices, Inc.™ (800) 888-5538 sales@functionaldevices.com www.functionaldevices.com

AC POWER SUPPLY

PSH500AB10-LVC

Enclosed 500VA Power Supply, High/Low Voltage Separation with Five 100VA Class 2 Outputs, 120 Vac to 24 Vac with 120 Vac Receptacle



PSH500AB10-LVC
Shown With High Voltage Cover & Low Voltage Access Plate

SPECIFICATIONS

Transformer: One (1) 500 VA
Over Current Protection: Circuit Breaker
Primary: 120 Vac
Frequency: 50/60 Hz
Main Breaker ON/OFF: Switch / Breaker (10 Amp)
(Kills power to entire unit:
1 Outlet & Transformer)
Approvals: Class 2 (UL Approved UL5085-3), UL916, C-UL, CE, RoHS
^ Seismic Certification of Equipment and Components: OSP-0201-10
Dimensions: 12.125″ x 12.125″ x 6.000″
Housing: NEMA1 Metal Enclosure with high/low separation

5 Secondaries:
24 Vac, with LED Indicators
4 Amp breaker for each output

24 Vac ON/OFF:
On / Off Switch & Breaker

Input:
120 Vac Finger-Safe Terminals, 8-18 AWG

Output:
5 Ungrounded, Isolated, 100 VA Class 2, 24 Vac Outputs. Removable Terminals accept16-22 AWG wire.

Ambient Temperature Derating:
4A up to 40˚ C ; 3A up to 50˚ C ; 2A up to 55˚ C
(When All 5 Outputs Operated Simultaneously)

Notes:
- 4A (Breaker protected) Convenience Receptacle Provided
- Design is in accordance with ASCE 7-05 Chapter 13: ^ www.oshpd.ca.gov/FDD/Pre-Approval/OSP-0201-10.pdf

Standby Wattage:
48.515 W @ 120 Vac

Full Load Primary Current:
4.66 A @ 120 Vac

Secondary Output Voltage vs. Load:
24.0 V @ 1 Amp
23.0 V @ 2 Amp
21.8 V @ 3 Amp
21.1 V @ 4 Amp

- When all 5 outputs operated simultaneously, at room temperature

Product specifications

Eaton V48M28F7516CU

Catalog Number: V48M28F7516CU

Eaton General purpose ventilated transformer, Fungus proof, CU windings, DOE 2016, NEMA 2, FR942, 220°C, 75 kVA, Floor/wall mnt upright only, 3-phase, PV: 480V delta, SV: 208Y/120, NEMA ST-20, 2 at +2.5%, 4 at -2.5%, 115°C, 75 kVA

Photo is representative

General specifications

Product Name
Eaton General purpose ventilated transformer

Catalog Number
V48M28F7516CU

UPC
786680192241

Product Length/Depth
24 in

Product Height
43 in

Product Width
30.5 in

Product Weight
504 lb

Warranty
Eaton Selling Policy 25-000, one (1) year from the date of installation of the Product or eighteen (18) months from the date of shipment of the Product, whichever occurs first.

Compliances
DOE2016 Efficient

Certifications
UL Listed

Catalog Notes
10 CFR Part 431 (2016) Efficient

Powering Business Worldwide

Physical Attributes

Coil material
Copper

Enclosure
NEMA 2

Frame
FR942

Insulation
220 °C

Material
Copper windings

Mounting
Floor or wall, upright only

Tap size
2 at +2.5%, 4 at -2.5%

Type
Energy-efficient ventilated dry-type transformer

Wiring connection
280B

Performance Ratings

Efficiency
10 CFR Part 431-2016 (DOE 2016)

Frequency rating
60 Hz

Kva Rating
75 kVA

Primary voltage
480 V delta

Secondary Voltage
208Y/120 V

Sound Level
NEMA ST-20

Temperature rise
115 °C rise

Volt ampere rating
75 kVA

Voltage rating
480 Vac-208Y/120 Vac

Resources

Brochures

Eaton's high-efficiency dry-type transformers

Eaton's low-voltage dry-type distribution transformers

Specifications and datasheets

Eaton Specification Sheet - V48M28F7516CU

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Dublin 4, Ireland
Eaton.com

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Product specifications

Eaton HFD3200

217-MSB1
217-T-EASY ST
217-NDP-1

Catalog Number: HFD3200

Eaton Series C complete molded case circuit breaker, F-frame, HFD, Complete breaker, Fixed thermal, Fixed magnetic trip type, Three-pole, 200 A, 600 Vac, 250 Vdc, Load side, 50/60 Hz

Photo is representative

General specifications

Product Name	**Catalog Number**
Eaton Series C complete molded case circuit breaker	HFD3200
	UPC
	786679015438
Product Length/Depth	**Product Height**
3.38 in	4.13 in
Product Width	**Product Weight**
4.13 in	4.4 lb
Warranty	**Certifications**
Eaton Selling Policy 25-000, one (1) year from the date of installation of the Product or eighteen (18) months from the date of shipment of the Product, whichever occurs first.	UL Listed

Powering Business Worldwide

defaultTaxonomyAttributeLabel

Amperage Rating

200 A

Voltage rating

600 Vac, 250 Vdc

Trip Type

Fixed thermal, fixed magnetic

Circuit breaker type

HFD

Circuit breaker frame type

Complete breaker

Series

Series C

Terminals

Load side

Frame

F

Frequency rating

50 to 60 Hz

Interrupt rating

65 kAIC at 480 Vac

100 kAIC at 240 Vac

Number of poles

Three-pole

Resources

Application notes

Application of Multi-Wire Terminals for Molded Case Circuit Breakers

UL listed 100%-rated molded case circuit breakers

Application of Tap Rules to Molded Case Breaker Terminals

Brochures

Multi-wire lugs product aid

Motor protection circuit breakers product aid

StrandAble terminals product aid

Circuit breaker motor operators product aid

Current limiting Series C molded case circuit breakers product aid

MOEM MCCB Product Selection Guide

Power metering and monitoring with Modbus RTU product aid

Plug-in adapters for molded case circuit breakers product aid

Breaker service centers

Counterfeit and Gray Market Awareness Guide

Catalogs

Eaton's Volume 4—Circuit Protection

Molded case circuit breakers catalog

Drawings

HFD3 3D Model Xchange

HFD3 2D Drawing Xchange

F-frame Molded Case Circuit Breaker Drawing

Time Current Curves for Series C® F-Frame Circuit Breakers

HFD3 3D Inventor

HFD3 2D PDF

Installation instructions

Installation Instructions for EHD, EDB, EDS, ED, EDH, EDC, FDB, FD, HFD, FDC, HFDDC Circuit Breakers and Molded Case Switches

Multimedia

Circuit breakers explained

Circuit Breakers Explained

Specifications and datasheets

Series C J-Frame molded case circuit breakers time current curves

Series C G-Frame molded case circuit breakers time current curves

Eaton Specification Sheet - HFD3200

MOEM MCCB product selection guide

Series C F-Frame molded case circuit breakers

F-Frame 310+ Molded-case circuit breakers 15-225A

Warranty guides

Selling Policy 25-000 - Distribution and Control Products and Services

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F | 514.931.4862

LUMENWERX

January 2022

252.225-7001 Buy American

To Whom It May Concern:

This letter serves of confirmation that Lumenwerx ULC qualifies as an approved supplier under the Buy America act 252.225-7001 (Buy American and Balance of Payments Program).

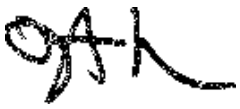
Relating to Lumenwerx ULC as a Canadian company, as prescribed in 225.1101(2)(i) and (2)(ii) (DEC2017):

> Qualifying country means a country with a reciprocal defense procurement memorandum ofunderstanding or international agreement with the United States in which both countries agree to remove barriers to purchases of supplies produced in the other country or services performed by sources of the other country, and the memorandum or agreement complies, where applicable, with the requirements of section 36 of the Arms Export Control Act (22 U.S.C. 2776) and with 10 U.S.C. 2457. Canada is listed as a qualifying country.

In addition, the Company falls under the Canada-United States-Mexico Agreement (formally NAFTA).

Under the provisions of these acts Lumenwerx ULC is a qualified supplier. We are available to further discuss project details and how we can be of assistance.

Thank you,



Jonathan Rich

EVP Finance & Operations
514-225-4304 ext. 1009
jonathanr@lumenwerx.com

LITHONIA LIGHTING®

DIGITAL NAVIGATION

Ordering Tree nLight Platform Sensor Switch JOT Photometrics Performance Data

Catalog Number	23-009 HINES CLC
Notes	
Type	L1

BLT Series LED

2BLT2

2' x 2' LED

ADP Diffuser Option

Ribbed Reflector Option

FEATURES & SPECIFICATIONS

INTENDED USE — The BLT Best-in-Value Low Profile LED luminaire features a popular center basket design that offers a clean, versatile style and volumetric distribution. High efficacy LED light engines deliver energy savings and low maintenance compared to traditional sources. An extensive selection of configurations and options make the BLT the perfect choice for many lighting applications including schools, offices and other commercial spaces, retail, hospitals and healthcare facilities. The low profile BLT design (2-3/8") also makes it an excellent choice for renovation projects.

CONSTRUCTION — Prior to fabrication, BLT components are coated with a proprietary paint blend and die-formed for dimensional consistency.

The BLT reflector is available in both smooth and ribbed finishes. Choose RB from the fixture style section below for a ribbed finish.

End plates contain easy-to-position integral T-bar clips for securely attaching the luminaire to the T-grid. For additional T-grid security, optional screw on T-bar clips are available.

Diffusers are extruded from impact modified acrylic for increased durability.

LED boards and drivers are accessible from the plenum.

OPTICS — Volumetric illumination is achieved by creating an optimal mix of light to walls, partitions and vertical and horizontal work surfaces – rendering the interior space, objects and occupants in a more balanced, complimentary luminous environment. A typically configured 2BLT2 features a **Unified Glare Rating (UGR)** starting at 18, UGR data available on page 8. High performance extruded acrylic diffusers conceal LEDs and efficiently deliver light in a volumetric distribution. Five diffuser choices available - curved and square designs with ribbed or a smooth frosted finish.

ELECTRICAL — Long-life LEDs, coupled with high-efficiency drivers, provide superior quantity and quality of illumination for extended service life. 80% LED lumen maintenance at 60,000 hours (L80/60,000). Color Variation within 3-step MacAdam ellipse (3SDCM).

Non-Configurable BLT: Generic 0-10 volt dimming driver. Dims to 10%

Configurable BLT: available in High Efficiency (HE) versions for applications where a lower wattage (over the standard product) is required. The High Efficiency versions deliver >130 LPW and can be specified via the Lumen Package designations in the Ordering Information below.

eldoLED driver options deliver choice of dimming range, and choices for control, while assuring flicker-free, low-current inrush, 89% efficiency and low EMI.

Optional integrated nLight®controls make each luminaire addressable - allowing them to digitally communicate with other nLight enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Connection to nLight is simple. It can be accomplished with integrated nLight AIR wireless rI0 and rES7 sensors, or through standard Cat-5 cabling. nLight offers unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission. nLight AIR is commissioned easily through an intuitive model app.

Lumen Management: Unique lumen management system (option N80) provides on board intelligence that actively manages the LED light source so that constant lumen output is maintained over the system life, preventing the energy waste created by the traditional practice of over-lighting.

Step-level dimming option allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

SENSOR— Integrated sensor (individual control): Sensor Switch MSD7ADCX ((Passive infrared (PIR)) or MSDPDT7ADCX ((PIR/Microphonics Dual Tech (PDT)) integrated occupancy sensor/automatic dimming photocell allows the luminaire to power off when the space is unoccupied or enough ambient light is entering the space. See page 4 for more details on the integrated sensor.

Integrated Sensor (nLight Wired Networking): This sensor is nLight-enabled, meaning it has the ability to communicate over an nLight network. When wired, using CAT-5 cabling, with other nLight-enabled sensors, power packs, or WallPods, an nLight control zone is created. Once linked to a Gateway, directly or via a Bridge, the zone becomes capable of remote status monitoring and control via SensorView software. See page 4 for the nLight sensor options.

Integrated Smart Sensor (nLight Air Wireless Platform): The RES7 sensor is nLight AIR enabled, meaning it has the ability to communicate over the wireless nLight control platform. It is available with an automatic dimming photocell, and either a digital PIR or a microphonics (PDT) dual technology occupancy sensor. It pairs to other luminaires and wall switches through our mobile app, CL**AIR**ITY+, which allows for simple sensor adjustment. See page 4 for more details on the Integrated Smart Sensor.

Integrated Wireless Sensor (single room control): Sensor Switch VERTEX JOT or JOTVTX15 luminaire-embedded occupancy and ambient light sensor allows the luminaire to power off when the space is unoccupied or when enough ambient light is entering the space. See page X for more details on the integrated wireless sensor.

INSTALLATION — The BLT's low profile design of only 2-3/8" provides increased installation flexibility especially in restrictive plenum applications. Designed for use in NEMA standard Type G (1" & 15/16") , NFG (9/16"), and SS (9/16") grid ceilings. Consult factory about other ceiling types.

For recessed mounting in hard ceiling applications, Drywall Grid Adapters (DGA) are available as an accessory. See Accessories section. Suitable for damp location.

LISTINGS — CSA Certified to meet U.S. and Canadian standards. IC rated. Tested in accordance with ISO 14644-1; suitable for use in ISO 5-9 positive and negative pressure clean rooms.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

GOVERNMENT PROCUREMENT — BAA – Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations.
BABA – Build America Buy America: Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

Specifications

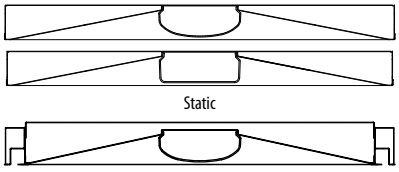
Length: 23-3/4 (60.3)

Width: 23-3/4 (60.3)

Depth: 2-3/8 (6.0)

Depth with Air supply/return: 2-3/4 (6.9)

All dimensions are inches (centimeters) unless otherwise specified.



Static

Air Supply/Return

Embed nLight controls today. Prepare for tomorrow.

Now	Tomorrow
User-friendly install	Scalability
Enhanced energy savings	Space configuration
Code compliance	Future-ready

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning when used with Acuity Brands controls products.
All configurations of this luminaire are calibrated and tested to meet the Acuity Brands' specifications for chromatic consistency – including color rendering, color fidelity, and color temperature tolerance around standard CIE chromaticity coordinates.

To learn more about Acuity A+ standards, specifications, and testing visit www.acuitybrands.com/aplus.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

2BLT Volumetric Recessed Lighting 2'x2'

Design Select options indicated by this color background.

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative.

Example: 2BLT2 33L ADP EZ1 LP835

2BLT2

Series
- 2BLT2 2X2 BLT

Fixture Style
- (blank) Smooth Reflector
- RB Ribbed Reflector

Air function
- (blank) Static
- A Air supply/return ‡

Lumens ‡

Standard efficiency ‡ (>125 LPW)
- 20L 2000
- 33L 3300
- 40L 4000
- 48L 4800

High efficiency ‡ (>130 LPW)
- 20LHE 2000
- 33LHE 3300
- 40LHE 4000
- 48LHE 4800

Diffuser
- ADP Curved, ribbed
- ADSM Curved, smooth
- SDP Square, ribbed
- SDSM Square, smooth
- LUGR Low UGR lens‡

Includes trim rings to match sensored version
- ADPT Curved, ribbed
- ADSMT Curved, smooth
- SDPT Square, ribbed
- SDSMT Square, smooth
- LUGRT Low UGR lens with trim‡

Voltage
- (blank) MVOLT
- 120 120V
- 277 277V
- 347 347V ‡

Driver
- EZ1 eldoLED dims to 1% (0-10 volt dimming)
- GZ1 Dims to 1% (0-10V dimming)
- GZ10 Dims to 10% (0-10V dimming)
- SLD Step-level dimming ‡

Color temperature
- LP830 82CRI, 3000 K
- LP835 82CRI, 3500 K
- LP840 82CRI, 4000 K
- LP850 82CRI, 5000 K
- LP930 90CRI, 3000K
- LP935 90CRI, 3500K
- LP940 90CRI, 4000K
- LP950 90CRI, 5000K

nLight Interface

nLight Wired
- (blank) no nLight ® interface
- N80 nLight with 80% lumen management
- N80EMG nLight with 80% lumen management For use with generator supply EM power ‡
- N100 nLight without lumen management
- N100EMG nLight without lumen management For use with generator supply EM power ‡

nLight Wireless
- (blank) no nLight ® interface
- NLTAIR2 nLight AIR Generation 2 enabled ‡

Control ‡

nLight Wired
- (blank) No sensor control
- NES7 nLight™ nES 7 PIR integral occupancy sensor ‡
- NESPDT7 nLight™ nES PDT 7 dual technology integral occupancy control ‡
- NES7ADCX nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell ‡
- NESPDT7ADCX nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell ‡

nLight Wireless
- RES7 nLight AIR control with PIR integral occupancy sensor and automatic dimming photocell ‡
- RES7PDT nLight AIR control with PDT dual technology integral occupancy sensor and automatic dimming photocell ‡
- RIO nLight AIR radio module without sensor ‡
- RES7EM nLight AIR PIR integral occupancy sensor with automatic dimming photocell and UL924 Emergency Operation, via power interrupt detection ‡
- RES7PDTEM nLight AIR microphonics dual technology occupancy sensor with automatic dimming photocell and UL924 Emergency Operation, via power interrupt detection ‡
- RIOEM nLight AIR radio module less sensor, with UL924 Emergency Operation, via power interrupt detection ‡

Individual Control
- MSD7ADCX PIR integral occupancy sensor with automatic dimming control photocell ‡
- MSDPDT7ADCX PDT integral occupancy sensor with automatic dimming control photocell ‡
- JOT Wireless room control with "Just One Touch" pairing ‡
- JOTVTX15 Wireless occupancy sensor with "Just One Touch" pairing ‡

Standy Mode
- NOC NOC Occupancy sensor disabled ‡

Options

BDP Disconnect Plug
- EL7L 700 lumen battery pack (Noncompliant with CA T20) ‡
- EL14L 1400 lumen battery pack (Noncompliant with CA T20) ‡
- E10WLCP EM Self-Diagnostic battery pack, 10W Constant Power, Certified in CA Title 20 MAEDBS ‡
- E10WSTAR Emergency battery pack, Enabled with STAR ‡

- CP Chicago plenum ‡
- BGTD Bodine Generator Transfer Device ‡
- PWS1836 6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit
- PWS1846 6' pre-wire, 3/8" diameter, 18 gauge, 2 circuit
- PWS1846 PWSLV Two cables: one 6' pre-wire, 3/8" diameter, 18 gauge, 2 circuits; one 6' pre-wire, 3/8" diameter, 18 gauge ‡
- PWS1856LV 6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit w/ low voltage wires ‡

- GLR Fast-blowing fuse ‡
- GMF Slow-blowing fuse ‡
- NPLT Narrow pallet
- RRL_ RELOC®-ready luminaire ‡
- LATC Earthquake clip
- WH Glossy White
- DWAM Anti-Microbial paint
- JP28 Job packaging ‡
- JP44 Job packaging ‡
- IP5X Gasketed diffuser compartment to meet IP5X rating ‡
- BAA Buy America(n) Act and/or Build America Buy America Qualified

NOTE: ‡ indicates option value has ordering restrictions. Please reference the Option Value Ordering Restictions chart on the next page. Options are sorted alphanumerically.

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2BLT Volumetric Recessed Lighting 2'x2'

‡ Option Value Ordering Restrictions	
Option value	**Restriction**
347	Not available with SLD, EL7L, EL14L, or E10WLCP options.
A	Not available with RB fixture style, consult factory for air flow data. If a job pack is selected, use JP28 only.
BGTD	Not available with JOT, JOTVTX15 sensor options or emergency battery options. Must specify voltage. Requires BSE labeling, voltage specific. Example: BGTD BSE10.
Control	Must specify diffuser with trim rings.
CP	Not available with N80, N80EMG, N100, N100EMG, PWS1836, PWS1846, PWS1846 PWSLV or PWS1856LV.
E10WSTAR	Not compatible with 347V.
EL7L, EL14L, E10WLCP	When using pre-wire option, use PWS1846 or PWS1846 PWSLV.
GLR, GMF	Must specify voltage. 120 or 277, with GLR and GMF fusing.
IP5X	Not available with air supply/return or Wired Networking (NES_) and Individual Control (MSD_) sensors.
JOT, JOTVTX15	Not available with SLD, nLight, NLTAIR2, NOC, or BGTD options.
JP28	Only available with options: NES7, NESPDT7, NES7ADCX, NESPDT7ADCX, MSD7ADCX, MSDPDT7ADCX, RES7, RES7PDT, RIO, JOT, JOTVTX15. Not available when sensor options combined with 'A' air supply return option.
JP44	Not available with NES7, NESPDT7, NES7ADCX, NESPDT7ADCX, MSD7ADCX, MSDPDT7ADCX, RES7, RES7PDT, RIO, JOT, JOTVTX15. Not available 'A' air supply return option. Not available with battery and PWS together.
Lumens	Approximate lumen output. For high Efficiency, all versions may not achieve 130+ LPW. Refer to photometry on www.acuitybrands.com. Air supply/return option, 90 CRI, and versions with integral sensor trim rings may not achieve 130 LPW.
LUGR, LUGRT	Due to the unique optics used to drive the low UGR distribution, the LUGR lens is not uniformly lit and presents visible striping.
MSD7ADCX, MSDPDT7ADCX	Only available with EZ1 driver option. 0-10v dimming wires not accessible via access plate.
NES7, NESPDT7, NES7ADCX, NESPDT7ADCX	Requires N80, N80EMG, N100, or N100EMG. Only available with EZ1 driver.
NLTAIR2	Must order with nLight Wireless option from Control section. Not available with GZ10 driver.
NOC	Can only be ordered in conjunction with EZ1 or GZ1, NLTAIR2, RES7/RES7PDT. Occupancy sensor disabled at factory but can be re-enabled upon commissioning.
N80EMG, N100EMG	nLight EMG option requires a connection to existing nLight network. Power is provided from a separate N80 or N100 enabled fixture.
PWS1846 PWSLV, PWS1856LV	Not available with nLIGHT wired network or individual controls
RES7, RES7PDT, RIO	See UL 924 Sequence of Operation chart on page 3. When combined with the EZ1 option, can be used as a normal power sensing device for nLight AIR devices and luminaires with EM emergency options.
RES7EM, RES7PDTEM, RIOEM	See UL924 Sequence of Operation chart on page 3. Not available with GZ10 or GZ1 driver.
RRL_	For ordering logic consult: RRL_2013.
SLD	Not available with any nLight Interface or Control options.

Multiple Diffuser Options

ADP Curved Ribbed

ADSM Curved Smooth

SDP Square Ribbed

SDSM Square Smooth

LUGR Low UGR

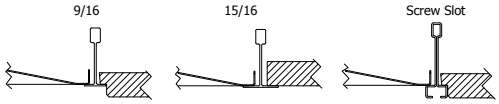
SDSM Diffuser Option

Non-Configurable BLT

Stock/MTO	Catalog Description *	UPC	Lumens	Wattage	LPW	Color Temperature	Voltage	Pallet Qty
Stock	2BLT2 33L ADP LP835	190887529708	3332	26.67	124.92	3500K/82 CRI	120-277	56
	2BLT2 33L ADP LP840	190887529739	3385	26.67	126.91	4000K/82CRI	120-277	56
	2BLT2 33L ADP EL14L LP835	190887529890	3332	26.67	124.92	3500K/82CRI	120-277	56
	2BLT2 33L ADP EL14L LP840	190887529937	3385	26.67	126.91	4000K/82CRI	120-277	56

*Generic 0-10V Dimming to 10%.

MOUNTING DATA	
Ceiling Type	**Appropriate Trim Type**
Exposed grid tee (1' and 9/16")	G
Concealed grid tee	G
Plaster or plasterboard	G*



*DGA accessory available to provide ceiling trim flange and fixture support for plaster or plasterboard ceiling. Recommended rough-in dimensions for DGA installation is 24-3/4" x 24-3/4" (Tolerance is +1/8", -0").

UL924 Sequence of Operation

The below information applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the CL**AIR**ITY+ mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only non-emergency rPP20, rLSXR, rSBOR, rSDGR, and nLight AIR luminaires with version 3.4 or later firmware can provide normal power sensing for EM devices. See specification sheets for control devices and luminaires for more information on options that support normal power sensing.

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Accessories & Replacement Parts

Accessories: *Order as separate catalog number.*	
DGA22	Drywall grid adapter for 2x2 recessed fixture
2X2SMKSHP PAF	Surface Mount Troffer Kit Post Paint
RK8BDP 2P U	Disconnect Plug (BDP), 2 Pole, Package of 1
RK8BDP 3P U	Disconnect Plug (BDP), 3 Pole, Package of 1
RK8BDP 2P J10	Disconnect Plug (BDP), 2 Pole, Package of 10
RK8BDP 2P J40	Disconnect Plug (BDP), 2 Pole, Package of 40

Replacement Parts: *Order as separate catalog number.*		
*247WJV	2DBLT24 ADP LENS ASSEMBLY	2 ft. replacement lens
*249P2P	2DBLT24 SDP LENS ASSEMBLY	2 ft. replacement lens
*249P2W	2DBLT24 ADSM LENS ASSEMBLY	2 ft. replacement lens
*249P32	2DBLT24 SDSM LENS ASSEMBLY	2 ft. replacement lens
*237LT1	2DBLT24 ADPT LENS ASSEMBLY	2 ft. replacement lens
*237LT3	2DBLT24 SDPT LENS ASSEMBLY	2 ft. replacement lens
*237LT5	2DBLT24 ADSMT LENS ASSEMBLY	2 ft. replacement lens
*237LT7	2DBLT24 SDSMT LENS ASSEMBLY	2 ft. replacement lens
*237LT9	2DBLT24 ADPT SENSOR LENS ASSEMBLY	2 ft. replacement lens
*237M4Y	2DBLT24 SDPT SENSOR LENS ASSEMBLY	2 ft. replacement lens
*237M57	2DBLT24 ADSMT SENSOR LENS ASSEMBLY	2 ft. replacement lens
*237M5H	2DBLT24 SDSMT SENSOR LENS ASSEMBLY	2 ft. replacement lens

Emergency Battery Pack Options - Field Installable

Battery Model Number	Wattage	Runtime (Minutes)	Lumen Output* @ 120 Lumens/Watt	Other
ILB CP07 2H A	7W	120	840	Storm Shelter/ 2-hour Runtime
ILB CP10 A	10W	90	1200	
ILB CP10 HE AELR A	10W	90	1200	Title 20; Enabled with Self Testing, Automated Reporting (STAR)
ILBLP CP10 HE SD A	10W	90	1200	Title 20, Self Diagnostic
ILBLP CP15 HE SD A	15W	90	1800	Title 20, Self Diagnostic
ILB CP20 HE A	20W	90	2400	Title 20
ILB CP20 HE SD A	20W	90	2400	Title 20, Self Diagnostic

All the above are UL Listed products that are certified for field install external/remote to the fixture.

*Minimum delivered lumen output to assist in product selection for increased fixture mounting height.

The CP10 delivered emergency illumination outperforms legacy 1400 lumen fluorescent emergency ballast.

Please contact us at techsupport@iotaengineering.com for any Emergency Battery related questions.

BSE Labeling Options	
BSE10	Drivers load transfer relay installed per manufacturer's instructions. Voltage, BGTD and BSE10 called out.
BSE14	One voltage fixture with driver load control relay supplied with one prewire (PWS option). Prewire wired for normal circuit, the control relay for emergency circuit left unconnected. Voltage, BGTD, BSE14 and prewire called out, in the description.

*For configurations with Reloc or two voltages an RFA modification is required

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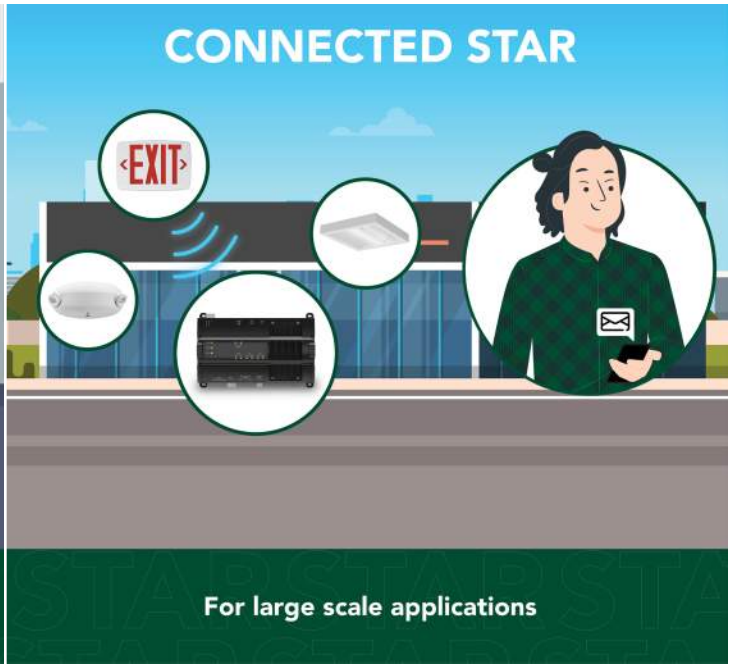
Enabled with STAR

Emergency Lighting with Self-Testing Automated Reporting (STAR), enables self-testing and automated reporting to aid in life safety code compliance. Build your solution and choose your preferred deployment from Mobile STAR, where test data is logged in each individual unit and broadcast to the ClAIRity™+ app, or Connected STAR, where test data is logged in the STAR Gateway by IOTA® and emailed directly. **Leave the ladders, disruptions and written records behind with emergency lighting solutions with STAR!**

Life Safety Code NFPA 101 testing and reporting requirements for emergency lighting include:

- Testing for 30 seconds every 30 days
- Testing for 90 minutes once a year
- Record keeping and to report to the authority having local jurisdiction



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JOT Wireless

Sensor Switch JOT Enabled Wireless Solution

Designed with contractors in mind, the Sensor Switch JOT enabled wireless solution offers a straightforward approach to the installation and pairing of lighting fixtures and controls. Absolutely no 0-10V control wires and no mobile apps are needed with JOT enabled products, allowing for lightning speed installation right out of the box.

1. Power: Install JOT enabled fixtures and controls as instructed.
2. Pair: Insert the pairing tool into the pinhole on the wall switch; press and hold any button for 6 seconds.
3. Play: Once paired, each fixture will individually dim down to 10% brightness. All products will be fully functional.

BLT Series

Sensor Switch
WSXA JOT

BLT Series
with integrated
JOT OCC
Sensors

Sensor Switch
SPODMRA JOT

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2BLT Volumetric Recessed Lighting 2'x2'

nLight Platform

nLight embedded fixtures offer:	Customers get:
Manual Dimming	Convenience and visual comfort for occupants
Motion Sensing and/or Daylight Harvesting	Energy savings and code compliance
Fixture or Group Level Control	Ability to configure lighting to the space requirements
Flexibility	Ease of fixture moves, adds and changes
Wireless Wall Switch (nLight AIR Only)	Ease and flexibility of placement
Astronomical and Time of Day Scheduling	Energy savings and building security
Scalable Solution	nLight controls to grow with your business
Future-Ready	nLight platform to set foundation for future upgrades and capabilities

nLight Air Wireless

BLT Series

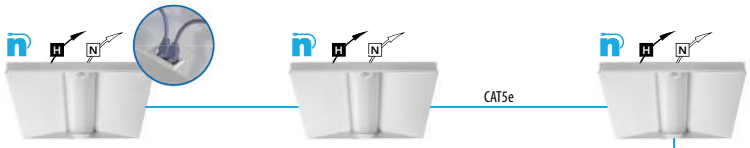
Simple as 1,2,3

1. Install the nLight® AIR fixtures with embedded smart sensor
2. Install the wireless battery-powered wall switch
3. With CL**AIR**ITY+ app, pair the fixtures with the wall switch and if desired, customize the sensor settings for the desired outcome

nLight AIR rPODBA

Mobile Device

nLight Wired Networking



BLT Series

CAT5e

nLight Wired nPODMA

Simple as 1,2,3

1. Install the nLight® Wired fixtures with embedded control
2. Install the nLight Wired wall switch
3. Connect the fixtures using standard CAT5e cables and the devices will automatically discover each other and work (plug and play)

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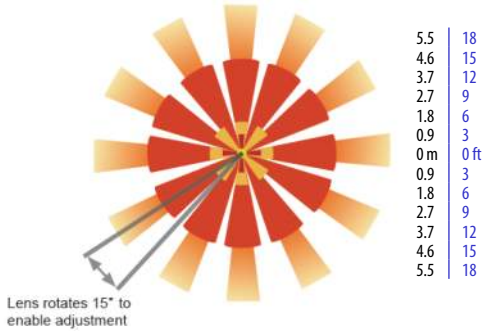
2BLT Volumetric Recessed Lighting 2'x2'

Sensor Options					
Option	Automatic Dimming Photocell	Occupancy Sensing		nLight Wired Networking	nLight AIR Networking
		PIR	PDT		
MSD7ADCX	X	X			
MSDPDT7ADCX	X		X		
NES7		X		X	
NES7ADCX	X	X		X	
NESPDT7			X	X	
NESPDT7ADCX	X		X	X	
RES7	X	X			X
RESPDT7	X	X	X		X

Sensor Coverage Pattern
Mini 360° Lens

- Recommended for walking motion detection from mounting heights between 8 ft (2.44 m) and 20 ft (6.10 m)
- Initial detection of walking motion along sensor axes at distances of 2x the mounting height up to 15 ft (4.57 m) and
- 1.75x up to 20 ft (6.10 m).
- Provides 12 ft (3.66 m) radial detection of small motion when mounted at 9 ft (2.74 m)
- Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor

9 FT Mounting



Integrated Sensor with Individual Control

The MSD7ADCX PIR occupancy sensor/automatic dimming photocell is ideal for areas without obstructions and where daylight harvesting may be desired. Suggested applications include, but not limited to, hallways, corridors, storage rooms, and breakrooms or other areas where people are typically moving.

The MSDPDT7ADCX PIR/Microphonics Dual Tech occupancy sensor/automatic dimming photocell is ideal for areas with obstructions and where daylight harvesting is desired. Suggested applications include, but not limited to, open offices, private offices, classrooms, public restrooms, and conference rooms.

nLight AIR Wireless

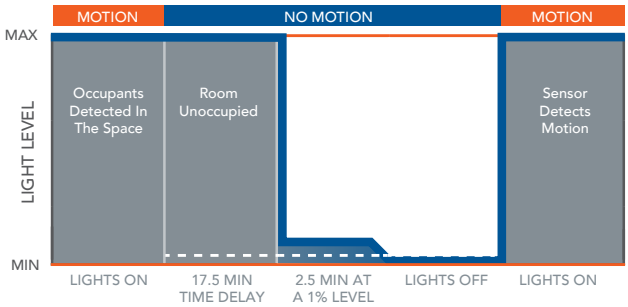
nLight AIR is the ideal solution for retrofit or new construction spaces where adding additional wiring can be labor intensive and nLight AIR is available with or without an integral sensor. The integrated rES7 or rES7PDT smart sensors are part of each luminaire in the nLight AIR network, which can be grouped to control multiple luminaires. The granularity of control with the digital PIR occupancy detection and daylight sensing makes a great solution for any application.

nLight Wired Networking

The nES 7 is ideal for small rooms without obstructions or areas with primarily walking motion. Ideal areas include hallways, corridors, storage rooms, and breakrooms. Additionally, the nES7ADCX includes an integrated photocell, which enables daylight harvesting controls.

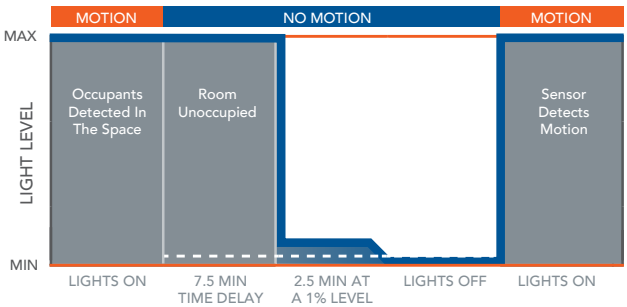
For areas like restrooms, private offices, open offices, conference rooms or any space with obstructions, the nES PDT 7 dual technology sensor is recommended. The nES PDT 7 utilizes both PIR (passive infrared) and Microphonics technologies to detect occupancy. Additionally, the nESPDT7ADCX includes an integrated photocell, which enables daylight harvesting controls which is ideal for areas where windows are present.

Sequence of Operation (MSD7 Sensor)



*The presetting on the automatic dimming photocell is 5fc.

Sequence of Operation (nES7 and rES7 and Sensor)



*The presetting on the automatic dimming photocell is 5fc (NES7) and 10fc (RES7).

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Controls Accessories

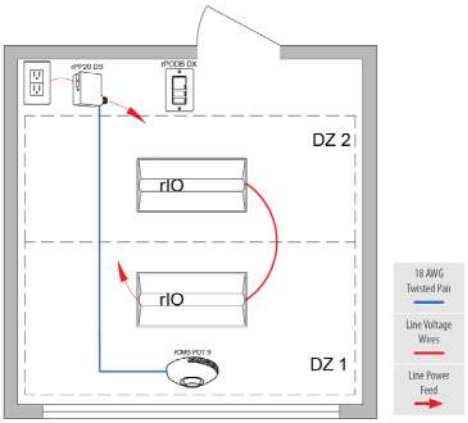
nLight® Wired Control Accessories:
Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlight.

WallPod stations	Model number	Occupancy sensors	Model number
On/Off	nPODMA [Color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 RJB / nCM PDT 9 RJB
On/Off & raise/lower	nPODMA DX [Color]	Large motion 360°, ceiling (PIR / dual tech)	nCM10 RJB / nCM PDT 10 RJB
Graphic touchscreen	nPOD TOUCH [Color]	Wall switch with raise/lower	nWSX PDT LV DX [color]
Photocell controls	**Model number**	**Cat-5 cable (plenum rated)**	**Model number**
Full range dimming	nCM ADCX RJB	10' cable	CAT5 10FT J1
		30' cable	CAT5 30FT J1

nLight® AIR Control Accessories:
Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlightair.

Wall switches	Model number
On/Off single pole	rPODBA [color] G2
On/Off two pole	rPODB A2P [color] G2
On/Off & raise/lower single pole	rPODBA DX [color] G2
On/Off & raise/lower two pole	rPODBA 2P DX [color] G2

BLT fixtures with integrated rIO devices complement any small office space. Pair them with an rCMS occupancy sensor and the space now has wireless occupancy sensing and dimming capability. For additional configuration options please consult with Tech Support.



rCMS[1] — **Example: RCMS PDT 10 AR G2**

Series / Detection		Power Supply[1]		Occupancy Detection		Lens (Required)		Operating Mode		Generation	
RCMS	nLight AIR occupancy and daylight sensor	[blank]	Power Supply ordered separately	[blank]	PIR Detection	10	Large Motion/ Extended Range 360°	[BLANK]	None	G2	Generation 2 compatibility
		PS 150	Standard 150 mA Power Supply	PDT	Dual Tech PIR/ Microphonics	9	Small Motion/ Extended Range 360°	AR	Auxiliary Relay		
						6	High Bay 360° Lens				

Notes
1 RCMS requires low voltage power from either RPP20 DS 24V G2 or PS150.

Sensor Switch WSX

nLight WIRED NPOD UNITOUCH

nLight WIRED nPODMA DX

nLight AIR rPODBA

BLT with rIO **rPODBA** **RCMS**

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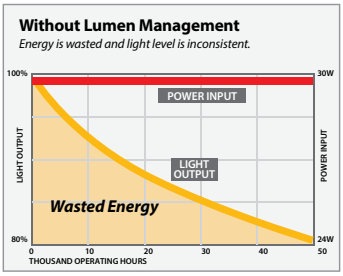
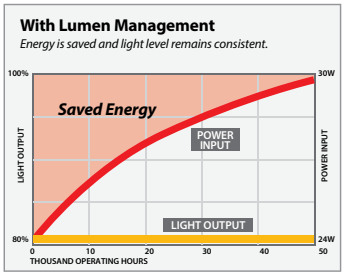
Constant Lumen Management

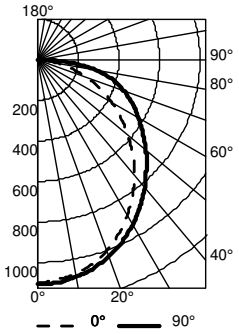
Enabled by the embedded nLight control, the BLT actively tracks its run-time and manages its light source such that constant lumen output is maintained over the system life. Referred to as lumen management, this feature eliminates the energy waste created by the traditional practice of over-lighting.





PHOTOMETRICS

2BLT2 33L ADP LP835, 3332 delivered lumens, test no. ISF36900P19, tested in accordance to IESNA LM-79



CP Summary

	0°	90
0°	1103	1103
5°	1090	1104
15°	1042	1064
25°	946	989
35°	817	881
45°	664	757
55°	500	634
65°	340	517
75°	177	383
85°	40	164
90	1	14

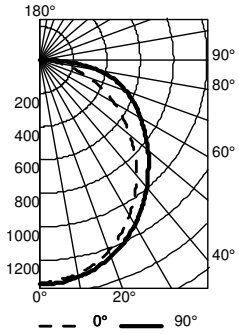
Coefficients of Utilization

RCR	pf 20% pc 80% 70% 50% pw 70% 50% 30%	50% 30% 10%	50% 30% 10%
0	119 119 119	116 116 116	111 111 111
1	108 102 97	100 96 92	96 92 89
2	97 88 81	86 80 74	83 77 72
3	88 77 69	76 68 61	72 66 60
4	81 68 59	67 58 52	64 57 51
5	74 61 51	60 51 44	57 50 44
6	68 55 45	54 45 39	52 44 38
7	63 50 40	49 40 34	47 39 34
8	59 45 36	44 36 30	43 36 30
9	55 41 33	41 33 27	40 32 27
10	52 38 30	38 30 25	37 30 25

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	853	25.6	25.6
0° - 40°	1390	41.7	41.7
0° - 60°	2466	74.0	74.0
0° - 90°	3330	100.0	100.0
90° - 120°	2	0.0	0.0
90° - 130°	2	0.0	0.0
90° - 150°	2	0.0	0.0
90° - 180°	2	0.0	0.0
0° - 180°	3332	100.0	100.0

2BLT2 40L ADP LP835, 4041 delivered lumens, test no. ISF36900P35, tested in accordance to IESNA LM-79



CP Summary

	0°	90
0°	1338	1338
5°	1322	1339
15°	1263	1291
25°	1148	1199
35°	991	1069
45°	805	918
55°	607	769
65°	412	627
75°	214	465
85°	48	199
90	1	17

Coefficients of Utilization

RCR	pf 20% pc 80% 70% 50% pw 70% 50% 30%	50% 30% 10%	50% 30% 10%
0	119 119 119	116 116 116	111 111 111
1	108 102 97	100 96 92	96 92 89
2	97 88 81	86 80 74	83 77 72
3	88 77 69	76 68 61	72 66 60
4	81 68 59	67 58 52	64 57 51
5	74 61 51	60 51 44	57 50 44
6	68 55 45	54 45 39	52 44 38
7	63 50 40	49 40 34	47 39 34
8	59 45 36	44 36 30	43 36 30
9	55 41 33	41 33 27	40 32 27
10	52 38 30	38 30 25	37 30 25

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1035	25.6	25.6
0° - 40°	1686	41.7	41.7
0° - 60°	2991	74.0	74.0
0° - 90°	4039	100.0	100.0
90° - 120°	2	0.0	0.0
90° - 130°	2	0.0	0.0
90° - 150°	2	0.0	0.0
90° - 180°	2	0.0	0.0
0° - 180°	4041	100.0	100.0

UNIFIED GLARE RATING (UGR)

Lumen Package	UGR Values of BLT 2x2 @ **80CRI** and 3500K UGR (70% 50% 20% reflectance using a 4H x 8H room size)																			
	ADP		ADPT		ADSM		ADSMT		SDP		SDPT		SDSM		SDSMT		LUGR		LUGRT	
	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise
20L	17.8	21.6	17.8	21.8	17.7	21.4	18	21.1	18.3	21.3	18	21	18.1	21.5	18	20.9	16.3	17.9	17.6	18.2
20LHE	17.6	21.5	17.6	21.6	19.5	22.8	17.6	21.5	17.8	21.4	17.6	21.5	17.9	21.3	17.9	21.4	16.1	17.7	17.4	18
33L	19.5	23.3	19.5	22.8	19.9	23.2	19.3	22.4	19.6	22.6	19.3	22.3	19.6	22.3	19.4	22.2	18	19.6	19.3	19.8
33LHE	19.7	23.3	19.7	23.1	20.5	23.7	19.7	22.8	20	23	19.7	22.7	19.8	23.2	19.8	22.6	17.9	19.5	19.2	19.8
40L	20.2	24	20.3	23.7	20.5	23.8	20.2	24	20.5	23.5	20.2	23.2	20.5	23.2	20.3	23.2	18.7	20.3	20	20.5
40LHE	20.2	24.1	20.3	23.7	20.9	24.6	20.2	23.4	20.5	23.5	20.2	23.3	20.5	23.2	20.3	23.2	18.7	20.3	20	20.5
48L	20.8	24.6	20.7	24.8	20.9	24.6	20.8	24.6	21	24.5	20.7	24.6	21	24.5	21	24.5	19.4	21.1	20.7	21.3
48LHE	20.7	24.3	20.7	24.1	20.9	24.2	20.8	24.6	21	24	20.7	23.7	20.9	23.7	20.8	23.6	19.4	21	20.7	21.2

UGR varies based on luminaire options and is affected by application dependent parameters. Numbers depicted here are considered "Luminaire-UGR and/or "Point-UGR" values.
To determine a more precise maximum UGR value ("Application-UGR"), a full lighting design layout should be completed with the selected luminaire configuration for each application

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2BLT Volumetric Recessed Lighting 2'x2'

Performance Data					
Model Number	**Lumens**	**LPW**	**Watts**	**DLC Listing**	**DLC ID**
2BLT2 20L ADP EZ1 (GZ1, GZ10) LP840	2092	127.8	16.4	Premium	PM92196A
2BLT2 20L ADP EZ1 (GZ1, GZ10) LP835	2036	124.4	16.4	Premium	P6445UVD
2BLT2 20L ADPT EZ1 (GZ1, GZ10) LP840	2061	125.9	16.37		
2BLT2 20L ADPT EZ1 (GZ1, GZ10) LP835	2008	122.7	16.37		
2BLT2 33L ADP EZ1 (GZ1, GZ10) LP835	3300	124.6	26.5	Premium	PHSXHE8F
2BLT2 33L ADP EZ1 (GZ1, GZ10) LP840	3391	128.1	26.5	Premium	PD18CKQ8
2BLT2 33L ADPT EZ1 (GZ1, GZ10) LP840	3343	126.3	26.5	Premium	PF98CZ2H
2BLT2 33L ADPT EZ1 (GZ1, GZ10) LP835	3254	122.9	26.5	Premium	S-OIDCZL
2BLT2 40L ADP EZ1 (GZ1, GZ10) LP835	4034	130.2	31	Premium	P1XWW9GV
2BLT2 40L ADP EZ1 (GZ1, GZ10) LP840	4144	133.8	31	Premium	PHCQ2CQF
2BLT2 40L ADPT EZ1 (GZ1, GZ10) LP835	3977	128.4	31	Premium	PW6RMMJ4
2BLT2 40L ADPT EZ1 (GZ1, GZ10) LP840	4086	131.9	31	Premium	P5YYDAA8
2BLT2 48L ADP EZ1 (GZ1, GZ10) LP835	5022	117.2	42.9	Standard	PJRH1R1G
2BLT2 48L ADP EZ1 (GZ1, GZ10) LP840	5159	120.4	42.9	Standard	P8G93YOK
2BLT2 48L ADPT EZ1 (GZ1, GZ10) LP835	4951	115.5	42.9	Standard	PITU3V6X
2BLT2 48L ADPT EZ1 (GZ1, GZ10) LP840	5087	118.7	42.9	Standard	P5X2XU76

DLC information is subject to change, for the most up-to-date information please refer to www.dlc.org. Above listings do not cover 347v or SLD.

HE Performance Data					
Model Number	**Lumens**	**LPW**	**Watts**	**DLC Listing**	**DLC ID**
2BLT2 20LHE ADP EZ1 (GZ1, GZ10) LP835	1939	132.3	14.7	Premium	PUQCZNQI
2BLT2 20LHE ADP EZ1 (GZ1, GZ10) LP840	1992	135.9	14.7	Premium	PJCZRW21
2BLT2 20LHE ADPT EZ1 (GZ1, GZ10) LP840	1964	134.0	14.7	Premium	PLC4RF4L
2BLT2 33LHE ADP EZ1 (GZ1, GZ10) LP835	3247	133.0	24.4	Premium	PXXZN9PH
2BLT2 33LHE ADP EZ1 (GZ1, GZ10) LP840	3336	136.7	24.4	Premium	PKPJYYRF
2BLT2 33LHE ADPT EZ1 (GZ1, GZ10) LP835	3202	131.1	24.4	Premium	PZC8BZSS
2BLT2 33LHE ADPT EZ1 (GZ1, GZ10) LP840	3290	134.7	24.4	Premium	PM5G8AFU
2BLT2 40LHE ADP EZ1 (GZ1, GZ10) LP835	4044	135.5	29.9	Premium	PJ55XFFP
2BLT2 40LHE ADP EZ1 (GZ1, GZ10) LP840	4155	139.2	29.9	Premium	PEGFHPZD
2BLT2 40LHE ADPT EZ1 (GZ1, GZ10) LP835	3987	133.6	29.9	Premium	P8E16E9B
2BLT2 40LHE ADPT EZ1 (GZ1, GZ10) LP840	4096	137.2	29.9	Premium	PFRSSSVG
2BLT2 48LHE ADP EZ1 (GZ1, GZ10) LP835	4944	139.8	35.4	Premium	P558XUZP
2BLT2 48LHE ADP EZ1 (GZ1, GZ10) LP840	5080	143.6	35.4	Premium	P1863H56
2BLT2 48LHE ADPT EZ1 (GZ1, GZ10) LP835	4875	137.8	35.4	Premium	PHPTG5M8
2BLT2 48LHE ADPT EZ1 (GZ1, GZ10) LP840	5009	141.6	35.4	Premium	PBKN954Z

DLC information is subject to change, for the most up-to-date information please refer to www.dlc.org. Above listings do not cover 347v or SLD.

How to Estimate Delivered Lumens in Emergency Mode
Use the formula below to estimate the delivered lumens in emergency mode
Delivered Lumens = 1.25 x P x LPW
P = Ouput power of emergency driver. P = 10W for E10WLCP option. LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet. LPW = Lumen per watt rating of the luminaire. LPW information available in Performance Data section.

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LITHONIA LIGHTING®

DIGITAL NAVIGATION

Ordering Tree nLight Platform Sensor Switch JOT Photometrics Performance Data

Catalog Number	23-009 HINES CLC
Notes	
Type	L2

BLT Series LED

2BLT4

2' x 4' LED

ADP Diffuser Option

Ribbed Reflector Option

FEATURES & SPECIFICATIONS

INTENDED USE —The BLT Best-in-Value Low Profile LED luminaire features a popular center basket design that offers a clean, versatile style and volumetric distribution. High efficacy LED light engines deliver energy savings and low maintenance compared to traditional sources. An extensive selection of configurations and options make the BLT the perfect choice for many lighting applications including schools, offices and other commercial spaces, retail, hospitals and healthcare facilities. The low profile BLT design (2-3/8") also makes it an excellent choice for renovation projects.

CONSTRUCTION — Prior to fabrication, BLT components are coated with a proprietary paint blend and die-formed for dimensional consistency.

The BLT reflector is available in both smooth and ribbed finishes. Choose RB from the fixture style section below for a ribbed finish.

End plates contain easy-to-position integral T-bar clips for securely attaching the luminaire to the T-grid. For additional T-grid security, optional screw on T-bar clips are available.

Diffusers are extruded from impact modified acrylic for increased durability.

LED boards and drivers are accessible from the plenum.

OPTICS — Volumetric illumination is achieved by creating an optimal mix of light to walls, partitions and vertical and horizontal work surfaces – rendering the interior space, objects and occupants in a more balanced, complimentary luminous environment. A typically configured 2BLT4 features a **Unified Glare Rating (UGR)** starting at 17, UGR data available on page 8. High performance extruded acrylic diffusers conceal LEDs and efficiently deliver light in a volumetric distribution. Five diffuser choices available - curved and square designs with ribbed or a smooth frosted finish.

ELECTRICAL — Long-life LEDs, coupled with high-efficiency drivers, provide superior quantity and quality of illumination for extended service life. 80% LED lumen maintenance at 60,000 hours (L80/60,000). Color Variation within 3-step MacAdam ellipse (3SDCM).

Non-Configurable BLT: Generic 0-10 volt dimming driver. Dims to 10%

Configurable BLT: available in High Efficiency (HE) versions for applications where a lower wattage (over the standard product) is required. The High Efficiency versions deliver >130 LPW and can be specified via the Lumen Package designations in the Ordering Information below.

eldoLED driver options deliver choice of dimming range, and choices for control, while assuring flicker-free, low-current inrush, 89% efficiency and low EMI.

Optional integrated nLight®controls make each luminaire addressable - allowing it to digitally communicate with other nLight enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Connection to nLight is simple. It can be accomplished with integrated nLight AIR wireless RIO, RES7 sensors, or through standard Cat-5 cabling. nLight offers unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission. nLight AIR is commissioned easily through an intutitive mobile app.

Lumen Management: Unique lumen management system (option N80) provides on board intelligence that actively manages the LED light source so that constant lumen output is maintained over the system life, preventing the energy waste created by the traditional practice of over-lighting.

Step-level dimming option allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

SENSOR— Integrated sensor (individual control): Sensor Switch MSD7ADCX ((Passive infrared (PIR)) or MSDPDT7ADCX ((PIR/Microphonics Dual Tech (PDT)) integrated occupancy sensor/automatic dimming photocell allows the luminaire to power off when the space is unoccupied or enough ambient light is entering the space. See page 4 for more details on the integrated sensor.

Integrated Sensor (nLight Wired Networking): This sensor is nLight-enabled, meaning it has the ability to communicate over an nLight network. When wired, using CAT-5 cabling, with other nLight-enabled sensors, power packs, or WallPods, an nLight control zone is created. Once linked to a Gateway, directly or via a Bridge, the zone becomes capable of remote status monitoring and control via SensorView software. See page 4 for the nLight sensor options.

Integrated Smart Sensor (nLight Air Wireless Platform): The RES7 sensor is nLight AIR enabled, meaning it has the ability to communicate over the wireless nLight control platform. It is available with an automatic dimming photocell, and either a digital PIR or a microphonics (PDT) dual technology occupancy sensor. It pairs to other luminairs and wall switches through our mobile app, CL**AIR**ITY+, which allows for simple sensor adjustment. See page 4 for more details on the Integrated Smart Sensor.

Integrated Wireless Sensor (single room control): Sensor Switch VERTEX JOT or JOTVTX15 luminaire-embedded occupancy and ambient light sensor allows the luminaire to power off when the space is unoccupied or when enough ambient light is entering the space. See page X for more details on the integrated wireless sensor.

INSTALLATION — The BLT's low profile design of only 2-3/8" provides increased installation flexibility especially in restrictive plenum applications. Designed for use in NEMA standard Type G (1" & 15/16") , NFG (9/16"), and SS (9/16") grid ceilings. Consult factory about other ceiling types.

For recessed mounting in hard ceiling applications, Drywall Grid Adapters (DGA) are available as an accessory. See Accessories section. Suitable for damp location.

LISTINGS — CSA Certified to meet U.S. and Canadian standards. IC rated. Tested in accordance with ISO 14644-1; suitable for use in ISO 5-9 positive and negative pressure clean rooms.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

GOVERNMENT PROCUREMENT — BAA – Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations.
BABA – Build America Buy America: Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

NOTE: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

Specifications

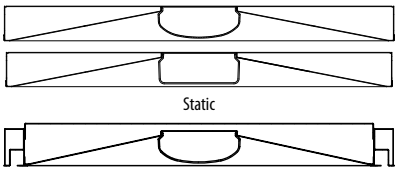
Length: 47-3/4 (121.2)

Width: 23-3/4 (60.3)

Depth: 2-3/8 (6.0)

Depth with Air supply/return: 2-3/4 (6.9)

All dimensions are inches (centimeters) unless otherwise specified.



Static

Air Supply/Return

Embed nLight controls today. Prepare for tomorrow.

Now	Tomorrow
User-friendly install	Scalability
Enhanced energy savings	Space configuration
Code compliance	Future-ready

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning when used with Acuity Brands controls products.
All configurations of this luminaire are calibrated and tested to meet the Acuity Brands' specifications for chromatic consistency – including color rendering, color fidelity, and color temperature tolerance around standard CIE chromaticity coordinates.

To learn more about Acuity A+ standards, specifications, and testing visit www.acuitybrands.com/aplus.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

2BLT Volumetric Recessed Lighting 2'x4'

Design Select options indicated by this color background.

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative.

Example: 2BLT4 40L ADP EZ1 LP840

2BLT4

Series

2BLT4	2x4 BLT

Fixture Style

(blank)	Smooth Reflector
RB	Ribbed Reflector

Air function

(blank)	Static
A	Air supply/ return ‡

Lumens ‡

Standard efficiency (>100 LPW)		High efficiency ‡ (>130 LPW)	
30L	3000	30LHE	3000
40L	4000	40LHE	4000
48L	4800	48LHE	4800
60L	6000	60LHE	6000
72L	7200	72LHE	7200
85L	8500	85LHE	8500
100L	10000		
120L	12000		

Diffuser

ADP	Curved, ribbed
ADSM	Curved, smooth
SDP	Square, ribbed
SDSM	Square, smooth
LUGR	Low UGR lens‡

Includes trim rings to match sensored version

ADPT	Curved, ribbed
ADSMT	Curved, smooth
SDPT	Square, ribbed
SDSMT	Square, smooth
LUGRT	Low UGR lens with trim‡

Voltage

(blank)	MVOLT
120	120V
277	277V
347	347V ‡

Driver

EZ1	eldoLED dims to 1% (0-10 volt dimming)
GZ1	Dims to 1% (0-10V dimming)
GZ10	Dims to 10% (0-10V dimming)
SLD	Step-level dimming ‡

Color temperature

LP830	82CRI, 3000 K
LP835	82CRI, 3500 K
LP840	82CRI, 4000 K
LP850	82CRI, 5000 K
LP930	90CRI, 3000K
LP935	90CRI, 3500K
LP940	90CRI, 4000K
LP950	90CRI, 5000K

nLight Interface

nLight Wired

(blank)	no nLight ® interface
N80	nLight with 80% lumen management
N80EMG	nLight with 80% lumen management For use with generator supply EM power ‡
N100	nLight without lumen management
N100EMG	nLight without lumen management For use with generator supply EM power ‡

nLight Wireless

(blank)	no nLight AIR ® interface
NLTAIR2	nLight AIR Generation 2 enabled ‡

Control ‡

nLight Wired ‡

(blank)	No sensor control
NES7	nLight™ nES 7 PIR integral occupancy sensor
NESPDT7	nLight™ nES PDT 7 dual technology integral occupancy control
NES7ADCX	nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell
NESPDT7ADCX	nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell

nLight Wireless

RES7	nLight AIR control with PIR integral occupancy sensor and automatic dimming photocell ‡
RES7PDT	nLight AIR control with PDT dual technology integral occupancy sensor and automatic dimming photocell ‡
RIO	nLight AIR radio module without sensor ‡
RES7EM	nLight AIR PIR integral occupancy sensor with automatic dimming photocell and UL924 Emergency Operation, via power interrupt detection ‡
RES7PDTEM	nLight AIR microphonics dual technology occupancy sensor with automatic dimming photocell and UL924 Emergency Operation, via power interrupt detection ‡
RIOEM	nLight AIR radio module less sensor, with UL924 Emergency Operation, via power interrupt detection ‡

Individual Control

MSD7ADCX	PIR integral occupancy sensor with automatic dimming control photocell ‡
MSDPDT7ADCX	PDT integral occupancy sensor with automatic dimming control photocell ‡
JOT	Wireless room control with "Just One Touch" pairing ‡
JOTVTX15	Wireless occupancy sensor with "Just One Touch" pairing ‡

Standy Mode

NOC	NOC Occupancy sensor disabled ‡

Options

BDP Disconnect Plug

EL7L	700 lumen battery pack (Noncompliant with CA T20) ‡
EL14L	1400 lumen battery pack (Noncompliant with CA T20) ‡
E10WLCP	EM Self-Diagnostic battery pack, 10W Constant Power, Certified in CA Title 20 MAEDBS ‡
E10WSTAR	Emergency battery pack, Enabled with STAR ‡

CP	Chicago plenum ‡
BGTD	Bodine Generator Transfer Device ‡
PWS1836	6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit
PWS1846	6' pre-wire, 3/8" diameter, 18 gauge, 2 circuit
PWS1846 PWSLV	Two cables: one 6' pre-wire, 3/8" diameter, 18 gauge, 2 circuits; one 6' pre-wire, 3/8" diameter, 18 gauge ‡
PWS1856LV	6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit w/ low voltage wires ‡

GLR	Fast-blowing fuse ‡
GMF	Slow-blowing fuse ‡
NPLT	Narrow pallet
RRL_	RELOC®-ready luminaire ‡
LATC	Earthquake clip
WH	Glossy White
DWAM	Anti-Microbial paint
JP14	Job packaging ‡
JP22	Job packaging ‡
IP5X	Gasketed diffuser compartment to meet IP5X rating ‡
BAA	Buy America(n) Act and/or Build America Buy America Qualified

NOTE: ‡ indicates option value has ordering restrictions. Please reference the Option Value Ordering Restictions chart on the next page. Options are sorted alphanumerically.

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2BLT Volumetric Recessed Lighting 2'x4'

‡ Option Value Ordering Restrictions	
Option value	**Restriction**
347	Not available with SLD, EL7L, EL14L, or E10WLCP options.
A	Not available with RB fixture style, consult factory for air flow data. If a job pack is selected, use JP14 only.
BGTD	Not available with TD, JOT, JOTVTX15 sensor options or emergency battery options. Must specify voltage. Requires BSE labeling, voltage specific. Example: BGTD BSE10.
Controls	Must specify diffuser with trim rings.
CP	Not available with N80, N80EMG, N100, N100EMG, PWS1836, PWS1846, PWS1846 PWSLV or PWS1856LV.
E10WSTAR	Not compatible with 347V.
E10WLCP, EL7L, EL14L	When using pre-wire option, use PWS1846 or PWS1846 PWSLV.
FAO	EZ1 driver required. Not available with USPOM, FAO or lumen packages > 6000LM. FAO restricts use of external Dimming controls. See chart on page 3 for additional details.
GLR, GMF	Must specify voltage. 120 or 277, with GLR and GMF fusing.
IP5X	Not available with air supply/return or Wired Networking (NES_) and Individual Control (MSD_) sensors.
JOT, JOTVTX15	Not available with standard efficiency 85L, 85LHE, 100L or 120L lumen options. Not available with SLD, nLight, NLTAIR2, NOC, or BGTD options.
JP14	Only available on fixtures with NES7, NESPDT7, NESPDT7ADCX, MSD7ADCX, MSDPDT7ADCX, RES7, RES7PDT, RIO, JOT,JOTVTX15. Not available when 'A' air supply/return function and sensor options are combined.
JP22	Not available with option: NES7, NESPDT7, NESPDT7ADCX, MSD7ADCX, MSDPDT7ADCX, RES7, RES7PDT, RIO, JOT, JOTVTX15. Not available when 'A' air supply/return function option.
Lumens	Approximate lumen output. For high Efficiency, all versions may not achieve 130+ LPW. Refer to photometry on www.acuitybrands.com. Air supply/return option, 90 CRI, and versions with integral sensor trim rings may not achieve 130 LPW.
LUGR, LUGRT	Due to the unique optics used to drive the low UGR distribution, the LUGR lens is not uniformly lit and presents visible striping.
MSD7ADCX, MSDPDT7ADCX	Only available with EZ1 driver option. 0-10v dimming wires not accessible via access plate.
NES7, NESPDT7, NES7ADCX, NESPDT7ADCX	Requires N80, N80EMG, N100, or N100EMG. Only available with EZ1 driver.
NLTAIR2	Must order with nLight Wireless option from Control section. Not available with GZ10 driver. Not available with 85L, 85LHE, 100L, or 120L options.
NOC	Can only be ordered in conjunction with EZ1 or GZ1, NLTAIR2, RES7/RES7PDT. Occupancy sensor disabled at factory but can be re-enabled upon commissioning.
N80EMG, N100EMG	nLight EMG option requires a connection to existing nLight network. Power is provided from a separate N80 or N100 enabled fixture.
PWS1846 PWSLV, PWS1856LV	Not available with nLIGHT wired network or individual controls.
RES7, RES7PDDT, RIO	See UL 924 Sequence of Operation chart on page 3. When combined with the EZ1 option, can be used as a normal power sensing device for nLight AIR devices and luminaires with EM emergency options.
RES7EM, RES7PDT, RIOEM	See UL924 Sequence of Operation chart on page 3. Not available with 72L, 72LHE, 85L or 85LHE lumen packages. Not available with GZ10 or GZ1 driver.
RRL_	For ordering logic consult: RRL_2013.
SLD	Not available with any nLight Interface or Control options.

Multiple Diffuser Options

ADP
Curved Ribbed

ADSM
Curved Smooth

SDP
Square Ribbed

SDSM
Square Smooth

LUGR
Low UGR

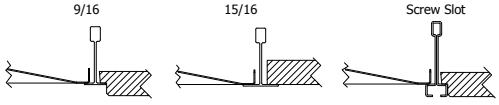
SDSM Diffuser Option

Non-Configurable BLT

Non-Configurable BLT								
Stock/MTO	**Catalog Description ***	**UPC**	**Lumens**	**Wattage**	**LPW**	**Color Temperature**	**Voltage**	**Pallet Qty**
Stock	2BLT4 40L ADP LP835	00190887470789	4000	31.69	126.22	3500K/82 CRI	120-277	28
	2BLT4 40L ADP LP840	00190887470765	4063	31.69	128.23	4000K/82CRI	120-277	28
	2BLT4 46L ADP LP835	00190887468656	4960	38	130.5	3500K/82 CRI	120-277	28
	2BLT4 46L ADP LP840	00190887468649	5039.18	38	132.58	4000K/82CRI	120-277	28
	2BLT4 40L ADP EL14L LP835	00190887470925	4000	31.69	126.22	3500K/82 CRI	120-277	28
	2BLT4 40L ADP EL14L LP840	00190887470918	4063	31.69	128.23	4000K/82 CRI	120-277	28
	2BLT4 46L ADP EL14L LP835	00190887468670	4960	38	130.5	3500K/82 CRI	120-277	28
	2BLT4 46L ADP EL14L LP840	00190887468663	5039.18	38	132.58	4000K/82 CRI	120-277	28

*Generic 0-10V Dimming to 10%.

MOUNTING DATA	
Ceiling Type	**Appropriate Trim Type**
Exposed grid tee (1' and 9/16")	G
Concealed grid tee	G
Plaster or plasterboard	G*



*DGA accessory available to provide ceiling trim flange and fixture support for plaster or plasterboard ceiling. Recommended rough-in dimensions for DGA installation is 24-3/4" x 24-3/4" (Tolerance is +1/8", -0").

UL924 Sequence of Operation

The below information applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the CL**AIR**ITY+ mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only non-emergency rPP20, rLSXR, rSBOR, rSDGR, and nLight AIR luminaires with version 3.4 or later firmware can provide normal power sensing for EM devices. See specification sheets for control devices and luminaires for more information on options that support normal power sensing.

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Accessories & Replacement Parts

Accessories: *Order as separate catalog number.*	
DGA24	Drywall grid adapter for 2x4 recessed fixture
2X4SMKSHP PAF	Surface Mount Troffer Kit Post Paint
RK8BDP 2P U	Disconnect Plug (BDP), 2 Pole, Package of 1
RK8BDP 3P U	Disconnect Plug (BDP), 3 Pole, Package of 1
RK8BDP 2P J10	Disconnect Plug (BDP), 2 Pole, Package of 10
RK8BDP 2P J40	Disconnect Plug (BDP), 2 Pole, Package of 40

Replacement Parts: *Order as separate catalog number.*		
*249P2N	2DBLT48 ADP LENS ASSEMBLY	4 ft. replacement lens
*249P2T	2DBLT48 SDP LENS ASSEMBLY	4 ft. replacement lens
*249P30	2DBLT48 ADSM LENS ASSEMBLY	4 ft. replacement lens
*249P33	2DBLT48 SDSM LENS ASSEMBLY	4 ft. replacement lens
*237LT2	2DBLT48 ADPT LENS ASSEMBLY	4 ft. replacement lens
*237LT4	2DBLT48 SDPT LENS ASSEMBLY	4 ft. replacement lens
*237LT6	2DBLT48 ADSMT LENS ASSEMBLY	4 ft. replacement lens
*237LT8	2DBLT48 SDSMT LENS ASSEMBLY	4 ft. replacement lens
*237LTA	2DBLT48 ADPT SENSOR LENS ASSEMBLY	4 ft. replacement lens
*237M52	2DBLT48 SDPT SENSOR LENS ASSEMBLY	4 ft. replacement lens
*237M5A	2DBLT48 ADSMT SENSOR LENS ASSEMBLY	4 ft. replacement lens
*237M5L	2DBLT48 SDSMT SENSOR LENS ASSEMBLY	4 ft. replacement lens

Emergency Battery Pack Options - Field Installable

Battery Model Number	Wattage	Runtime (Minutes)	Lumen Output* @ 120 Lumens/Watt	Other
ILB CP07 2H A	7W	120	840	Storm Shelter/ 2-hour Runtime
ILB CP10 A	10W	90	1200	
ILB CP10 HE AELR A	10W	90	1200	Title 20; Enabled with Self Testing, Automated Reporting (STAR)
ILBLP CP10 HE SD A	10W	90	1200	Title 20, Self Diagnostic
ILBLP CP15 HE SD A	15W	90	1800	Title 20, Self Diagnostic
ILB CP20 HE A	20W	90	2400	Title 20
ILB CP20 HE SD A	20W	90	2400	Title 20, Self Diagnostic

All the above are UL Listed products that are certified for field install external/remote to the fixture.

*Minimum delivered lumen output to assist in product selection for increased fixture mounting height.

The CP10 delivered emergency illumination outperforms legacy 1400 lumen fluorescent emergency ballast.

Please contact us at techsupport@iotaengineering.com for any Emergency Battery related questions.

BSE Labeling Options	
BSE10	Drivers load transfer relay installed per manufacturer's instructions. Voltage, BGTD and BSE10 called out.
BSE14	One voltage fixture with driver load control relay supplied with one prewire (PWS option). Prewire wired for normal circuit, the control relay for emergency circuit left unconnected. Voltage, BGTD, BSE14 and prewire called out, in the description.

*For configurations with Reloc or two voltages an RFA modification is required

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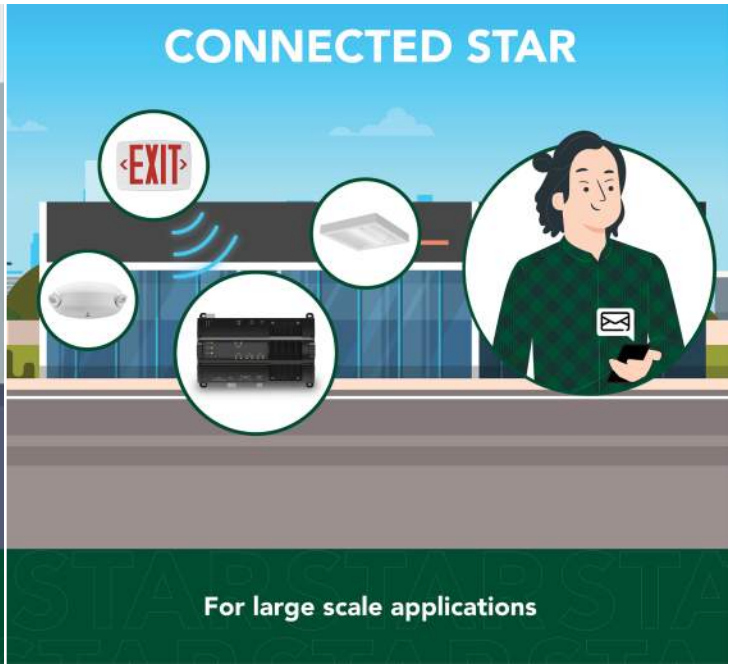
Enabled with STAR

Emergency Lighting with Self-Testing Automated Reporting (STAR), enables self-testing and automated reporting to aid in life safety code compliance. Build your solution and choose your preferred deployment from Mobile STAR, where test data is logged in each individual unit and broadcast to the Cl**AIR**ity™**+** app, or Connected STAR, where test data is logged in the STAR Gateway by IOTA® and emailed directly. **Leave the ladders, disruptions and written records behind with emergency lighting solutions with STAR!**

Life Safety Code NFPA 101 testing and reporting requirements for emergency lighting include:

- Testing for 30 seconds every 30 days
- Testing for 90 minutes once a year
- Record keeping and to report to the authority having local jurisdiction



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JOT Wireless

Sensor Switch JOT Enabled Wireless Solution

Designed with contractors in mind, the Sensor Switch JOT enabled wireless solution offers a straightforward approach to the installation and pairing of lighting fixtures and controls. Absolutely no 0-10V control wires and no mobile apps are needed with JOT enabled products, allowing for lightning speed installation right out of the box.

1. Power: Install JOT enabled fixtures and controls as instructed.
2. Pair: Insert the pairing tool into the pinhole on the wall switch; press and hold any button for 6 seconds.
3. Play: Once paired, each fixture will individually dim down to 10% brightness. All products will be fully functional.

BLT Series

Sensor Switch
WSXA JOT

BLT Series
with integrated
JOT OCC
Sensors

Sensor Switch
SPODMRA JOT

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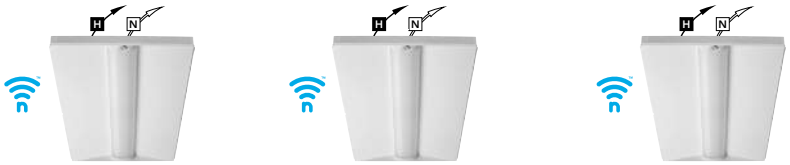
2BLT Volumetric Recessed Lighting 2'x4'

nLight Platform

nLight embedded fixtures offer:	Customers get:
Manual Dimming	Convenience and visual comfort for occupants
Motion Sensing and/or Daylight Harvesting	Energy savings and code compliance
Fixture or Group Level Control	Ability to configure lighting to the space requirements
Flexibility	Ease of fixture moves, adds and changes
Wireless Wall Switch (nLight AIR Only)	Ease and flexibility of placement
Astronomical and Time of Day Scheduling	Energy savings and building security
Scalable Solution	nLight controls to grow with your business
Future-Ready	nLight platform to set foundation for future upgrades and capabilities

nLight Air Wireless



Simple as 1,2,3

1. Install the nLight® AIR fixtures with embedded smart sensor
2. Install the wireless battery-powered wall switch
3. With CL**AIR**ITY+ app, pair the fixtures with the wall switch and if desired, customize the sensor settings for the desired outcome

nLight Wired Networking

Simple as 1,2,3

1. Install the nLight® Wired fixtures with embedded control
2. Install the nLight Wired wall switch
3. Connect the fixtures using standard CAT5e cables and the devices will automatically discover each other and work (plug and play)

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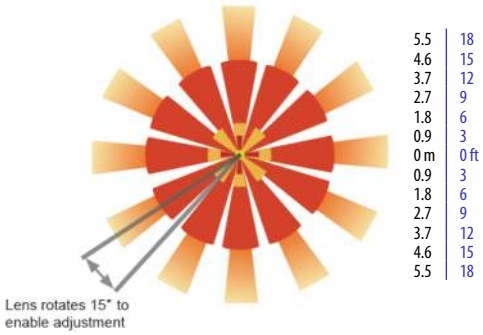
2BLT Volumetric Recessed Lighting 2'x4'

Sensor Options					
Option	**Automatic Dimming Photocell**	**Occupancy Sensing**		**nLight Wired Networking**	**nLight AIR Networking**
		PIR	**PDT**		
MSD7ADCX	X	X			
MSDPDT7ADCX	X		X		
NES7		X		X	
NES7ADCX	X	X		X	
NESPDT7			X	X	
NESPDT7ADCX	X		X	X	
RES7	X	X			X
RESPDT7	X	X	X		X

Sensor Coverage Pattern
Mini 360° Lens

- Recommended for walking motion detection from mounting heights between 8 ft (2.44 m) and 20 ft (6.10 m)
- Initial detection of walking motion along sensor axes at distances of 2x the mounting height up to 15 ft (4.57 m) and
- 1.75x up to 20 ft (6.10 m).
- Provides 12 ft (3.66 m) radial detection of small motion when mounted at 9 ft (2.74 m)
- Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor

9 FT Mounting



Integrated Sensor with Individual Control

The MSD7ADCX PIR occupancy sensor/automatic dimming photocell is ideal for areas without obstructions and where daylight harvesting may be desired. Suggested applications include, but not limited to, hallways, corridors, storage rooms, and breakrooms or other areas where people are typically moving.

The MSDPDT7ADCX PIR/Microphonics Dual Tech occupancy sensor/automatic dimming photocell is ideal for areas with obstructions and where daylight harvesting is desired. Suggested applications include, but not limited to, open offices, private offices, classrooms, public restrooms, and conference rooms.

nLight AIR Wireless

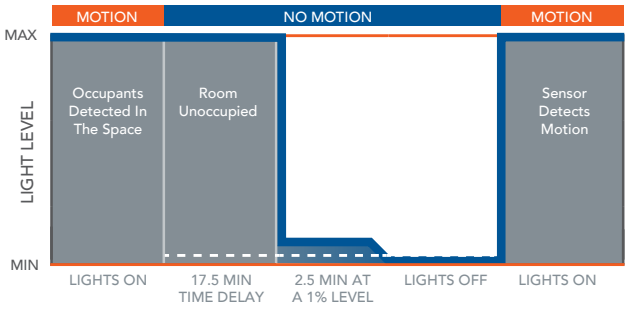
nLight AIR is the ideal solution for retrofit or new construction spaces where adding additional wiring can be labor intensive and nLight AIR is available with or without an integral sensor. The integrated rES7 or rES7PDT smart sensors are part of each luminaire in the nLight AIR network, which can be grouped to control multiple luminaires. The granularity of control with the digital PIR occupancy detection and daylight sensing makes a great solution for any application.

nLight Wired Networking

The nES 7 is ideal for small rooms without obstructions or areas with primarily walking motion. Ideal areas include hallways, corridors, storage rooms, and breakrooms. Additionally, the nES7ADCX includes an integrated photocell, which enables daylight harvesting controls.

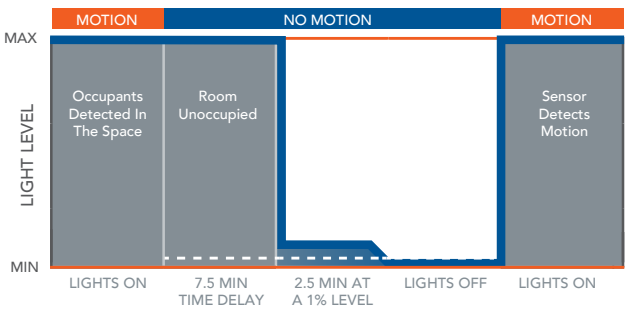
For areas like restrooms, private offices, open offices, conference rooms or any space with obstructions, the nES PDT 7 dual technology sensor is recommended. The nES PDT 7 utilizes both PIR (passive infrared) and Microphonics technologies to detect occupancy. Additionally, the nESPDT7ADCX includes an integrated photocell, which enables daylight harvesting controls which is ideal for areas where windows are present.

Sequence of Operation (MSD7 Sensor)



*The presetting on the automatic dimming photocell is 5fc.

Sequence of Operation (nES7 and rES7 and Sensor)



*The presetting on the automatic dimming photocell is 5fc (NES7) and 10fc (RES7).

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Controls Accessories

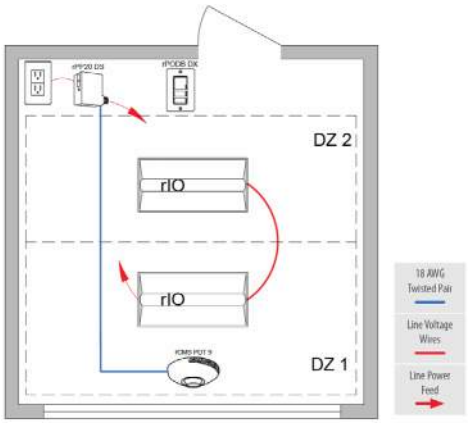
nLight® Wired Control Accessories:
Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlight.

WallPod stations	Model number	Occupancy sensors	Model number
On/Off	nPODMA [Color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 RJB / nCM PDT 9 RJB
On/Off & raise/lower	nPODMA DX [Color]	Large motion 360°, ceiling (PIR / dual tech)	nCM10 RJB / nCM PDT 10 RJB
Graphic touchscreen	nPOD TOUCH [Color]	Wall switch with raise/lower	nWSX PDT LV DX [color]
Photocell controls	**Model number**	**Cat-5 cable (plenum rated)**	**Model number**
Full range dimming	nCM ADCX RJB	10' cable	CAT5 10FT J1
		30' cable	CAT5 30FT J1

nLight® AIR Control Accessories:
Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlightair.

Wall switches	Model number
On/Off single pole	rPODBA [color] G2
On/Off two pole	rPODB A2P [color] G2
On/Off & raise/lower single pole	rPODBA DX [color] G2
On/Off & raise/lower two pole	rPODBA 2P DX [color] G2

BLT fixtures with integrated rIO devices complement any small office space. Pair them with an rCMS occupancy sensor and the space now has wireless occupancy sensing and dimming capability. For additional configuration options please consult with Tech Support.



rCMS[1] — **Example: RCMS PDT 10 AR G2**

Series / Detection	Power Supply[1]	Occupancy Detection	Lens (Required)	Operating Mode	Generation
RCMS nLight AIR occupancy and daylight sensor	[blank] Power Supply ordered separately PS 150 Standard 150 mA Power Supply	[blank] PIR Detection PDT Dual Tech PIR/ Microphonics	10 Large Motion/ Extended Range 360° 9 Small Motion/ Extended Range 360° 6 High Bay 360° Lens	[BLANK] None AR Auxiliary Relay	G2 Generation 2 compatibility

Notes
1 RCMS requires low voltage power from either RPP20 DS 24V G2 or PS150.

Sensor Switch WSX

nLight WIRED NPOD UNITOUCH

nLight WIRED nPODMA DX

nLight AIR rPODBA

BLT with rIO

rPODBA

RCMS

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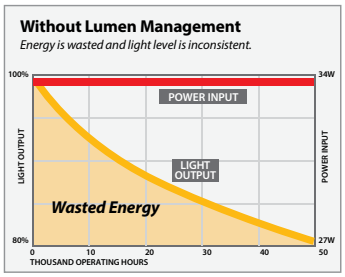
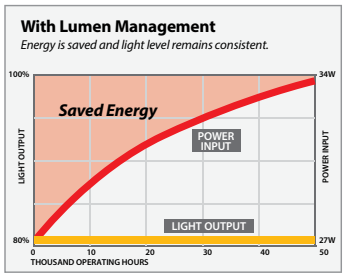
Constant Lumen Management

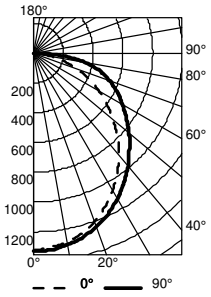
Enabled by the embedded nLight control, the BLT actively tracks its run-time and manages its light source such that constant lumen output is maintained over the system life. Referred to as lumen management, this feature eliminates the energy waste created by the traditional practice of over-lighting.





PHOTOMETRICS

2BLT4 40L ADP LP835, 4000 delivered lumens, test no. ISF36900P109, tested in accordance to IESNA LM-79



CP Summary

	0°	90
0°	1325	1325
5°	1309	1325
15°	1250	1278
25°	1136	1187
35°	981	1058
45°	797	909
55°	601	761
65°	408	621
75°	212	460
85°	48	197
90	1	17

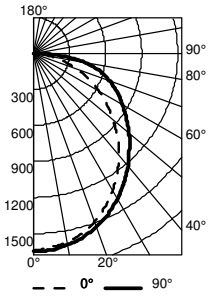
Coefficients of Utilization

RCR	pf 20% pc 80% pw 70%	70% 50% 30%	50% 30% 10%	50% 30% 10%
0	119	119 119	116 116 116	111 111 111
1	108	102 97	100 96 92	96 92 89
2	97	88 81	86 80 74	83 77 72
3	88	77 69	76 68 61	72 66 60
4	81	68 59	67 58 52	64 57 51
5	74	61 51	60 51 44	57 50 44
6	68	55 45	54 45 39	52 44 38
7	63	50 40	49 40 34	47 39 34
8	59	45 36	44 36 30	43 36 30
9	55	41 33	41 33 27	40 32 27
10	52	38 30	38 30 25	37 30 25

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1024	25.6	25.6
0° - 40°	1669	41.7	41.7
0° - 60°	2960	74.0	74.0
0° - 90°	3998	100.0	100.0
90° - 120°	2	0.0	0.0
90° - 130°	2	0.0	0.0
90° - 150°	2	0.0	0.0
90° - 180°	2	0.0	0.0
0° - 180°	4000	100.0	100.0

2BLT4 48L ADP LP835, 4960 delivered lumens, test no. ISF 36900P117, tested in accordance to IESNA LM-79



CP Summary

	0°	90
0°	1643	1643
5°	1623	1644
15°	1550	1585
25°	1409	1472
35°	1217	1312
45°	988	1127
55°	745	943
65°	505	769
75°	263	571
85°	59	244
90	1	21

Coefficients of Utilization

RCR	pf 20% pc 80% pw 70%	70% 50% 30%	50% 30% 10%	50% 30% 10%
0	119	119 119	116 116 116	111 111 111
1	108	102 97	100 96 92	96 92 89
2	97	88 81	86 80 74	83 77 72
3	88	77 69	76 68 61	72 66 60
4	81	68 59	67 58 52	64 57 51
5	74	61 51	60 51 44	57 50 44
6	68	55 45	54 45 39	52 44 38
7	63	50 40	49 40 34	47 39 34
8	59	45 36	44 36 30	43 36 30
9	55	41 33	41 33 27	40 32 27
10	52	38 30	38 30 25	37 30 25

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixture
0° - 30°	1270	25.6	25.6
0° - 40°	2070	41.7	41.7
0° - 60°	3671	74.0	74.0
0° - 90°	4957	100.0	100.0
90° - 120°	2	0.0	0.0
90° - 130°	2	0.0	0.0
90° - 150°	2	0.0	0.0
90° - 180°	2	0.0	0.0
0° - 180°	4960	100.0	100.0

UNIFIED GLARE RATING (UGR)

Lumen Package	UGR Values of BLT 2x4 @ **80CRI** and 3500K UGR (70% 50% 20% reflectance using a 4H x 8H room size)																			
	ADP		ADPT		ADSM		ADSMT		SDP		SDPT		SDSM		SDSMT		LUGR		LUGRT	
	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise
30L	16.7	20.5	16.6	20.7	16.8	20.5	16.7	20.5	16.9	20.4	16.6	20.5	16.9	20.4	16.9	20.4	17	17.2	16.8	17.4
30LHE	16.8	20.7	16.8	20.8	16.9	20.6	16.8	20.7	17	20.6	16.8	20.7	17.1	20.5	17.1	20.6	16.9	17.2	16.8	17.3
40L	17.7	21.5	17.7	21.7	17.8	21.5	17.7	21.5	17.8	21.4	17.7	21.6	18	21.4	18	21.5	17.9	18.2	17.8	18.3
40LHE	17.8	21.6	17.8	21.8	17.9	21.6	17.8	21.6	18	21.5	17.7	21.6	18.1	21.5	18	21.6	17.9	18.1	17.7	18.2
48L	18.5	22.3	18.4	22.5	18.5	22.3	18.5	22.3	18.7	22.2	18.4	22.3	18.7	22.1	18.7	22.2	18.6	18.8	18.4	18.9
48LHE	18.3	22.2	18.3	22.3	18.4	22.1	18.3	22.2	18.5	22.1	18.3	22.2	18.6	22	18.6	22.1	18.8	19.1	18.7	19.2
60L	19.1	23	19.1	23.1	19.2	22.9	19.1	23	19.3	22.9	19.1	23	19.4	22.8	19.4	22.9	19.2	19.5	19.1	19.6
60LHE	19.1	22.9	19	23.1	19.1	22.9	19.1	22.9	19.3	22.8	19	22.9	19.3	22.7	19.3	22.8	19.2	19.4	19	19.5
72L	19.8	23.6	19.7	23.8	19.9	23.6	19.8	23.6	20	23.5	19.7	23.6	20.1	23.5	20	23.5	19.9	20.2	19.8	20.3
72LHE	19.7	23.6	19.7	23.7	19.8	23.5	19.7	23.6	19.9	23.5	19.7	23.6	20	23.4	20	23.5	19.8	20.1	19.7	20.2
85L	20.4	24.2	20.3	24.4	20.4	24.1	20.4	24.2	20.6	24.1	20.3	24.2	20.6	24	20.6	24.1	20.4	20.7	20.3	20.8
85LHE	20.2	24	20.2	24.2	20.3	24	20.2	24	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	20.2	20.5	20.1	20.6
100L	20.8	24.7	20.8	24.8	20.9	24.6	20.8	24.7	21	24.6	20.8	24.7	21.1	24.5	21.1	24.6	20.9	21.2	20.7	21.3
120L	21.5	25.3	21.4	25.5	21.5	25.2	21.4	25.3	21.6	25.2	21.4	25.3	21.7	25.1	21.7	25.2	21.5	21.8	21.3	21.9

UGR varies based on luminaire options and is affected by application dependent parameters. Numbers depicted here are considered "Luminaire-UGR and/or "Point-UGR" values.
To determine a more precise maximum UGR value ("Application-UGR"), a full lighting design layout should be completed with the selected luminaire configuration for each application

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2BLT Volumetric Recessed Lighting 2'x4'

Performance Data					
Model Number	**Lumens**	**LPW**	**Watts**	**DLC Listing**	**DLC ID**
2BLT4 30L ADP EZ1 (GZ1, GZ10) LP835 [All Options]	3188	141.56	22.5	Premium	PWJDEMHS
2BLT4 30L ADP EZ1 (GZ1, GZ10) LP840 [All Options]	3276	145.44	22.5	Premium	P18J5GLD
2BLT4 30L ADPT EZ1 (GZ1, GZ10) LP840 [All Options]	3201	142.13	22.5	Premium	P3HB2XSG
2BLT4 40L ADP EZ1 (GZ1, GZ10) LP835 [All Options]	4197	137.81	30.5	Premium	PDWKYXFD
2BLT4 40L ADP EZ1 (GZ1, GZ10) LP840 [All Options]	4312	141.58	30.5	Premium	PEYXAZWD
2BLT4 40L ADPT EZ1 (GZ1, GZ10) LP835 [All Options]	4102	134.67	30.5	Premium	PS63CPK6
2BLT4 40L ADPT EZ1 (GZ1, GZ10) LP840 [All Options]	4214	138.36	30.5	Premium	PK79UR9W
2BLT4 48L ADP EZ1 (GZ1, GZ10) LP835 [All Options]	5032	128.09	39.3	Premium	PJ9CK6C1
2BLT4 48L ADP EZ1 (GZ1, GZ10) LP840 [All Options]	5169	131.6	39.3	Premium	P9W2R5AK
2BLT4 48L ADPT EZ1 (GZ1, GZ10) LP835 [All Options]	4917	125.17	39.3	Premium	PPFKZU3U
2BLT4 48L ADPT EZ1 (GZ1, GZ10) LP840 [All Options]	5052	128.6	39.3	Premium	PC8HMCH9
2BLT4 60L ADP EZ1 (GZ1, GZ10) LP835 [All Options]	6083	130.54	46.6	Premium	PSJ6QERM
2BLT4 60L ADP EZ1 (GZ1, GZ10) LP840 [All Options]	6250	134.12	46.6	Premium	PVXQXPUV
2BLT4 60L ADPT EZ1 (GZ1, GZ10) LP835 [All Options]	5944	127.57	46.6	Premium	PHT84BW4
2BLT4 60L ADPT EZ1 (GZ1, GZ10) LP840 [All Options]	6107	131.06	46.6	Premium	PXV55BC8
2BLT4 72L ADP EZ1 (GZ1, GZ10) LP840 [All Options]	7493	126.6	59.2		
2BLT4 72L ADPT EZ1 (GZ1, GZ10) LP835 [All Options]	7322	123.7	59.2		
2BLT4 72L ADPT EZ1 (GZ1, GZ10) LP835 [All Options]	7322	123.69	59.2	Standard	PDQS3CYK
2BLT4 72L ADPT EZ1 (GZ1, GZ10) LP840 [All Options]	7523	127.08	59.2	Standard	P2KKMMVN
2BLT4 85L ADP EZ1 (GZ1, GZ10) LP835 [All Options]	8572	128.43	66.7	Standard	PYD2G06V
2BLT4 85L ADP EZ1 (GZ1, GZ10) LP840 [All Options]	8699	130.33	66.7	Standard	P8Z4IV4X
2BLT4 85L ADPT EZ1 (GZ1, GZ10) LP835 [All Options]	8377	125.5	66.7	Standard	PTZEW3QM
2BLT4 85L ADPT EZ1 (GZ1, GZ10) LP840 [All Options]	8501	127.36	66.7	Standard	P01DMEK9
2BLT4 120L ADP EZ1 (GZ1, GZ10) LP835 [All Options]	11716	130.63	89.7	Standard	PGM4Y7DP
2BLT4 120L ADP EZ1 (GZ1, GZ10) LP840 [All Options]	11889	132.56	89.7	Standard	P0ODDCG2
2BLT4 120L ADPT EZ1 (GZ1, GZ10) LP835 [All Options]	11449	127.65	89.7	Standard	PXM0FS09
2BLT4 120L ADPT EZ1 (GZ1, GZ10) LP840 [All Options]	11619	129.54	89.7	Standard	PJ4GEBZM

DLC information is subject to change, for the most up-to-date information please refer to www.dlc.org. Above listings do not cover 347v or SLD.

HE Performance Data					
Model Number	**Lumens**	**LPW**	**Watts**	**DLC Listing**	**DLC ID**
2BLT4 30LHE ADP EZ1 (GZ1, GZ10) LP835 [All Options]	3138	135.16	23.2	Premium	P7KEICW5
2BLT4 30LHE ADP EZ1 (GZ1, GZ10) LP840 [All Options]	3224	138.86	23.2	Premium	PD0M06BH
2BLT4 30LHE ADPT EZ1 (GZ1, GZ10) LP835 [All Options]	3067	132.08	23.2	Premium	P7PZAJDZ
2BLT4 30LHE ADPT EZ1 (GZ1, GZ10) LP840 [All Options]	3151	135.7	23.2	Premium	P2N23EBP
2BLT4 40LHE ADP EZ1 (GZ1, GZ10) LP835 [All Options]	4111	142.98	28.8	Premium	P67P6S5Y
2BLT4 40LHE ADP EZ1 (GZ1, GZ10) LP840 [All Options]	4224	146.9	28.8	Premium	P95UQD66
2BLT4 40LHE ADPT EZ1 (GZ1, GZ10) LP835 [All Options]	4018	139.73	28.8	Premium	PC15DQEC
2BLT4 40LHE ADPT EZ1 (GZ1, GZ10) LP840 [All Options]	4128	143.55	28.8	Premium	PGRCSJ2T
2BLT4 48LHE ADP EZ1 (GZ1, GZ10) LP835 [All Options]	5424	158.16	34.3	Premium	PXBJBGN8
2BLT4 48LHE ADP EZ1 (GZ1, GZ10) LP840 [All Options]	5573	162.5	34.3	Premium	P5PQ5RRX
2BLT4 48LHE ADPT EZ1 (GZ1, GZ10) LP835 [All Options]	5301	154.56	34.3	Premium	P2NK2H33
2BLT4 48LHE ADPT EZ1 (GZ1, GZ10) LP840 [All Options]	5446	158.8	34.3	Premium	PK8C1321
2BLT4 60LHE ADP EZ1 (GZ1, GZ10) LP835 [All Options]	5970	139.64	42.8	Premium	PQZN176R
2BLT4 60LHE ADP EZ1 (GZ1, GZ10) LP840 [All Options]	6134	143.46	42.8	Premium	PG5CYJUC
2BLT4 60LHE ADPT EZ1 (GZ1, GZ10) LP835 [All Options]	5834	136.46	42.8	Premium	PZ72TAWM
2BLT4 60LHE ADPT EZ1 (GZ1, GZ10) LP840 [All Options]	5994	140.19	42.8	Premium	PRC4W72B
2BLT4 72LHE ADP EZ1 (GZ1, GZ10) LP835 [All Options]	7275	144.19	50.5	Standard	PUB38GEQ
2BLT4 72LHE ADP EZ1 (GZ1, GZ10) LP840 [All Options]	7475	148.14	50.5	Standard	P7GDHZTN
2BLT4 72LHE ADPT EZ1 (GZ1, GZ10) LP835 [All Options]	7110	140.91	50.5	Standard	P5CC2VKV
2BLT4 72LHE ADPT EZ1 (GZ1, GZ10) LP840 [All Options]	7304	144.77	50.5	Standard	P6P1BKDM
2BLT4 85LHE ADP EZ1 (GZ1, GZ10) LP835 [All Options]	8162	130.76	62.4	Standard	PRTW6BXW
2BLT4 85LHE ADP EZ1 (GZ1, GZ10) LP840 [All Options]	8283	132.69	62.4	Standard	P6H1V2D6
2BLT4 85LHE ADPT EZ1 (GZ1, GZ10) LP835 [All Options]	7977	127.78	62.4	Standard	P1VG5TA3
2BLT4 85LHE ADPT EZ1 (GZ1, GZ10) LP840 [All Options]	8095	129.67	62.4	Standard	PN5BKJ6E

DLC information is subject to change, for the most up-to-date information please refer to www.dlc.org. Above listings do not cover 347v or SLD.

How to Estimate Delivered Lumens in Emergency Mode
Use the formula below to estimate the delivered lumens in emergency mode
Delivered Lumens = 1.25 x P x LPW
P = Ouput power of emergency driver. P = 10W for E10WLCP option. LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet. LPW = Lumen per watt rating of the luminaire. LPW information available in Performance Data section.

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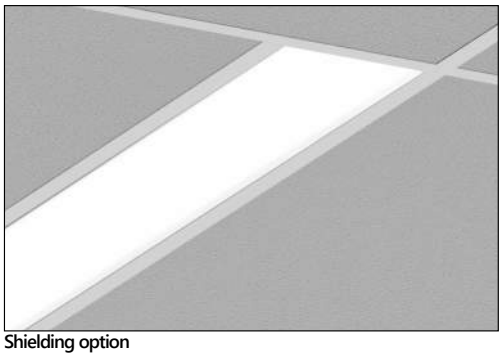
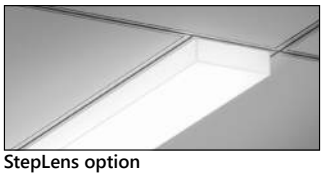
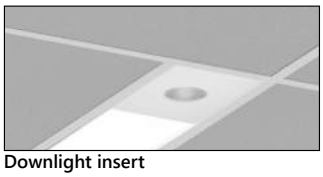
RECESSED MOUNT
With StepLens Option and 1-3/4" Downlight Insert Option


Shielding option


StepLens option


Downlight insert

Project 23-009 HINES CLC

Type L3

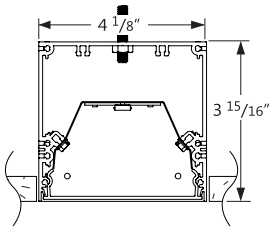
Notes

PERFORMANCE PER LINEAR FOOT AT 4000K

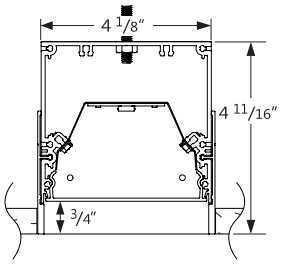
NOMINAL LUMEN OUTPUT	INPUT WATTS*	EFFICACY
400 lm/ft	3.6 W/ft	110 lm/W
500 lm/ft	4.6 W/ft	109 lm/W
750 lm/ft	7.0 W/ft	106 lm/W
1000 lm/ft	9.6 W/ft	104 lm/W

* Based on a 4 foot luminaire using one driver
Please consult factory for custom lumen output and wattage.

Flush



Regressed



*Check the latest update on the DLC website for complete information. Not all versions may be DLC qualified.
See page 2 for DLC Approved options

cULus Listed Type I.C.

CONTROL SENSORS

5 YEAR LUMINAIRE WARRANTY

Ordering Guide

BBRLED

PRODUCT ID		NOM. LUMENS/FT		CRI		COLOR TEMP.		SHIELDING		LENGTH	
BBRLED	Recessed LED	**400**	400 lm/ft - **Minimum**	**80**	80 CRI	**27**	2700 K	**FL**	flush	**2**	2′
		1000	1000 lm/ft - **Maximum**	**90**	90 CRI	**30**	3000 K	**RG**	regressed	**3**	3′
						35	3500 K	**1.5M**	1.5" StepLens, lum. end cap (1)	**4**	4′
						40	4000 K	**1.5P**	1.5" StepLens, opaque end cap (1)	**5**	5′
										6	6′
										8	8′
										12	12′
										S#	system run
		Outputs between listed min and max are available. Consult factory for outputs outside of the listed range.				Consult Axitune spec sheet for Axis color technology options		All lens options use spotless lens (1) See page 2-3 for more details			

LED DOWNLIGHT INSERT		FINISH		VOLTAGE		DRIVER		CIRCUITS		MOUNTING	
CB21225(#)	Fixed LED 1-3/4" dia 1250lm 25deg (2)	**W**	white	**120**	120 V	**DP**	dimming (0-10V) 1%	**1**	1 circuit	**TB9**	t-bar 9/16"
CB21234(#)	Fixed LED 1-3/4" dia 1250lm 34deg (2)	**C**	custom	**277**	277 V	**LT**	Lutron (5)	**2**	2 circuits	**TB15**	t-bar 15/16"
CB21246(#)	Fixed LED 1-3/4" dia 1250lm 46deg (2)			**347**	347 V	**BI**	bi-level dimming	**+E(#)**	emergency circuit (7)	**ST**	screw slot t-bar
CB20925(#)	Fixed LED 1-3/4" dia 900lm 25deg (2)			**UNV**	universal	**O**	other (6)	**+NL(#)**	night light circuit (7)	**TG9**	tegular 9/16"
CB20934(#)	Fixed LED 1-3/4" dia 900lm 34deg (2)							**+GTD(#)**	generator transfer device (7)	**TG15**	tegular 15/16"
CB20946(#)	Fixed LED 1-3/4" dia 900lm 46deg (2)							**+LDI**	LED downlight insert	**DF**	drywall flange
M16(#)	Adj. MR16 halogen lamp (by others) (3)									**D**	drywall flangeless
M16LED(#)	Adj. MR16 LED lamp (provided) (3) *									**DB**	slip-through bracket
M16LEDB(#)	Adj. MR16 LED lamp - Dimmable (provided) (4) *									**DS**	drywall spackle flange
										TX	tx Hunter Douglas techstyle (8)
(2) Available in 3000K. Consult factory for other CCT's; see page 4 (3) Specify quantity. Separate circuits included; 25° adjustibility (4) Consult factory; See page 6 for more details. MR16 constant current for 0-10V & DALI only Requires 120V or 277V; See page 5 for more details * Available in 2700K or 3000K.						(5) Specify system (6) Please consult factory; see page 2 Consult Axitune spec sheet for Axis color driver options		(7) Specify quantity		(8) TX available with flush lens only	

BATTERY (OPTIONAL)		OTHER (OPTIONAL)		IC CONTROLS (OPTIONAL)		CUSTOM (OPTIONAL)	
B#	battery pack 4′ sections	**F**	fuse (9)	**DS#**	daylight sensor	**C**	custom
		EF	end feed	**OS#**	occupancy sensor		
		FW(#)	flex whip (6′ std)	**DOS#**	daylight & occupancy sensor		
		CP	Chicago plenum	**EN#**	Enlighted integral (11)		
		HD	hold down clip (10)	**ENR#**	Enlighted remote (12)		
				WC#	wireless control dimming		
Not available with 347V Please consult factory		(9) Requires 120V or 277V (10) Only available for t-bar mounting		(11) For flush and regressed option only; Please consult factory (12) Please consult factory Specify quantity. Requires 8" blank. For StepLens use remote sensors only See integrated controls guide for more details.		Please specify	

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SPECIFICATIONS

CONSTRUCTION

Housing	Extruded aluminum (0.075'' nominal) Up to 70% recycled content
Interior Brackets	Die formed sheet steel (18 gauge)
Reflectors	White powder coated sheet steel (22 gauge)
Blank	Extruded aluminum (0.075'' nominal)
Lens	Spotless frosted acrylic lens
T-Bar Bracket	Die formed sheet steel (16 gauge)
Screw Slot T-Bar Bracket	Die formed sheet steel (16 gauge)
Slip-Through Bracket	Die formed sheet steel (18 gauge)
Spackle Flange	Die formed perforated sheet steel (20 gauge)
Flange	Extruded aluminum (0.075'' nominal) Visible flange width: 9/16"

ELECTRICAL

Lutron driver*	LDE1 - EcoSystem H-Series (1%) LDE5 - EcoSystem 5-Series (5%) LTE - Hi-Lume® A-series 2Wires Forward Phase (1%) *Consult factory
Other drivers	DALI - Digital Addressable Lighting Interface DMX - Digital Multiplex LV - line voltage - Advance Mark 10 Xitanium SR - For wireless sensor POE (Power over Ethernet) - Low Voltage Lighting System.
Emergency	Integral emergency battery pack or emergency circuit optional.
Input Voltage	120V, 277V, 347V, UNV.
Flex Whip	Shipped in a separate box for contractors to install

Incorporating these components may have limitations or affect the length of the luminaire. Please contact factory for more details.

SYSTEM (S#)

BEAM 4 LED linear systems, with the use of a strong profile, allow for a nearly hair thin connection system of continuous runs.
Lengths of 4', 8', 12' as well as custom lengths are available.
Runs of BEAM 4 LED that are greater than 12ft in length are designated as systems (S#). This means that the run is comprised of a combination of 4', 8' and/or 12' sections to be assembled on site using our joining system. For more information on systems and joining, please refer to the BEAM 4 LED installation sheets available for download at www.axislighting.com.

DLC Approved Options

*Check the latest update on the DLC website for complete information. Not all versions may be DLC qualified.

OUTPUT	CRI	COLOR TEMP.	SHIELDING	LENGTH	FINISH	VOLTAGE		
400 lm/ft 650 lm/ft 850 lm/ft	80	3000 K 3500 K 4000 K	FL	4' 5' 6' 7' 8' 9' 10' 11' 12'	white	universal	DP	any exept LDI and M

SHIELDING - Frosted acrylic Spotless lens

FL flush

RG regressed

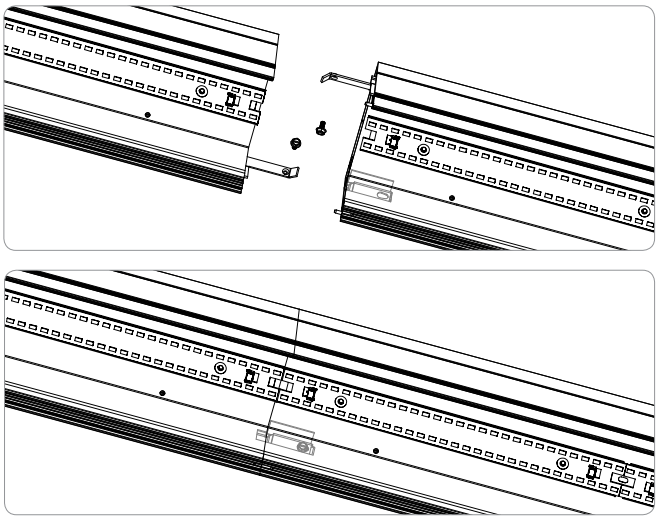
1.5M 1.5" StepLens, lum. end cap

1.5P 1.5" StepLens, opaque end cap

StepLens

JOINERS

In order to allow very long runs of BEAM 4 LED luminaires, Axis has developed a number of different joining systems.
Special care has been taken to maximize the performance of the joiner for each BEAM 4 LED option.



JOINER SYSTEM

NOTE: Hang each system segment individually.
Do not assemble system prior to hanging.

FINISHES

Powder coated and custom finishes are also available.

WEIGHT

Recessed LED 4 ft	14.5 lbs / 6.6 kg
Recessed LED 8 ft	29.0 lbs / 13.2 kg
Recessed LED 12 ft	43.5 lbs / 19.7 kg

APPROVALS

Certified to UL and CSA standards
Meets NYC requirements
Meets CCEC requirements (Chicago plenum)
Suitable for damp locations
IC Rated (Insulated ceiling)

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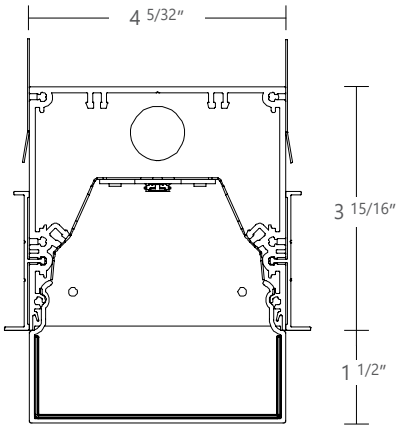
● STEP LENS OPTION



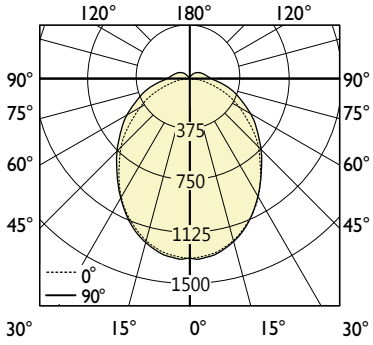
PERFORMANCE

LUMENS	WATTS	EFFICACY
950 lm/ft	8.47 W/ft	112 lm/W

950 lm/ft with 1.5" StepLens

StepLens

PHOTOMETRIC CURVE



Total Lumens: 3783 lm (for 4ft)
Input Watts: 33.9 W
Efficacy: 112 lm/W

IES FILE: BBRLED-950-80-35-1.5M-4-W
TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION

	Horizontal Angles				
Vertical Angle	0	22.5	45	67.5	90
0	1293	1293	1293	1293	1293
5	1279	1285	1283	1290	1295
15	1207	1219	1219	1217	1221
25	1071	1083	1081	1078	1079
35	893	907	908	904	902
45	700	722	732	737	737
55	514	543	567	582	586
65	341	378	415	442	448
75	186	233	280	311	317
85	64	115	168	199	205
90	24	73	125	155	161
95	20	64	111	138	143
105	15	49	90	111	116
115	11	33	70	91	95
125	8	21	52	70	75
135	5	11	32	49	54
145	3	2	18	28	31
155	2	1	3	11	14
165	0	0	0	0	0
175	0	0	0	0	0
180	0	0	0	0	0

ZONAL LUMENS

	Lumens
Zone	
0	
0-10	122
10-20	343
20-30	497
30-40	566
40-50	562
50-60	502
60-70	404
70-80	285
80-90	170
90-100	108
100-110	83
110-120	62
120-130	42
130-140	24
140-150	11
150-160	3
160-170	0
180	

LUMINANCE DATA (cd/m²)

	Horizontal Angles		
Vertical Angle	0	45	90
45	7731	6456	6084
55	6904	5619	5332
65	6078	4861	4700
75	5160	4164	4072
85	4296	3569	3534

All IES files are available for download at: www.axislighting.com

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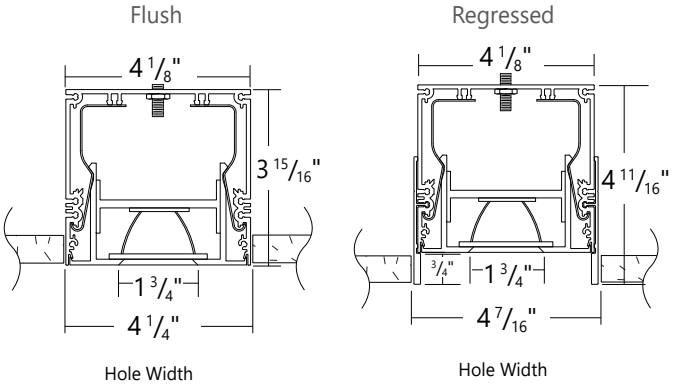
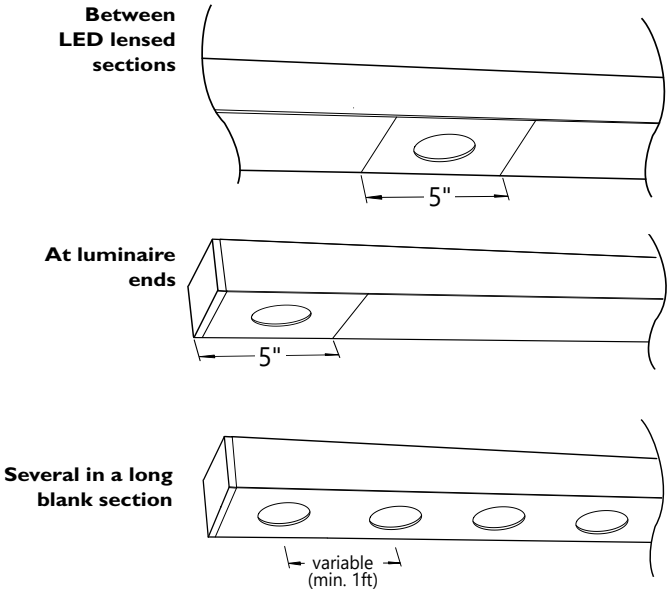
LED DOWNLIGHT INSERT

Blank	Extruded aluminum (0.075'' nominal)
CB2	1-3/4" diameter fixed, 900 or 1250 lumen, 25º, 34º, 46º; 3000K, R9=70, CRI=90, 3 Macadam Ellipse
Quantity	Allow minimum 1ft distance between multiple units.





PERFORMANCE

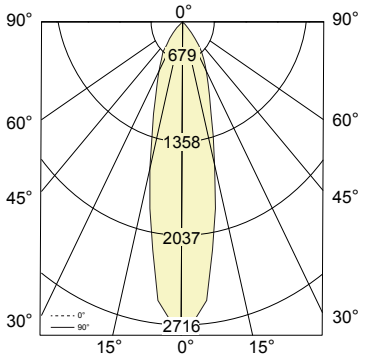
	LUMENS	WATTS	EFFICACY
CB209	950	12.9 W/ft	73 lm/W
CB212	1270	17.8 W/ft	71 lm/W

PHOTOMETRIC DATA FOR LED DOWNLIGHT INSERT

CB20925#
Fixed LED 1-3/4" diameter 900lm

25deg

PHOTOMETRIC CURVE



ACTUAL LUMEN: 929 lm
INPUT WATTS: 13 W
EFFICACY: 72 lm/W
CRI: 90

IES FILE: CB20925.ies

CANDELA DISTRIBUTION

	Horizontal Angles					Zonal Lumens
Vertical Angle	0	22.5	45	67.5	90	
0	2716	2716	2716	2716	2716	16
5	2498	2498	2498	2498	2498	119
15	1059	1059	1059	1059	1059	150
25	510	510	510	510	510	118
35	251	251	251	251	251	79
45	28	28	28	28	28	11
55	0	0	0	0	0	0
65	0	0	0	0	0	0
75	0	0	0	0	0	0
85	0	0	0	0	0	0
90	1	1	1	1	1	0

CB21225#
Fixed LED 1-3/4" diameter 1250lm 25deg

ACTUAL LUMEN: 1273 lm
INPUT WATTS: 18 W
EFFICACY: 72 lm/W
CRI: 90

IES FILE: CB21225.ies

All IES files are available for download at: www.axislighting.com

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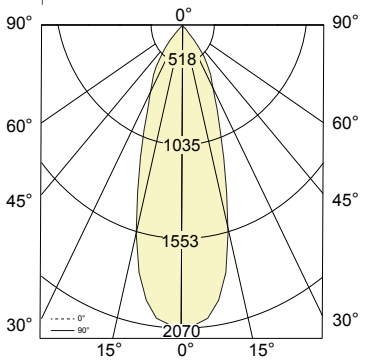
● PHOTOMETRIC DATA FOR LED DOWNLIGHT INSERT

CB20934#

Fixed LED 1-3/4" diameter 900lm 34deg

PHOTOMETRIC CURVE



ACTUAL LUMEN: 943 lm
INPUT WATTS: 13 W
EFFICACY: 73 lm/W
CRI: 90

IES FILE: CB20934.ies

CANDELA DISTRIBUTION

	Horizontal Angles					Zonal Lumens
Vertical Angle	0	22.5	45	67.5	90	
0	2070	2070	2070	2070	2070	12
5	2012	2012	2012	2012	2012	96
15	1181	1181	1181	1181	1181	168
25	522	522	522	522	522	121
35	259	259	259	259	259	81
45	28	28	28	28	28	11
55	0	0	0	0	0	0
65	0	0	0	0	0	0
75	0	0	0	0	0	0
85	0	0	0	0	0	0
90	0	0	0	0	0	0

CB21234#

Fixed LED 1-3/4" diameter 1250lm 34deg

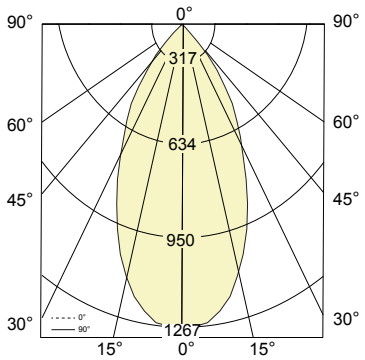
ACTUAL LUMEN: 1292 lm
INPUT WATTS: 18 W
EFFICACY: 73 lm/W
CRI: 90

IES FILE: CB21234.ies

CB20946#

Fixed LED 1-3/4" diameter 900lm 46deg

PHOTOMETRIC CURVE



ACTUAL LUMEN: 914 lm
INPUT WATTS: 13 W
EFFICACY: 71 lm/W
CRI: 90

IES FILE: CB20946.ies

CANDELA DISTRIBUTION

	Horizontal Angles					Zonal Lumens
Vertical Angle	0	22.5	45	67.5	90	
0	1267	1267	1267	1267	1267	8
5	1250	1250	1250	1250	1250	60
15	993	993	993	993	993	141
25	608	608	608	608	608	141
35	317	317	317	317	317	100
45	49	49	49	49	49	19
55	3	3	3	3	3	1
65	0	0	0	0	0	0
75	0	0	0	0	0	0
85	0	0	0	0	0	0
90	0	0	0	0	0	0

CB21246#

Fixed LED 1-3/4" diameter 1250lm 46deg

ACTUAL LUMEN: 1252 lm
INPUT WATTS: 18 W
EFFICACY: 71 lm/W
CRI: 90

IES FILE: CB21246.ies

All IES files are available for download at: www.axislighting.com

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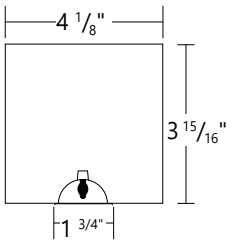
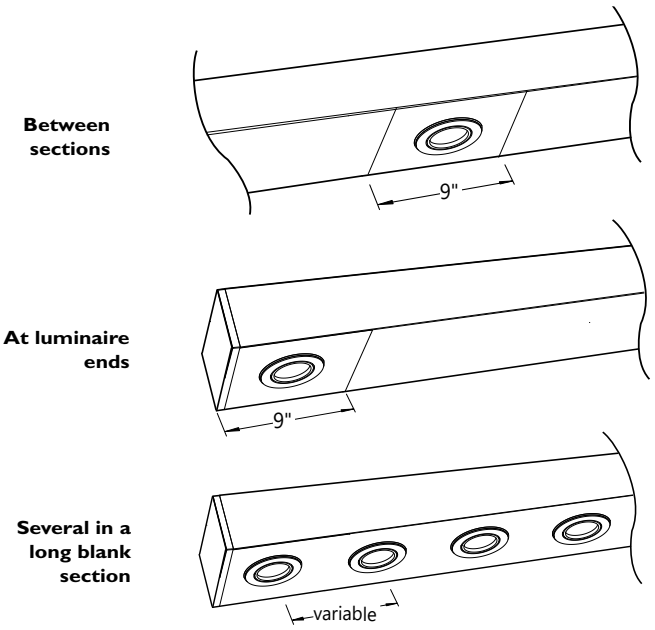
MR16 LED LAMPS

Blank	Extruded aluminum (0.075'' nominal)
MR16 Halogens	Adjustable halogen lamp 35W / 50W (by others)
MR16 LED	Adjustable LED lamp (provided)
Quantity	For every 4' section, there may be up to a maximum of 4 x MR16 LED lamps.
Spacing	Each MR16 is placed centered on a blank section 9" in length. Within a given section length, a series of downlights will be spaced evenly on a longer blank section. Custom spacing available on special request.



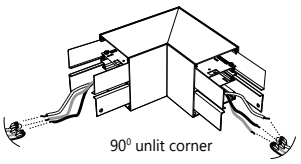


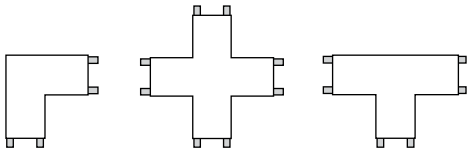
Base Type	GU 5.3
Beam Angle	40 nominal degrees
Input Watts	6W
Nominal Lumens	300 lumens
Efficacy	50 lumens per watt
Color Rendering Index (CRI)	85
Center Beam Candle Power (CBCP)	584 candelas
Life	25,000 hours at L_{70}
Correlated color temperature (CCT)	2700K, 3000K
Adjustability	25º tilt

More options are available upon request. Please consult factory.

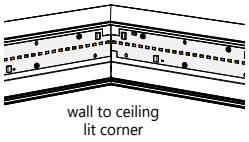
CORNERS

Unlit Corners - BEAM 4 LED features a multitude of layout patterns with the use of a number of corners, 90° corner, T or X junctions.





Lit Corners - Axis also offers lit 90° corners including ceiling to ceiling, wall to ceiling and ceiling to wall.



For custom corner angles, please consult factory. Specifications sheets for all corners are available at: www.axislighting.com

*For StepLens please consult factory.

WARRANTY

Axis Lighting will warrant defective LEDs, boards, and drivers for 5 years from date of purchase. Warranty is valid if luminaire is installed and used according to specifications. If defective, Axis will send replacement boards or drivers at no cost along with detailed replacement instructions and instructions on how to return defective components to Axis.

LED SYSTEM

CRI	Minimum 80 or 90 color rendering index
CCT	Choice of 2700K, 3000K, 3500K and 4000K color temperature with a great color consistency (within 3.5–step MacAdam ellipse).
LED life	Minimum 50,000h with 70% of lumen maintenance in 25ºC ambient temperature, in compliance with IES LM-80 testing measurements.
Thermal management	Aluminium housing acting as the heat sink to maximize life.

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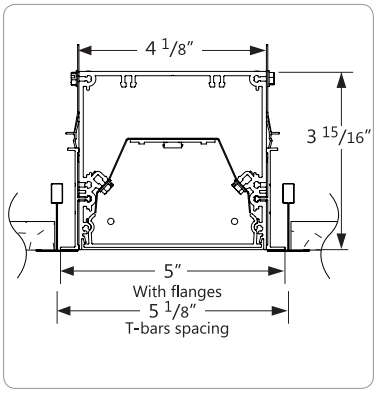
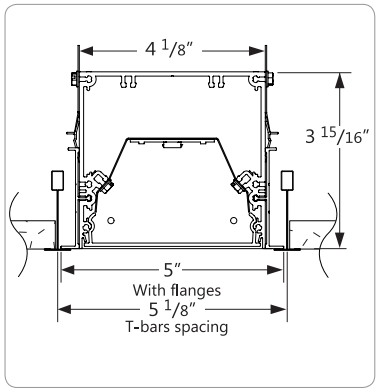
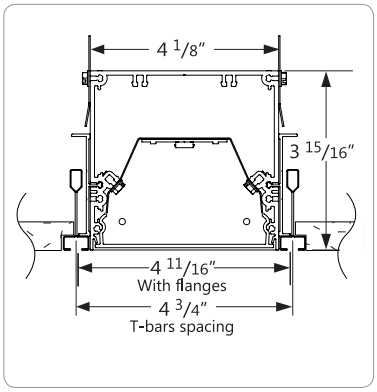
TB CEILING MOUNTING OPTIONS



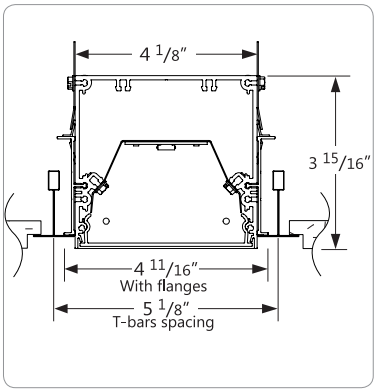
TB15 15/16" T-BAR



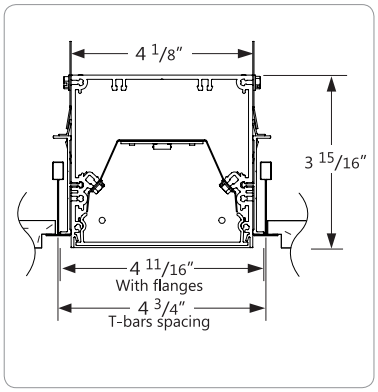
TB9 9/16" T-BAR



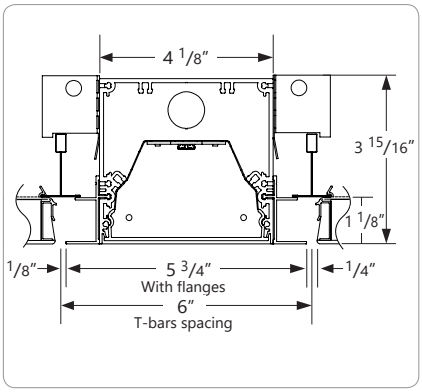
ST SCREW SLOT T-BAR



TG15 15/16" TEGULAR

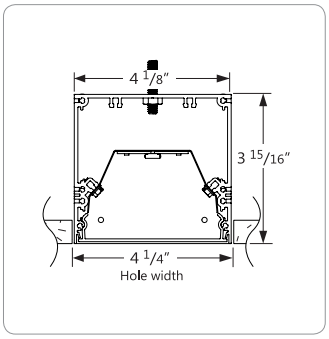


TG9 9/16" T-TEGULAR

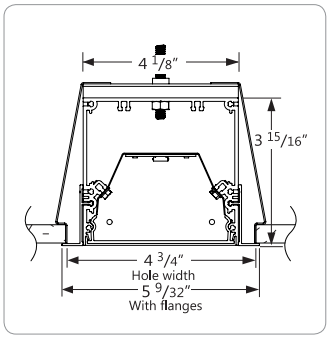


TX TX HUNTER DOUGLAS TECHSTYLE

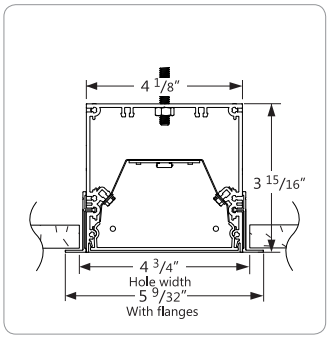
DRYWALL CEILING MOUNTING OPTIONS



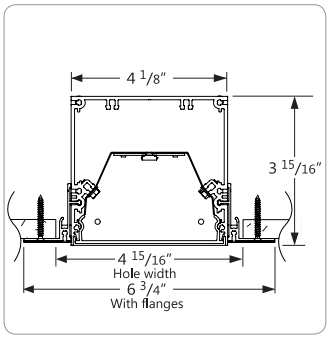
D FLANGELESS WITH 1/4-20 STUD MOUNTING



DB VISIBLE FLANGES WITH SLIP-THROUGH BRACKET



DF VISIBLE FLANGES WITH 1/4-20 STUD MOUNTING



DS SPACKLE FLANGES

OTHER MOUNTING OPTIONS

BEAM 4 LED is also available with pendant, surface, wall and recessed wall mounted options.

Specification sheets and installation sheets for all mountings for BEAM 4 LED luminaires are available for download at www.axislighting.com

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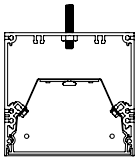
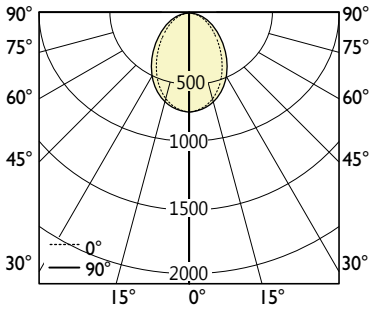
PHOTOMETRIC DATA

400 lm/ft



PHOTOMETRIC CURVE



Luminaire Lumens: 400 lm/ft
Input Watts: 3.6 W/ft
Efficacy: 110 lm/W

IES FILE: BBRLED-400-80-35-SO.IES
TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION

	Horizontal Angles				
Vertical Angle	0	22.5	45	67.5	90
0	708	708	708	708	708
5	701	704	701	704	706
15	663	665	659	655	657
25	591	589	578	567	565
35	495	489	472	455	450
45	385	380	361	343	337
55	278	272	256	241	235
65	178	174	163	154	150
75	91	90	85	81	79
85	23	23	21	21	21
90	0	0	0	0	0

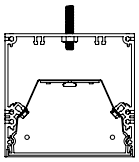
ZONAL LUMENS

	Lumens
Zone	
0	
0-10	67
10-20	186
20-30	266
30-40	295
40-50	279
50-60	230
60-70	163
70-80	91
80-90	25
90	

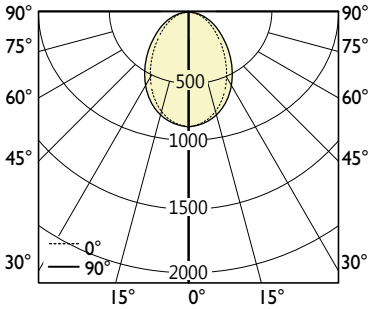
LUMINANCE DATA (cd/m²)

	Horizontal Angles		
Vertical Angle	0	45	90
45	4530	4241	3962
55	4028	3710	3412
65	3504	3213	2958
75	2918	2731	2530
85	2177	2049	1964

500 lm/ft



PHOTOMETRIC CURVE



Luminaire Lumens: 500 lm/ft
Input Watts: 4.6 W/ft
Efficacy: 109 lm/W

IES FILE: BBRLED-500-80-35-SO.IES
TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION

	Horizontal Angles				
Vertical Angle	0	22.5	45	67.5	90
0	885	885	885	885	885
5	877	879	876	879	882
15	829	831	823	819	821
25	739	736	722	709	707
35	618	611	590	569	562
45	482	474	451	429	421
55	347	340	320	302	294
65	223	218	204	192	188
75	114	112	106	101	98
85	29	29	27	26	26
90	0	0	0	1	0

ZONAL LUMENS

	Lumens
Zone	
0	
0-10	83
10-20	232
20-30	332
30-40	369
40-50	348
50-60	287
60-70	204
70-80	113
80-90	31
90	

LUMINANCE DATA (cd/m²)

	Horizontal Angles		
Vertical Angle	0	45	90
45	5663	5301	4953
55	5035	4638	4265
65	4380	4017	3698
75	3648	3414	3163
85	2721	2561	2455

All IES files are available for download at: www.axislighting.com

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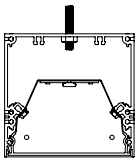
PHOTOMETRIC DATA

750 lm/ft



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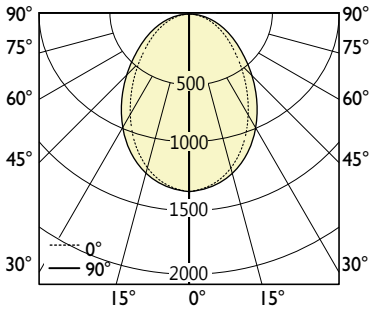


Luminaire Lumens: 750 lm/ft
Input Watts: 7 W/ft
Efficacy: 106 lm/W

IES FILE: BBRLED-750-80-35-SO.IES
TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION

	Horizontal Angles				
Vertical Angle	0	22.5	45	67.5	90
0	1328	1328	1328	1328	1328
5	1315	1319	1314	1319	1323
15	1244	1247	1235	1229	1231
25	1109	1104	1083	1064	1060
35	927	916	884	853	843
45	723	712	676	644	632
55	521	510	480	452	441
65	334	326	306	289	282
75	170	168	159	152	148
85	43	43	40	39	39
90	0	0	0	1	0

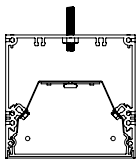
ZONAL LUMENS

	Lumens
Zone	
0	
0-10	125
10-20	348
20-30	498
30-40	553
40-50	523
50-60	431
60-70	306
70-80	170
80-90	47
90	

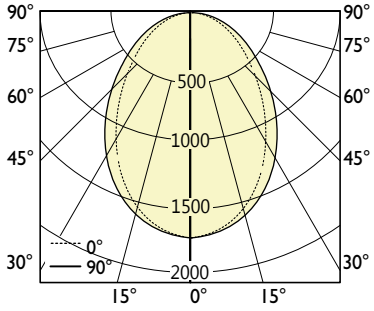
LUMINANCE DATA (cd/m²)

	Horizontal Angles		
Vertical Angle	0	45	90
45	8494	7952	7429
55	7553	6957	6397
65	6570	6025	5546
75	5472	5121	4744
85	4082	3842	3682

1000 lm/ft



PHOTOMETRIC CURVE



Luminaire Lumens: 1000 lm/ft
Input Watts: 9.6 W/ft
Efficacy: 104 lm/W

IES FILE: BBRLED-1000-80-35-SO.IES
TESTED ACCORDING TO IES LM-79-2008

CANDELA DISTRIBUTION

	Horizontal Angles				
Vertical Angle	0	22.5	45	67.5	90
0	1770	1770	1770	1770	1770
5	1753	1759	1752	1759	1764
15	1658	1663	1647	1638	1641
25	1478	1472	1444	1419	1413
35	1236	1222	1179	1138	1124
45	963	949	902	858	843
55	695	680	640	603	589
65	445	435	408	385	376
75	227	224	213	203	197
85	57	57	54	53	51
90	0	0	0	1	0

ZONAL LUMENS

	Lumens
Zone	
0	
0-10	166
10-20	464
20-30	664
30-40	737
40-50	697
50-60	575
60-70	407
70-80	227
80-90	62
90	

LUMINANCE DATA (cd/m²)

	Horizontal Angles		
Vertical Angle	0	45	90
45	11326	10602	9905
55	10070	9276	8530
65	8760	8033	7395
75	7295	6828	6325
85	5443	5123	4909

All IES files are available for download at: www.axislighting.com

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PENDANT / SURFACE SEMI-DIRECT
EVENLIGHT SERIES

specline linear

EV04IND24OL, EV04IND48OL

APPLICATION

Evenlight is a 4" wide linear pendant, wall or surface mount for semi-direct illumination.

FEATURES

Small rectilinear profile for pendant or surface mount applications. LED module and driver are accessible from below for future replacement.

FINISH

Multi-stage polyester powder-coat process applied on our dedicated paint lines. See mounting and color pages for available finishes. Matte White, Matte Black and Platinum Silver are standard.

ELECTRONICS

LED module features high brightness white Osram LEDs. 3-step MacAdam Ellipse binning with CRI 84 typical. Variety of electronic 120V/277V and dimming drivers available.

CONSTRUCTION

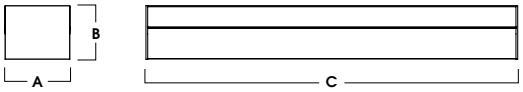
20ga. steel formed housing. High efficiency snap in acrylic lens. 3/16" flush machined aluminum end caps included.

OPTICS

Extruded acrylic diffuser features smooth sides providing 90% direct, 10% indirect illumination.

CODE COMPLIANCE

BAA Compliant, ETL Certified to meet US and Canadian Standards, suitable for dry or damp locations. Manufactured and tested to UL standards 1598/8750.



SERIES	A	B	C
EV04IND24OL	4.6	3.8	24.0
EV04IND48OL	4.6	3.8	48.0

WATTAGE / LUMENS DATA / PER FOOT

PART NUMBER	SOURCE LUMENS[1]	DELIVERED LUMENS[2]	SYSTEM WATTS	LPW
EV04IND48OL05L	2000	1835	16.0	115
EV04IND48OL07L	2800	2582	21.4	121
EV04IND48OL10L	4000	3737	33.0	113
EV04IND48OL13L	5200	4621	40.2	115
EV04IND48OL20L	8000	6795	61.2	111

SERIES	LUMENS[1]		CCT		DRIVER / VOLTAGE		LENS		MOUNTING[4]		OPTIONS		FINISH	
EV04IND24OL	05L	500 Lm/Ft	30K[3]	3000K	EX	Electronic Driver, 120V/277V	DW	Diffuse White	PM[5]	Rigid Pendant Mount	FS	Fuse	MW[7]	Matte White
EV04IND48OL	07L	700 Lm/Ft	35K	3500K	DS10X	10%, 0-10V			HM[5]	Hang Straight			MB[7]	Matte Black
	10L	1000 Lm/Ft	40K	4000K	DO10X	1%, 0-10V			CHN[5]	Chain and Cord			PT[7]	Platinum Silver
	13L	1300 Lm/Ft			DS2W1	1%, ELV/MLV, 120V			CD[5]	Cord and Cable Mount			TW	Textured White
	20L	2000 Lm/Ft							SM[5]	Surface Mount			TB	Textured Black
													MT	Textured Silver
													BZ	Bronze
													OB	Oil Rubbed Bronze
													CH	Charcoal
													GH	Graphite
													AC	Champagne
													SN	Sun Gold
													BR	Brecchia Rust
													AN	Anodic Natural
													CO	Copper Metallic
													CC[8]	Custom Color

EXAMPLE: EV04IND24OL10L35KD010XDWCD36MW

NOTES:
1 Total Nominal Source Lumens **2** Nominal Delivered Lumens at 3500K **3** 13L Max **4** See Mounting Pages for Options and Details on Components and Finishes
5 Specify Length in Inches: See Mounting Page for Availab **6** May Be Ceiling or Wall Mount **7** Standard Finishes **8** See Color Page for More Options/Consult Factory for Special Finishes

5 YEAR WARRANTY

Dimensions and values shown are nominal. Spectrum Lighting continually works to improve products and reserves the right to make changes which may alter the performance or appearance of products.

PROJECT:	TYPE:
CAT. NO.:	

MADE IN THE USA

SPECTRUM LIGHTING INC.
WWW.SPECLIGHT.COM • 994 JEFFERSON STREET, FALL RIVER, MA 02721 • 508.678.2303 FAX 508.678.2260

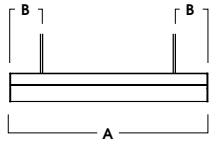
PENDANT / SURFACE SEMI-DIRECT

EVENLIGHT SERIES / FIXTURE OPTIONS

specline linear

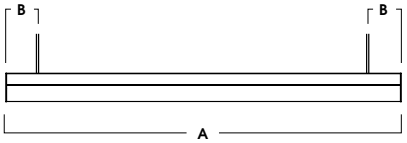
SERIES SIZES

EV04IND24OL



A	B
24.0 609.6 mm	4.0 101.6 mm

EV04IND48OL

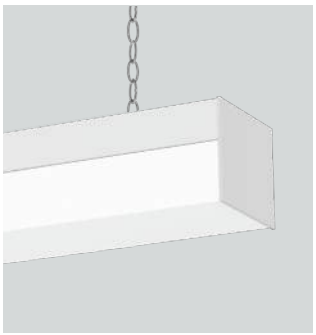


A	B
48.0 1219.2 mm	4.0 101.6 mm

MOUNTING TYPES

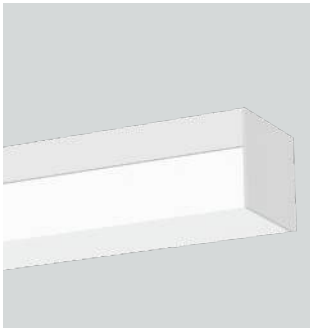
HM / PM
HANG STRAIGHT / RIDGID PENDANT

CHN
CHAIN AND CORD



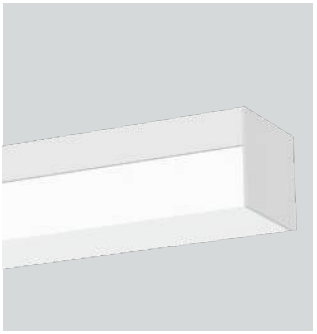
CD
CORD / CABLE MOUNT

SM / WM
SURFACE MOUNT / WALL MOUNT

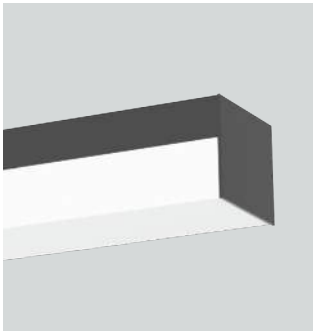


STANDARD FINISHES

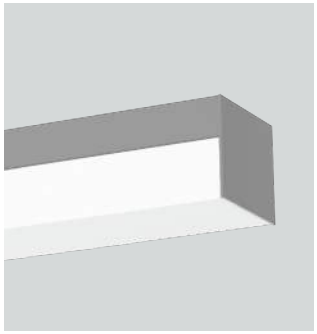
MW
MATTE WHITE



MB
MATTE BLACK



PT
PLATINUM SILVER



gotham® | EVO®

Multiple Layers of Light

Luminaire Type: L11

Catalog Number:

General Illumination Round Downlight 4"

OVERVIEW

Feature Set

- Bounding Ray™ optical design
- Unitized optics mechanically attach the light engine to the lower reflector for complete optical alignment.
- 45° cutoff to source and source image
- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- 2.5 MacAdam Ellipse; 85 CRI typical, 90+ CRI optional
- Fixtures are wet location, covered ceiling
- Available with 10% dimming, 1% dimming, or dim to dark
- Batwing distribution with feathered edges provides even illumination on horizontal and vertical surfaces
- ENERGY STAR® certified product
- UGR of zero for fixtures aimed at nadir with a cut-off equal to or less than 60deg per CIE 117-1995 Discomfort Glare in Interior Lighting. UGR FAQ

Distribution

Medium (MD) 0.9 S:MH

Medium Wide (MDW) 1.0 S:MH

Wide (WD) 1.2 S:MH

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.

*See ordering tree for details

Superior Perfomance*

Nominal Lumens	250	500	750	1000	1500	2000	2500	3000	3500	4000	4500
Delivered Lumens	271	573	808	1001	1527	1994	2580	3110	3612	4120	4584
Wattage	3.1	7.2	7.9	8.8	13.7	19.5	25.7	31.2	38.4	35.4	40.1
Lumens per Watt	87.4	79.6	102.3	113.8	111.5	102.3	100.4	99.7	94.1	116	114

*Based on 3500K AR LSS MWD 80CRI

Coordinated Apertures | Multiple Layers of Light

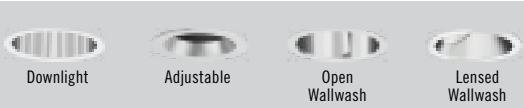
General Illumination Layer | EVO

High Center Beam Layer | Incito

EVO + Incito — Multiple Layers of Light

COMPLEMENTARY PRODUCTS

Core



Downlight | Adjustable | Open Wallwash | Lensed Wallwash | Cylinder | Pinhole | Bevel | Hyperbolic

Healthcare

MRI | Surgical Suite | Patient Room

Special Applications

Dynamic | Food Service | Vandal/Tamper | Clean Room | Shower | Steam Room

GOTHAM ARCHITECTURAL DOWNLIGHTING | 1400 Lester Road Conyers, GA 30012 | P 800-705-SERV (7378) | gothamlighting.com

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ORDERING INFORMATION

Design Select options indicated by this color background.

Luminaire Type:

Catalog Number:

EXAMPLE: EV04 35/25 AR MWD LSS 120 EZ1

Series	Color Temperature	Nominal Lumen Values	Reflector & Flange Color	Trim Style	Finish	Distribution	Voltage
EV04	27/ 2700 K 30/ 3000 K 35/ 3500 K 40/ 4000 K 50/ 5000 K	02 250 lumens 05 500 lumens 07 750 lumens 10 1000 lumens 15 1500 lumens 20 2000 lumens 25 2500 lumens 30 3000 lumens 35 3500 lumens 40 4000 lumens 45 4500 lumens	AR Clear PR Pewter WTR Wheat GR Gold WR[1] White BR[1] Black WRAMF[1] White Anti-microbial TRALTBD[1,2] RAL paint for pricing only TCPC[1] Custom paint color	(blank) Self-flanged FL Flangeless	LSS Semi-specular LD Matte-diffuse LS Specular	MD Medium (0.9 s/mh) MWD Medium wide (1.0 s/mh) WD Wide (1.2 s/mh)	MVOLT 120 277 347[3,4]

Driver[5]	Control Interface	Emergency Options	Options
GZ10 0-10V driver dims to 10% GZ1 0-10V driver dims to 1% EZ10 eldoLED 0-10V ECOdrive. Linear dimming to 10% min. EZ1 eldoLED 0-10V ECOdrive. Linear dimming to 1% min. EZB eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%. EDAB eldoLED SOLOdrive DALI. Logarithmic dimming to <1%. EDXB eldoLED POWERdrive DMX with RDM (remote device management). Square Law dimming to <1%. Minimum 1000 lumens. Includes termination resistor. Refer to DMXR Manual. ECOD[6] Lutron Ecosystem digital Hi-Lume 1% soft-on, fade to black. Min: 250LLM; Max: 4000LM.	NLT[7] nLight® dimming pack controls NLTER[3,7,8] nLight® dimming pack controls emergency circuit NLTAIR2[9,10] nLight® Air enabled NLTAIRER2[3,8,9] nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit NLTAIREM2[3,9] nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit with battery pack options.	EL[11] Emergency battery pack, 10W, with integral test switch ELR[11] Emergency battery pack, 10W, with remote test switch ELSD[11] Emergency battery pack, 10W, with self-diagnostics, integral test switch ELRSD[11] Emergency battery pack, 10W, with self-diagnostics, remote test switch E10WCP[11] Emergency battery pack, 10W Constant Power, CA Title 20 compliant with integral test switch E10WCPR[11] Emergency battery pack, 10W Constant Power, CA Title 20 compliant with remote test switch BGTD Bodine generator transfer device. Specify 120V or 277V.	SF Single Fuse. Specify 120V or 277V TRW[12] White painted flange TRBL[13] Black painted flange FRALTBD[2] Flange ring only RAL color for pricing only FCPC Flange custom paint color N80[14] nLight® Lumen Compensation GTD generator transfer device. Specify 120V or 277V 90CRI High CRI (90+) CP[15] Chicago Plenum. Specify 120V or 277V for 5000lm and above. RRL__ RELOC®-ready luminaire connectors enable a simple and consistent factory installed option across all ABL luminaire brands. Available only with RRLA, RRLB, RRLAE, and RRLC12S. Refer to RRL spec sheet on www.acuitybrands.com for RELOC® product specifications. Above ceiling access required.

ACCESSORIES — order as separate catalog numbers (shipped separately)

SCA4	Sloped ceiling adapter. Degree of slope must be specified (5D, 10D, 15D, 20D, 25D, 30D). Ex: SCA4 10D. Refer to TECH-190.
CTAEV04	4" Aperture ceiling thickness adapter (extends mounting frame to accommodate ceiling thickness up to 5").
CTA4-8 YK	4"-8" Aperture ceiling thickness adapter (extends mounting frame to accommodate ceiling thickness up to 5"). For use with CWW/DWW trims, EDXB, CP or nTune options.
ISD BC	0-10V wallbox dimmer. Refer to ISD-BC.

ORDERING NOTES

1. Not available with finishes.
2. Replace with applicable RAL number and finish when ready to order. See RAL BROCHURE for available color options. Not available with emergency battery pack options.
3. Not available with emergency battery pack options.
4. Supplied with factory installed step down transformer.
5. Refer to TECH-240 for compatible dimmers.
6. Not available with nLight®.
7. Must specify voltage.
8. ER for use as UL924 Emergency Operation via power sense lead. Will require an emergency hot feed and normal hot feed. EM for use as UL924 Emergency Operation via power interrupt detection.
9. Not available DALI or DMX drivers. Not available with CP or N80 options. Not recommended for metal ceiling installations.
10. When combined with the EZ1, EZ10, or EZB option, normal luminaires (non-emergency) can be used as a normal power sensing device for nearby nLight AIR devices and luminaires with EM emergency options.
11. 11" of plenum depth or top access required for battery pack maintenance.
12. For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not applicable with WR (white reflector) or FL (flangeless) option.
13. For use with different reflector finish only (i.e. AR, PR, WTR, GR options). Not applicable with BR (black reflector) or FL (flangeless) option.
14. Fixture begins at 80% light level. Must be specified with NLT or NLTER. Only available with EZ10 and EZ1 drivers.
15. Not available with ELR, HAO, or EXAB, or any nLight® AIR dimming options.

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SPECIFICATIONS

Optical Assemby
Optical design is a Bounding Ray™ design with 45° cutoff to source and source image. Top-down flash characteristic for superior glare control.
Unitized optics shall have mechanical attachment of the light engine to the lower reflector for complete optical alignment.

Electrical
The luminaire shall operate from a 50 or 60 Hz ±3 Hz AC line over a voltage ranging from 120 VAC to 277 VAC. The fluctuations of line voltage shall have no visible effect on the luminous output.
The luminaire shall have a power factor of 90% or greater at all standard operating voltages and full luminaire output.
Sound Rated A+. Driver shall be >80% efficient at full load across all input voltages.
Input wires shall be 18AWG, 300V minimum, solid copper.

Controls
Luminaire shall be equipped with interface for nLight wired or wireless network with integral power supply as per specification.

Dimming
The luminaire shall be capable of continuous dimming without perceivable stroboscopic flicker as measured by flicker index (ANSI/IES RP-16-10) over a range of 100 – 10%, 100 – 1.0% or 100 – 0.1% of rated lumen output with a smooth shut off function to step to 0%.
eldoLED LED drivers shall conform to IEEE P1789 standards. Alternatively, manufacturers must demonstrate conformance with product literature and testing which demonstrates this performance. Systems that do not meet IEEE P1789 will not be considered.
Driver is inaudible in 24dB environment, and stable when input voltage conditions fluctuate over what is typically experienced in a commercial environment.

Construction
Fully serviceable and upgradeable lensed LED light engine, both the driver and light engine are suitable for field maintenance and are serviceable from above or below the ceiling.
Luminaire housing shall be constructed of 20-gauge galvanized steel and have telescopic mounting bars with maximum 26" and minimum 15" extension and 4" vertical adjustment.
Luminaires shall be suitable for installation in ceilings up to 1½" thick. (specify ceiling thickness adapter to extend frame to accommodate ceiling thickness up to 2").
Tool-less adjustments shall be possible after installation.
The assembly and manufacturing process for the luminaire shall be designed to assure all internal components are adequately supported to withstand mechanical shock and vibration.
25°C ambient temperature standard (1/2" clearance on all sides from non-combustible materials in non-IC applications, unless marked spacing noted otherwise). For use in insulated ceilings, a 3" clearance on all sides from insulation is required (unless marked spacing noted otherwise).

Listings
Fixtures are CSA certified to meet US and Canadian Standards: All fixtures manufactured in strict accordance with the appropriate and current requirements of the “Standards for Safety” to UL, wet location covered ceiling. Luminaire configurations are Energy Star certified through testing in EPA–recognized laboratories, with the results reviewed by an independent, accredited certification organization. Visit www.energystar.gov for specific configurations listed.

BUY AMERICAN ACT
This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.

Photometrics
LEDs tested to LM-80 standards. Measured by IESNA Standard LM-79-08 in an accredited lab. Lumen output shall not decrease by more than 30% over the minimum operational life of 60,000 hours.
Color appearance from luminaire to luminaire of the same type and in all configurations, shall be consistent both initially and at 60,000 hours and operate within a tolerance of <2.5 MacAdam ellipse as defined by a point at the intersection of the CCT line and the black body locus line in CIE chromaticity space.

Warranty
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note:
Actual performance may differ as a result of end user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.

A+ Capable Luminaire
This item is an A+ capable luminaire, which has been designed and tested to provided consistent color appearance and out-of-the-box control capability with simple commissioning when used with Acuity Brands controls products.
All configurations of this luminaire are calibrated and tested meet the Acuity Brands' specification for chromatic consistency - including color rendering, color fidelity and color temperature tolerance around standard CIE chromaticity coordinates.
To learn more about A+, visit www.acuitybrands.com/aplus.

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Tables of Use

EVO - eldoLED Driver Default Dimming Curve			
Nomenclature	Min Dimming	Driver Dim Curve	Control Dim Curve
EZ10	10%	Linear	Linear/Logarithmic
EZ1	1%	Linear	Linear/Logarithmic
EXA1	1%	Linear	Linear/Logarithmic
EZB	<1%	Logarithmic	Linear
EDAB	<1%	Logarithmic	Linear
EDXB	<1%	Logarithmic	Linear

Driver		Control Provided (note: 347V/UVOLT versions provided with 347 option selected)				
Nomenclature	Description	NLT	NLTER	NLTAIR2	NLTAIR2ER	NLTAIREM2
GZ10	0-10V driver dims to 10%	nPP16 D EFP	nPP16 D ER EFP	RPP20 D 24V G2	RPP20 D 24V ER G2	RPP20 D 24V ER G2
GZ1	0-10V driver dims to 1%	nPP16 D EFP	nPP16 D ER EFP	RPP20 D 24V G2	RPP20 D 24V ER G2	RPP20 D 24V ER G2
EZ10	eldoLED 0-10V ECOdrive	nPS 80 EZ	nPS 80 EZ ER	RPP20 D 24V G2	RPP20 D 24V ER G2	RPP20 D 24V ER G2
EZ1	eldoLED 0-10V ECOdrive	nPS 80 EZ	nPS 80 EZ ER	RPP20 D 24V G2	RPP20 D 24V ER G2	RPP20 D 24V ER G2
EZB	eldoLED 0-10V SOLOdrive	nPS 80 EZ	nPS 80 EZ ER	RPP20 D 24V G2	RPP20 D 24V ER G2	RPP20 D 24V ER G2

How to Estimate Delivered Lumens in Emergency Mode

Delivered Lumens = 1.25 x P x LPW

P = Output power of emergency driver. P = 10W for PS1055CP

LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet.

Flangeless

Flangeless Installation

Gotham's flangeless option utilizes a micro-thin polymer mud ring that minimizes the amount of drywall compound required to finish the ceiling. The end result is a virtually undetectable flangeless downlight installation.

The polymer mud ring is installed independent of the of the recessed frame, therefore floating with the ceiling. This innovation minimizes any surface cracks during reflector installation, ceiling movement and any future service to the recessed frame, wiring, electronics, etc.

Partially finished mud ring, showing cross-section detail.

An EVO downlight requires only approximately 3" of plaster to finish.

EVO with flangeless trim

GOTHAM ARCHITECTURAL DOWNLIGHTING | 1400 Lester Road Conyers, GA 30012 | P 800-705-SERV (7378) | gothamlighting.com
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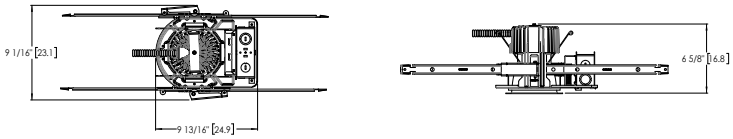
DIMENSIONAL DATA

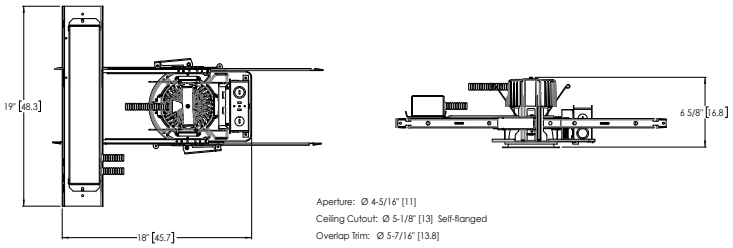
Aperture: 4-5/16" (11)	Ceiling Opening: 5-1/8" (13) self-flanged
Overlap trim: 5-7/16" (13.8)	5-1/4" (13.3) flangeless

Standard



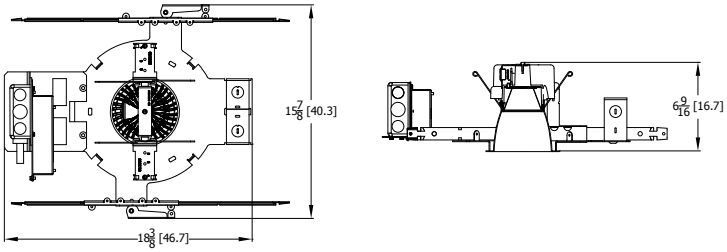
Aperture: Ø 4-5/16" [11]
Ceiling Cutout: Ø 5-1/8" [13] Self-flanged
Overlap Trim: Ø 5-7/16" [13.8]
Ceiling Cutout: Ø 5-1/4" [13.3] Flangeless

Battery Pack

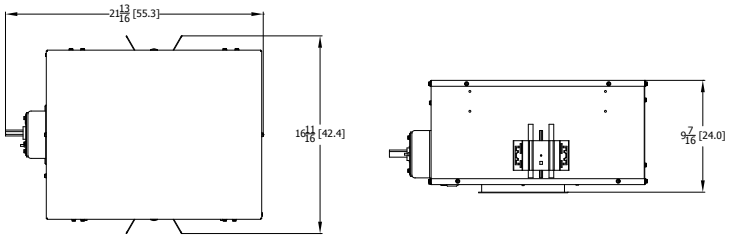


Aperture: Ø 4-5/16" [11]
Ceiling Cutout: Ø 5-1/8" [13] Self-flanged
Overlap Trim: Ø 5-7/16" [13.8]
Ceiling Cutout: Ø 5-1/4" [13.3] Flangeless

CP Standard



CP Enclosed For Use With Battery Pack & nLight



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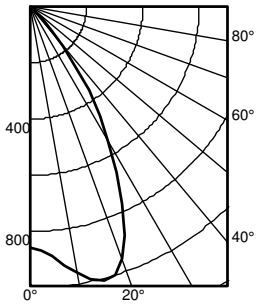
EV04 35/10 MWD LS INPUT WATTS: 8.8W, DELIVERED LUMENS: 1001.7LM, LPW = 113.8, 1.08 S/MH, TEST NO. LTL27786P131



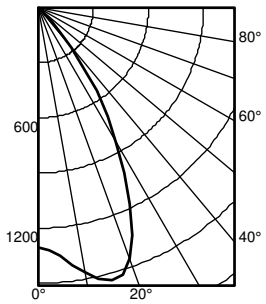
	Ave	Lumens
0	856	
5	888	87
15	1010	280
25	775	350
35	363	225
45	61	56
55	2	2
65	1	1
75	0	0
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	717.4	71.6
0° - 40°	942.0	94.0
0° - 60°	1000.8	99.9
0° - 90°	1001.7	100.0
90° - 180°	0.0	0.0
0° - 180°	1001.7	*100.0
*Efficiency		

pf	80%			70%			50%		
pc	50%	30%	10%	50%	30%	10%	50%	30%	10%
pw									
0	119	119	119	116	116	116	111	111	111
1	111	108	106	109	106	104	105	103	101
2	103	99	96	101	98	95	98	95	93
3	96	91	87	95	90	87	92	88	85
4	90	84	80	89	84	80	87	82	79
5	84	78	74	83	78	74	81	77	73
6	79	73	69	78	72	68	76	72	68
7	74	68	64	73	68	64	72	67	63
8	70	64	59	69	63	59	68	63	59
9	66	60	56	65	59	56	64	59	55
10	62	56	52	61	56	52	61	56	52

Mounting Height	Inital FC Center Beam	50% beam - 56.7° Diameter	50% beam - 56.7° FC	10% beam - 79.7° Diameter	10% beam - 79.7° FC
8.0	28.3	5.9	14.1	9.2	2.8
10.0	15.2	8.1	7.6	12.5	1.5
12.0	9.5	10.3	4.7	15.9	0.9
14.0	6.5	12.4	3.2	19.2	0.6
16.0	4.7	14.6	2.3	22.5	0.5

EV04 35/15 MWD LSS INPUT WATTS: 13.7W, DELIVERED LUMENS: 1527.3LM, LPW = 111.4, 1.08 S/MH, TEST NO. LTL27786P137



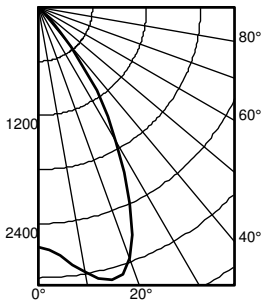
	Ave	Lumens
0	1305	
5	1354	133
15	1539	428
25	1181	533
35	553	342
45	93	86
55	2	4
65	1	1
75	0	0
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	1093.9	71.6
0° - 40°	1436.2	94.0
0° - 60°	1525.8	99.9
0° - 90°	1527.3	100.0
90° - 180°	0.0	0.0
0° - 180°	1527.3	*100.0
*Efficiency		

pf	80%			70%			50%		
pc	50%	30%	10%	50%	30%	10%	50%	30%	10%
pw									
0	119	119	119	116	116	116	111	111	111
1	111	108	106	109	106	104	105	103	101
2	103	99	96	101	98	95	98	95	93
3	96	91	87	95	90	87	92	88	85
4	90	84	80	89	84	80	87	82	79
5	84	78	74	83	78	74	81	77	73
6	79	73	69	78	72	68	76	72	68
7	74	68	64	73	68	64	72	67	63
8	70	64	59	69	63	59	68	63	59
9	66	60	56	65	59	56	64	59	55
10	62	56	52	61	56	52	61	56	52

Mounting Height	Inital FC Center Beam	50% beam - 56.7° Diameter	50% beam - 56.7° FC	10% beam - 79.7° Diameter	10% beam - 79.7° FC
8.0	43.2	5.9	21.6	9.2	4.3
10.0	23.2	8.1	11.6	12.5	2.3
12.0	14.5	10.3	7.2	15.9	1.4
14.0	9.9	12.4	4.9	19.2	1.0
16.0	7.2	14.6	3.6	22.5	0.7

EV04 35/30 MWD LSS INPUT WATTS: 31.2W, DELIVERED LUMENS: 3110.6LM, LPW = 99.6, 1.08 S/MH, TEST NO. LTL27786P155



	Ave	Lumens
0	2659	
5	2758	271
15	3135	871
25	2406	1086
35	1126	697
45	189	175
55	5	7
65	2	2
75	0	1
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	2227.9	71.6
0° - 40°	2925.0	94.0
0° - 60°	3107.6	99.9
0° - 90°	3110.6	100.0
90° - 180°	0.0	0.0
0° - 180°	3110.6	*100.0
*Efficiency		

pf	80%			70%			50%		
pc	50%	30%	10%	50%	30%	10%	50%	30%	10%
pw									
0	119	119	119	116	116	116	111	111	111
1	111	108	106	109	106	104	105	103	101
2	103	99	96	101	98	95	98	95	93
3	96	91	87	95	90	87	92	88	85
4	90	84	80	89	84	80	87	82	79
5	84	78	74	83	78	74	81	77	73
6	79	73	69	78	72	68	76	72	68
7	74	68	64	73	68	64	72	67	63
8	70	64	59	69	63	59	68	63	59
9	66	60	56	65	59	56	64	59	55
10	62	56	52	61	56	52	61	56	52

Mounting Height	Inital FC Center Beam	50% beam - 56.7° Diameter	50% beam - 56.7° FC	10% beam - 79.7° Diameter	10% beam - 79.7° FC
8.0	87.9	5.9	43.9	9.2	8.8
10.0	47.3	8.1	23.6	12.5	4.7
12.0	29.5	10.3	14.7	15.9	2.9
14.0	20.1	12.4	10.1	19.2	2.0
16.0	14.6	14.6	7.3	22.5	1.5

CCT/CRI Multiplier Table		
CRI	CCT	Multiplier
80	2700K	0.96
	3000K	1.00
	3500K	1.00
	4000K	1.01
	5000K	1.07
90	2700K	0.80
	3000K	0.83
	3500K	0.85
	4000K	0.87
	5000K	0.91

Reflector Finish Multiplier	
Reflector Finish	Multiplier
LS - Specular	1
LSS - Semi Specular	0.956
WR - White	0.87
LD - Matte Diffuse	0.85
BR - Black	0.73

Distributions	
Distribution	Beam
MD	51
MWD	57
WD	73

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NLIGHT AIR

NLIGHT

nLight® AIR is the ideal solution for retrofit or new construction spaces where adding communication wiring is cost prohibitive. The integrated nLight AIR rPP20 Power Pack is part of each EVO Luminaire ordered with the NLTAIR option. These individually addressable controls offer the ultimate in flexibility during initial setup and for space repurposing.

nLight® AIR Control Accessories

Order as separate catalog number. Visit nLight AIR.

Wall Switches	Model Number
On/Off single pole	rPODB (color) G2
On/Off two pole	rPODB 2P (color) G2
On/Off & raise/lower single pole	rPODB DX (color) G2
On/Off & raise/lower two pole	rPODB 2P DX (color) G2

nLight® AIR Control Accessories *(cont.)*

Occupancy Sensors (PIR/dual tech)	Model Number
Small motion 360°, ceiling	rCMS 9 / rCMS PDT 9
Large motion 360°, ceiling	rCMS 10 / rCMS PDT 10

UL924 Sequence of Operation

The below information applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the CL**AIR**ITY+ mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only non-emergency rPP20, rLSXR, rSBOR, rSDGR, and nLight AIR luminaires with version 3.4 or later firmware can provide normal power sensing for EM devices. See specification sheets for control devices and luminaires for more information on options that support normal power sensing.

nLight® The nLight® solution is a digital networked lighting control system that provides both energy savings and increased user configurability by cost effectively integrating time-based, daylight-based, sensor-based and manual lighting control schemes.

nLight® Wired Control Accessories

Order as separate catalog number. Visit nLight.

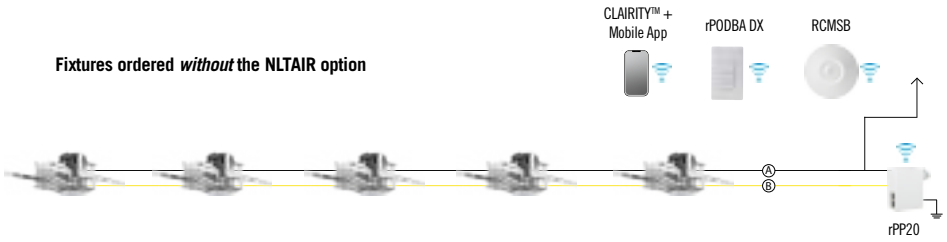
Wall Switches	Model Number
On/Off single pole	nPODM (color)
On/Off two pole	nPODM 2P (color)
On/Off & raise/lower single pole	nPOD DX (color)
On/Off & raise/lower two pole	nPODM 2P DX (color)
Graphic touchscreen	nPOD GFX (color)
Photocell Controls	
Dimming	nCM ADCX

nLight® Wired Control Accessories *(cont.)*

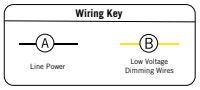
Occupancy Sensors (PIR/dual tech)	Model Number
Small motion 360°, ceiling	nCM 9 / nCM PDT 9
Large motion 360°, ceiling	nCM 10 / nCM PDT 10
Wide View	nWV 16 / nWV PDT 16
Wall switch with raise/lower	nWSX LV DX / nWSX PDT LV DX
Cat-5 Cables (plenum rated)	
10', CAT5	CAT5 10FT J1
15', CAT5	CAT5 15FT J1

Possibilites for nLight® AIR

Fixtures ordered *without* the NLTAIR option

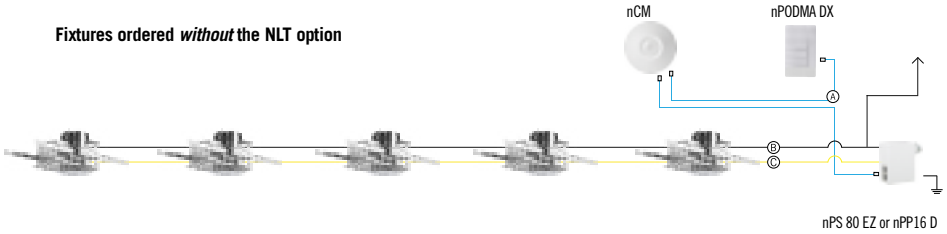


Fixtures ordered *with* the NLTAIR option

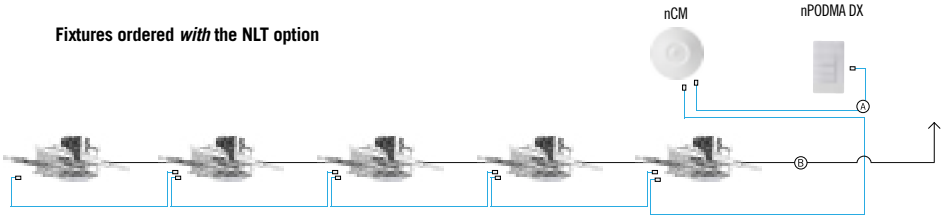


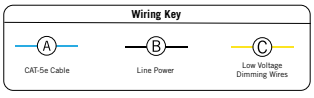
Possibilites for nLight® wired

Fixtures ordered *without* the NLT option



Fixtures ordered *with* the NLT option





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MEDMASTER SOFTSTEP CONTOUR™ STEPLIGHTS

Semi-Recessed Steplight

MCSL SERIES – DIECAST

PROJECT INFORMATION

Job Name 23-009 HINES CLC

Fixture Type L6

Catalog Number

Approved by NIGHT LIGHT

PRODUCT FEATURES:

- » Semi-recessed wall mount
- » Oval or Rectangle available in horizontal or vertical orientation
- » ADA compliant
- » Amber or White LED lamp options
- » Lumen output adjustable to 100%, 50% and 25% levels
- » Ligature resistant construction

VO HO VR HR

SPECIFICATIONS

HOUSING: Die-cast aluminum. TGIC polyester powder coat finish – 5-stage pre-treatment. Salt spray test: 1,000 hours. Antimicrobial finish on all exposed components of installed luminaire. See Ordering Information for finish options.

REFLECTOR: Die cast aluminum reflector with integral heat sink.

LENS: UV-stabilized, high-impact resistant injection molded pearlescent polycarbonate.

MOUNTING PLATE: Die formed corrosion resistant steel.

ELECTRICAL: 120-277VAC, 50/60 Hz Maximum input power 3.8 watts. LED light source available in warm white (ANSI 2700K), neutral white (ANSI 4000K) or amber (600nm). Lumen output adjustable to 100%, 50%, and 25% at time of maintenance or installation. Factory pre-set at 50% dimming level (1.5 watts).

PHOTO CONTROL OPTION: Control circuit shall switch on LED light source when ambient light levels fall below 1fc ± 0.25fc and switch off when light levels are above 4fc ± 0.5fc. Performance may vary depending on location of ambient light sources/windows, room finishes, surrounding objects and fixture lumen output setting.

INSTALLATION: Standard installation requires the back plate to be mounted to a NEMA single-gang junction box (supplied by others). See junction box accessories on page 3 for adjustable thru-wall and single-sided applications. See SoftStep Contour Junction Box Accessories Tech Sheet for application details. Recommended mounting height is 14" from floor to center of luminaire.

PHOTOMETRICS: Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory. For additional photometric data, please go to www.kenall.com.

WARRANTY: Limited five (5) year LED warranty.

LISTINGS: UL and CUL Listed for Wet Location. NSF2 Splash/Non-Food Zone. ADA Compliant. Optional UL certified IP64 per IEC 60598. Ligature resistant construction.

ORDERING INFORMATION (Ex:MCSL-VO-MW-2L35K-DV)

Model	Style	Finish	Lamp Type	Voltage	Options	Accessories
MCSL				DV		

Style
- **VO** Vertical Oval
- **HO** Horizontal Oval
- **VR** Vertical Rectangle
- **HR** Horizontal Rectangle

Finish
- **MW** Matte White (Antimicrobial finish)
- **MB** Matte Black (Antimicrobial finish)
- **BE** Beige
- **BR** Bronze
- **CS** Cool Satin Painted Anodized
- **WS** Warm Satin Painted Anodized
- **CC** Custom Color (Consult Factory)

Lamp Type
- **2L27K** 2 Watt 2700K White LED
- **2L30K** 2 Watt 3000K White LED
- **2L35K** 2 Watt 3500K White LED
- **2L40K** 2 Watt 4000K White LED
- **2LAMB** 2 Watt Amber LED

Voltage
- **DV** 120-277 Volts

Options
- **BPC**† Photo Control
- **IP64*** IP64 Certified to IEC 60598
- **SW•†** Rocker Switch

Accessories
- **DBX** Adjustable Thru-Wall Two-Sided Junction Box with Hangers (Requires two steplights per thru-wall junction box.)
- **LPBX** Single-sided Low Profile Single Gang Junction Box with Hangers
- **SBX** Single-Sided Standard Depth Single Gang Junction Box with Hanger

* Must be selected for outdoor use.
• Not available with NSF2 listing. Dry location only.
† Rocker Switch and Photo Control can not be ordered together

This product can comply with the latest domestic preference legislation, such as the Buy American Act (BAA), Trade Agreement Ace (TAA), Build America, Buy America Act (BABA), and others. It may be covered by patents found at www.kenall.com/patents.Content of specification sheets is subject to change; please consult www.kenall.com for current product details. ©2024 Kenall Mfg.Co.

MEDMASTER SOFTSTEP CONTOUR™ STEPLIGHTS

Semi-Recessed Steplight

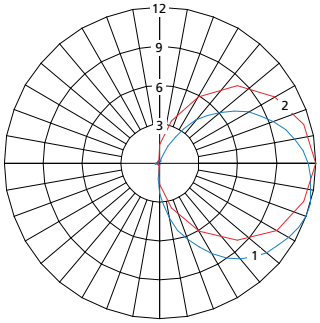
MCSL SERIES – DIECAST

PERFORMANCE

		Initial Delivered Lumens				
Output	Lamp Type	@ 25°C (lm)	Efficacy (lm/W)	Input Power (W)	Drive Current (mA)	Estd. L_{70} LED Life (hrs)
100%	2L35K	38	12	3.3	300	100,000
50%	2L35K	17	13	1.3	150	125,000
25%	2L35K	5	10	0.5	75	150,000

Displayed information above is for the horizontal oval (MCSL-HO) luminaires only. Info subject to change.
Visit www.kenall.com for IES files and additional information.

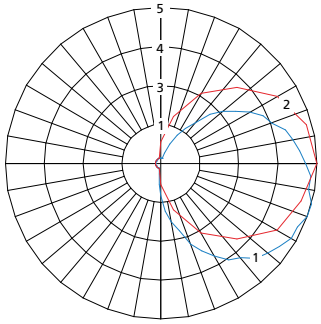
Model: MCSL-HO-MW-2LXXK 100%



Max Candela = 12 Located At Horizontal Angle = 0, Vertical Angle = 70

1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

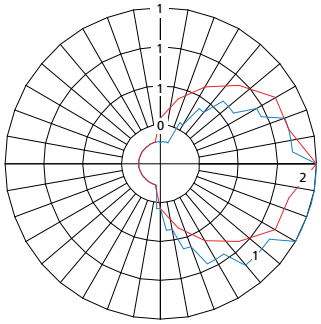
Model: MCSL-HO-MW-2LXXK 50%



Max Candela = 5 Located At Horizontal Angle = 0, Vertical Angle = 70

1 - Vertical Plane Through Horizontal Angles (0- 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (70) (Through Max. Cd.)

Model: MCSL-HO-MW-2LXXK 25%



Max Candela = 1 Located At Horizontal Angle = 0, Vertical Angle = 60

1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (60) (Through Max. Cd.)

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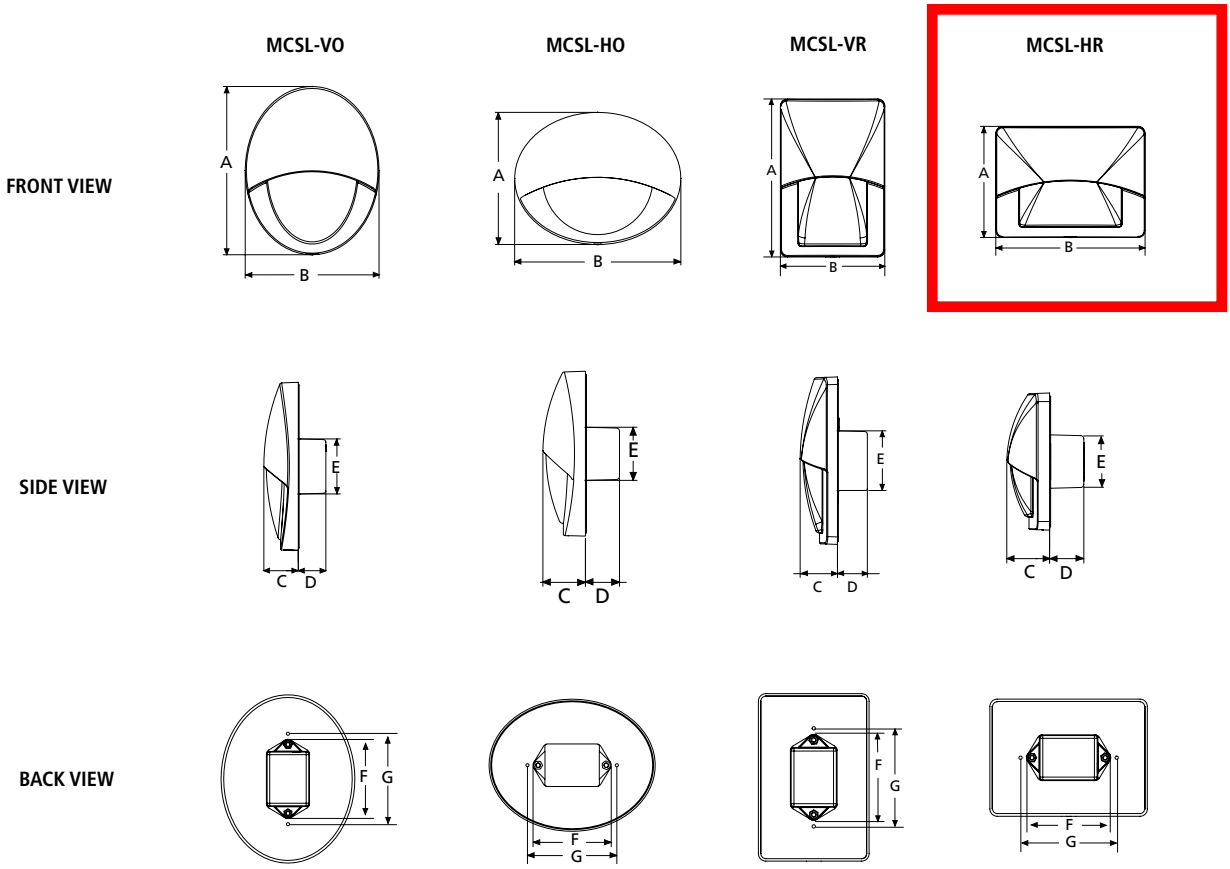
MEDMASTER SOFTSTEP CONTOUR™ STEPLIGHTS

Semi-Recessed Steplight

MCSL SERIES – DIECAST

DIMENSIONAL DATA



DIMENSIONAL DATA (IN INCHES)

	A	B	C	D	E	F	G	H	I
VO	6.10	4.85	1.25	1.00	2.00	2.87	3.28	2.37	4.25
HO	4.85	6.10	1.25	1.00	1.56	2.87	3.28	4.25	2.37
VR	5.60	3.70	1.25	1.00	2.00	2.87	3.28	2.37	4.25
HR	4.00	5.38	1.25	1.00	1.56	2.87	3.28	4.25	2.37

RECOMMENDED WALL CUT-OUT

	HEIGHT×WIDTH
VO	4.25×2.37
HO	2.37×4.25
VR	4.25×2.37
HR	2.37×4.25

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POP CORE ROUND 36 LED

5 YEAR WARRANTY

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WWW.LUMENWERX.COM

PENDANT DIRECT

Shown with 3.5" optic

Shown with 5" optic

PROJECT: 23-009 HINES CLC

TYPE: L7

NOTES: DINING ROOMS

DESCRIPTION

POP Core features a simple, uniformly luminous diffuser and delivers up to 114 LPW. The diffuser and light engine form a fully enclosed unit with no exposed hardware.

ORDER GUIDE

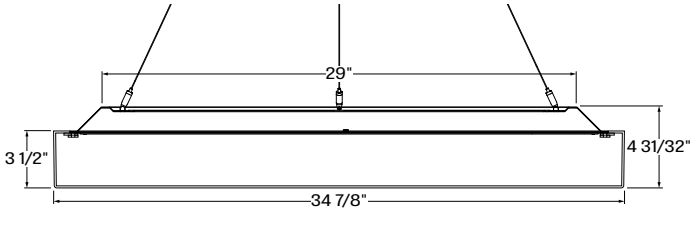
up to 114 lm/W performance

POROPD	36IN	ULO		LED		
LUMINAIRE ID	**SIZE**	**OPTIC**	**HEIGHT**	**LIGHT SOURCE**	**CRI**	**LUMEN PACKAGE**
POROPD - Pop Round Pendant Direct	**36IN** - Ø 36"	**ULO** - Uniform Lambertian Optic	**3H** - 3.5" optic **5H** - 5" optic	**LED** - High performance LED	**80** - 80CRI **90** - 90CRI	**4000** - Min. low output 4000lm **5500** - Medium output 5500lm **8000** - Max. high output 8000lm **####** - Other required lm

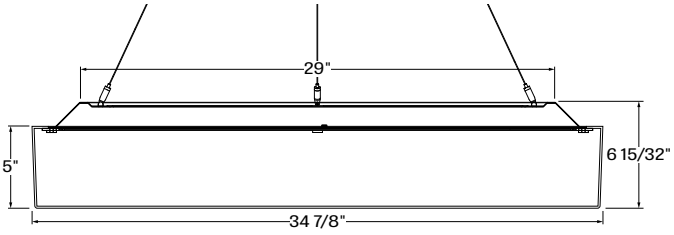
				5WAC36	XX	
COLOR TEMP.	**VOLTAGE**	**DRIVER**	**ELECTRICAL**	**MOUNTING**	**FINISH**	**OPTION**
27 - 2700K **30** - 3000K **35** - 3500K **40** - 4000K	**120** - 120V **277** - 277V **UNV** - 120V-277V **347** - 347V	**D1** - 1% 0-10V **DA** - DALI **LDE1** - Lutron Hi-lume 1% Eco	**1** - 1 circuit **+EB** - Emergency battery pack **+GTD** - Generator transfer device	**5WAC36** - Power 5" white canopy (36" aircraft cable) For all other options refer to our Pendant Mounting Guide	**W** - Matte white **CF#** - Custom finish specify RAL#	**FU** - Fuse

See page 3 for ordering code detailed information

CROSS SECTION



POROPD + 3H - Pop Round Pendant with 3.5" optic



POROPD + 5H - Pop Round Pendant with 5" optic

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POP CORE ROUND 36 LED

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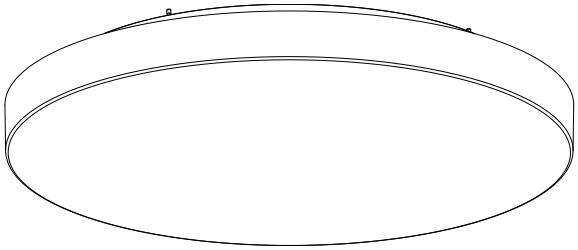
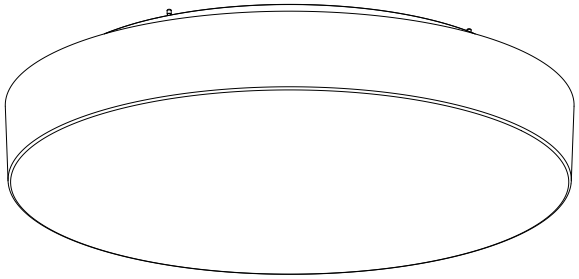
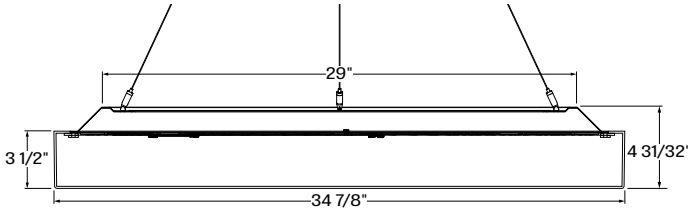
☐ POP ROUND 3H - 3.5" OPTIC



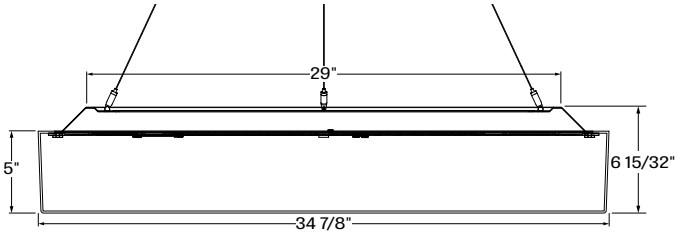
☐ POP ROUND 5H - 5" OPTIC



POROPD + 3H - Pop Round Pendant with 3.5" optic



POROPD + 5H - Pop Round Pendant with 5" optic



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POP CORE ROUND 36 LED

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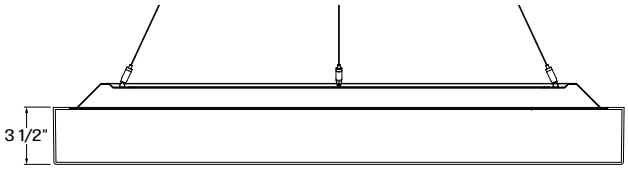
OPTIC

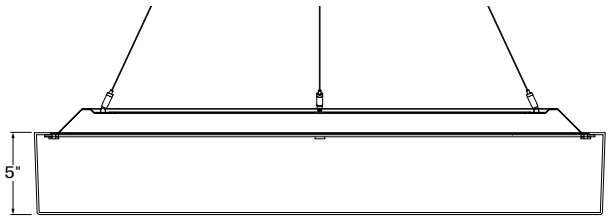
Uniform Efficiency Lambertian Optic (ULO) - Made of formed impact modified white PMMA, the optic provides an even light distribution with up to 88% transmission. Its unique enclosed shell design protects LEDs against Electrostatic Discharge and dust while its back surface project a soft glow on the mounting surface.

OPTICS HEIGHT

Pop Round Pendant 36 is available with both 3.5" and 5" diffuser.



POROPD + 3H - Pop Round Pendant with 3.5" optic



POROPD + 5H - Pop Round Pendant with 5" optic

LIGHT SOURCE

Custom array of mid-flux LEDs are mounted directly to the housing for optimal thermal performance. Available in 2700K, 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

PERFORMANCE AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
Low output	4000K	35	4000	114
Medium output	4000K	49	5500	112
High output	4000K	75.5	8000	106

ELECTRICAL

Factory-set, adjustable output current LED driver with universal (120-277VAC) input. Dimmable from 100% to 1% with 0-10V dimming control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency>84%, PF>0.9, THD<20%. Other specifiable options include DALI protocol drivers. All of our standard 0-10V drivers are NEMA 410 compliant.

EMERGENCY

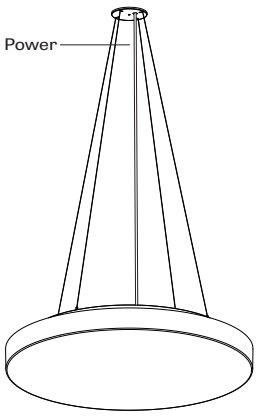
Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1300 lumens (25°C) emergency lighting output. Recharge time of 24 hours.

MOUNTING OPTIONS

Fixtures are pendant-mounted, using aircraft cables. Unless otherwise specified, Lumenwerx provides the following hardware:

For cable-mounted fixtures - 5WAC36, 5" white canopy with a 36" cable.

For all other options, see our website for a detailed Pendant Mounting Guide



FINISH

Interior - 95% reflective, matte white powder coating

Exterior - Matte white powder coating.

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PENDANT DIRECT

CONSTRUCTION

Housing - 16 gauge spun aluminum, matte white powder coating
Diffuser - Uniform Lambertian Optic, thermoformed impact modified acrylic, completely enclosed

WEIGHT

RD 36 X 3.5 - 25.51lbs - 11.59kg
RD 36 X 5 - 26.91lbs - 12.22kg

CERTIFICATIONS

ETL - Rated for Indoor Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

WARRANTY

Lumenwerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. Lumenwerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

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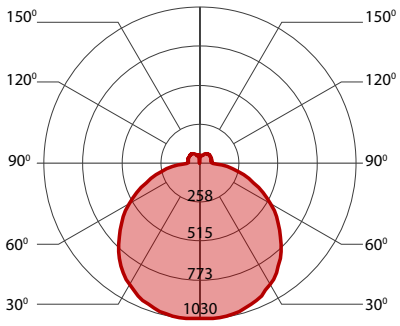
POP CORE ROUND 36 LED

LUMENWERX
WWW.LUMENWERX.COM

PENDANT DIRECT

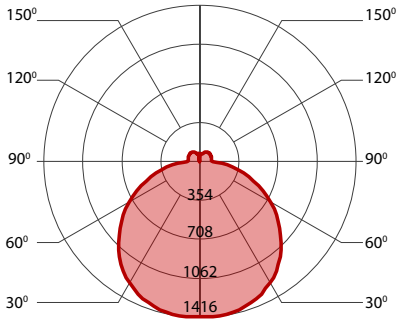
4000 LUMEN AT 80CRI - LOW OUTPUT



PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
Low output	2700K	38	4000	105
Low output	3000K	37.5	4000	107
Low output	3500K	36.5	4000	110
Low output	4000K	35	4000	114

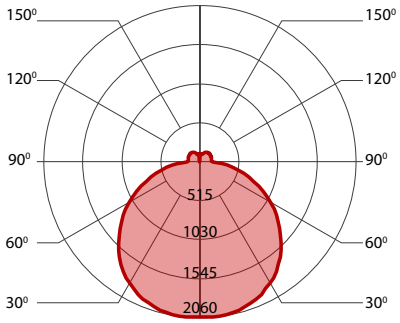
5500 LUMEN AT 80CRI - MEDIUM OUTPUT



PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
Medium output	2700K	53.5	5500	103
Medium output	3000K	52.5	5500	105
Medium output	3500K	51	5500	108
Medium output	4000K	49	5500	112

8000 LUMEN AT 80CRI - HIGH OUTPUT



PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
High output	2700K	82.5	8000	97
High output	3000K	81	8000	99
High output	3500K	77.5	8000	103
High output	4000K	75.5	8000	106

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Intertek

gotham® | EVO®

Multiple Layers of Light

Luminaire Type:

Catalog Number:

General Illumination Pendant Cord Cylinder 6"

Feature Set

- Batwing distribution with feathered edges provides even illumination on horizontal and vertical surfaces
- Bounding Ray™ optical design
- 45° cutoff to source and source image
- Fully serviceable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- 2.5 MacAdam Ellipse; 85 CRI typical, 90+ CRI optional
- Fixtures are damp location standard; wet location option (WL)
- ENERGY STAR® Certified product*
- Have the cleanest of installations with a 0.29" diameter color coordinated cord. Multi-conductor ultra-pliable cord with embedded aircraft cable ensures no chance of kinks, crooked mounting, or need to tether power cord to suspension cable (patent pending).
- Multiple recessed or surface j-box mounting configurations available with cords
- 20 standard colors in textured and gloss finish; custom or RAL colors also available
- UGR of zero for fixtures aimed at nadir with a cut-off equal to or less than 60deg per CIE 117-1995 Discomfort Glare in Interior Lighting. UGR FAQ

Distribution

very narrow 0.5 S:MH | narrow 0.7 S:MH | medium 0.8 S:MH | medium wide 1.0 S:MH | wide 1.2 S:MH

Superior Perfomance

Nominal Lumens	250	500	750	1000	1500	2000	2500	3000	3500	4000	4500	5000	6000	8000	10,000	12,000
Delivered Lumens	297	519	776	994	1471	2006	2537	3077	3542	4027	4533	5256	6371	8247	10637	12332
Wattage	3.4	6.2	8.2	9.6	14.7	19.7	24.7	29.5	33.8	39.0	47.3	48.7	57.6	74.9	97.1	115
Lumens per Watt	87.4	83.7	94.6	103.5	100.1	101.8	102.7	104.3	104.8	103.3	95.8	107.9	110.6	110.1	109.5	107.2

Coordinated Apertures | Multiple Layers of Light

General Illumination Layer | EVO

High Center Beam Layer | Incito

EVO + Incito — Multiple Layers of Light

Core

Healthcare

Special Applications

OVERVIEW

COMPLEMENTARY PRODUCTS

GOTHAM ARCHITECTURAL DOWNLIGHTING | 1400 Lester Road Conyers, GA 30012 | P 800-705-SERV (7378) | gothamlighting.com
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ORDERING INFORMATION

Luminaire Type:

Catalog Number:

EXAMPLE: EVO6CC 35/15 AR MWD LSS MVOLT EZ1 JBXCC CCAN C120 DWHG

Series

EVO6CC	EVO 6in Pendant Cord Round Cylinder Open Downlight

Color Temperature

27/	2700 K
30/	3000 K
35/	3500 K
40/	4000 K
50/	5000 K

Lumens

02	250 lumens
05	500 lumens
07	750 lumens
10	1000 lumens
15	1500 lumens
20	2000 lumens
25	2500 lumens
30	3000 lumens
35	3500 lumens
40	4000 lumens
45	4500 lumens
50	5000 lumens
60	6000 lumens
80	8000 lumens
100[1]	10,000 lumens
120[1]	12,000 lumens

Trim Color

AR	Clear
PR	Pewter
WTR	Wheat
GR	Gold
WR[2]	White painted
BR[2]	Black
WRAMF[2]	White Anti-microbial
BZR[2]	Dark Bronze painted
TRALTBD[2,3]	Trim RAL # TBD (TBD for pricing only)
TCPC[2,3]	Trim Custom Paint Color TBD (TBD for pricing only)

Reflector Finish

LSS	Semi-specular
LD	Matte diffuse
LS	Specular

Distribution

VND	Very narrow (0.5 s/mh)
ND	Narrow (0.7 s/mh)
MD	Medium (0.9 s/mh)
MWD	Medium wide (1.0 s/mh)
WD	Wide (1.2 s/mh)

Voltage

MVOLT	120V - 277V
120	120V
277	277V
347[4]	347V

Driver[5]

GZ10	0-10V driver dims to 10%
GZ1	0-10V driver dims to 1%
EZ10	eldoLED 0-10V ECOdrive. Linear dimming to 10% min.
EZ1	eldoLED 0-10V ECOdrive. Linear dimming to 1% min.
EZB	eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%.
EDAB[6]	eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.
EDXB[6,7,8]	eldoLED POWERdrive DMX with RDM (remote device management). Square Law dimming to <1%. Min: 1000LM; Max: 8000LM. Not available with Emergency Options.
ECOD[6]	Lutron® EcoSystem® digital Hi-Lume 1% soft-on, fade to black. Max: 8000LM except 4500LM.
ELV[6]	Electronic line voltage/Forward phase/Triac dimming. 120V only.

Mounting

JBX	Integral driver, Recessed or Surface J-box
JBXCC	Integral driver, Surface J-box with Conduit Covers
SGB[9]	Surface gear box (for driver at ceiling), Recessed or surface J-box (not wall or surface ceiling)
SGBCC[9]	Surface gear box (for driver at ceiling), surface J-box with Conduit Covers (not wall or surface ceiling)
RGH[10]	Recessed Gear Housing

Canopy Type

CCAN	5° Cord canopy with "hang straight" swivel
CCAN45[11]	45° Cord canopy with "hang straight" swivel

Cord Length[12,13]

C120	10' Mounting Cord
C180	15' Mounting Cord
C240	20' Mounting Cord

Emergency Option

(blank)	No emergency options
E7WCP	IOTA® 7W Constant Power emergency battery (sidecar). Only for use with 750-8000 lumen options.
E10WCP	IOTA® 10W Constant Power, CA Title 20 compliant emergency battery pack with integral test switch. Only for use with 1000-8000 lumen options. (sidecar or RGH)
E10WCPR	IOTA® 10W Constant Power, CA Title 20 compliant emergency battery pack with remote test switch. Only for use with 1000-8000 lumen options. (requires RGH)
E15WCP	IOTA® 15W Constant Power, CA Title 20 compliant emergency battery. Only for use with 1500-8000 lumen options. (sidecar)
GTD	IOTA® Generator Transfer Device. Specify 120V or 277V (requires RGH)

Control Interface[14]

(blank)	No controls
NLT	nLight® dimming pack. Specify 120V or 277V.
NLTER[15]	nLight® dimming pack for fixtures on emergency circuit. Specify 120V or 277V.
NLTAIR2	nLight® AIR dimming pack. Specify 120V or 277V.
NLTAIRER2[15]	nLight® AIR dimming pack for fixtures on emergency circuit. Specify 120V or 277V.

Options

90CRI	High CRI (90+)
CP[16]	Chicago Plenum. Specify 120V or 277V (requires RGH)
HAO[17]	High Ambient Option (40°C)
N80[18]	nLight Lumen Compensation
SF	Single fuse. Specify 120V or 277V.
WL[19]	Wet Location

Architectural Colors - Powder Paint[3]

DWHAMF	Gloss White with Anti-microbial finish
DDB	Gloss Dark Bronze
DBL	Matte Black
DWH	Gloss White
DMB	Matte Medium Bronze
DNA	Gloss Natural Aluminum
DSS	Gloss Sandstone
DGC	Gloss Charcoal Grey
DTG	Gloss Tennis Green
DBR	Gloss Bright Red
DSB	Gloss Steel Blue
DDBT	Textured Dark Bronze
DBLB	Textured Black
DWHG	Textured White
DBNH	Textured Bronze
DNAT	Textured Natural Aluminum
DSST	Textured Sandstone
DSPD	Textured Dark Grey
DSPE	Textured Green
DSPH	Textured Light Red
RALTBD	Cylinder RAL # TBD (TBD for pricing only)
CPC	Cylinder Custom Paint Color TBD (TBD for pricing only)

ACCESSORIES — order as separate catalog numbers (shipped separately)

GCOLORS KIT	Architectural colors chip kit, consisting of powder-coat and plated finishes
CYLJBOXADPT 4SQ2OCT __	4in Square J-box to 4in Octagonal J-box adaptor. Replace __ with Architectural Color or PRM for primed ready for field painting

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ORDERING NOTES

1. 10,000 & 12,000 lumens not available with 347, EDXB, Lutron, SGB, SGBCC, RGH, Emergency Options, HAO, WL & CP.
2. Not Available with Reflector Finishes.
3. Replace with applicable RAL number and finish when ready to order. See RAL BROCHURE for available color options. For details on all Acuity Architectural paint colors, RAL and Custom colors, please see Architectural colors.
4. Integral 347V drivers available with GZ10 and GZ1 driver options only - 3500LM max. All other drivers (and GZ1 & GZ10 above 3000LM) will come with a step-down transformer - factory installed with RGH mounting, and field installed with JBX and JBXCC mounting (remote mount location and access to device required). Not available with SGB, SGBCC or Emergency Options. Max 5000LM.
5. Refer to Tech 240 for compatible dimmers.
6. Not Available with Control Interfaces.
7. Requires SGB or SGBCC mounting option.
8. Includes terminator resistor. Not available with 250-750 lumen packages.
9. Only available with DMX driver (EDXB).
10. Not available with E7W or E15WCP Emergency Options.
11. Not available with SGB or SGBCC; those mountings require a flat ceiling.
12. Cord can be cut in field to achieve non-uniform lengths (i.e. for a field cut 8' length, order 10' cord). Cord length is nominal: actual length is about 2" shorter.
13. Cord color is determined by cylinder color: DWHG, DWH, and DWHAMF will have white cord; DBL and DBLB will have black cord; all others will have gray cord.
14. Factory installed with RGH option otherwise field installed. Access required to location of remote mounted device.
15. ER for use as UL924 Emergency Operation via power sense lead. Will require an emergency hot feed and normal hot feed. EM for use as UL924 Emergency Operation via power interrupt detection.
16. CP not valid with NLTAIR2, NLTAIRER2 or Emergency Options.
17. Only available up to 3500 lumens; not available with wet location.
18. Fixture begins at 80% light level. Must be specified with NLT or NLTER. Only available with EZ10 and EZ1 drivers.
19. Not available with JBXCC, SGB, SGBCC or Sidecar Emergency Options. Max 3500LM.

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SPECIFICATIONS

Optical Assembly
Fully serviceable and upgradeable lensed LED light engine suitable for field maintenance or service from below the ceiling.

Optical design is a Bounding Ray™ design with 45° cutoff to source and source image. Top down flash characteristic for superior glare control.

Electrical
The luminaire shall operate from a 50 or 60 Hz ±3 Hz AC line over a voltage ranging from 120 VAC to 277 VAC. Support 347V via remote-mounted stepdown transformer. The fluctuations of line voltage shall have no visible effect on the luminous output.

The luminaire shall have a power factor of 90% or greater at all standard operating voltages and full luminaire output.

Sound Rated A+. Driver shall be >80% efficient at full load across all input voltages.

Input wires shall be 18AWG, 300V minimum solid copper.

All drivers are ROHS compliant.

Controls
Luminaire shall be equipped with interface for nLight wired or nLight AIR networks with integral power supply as per specification.

Emergency
Luminaires supplied with a battery pack comply with NFPA 101 (Life Safety code) and deliver constant light output throughout the 90 minutes of code required emergency operation period when there is a normal AC power loss.

Luminaires equipped with a generator transfer device work in conjunction with an auxiliary generator or a central inverter system to power fixtures for safe egress lighting.

Dimming
The luminaire shall be capable of continuous dimming without perceivable stroboscopic flicker as measured by flicker index (ANSI/IES RP-16-10) over a range of 100 – 10%, 100 – 1.0% or 100 – 0.1% of rated lumen output with a smooth shut off function to step to 0%.

eldoLED LED drivers shall conform to IEEE P1789 standards. Alternatively, manufacturers must demonstrate conformance with product literature and testing which demonstrates this performance. Systems that do not meet IEEE P1789 will not be considered.

Driver is inaudible in 24dB environment, and stable when input voltage conditions fluctuate over what is typically experienced in a commercial environment.

Construction
Heaving-gauge aluminum construction.

Extruded body with flangeless reflector allows flow-through passive thermal management.

Pendant cord mount for installation to 4" recessed or surface octagonal junction box.

Optional field configurable conduit covers available. Conduit covers match cylinder in finish and diameter.

Surface gear box available for driver at ceiling installation.

Recessed gear box available for driver above ceiling, nLight, CP, GTD or battery pack options.

Listings
Fixtures are CSA Certified to meet US and Canadian Standards: All fixtures manufactured in strict accordance with the appropriate and current requirements of the “Standards for Safety” to UL, damp location standard; wet location options available open under covered ceiling (WL).

Luminaire configurations are Energy Star certified through testing in EPA–recognized laboratories, with the results reviewed by an independent, accredited certification organization. Visit www.energystar.gov for specific configurations listed. *Not all configurations are Energy Star listed.

Photometrics
LEDs tested to LM-80 standards. Measured by IESNA Standard LM-79-08 in an accredited lab. Lumen output shall not decrease by more than 30% over the minimum operational life of 60,000 hours.

Color appearance from luminaire to luminaire of the same type and in all configurations, shall be consistent both initially and at 60,000 hours and operate within a tolerance of <2.5 MacAdam ellipse as defined by the center of the quadrangles defined in ANSI C78.377-2015.

BUY AMERICAN ACT
This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.

Warranty
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note:
Actual performance may differ as a result of end user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.

A+ Capable Luminaire
This item is an A+ capable luminaire, which has been designed and tested to provided consistent color appearance and out-of-the-box control capability with simple commissioning when used with Acuity Brands controls products.

All configurations of this luminaire are calibrated and tested meet the Acuity Brands' specification for chromatic consistency - including color rendering, color fidelity and color temperature tolerance around standard CIE chromaticity coordinates.

To learn more about A+, visit www.acuitybrands.com/aplus.

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EVO - eldoLED Driver Default Dimming Curve			
Nomenclature	Min Dimming	Driver Dim Curve	Control Dim Curve
EZ10	10%	Linear	Linear/Logarithmic
EZ1	1%	Linear	Linear/Logarithmic
EZB	<1%	Logarithmic	Linear
EDAB	<1%	Logarithmic*	Linear
EDXB	<1%	Square	Linear

*Changable thorugh DALI controller

Driver		Control Provided (note: 347V/UVOLT versions provided with 347 option selected)			
Nomenclature	Description	NLT	NLTER	NLTAIR2	NLTAIRER2
GZ10	0-10V driver dims to 10%	nPP16 D EFP	nPP16 D ER EFP	RPP20 D 24V G2	RPP20 D 24V ER G2
GZ1	0-10V driver dims to 1%	nPP16 D EFP	nPP16 D ER EFP	RPP20 D 24V G2	RPP20 D 24V ER G2
EZ10	eldoLED 0-10V ECOdrive	nPS 80 EZ	nPS 80 EZ ER	RPP20 D 24V G2	RPP20 D 24V ER G2
EZ1	eldoLED 0-10V ECOdrive	nPS 80 EZ	nPS 80 EZ ER	RPP20 D 24V G2	RPP20 D 24V ER G2
EZB	eldoLED 0-10V SOLOdrive	nPS 80 EZ	nPS 80 EZ ER	RPP20 D 24V G2	RPP20 D 24V ER G2

J-box Compatibility Matrix		Cylinder Configurations					
		6" Pend CYL	6" Pend CYL Surf Gear Box	6" Pend CYL Surf Gear Box w/ Conduit Cover	6" Pend CYL DMX Surf Gear Box	6" Pend CYL DMX Surf Gear Box w/ Conduit Cover	6" Pend CYL w/ Conduit Cover
Recommended J-box (by others)	4" Octagonal 4x4x1.5 deep"	✓	✓	✓	✓	✓	✓
	4" Octagonal 4x4x2.125 deep	✓	✓	✗	✓	✗	✗
	4" Square 4x4x1.5 deep	✓ *with adaptor plate accessory	✓ *with adaptor plate accessory	✗	✓ *with adaptor plate accessory	✗	✗

Standard Architectural Color Options for Cylinder Bodies

DSS P12
LITHONIA
Sandstone

DSST P90
TEXTURED
Sandstone

DBR P34
LITHONIA
Bright Red

DSPH P80
TEXTURED
Light Red

DMB P11
LITHONIA
Medium Bronze

DBNH P74
TEXTURED
Bronze

DTG P33
LITHONIA
Tennis Green

DSPE P78
TEXTURED
Green

DSB P49
LITHONIA
Steel Blue

DNA P07
LITHONIA
Natural Aluminum

DNAT P89
TEXTURED
Natural Aluminum

DGC P32
LITHONIA
Charcoal Gray

DSPD P77
TEXTURED
Dark Grey

DDB P50
LITHONIA
Dark Bronze

DDBT P88
TEXTURED
Dark Bronze

DBL P13
LITHONIA
Black

DBLB P75
TEXTURED
Black

DWH P21
LITHONIA
White

DWHG P86
TEXTURED
White

NOTE: These colors were carefully reproduced to give as true a depiction as possible of finished product color. Some colors, however, may vary slightly from actual appearance due to display/printing variations and limitations. Please order the GCOLORS KIT listed in the 'Accessories' section of the spec sheet for an accurate paint chip sample.

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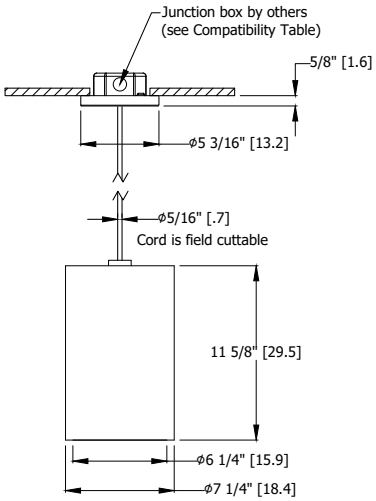
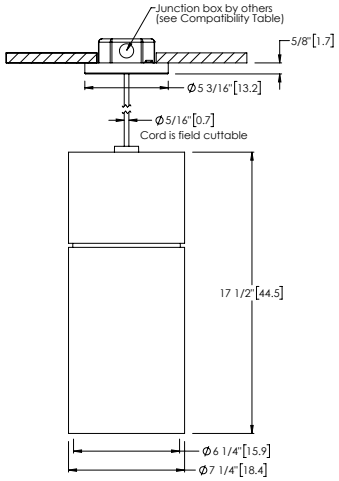
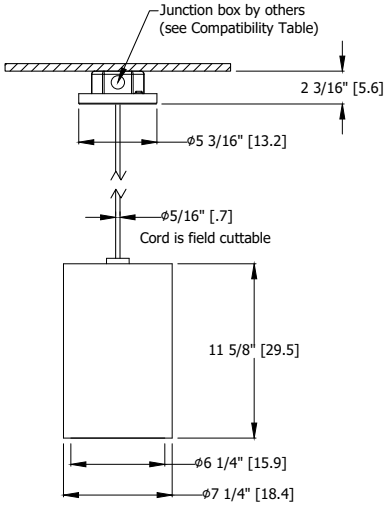
JBX Recessed J-Box



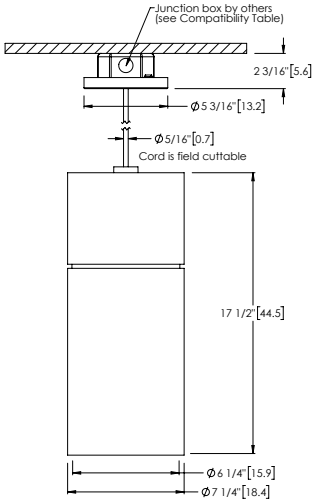
10,000LM- 12,000LM JBX Recessed



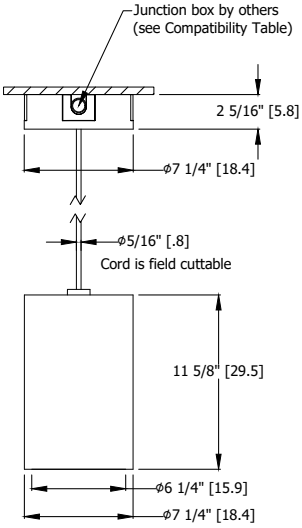
JBX Surface J-Box



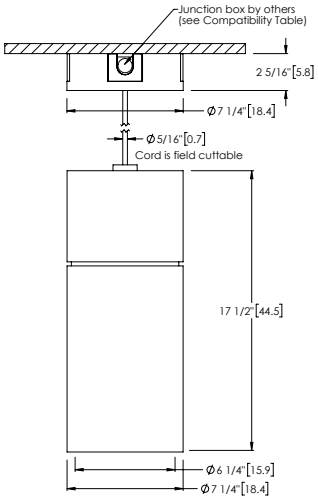
10,000LM- 12,000LM JBX Surface



JBXCC Surface J-Box with Conduit Covers



10,000LM- 12,000LM JBXCC



*Dimensions in inches [centimeters]

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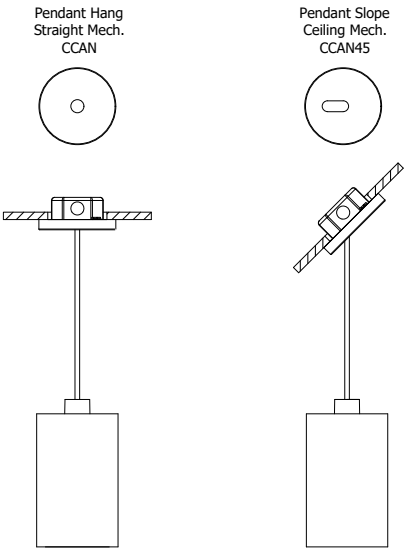
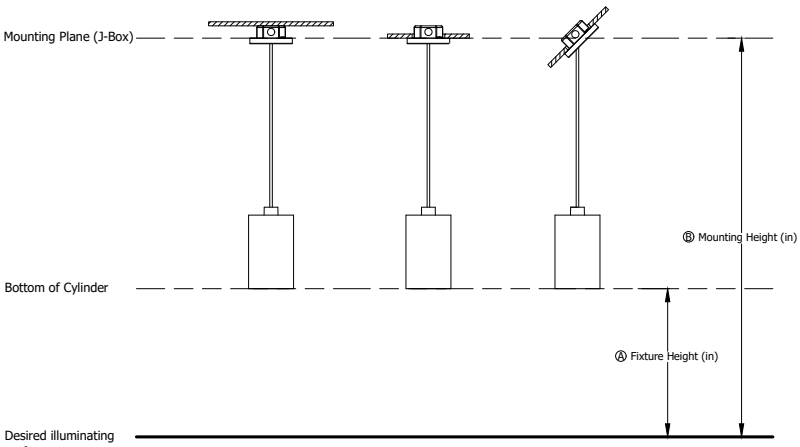
Canopy Covers for Flat or Sloped Ceilings

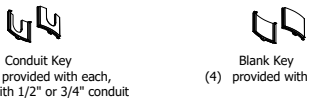


Cutting Formulas for JBX



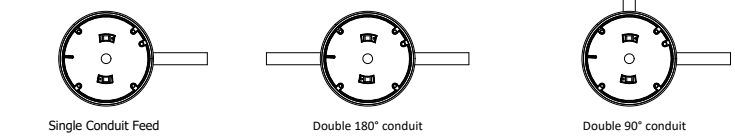
Cord Length=Ⓑ-Ⓐ- 6"

Conduit Feed Examples and Keys



Conduit Key
(4) provided with each,
for use with 1/2" or 3/4" conduit

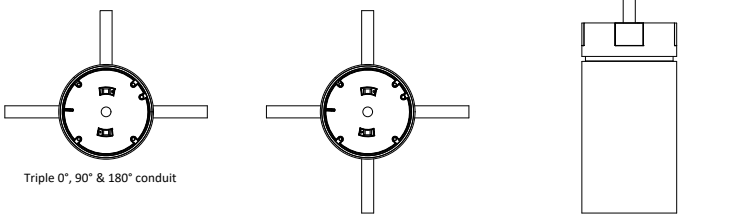
Blank Key
(4) provided with each



Single Conduit Feed

Double 180° conduit

Double 90° conduit



Triple 0°, 90° & 180° conduit

Quad 0°, 90°, 180°, & 270° conduit

Top conduit feed

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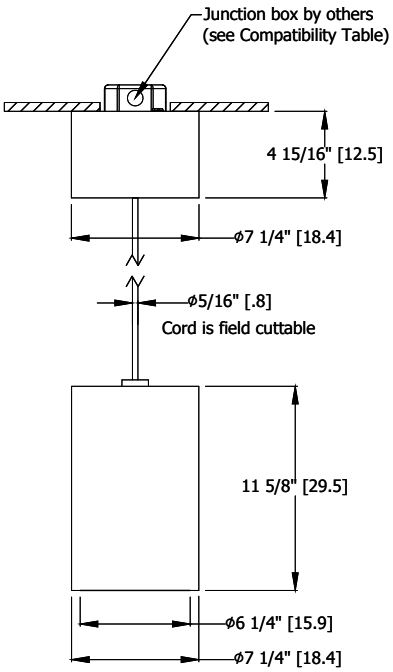
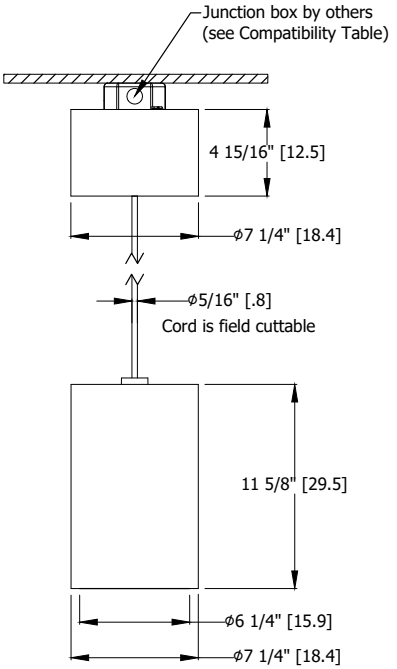
DIMENSIONAL DATA

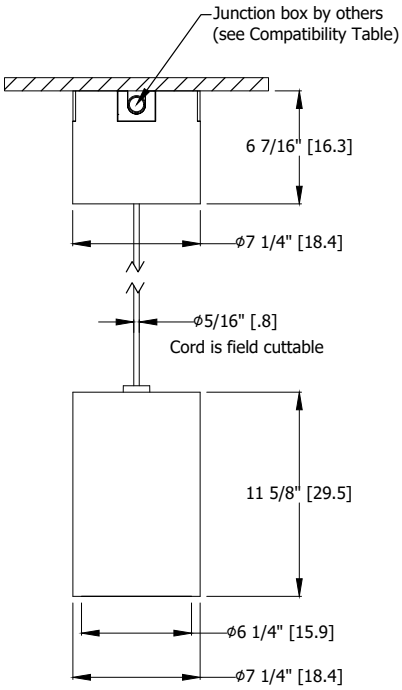
SGB Surface Gear Box for EDXB Recessed



SGB Surface Gear Box for EDXB Surface



SGBCC Surface Gear Box for EDXB with Conduit Covers



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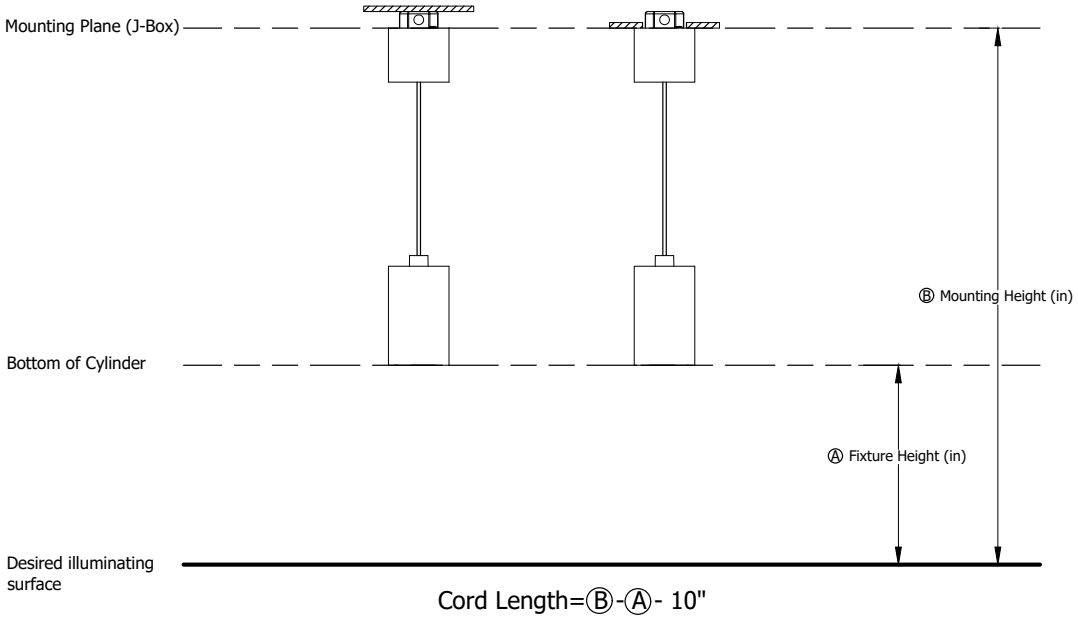
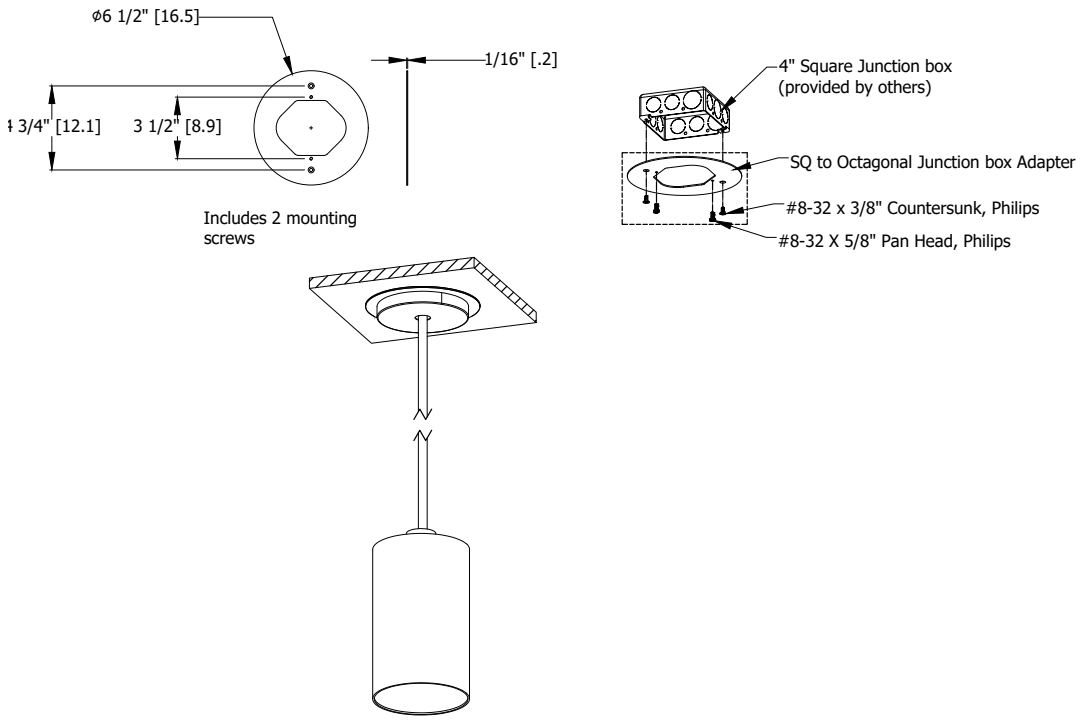
DIMENSIONAL DATA

Cutting Formulas for SGB



Cord Length=Ⓑ-Ⓐ- 10"

Cylinder Adaptor Plate



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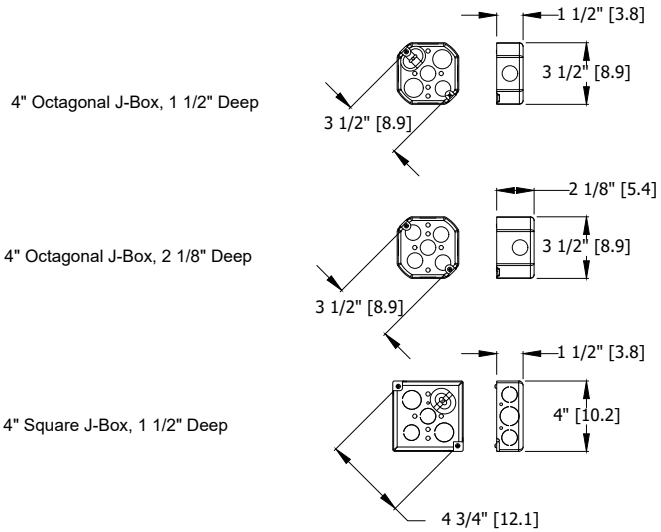
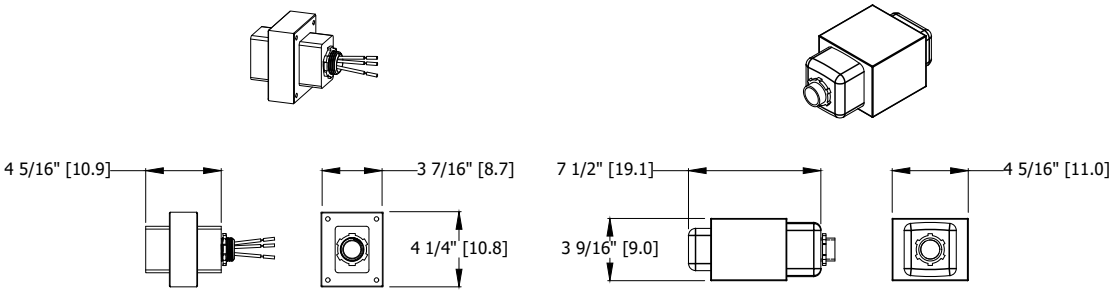
DIMENSIONAL DATA

Junction Box Dimensions (by others)



347V Stepdown Transformer



347 Transformer:
Up to 6000LM
Install to accessible
junction box by others

347 Transformer:
8000LM and up
Install to accessible
junction box by others

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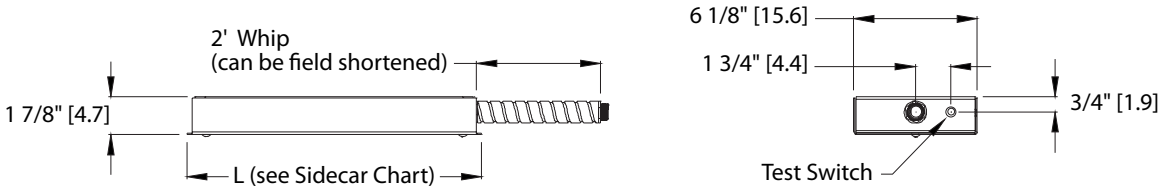
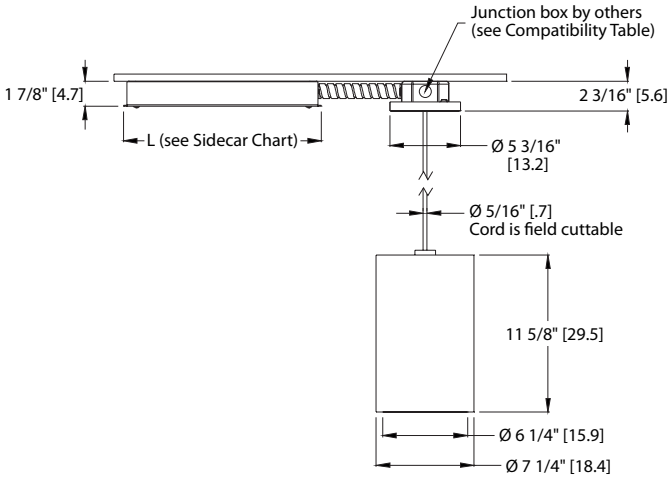
Emergency Battery Sidecar Dimensions



SIDECAR BATTERY OPTION	LUMEN PACKAGES AVAILABLE	L (SIDECAR LENGTH)
E7WCP	750LM AND GREATER EXCEPT AS NOTED BELOW	14"
	6000-8000LM 5000-8000LM WITH ECOD DRIVER	16"
E10WCP	1000LM AND GREATER EXCEPT AS NOTED BELOW	14"
	6000-8000LM 5000-8000LM WITH ECOD DRIVER	16"
E15WCP	1500LM AND GREATER	16"

E7WCP/E10WCP/E15WCP Sidecar Emergency Battery



*Dimensions in inches [centimeters]

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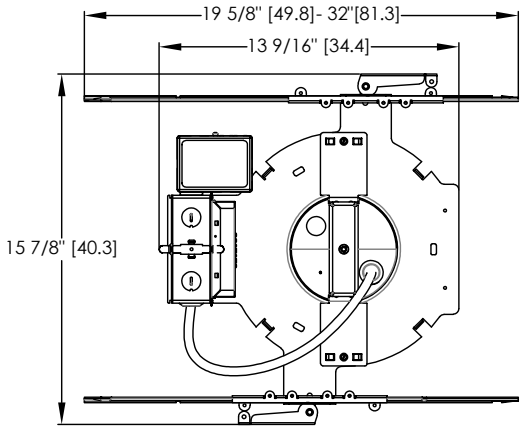
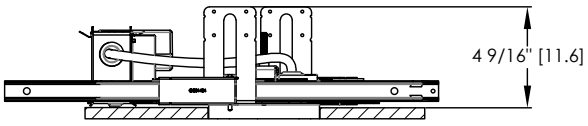
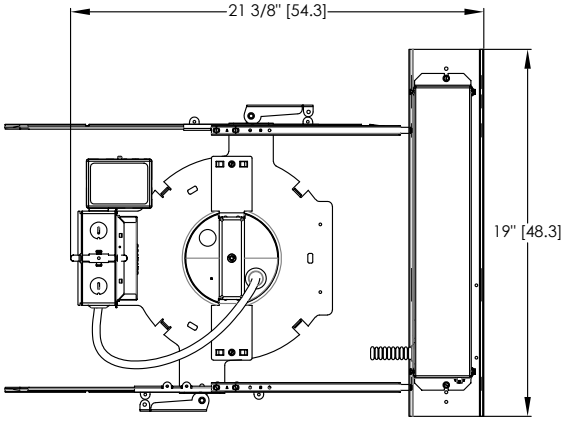
RGH 2500LM-5000LM and with EDXB up to 4500LM & ECOD up to 4000LM Standard

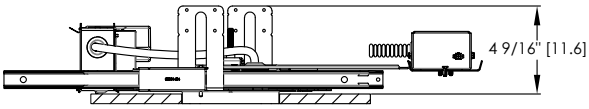




Ceiling thickness range: 1/2"[1.3] to 3"[7.6]
Ceiling cutout: 5 1/16"[12.9]

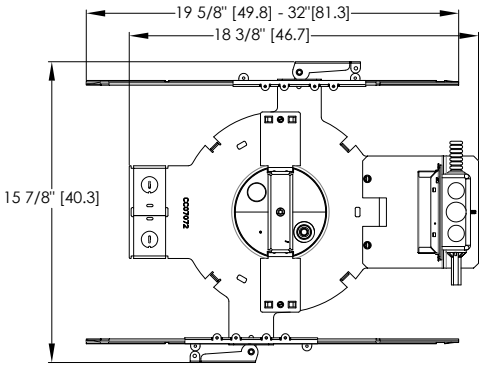
RGH with Battery Backup (E10WCPR) 2500LM-5000LM and with EDXB up to 4500LM & ECOD up to 4000LM Standard

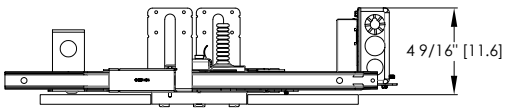




With Emergency Battery or GTD option
Minimum plenum height for emergency batteries in non-accessible ceilings: 12 1/2"[31.8]
Ceiling thickness range: 1/2"[1.3] to 3"[7.6]
Ceiling cutout: 5 1/16"[12.9]

RGH with CP 2500LM-5000LM and for use with EDXB up to 4500LM & ECOD up to 4000LM Standard





Ceiling thickness range: 1/2"[1.3] to 3"[7.6]
Ceiling cutout: 5 1/16"[12.9]

*Dimensions in inches [centimeters]

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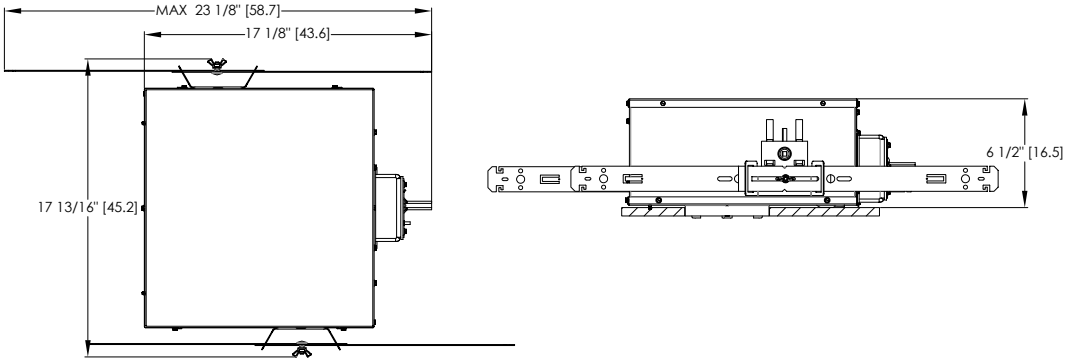
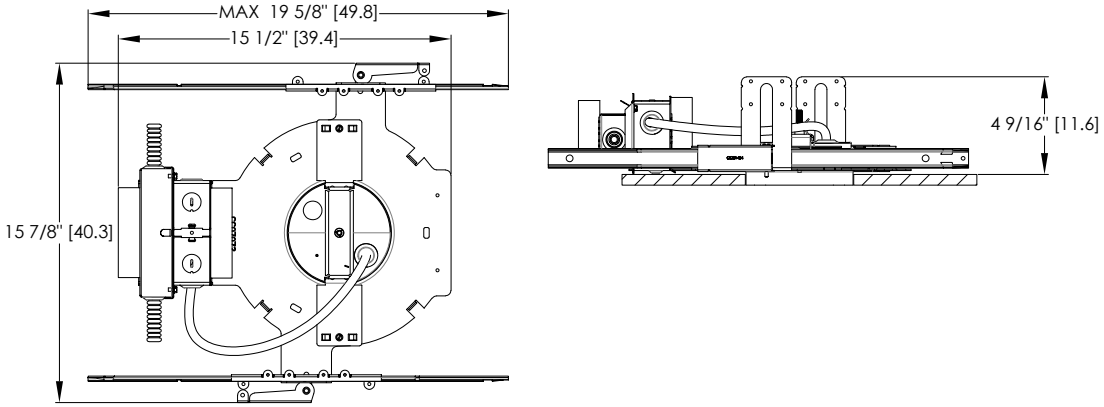
DIMENSIONAL DATA

RGH with Chicago Plenum (CP) for use with nLight Enclosed



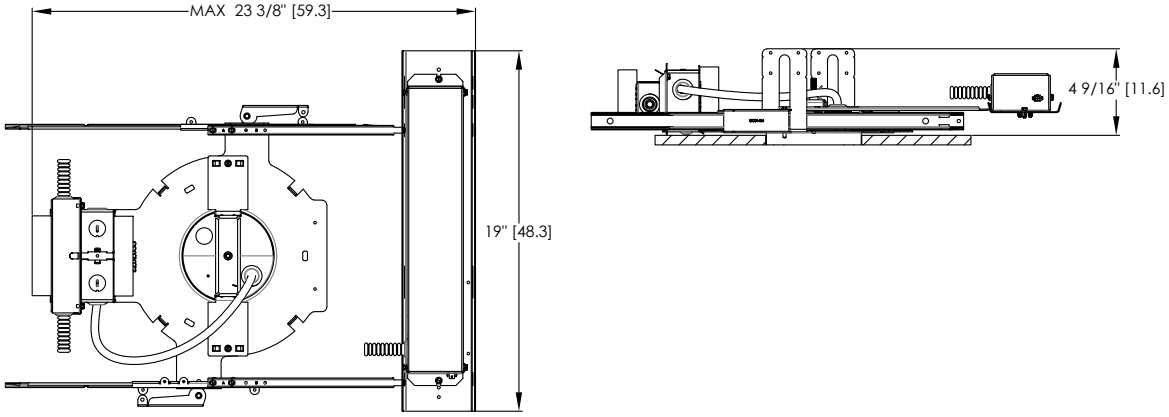
Ceiling thickness range: 1/2"[1.3] to 3"[7.6]
Ceiling cutout: 5 1/16"[12.9]

RGH Double Driver 5000LM+ EDXB & ECOD, 6000LM & 8000LM Standard



Ceiling thickness range: 1/2"[1.3] to 3"[7.6]
Ceiling cutout: 5 1/16"[12.9]

RGH Double Driver with Battery Backup (E10WCPR or E10WCP) for use with 5000LM+ EDXB & ECOD, 6000LM & 8000LM Standard



With Emergency Battery or GTD option
Minimum plenum height for emergency batteries in non-accessible ceilings: 12 1/2"[31.8]
Ceiling thickness range: 1/2"[1.3] to 3"[7.6]
Ceiling cutout: 5 1/16"[12.9]

*Dimensions in inches [centimeters]

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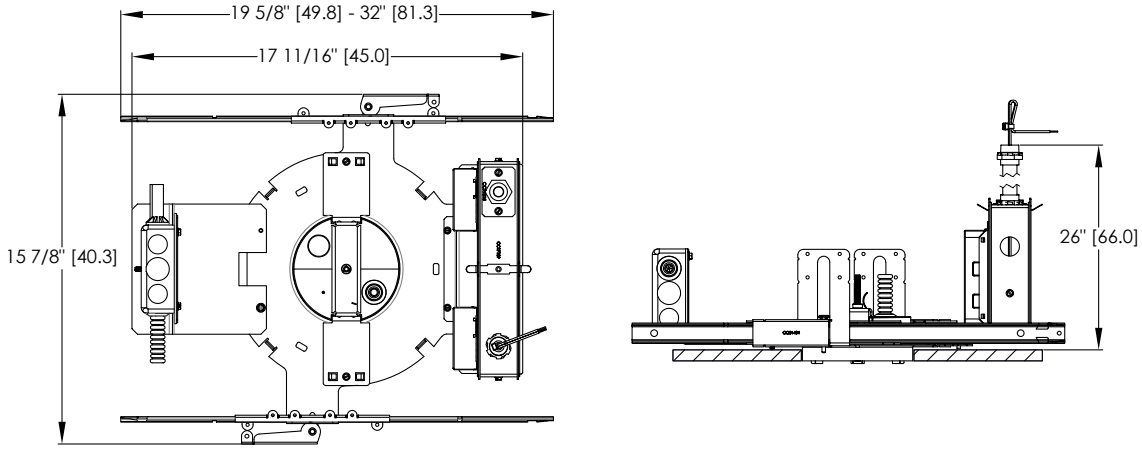
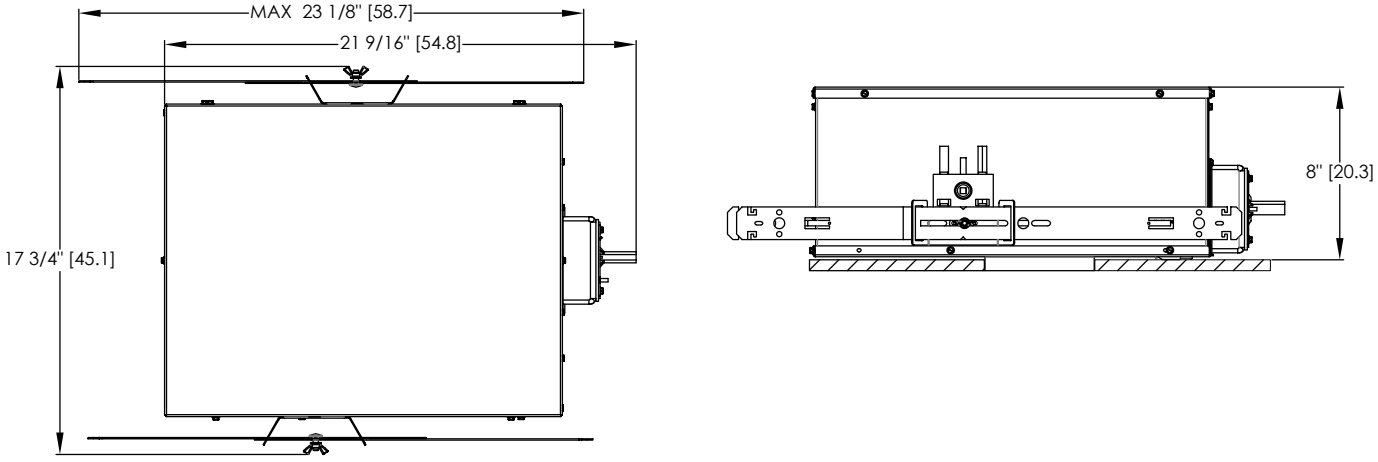
DIMENSIONAL DATA

RGH Double Driver CP Standard



Ceiling thickness range: 1/2"[1.3] to 3"[7.6]
Ceiling cutout: 5 1/16"[12.9]

RGH Double Driver with CP for use with 5000LM+ EDXB & ECOD, 6000LM & 8000LM Enclosed



Ceiling thickness range: 1/2"[1.3] to 3"[7.6]
Ceiling cutout: 5 1/16"[12.9]

*Dimensions in inches [centimeters]

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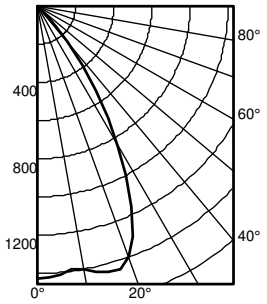
Photometry

CONSULT WWW.GOTHAMLIGHTING.COM FOR ADDITIONAL PHOTOMETRY.

EV06CC 35/15 AR MWD LS INPUT WATTS: 14.7, DELIVERED LUMENS: 1471LM, LPW= 100, 1.03 S/MH, TEST NO. LTL27783P1505



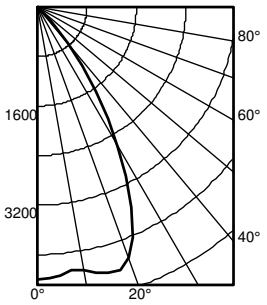
	Ave	Lumens
0	1431	
5	1410	134
15	1442	405
25	1161	523
35	540	332
45	78	72
55	3	4
65	1	1
75	0	1
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	1061.4	72.2
0° - 40°	1393.5	94.7
0° - 60°	1469.5	99.9
0° - 90°	1470.9	100.0
90° - 180°	0.0	0.0
0° - 180°	1470.9	*100.0

*Efficiency

		50% beam - 54.4°		10% beam - 77.9°	
Mounting Height	Inital FC Center Beam	Diameter	FC	Diameter	FC
8.0	47.3	5.7	23.7	8.9	4.7
10.0	25.4	7.7	12.7	12.1	2.5
12.0	15.9	9.8	7.9	15.3	1.6
14.0	10.8	11.8	5.4	18.6	1.1
16.0	7.9	13.9	3.9	21.8	0.8

EV06CC 35/45 AR MWD LS INPUT WATTS: 47.3, DELIVERED LUMENS: 4532.7LM, LPW= 95.8, 1.03 S/MH, TEST NO. LTL27783P1649



	Ave	Lumens
0	4411	
5	4346	413
15	4443	1247
25	3578	1610
35	1665	1024
45	242	222
55	8	12
65	2	3
75	1	2
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	3270.7	72.2
0° - 40°	4294.2	94.7
0° - 60°	4528.3	99.9
0° - 90°	4532.7	100.0
90° - 180°	0.0	0.0
0° - 180°	4532.7	*100.0

*Efficiency

		50% beam - 54.4°		10% beam - 77.9°	
Mounting Height	Inital FC Center Beam	Diameter	FC	Diameter	FC
8.0	145.8	5.7	72.9	8.9	14.6
10.0	78.4	7.7	39.2	12.1	7.8
12.0	48.9	9.8	24.4	15.3	4.9
14.0	33.4	11.8	16.7	18.6	3.3
16.0	24.2	13.9	12.1	21.8	2.4

Lumen Output Multiplier		
CRI	CCT	Multplier
80	2700K	0.916
	3000K	0.948
	3500K	1
	4000K	1.032
	5000K	1.1
90	2700K	0.748
	3000K	0.8
	3500K	0.838
	4000K	0.845
	5000K	0.945

Reflector Finish Multiplier	
Reflector Finish	Multiplier
LS - Specular	1
LSS - Semi Specular	0.956
WR - White	0.87
LD - Matte Diffuse	0.85
BR - Black	0.73
BZR - Bronze	0.73

Distributions		
Nomenclature	Beam Angle	Field Angle
VND	30	64
ND	44	69
MD	54	82
MWD	67	89
WD	71	92

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NLIGHT AIR

NLIGHT

nLight® AIR is the ideal solution for retrofit or new construction spaces where adding communication wiring is cost prohibitive. The integrated nLight AIR rPP20 Power Pack is part of each EVO Luminaire ordered with the NLTAIR option. These individually addressable controls offer the ultimate in flexibility during initial setup and for space repurposing.

nLight® AIR Control Accessories

Order as separate catalog number. Visit nLight AIR.

Wall Switches	Model Number
On/Off single pole	rPODB (color) G2
On/Off two pole	rPODB 2P (color) G2
On/Off & raise/lower single pole	rPODB DX (color) G2
On/Off & raise/lower two pole	rPODB 2P DX (color) G2

nLight® AIR Control Accessories *(cont.)*

Occupancy Sensors (PIR/dual tech)	Model Number
Small motion 360°, ceiling	rCMS 9 / rCMS PDT 9
Large motion 360°, ceiling	rCMS 10 / rCMS PDT 10

UL924 Sequence of Operation

The below information applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the CL**AIR**ITY+ mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only non-emergency rPP20, rLSXR, rSBOR, rSDGR, and nLight AIR luminaires with version 3.4 or later firmware can provide normal power sensing for EM devices. See specification sheets for control devices and luminaires for more information on options that support normal power sensing.

nLight® Wired The nLight® solution is a digital networked lighting control system that provides both energy savings and increased user configurability by cost effectively integrating time-based, daylight-based, sensor-based and manual lighting control schemes.

nLight® Wired Control Accessories

Order as separate catalog number. Visit nLight.

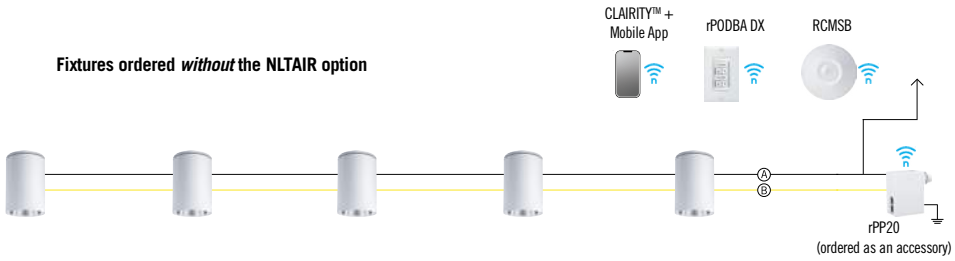
Wall Switches	Model Number
On/Off single pole	nPODM (color)
On/Off two pole	nPODM 2P (color)
On/Off & raise/lower single pole	nPOD DX (color)
On/Off & raise/lower two pole	nPODM 2P DX (color)
Graphic touchscreen	nPOD GFX (color)
Photocell Controls	
Dimming	nCM ADCX

nLight® Wired Control Accessories *(cont.)*

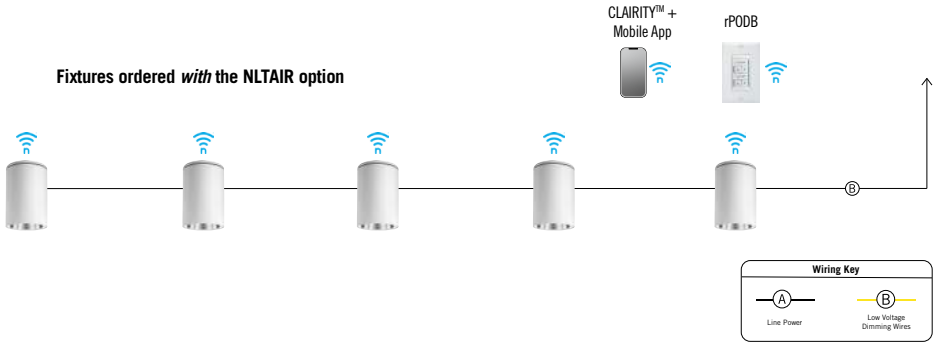
Occupancy Sensors (PIR/dual tech)	Model Number
Small motion 360°, ceiling	nCM 9 / nCM PDT 9
Large motion 360°, ceiling	nCM 10 / nCM PDT 10
Wide View	nWV 16 / nWV PDT 16
Wall switch with raise/lower	nWSX LV DX / nWSX PDT LV DX
Cat-5 Cables (plenum rated)	
10', CAT5	CAT5 10FT J1
15', CAT5	CAT5 15FT J1

Possibilites for nLight® AIR

Fixtures ordered *without* the NLTAIR option

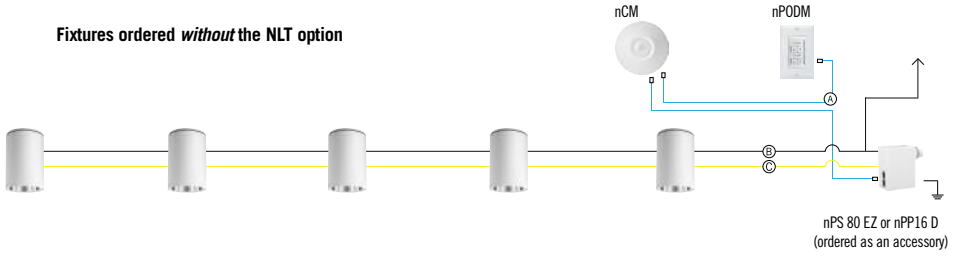


Fixtures ordered *with* the NLTAIR option

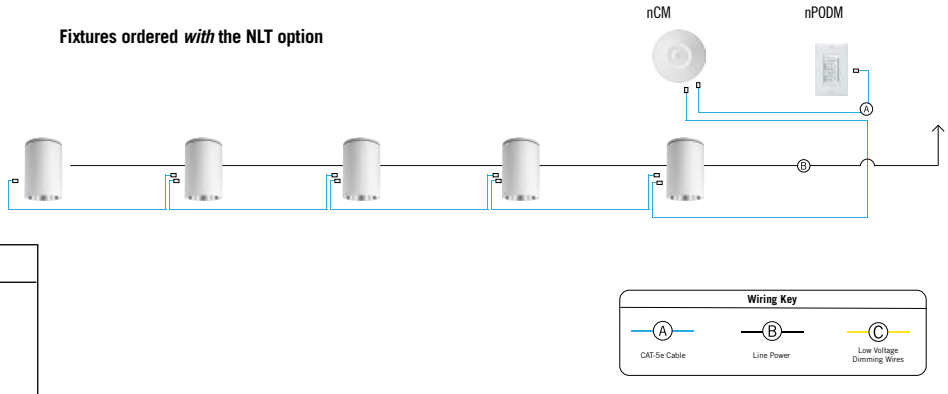


Possibilites for nLight® wired

Fixtures ordered *without* the NLT option



Fixtures ordered *with* the NLT option



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LITHONIA LIGHTING®

Catalog Number	23-009 HINES CLC
Notes	
Type	L9

FEATURES & SPECIFICATIONS

INTENDED USE — The CLX is a linear lighting solution that is available in multiple lengths, lumen packages and distributions. Designed for versatility, the CLX can address virtually any indoor lighting need. The CLX is also offered in standard and high efficacy configurations and capable of being continuous row mounted or installed as a stand-alone fixture. Ideal for uplight and downlight in commercial, retail, manufacturing, warehouse, and display applications. **Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate.** Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.

CONSTRUCTION — Channel and cover are formed from code-gauge cold-rolled steel. Housing and lens endcaps are injection molded plastic to provide a more architectural look and feel. The endcaps come standard with a 7/8" knock out for continuous mounting but can be ordered without.

Finish: Paint options include high-gloss, baked white polyester (WH), galvanized (GALV), matte black (MB) and smoke gray (SKGY). Five-stage iron phosphate pre-treatment ensures superior paint adhesion and rust resistance.

OPTICS — Offered with acrylic lens and less lens configurations. Provides a choice of optical distributions including, wide, narrow, and aisle.

Models with wide diffuse lens provide up to 12% uplight. Please check the IES file for specific uplight value.

ELECTRICAL — Utilizes high-output LEDs integrated on a two-layer circuit board, ensuring cool-running operation. Optional internal pluggable wiring harness for reduced labor cost in row mounting applications. (See PLR_ ordering information on page 9.) Electronic LED driver is multi-volt input and 0-10V dimming standard (see Operational Data on page 6 for actual wattage consumption). This fixture is designed to withstand a maximum line surge of 2.5kV at 0.75kA combination wave for indoor locations, for applications requiring higher level of protection additional surge protection must be provided. Color Variation within 3-step MacAdam ellipse (3SDCM).

L70>100,000 hours at 25˚C.

LEDs provide nominal 80 CRI or 90 CRI at 3000 K, 3500 K,4000 K, or 5000 K.

Lumen output up to 2,500 lumens per foot.

INSTALLATION — Fixture may be ceiling or wall mounted (with or without THCLX hanger or angle mounted with CLXANGBRT), pendant or stem mounted with appropriate mounting options.

WARNING — Removing the lens and opening the fixture during installation exposes the LEDs, putting them at risk for damage.

If you plan to surface mount the fixture, we recommend using the THCLX. This eliminates the need to open the fixture.

If you plan to continuous row mount, we recommend using the PLR wiring harness option. This eliminates the need to open the fixture.

Damage to the LEDs caused during installation will not be covered under the warranty.

LISTINGS — CSA certified to US and Canadian safety standards. For use in damp locations between -4°F (-20°C) and 104°F (40°C). Optional High Ambient (HA) ranging to 122°F(50°C) available on certain lumen packages (See ambient temperature chart for additional information).
DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

GOVERNMENT PROCUREMENT — BAA – Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations.
BABA – Build America Buy America: Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 ℃.
Specifications subject to change without notice.

Stock configurations are offered for shorter lead times:

Stock Part Number	UPC
CLX L48 3000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525816
CLX L48 3000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525885
CLX L48 5000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525939
CLX L48 5000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525908
CLX L96 6000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525861
CLX L96 6000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525915
CLX L96 10000LM SEF FDL MVOLT GZ10 40K 80CRI WH	00191723525922
CLX L96 10000LM SEF FDL MVOLT GZ10 50K 80CRI WH	00191723525830
CLX L48 3000LM SEF RDL MVOLT GZ10 40K 80CRI WH	00191723525960
CLX L48 3000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525892
CLX L48 5000LM SEF RDL MVOLT GZ10 40K 80CRI WH	00191723525854
CLX L48 5000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525946
CLX L96 6000LM SEF RDL MVOLT GZ10 40K 80CRI WH	00191723525878
CLX L96 6000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525823
CLX L96 10000LM SEF RDL MVOLT GZ10 40K 80CRI WH	00191723525953
CLX L96 10000LM SEF RDL MVOLT GZ10 50K 80CRI WH	00191723525847

LED Linear

CLX

24", 36", 48" and 96" Lengths

Flat Diffuse Lens

Round Diffuse Lens

Wide Diffuse Lens

CLX with Reflector

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning when used with Acuity Brands controls products.
All configurations of this luminaire are calibrated and tested to meet the Acuity Brands' specifications for chromatic consistency – including color rendering, color fidelity, and color temperature tolerance around standard CIE chromaticity coordinates.

To learn more about Acuity A+ standards, specifications, and testing visit www.acuitybrands.com/aplus.

design select

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect.
*See ordering tree for details

Design Select options indicated by this color background.

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: CLX L48 5000LM SEF WDL MVOLT GZ10 40K 80CRI WH

Series	Length	Nominal lumens	Performance package	Louver	Lens
CLX LED linear	L24 24"	1500LM 1,500 lumens 2000LM 2,000 lumens 2500LM 2,500 lumens 3500LM 3,500 lumens 4500LM 4,500 lumens 5000LM 5,000 lumens	SEF Standard efficiency ‡ HEF Premium efficiency ‡	(Blank) Less louver SBLW Straight blade louver, white ‡ SBLMB Straight blade louver, matte black ‡ SBLGV Straight blade louver, galvanized ‡ SBLSKGY Straight blade louver, smoke gray ‡	L/Lens Less lens FDL Flat diffuse ‡ RDL Round diffuse ‡ WDL Wide diffuse ‡
	L36 36"	2250LM 2,250 lumens 3000LM 3,000 lumens 3750LM 3,750 lumens 5250LM 5,250 lumens 6750LM 6,750 lumens 7500LM 7,500 lumens			
	L48 48"	3000LM 3,000 lumens 4000LM 4,000 lumens 5000LM 5,000 lumens 7000LM 7,000 lumens 9000LM 9,000 lumens 10000LM 10,000 lumens			
	L96 96"	6000LM 6,000 lumens 8000LM 8,000 lumens 10000LM 10,000 lumens 14000LM 14,000 lumens 18000LM 18,000 lumens 20000LM 20,000 lumens			

Distribution	Voltage		Driver ‡	Glare Reflector	Color temperature	Coloring rendering index
(Blank) General	MVOLT 120-277V ‡	277 277V	GZ1 Generic 0-10V, dims to 1% ‡	(blank) No reflectors	30K 3000 K	80CRI 80 CRI
ND Narrow ‡	120 120V	347 347V ‡	GZ10 Generic 0-10V, dims to 10% ‡	LUGR Reflectors for additional glare reduction ‡	35K 3500 K	90CRI 90 CRI
WD Wide ‡	208 208V ‡	480 480V ‡	EZ1 eldoLED 0-10V, dims to 1% ‡		40K 4000 K	
AD2 Aisle, 24° off center ‡	240 240V ‡				50K 5000 K	

Options

PS1050	Emergency battery pack, 10W, CA Title 20 Noncompliant ‡
E10WLCP	Emergency battery pack, 10W Linear Constant Power, Certified in CA Title 20 MAEDBS ‡
E10WSTAR	Emergency battery pack, Enabled with STAR ‡
BGTD	Generator transfer device, not available with PS1050 ‡
OCS	5', 18/3 Reloc selectable One Pass cable (fixture will bear dry location label) ‡
HA	High ambient, for use in ambient temperatures up to 50°C ‡
EPNKO	Decorative endplate, no knock out ‡
OUTCTR	Wiring leads pulled through back center of fixture ‡
OUTEND	Wiring leads pulled through end of fixture ‡
Cord Sets: ‡	
CS1W	6' Staight blade plug, 120V ‡
CS3W	NEMA twist-lock plug, 120V ‡
CS7W	Staight blade plug, 277V ‡
CS11W	NEMA twist-lock plug, 277V ‡
CS25W	NEMA twist-lock plug, 347V ‡
CS97W	NEMA twist-lock plug, 480V ‡
CS93W	600V SEOOW white cord, no plug (no voltage required)
CS6WG16STOWD5D	6' white cord, 16/5, no plug, includes low voltage dimming wires (no voltage required) ‡
PLR___	Plug-in wiring, see page 9 for ordering information
PLR1G	Plug-in wiring, single circuit, Ground
PLR1LVG	Plug-in wiring, single circuit, low-voltage dimming, Ground ‡
RRL___	RELOC®-ready luminaire. See page 14 for ordering information
SPD	Surge protection device, provides up to 6kV protection ‡
BAA	Buy America(n) Act and/or Build America Buy America Qualified
nLight® Wireless:	
NLTAIR2 RES7	nLight AIR Generation 2 enabled PIR integral occupancy sensor with automatic dimming photocell ‡
NLTAIR2 RES7EM	nLight AIR Generation 2 enabled PIR integral occupancy sensor with automatic dimming photocell and UL924 Emergency operation, via power interrupt detection ‡
NLTAIR2 RES7PDT	nLight AIR Generation 2 enabled dual technology integral occupancy sensor with automatic dimming photocell ‡
NLTAIR2 RES7PDTEM	nLight AIR Generation 2 enabled dual technology integral occupancy sensor with automatic dimming photocell and UL924 Emergency operation, via power interrupt detection ‡
NLTAIR2 RIO	No sensor control ‡
NLTAIR2 RIOEM	No sensor, Control Input function only and UL924 Emergency operation, via power interrupt detection ‡
nLight® Wired:	
N100	nLight® without lumen management
N100EMG	nLight® without lumen management For use with generator supply EM power ‡
NES7	nLight® nES 7 PIR integral occupancy sensor ‡
NESPDT7	nLight® nES PDT 7 dual technology integral occupancy control ‡
NES7ADCX	nLight® nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell ‡
NESPDT7ADCX	nLight® nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell ‡
Individual controls: ‡	
MSD7	PIR integral occupancy sensor
MSDPDT7	PDT 7 dual technology integral occupancy control
MSD7ADC	PIR integral occupancy sensor with automatic dimming control photocell
MSDPDT7ADC	PDT integral occupancy sensor with automatic dimming control photocell

Finish

WH	White
GALVW	Galvanized with white lens end caps
GALVB	Galvanized with black lens end caps
MB	Matte black
SKGYW	Smoke gray with white lens end caps
SKGYB	Smoke gray with black lens end caps

See Accessories and footnotes on next page

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Accessories: *Order as separate catalog number.*

Mounting:

ZACVH M100	Adjustable 10' aircraft cable with Y hanger (1 pair)
ZAC120	One adjustable aircraft cable with canopy 120", white
ZACFP120	One adjustable aircraft cable with feed (3 conductor) and canopy, 120", white
ZACFPD120	One adjustable aircraft cable with feed (5 conductor) and canopy 120", white
ZAC240	One adjustable aircraft cable with canopy 240", white
ZACFP240	One adjustable aircraft cable with feed (3 conductor) and canopy, 240", white
ZACFPD240	One adjustable aircraft cable with feed (5 conductor) and canopy 240", white

SQ_	Swivel stem hanger (specify length in 2" increments up to 48") Ships White
THCLX ___	Tong hanger (Must specify color) (one pair) ‡
CLXANGBKT ____	Angle bracket, (Must specify color) (one pair) ‡
HC36 M12	Hanger chain, 36" (1 pair)

Wireguards:

WGCLX24 ___	24" wireguard qty 1, (Must specify color) ‡
WGCLX36 ___	36" wireguard qty 1, (Must specify color) ‡
WGCLX48 ___	48" wireguard qty 1, (Must specify color) ‡
WGCLX48 ___ J2	48" wireguard qty 2, (Must specify color) ‡
WGCLX48 ___ J25	48" wireguard qty 25, (Must specify color) ‡
WGCLX48 ___ J50	48" wireguard qty 50, (Must specify color) ‡

‡ Option Value Ordering Restrictions

Option value	Restriction
347V, 480V	Voltage selected utilizes a step-down transformer. Not available with L24 when ordered with N100. Not available with PS1050, E10WLCP or BGTD option.
BGTD	Not available with MVOLT, 208V or 240V. Not available with HA. Available with L48 or L96 only. Not available with PS1050 or E10WLCP options. Not available with 208 or 240V. Not available Individual controls, NLight Wired, or NLight Wireless options.
CS1W, CS3W, CS7W, CS11W, CS25W, CS963W, CS97W	Not available with BGTD option. Must specify voltage. Not available with PLR options.
CS6WG16ST0WD5D	Not available with Individual controls, nLight wired networking, nLight wireless networking, nLight wireless zone control options.
Driver	When continuous row mounting, fixtures must all have the same driver selection.
E10WLCP	Not available with OUTCR, Not available with HA. Not available with 347V or 480V. Not available with BGTD option. Requires SPD option. Not available with L24 or L36. Not available with L48 in combination with N100.
E10WSTAR	Not available with OUTCR, Not available with HA. Not available with 347V or 480V. Not available with BGTD option. Requires SPD option. Not available with L24 or L36.
EPNKO	Not available OUTEND.
EZ1	Not available with HA option. Not available with 5000LM, 7500LM.
FDL, RDL, WDL	Only available with general distribution. Not available with CLXRN accessories.
GZ1, GZ10	Not available with Individual controls, nLight wired networking, nLight wireless networking, nLight wireless zone control options.
HA	Not available with L24, L26, Not available with BGTD option. Not available with EZ1. Only available with L48 3000/4000/5000LM and L96 6000/8000/10000LM.
HEF	not available with L48 3000LM and L96 6000LM
LUGR	Not available with L36 length. Only available with WH finish. Not compatible with THCLX Hanger or wireguard accessories. LUGR option required for some DLC premium qualifications - Please check the DLC Qualified Products List to determine if LUGR option is necessary to meet requirement. If mounting in continuous rows, ensure all models ordered with LUGR option if required on any configuration to ensure rows match in form factor. LUGR reflectors ship in standard fixture carton and are not sold as separate accessory - this option MUST be specified as part of the CLX model number.
MSD7, MSDPDT7, MSD7ADC, MSDPDT7ADC	Not available with any other control option. Requires EZ1. Sensor housing will be the same color as lens end caps.
N100, N100EMG	nLight EMG option requires a connection to existing nLight network. Power is provided from separate N100 enabled fixture.
ND, WD, AD2	Not available with CLXRN accessories. Available L/LENS only.
NES7, NESPDT7, NES7ADCX, NESPDT7ADCX	Not available with any other control option. Requires EZ1. Requires N100 or N100EMG option, N100EMG with NES7 requires RFA. Sensor housing will be the same color as lens end caps.
NLTAIR2 RES7(EM), NLTAIR2 RES7PDT(EM), NLTAIR2 RIO(EM)	Not available with L96 14000LM, 18000LM, 20000LM. Sensor housing will be the same color as lens end caps. For EM, see UL924 Sequence of Operation chart below.
OCS	Must specify voltage.
OUTCR	Not available with L24, Not available with PLR options.
OUTEND	Not available with PLR options.
PLR1LVG	Not available with Individual controls, NLight Wired, or NLight Wireless options. Refer to page 9 for more PLR details.
PS1050	Not available with 347V or 480V. Not available with BGTD option. Requires SPD option. Not available with L24 or L36. Not available with L48 in combination with N100. Not available with HA.
SBLW, SBLMB, SBLGV, SBLSKGY	When ordered with L24 only available with 1500LM or 2000LM in combination with GZ10 driver. Not for use with THCLX, CLXANGBKT or WGCLX accessories. Not available with RDL lens options.
SEF	Not available with EZ1 when ordered with L24 with 5000LM or L36 with 7500LM.
SPD	Required with PS1050, E10WLCP, BGTD.
THCLX ___, CLXANGBKT ____	Not available with louver or wireguards. THCLX___ not available with LUGR.
Wireguards	Not for use with LUGR option. For L96 fixtures, use qty 2 48" wireguards.

UL924 Sequence of Operation

The below information applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the CLAIRITY+ mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only non-emergency rPP20, rLSXR, rSBOR, rSDGR, and nLight AIR luminaires with version 3.4 or later firmware can provide normal power sensing for EM devices. See specification sheets for control devices and luminaires for more information on options that support normal power sensing.

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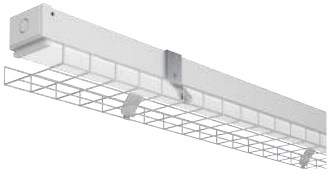
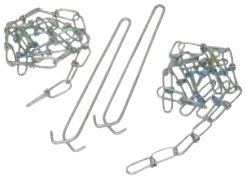
OPTIONS AND ACCESSORIES



Wireguard
Ships separately from fixture:
96" fixture requires two WGCLX48.
Order as:
WGCLX24___
WGCLX36___
WGCLX48___

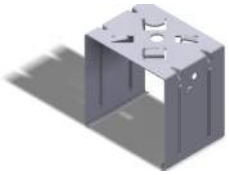
LUGR glare reflector
NOT available as accessory - must be specified as part of the fixture nomenclature. See ordering notes on page 3.

Aircraft Cable with Canopy
Available in 120" or 240"
Order as:
ZAC120
ZAC240



HANGER CHAIN
36" chain with Y hanger. ships as a pair
Order as:
HC36

ZACVH HANGER
10' Aircraft cable with Y hanger.
Order as:
ZACVH



Tong hanger
Ships as a pair
Order As:
THCLX___

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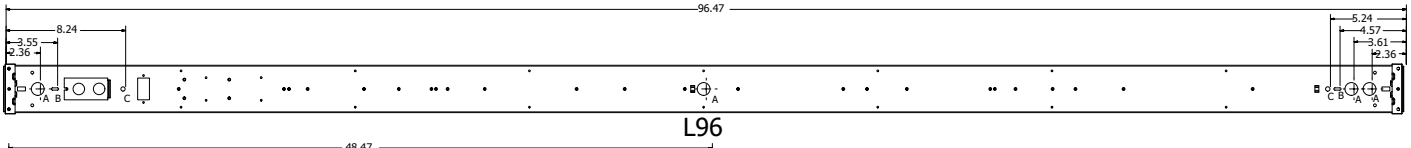
DIMENSIONS

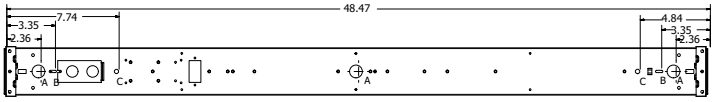
All dimensions are in inches (centimeters) unless otherwise indicated.
Dimensions may vary with options or accessories.

INTEGRATED SENSOR ADDS 2.0 INCHES TO STANDALONE FIXTURE LENGTH
HOUSING END CAP ADDS 0.236 INCHES TO FIXTURE LENGTH PER SIDE. DIMENSIONS BELOW INCLUDE ENDCAPS.

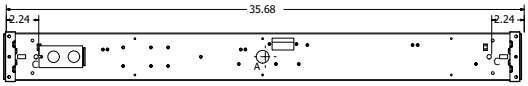
A - 7/8" KNOCK OUT
B - 0.5" by 0.16" SLOT
C - 0.3" DIA HOLE



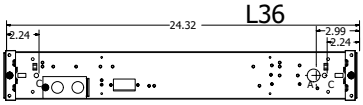
L96



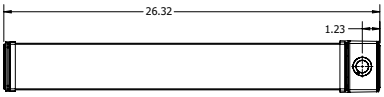
L48



L36



L24

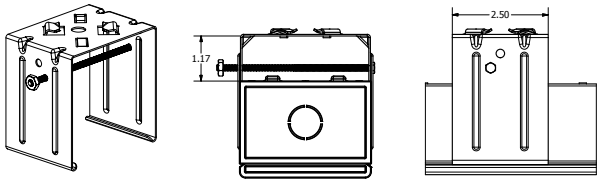


L24 WITH SENSOR

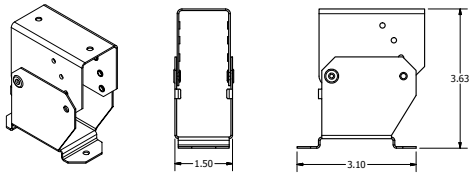
PALLET DIMENSIONS

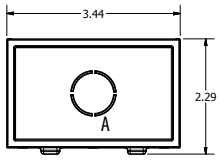
Length	Approx Weight	Fixtures per pallet	Pallet Dims (L X W X H)
L24	4 lb	100	54x46x37
L36	5 lb	80	54x46x37
L48	7.5 lb	64	54x46x37
L96	14 lb	64	98x46x37

THCLX - SHIPS TWO PER ORDER,
UTILIZES A #8 HEX HEAD SCREW AND NUT
FIXTURE SITS 1.3 INCHES FROM STRUCTURE WHEN MOUNTED

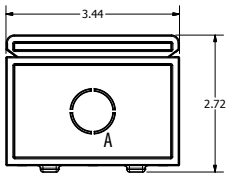


CLXANGBKT - SHIPS TWO PER ORDER
HOLES TO MOUNTING STRUCTURE ARE 0.175" DIA, 2.5" APART
FIXTURE SITS APPROXIMATELY 3.5" FROM STRUCTURE
WHEN MOUNTED HORIZONTAL TO STRUCTURE

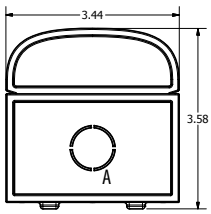




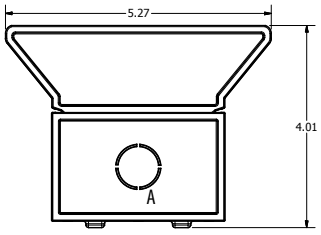
L/LENS



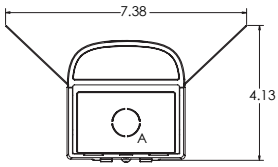
FDL



RDL



WDL



LUGR Reflector Option
- applies to all lens types

PHOTOMETRICS

See www.lithonia.com.

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POWER SENTRY EMERGENCY BATTERY PACKS

		SEF Emergency Lumens	HEF Emergency Lumens
PS1050	Factory installable	1400	1500
E10WLCP	Factory installable	1400	1500
PS1555LCP	Field installable, remote mount only	2000	2100

Note: For emergency lumen output of specific model, please consult factory. One board will be illuminated during emergency operation.

Emergency Battery Pack Options - Field Installable

Battery Model Number	Wattage	Runtime (Minutes)	Lumen Output* @ 120 Lumens/Watt	Other
ILB CP07 2H A	7W	120	840	Storm Shelter / 2 Hour Runtime
ILB CP10 A	10W	90	1200	
ILBLP CP10 HE SD A	10W	90	1200	Title 20, Self Diagnostic
ILB CP10 HE AELR A	10W	90	1200	Title 20; Enabled with Self Testing, Automated Reporting (STAR)
ILBLP CP15 HE SD A	15W	90	1800	Title 20, Self Diagnostic
ILB CP20 HE A	20W	90	2400	Title 20
ILB CP20 HE SD A	20W	90	2400	Title 20, Self Diagnostic

All the above are UL Listed products that are certified for field install external/remote to the fixture.
*Minimum delivered lumen output to assist in product selection for increased fixture mounting height.
The CP10 delivered emergency illumination outperforms legacy 1400 lumen fluorescent emergency ballast.
Please contact us at techsupport@iotaengineering.com for any Emergency Battery related questions.

Enabled with STAR

Emergency Lighting with Self-Testing Automated Reporting (STAR), enables self-testing and automated reporting to aid in life safety code compliance. Build your solution and choose your preferred deployment from Mobile STAR, where test data is logged in each individual unit and broadcast to the CIAIRity™+ app, or Connected STAR, where test data is logged in the STAR Gateway by IOTA® and emailed directly. **Leave the ladders, disruptions and written records behind with emergency lighting solutions with STAR!**

Life Safety Code NFPA 101 testing and reporting requirements for emergency lighting include:

- Testing for 30 seconds every 30 days
- Testing for 90 minutes once a year
- Record keeping and to report to the authority having local jurisdiction

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CLX CHARACTERISTICS

Nominal Lumen Package	Length	Wattage								Length	Width	Depth	Comparable Light Source
		Standard Efficiency				High Efficiency							
		120V	277V	347V	480V	120V	277V	347V	480V	Dimensions are shown in inches			
2500LM	24"	18.4	18.4	24.0	24.0	17.4	17.4	23.1	23.1	24	3.5	3.75	1-lamp 32W T8, 1-lamp 54W T5HO, 50W HID
5000LM	24"	41.5	41.5	47.4	47.4	38.1	38.1	44.1	44.1	24	3.5	3.75	2-lamp 32W T8, 1-lamp 54W T5HO, 70W HID
3750LM	36"	26.5	26.5	32.1	32.1	25.1	25.1	30.7	30.7	36	3.5	3.75	1-lamp 32W T8, 1-lamp 54W T5HO, 50W HID
7500LM	36"	62.6	62.6	68.6	68.6	54.0	54.0	59.7	59.7	36	3.5	3.75	2-lamp 32W T8, 1-lamp 54W T5HO, 70W HID
5000LM	48"	31.8	31.8	37.2	37.2	30.3	30.3	35.8	35.8	48	3.5	3.75	2-lamp 32W T8, 1-lamp 54W T5HO, 70W HID
10000LM	48"	70.7	70.7	76.2	76.2	65.3	65.3	70.8	70.8	48	3.5	3.75	3-lamp 32W T8, 2-lamp 54W T5HO, 100W HID
10000LM	96"	63.7	63.7	69.0	69.0	60.6	60.6	66.1	66.1	96	3.5	3.75	3-lamp 32W T8, 2-lamp 54W T5HO, 100W HID
20000LM	96"	141.3	141.3	146.8	146.8	130.5	130.5	136.1	136.1	96	3.5	3.75	6-lamp 32W T8, 4-lamp 54W T5HO, 200W HID

Note: For wattage by configuration, please reference the CLX Operational Data Document.

Lumen Package	UGR Values of CLX L24 @ 80CRI and 3500K UGR (70% 50% 20% reflectance using a 4H x 8H room size)													
	FDL		RDL		WDL		FDL LUGR		RDL LUGR		WDL LUGR		L/LENS	
	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise
1500LM SEF	21.2	23.8	19.4	25.2	17.4	21.1	16.8	14	17.8	16.6	18.1	17.9	24.9	25.1
2000LM SEF	22.3	24.9	20.5	26.3	18.6	22.3	17.9	15.1	18.8	17.6	19.2	18.9	26.1	26.2
2500LM SEF	23.1	25.7	21.3	27.1	19.4	23.1	18.6	15.8	19.6	18.4	19.9	19.7	26.9	27
3500LM SEF	24.1	26.7	22.3	28.1	20.4	24.1	19.7	16.9	20.7	19.5	21	20.8	27.9	28.1
4500LM SEF	25.4	28	23.6	29.4	21.7	25.4	20.7	17.9	21.7	20.5	22	21.8	29.2	29.3
5000LM SEF	25.6	28.2	23.3	29.1	21.4	25.1	21	18.3	21.5	20.3	21.8	21.5	29.4	29.5
1500LM HEF	21.1	23.7	19.3	25.1	21.8	25.5	16.5	13.7	17.6	16.3	17.8	17.6	24.9	25
2000LM HEF	22.2	24.8	20.4	26.2	17.4	21.1	17.6	14.8	18.6	17.4	18.8	18.6	26	26.2
2500LM HEF	23	25.7	21.3	27	18.5	22.2	18.4	15.6	19.4	18.2	19.7	19.4	26.8	27
3500LM HEF	24.1	26.7	22.3	28.1	19.3	23	19.8	17	20.9	19.7	21.1	20.9	27.9	28
4500LM HEF	25.3	27.9	23.5	29.3	20.4	24.1	20.8	18	21.8	20.6	22.1	21.8	29.1	29.3
5000LM HEF	25.5	28.1	23.7	29.5	21.6	25.3	21.1	18.3	22.1	20.9	22.3	22.1	29.3	29.5

UGR varies based on luminaire options and is affected by application dependent parameters. Numbers depicted here are considered "Luminaire-UGR and/or "Point-UGR" values. To determine a more precise maximum UGR value ("Application-UGR"), a full lighting design layout should be completed with the selected luminaire configuration for each application

Lumen Package	UGR Values of CLX L36 @ 80CRI and 3500K UGR (70% 50% 20% reflectance using a 4H x 8H room size)							
	FDL		RDL		WDL		L/LENS	
	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise
2250LM SEF	21.4	24.1	19.7	25.6	17.7	21.6	25.2	25.4
3000LM SEF	22.3	25	20.6	26.5	18.6	22.5	26.2	26.3
3750LM SEF	23.2	25.9	21.4	27.3	19.5	23.4	27	27.2
5250LM SEF	24.2	26.9	22.5	28.4	20.5	24.4	28	28.2
6750LM SEF	25.1	27.8	23.3	29.2	21.4	25.3	28.9	29
7500LM SEF	25.4	28.1	23.6	29.5	21.7	25.6	29.2	29.4
2250LM HEF	25	27.7	20.5	26.4	18.6	22.5	25.2	25.3
3000LM HEF	25.3	28	21.4	27.3	19.4	23.3	26.1	26.2
3750LM HEF	21.4	24.1	22.4	28.3	20.5	24.4	27	27.1
5250LM HEF	22.3	25	23.2	29.2	21.3	25.2	28	28.1
6750LM HEF	23.1	25.8	23.6	29.5	21.6	25.5	28.8	29
7500LM HEF	24.2	26.8	19.6	25.5	17.7	21.6	29.1	29.3

UGR varies based on luminaire options and is affected by application dependent parameters. Numbers depicted here are considered "Luminaire-UGR and/or "Point-UGR" values.
To determine a more precise maximum UGR value ("Application-UGR"), a full lighting design layout should be completed with the selected luminaire configuration for each application

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Lumen Package	UGR Values of CLX L48 @ 80CRI and 3500K UGR (70% 50% 20% reflectance using a 4H x 8H room size)													
	FDL		RDL		WDL		FDL LUGR		RDL LUGR		WDL LUGR		L/LENS	
	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise
3000LM SEF	21.8	24.5	19.7	25.3	18.6	23.4	19.2	16.5	20.2	19	20.6	20.3	24.8	25.6
4000LM SEF	22.8	25.5	20.7	26.3	19.6	24.4	20.3	17.5	21.2	20	21.6	21.4	25.8	26.6
5000LM SEF	23.6	26.3	21.4	27	20.4	25.2	21	18.2	21.9	20.7	22.3	22.1	26.6	27.3
7000LM SEF	24.8	27.6	22.7	28.3	21.6	26.5	22.3	19.6	23.3	22.1	23.7	23.4	27.8	28.6
9000LM SEF	25.6	28.4	23.5	29.1	22.5	27.3	23.2	20.4	24.1	22.9	24.5	24.3	28.6	29.4
10000LM SEF	26	28.7	23.8	29.5	22.8	27.6	23.6	20.8	24.5	23.3	24.9	24.7	29	29.8
3000LM HEF	x	x	x	x	x	x	x	x	x	x	x	x	x	x
4000LM HEF	22.8	25.6	20.7	26.3	22.8	25.6	20.3	17.5	21.3	20.1	21.7	21.4	29.5	30.3
5000LM HEF	23.6	26.3	21.4	27	23.6	26.3	21	18.2	21.9	20.7	22.3	22.1	30.2	31
7000LM HEF	24.8	27.6	22.7	28.3	24.8	27.6	22.4	19.6	23.4	22.2	23.8	23.5	27.8	28.6
9000LM HEF	25.7	28.4	23.6	29.2	25.7	28.4	23.2	20.4	24.2	23	24.6	24.3	28.7	29.5
10000LM HEF	26	28.7	23.9	29.5	26	28.7	23.6	20.9	24.6	23.4	25	24.7	29	29.8

UGR varies based on luminaire options and is affected by application dependent parameters. Numbers depicted here are considered "Luminaire-UGR and/or "Point-UGR" values. To determine a more precise maximum UGR value ("Application-UGR"), a full lighting design layout should be completed with the selected luminaire configuration for each application

Lumen Package	UGR Values of CLX L96 @ 80CRI and 3500K UGR (70% 50% 20% reflectance using a 4H x 8H room size)													
	FDL		RDL		WDL		FDL LUGR		RDL LUGR		WDL LUGR		L/LENS	
	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise	Crosswise	Endwise
6000LM SEF	21.8	24.6	19.7	25.4	17.9	22.4	19.3	16.5	20.2	19	20.6	20.4	24.8	25.6
8000LM SEF	22.8	25.5	20.7	26.4	18.8	23.4	20.3	17.6	21.2	20.1	21.6	21.4	25.8	26.6
10000LM SEF	23.6	26.3	21.4	27.2	19.6	24.2	21	18.3	21.9	20.8	22.3	22.1	26.5	27.3
14000LM SEF	24.8	27.6	22.7	28.5	20.9	25.5	22.4	19.6	23.3	22.1	23.7	23.5	27.8	28.6
18000LM SEF	25.7	28.4	23.5	29.3	21.7	26.3	23.2	20.5	24.1	23	24.5	24.3	28.6	29.4
20000LM SEF	26	28.7	23.9	29.6	22	26.6	23.6	20.9	24.5	23.4	24.9	24.7	29	29.7
6000LM HEF	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8000LM HEF	22.8	25.6	20.7	26.5	18.9	23.5	20.4	17.6	21.3	20.1	21.7	21.5	25.8	26.6
10000LM HEF	23.6	26.3	21.4	27.2	19.6	24.2	21	18.3	21.9	20.8	22.3	22.1	27	27.8
14000LM HEF	24.9	27.6	22.7	28.5	20.9	25.5	22.4	19.7	23.4	22.2	23.8	23.5	27.8	28.6
18000LM HEF	25.7	28.4	23.6	29.3	21.7	26.3	23.2	20.5	24.2	23	24.6	24.3	28.7	29.5
20000LM HEF	26	28.8	23.9	29.6	22.1	26.6	23.7	20.9	24.6	23.4	25	24.8	29	29.8

UGR varies based on luminaire options and is affected by application dependent parameters. Numbers depicted here are considered "Luminaire-UGR and/or "Point-UGR" values. To determine a more precise maximum UGR value ("Application-UGR"), a full lighting design layout should be completed with the selected luminaire configuration for each application

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RRL - RELOC®-Ready Luminaire

- RRL connectors can be used with Quick-Flex®, System 820 and OnePass® systems.
- Load side of connector factory installed to luminaire.
- 4-pole mating connector with push-in terminations allows for simple installation.
- Touch-safe design on both halves meets UL/CSA requirement.
- Wiping contact design allows safe disconnect under load.

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative.

Example: RRLA

Series		Wiring instructions	
RRL	RELOC®-ready luminaire	A	Hot conductor wired to position #1 (phase A)
		B	Hot conductor wired to position #2 (phase B)
		C	Hot conductor wired to position #3 (phase C) [1]

Compatible RELOC® Cables for Industrial Luminaires (ordered and shipped separately)

OCS

OCU

OD

DC

PT

Notes

1 C, ABE, and C12S options are not used with Quick-Flex QFC, QSFC, QPT, and QD.

PLUG-IN WIRING INFORMATION

Advanced plug-in system with two-circuit capability. Available on industrial and strip products and a variety of architectural products mounted in continuous rows. PLR22 (2-circuit) and crossover harness switches hot circuit serving next fixture in row. Reduces fixture types on job for alternating circuit applications (see example below.)

Easy one-step installation, saves up to 35% on labor costs. Expanded switching flexibility helps save energy.

Rows can be 50% longer with two-circuit systems. Polarized, lock-together nylon connectors prevent miswiring in the field. #12 THHN conductor, rated 600V, 90°C. White neutral wire included. Grounding accomplished by fixture in-row connectors.

CSA certified systems available with up to 2 circuits. G ground required.

Not for use with dedicated emergency circuits.

Note: Specifications subject to change without notice.

Wiring

PLR

Advanced 1 or 2-Circuit Plug-In

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative.

Series	Number of hot wires		Branch circuits (PLR2A / PLR2B Only)				Dimming		Ground	
PLR22	(blank)	Not required for PLR22	(blank)	Not required for PLR22			(blank)	No Dimming	G	Ground (required)
PLR	1	Black	(blank)	Not required for PLR1			(blank)	No Dimming	G	Ground (required)
	2	Black and red	**Circuits to which driver is connected**		**Battery charging circuit (must be unswitched)**		LV	Low-voltage Dimming	G	Ground (required)
			(blank)	Not required for PLR22	(blank)	No battery charging circuit				
			A	Black wire	ELA	Battery pack wired to black wire				
			B	Red wire	ELB	Battery pack wired to red wire				

Typical Applications

Notes:

When specifying PLR1, you will not specify A or B as there is only a single hot wire which would be black in color.

- Multiple-circuit and single-circuit for longer continuous rows
- Multiple-circuit with alternating fixtures on separate circuits and 2-circuit PLR22
- Multiple circuit with night-lights located along row as desired

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LITHONIA LIGHTING®

Catalog Number	
Notes	
Type	**L10**

GTL Series

2GTL

2' x 4'
LED Recessed Troffer

FEATURES & SPECIFICATIONS

INTENDED USE — The 2GTL LED recessed troffer offers a wide range of lumen packages, color temperatures, and lens options to meet the lighting needs for a wide range of applications such as schools, offices, and hospitals. The light engine delivers long life and excellent color to ensure a sound quality, low-maintenance lighting installation. **Certain airborne contaminants can diminish the integrity of acrylic and/or polycarbonate. Click here for Acrylic-Polycarbonate Compatibility table for suitable uses.**

CONSTRUCTION — Housing formed from 22 gauge cold-rolled steel. Smooth hemmed sides and smooth inward formed end flanges for safe handling. Includes integral T-bar clips. Lighter-weight fixture allows for safe, easy installation.

OPTICS — Highly transmissive pattern #12 lens diffuses the light source without compromising output. Pattern # 19 and satin white lens options also available.

ELECTRICAL — Long-life LEDs, coupled with high-efficiency drivers, provide extended service life. 80% LED lumen maintenance at 72,000 hours (L80/72,000).

eldoLED driver options deliver choice of dimming range, and choices for control, while assuring flicker-free, low-current inrush, 89% efficiency and low EMI.

Optional nLight® embedded controls make each luminaire addressable - allowing it to digitally communicate with other nLight enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Simply connect all the nLight enabled control devices and the GTL luminaires using standard Cat-5 cabling. Unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission.

Lumen Management: Unique lumen management system (option N80) provides onboard intelligence that actively manages the LED light source so that constant lumen output is maintained over the system life, preventing the energy waste created by the traditional practice of over-lighting.

The step-level dimming option (SLD) allows the system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

Ballast disconnect is provided where required to comply with U.S. and Canadian codes.

INSTALLATION — The GTL fits into standard 15/16" and narrow 9/16" T-Grid ceiling systems. LED boards include plug-in connectors for easy of upgradeability. Suitable for direct insulation contact. Suitable for damp location.

LISTINGS — CSA certified to meet U.S. and Canadian standards. IC rated. DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

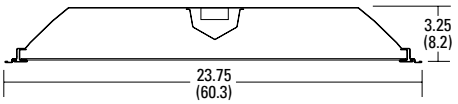
GOVERNMENT PROCUREMENT — BAA – Product with the BAA option qualifies as a domestic end product under the Buy American Act as implemented in the FAR and DFARS. Product with the BAA option also qualifies as manufactured in the United States under DOT Buy America regulations.
BABA – Build America Buy America: Product with the BAA option also qualifies as produced in the United States under the definitions of the Build America, Buy America Act.
Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.
All values are design or typical values, measured under laboratory conditions at 25 °C.
Specifications subject to change without notice.

Specifications

Length: 47.75 (121.3)
Width: 23.75 (60.3)
Depth: 3.25 (8.2)



All dimensions are inches (centimeters) unless otherwise indicated.

A+ Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

2GTL LED Troffer

A+ Capable options indicated by this color background.

ORDERING INFORMATION Lead times will vary depending on options selected. Consult with your sales representative.

Example: 2GTL 4 48L GZ10 LP835

2GTL						
Series	**Trim type**	**Length**	**Lumens**[1]	**Door**	**Lens**	**Voltage**
2GTL 2' wide recessed LED luminaire	(blank) Grid F Overlapping flange	4 4' 2 2'	30L 3000 lumens 40L 4000 lumens 48L 4800 lumens 60L 6000 lumens 72L 7200 lumens 88L 8800 lumens 100L 10000 lumens 140L 14000 lumens[2]	(blank) Flush steel, white FN Flush aluminum, natural FM Flush aluminum, matte black FW Flush aluminum, white RN Regressed aluminum, natural RM Regressed aluminum, matte black RW Regressed aluminum, white	(blank) #12 pattern acrylic, 0.110" thick A12125 #12 pattern acrylic, frosted, .125" thick A19 #19 pattern acrylic, 0.156" thick SWL Satin white	(blank) MVOLT (120-277V) 120 120V 277 277V 347 347V[3]

Driver	**Color temperature**	**Controls**[6]	**Options**
EZ1 eldoLED dims to 1% (0-10V dimming) GZ10 Dims to 10% (0-10V dimming) GZ1 Dims to 1% (0-10V dimming) SLD Step-level dimming[4,5]	LP830 3000 K LP835 3500 K LP840 4000 K LP850 5000 K	(blank) No controls N80 nLight with 80% (L80) lumen management N80EMG nLight with 80% (L80) lumen management for use with generator supply emergency power N100 nLight without lumen management N100EMG nLight without lumen management for use with generator supply emergency power	BDP Disconnect Plug EL7L 700 lumen emergency battery (Noncompliant with CA T20) [5,7,8] EL14L 1400 lumen emergency battery (Noncompliant with CA T20) [5,7,8] E10WLCP EM Self-Diagnostic battery pack, 10W Constant Power, Certified in CA Title 20 MAEDBS [5,7,8] BGTD Bodine Generator Transfer Device [9,10,11] CP Chicago plenum [12] PWS1836 6' pre-wire, 3/8" diameter, 18-gauge, 1-circuit PWS1846 6' pre-wire, 3/8" diameter, 18-gauge, 2-circuit PWS1846 PWSLV Two cables: one 6' pre-wire, 3/8" diameter, 18 gauge, 2 circuits; one 6' pre-wire, 3/8" diameter, 18 gauge [13] PWS1856LV 6' pre-wire, 3/8" diameter, 18 gauge, 1 circuit w/ low voltage wires [13] ABC Door frame gasketing [14] GLR Fast-blowing fuse [15] GMF Slow-blowing fuse [15] LATC Earthquake clip NPLT Narrow pallet PAF Paint after fab BAA Buy America(n) Act and/or Build America Buy America Qualified

Accessories: *Order as separate catalog number.*

DGA24	Drywall grid adapter for 2x4 recessed fixture.
2X4SMKSHP PAF	Surface Mount Troffer Kit Post Paint
RK8BDP 2P U	Disconnect Plug (BDP), 2 Pole, Package of 1
RK8BDP 3P U	Disconnect Plug (BDP), 3 Pole, Package of 1
RK8BDP 2P J10	Disconnect Plug (BDP), 2 Pole, Package of 10
RK8BDP 2P J40	Disconnect Plug (BDP), 2 Pole, Package of 40

Notes

1 Approximate lumen output. Lumen output will vary depending upon lens option chosen.
2 Not available with GZ10.
3 Not available with SLD, EL7L, EL14L, E10WLCP or BGTD.
4 Not available with 100L and 140L.
5 When using pre-wire option, use PWS1846.
6 Not available with SLD, GZ1, GZ10.
7 Not available with SLD or GZ1 or GZ10 when combined with any of the following lumen packages: 72L, 88L,100L or 140L.
8 Not available with EZ1 when combined with 100L or 140L lumen packages.
9 Not Available with SLD.
10 Not Available with Controls options when ordered in combination with 100L or 140L lumen packages.
11 Must specify voltage. Requires BSE labeling, voltage specific. Consult factory for options. Example: BGTD BSE10.
12 Not available with PWS1836, PWS1846, PWS1856LV, or PWS1846 PWSLV.
13 Not available with individual controls.
14 Only available with aluminum door.
15 Must specify voltage, 120 or 277.
16 For CEC (T20) compliant option, substitute EL14L option with E10WLCP "EM self- diagnostic battery pack 10W constant power, CEC compliant".

Emergency Battery Pack Options – Field Installable

Battery Model Number	Wattage	Runtime (Minutes)	Lumen Output* @ 120 Lumens/Watt	Other
ILB CP07 2H A	7W	120	840	Storm Shelter / 2 Hour Runtime
ILB CP10 A	10W	90	1200	
ILB CP10 HE AELR A	10W	90	1200	Title 20; Enabled with Self Testing, Automated Reporting (STAR)
ILBLP CP10 HE SD A	10W	90	1200	Title 20, Self Diagnostic
ILBLP CP15 HE SD A	15W	90	1800	Title 20, Self Diagnostic
ILB CP20 HE A	20W	90	2400	Title 20
ILB CP20 HE SD A	20W	90	2400	Title 20, Self Diagnostic

All the above are UL Listed products that are certified for field install external/remote to the fixture.
*Minimum delivered lumen output to assist in product selection for increased fixture mounting height.
The CP10 delivered emergency illumination outperforms legacy 1400 lumen fluorescent emergency ballast.
Please contact us at techsupport@iotaengineering.com for any Emergency Battery related questions.

COMMERCIAL INDOOR: One Lithonia Way Conyers, GA 30012 Phone: 800-705-SERV (7378) www.lithonia.com
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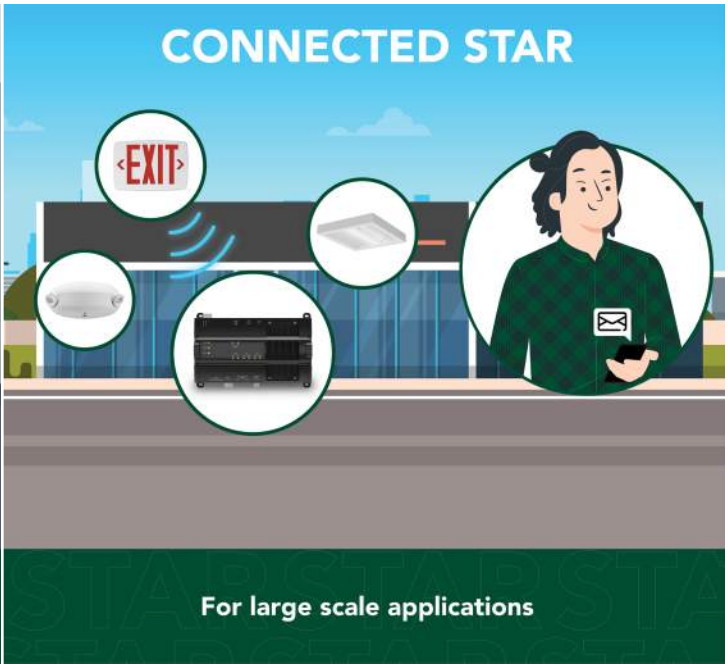
Rev. 05/07/24

Enabled with STAR

Emergency Lighting with Self-Testing Automated Reporting (STAR), enables self-testing and automated reporting to aid in life safety code compliance. Build your solution and choose your preferred deployment from Mobile STAR, where test data is logged in each individual unit and broadcast to the CI**AIR**ity™**+** app, or Connected STAR, where test data is logged in the STAR Gateway by IOTA® and emailed directly. **Leave the ladders, disruptions and written records behind with emergency lighting solutions with STAR!**

Life Safety Code NFPA 101 testing and reporting requirements for emergency lighting include:

- Testing for 30 seconds every 30 days
- Testing for 90 minutes once a year
- Record keeping and to report to the authority having local jurisdiction



Stock/Non-configurable models are offered for shorter lead times:

ORDERING INFORMATION

Catalog Number	UPC	Description	Lumens	Color Temprature	Voltage	Wattage	Pallet qty.	Standard carton qty.
2GTL4 4400LM LP835	889804706598	2x4 LED lay-in troffer	4391	3500K	120-277	34.10	28	1
2GTL4 4400LM LP840	889804706956	2x4 LED lay-in troffer	4567	4000K	120-277	34.10	28	1
2GTL4 4400LM 347 LP835	889804710243	2x4 LED lay-in troffer, 347v	4391	3500K	347	38.11	28	1
2GTL4 4400LM 347 LP840	889804710359	2x4 LED lay-in troffer, 347v	4567	4000K	347	38.11	28	1
2GTL4 4400LM EL14L LP835[16]	889804710045	2x4 LED lay-in troffer, emergency battery	4391	3500K	120-277	34.10	28	1
2GTL4 4400LM EL14L LP840[16]	889804710205	2x4 LED lay-in troffer, emergency battery	4567	4000K	120-277	34.10	28	1
2GTL4 5000LM LP835	889804710366	2x4 LED lay-in troffer	4867	3500K	120-277	38.79	28	1
2GTL4 5000LM LP840	889804710458	2x4 LED lay-in troffer	5062	4000K	120-277	38.79	28	1
2GTL4 5000LM 347 LP835	889804710489	2x4 LED lay-in troffer, 347v	4867	3500K	347	42.78	28	1
2GTL4 5000LM 347 LP840	889804710595	2x4 LED lay-in troffer, 347v	5062	4000K	347	42.78	28	1
2GTL4 5000LM EL14L LP835[16]	889804710625	2x4 LED lay-in troffer, emergency battery	4867	3500K	120-277	38.79	28	1
2GTL4 5000LM EL14L LP840[16]	889804710700	2x4 LED lay-in troffer, emergency battery	5062	4000K	120-277	38.79	28	1

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Performance Data			
Lumen Package	**Lumens**	**Input Watts**	**LPW**
30L LP830	2923.34	23.3	125
30L LP835	2983	23.3	128
30L LP840	3102.32	23.3	133
30L LP850	3161.98	23.3	136
40L LP830	3843.56	29.83	129
40L LP835	3922	29.83	131
40L LP840	4078.88	29.83	137
40L LP850	4157.32	29.83	139
48L LP830	4681.46	35.79	131
48L LP835	4777	35.79	133
48L LP840	4968.08	35.79	139
48L LP850	5063.62	35.79	141
60L LP830	6093.64	48.82	125
60L LP835	6218	48.82	127
60L LP840	6466.72	48.82	132
60L LP850	6591.08	48.82	135
72L LP830	7203.98	53.32	135
72L LP835	7351	53.32	138
72L LP840	7645.04	53.32	143
72L LP850	7792.06	53.32	146
88L LP830	8563.24	65	132
88L LP835	8738	65	134
88L LP840	9087.52	65	140
88L LP850	9262.28	65	143
100L LP830	10449.74	82.75	126
100L LP835	10663	82.75	129
100L LP840	11089.52	82.75	134
100L LP850	11302.78	82.75	137
140L LP830	13306.44	110.25	121
140L LP835	13578	110.25	123
140L LP840	14121.12	110.25	128
140L LP850	14392.68	110.25	131

Note: Performance based on standard #12 pattern acrylic lens.

How to Estimate Delivered Lumens in Emergency Mode

Use the formula below to estimate the delivered lumens in emergency mode

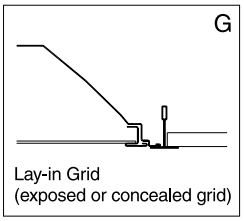
Delivered Lumens = 1.25 x P x LPW

P = Ouput power of emergency driver. P = 10W for E10WLCP option.

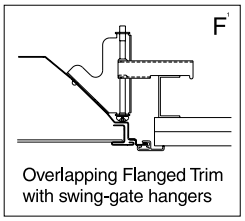
LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet. LPW = Lumen per watt rating of the luminaire. LPW information available in Performance Data section.

MOUNTING DATA

Continuous row mounting of flanged units requires CRE and CRM trim options (see Options).



Lay-in Grid
(exposed or concealed grid)



Overlapping Flanged Trim
with swing-gate hangers

NOTE:

1 Recommended rough-in dimensions for F-trim fixtures 24"x48" (Tolerance is +1/4"-0"). Swing-gate range 1-3/16" to 3-15/16". Swing-gate span 23-3/8" to 26-11/16". Fixture swing-gate points require additional 1-1/16" over nominal fixture height.

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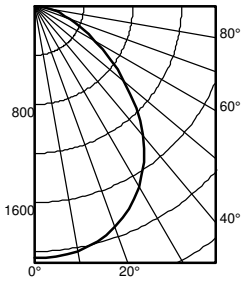
PHOTOMETRICS

2GTL 4 48L LP835, 4878 delivered lumens, test no. ISF 36875P10, tested in accordance to IESNA LM-79.



	Ave	Lumens
0	2057	
5	2053	195
15	1985	560
25	1823	838
35	1552	967
45	1168	899
55	753	675
65	420	422
75	218	234
85	85	89
90	0	

Zone	Lumens	% Lamp
0° - 30°	1592.7	32.6
0° - 40°	2559.5	52.5
0° - 60°	4133.7	84.7
0° - 90°	4878.5	100.0
90° - 120°	0.0	0.0
90° - 130°	0.0	0.0
90° - 150°	0.0	0.0
90° - 180°	0.0	0.0
0° - 180°	4878.5	*100.0

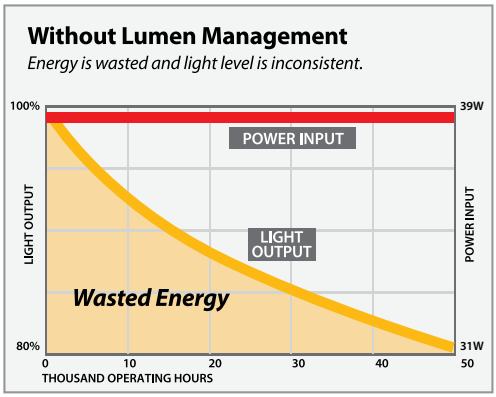
*Efficiency

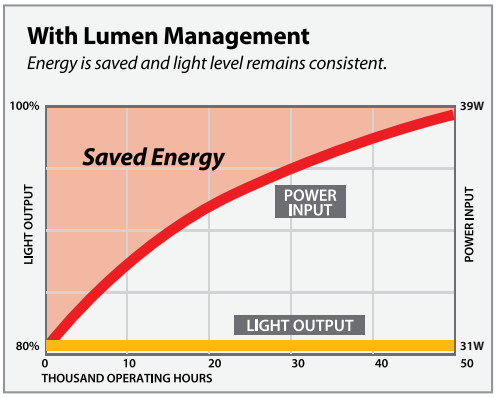
pf	80%			20%			50%		
pc	70%								
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%
0	119	119	119	116	116	116	111	111	111
1	105	101	98	103	99	96	99	96	93
2	93	87	81	91	85	80	88	83	79
3	83	75	69	81	74	68	78	72	67
4	74	66	59	73	65	59	70	63	58
5	66	58	52	65	57	51	63	56	51
6	60	52	46	59	51	45	58	50	45
7	55	47	41	54	46	41	53	45	40
8	50	42	37	50	42	36	48	41	36
9	46	38	33	46	38	33	45	38	33
10	43	35	30	42	35	30	41	35	30

		50% beam - 64.5°		10% beam - 105.3°	
Mounting Height	Inital FC Center Beam	Diameter	FC	Diameter	FC
8.0	61.9	6.9	30.9	14.4	6.2
10.0	34.8	9.5	17.1	19.7	3.3
12.0	22.1	12.0	10.8	24.9	2.1
14.0	15.3	14.5	7.4	30.1	1.4
16.0	11.2	17.0	5.4	35.4	1.0

Constant Lumen Management

Enabled by the embedded nLight control, the GTL actively tracks its run-time and manages its light source such that constant lumen output is maintained over the system life. Referred to as lumen management, this feature eliminates the energy waste created by the traditional practice of over-lighting.





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gotham® | EVO®

Multiple Layers of Light

Luminaire Type: L11

Catalog Number: SHOWER

General Illumination Shower Downlight 4"

Feature Set

- Wipe down flush or regressed lens
- NSF2 Splash/Non-food Zone
- Fully serviceable and upgradeable lensed LED light engine
- 70% lumen maintenance at 60,000 hours
- 2.5 MacAdam ellipse; 85 CRI typical, 90+ CRI optional
- IP66 rated room-side, Fixtures are wet location, covered ceiling
- Anti-microbial paint finish
- Non-conductive dead-front trim
- Suitable for steam room application
- UGR of zero for fixtures aimed at nadir with a cut-off equal to or less than 60deg per CIE 117-1995 Discomfort Glare in Interior Lighting. UGR FAQ

Distribution

medium wide
1.0 S:MH

Superior Perfomance

Nominal Lumens	1000	1500	2000	2500
Delivered	843	1281	1684	2165
Wattage	8.8	13.7	19.5	25.7
Efficacy	95.8	93.5	86.4	84.2

*Lumen output for 80CRI - 3500K

Coordinated Apertures | Multiple Layers of Light

General Illumination Layer | EVO

High Center Beam Layer | Incito

EVO + Incito — Multiple Layers of Light

Core

Healthcare

Special Applications

OVERVIEW

COMPLEMENTARY PRODUCTS

GOTHAM ARCHITECTURAL DOWNLIGHTING | 1400 Lester Road Conyers, GA 30012 | P 800-705-SERV (7378) | gothamlighting.com

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ORDERING INFORMATION

A+ Capable options indicated by this color background.

Luminaire Type:

Catalog Number:

EXAMPLE: EV04SH 35/20 DFFAMF SOL MVOLT EZ1

Series	Color Temperature	Nominal Lumen Values	Lens Setting	Lens	Voltage
EV04SH	27/ 2700 K 30/ 3000 K 35/ 3500 K 40/ 4000 K 50/ 5000 K	10 1000 lumens 15 1500 lumens 20 2000 lumens 25 2500 lumens 30 3000 lumens 35 3500 lumens 40 4000 lumens 45 4500 lumens	DFR Regressed lensed white painted trim DFF Flush lensed white painted trim DFRBR Regressed lensed black painted trim DFFBR Flush lensed black painted trim DFRAMF Regressed lensed trim with anti-microbial finish DFFAMF Flush lensed trim with anti-microbial finish	SOL Textured Lens SMO Smooth Clear Lens	MVOLT 120 277

Driver[1]	Controls Interface	Emergency	Options
EZ1 eldoLED 0-10V ECOdrive. Linear dimming to 1% min. EZB eldoLED 0-10V SOLOdrive. Logarithmic dimming to <1%. EDAB eldoLED SOLOdrive DALI. Logarithmic dimming to <1%.	NLT[2] nLight® dimming pack controls 0-10V eldoLED drivers. NLTER[2,3] nLight® dimming pack controls 0-10V eldoLED drivers. ER controls fixtures on emergency circuit.	(blank) no emergency options ELR[4] Emergency battery pack, 10W, with remote test switch. E10WCPR[4] Emergency battery pack, 10W Constant Power, CA Title 20 compliant with remote test switch BGTD Bodine generator transfer device. Specify 120V or 277V.	SF Single fuse. Specify 120V or 277V. 90CRI High CRI (90+). CP Chicago Plenum

ACCESSORIES — order as separate catalog numbers (shipped separately)

SCA4	Sloped ceiling adapter. Degree of slope must be specified (5D, 10D, 15D, 20D, 25D, 30D). Ex: SCA8 10D. Refer to TECH-190.
CTAEV04	4" Aperture ceiling thickness adapter (extends mounting frame to accommodate ceiling thickness up to 5").
CTA4-8 YK	4"-8" Aperture ceiling thickness adapter (extends mounting frame to accommodate ceiling thickness up to 5"). For use with CWW/DWW trims, EDXB, CP or nTune options.
ISD BC	0-10V wallbox dimmer. Refer to ISD-BC.
RK2 SDT 347/120 75VA U 347V	step-down transformer mounted in box installed by others up to 5000lm
RK2 SDT 347277120 395VA AD U 347V	step down transformer mounted in box installed by others 6000-12,000lm

ORDERING NOTES

1. Refer to TECH-240 for compatible dimmers.
2. Specify Voltage.
3. For use with generator supply EM power. Will require an emergency hot feed and normal hot feed.
4. 11" of plenum depth or top access required for battery pack maintenance. Not available with CP option.

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SPECIFICATIONS

Optical Assemby
Fully serviceable and upgradeable lensed LED light engine, both the driver and light engine are suitable for field maintenance and are serviceable from above or below the ceiling.

Unitized optics shall have mechanical attachment of the light engine to the lower reflector for complete optical alignment.

Electrical
The luminaire shall operate from a 50 or 60 Hz ±3 Hz AC line over a voltage ranging from 120 VAC to 277 VAC. The fluctuations of line voltage shall have no visible effect on the luminous output.

The luminaire shall have a power factor of 90% or greater at all standard operating voltages and full luminaire output.

Sound Rated A+. Driver shall be >80% efficient at full load across all input voltages.

Input wires shall be 18AWG, 300V minimum, solid copper. All drivers are ROHS compliant.

Controls
Luminaire shall be equipped with interface for nLight wired network with integral power supply as per specification.

Dimming
The luminaire shall be capable of continuous dimming without perceivable stroboscopic flicker as measured by flicker index (ANSI/IES RP-16-10) over a range of 100 – 10%, 100 – 1.0% or 100 – 0.1% of rated lumen output with a smooth shut off function to step to 0%.

eldoLED LED drivers shall conform to IEEE P1789 standards. Alternatively, manufacturers must demonstrate conformance with product literature and testing which demonstrates this performance. Systems that do not meet IEEE P1789 will not be considered.

Driver is inaudible in 24dB environment, and stable when input voltage conditions fluctuate over what is typically experienced in a commercial environment.

Construction
Luminaire housing is constructed of 20-gauge galvanized steel and has pre-installed telescopic mounting bars with maximum 26" and minimum 15" extension and 4" vertical adjustment.

Luminaires are suitable for installation in ceilings up to 1½" thick. (specify ceiling thickness adapter to extend frame to accommodate ceiling thickness up to 5").

Tool-less adjustments shall be possible after installation.

The assembly and manufacturing process for the luminaire shall be designed to assure all internal components are adequately supported to withstand mechanical shock and vibration.

25°C ambient temperature standard (1/2" clearance on all sides from non-combustible materials in non-IC applications, unless marked spacing noted otherwise). For use in insulated ceilings, a 3" clearance on all sides from insulation is required (unless marked spacing noted otherwise).

Listings
Fixtures are CSA certified to meet US and Canadian standards: All fixtures manufactured in strict accordance with the appropriate and current requirements of the "Standards for Safety" to UL, wet location covered ceiling.

Buy American Act
This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to https://www.acuitybrands.com/resources/buy-american for additional information.

Photometrics
LEDs tested to LM-80 standards. Measured by IESNA Standard LM-79-08 in an accredited lab. Lumen output shall not decrease by more than 30% over the minimum operational life of 60,000 hours.

Color appearance from luminaire to luminaire of the same type and in all configurations, shall be consistent both initially and at 6,000 hours and operate within a tolerance of <2.5 MacAdam ellipse as defined by a point at the intersection of the CCT line and the black body locus line in CIE chromaticity space.

Warranty
5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note:
Actual performance may differ as a result of end user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

A+ Capable Luminaire
This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight® control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

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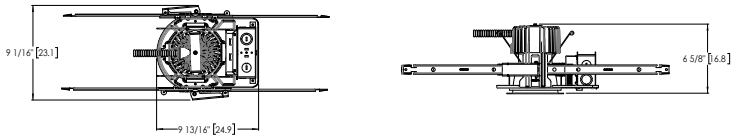
DIMENSIONAL DATA

Aperture: 4-5/16" (11)	Ceiling Opening: 5-1/8" (13) self-flanged
Overlap trim: 5-7/16" (13.8)	5-1/4" (13.3) flangeless

Standard

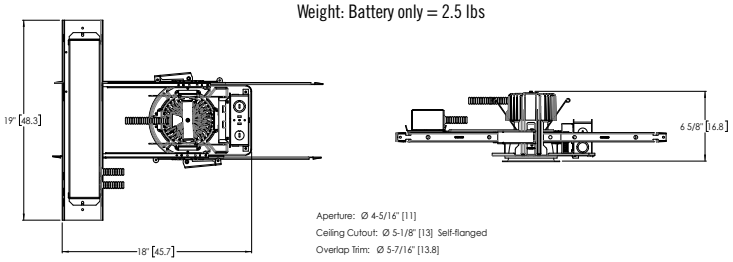
weight:
Housing = 12 lbs
Trim = 0.5 lbs



Aperture: Ø 4-5/16" [11]
Ceiling Cutout: Ø 5-1/8" [13] Self-flanged
Overlap Trim: Ø 5-7/16" [13.8]
Ceiling Cutout: Ø 5-1/4" [13.3] Flangeless

Battery Pack

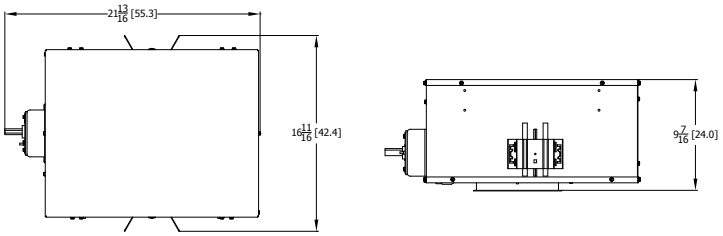
Weight: Battery only = 2.5 lbs



Aperture: Ø 4-5/16" [11]
Ceiling Cutout: Ø 5-1/8" [13] Self-flanged
Overlap Trim: Ø 5-7/16" [13.8]
Ceiling Cutout: Ø 5-1/4" [13.3] Flangeless

CP Standard

Weight: CP housing only = 13 lbs



EVO - eldoLED Driver Default Dimming Curve			
Nomenclature	**Min Dimming**	**Driver Dim Curve**	**Control Dim Curve**
EZ1	1%	Linear	Linear/Logarithmic
EXA1	1%	Linear	Linear/Logarithmic
EZB	<1%	Logarithmic	Linear
EDAB	<1%	Logarithmic	Linear
EXAB	<1%	Logarithmic	Linear
EDXB	<1%	Logarithmic	Linear

Driver		Control Provided (note: 347V/UVOLT versions provided with 347 option selected)	
Nomenclature	**Description**	**NLT**	**NLTER**
GZ10	0-10V driver dims to 10%	nPP16 D EFP	nPP16 D ER EFP
GZ1	0-10V driver dims to 1%	nPP16 D EFP	nPP16 D ER EFP
EZ1	eldoLED 0-10V ECOdrive	nPS 80 EZ	nPS 80 EZ ER
EZB	eldoLED 0-10V SOLOdrive	nPS 80 EZ	nPS 80 EZ ER

How to Estimate Delivered Lumens in Emergency Mode

Delivered Lumens = 1.25 x P x LPW

P = Output power of emergency driver. P = 10W for PS1055CP

LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet.

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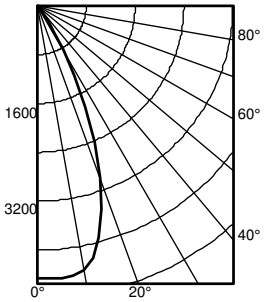
EV04SH 35/25 4DFF SMO INPUT WATTS: 37.2W, DELIVERED LUMENS: 2650LM, LPW = 71.2, TEST NO. PT06171309



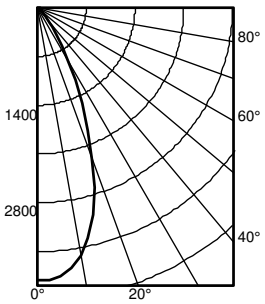
	Ave	Lumens
0	4472	
5	4485	425
15	3917	1065
25	1832	828
35	297	223
45	86	64
55	23	21
65	13	13
75	7	7
85	3	3
90	0	

Zone	Lumens	% Lamp
0° - 30°	2318.5	87.5
0° - 40°	2541.2	95.9
0° - 60°	2626.8	99.1
0° - 90°	2649.8	100.0
90° - 180°	0.0	0.0
0° - 180°	2649.8	*100.0

*Efficiency

Mounting Height	Inital FC Center Beam	50% beam - 42.1° Diameter	50% beam - 42.1° FC	10% beam - 61.8° Diameter	10% beam - 61.8° FC
8.0	147.8	4.2	73.9	6.6	14.8
10.0	79.5	5.8	39.7	9.0	7.9
12.0	49.6	7.3	24.8	11.4	5.0
14.0	33.8	8.9	16.9	13.8	3.4
16.0	24.5	10.4	12.3	16.2	2.5

EV04SH 35/25 4DFF SOL INPUT WATTS: 37.2W, DELIVERED LUMENS: 2516LM, LPW = 67.6, TEST NO. PT06171308



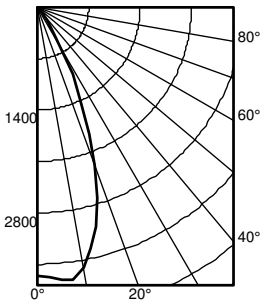
	Ave	Lumens
0	3917	
5	3865	361
15	3076	838
25	1518	694
35	468	310
45	166	134
55	83	76
65	57	56
75	36	37
85	9	11
90	0	

Zone	Lumens	% Lamp
0° - 30°	1892.4	75.2
0° - 40°	2202.3	87.5
0° - 60°	2412.1	95.9
0° - 90°	2516.2	100.0
90° - 180°	0.0	0.0
0° - 180°	2516.2	*100.0

*Efficiency

Mounting Height	Inital FC Center Beam	50% beam - 39.5° Diameter	50% beam - 39.5° FC	10% beam - 64.7° Diameter	10% beam - 64.7° FC
8.0	129.5	4.0	64.7	7.0	13.0
10.0	69.6	5.4	34.8	9.5	7.0
12.0	43.4	6.8	21.7	12.0	4.3
14.0	29.6	8.3	14.8	14.6	3.0
16.0	21.5	9.7	10.7	17.1	2.1

EV04SH 35/25 4DFR SMO INPUT WATTS: 37.2W, DELIVERED LUMENS: 2101LM, LPW =56.5, TEST NO. PT06171307



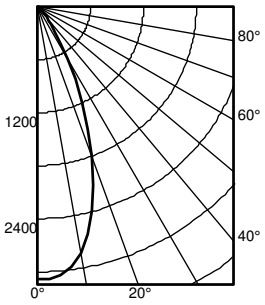
	Ave	Lumens
0	3649	
5	3734	353
15	3086	838
25	1425	647
35	245	182
45	70	51
55	16	15
65	9	9
75	4	5
85	0	0
90	0	

Zone	Lumens	% Lamp
0° - 30°	1837.9	87.5
0° - 40°	2020.3	96.2
0° - 60°	2086.5	99.3
0° - 90°	2100.9	100.0
90° - 180°	0.0	0.0
0° - 180°	2100.9	*100.0

*Efficiency

Mounting Height	Inital FC Center Beam	50% beam - 40.9° Diameter	50% beam - 40.9° FC	10% beam - 61.9° Diameter	10% beam - 61.9° FC
8.0	120.6	4.1	60.3	6.6	12.1
10.0	64.9	5.6	32.4	9.0	6.5
12.0	40.4	7.1	20.2	11.4	4.0
14.0	27.6	8.6	13.8	13.8	2.8
16.0	20.0	10.1	10.0	16.2	2.0

EV04SH 35/25 4DFR SOL INPUT WATTS: 37.2W, DELIVERED LUMENS: 1919LM, LPW = 51.6, TEST NO. PT06171306



	Ave	Lumens
0	3089	
5	3047	284
15	2395	654
25	1204	548
35	354	236
45	117	94
55	55	51
65	35	34
75	15	16
85	2	2
90	0	

Zone	Lumens	% Lamp
0° - 30°	1485.5	77.4
0° - 40°	1721.3	89.7
0° - 60°	1866.4	97.2
0° - 90°	1919.2	100.0
90° - 180°	0.0	0.0
0° - 180°	1919.2	*100.0

*Efficiency

Mounting Height	Inital FC Center Beam	50% beam - 39.3° Diameter	50% beam - 39.3° FC	10% beam - 64.5° Diameter	10% beam - 64.5° FC
8.0	102.1	3.9	51.0	6.9	10.2
10.0	54.9	5.4	27.5	9.5	5.5
12.0	34.2	6.8	17.1	12.0	3.4
14.0	23.4	8.2	11.7	14.5	2.3
16.0	16.9	9.7	8.5	17.0	1.7

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DFF SMO - Flush Clear				
Nominal Lumens	1000	1500	2000	2500
Delivered	843	1281	1684	2165
Wattage	8.8	13.7	19.5	25.7
Efficacy	95.8	93.5	86.4	84.2

*Lumen output for CRI80 - 3500K

DFF SOL - Flush Textured				
Nominal Lumens	1000	1500	2000	2500
Delivered	801	1218	1602	2059
Wattage	8.8	13.7	19.5	25.7
Efficacy	91.0	88.9	82.2	80.1

*Lumen output for CRI80 - 3500K

DFR SMO - Regressed Clear				
Nominal Lumens	1000	1500	2000	2500
Delivered	660	1003	1319	1695
Wattage	8.8	13.7	19.5	25.7
Efficacy	75.0	73.2	67.6	66.0

*Lumen output for CRI80 - 3500K

DFR SOL - Regressed Textured				
Nominal Lumens	1000	1500	2000	2500
Delivered	611	929	1222	1571
Wattage	8.8	13.7	19.5	25.7
Efficacy	69.4	67.8	62.7	61.1

*Lumen output for CRI80 - 3500K

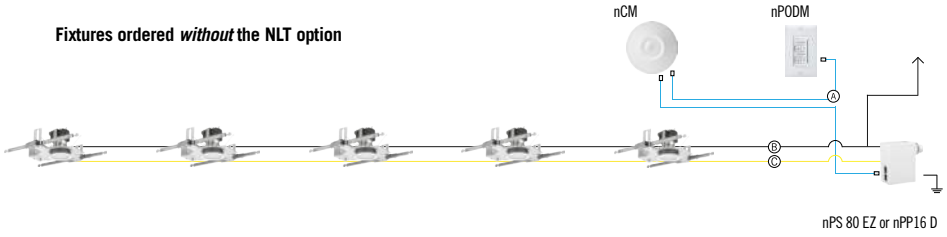
CCT/CRI Multiplier Table		
CRI	CCT	Multiplier
80	2700K	0.96
	300K	1.00
	3500K	1.00
	4000K	1.01
	5000K	1.07
90	2700K	0.80
	300K	0.83
	3500K	0.85
	4000K	0.87
	5000K	0.91

NLIGHT

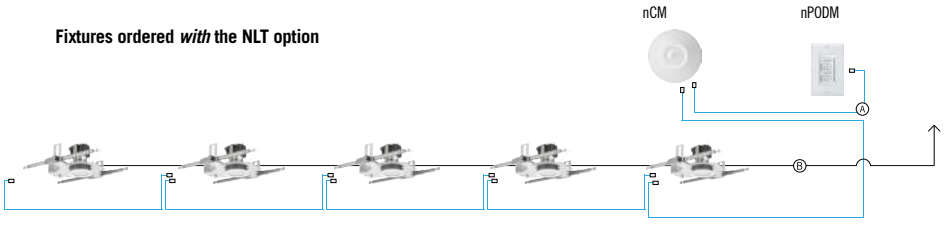
nLight® The nLight® solution is a digital networked lighting control system that provides both energy savings and increased user configurability by cost effectively integrating time-based, daylight-based, sensor-based and manual lighting control schemes.

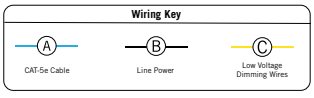
Possibilites for nLight® wired

Fixtures ordered *without* the NLT option



Fixtures ordered *with* the NLT option





nLight® Wired Control Accessories *Order as separate catalog number. Visit nLight.*	
Wall Switches	**Model Number**
On/Off single pole	nPODM (color)
On/Off two pole	nPODM 2P (color)
On/Off & raise/lower single pole	nPOD DX (color)
On/Off & raise/lower two pole	nPODM 2P DX (color)
Graphic touchscreen	nPOD GFX (color)
Photocell Controls	
Dimming	nCM ADCX

nLight® Wired Control Accessories *(cont.)*	
Occupancy Sensors (PIR/dual tech)	**Model Number**
Small motion 360°, ceiling	nCM 9 / nCM PDT 9
Large motion 360°, ceiling	nCM 10 / nCM PDT 10
Wide View	nWV 16 / nWV PDT 16
Wall switch with raise/lower	nWSX LV DX / nWSX PDT LV DX
Cat-5 Cables (plenum rated)	
10', CAT5	CAT5 10FT J1
15', CAT5	CAT5 15FT J1

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23-009 HINES CLC

L12

DEMENTIA ROOM SCONCE

SOHO Wall Sconce | Murale

Model Featured SOW-24-OW-MB

HÈMÈRA

SOHO Wall Sconce | Murale

Product code | Code produit **SOW**

FEATURE CODE | CODE (PHOTO)

SOW-24-OW-MB

PRODUCT CODE | CODE PRODUIT

SOW

METAL FINISH(ES) | FINITIONS

31	Polished nickel plated finish | Nickel Poli
24	Brushed nickel plated finish | Nickel Brossé
21	Polished gold plated finish | Or poli

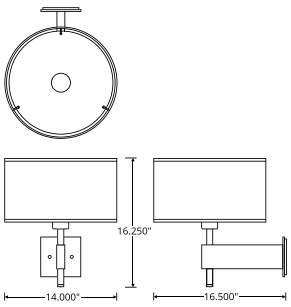
CORD AND OTHER OPTIONS | CÂBLE ET AUTRES OPTIONS

AP	Plated metal arm | Bras métal plaqué
OB	Black finished wood arm | Bras fini noir
OA	Mahogany finished wood arm | Bras fini acajou
ON	Natural finished wood arm | Bras fini naturel
OW	Walnut finished wood arm | Bras fini noyer

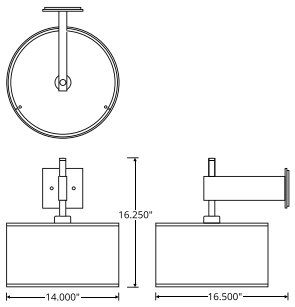
LAMPING OPTION(S) | SOURCES

MB
1 X 60W 120V Type A-19 incandescent E26 medium base

TECHNICAL DRAWING(S) | DESSIN(S) TECHNIQUE(S)



UPWARD



DOWNWARD

PRODUCT FEATURES | ATTRIBUTS

- Cream linen Bruxell shade 14.000" Ø X 8.000" H
- Frosted acrylic diffuser
- Can be installed shade upward or downward
- Maple wood or metal plated arm

DIMENSIONS AND WEIGHT(S) | DIMENSION(S) ET POID(S)

H: 16.250" W: 14.000" P: 16.500" Net Wt. 5 lbs.

OTHER SPECIFICATIONS | AUTRES SPÉCIFICATIONS

- Center of electrical junction box to top of fixture shade upward 11.500"
- Center of electrical junction box to top of fixture shade downward 4.750"
- Canopy size 4.500" Ø
- UL Certified and suitable for damp location

OPTIONAL(S) | OPTIONNEL(S)

- Custom sizes and finishes

INSTALLATION REQUIREMENTS | EXIGENCES D'INSTALLATION

- Mounts to a standard 4" octagonal electrical junction box or plaster ring

OTHER PRODUCT PHOTO(S) | AUTRE(S) PHOTO(S)

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SOHO Wall Sconce | Murale

Product code | Code produit **SOW**

SIMILAR PRODUCT(S) | PRODUIT(S) SIMILAIRE(S)

ALEXANDRA
Wall Sconce | Murale

DOMUS
Suspension

c UL us LISTED

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RND LED
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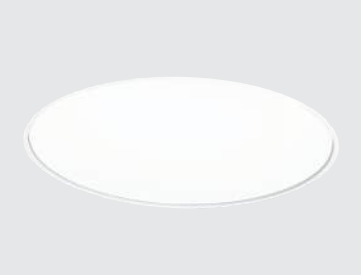

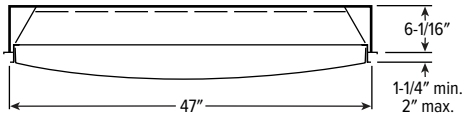

RND-4 shown with FXA lens

CATALOG #:

TYPE: L13

PROJECT: 23-009 HINES CLC

BUY AMERICAN ACT COMPLIANT

CCEA Approved

FEATURES

- Flat, convex, or concave lens profile adds visual interest to a variety of applications
- Provides soft, uniform ambient illumination
- Adjustable ring and lens assembly provides clean appearance
- Inner flange prevents light leaks
- Lift-and-twist lens assembly allows for easy maintenance
- Drywall or grid system installation
- Wireless in-fixture control solutions available
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING – 20-gauge C.R.S.
- SHIELDING – Frosted acrylic lens, .125″ thick.
- FINISH – 92% minimum average reflective white polyester powder coat bonded to phosphate-free, multi-stage pretreated metal on reflective surfaces. Textured matte white powder after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.
- ELECTRICAL – High-quality mid-power LED boards. L85 at 50,000 hours. 25°C maximum ambient operating temperature.
- MOUNTING – For installation in NEMA Type “G”, “SS”, or “F” ceiling systems. Earthquake clips are standard. Fixture must be installed prior to ceiling system installation.
- LISTINGS –
  - cCSAus certified as luminaire suitable for dry or damp locations.
  - City of Chicago Environmental Air approved when specified with CP option.
  - Complies with the Buy American Act and other federal regulations. Request certification at hew.com/baa.
- WARRANTY – 5-year limited warranty, see hew.com/warranty.

ORDERING EXAMPLE: RND - 4 - L200/835 - FXA - OPTIONS - CONTROL/DIM - UNV

ORDERING INFO

SERIES	DIAMETER	LUMENS [1]	CRI	CCT	LENS [2]
RND	**2** 2′	2′	**8** 80	**27** 2700K	**FXA** Frosted convex acrylic lens
	3 3′	**L22** 2,200lm	**9** 90 [3]	**30** 3000K	**FCA** Frosted concave acrylic lens
	4 4′	**L45** 4,500lm		**35** 3500K	**FFA** Frosted flat acrylic lens
		L83 8,300lm		**40** 4000K	
		3′		**50** 5000K	
		L67 6,700lm			
		L150 15,000lm			
		4′			
		L111 11,100lm			
		L200 20,000lm			

OPTIONS

EM/10W 10-watt emergency battery [4]

(L__) Additional lower lumen packages available. Specify in increments of 100 nominal lumens. **Example:** 9,500 nominal lumens = RND-4-L111/835-FXA-**(L95)**

CP Chicago plenum (CCEA)

CONTROL

– None

AVI-LVFA Avi-on wireless fixture control [5]

AWNR Lutron Athena wireless node integral fixture control, RF only [6]

DRIVER

See page 4 for ADDITIONAL CONTROL/ DRIVER OPTIONS.

DIM Driver with external dimming wires

DRV Driver without external dimming wires

DA Driver with 12V auxiliary power, without external dimming wires [7]

DSR Sensor-ready driver without external dimming wires (D4i DALI-2) [8]

VOLTAGE

120 120V

277 277V

UNV 120-277V

NOTES

1. Nominal lumen output based on FXA shielding, 80 CRI/3500K CCT. Actual performance may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA. Additional lumen packages available, see options.
2. See page 3 for FIXTURE DETAILS.
3. Extended lead times may apply. Consult factory for availability.
4. 120V - 277V only.
5. DA Driver only. See page 4 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS.
6. DA and DSR Drivers only.
7. Avi-on and Lutron Athena Controls only.
8. Lutron Athena Controls only.

RND LED
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FIXTURE PERFORMANCE DATA

	LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
2′	L22	2276	28.3	80
	L45	4582	56.6	81
	L83	8376	106.1	79
3′	L67	6702	66.4	101
	L150	15196	153.7	99
4′	L111	11234	106.5	105
	L200	20167	204.7	99

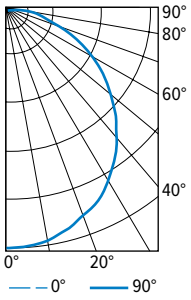
MULTIPLIER TABLES

	COLOR TEMPERATURE	
	CCT	CONVERSION FACTOR
80 CRI	2700K	0.97
	3000K	0.99
	3500K	1.00
	4000K	1.03
	5000K	1.06
90 CRI	2700K	0.80
	3000K	0.82
	3500K	0.83
	4000K	0.86
	5000K	0.89

- Photometrics tested in accordance with IESNA LM-79. Results based on FXA shielding, 80 CRI/3500K CCT, average wattage for 120V through 277V input, and 25°C ambient temperature. Actual performance may vary +/-5%.
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier table to calculate additional options.

PHOTOMETRY

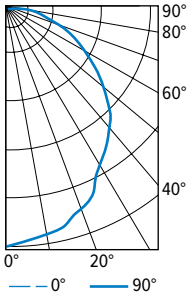
RND-2-L83/835-FXA Total Luminaire Output: 8376 lumens; 106.1 Watts | Efficacy: 78.9 lm/W | 80.0 CRI; 3500K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE 0°	HORIZONTAL ANGLE 45°	HORIZONTAL ANGLE 90°	ZONAL LUMENS
	0	2979	2979	2979	
	5	2986	2971	2964	283
	15	2873	2866	2862	809
	25	2655	2651	2647	1219
	35	2342	2327	2335	1454
	45	1943	1928	1936	1487
	55	1465	1491	1461	1325
	65	1009	1021	998	1000
	75	569	565	542	587
	85	192	188	188	214
	90	83	68	60	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	2310	28
	0 - 40	3764	45
	0 - 60	6576	79
	0 - 90	8376	100
	0 - 180	8376	100

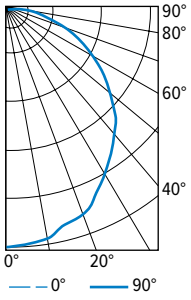
RND-3-L150/835-FXA Total Luminaire Output: 15196 lumens; 153.7 Watts | Efficacy: 98.9 lm/W | 80.0 CRI; 3500K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE 0°	HORIZONTAL ANGLE 45°	HORIZONTAL ANGLE 90°	ZONAL LUMENS
	0	5684	5684	5684	
	5	5607	5607	5607	533
	15	5347	5358	5368	1508
	25	4870	4882	4882	2220
	35	4062	4078	4069	2548
	45	3467	3472	3467	2657
	55	2668	2979	2663	2384
	65	1829	1829	1833	1813
	75	1006	1006	1006	1078
	85	362	358	362	413
	90	151	144	151	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	4261	28
	0 - 40	6809	45
	0 - 60	11851	78
	0 - 90	15155	100
	0 - 180	15196	100

RND-4-L200/835-FXA Total Luminaire Output: 20167 lumens; 204.7 Watts | Efficacy: 98.5 lm/W | 80.0 CRI; 3500K CCT



CANDLEPOWER DISTRIBUTION	VERTICAL ANGLE	HORIZONTAL ANGLE 0°	HORIZONTAL ANGLE 45°	HORIZONTAL ANGLE 90°	ZONAL LUMENS
	0	7308	7308	7308	
	5	7148	7139	7139	680
	15	6780	6784	6780	1925
	25	6287	6276	6276	2889
	35	5455	5455	5455	3418
	45	4651	4642	4651	3557
	55	3582	3582	3570	3178
	65	2466	2460	2457	2431
	75	1337	1329	1337	1445
	85	495	495	501	567
	90	211	211	211	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	5494	27
	0 - 40	8912	44
	0 - 60	15647	78
	0 - 90	20089	100
	0 - 180	20167	100

RND LED
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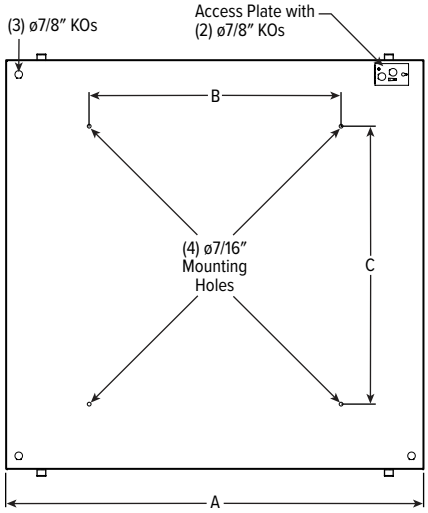
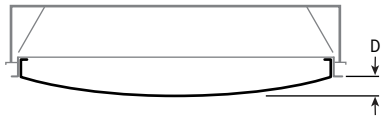
FIXTURE DETAILS

BACK VIEW



LENS PROFILES

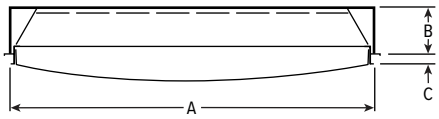
FXA



FFA

FCA

CROSS SECTIONS



FIXTURE SIZE	A (DIA.)	B	C	
			MIN.	MAX.
2′	23″	6-1/16″	1-1/4″	2″
3′	35″	6-1/16″	1-1/4″	2″
4′	47″	6-1/16″	1-1/4″	2″

SERIES	A	B	C	D	E	CUTOUT SIZES
RND-2	24″	14″	10″	1-9/16″	1-1/2″	ø22-1/4″ ±1/4″
RND-3	36″	20″	24″	2-1/16″	1-1/2″	ø34-1/4″ ±1/4″
RND-4	48″	29″	32″	2-9/16″	1-1/2″	ø46-1/4″ ±1/4″

NOTE: Fixture must be installed prior to ceiling system installation.

SEE NEXT PAGE FOR CONTROL DETAILS.

RND LED
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AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

FEATURES

Simple

- Gateway-free distributed control
- Factory pre-commissioning
- Contractor friendly installation
- Occupancy/vacancy/daylight sensing

Scalable

- Virtually unlimited network size
- Spans small offices to large warehouses
- Flexible control strategies

Secure

- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

COMMISSIONING & INSTALLATION TOOLS

Avi-on mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers. Live commissioning training and on-site or remote support by Avi-on must be ordered separately through Avi-on.

Commissioning Mobile App

Zone Scanner Web App

Commissioning Pro App

SYSTEM COMPONENTS

The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Avi-on is under license. Other trademarks and trade names are those of their respective owners.

ACCESSORIES

WALL STATIONS	
AVI-2401AC	Scene controller - numbered 1-4, 120-277VAC
AVI-2402BAT	Scene controller - numbered 1-4, battery powered
AVI-2401AC-2	Dimmer with presets - percentages, 120-277VAC
AVI-2402BAT-2	Dimmer with presets - percentages, battery powered
AVI-2401AC-3	On/off/dimming, 120-277VAC
AVI-2402BAT-3	On/off/dimming, battery powered

NETWORK	
AVI-RAB-LTE	Remote access bridge
AVI-KIT-NTM	Network time manager with battery backup
CEILING MOUNT SENSORS	
AVI-KIT-SEN-DUCM	PIR motion and ultrasonic sensor kit
AVI-KIT-SEN-ICM	PIR motion and photocell sensor kit

For load controllers and additional accessory info, see hew.com/avi-on

ADDITIONAL CONTROL/DRIVER OPTIONS

Note: Lumen restrictions apply, consult product builder at hew.com/product-builder.

CATALOG NUMBER	DESCRIPTION
AVI-LVFA/DA	Avi-on wireless fixture control for use with driver with 12V auxiliary power
AWNR/DA	Lutron Athena wireless node integral fixture control, RF only, for use with driver with 12V auxiliary power
AWNR/DSR	Lutron Athena wireless node integral fixture control, RF only, for use with sensor-ready driver (D4i DALI-2)
DRV	Driver prewired for non-dimming applications
DIM	Dimming driver prewired for 0-10V low voltage applications
DIM1	1% dimming driver prewired for 0-10V low voltage applications
DIM LINE	Line voltage dimming driver (TRIAC and ELV compatible, 120V only)
DIM TRC	Line voltage dimming driver (TRIAC compatible, 120V only)
SD40	40% step-dimming driver
SD50	50% step-dimming driver
DALI	DALI dimming driver
LDE1	Lutron Hi-lume 1% EcoSystem dimming LED driver

CB5142 BASICS™

11” Sconce

VISA LIGHTING

Visalighting.com/products/Basics

Type: **L15** Project: **23-006 HINES CLC** Location: **RESIDENT ENTRY**

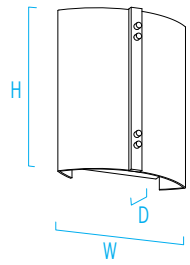
RBT Trim Option

DIMENSIONS

Depth is measured from wall to front of fixture

W = Width H = Height D = Depth

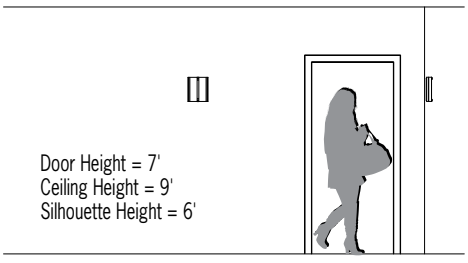
W	9”	(229 mm)
H	10-3/4”	(273 mm)
D	4”	(102 mm)



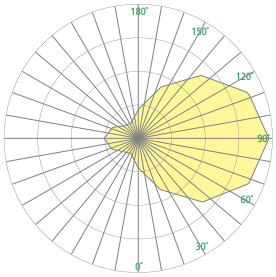
FEATURES

- Integral driver
- Mounts over standard electrical junction box (by others) with provided hardware
- Heavy gauge fabricated metal backbox and end caps (end caps painted black); solid machined metal vertical accent bar
- Wrap around extruded 1/8” thick white acrylic diffuser with matte finish
  - UV stable
  - UL-94HB flame class rated
- Optional specialty diffuser materials available, including some Lumicor®
- No VOC powder coat paint finish; Low VOC clear coat on metal finishes
- ETL listed for damp locations. Not suited for exterior applications

RELATIVE SCALE DRAWING



PHOTOMETRICS



XPS ADA Compliant ETL Listed 5 Year Warranty

CB5142 BASICS (cont.)

11" Sconce

VISA LIGHTING

Fill in shaded boxes using information listed below

CB5142		–	MVOLT				
MODEL	**SOURCE**[1] • L30K(H) • L30K(L) L35K(H) L35K(L) • L40K(H) • L40K(L)		**VOLTAGE** MVOLT	**FINISH** See last page for finish order codes	**DIFFUSER OPTION**[2] • KA PMO • SL Diffuser is matte white acrylic if no diffuser option is selected	**TRIM OPTION**[3] MBT RBT Button trim standard if no trim option is selected	**OPTION(S)**[4] DCC XPS

SOURCE[1] (Select one)

Dimmable 0-10V to 1%, Minimum 83CRI, within 3-step MacAdam

SOURCE	CCT	Delivered Lumens	Power (Watts)
• **L30K(H)**	3000K	1900	20
• **L30K(L)**	3000K	1300	13
L35K(H)	3500K	2000	20
L35K(L)	3500K	1300	13
• **L40K(H)**	4000K	2000	20
• **L40K(L)**	4000K	1300	13

VOLTAGE

MVOLT	120-277V, 50/60 Hz

DIFFUSER OPTION[2]

Diffuser is matte white acrylic if no diffuser option is selected

• **KA**	Kauri Lumicor®
PMO	Perforated metal over white acrylic, brushed aluminum
• **SL**	Silver Spun Lumicor

KA

PMO

SL

TRIM OPTIONS[3] (Select One)

Button trim is standard if no trim option is selected

MBT	Milled center bar trim
RBT	Round center bar trim

MILLED CENTER BAR TRIM

ROUND CENTER BAR TRIM

OPTIONS[4] (Multiple Selections Allowed)

⚠ Option availability may be interdependent with Other Options

XPS	Express 10 day shipping. Items marked with a bullet (●) are not available with **XPS**
DCC	Damp clear coat for metal finishes (required for 5 year warranty when used in damp locations)

CB5142 BASICS (cont.)

11” Sconce

VISA LIGHTING

BASICS PRODUCT FAMILY

- CB5142 – 11” Sconce
- CB5143 – 16” Sconce

See Visalighting.com/products/Basics for more information

SUGGESTED VARIATIONS

- Custom color or material
- Custom vertical bar detail
- Custom cutout in perforated metal overlay

FINISHES

Specify color code when ordering. For accurate color matching, individual paint and finish samples are available upon request.
For more information about our finishes visit visalighting.com/finishes

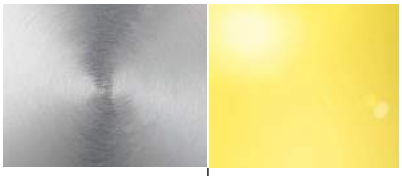
Powder Coat Paint Finishes (Standard)

AGGY Agate Grey	**ALGN** Alpine Green	**BJBG** Baja Beige	**BMAT** Bronze Matte	**BRNZ** Bronze	**BSIL** Blade Silver	**CVBL** Cove Blue
DEOR Deoro Gold	**GLWT** Glacier White	**GSIL** Graphite Siver	**HRGR** Harbor Grey	**JTBK** Jet Black	**OCBL** Ocean Blue	**SHGR** Shoreline Grey
SBGN Sagebrush Green	**SLGR** Slate Grey	**SSTP** Sierra Taupe	**TRCN** Terracotta Canyon	**TRWT** Traffic White	**VBLK** Velvet Black	**VNRD** Vineyard Red

Alternative Metal Finishes (Premium)

BBA Brushed Brass Alternative	**BCA** Brushed Chrome Alternative	**BUA** Brushed Copper Alternative	**BZA** Brushed Bronze Alternative
OBA Oil-Rubbed Bronze Alternative	**PRA** Pewter Alternative	**RBA** Rustic Brass Alternative	**SNA** Satin Nickel Alternative

Metal Finish (Premium)



BA Brushed Aluminum	**PB** Polished Brass
BB Brushed Brass	

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VIA 3 PERIMETER
RECESSED
STATIC WHITE

Lumenwerx

Project: 23-009 HINES CLC - DEMENTIA CORRIDOR PERIMETER LIGHTING

Type: L16

Via 3 Perimeter Deep

DESCRIPTION

Via 3 Perimeter creates a continuously illuminated “slot” at the wall/ceiling intersection. Lighted corners with adjustable end sleeves are available. Via Perimeter installs in grid or drywall ceilings in a choice of three arrangements: level, shallow 1", and deep 3 ¼".

5 YEAR WARRANTY

SENSORS
For latest information on sensors, click here.

IC RATED

Up to 121 lm/W performance

Order Guide

LUMINAIRE ID	OPTIC	LIGHT SOURCE	CRI	LUMEN PACKAGE	COLOR TEMP.
		SW			
V3PERL - Via 3 Perimeter Level **V3PERS** - Via 3 Perimeter Shallow **V3PERD** - Via 3 Perimeter Deep	**HLO** - High-Efficiency Lambertian Optic **ARFO** [1] - Asymmetric Room Fill Optic [1] Not available with Deep fixtures.	**SW** - Static white	**80CRI** - 80 CRI **90CRI** - 90 CRI	**500LMF** - Low output 500 lm/ft **750LMF** - Medium output 750 lm/ft **1000LMF** - High output 1000 lm/ft	**27K** - 2700K **30K** - 3000K **35K** - 3500K **40K** - 4000K **50K** - 5000K

LUMINAIRE LENGTH	VOLTAGE	DRIVER [3]	ELECTRICAL	ELECTRICAL SECTIONS (optional) [8, 9]	MOUNTING
AS SHOWN ON PL			**CCTS AS SHOWN ON PLA**	**SECTIONS AS SHOWN ON PLAN**	**VERIFY**
#FT#IN - Specify nominal length (#) in 1' and/or 1" increments **Standard nominal lengths:** Single units: 2' to 12' Continuous runs: lengths over 12'	**120V** - 120V **277V** - 277V **UNV** - 120V-277V **347V** [2] - 347V [2] Only available with D1 driver.	**D1** - 1% 0-10V **DA** [4] - DALI **LDE1** [4] - Lutron Hi-lume 1% Eco **ELD1** - eldoLED 1% ECOdrive 0-10V **ELD0** - eldoLED 0.1% SOLOdrive 0-10V [3] PoE (Power-over-Ethernet) compatible. Consult factory for details. [4] On-site commissioning is required.	**1C** - 1 circuit **#MC** [5] - Multi circuit **EC** - Emergency-powered fixture **NL** - Night light fixture **DL** - Daylight fixture **GTD** [6, 7] - Generator transfer device fixture [5] Specify total number of circuits (#), including any required for electrical section options. Provide drawing or layout specifications. Minimum 4' section per circuit. [6] Minimum 4' fixture. [7] Not available with 347V.	**#EC##** [10] - Emergency-powered section **#NL##** [10] - Night light section **#DL##** [10] - Daylight section **#GTD##** [10, 11, 12] - Generator transfer device section **#EMB** [12, 13] - Emergency battery **NA** - None [8] Specify with multi circuit (#MC) electrical option only. [9] Provide drawing or layout specifications. Consult factory for other configurations. Default section length is 4'. [10] Specify quantity (#), and section length in inches (##). [11] Minimum 4' section. [12] Not available with 347V. [13] Specify quantity (#). All batteries will be on the same circuit. Each battery powers a 4' section.	**TG9** - Tegular 9/16" **TG15** - Tegular 15/16" **TB9** - T-bar 9/16" **TB15** - T-bar 15/16" **ST** - Screw slot T-bar **DTR** - Drywall trim **DTL** - Drywall trimless **DMF** - Drywall mud flange

FINISH	CONTROL [14]		OPTIONS [19]	ADJUSTABLE SLEEVE (optional) [21]
XX				
W - Matte white **CF#** - Custom finish, specify RAL#	STANDALONE CONTROLS [15, 16, 17] Specify the quantity (#) of sensors per fixture. **#ODS** - Onboard Daylight	CONNECTED CONTROLS [18] **LU** - Lutron **AWNR** - Lutron Athena Wireless Node RF Only **AWNS** - Lutron Athena Wireless Node Sensor **EN** - Enlighted **ENC** - Encelium **WL** - Cooper Wavelinx **AN** - Acuity nLight **CA** - Casambi **LG** - Legrand	**NEF** [20] - No end flanges **FU120** - Fuse 120V **FU277** - Fuse 277V **FWC** - Flexible whip cable (6' std) **CP** - Chicago Plenum **NA** - None [19] Separate codes with a "+" if more than one is specified. [20] For wall-to-wall installations.	**TES** [22] - Adjustable end sleeve **NA** - None [21] See page 3 for details. [22] Minimum 3' fixture for UNV/D1 driver. Minimum 4' fixture for all other drivers. Minimum 5' fixture with EMB option.
	NA - None			

[14] Standalone and connected control options cannot be combined.
[15] Not available with Shallow or Deep fixtures.
[16] Available with D1 driver and 1 circuit options only.
[17] Minimum 4' per zone. Provide control zone length.
[18] Consult factory for connected controls.

TECHZONE™ & USG Compatible with 4" ceiling

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VIA3-PERIMETER-SPEC-REV3 January 25, 2024

PoE

VIA 3 PERIMETER

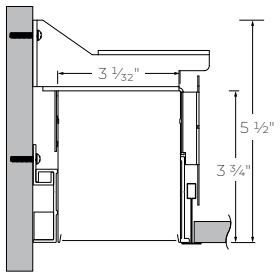
RECESSED

STATIC WHITE

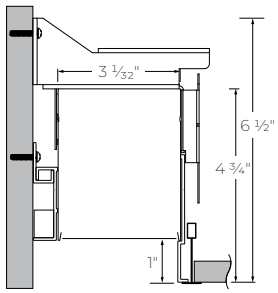
Lumenwerx

Dimensions

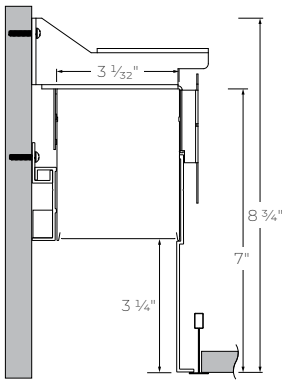
LEVEL



SHALLOW

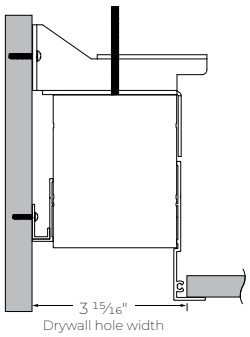


DEEP

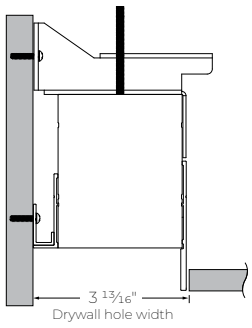


DRYWALL

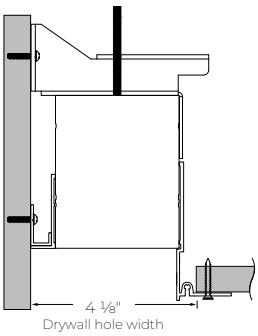
DTR - Trim



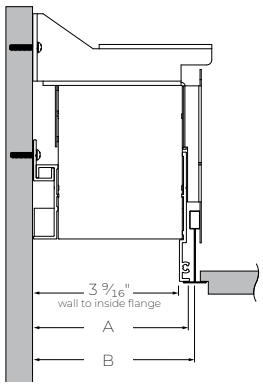
DTL - Trimless



DMF - Mud flange



GRID



	TG9	TB9	TG15	TB15	ST
	Tegular 9/16"	T-bar 9/16"	Tegular 15/16"	T-bar 15/16"	Screw slot T-bar
A wall to flange	3 13/16"		3 15/16"		3 13/16"
B wall to T-bar	3 7/8"		4"		3 7/8"

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VIA 3 PERIMETER
RECESSED
STATIC WHITE

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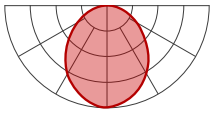
Photometrics

Values calculated based on a 4' fixture at 3500K and 80 CRI for all optics.

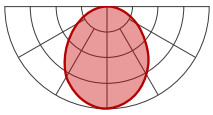
HLO

Level



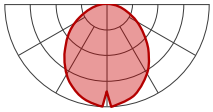
LM/FT	W/FT	LM/W
500	4.1	121
750	6.4	117
1000	8.8	114

Shallow



LM/FT	W/FT	LM/W
500	4.2	118
750	6.5	115
1000	9	111

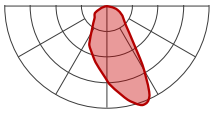
Deep



LM/FT	W/FT	LM/W
500	4.4	113
750	6.9	109
1000	9.5	105

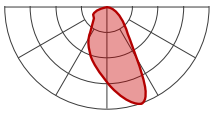
ARFO

Level



LM/FT	W/FT	LM/W
500	5.5	91
750	8.8	85
1000	12.4	81

Shallow



LM/FT	W/FT	LM/W
500	5.6	89
750	8.9	84
1000	12.5	80

MULTIPLIER TABLE

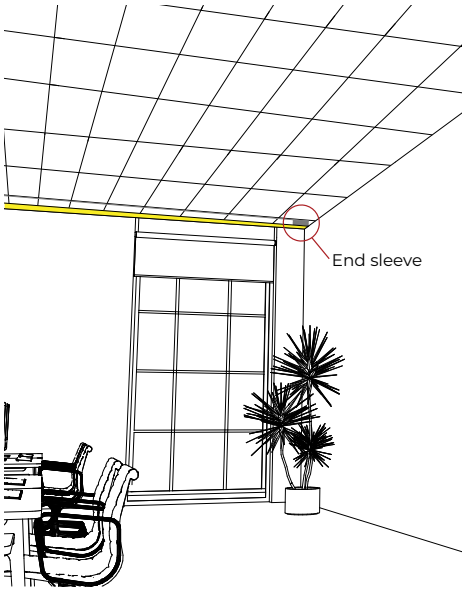
Use this table to get results for different color temperatures and CRI for all photometric tables.

Multiplier - CCT/CRI

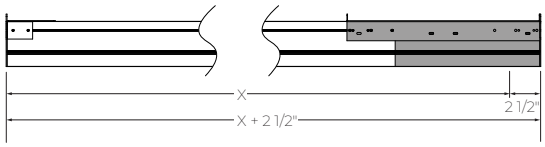
CCT	WATTS		LPW	
	80 CRI	90 CRI	80 CRI	90 CRI
2700K	1.05	1.27	0.95	0.79
3000K	1.02	1.23	0.98	0.81
3500K	1.00	1.19	1.00	0.84
4000K	1.00	1.19	1.04	0.84
5000K	0.96	1.12	1.00	0.89

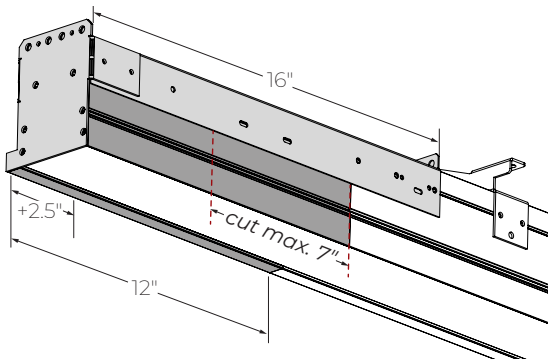
Adjustable end sleeve - TES

Adjustable end sleeve (TES) is designed to provide on-site luminaire adjustability of +2.5" to -4.5". A sleeve accommodates an easy installation and maintenance. Please refer to the End Sleeve Adjustment Installation Instructions for more details.



X = Fixture measure provided by client.
X + 2.5" = Measurement built and supplied.





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PoE

VIA 3 PERIMETER
RECESSED
STATIC WHITE

Lumenwerx

Technical Specifications

OPTICS

High-Efficiency Lambertian Optic (HLO)
The High-Efficiency Lambertian Optic (HLO) uses matte white reflectors to distribute LED output across 0.075" acrylic shielding, providing up to 88% transmission and good obscuration. Luminaire brightness is controlled by the flux-to-shielding area ratio.

Asymmetric Room Fill Optic (ARFO)
Our Asymmetric Room Fill Optic employs an advanced optical system to illuminate rooms and corridors from the perimeter, providing a direct distribution of light with precision and minimal glare.

LIGHT SOURCE

Custom linear array of mid-flux LEDs are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 2700K, 3000K, 3500K, 4000K and 5000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.
All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

LUMINAIRE LENGTH

Via 3 Perimeter is made up of standard 2' to 12' sections that may be joined together to create longer continuous run lengths. Exact run lengths must be noted in the product code. The minimum individual section available is 2'.

All individual sections are joined together onsite using the joiner kits provided. Lumenwerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

ELECTRICAL

Factory-set, adjustable output current LED driver with universal (120-277 VAC) input. Dimmable from 100% to 1% with 0-10V dimming control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency>84%, PF>0.9, THD<20%. Other specifiable options include Lutron Hi-Lume 1% Eco, eldoLED 1% ECOdrive 0-10V, eldoLED 0.1% SOLOdrive 0-10V, and DALI protocol drivers. All of our standard 0-10V drivers are NEMA 410 compliant.

PoE
Depending on the PoE manufacturer selected, Lumenwerx will install the node in factory as either integral to the luminaire or as a remote module. Factory programming of the PoE node may or may not enable the following functionalities: lumen package, DUO (tunable white), QUADRO (RGBW), emergency battery backup, and sensor integration. These must be addressed and evaluated on a case-by-case basis.

ELECTRICAL SECTION OPTIONS

Electrical section options are available for fixtures specified as multi circuit (#MC). With MC, specify the total number of circuits (#), including any circuits required for optional electrical sections. A drawing is required to specify the layout. Please consult factory for custom configurations.

Electrical sections
Options include emergency-powered (#EC##), night light (#NL##), daylight (#DL##), and generator transfer device (#GTD##) sections. Specify the quantity (#), as well as the section length in inches (##).

Example 1: A 32' Direct fixture with two 8' emergency-powered sections on a second circuit.
Code: 2MC-2EC96

Example 2: A 24' Direct fixture with one 4' generator transfer device section.
Code: 1MC-1GTD48

Battery
Each emergency battery (#EMB) powers a 4' section. All batteries will be on the same circuit. Specify the number of batteries (#) required.
Factory installed long life, high temperature, maintenance-free Lithium-Ion battery pack with self-test functionality, test switch and charge indicator. Minimum of 90 minutes operation, up to 1000 lumens per 4' (25°C) emergency lighting output and recharge time of 24 hours.

MOUNTING

Recessed fixtures can be mounted into exposed or concealed T-bar or tegular ceiling, as well as in drywall ceilings with trim, trimless, or mud flange options.

FINISH

Interior: 95%, reflective matte powder coated white paint
Exterior: Matte white powder coating.
Custom finishes are also available.

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PoE

VIA 3 PERIMETER
RECESSED
STATIC WHITE

Lumenwerx

CONTROLS
Lumenwerx offers several options for integrating occupancy and daylight harvesting controls in our luminaires.
For latest information on sensors, click here.

STANDALONE CONTROLS
An integrated standalone sensor controls the luminaire in which it is installed. Depending on the length, more than one sensor may be necessary and may control the entire luminaire, or just a section of it. These controls operate independently. Unless otherwise agreed, location and functionality of the sensor within the luminaire are selected by Lumenwerx. See client drawings for details.

ODS: An integral, daylight harvesting sensor with closed-loop operation dims the luminaire in which it is installed in order to compensate for available daylight. The sensor measures the combination of daylight and luminaire light reflected from horizontal surfaces below the luminaire. Initial onsite calibration is required via the use of provided remote control.

CONNECTED CONTROLS
With connected controls, sensors or nodes installed in the luminaire form part of a larger control system infrastructure from manufacturers such as: Lutron, Enlighted, Encelium, Cooper Wavelinx, Acuity nLight, Casambi, Legrand, and others. These connected controls allow for a scalable system providing features like occupancy and daylight control, manual control, scheduling and configuration of various zones and scenes. Energy reporting and system monitoring are also possible. Specific capabilities depend on the control system being used.

Lumenwerx installs the components (sensors, nodes, power packs, etc) which may be supplied to us by a third party, or procured directly by Lumenwerx, depending on the control system manufacturer.

Lumenwerx is solely responsible for the installation of specified components; the controls manufacturer is responsible for performance of the control system.

To indicate a Lumenwerx luminaire with connected controls, identify the specific onsite control system to be integrated into the luminaires using the ordering code. Due to the diversity of components, you must contact factory to assure complete compatibility with intended control system and to fully specify the luminaire.

Complete control specifications, sensor/node/power pack layout, and narrative for the control system are required for Lumenwerx to create shop drawings and submittals.

CONSTRUCTION
Housing: Extruded aluminum, up to 90% recycled content
Interior brackets: Die-formed cold rolled sheet steel
Joining system: Die-cast zinc
Reflectors: Flat rolled aluminum sheet or die-formed cold rolled steel, 95% reflective matte white painted
Lens: Acrylic
Recessed flanges: Extruded aluminum, up to 90% recycled content
End plate: Die-formed cold rolled sheet steel

MAINTENANCE
LED boards are housed in a removable cartridge for easy replacement. Driver is accessible from below.

WEIGHT
4': 11.12 lbs - 5.05 kg
8': 22.25 lbs - 10.1 kg
12': 33.48 lbs - 15.2 kg

CERTIFICATIONS
ETL: Rated for indoor dry/damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.
Chicago Plenum: City of Chicago Approved (CCEA) when specified with CP option.
IC rated: Suitable for direct contact with insulation

WARRANTY
Lumenwerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. Lumenwerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

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Intertek

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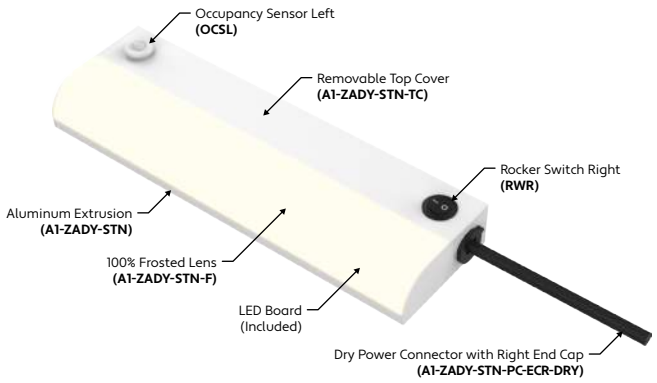
VIA3-PERIMETER-SPEC-REV3 January 25, 2024

PoE

A1 Series | Surface
ZADY Standard
(A1-ZADY-STN)

TYPE
L17

STATIC WHITE | STATIC COLORS | SINGLE BIN +-30K | TM-30 | LM-79 | LM-80 | DRY DAMP | CLOSET RATED | RoHS COMPLIANT | TITLE 24 JA8 | MADE IN USA



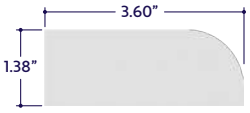
GENERAL FEATURES

Applications	Under-Cabinet and Indirect Lighting
Lens	50% Semi-Frosted or 100% Frosted
Length	Built to Order (1'-6" Minimum Length 2'-0" Minimum Length if DMX or DALI Dimming)
Construction	Aluminum Extrusion
Weight	1.22 lbs per foot
Mounting	Mounting Channel
Listing	Dry or Damp Location UL1598, CSA C22.2#250.0 UL8750, CSA250 UL2108, 67.1.9, 60.4, CSA C22.2 #9
Driver	Integral (Consult factory for remote driver options)
Closet Rating	Up to 3.6 Watts per Foot Maximum
Temperature Ratings	Operating / Startup: -20° to 48°C (-4° to 120°F) Storage: -40° to 76°C (-40° to 170°F)
Installation Link	**Link to Installation Instructions** ›

ELECTRICAL

Dimming	0-10V, Forward Phase, DMX, DALI
Maximum Run (Line Voltage Integral Driver)	100' **(1.5W, 2W, 3W)**, 80' **(4W)**, 64' **(5W)**, 53' **(6W)**, 40' **(8W)**, 26' **(12W)**
Luminaire Voltage	120V - 277V **(UNV)** 120V (Forward Phase Dimming Only)

END VIEWS / DIMENSIONS

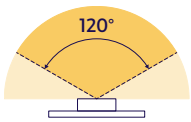


LENS / OPTICS APPEARANCE

50% Semi-Frosted Lens **(SF)**
Slight Diode Image
0% Loss Factor

100% Frosted Lens **(F)**
No Diode Image: Line of Light
15.6% Loss Factor

BEAM ANGLE



120° x 120° Beam

SPECIFY PRODUCT CODE | CHOOSE FROM DROP DOWNS

Series	Lens / Optics	Finish	CCT LED	Watts per Foot	Dimming	Feed Point	Listing	Luminaire Voltage	Rocker Switch*7	Occ. Sensor*7	Cord & Plug	Luminaire Length
A1-ZADY-STN	**F**	**WH**	**35K**	**2W**			**DRY**	**UNV**				5.5FT
ZADY Standard **(A1-ZADY-STN)**	50% Semi-Frosted Lens **(SF)**	Natural Silver **(NA)***1	2400K **(24K)**	1.5 Watts **(1.5W)** 144 Lumens / ft*2	0-10V **(10V)**	End Feed **(EF)**	Indoor **(DRY)**	120V - 277V Line Voltage*6 **(UNV)**	Rocker Switch Left **(RWL)**	Sensor Left **(OCSL)**	Cord & Plug Left*8 **(CPL)**	Specify Length in Feet & Inches
			2700K **(27K)**		0-10V: 100% - .1% **(10V-.1%)**							
		Satin **(SA)**	3000K **(30K)**	2 Watts **(2W)** 192 Lumens / ft*2		Bottom Feed **(BF)**	Outdoor **(DAMP)**		Rocker Switch Center **(RWC)**	Sensor Center **(OCSC)**		
	100% Frosted Lens **(F)**	Silver **(SR)**	3500K **(35K)**		0-10V: 100% - 1% **(10V-1%)**			120V Line Voltage (Phase Dimming Only) **(120V)**			Cord & Plug Right*8 **(CPR)**	
		White **(WH)**	4000K **(40K)**	3 Watts **(3W)** 288 Lumens / ft*2		Side Feed **(SF)**			Rocker Switch Right **(RWR)**	Sensor Right **(OCSR)**		
		Anti-Microbial White **(AWH)**	4500K **(45K)**		Forward Phase: 120V Line Voltage **(FP)**							
			5000K **(50K)**	4 Watts **(4W)** 384 Lumens / ft*2		No Feed*5 **(NF)**			**Leave Blank for None**	**Leave Blank for None**	**Leave Blank for Hardwiring**	
		Black **(BK)**	5700K **(57K)**		DMX-512*3 **(DMX)**							
			Red **(R)**	5 Watts **(5W)** 480 Lumens / ft*2	DALI*4 **(DALI)**							
		Anti-Microbial Black **(ABK)**	Green **(G)**									
			Blue **(B)**	6 Watts **(6W)** 576 Lumens / ft*2	JA8 0-10V **(JA8-10V)**							
			Amber **(A)**									
				8 Watts **(8W)** 768 Lumens / ft*2	**Leave Blank for Non-Dimming**							
				12 Watts **(12W)** 1152 Lumens / ft*2								

Note: See page 2 for ordering notes & restrictions.

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Specification Submittal

6 / 13 / 2024 / Rev 15

ORDERING NOTES & RESTRICTIONS

Note: Maximum run for Line Voltage Integral Drivers is 320 Watts. **Example:** 320 Watts ÷ 8 Watts per Foot = 40' Maximum Run.

*[1] Default finish is Natural Silver **(NA)** if left blank.

*[2] Lumens per Foot based on 35K CCT LED with Semi-Frosted Lens **(SF)**. **Example:** 96 Lumens x 1.5 Watts = 144 Lumens per Foot.

*[3] Default DMX address of each fixture is 001. Consult third party DMX commissioner to modify at time of installation.

*[4] DALI commissioning to be performed by a third party at time of installation. ALUZ does not provide DALI commissioning.

*[5] No Feed: Power is fed through the back or bottom of luminaire by drilling proper sized hole for conduit.

*[6] Integral Drivers are sized based on wattage per length. **Example:** 10' x 3 Watts per Foot = 30 Watts. Driver will be sized based on 30 Watts.

*[7] Rocker Switch and Occupancy Sensor must be in different locations. **Example:** Switch and Sensor cannot both be center.

*[8] Only available in Forward Phase and Non-Dimming

LAMP SPECIFICATIONS

Lamp Number	Correlated Color Temperature / Description	Efficacy (Lumens per Watt)	L70 LED Life
24K	2400 Kelvin (Incandescent White)	96	
27K	2700 Kelvin (Warm White)	96	
30K	3000 Kelvin (Warm White)	96	
35K	3500 Kelvin (Neutral White)	96	60,000 hrs.
40K	4000 Kelvin (Neutral White)	96	
45K	4500 Kelvin (Neutral White)	96	
50K	5000 Kelvin (Cool White)	96	
57K	5700 Kelvin (Cool White)	96	
R	Red (621nm)	70	
G	Green (525nm)	139	40,000 hrs.
B	Blue (470nm)	40	
A	Amber (590nm)	128	

Note: The specifications Standard Output **(SO)**, Mid Output **(MO)**, and High Output **(HO)** have been replaced by a single output equivalent to High Output **(HO)**.
To calculate Lumens per Foot, multiply Efficacy by Watts per Foot.
Example: 120 Lumens per Watt x 1.5 Watts per Foot = 180 Lumens per Foot.

LAMP FEATURES

Lamp Type	High Output LEDs (No Mercury)
CRI	> 95
Efficacy*	96 Lumens per Watt

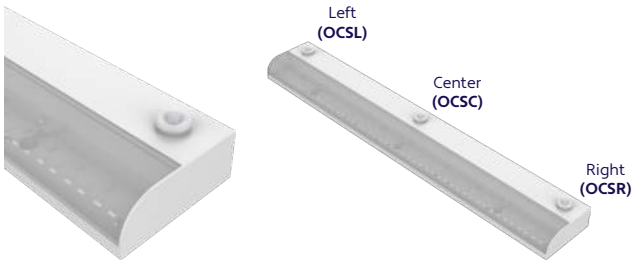
Note: Efficacy is based on 35K CCT LED **(35K)** with 50% Semi-Frosted Lens **(SF)**.

FEED POINTS

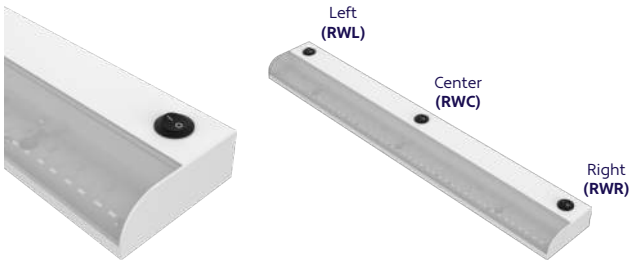
End Feed **(EF)** | Bottom Feed **(BF)** | Side Feed **(SF)** | No Feed **(NF)**

Add the following measurement to the overall length of luminaire:
EF: 0.15", **BF:** 0.55", **SF:** 0.55"

ADD-ONS (Specified in Product Code)



Occupancy Sensor
(OCSX) X = Specify Location: Left, Center, or Right



Rocker Switch
(RWX) X = Specify Location: Left, Center, or Right

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END CAPS (Sold Separately)

End Cap
(A1-ZADY-STN-EC)

Part #	Qty.
A1-ZADY-STN-EC	

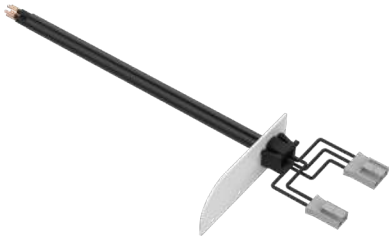
Note: Use 1 End Cap for each terminus. Suitable for both left and right side.

End Cap with Hole
(A1-ZADY-STN-EC-H)

Part #	Qty.
A1-ZADY-STN-EC-H	

Note: Use 1 End Cap with Hole for each terminus where conduit (by others) will be brought into the luminaire. Hole measures Ø 3/4". Suitable for both left and right side.

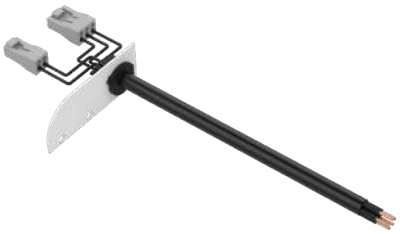
CONNECTORS (Sold Separately)



Dry Power Connector with Left End Cap
(A1-ZADY-STN-PC-ECL-DRY-X)
X = Specify Cable Length, 6' Default

Part #	Length	Qty.
A1-ZADY-STN-PC-ECL-DRY-	6'	
A1-ZADY-STN-PC-ECL-DRY-		

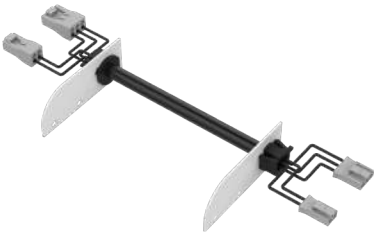
Note: Use 1 Dry Power Connector with Left End Cap for each dry location power lead on the left side.



Dry Power Connector with Right End Cap
(A1-ZADY-STN-PC-ECR-DRY-X)
X = Specify Cable Length, 6' Default

Part #	Length	Qty.
A1-ZADY-STN-PC-ECR-DRY	6'	
A1-ZADY-STN-PC-ECR-DRY-		

Note: Use 1 Dry Power Connector with Right End Cap for each dry location power lead on the right side. Standard Power Connector.



Dry Jumper Cable with End Caps
(A1-ZADY-STN-JC-EC-DRY-X)
X = Specify Cable Length, 6" Default

Part #	Length	Qty.
A1-ZADY-STN-JC-EC-DRY-	6"	
A1-ZADY-STN-JC-EC-DRY-		

Note: Use 1 Dry Jumper Cable with End Caps for each instance where the run will transverse a corner or obstacle.

Dry Cord & Plug with Left End Cap
(A1-ZADY-STN-CPL-DRY-X)
X = Specify Cable Length, 6' Default

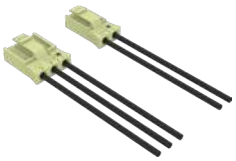
Part #	Length	Qty.
A1-ZADY-STN-CPL-DRY-	6'	
A1-ZADY-STN-CPL-DRY-		

Note: Only compatible with Forward Phase **(FP)** and Non-Dimming luminaires. 6' Minimum Length, 9' Maximum.

Dry Cord & Plug with Right End Cap
(A1-ZADY-STN-CPR-DRY-X)
X = Specify Cable Length, 6' Default

Part #	Length	Qty.
A1-ZADY-STN-CPR-DRY-	6'	
A1-ZADY-STN-CPR-DRY-		

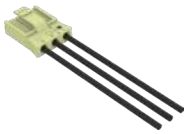
Note: Only compatible with Forward Phase **(FP)** and Non-Dimming luminaires. 6' Minimum Length, 9' Max.



Hardwire Disconnects
(A1-PC-5P-HWD)

Part #	Qty.
A1-PC-5P-HWD	

Note: Use Hardwire Disconnects for conduit power feed applications. Typically used with No Feed **(NF)** product code selection.



120V Hardwire Disconnects
(A1-PC-3P-HWD-120V)

Part #	Qty.
A1-PC-3P-HWD-120V	

Note: Use 120V Hardwire Disconnects for 120V conduit power feed applications. Typically used with No Feed **(NF)** product code selection. Only compatible with Forward Phase **(FP)** and Non-Dimming luminaires.

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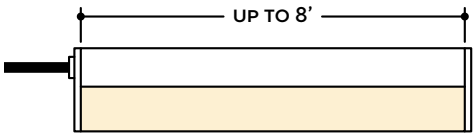
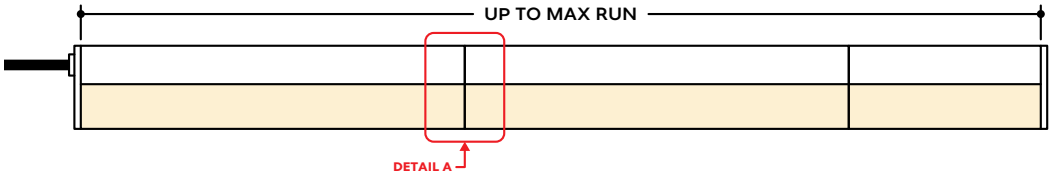
DESIGN GUIDELINES

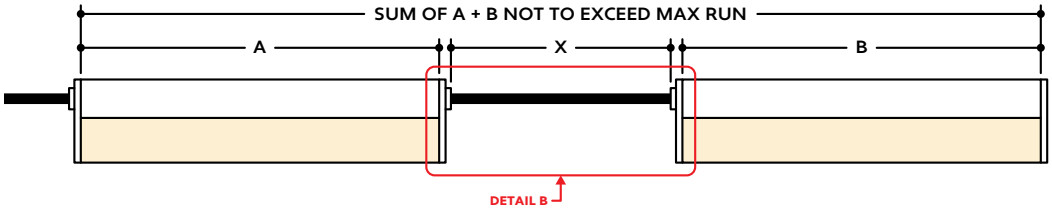
Individual Fixture



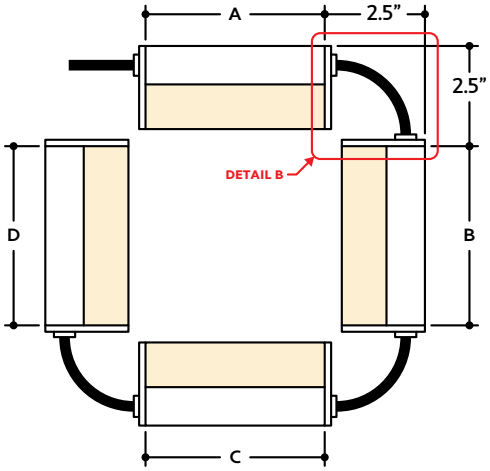
Continuous Run



Run with Jumper Cable



Run with Square Layout



KEY

Detail A	**Continuous Connection (Dry Location):** Luminaire segments connect using internal continuous connectors, leaving no gaps between segments. Refer to installation instructions for additional information.
Detail B	**Jumper Cable:** Used to span a corner or traverse a gap or obstacle in the installation area.

Note: Drawings not to scale. Product may differ from examples shown.

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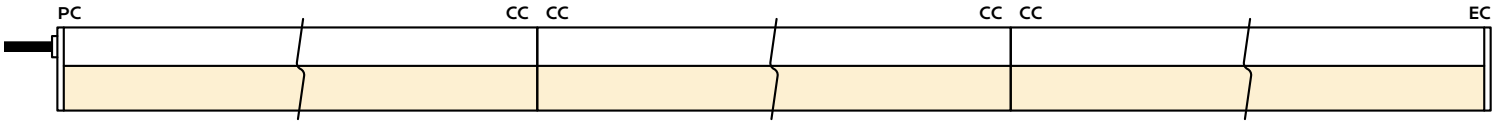
CONNECTION SEQUENCE

Dry Location



PC = Power Connector
Start of Run

CC = Continuous Connector
Continuous Connection

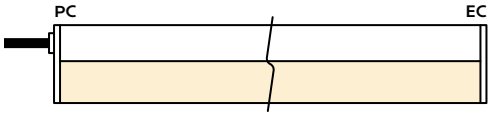
EC = End Cap
End of Run

- Specifying a layout is not required to place an order.
- Configuration code applies to full length ordered and will be built per the Continuous Run models on Design Guidelines.
- Connector type subject to change based on availability and listing. Refer to Design Guidelines for details.

HOW TO SPECIFY CONFIGURATIONS

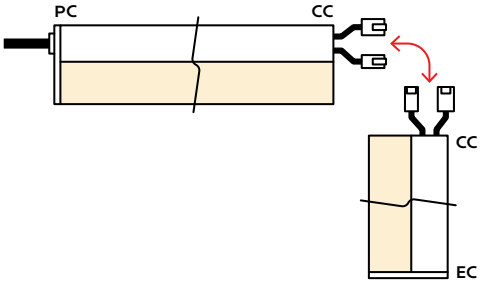
Example: 20' Straight Run

- 1x A1-ZADY-STN-SF-NA-35K-4W-10V-EF-DRY-UNV-20'-PC-EC



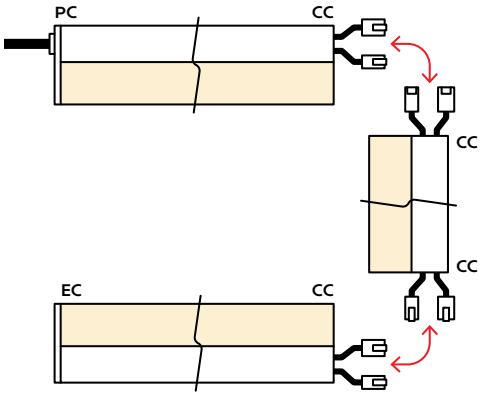
Example: 25' L-Shaped Run

- 1x A1-ZADY-STN-SF-NA-35K-4W-10V-EF-DRY-UNV-12'-PC-CC
- 1x A1-ZADY-STN-SF-NA-35K-4W-10V-EF-DRY-UNV-13'-CC-EC



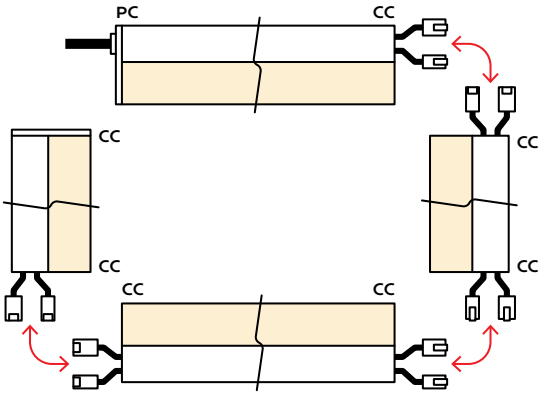
Example: 30' U-Shaped Run

- 1x A1-ZADY-STN-SF-NA-35K-4W-10V-EF-DRY-UNV-6'-PC-CC
- 1x A1-ZADY-STN-SF-NA-35K-4W-10V-EF-DRY-UNV-18'-CC-CC
- 1x A1-ZADY-STN-SF-NA-35K-4W-10V-EF-DRY-UNV-6'-CC-EC



Example: 28' Rectangle Shaped Run

- 1x A1-ZADY-STN-SF-NA-35K-4W-10V-EF-DRY-UNV-11'-PC-CC
- 1x A1-ZADY-STN-SF-NA-35K-4W-10V-EF-DRY-UNV-3'-CC-CC
- 1x A1-ZADY-STN-SF-NA-35K-4W-10V-EF-DRY-UNV-11'-CC-CC
- 1x A1-ZADY-STN-SF-NA-35K-4W-10V-EF-DRY-UNV-3'-CC-EC



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VIA 1.5 WALL

DIRECT/INDIRECT, DIRECT, INDIRECT
STATIC WHITE, BIOS

Project: **23-009 HINES CLC**

Type: **L18 SERIES - DEMENTIA**

Lens Positions [1]

DESCRIPTION

Our elegant, flexible Via family is composed of linear, pendant, surface, recessed, and wall mounted luminaires. Each lighting fixture can be installed as a discrete luminaire or in continuous runs or patterns. Via 1.5 Wall is offered with Lambertian, asymmetric, or low-glare optics.

Up to 162 lm/W performance

SENSORS
For latest information on sensors, click here.

ada compliant

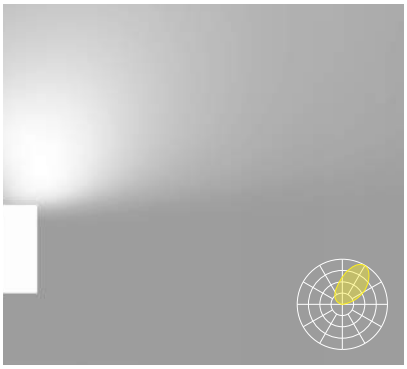
DIRECT OPTICS

HLO
High-Efficiency Lambertian Optic

LGO
Low-Glare Optic

INDIRECT OPTICS

CLO [2]
Clear Lambertian Optic



WAI2
Widespread Asymmetric Indirect Optic

HLO [3]
High-Efficiency Lambertian Optic

[1] Drop lens positions available with HLO direct lens only.
[2] Available only with Direct/Indirect.
[3] Not available with Direct/Indirect.

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VIA1_5-WALL-SPEC-REV2 October 24, 2023

VIA 1.5 WALL

DIRECT/INDIRECT, DIRECT, INDIRECT
STATIC WHITE, BIOS

Project: **23-009 HINES CLC**

Type: **L18 SERIES - DEMENTIA**

Order Guide

LUMINAIRE ID	DISTRIBUTION	DIRECT OPTIC Specify NA for Indirect fixture	LENS POSITION Specify NA for Indirect fixture	INDIRECT OPTIC Specify NA for Direct fixture	LIGHT SOURCE [5]
VIA1.5W					
VIA1.5W - Via 1.5" Wall	**DI** - Direct/ Indirect **D** - Direct **I** - Indirect	**HLO** - High-Efficiency Lambertian Optic **LGO** - Low-Glare Optic **NA** - Not applicable	**FH** - Flush **0.5D** [1] - 0.5" drop **1.5D** [1] - 1.5" drop **NA** - Not applicable [1] Available with HLO direct lens only.	**CLO** [2,3] - Clear Lambertian Optic **WAI2** [2] - Widespread Asymmetric Indirect Optic **HLO** [4] - High-Efficiency Lambertian Optic **NA** - Not applicable [2] Not available with BIOS. [3] Available only with Direct/Indirect. [4] Not available with Direct/Indirect.	**SW** - Static white **BIOSST** [6,7] - BIOS Biological Static **BIOSDY** [6,7] - BIOS Biological Dynamic **BIOSTU** [6,7] - BIOS Biological Tunable [5] Chromawerx Sola, Duo and Quadro also available. Consult other spec sheets. [6] Only available with low and medium lumen packages. [7] See page 4 for details.

CRI	DIRECT LUMEN PACKAGE Specify NA for Indirect fixture	INDIRECT LUMEN PACKAGE Specify NA for Direct fixture	COLOR TEMP.	LUMINAIRE LENGTH	VOLTAGE
				AS SHOWN ON PLAN	
80CRI - 80 CRI **90CRI** [8] - 90 CRI [8] Not available with BIOS.	**200LMF** [9,10,11] - Hypo output 200 lm/ft **350LMF** - Low output 350 lm/ft **500LMF** - Medium output 500 lm/ft **750LMF** [12] - High output 750 lm/ft **900LMF** [10,13,14,15] - Hyper output 900 lm/ft **NA** - Not applicable [9] Minimum 4' fixture. [10] Available with HLO only. [11] Not available with ELV/TRI driver options. [12] For Direct/indirect, Indirect must not exceed 500 lm/ft, for LGO, 750 lm/ft is available for Direct fixture only. [13] Not available with 90CRI.	**350LMF** [9,11] - Low output 350 lm/ft **500LMF** - Medium output 500 lm/ft **750LMF** [16] - High output 750 lm/ft **900LMF** [10,13,14,15] - Hyper output 900 lm/ft **NA** - Not applicable [14] For Direct fixture only or Indirect fixture only. [15] Fixture will be very bright. Use in suitable applications. [16] For Direct/Indirect, Direct must not exceed 500 lm/ft.	**27K** [17] - 2700K **30K** - 3000K **35K** - 3500K **40K** - 4000K **50K** [17] - 5000K [17] Not available with BIOS.	**#FT#IN** [18] - Specify nominal length (#) in 1' and/or 1" increments **Standard nominal lengths:** Single units: 2' to 12' Continuous runs: lengths over 12' [18] Minimum 3' for Direct/Indirect.	**120V** - 120V **277V** - 277V **UNV** - 120V-277V **347V** [19] - 347V [19] Available with D1 driver only.

DRIVER [20]	ELECTRICAL	ELECTRICAL SECTIONS (optional) [27,28]	MOUNTING
			DMB
D1 - 1% 0-10V **DA** [21] - DALI **LDE1** [21] - Lutron Hi-lume 1% Eco **ELD1** - eldoLED 1% ECOdrive 0-10V **ELD0** - eldoLED 0.1% SOLOdrive 0-10V **ELV** [22] - ELV 120V **TRI** [22] - TRIAC 120V [20] PoE (Power-over-Ethernet) compatible. Consult factory for details. [21] On-site commissioning is required. [22] Available with 120V only.	**1C** - 1 circuit **2C** [23] - 2 circuits **#MC** [24] - Multi circuit **EC** - Emergency-powered fixture **NL** - Night light fixture **DL** - Daylight fixture **GTD** [25,26] - Generator transfer device fixture [23] Available for Direct/Indirect only. Separate direct and indirect circuits. [24] Specify total number of circuits (#), including any required for electrical section options. Provide drawing or layout specifications. Minimum 4' section per circuit. [25] Minimum 4' fixture. [26] Not available with 347V.	**#EC##** [29] - Emergency-powered section **#NL##** [29] - Night light section **#DL##** [29] - Daylight section **#GTD##** [29,30,31] - Generator transfer device section **#EMB** [31,32] - Emergency battery **NA** - None [27] Specify with multi circuit (#MC) electrical option only. [28] Provide drawing or layout specifications. Consult factory for other configurations. Default section length is 4'. [29] Specify quantity (#), and section length in inches (##). [30] Minimum 4' section. [31] Not available with 347V. [32] Specify quantity (#). All batteries will be on the same circuit. Each battery powers a 4' section. For Direct/Indirect, minimum 8' fixture.	**DMB** - Drywall mounting bracket

FINISH	CONTROL [33]		OPTIONS
xx			
W - Matte white **AL** - Aluminum **B** - Matte black **CF#** - Custom finish, specify RAL#	STANDALONE CONTROLS [34,35,36] Specify the quantity (#) of sensors per fixture. **#ODS** - Onboard Daylight	CONNECTED CONTROLS [37] **LU**- Lutron **AWNR** - Lutron Athena Wireless Node RF Only **AWNS** - Lutron Athena Wireless Node Sensor **EN** - Enlighted **ENC** - Encelium **WL** - Cooper Wavelinx **AN** - Acuity nLight **CA** - Casambi **LG** - Legrand	**FU120** - Fuse 120V **FU277** - Fuse 277V **NA** - None
	NA - None		
	[33] Standalone and connected control options cannot be combined. [34] Available with D1 driver and 1 circuit options only. [35] Minimum 4' per zone. Provide control zone length.	[36] Available with flush lens option only. [37] Consult factory for connected controls.	

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VIA1_5-WALL-SPEC-REV2 October 24, 2023

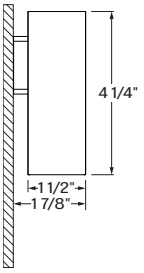
VIA 1.5 WALL

DIRECT/INDIRECT, DIRECT, INDIRECT
STATIC WHITE, BIOS

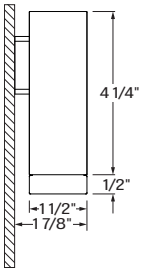
Dimensions

DIRECT/INDIRECT

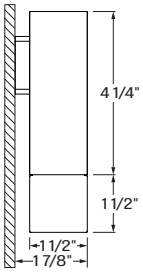
Flush Lens



0.5" Drop Lens [1]



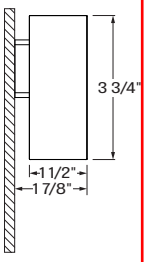
1.5" Drop Lens [1]



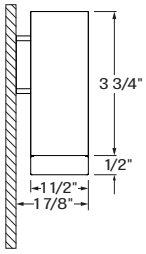
[1] Drop lens positions available with HLO direct lens only.

DIRECT or INDIRECT

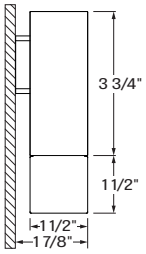
Flush Lens



0.5" Drop Lens [1]



1.5" Drop Lens [1]

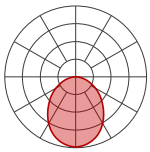


Photometrics

Values calculated based on a 4ft fixture at 35K and 80 CRI for all optics.

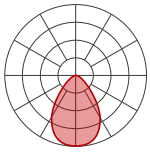
DIRECT OPTICS

HLO (Flush Lens)



LM/FT	W/FT	LPW
200	2.7	75
350	4.8	74
500	7.0	72
750	10.9	69
900	13.4	67

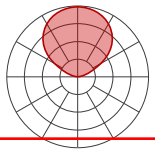
LGO



LM/FT	W/FT	LPW
350	5.6	63
500	8.4	60
750	13.5	56

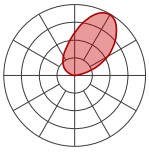
INDIRECT OPTICS

CLO



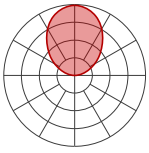
LM/FT	W/FT	LPW
350	2.3	154
500	3.3	150
750	5.2	144

WAI2



LM/FT	W/FT	LPW
350	2.5	139
500	3.7	135
750	5.8	130

HLO



LM/FT	W/FT	LPW
350	4.8	74
500	7.0	72
750	10.9	69
900	13.4	67

MULTIPLIER TABLES

Use these tables to get results for different color temperatures, CRI, and drop lenses, for all Direct and Indirect photometric tables.

Multiplier - CCT/CRI

CCT (K)	WATTS		LPW	
	CRI 80	CRI 90	CRI 80	CRI 90
2700	1.05	1.27	0.95	0.79
3000	1.02	1.23	0.98	0.81
3500	1.00	1.19	1.00	0.84
4000	1.00	1.19	1.00	0.84
5000	0.96	1.12	1.04	0.89

Multiplier - Drop Lens

DIRECT LENS	WATTS	LPW
Flush Lens	1.00	1.00
Drop Lens 0.5"	0.89	1.12
Drop Lens 1.5"	0.88	1.14

DIRECT/INDIRECT - LPW CALCULATION

For Direct/Indirect performance values, follow the formula.

$$\frac{\left(\text{DIRECT LM/FT} + \text{INDIRECT LM/FT}\right)}{\left(\text{DIRECT W/FT} + \text{INDIRECT W/FT}\right)} = \text{LPW}$$

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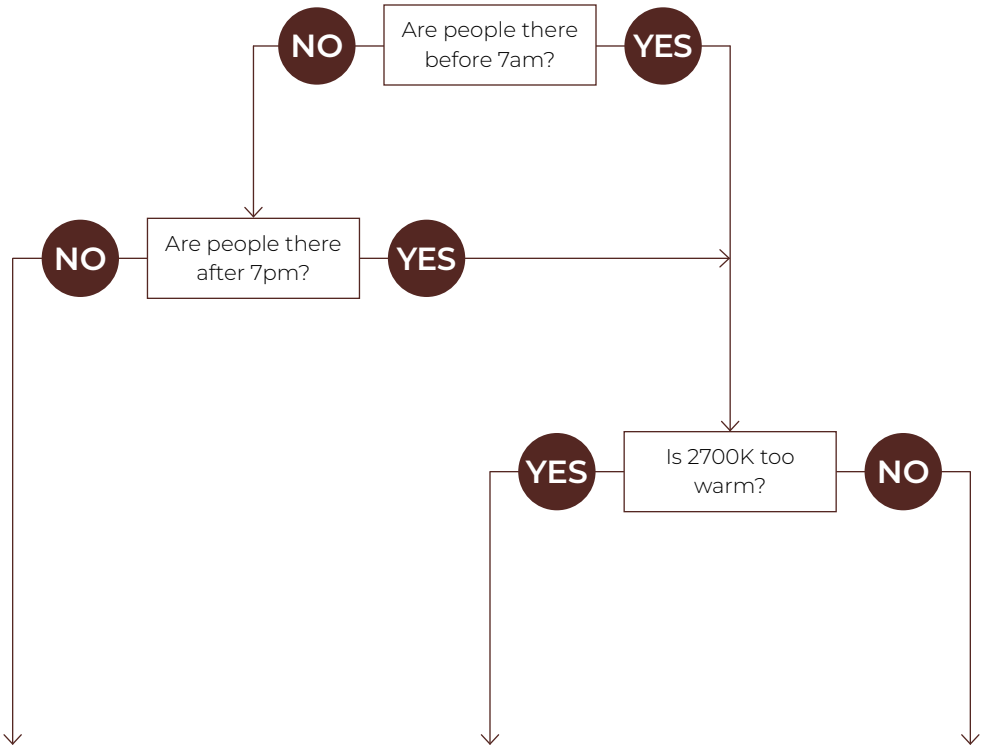
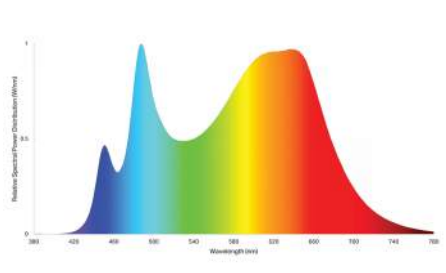
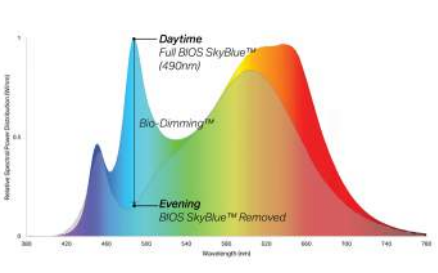
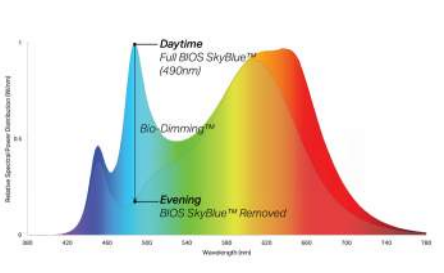
VIA 1.5 WALL

DIRECT/INDIRECT, DIRECT, INDIRECT
STATIC WHITE, BIOS

BIOS

Three BIOS Circadian LED solutions are offered – Biological Static, Biological Dynamic, and Biological Tunable.
Use the decision tree below to identify when and where to use BIOS Wellness LED Lighting Solutions.



Biological Static BIOSST	Biological Dynamic BIOSDY	Biological Tunable BIOSTU
No CCT change when dimmed	500K shift when dimmed	Dims to 2700K
Daytime solution	Daytime + evening solution	Daytime + evening solution
Spaces in operation during daytime hours, between 7am and 7pm	Spaces in operation overnight, after 7pm and before 7am, and when CCT color shift in the evening is not preferred	Suitable for spaces in operation overnight, after 7pm and before 7am, and where people do not sleep (CCT color shift in the evening is preferred)
E.g. offices, medical/dental offices	E.g. hospitals	E.g. offices, shiftwork
		

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VIA 1.5 WALL

DIRECT/INDIRECT, DIRECT, INDIRECT
STATIC WHITE, BIOS

Technical Specifications

DIRECT OPTICS

High-Efficiency Lambertian Optic (HLO)
The High-Efficiency Lambertian Optic (HLO) uses matte white reflectors to distribute LED output across 0.075" acrylic shielding, providing up to 88% transmission and good obscuration. Available as a flush lens or as a drop lens, the HLO has a spacing criterion of 1.12.

Low-Glare Optic (LGO)
The Low-Glare Optic (LGO) is designed to cut off high-angled light and control glare. The carefully crafted lens refracts light downward through its center from which it then disperses into a wide conical distribution that negates any illumination at about 40°. The LGO provides the visual comfort of a louver in a smooth acrylic lens.

INDIRECT OPTICS

Clear Lambertian Optic (CLO)
The Clear Lambertian Optic (CLO) uses a single horizontal LED array and a clear acrylic cover to provide simple uplight with high efficiency.

Widespread Asymmetric Indirect Optic (WAI2)
The Widespread Asymmetric Indirect Optic (WAI2) offers an upward grazing effect with a 45° forward throw. It softly highlights the ceiling in the up-light while distributing the required illumination of the rest of an interior space. For avoiding glare and enjoying visual comfort, WAI2 is an ideal solution.

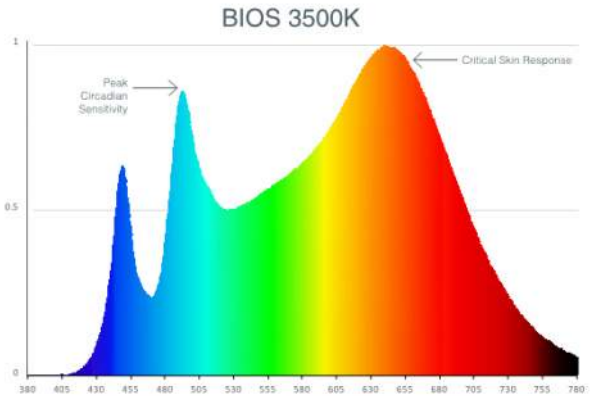
High-Efficiency Lambertian Optic (HLO)
The High-Efficiency Lambertian Optic (HLO) uses matte white reflectors to distribute LED output across 0.075" acrylic shielding, providing up to 88% transmission and good obscuration. HLO has a spacing criterion of 1.12.

LIGHT SOURCE - STATIC WHITE

Custom linear array of mid-flux LEDs are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. Available in 2700K, 3000K, 3500K, 4000K, and 5000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operate at reduced drive current to optimize efficacy and lumen maintenance. All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

LIGHT SOURCE - BIOS

BIOS SkyBlue™ Technology is designed to provide the specific circadian stimulus to improve overall sleep quality, recovery during the night, and overall feelings of well-being.
The non-visual light signals that stimulate our circadian system have peak intensity in the "sky blue" region. As the diagram below illustrates, BIOS SkyBlue technology shifts the peak LED spectral intensity (490 nm) to align better with the peak response of circadian stimulus. Also note the enhanced deep-red (near 660 nm) spectrum.



Three BIOS solutions are offered: BIOS Biological Static (BIOSST), BIOS Biological Dynamic (BIOSDY), and BIOS Biological Tunable (BIOSTU). See page 4 for details.

LUMINAIRE LENGTH

Via 1.5 is available in standard lengths of 2' to 12'. Continuous runs are available for run lengths over 12'. Exact run length must be noted in the product code. The minimum length is 2' for Direct or Indirect fixtures, and 3' for Direct/Indirect fixtures. Lengths can be ordered in 1' and/or 1" increments. All individual sections are joined together onsite using the joiner kits provided. Lumenwerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

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VIA 1.5 WALL

DIRECT/INDIRECT, DIRECT, INDIRECT
STATIC WHITE, BIOS

ELECTRICAL

Factory-set, adjustable output current LED driver with universal (120-277VAC) input. Dimmable from 100% to 1% with 0-10V dimming control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency>84%, PF>0.9, THD<20%. Other specifiable options include Lutron Hi-Lume 1% Eco, eldoLED 1% ECOdrive 0-10V, eldoLED 0.1% SOLOdrive 0-10V, ELV, TRIAC, and DALI protocol drivers. All of our standard 0-10V drivers are NEMA 410 compliant.

PoE

Depending on the PoE manufacturer selected, Lumenwerx will install the node in factory as either integral to the luminaire or as a remote module. Factory programming of the PoE node may or may not enable the following functionalities: lumen package, Duo (tunable white), Quadro (RGBW) emergency battery backup, and sensor integration. These must be addressed and evaluated on a case-by-case basis.

ELECTRICAL SECTION OPTIONS

Electrical section options are available for fixtures specified as multi circuit (#MC). With MC, specify the total number of circuits (#), including any circuits required for optional electrical sections. A drawing is required to specify the layout. Please consult factory for custom configurations.

Electrical sections

Options include emergency-powered (#EC##), night light (#NL##), daylight (#DL##), and generator transfer device (#GTD##) sections. Specify the quantity (#), as well as the section length in inches (##).

Example 1: A 32' Direct fixture with two 8' emergency-powered sections on a second circuit.
Code: 2MC-2EC96

Example 2: A 16' Direct/Indirect fixture with separate circuits for direct and indirect, and with one 4' night light section on the direct side on a third circuit.
Code: 3MC-1NL48

Example 3: A 24' Direct fixture with one 4' generator transfer device section.
Code: 1MC-1GTD48

Battery

Each emergency battery (#EMB) powers a 4' section. All batteries will be on the same circuit. Specify the number of batteries (#) required.
Factory installed long life, high temperature, maintenance-free Lithium-Ion battery pack with self-test functionality, test switch and charge indicator. Minimum of 90 minutes operation, up to 1000 lumens per 4' (25°C) emergency lighting output and recharge time of 24 hours.

MOUNTING OPTIONS

Fixtures may be horizontally mounted to the wall using a bracket. For long runs, a minimum distance of 6" from adjacent walls is required.

FINISH

Interior - 95%, reflective matte powder coated white paint
Exterior - Matte white, matte black or aluminum powder coating. Custom finishes are also available.

CONTROLS

Lumenwerx offers several options for integrating occupancy and daylight harvesting controls in our luminaires.
For latest information on sensors, click here.

STANDALONE CONTROLS

An integrated standalone sensor controls the luminaire in which it is installed. Depending on the length, more than one sensor may be necessary and may control the entire luminaire, or just a section of it. These controls operate independently. Unless otherwise agreed, sensor location, blank size, and functionality of the sensor within the luminaire are selected by Lumenwerx. See client drawings for details.
One type is available:

ODS: An integral, daylight harvesting sensor with closed-loop operation dims the luminaire in which it is installed in order to compensate for available daylight. The sensor measures the combination of daylight and luminaire light reflected from horizontal surfaces below the luminaire. Initial onsite calibration is required via the use of provided remote control.

CONNECTED CONTROLS

With connected controls, sensors or nodes installed in the luminaire form part of a larger control system infrastructure from manufacturers such as: Lutron, Enlighted, Encelium, Cooper Wavelinx, Acuity nLight, Casambi, Legrand, and others. These connected controls allow for a scalable system providing features like occupancy and daylight control, manual control, scheduling and configuration of various zones and scenes. Energy reporting and system monitoring are also possible. Specific capabilities depend on the control system being used.

Lumenwerx installs the components (sensors, nodes, power packs, etc) which may be supplied to us by a third party, or procured directly by Lumenwerx, depending on the control system manufacturer.

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VIA 1.5 WALL

DIRECT/INDIRECT, DIRECT, INDIRECT
STATIC WHITE, BIOS

Lumenwerx is solely responsible for the installation of specified components; the controls manufacturer is responsible for performance of the control system.

To indicate a Lumenwerx luminaire with connected controls, identify the specific onsite control system to be integrated into the luminaires using the ordering code. Due to the diversity of components, you must contact factory to assure complete compatibility with intended control system and to fully specify the luminaire.

Complete control specifications, sensor/node/power pack layout, and narrative for the control system are required for Lumenwerx to create shop drawings and submittals.

CONSTRUCTION

Housing - Extruded aluminum, up to 90% recycled content
Interior brackets - Die-formed cold rolled sheet steel
Joining system - Die-cast zinc
Reflectors - Die-formed cold rolled steel, 95% reflective matte white painted
Lens - Acrylic
Drop lens - Extruded with glued end caps
End caps - Die-cast aluminum

WEIGHT

Direct/Indirect	Direct or Indirect
4ft - 8.26 lbs - 3.75 kg	**4ft** - 7.16 lbs - 3.25 kg
8ft - 16.52 lbs - 7.5 kg	**8ft** - 14.32 lbs - 6.5 kg
12ft - 24.78 lbs - 11.25 kg	**12ft** - 21.48 lbs - 9.75 kg

CERTIFICATION

ETL - Rated for Indoor Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

WARRANTY

Lumenwerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. Lumenwerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

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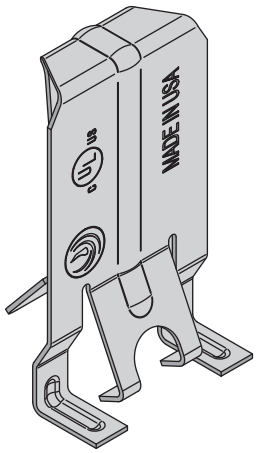
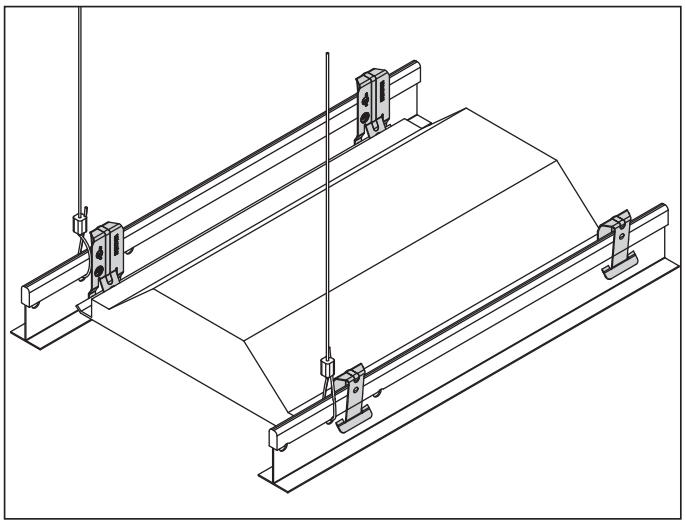
SCT – Support Clip for Troffer Lights & Lay-Ins

Available Finishes / Materials:
☐ VG -- Phoenix Vanguard
Standard Finish: VG





- Four clips per fixture required per UL listing.
- Compatible with straight lip or upturned lip fixtures.
- Tall grid compatible.
- **Material:** Spring Steel
- **Finish:** Vanguard

Catalog No.	Description	Box Qty
SCT	Support clip for securing troffers, lay-ins and air diffusers to T-Grid	100

Material Specifications and Finishes

Spring Steel:
Cold Roll, ASTM A684 Grade 1055 Spring Steel

VG – Phoenix Vanguard

Phoenix Vanguard coating is a multi-step process that meets the 1000 hour salt spray test per ASTM B117 and DIN 50021. **Vanguard coating is WEEE, ELV and RoHS compliant**. VG Finish is approved for wet and dry applications. It is a chrome free three step coating system that combines an inorganic zinc-rich basecoat with an aluminum-rich organic topcoat.

Note: Specifications subject to change without notice.

Project:	Date:	Phone:
Submited By:	Address:	
Comment		

1071E

GigaSPEED XL® 1071E ETL Verified Category 6 U/UTP Cable

Product Classification

Regional Availability	Asia | Australia/New Zealand | Latin America | North America
Portfolio	SYSTIMAX®
Product Type	Twisted pair cable
Product Brand	GigaSPEED XL®
Ordering Note	Not available in Europe, the Middle East, or Africa

General Specifications

Product Number	1071E
ANSI/TIA Category	6
Cable Component Type	Horizontal
Cable Type	U/UTP (unshielded)
Conductor Type, singles	Solid
Conductors, quantity	8
Pairs, quantity	4
Separator Type	Bisector
Transmission Standards	ANSI/TIA-568.2-D | CENELEC EN 50288-6-1 | ISO/IEC 11801 Class E

Dimensions

Diameter Over Insulated Conductor	1.029 mm | 0.041 in
Diameter Over Jacket, nominal	5.893 mm | 0.232 in
Jacket Thickness	0.559 mm | 0.022 in
Conductor Gauge, singles	23 AWG

Cross Section Drawing

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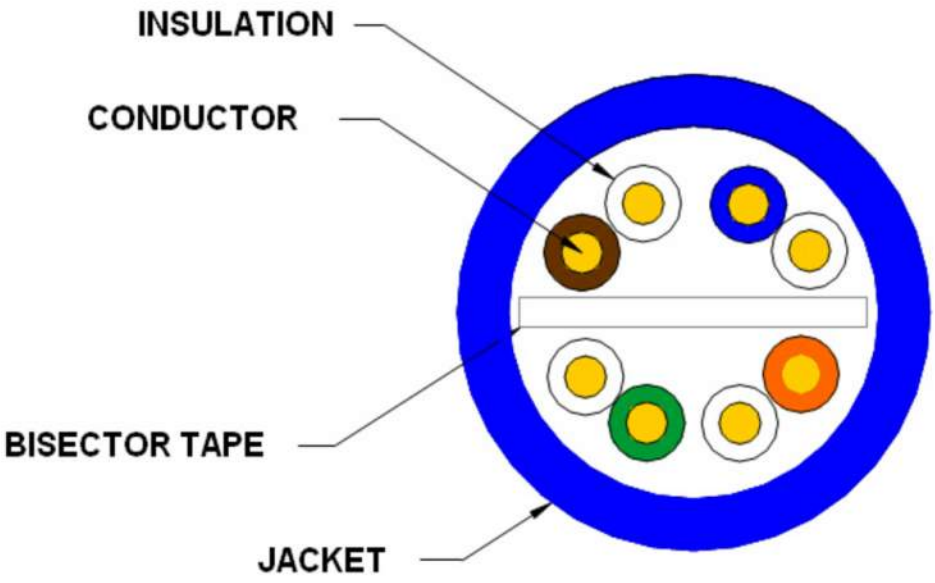
1071E



Electrical Specifications

dc Resistance Unbalance, maximum	5 %
dc Resistance, maximum	7.61 ohms/100 m | 2.32 ohms/100 ft
Dielectric Strength, minimum	1500 Vac | 2500 Vdc
Mutual Capacitance at Frequency	5.6 nF/100 m @ 1 kHz
Nominal Velocity of Propagation (NVP)	69 %
Operating Frequency, maximum	300 MHz
Operating Voltage, maximum	80 V
Remote Powering	Fully complies with the recommendations set forth by IEEE 802.3bt (Type 4) for the safe delivery of power over LAN cable when installed according to ISO/IEC 14763-2, CENELEC EN 50174-1, CENELEC EN 50174-2 or TIA TSB-184-A

Material Specifications

Conductor Material	Bare copper
Insulation Material	Polyolefin
Jacket Material	PVC
Separator Material	Polyolefin

Mechanical Specifications

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Pulling Tension, maximum	11.34 kg | 25 lb

Environmental Specifications

Installation temperature	0 °C to +60 °C (+32 °F to +140 °F)
Operating Temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Environmental Space	Non-plenum
Temperature Rating, UL	75 °C | 167 °F
Flame Test Method	CMG | CMR

Packaging and Weights

Cable weight	38.097 kg/km | 25.6 lb/kft

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Model: 352000- Corridor Light - 4 Position

352000

Features

- LED visual indication for high visibility, long life, low maintenance, and low power consumption
- Programmable colors and flash rates to indicate pending calls, service requirements, and staff presence
- Supports up to sixteen (16) call-in stations, three (3) of which can have audio capability
- Module status LED indicates when unit is not functioning properly
- Serves as hub for all room wiring

Specifications

Power Required: 167mA at 36V
Weight: 0.5 lb. (0.25 kg)
Size: **W:** 4.8” (12.1 cm)
H: 5.5” (13.9 cm)
D: 3.8” (9.6 cm)
Housing and Finish: Lens – Xantar 18B Optical Clear, Face/Base Cycoloy 2950 White
Controls/indicators: Module Status LED, Nurse Call activity LED, Power Good LED

Terminations: Plug-on connectors
Backbox Options: 1 gang (Non-gangable), 3 1/2” Deep

Description

The Corridor Light is typically located outside of patient and staff areas to provide visual indication of calls originating from bedside, bath/emergency, and code stations as well as service requirements and staff presence. The Corridor Light supports up to sixteen (16) call-in stations; three (3) of which can have audio capability. The Corridor Light has unique RGB LEDs to provide a high-visibility annunciation of patient calls. The colors, patterns and flash rates of the LEDs are fully programmable, such as all segments blue for code blue or strobe the sections of the light in any color pattern. All four segments of corridor light can indicate a call in any of the following 7 colors: White, Blue, Red, Green, Orange, Yellow, and Pink.

The LEDs also provide long life, low maintenance, and low power consumption. The corridor light comes equipped with three (3) module status LEDs, visible to service personnel when removed from mounting plate, for troubleshooting units that are not functioning properly. One status light can be viewed from mounted position during initial start-up time period. The mounting plate conveniently fits a variety of single and dual gang back-boxes. The Corridor Light is continuously supervised for both power and data signal. Corridor lights may be hot-swapped on the room-to-room communication line without the loss of communications to other devices on the local network.

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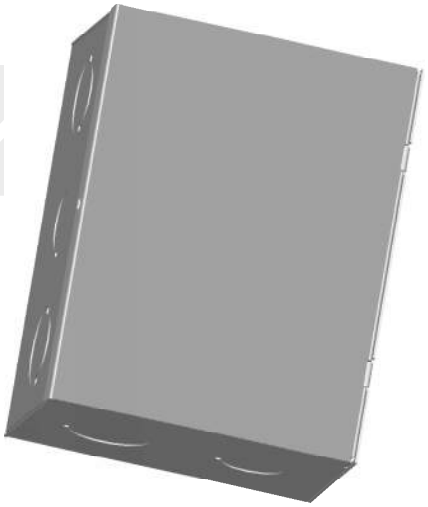
Model: 352020 - Domeless Corridor Controller



352020

Features

- Located in areas where corridor light is not needed or desired
- Other corridor lights can be programmed to reflect calls placed on patient stations connected to a domeless room controller
- Supports up to sixteen (16) call-in stations, three (3) of which can have audio capability
- Serves as hub for all room wiring

Specifications

Power Required: 167mA at 36V
Weight: 1.3 lbs. (0.6 kg)
Size: **W:** 4.25” (10.8 cm)
H: 5.5” (14.0 cm)
D: 2.8” (7.1 cm)
Housing and Finish: 20 gauge steel, painted primer gray
Controls/Indicators: Module Status LED, Nurse call activity LED, Power Good LED
Terminations: Plug-on connectors
Backbox Options: 1 gang, (Non-gangable), 3 1/2” Deep. The metal housing also permits the unit to be located above ceiling tiles and attached directly to 1/2” and 3/4” conduit.

Description

The Domeless Controller is typically located where a corridor light display is not needed or desired. The controller provides annunciation at the associated console of calls originating from bedside, bath/emergency, and code stations as well as service requirements and staff registrations. The Domeless Controller can also be installed in areas where additional room stations are needed such as in a ward environment. Other corridor lights can be programmed to reflect calls placed on patient stations connected to a Domeless room controller. The Domeless Controller supports up to sixteen (16) call-in stations; three (3) of which can have audio capability. The Domeless Controller mounts onto a variety of single and dual gang back-boxes. The metal housing allows for the controller to sit above ceiling tiles and attached directly to 1/2” or 3/4” conduit. The Domeless Controller is continuously supervised for both power and data signal. Domeless Controllers may be hot-swapped on the room-to-room communication line without the loss of communications to other devices on the local network.

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Model: 354000 - Pull Cord Station with Audio

354000

Features

- Plastic pull-cord for easy activation
- Smooth, non-porous PVC coating on the cord provides an easily cleaned surface
- Large, easy to grab bell
- Call-in button provides an additional call-in priority with built-in call-assurance LED
- Speaker and microphone provide full-duplex audio to the bathroom to speak with the patient if desired
- Monitor LED and Call-Assurance LED with Cancel button
- Monitor LED indicates microphone activation
- Cancel button for localized call cancellation
- Continuous supervision of station
- 2-gang adapter plate included
- Plug-in connectors for easy service
- Bio-seal option to cover buttons and allow for easy disinfecting of the station

Specifications

Power Required: 49.2mA @ 18VDC

Size: **W:** 4.7” (11.9 cm)
H: 4.25” (10.8 cm)
D: 1.7” (4.3 cm)
with adapter plate
W: 5.5” (14.0 cm)
H: 5.0” (12.7 cm)
D: 0.6” (1.5 cm) in back box; 0.5" (1.3cm) off-wall

Housing and Finish: High-impact molded Cycoloy 2950 UL 94-5VB; light grey faceplate

Controls/Indicators: One (1) pull cord for call actuation, One (1) Push button for call actuation, Two (2) Call - assurance LED, One (1) Monitor LED, One (1) Cancel button

Terminations: Plug-on connector

Backbox Requirement: 1 gang (Non-gangable), 3-1/2” Deep. Please note station trims to 2 gang faceplate dimensions. Allow mounting trim area.

Description

The Pull Cord station with Audio is an emergency pull cord station that provides the ability to place a unique call-in priority from a single station by pulling on its plastic cord. In addition, a call can be placed from the push button on the station that can be customized to a unique call-in priority to function as a routine call or an emergency call. The Pull Cord station with Audio also contains a speaker and microphone, so that caregivers can speak directly with the patient in the bathroom if desired. The Pull-Cord station is typically located in bathrooms near the toilet. The Cancel button allows for cancellation of the call at the station. Unit may utilize remote Cancel button(s) for ease of nurse call cancel when pull cord is mounted in an inaccessible location (e.g. ceiling).

The Pull-Cord station is connected to its associated corridor light or domeless room controller and is continually supervised.

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Model: 354001 - Pull Cord Station

354001

Adapter Plate

Features

- Plastic pull cord for easy activation
- Smooth, non-porous PVC coating on the cord provides an easily cleaned surface
- Call-Assurance LED
- Cancel button
- Water-resistant
- Large, easy to grab bell
- 1-gang adapter plate included
- Continuous supervision of station
- Plug-in connectors for easy service

Specifications

Power Required: 5.8mA @ 18VDC
Weight: 0.2 lbs (0.10 kg)
Size: **W:** 3.1” (8.1 cm)
H: 4.25” (10.8 cm)
D: 0.6” (1.5 cm) in back box; 0.5” (1.3 cm) off-wall with adapter plate
W: 3.9” (9.9 cm)
H: 5.0” (12.7 cm)
D: 0.6” (1.5 cm) in back box; 0.7” (1.8 cm) off-wall

Housing & Finish: High-impact molded Cycoloy 2950 UL 94-5VB; light grey faceplate
Controls/Indicators: One (1) pull cord for call actuation, One (1) Call-assurance LED, One (1) Cancel button
Terminations: Plug-on connector
Backbox Requirement: 1 gang (Non-gangable), 3 1/2” Deep

Description

The Pull Cord station is an emergency pull cord station that provides the ability to place a unique call-in priority from a single station by pulling on its plastic cord. The Pull-cord station is typically located in bathrooms near the toilet and in the shower. The membrane Cancel button allows for cancellation of the call at the station. Unit may utilize remote Cancel button(s) for ease of nurse call cancel when pull cord is mounted in an inaccessible location (e.g. ceiling). To make the station water-resistant, use caulker plumbers putty on three sides with sealant. It also has water diversion channels that open along the bottom of the station for drainage. The Pull-cord station is connected to its associated corridor light or Domeless room controller and is continually supervised.

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Model:354012 - Staff Assist Station

354012

Adapter Plate

Features

- Extra large back-lit button for easier activation
- Elapsed timer output
- Call-assurance LED
- Cancel button
- Plug-in connectors for easy service
- Continuous supervision of station
- 1-gang adapter plate included
- Optional antimicrobial Bio-seal to cover buttons and allow for easy disinfecting of the station

Specifications

Power Required: 7.12mA @ 18VDC
Weight: 0.2 lbs (0.8 kg)
Size: **W:** 3.2” (8.1”)
H: 4.25” (10.9 cm)
D: 0.6” (1.5 cm) in back box: 0.5” (1.3 cm) off-wall with adapter plate
W: 3.9” (9.9”)
H: 5.0” (12.7 cm)
D: 0.6” (1.5 cm) in back box: 0.7” (1.8 cm) off-wall

Housing & Finish: High-impact molded Cycoloy 2950 UL 94-5VB; light grey faceplate
Controls/Indicators: One (1) push button for call actuation, One (1) Call-assurance LED, One (1) Cancel button
Terminations: Plug-on connector
Backbox Requirement: 1 gang (Non-gangable), 3 1/2” Deep

Description

The Staff Assist Station is a call pushbutton station providing the ability to place a staff assist call. Pressing the cancel button cancels the call. This station provides an output for an elapsed timer supporting a momentary or latched contact closure output. Using special buttons, the station can be customized for unique call priorities such as: “Code Pink,” “Assist,” “Bath,” “Help,” etc. The button can also be used for staff registration such as: “Nurse in Room”, etc. The Staff Assist station is connected to its associated corridor light or Domeless room controller and is continually supervised.

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Model: 354015 - Staff Assist/Code Station

354015

Adapter Plate

Features

- Two (2) call points with Call-Assurance LEDs
- Back-lit pushbuttons for easy activation
- Cancel button
- Continuous supervision of station
- Plug-in connectors for easy service
- Elapsed timer outputs
- 1-gang adapter plate included
- Optional antimicrobial Bio-seal to cover buttons and allow for easy disinfecting of the station

Specifications

Power Required: 7.92mA @ 18VDC
Weight: 0.2 lbs (0.8 kg)
Size: **W:** 3.2” (8.0 cm)
H: 4.25” (10.8 cm)
D: 0.6” (1.5 cm) in back box: 0.5” (1.3 cm) off-wall with adapter plate
W: 3.9” (9.9”)
H: 5.0” (12.7 cm)
D: 0.6” (1.5 cm) in back box: 0.7” (1.8 cm) off-wall

Housing and Finish: High-impact molded Cycoloy 2950 UL 94-5VB; light grey faceplate
Controls/Indicators: (2) push buttons for call actuation, Two (2) Call-assurances LEDs, One (1) Cancel button
Terminations: Plug-on connectors
Backbox Requirement: 1 gang (Non-gangable), 3 1/2” Deep

Description

The Staff Assist / Code Station is an emergency dual pushbutton station that has the ability to place two (2) unique call priorities from a single station. Using special buttons, the station can be customized for unique call-ins such as: “Code Pink”, “Push for Help”, etc. The buttons can also be used for staff registration such as: “Nurse in Room”, etc. The Cancel button allows for cancellation of the call at the station. This type of station is normally located at a patient room head wall for placing a call for help, staff emergency and/or code call. The station provides outputs for elapsed timer(s) (the associated timer must support either a momentary or latched contact closure input). The Staff Assist / Code Station is connected to its associated corridor light or domeless room controller and is continually supervised. A non-cancelable call will annunciate at the associated console(s) when the station is removed from the system or a short occurs. The call will detail the location of the station (see Configuration and Installation Manual for more details).

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Model: 353101 - Staff Station

353101

Adapter Plate

Features

- Pushbutton for two-way intercom in audio-visual system with built-in Call-Assurance LED
- Speaker and microphone provide full-duplex audio to speak with the patient if desired
- Cancel button for localized call cancellation
- Interfaces with specialty beds via separate receptacle and control module
- LED to indicate specialty bed is not connected
- Interfaces with a remote pillow speaker via separate station
- Output for lighting control options direct to low voltage lighting controller
- 3-gang adapter plate included
- Continuous supervision of station for loss of data and/or power faults
- Plug-in connectors for easy service
- Bio-seal option to cover buttons and allow for easy disinfecting of the station

Specifications

Power Required: 77.4mA @ 18VDC
Weight: 0.5 lb. (0.2 kg)
Size: **W:** 6.4” (16.2 cm)
H: 4.25” (10.8 cm)
D: 2.5” (6.4 cm) in back box 0.5” (1.3 cm) off-wall with adapter plate
W: 7.1” (18.1 cm)
H: 5.0” (12.7 cm)
D: 2.5” (6.4 cm) in back box 0.7” (1.8 cm) off-wall

Housing & Finish: High-impact molded ABS 94-5VB; light gray faceplate
Controls/Indicators: One (1) Push button, One (1) Cancel button, One (1) Monitor LED, One (1) Call-assurance LED indicator, and One (1) Special Bed LED indicator, and One (1) Remote Pillow Speaker LED Indicator
Terminations: Plug-on connectors
Backbox Options: 3 gang (Non-gangable), 3-1/2” Deep

Description

The Staff Station typically located in a room or on a floor where staff members may be working. The station may also be used in patient areas such as day rooms or visitor’s lounges or wherever call-in and two-way audio communication is desired. The station can also interface with a patient bed. The station provides a call-in pushbutton in the audio-visual system. The staff or patients communicate through the stations built-in speaker/microphone.

The Staff Station is connected to its associated corridor light or Domeless room controller and is continually supervised for both power and data. Through programming, a message can annunciate at the associated console(s) and/ or the remote status application if a problem occurs.

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AMP-X300

X-Series Amplifier, 300 W

- *ENERGY STAR® certified power amplifier*
- *1 RU high, half-rack width form factor supports surface and rack mounting*
- *Configurable for either Lo-Z (4 or 8 Ω) or Hi-Z (70V or 100V) operation*
- *BUS line input and output for sending the same signal to multiple amps*
- *Configurable for 4 x up to 75 W output, 2 x up to 150 W output, 1 x up to 300 W (bridged) output, and 2 x up to 75 W + 1 x up to 150 W (bridged) output*
- *Low noise, low distortion, high headroom*
- *Comprehensive fault and speaker protection*
- *Captive speaker connectors for secure and robust connectivity*
- *Balanced and unbalanced inputs*
- *Standby feature instantly turns on amplifier when input sensing circuitry detects an audio signal*
- *Always On feature bypasses standby with minimal power consumption*
- *Internal universal 100-240V power supply*

The AMP-X300 is a high performance, space saving, energy efficient, professional grade amplifier solution that's totally configurable, yet simple to use. Whether you need a stereo amp that mounts on a wall or under a table, or a multichannel rack mount amp with multiple output types and power levels, the AMP-X300 is simple to specify and install in any configuration.

Lo-Z (4/8 Ω) and Hi-Z (70V or 100V) Operation

The AMP-X300 is a 4-channel amplifier (up to 75 W per channel) which can also be configured for 3-channel bridged operation (up to 75 W per single ended channel and up to 150 W for the bridged channel), 2-channel bridged operation (up to 150 W per channel), or 1 channel bridged operation (up to 300 W). A choice of Lo-Z outputs to drive 4- or 8-Ω speakers, or Hi-Z outputs to drive a distributed speaker system (70V or 100V) can be used. Balanced/Unbalanced inputs are provided for connection to two stereo or four mono sources through detachable terminal blocks or RCA connectors.

> **NOTE:** Each configuration can output up to its respective power rating.

Solid and Efficient Performance

The AMP-X300 is engineered to deliver exceptional performance and reliability with low distortion, low noise, and high power headroom. Advanced Class D technology maximizes efficiency to reduce power consumption and heat dissipation. An internal universal power supply ensures consistent performance at varying line voltages.

Modular Design

The AMP-X300 is housed in a half-width rack-mountable form factor that can be installed individually or ganged together in a single rack space. The amplifier is high-density stackable with other Crestron modular amps, allowing multiple units to be installed vertically in an equipment rack without needing extra ventilation space. Rack and surface mount parts are included, so no additional mounting accessories or rack shelves are required.

Whether mounting in a rack, attaching to a flat surface, or placing on a shelf, it is easy to combine two amplifiers into a single, full rack-width assembly. Additional or replacement X-Series amplifier mounting hardware is available for purchase as the RMK-AMP-X mounting kit.

Fully Protected

The AMP-X300 features protection against overheating, shorted or overloaded speaker lines, excessive input signals, and other faults. In the case of a shorted speaker line or overheating condition, paired outputs mute automatically until the fault condition is resolved. In the event of a prolonged fault, all outputs mute and the amplifier shuts down.

ENERGY STAR® Certified

An energy-efficient design enables the AMP-X300 to meet demanding ENERGY STAR requirements. In addition to its high efficiency under operation, the amplifier draws no added inrush current during power-up, thereby reducing AC circuit requirements and allowing multiple amplifiers to be connected to a single switched circuit. To reduce energy usage further, the AMP-X300 can be configured to enter a low-power standby state if no input signal is detected on any channel for 25 minutes. Signal detection sensitivity has been optimized to improve response time when triggering the amplifier to the on state, allowing it to return to full operation within a half-second. The REMOTE input can be connected to a contact closure to place the amplifier outputs in a controlled standby mode.

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AMP-X300

X-Series Amplifier, 300 W

Specifications

Audio

Output Power

Mode	1 Channel Driven	2 Channels Driven	3 Channels Driven	4 Channels Driven
Lo-Z, 8 Ω (single ended)	150 W	150 W	75 W[1]	75 W
Lo-Z, 4 Ω (single ended)	200 W	150 W	75 W[1]	75 W
Lo-Z, 8 Ω Bridged	300 W	150 W	150 W[1]	N/A
Hi-Z 70V	300 W	150 W	N/A	N/A
Hi-Z 100V	300 W	150 W	N/A	N/A

The efficient design ensures cool running operation and long term reliability.

NOTES:

- Total output power from all channels combined (simultaneously) is up to 300 W.
- Each mode will output power in watts up to the value listed in the table.

Input Signal Types	Balanced or unbalanced analog line-level
Frequency Response	20 Hz to 20 kHz ±0.5 dB at 1 W
High-Pass Filter (70V and 100V operation only)	-3 dB @ 80 Hz, -12 dB/octave
THD+N	<0.1% at 1 kHz @ -3 dB full rated output power
S/N Ratio	>103 dBA, 20 Hz to 20 kHz, balanced
Crosstalk	-75 dB at 1 kHz
Input Sensitivity	1.23 Vrms, +4 dBu balanced; 0.316 Vrms, -10 dBV unbalanced
Gain	29 dB @ 8 Ω
Protection	Overcurrent, undervoltage, overtemperature, DC offset, extreme high frequency
Go to Sleep Time	25 minutes with no signal present (when set to POWER SAVER)
Wake Time	0.5 s typical
Wake Threshold	0.44 mV typical

Connectors

CH1-CH4 (OUTPUT)	(2) 4-pin 5.08 mm pitch, 12A plug with screw locking retainers; Power amplifier output; Wire Size: Terminals accept up to 12 AWG (3.31 mm)
	NOTE: Output is direct-coupled, not transformer isolated.
AUDIO IN (UNBALANCED)	(4) RCA connectors, female; Unbalanced line-level audio inputs (Summing on channels 1 + 2 and channels 3 + 4); Maximum Input Level: 2.24 Vrms, +7 dBV (+9.2 dBu)
AUDIO IN (BALANCED)	(4) 3-pin 3.5 mm detachable terminal block; Balanced line-level audio inputs; Maximum Input Level: 7.75 Vrms, +20 dBu; Input Impedance: 20 kΩ
	NOTE: Channel pairs 1 - 2 and 3 - 4 can each be configured to operate as stereo channels or a downmixed mono channel;
REMOTE	(1) 2-pin 3.5 mm detachable terminal block; Connect to dry contact closure to place amplifier in standby mode
Chassis Ground	(1) 6-32 screw; Chassis ground lug
100-240V~ 1.2-0.6A 50/60 Hz	(1) IEC 60320 C14 main power inlet; Mates with removable power cord, included

Controls & Indicators

PWR	(1) White/Red LED; White indicates amplifier is on and ready for use; Red indicates amplifier is in standby
HI-Z	(1) White LED; Indicates when Hi-Z mode is enabled (70V or 100V); Channels 1 - 2 and 3 - 4 are bridged and set to 70V or 100V operation

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AMP-X300

X-Series Amplifier, 300 W

SIGNAL	(4) White LEDs (one per output); Indicates when an audio signal is present
FAULT	(4) Red LEDs (one per output); Indicates that the output channel is faulted or clipping
GAIN 1-4	(4) Screwdriver-adjustable rotary controls, one per output channel; Adjusts the attenuation level for the corresponding output channel
Lo-Z Modes	(2) Slide switches, one switch controlling channels 1 and 2, and one switch controlling channels 3 and 4; Selects stereo, summed, or bridged operation • **STEREO:** The input signal received on each channel is sent to its respective output for use in applications where left and right channel separation is required. The four GAIN controls are independently adjustable. • **SUM:** The input signals sent to a channel pair (1 + 2 or 3 + 4) are summed and sent to their respective individual outputs. The four GAIN controls are independently adjustable. • **BRIDGE:** The input signals sent to a channel pair (1 + 2 or 3 + 4) are summed and sent to a bridged output (1 + 2 or 3 + 4) for use in high-power applications. The GAIN 1 control adjusts the bridged 1 + 2 output, and the GAIN 3 control adjusts the bridged 3 + 4 output.
Operations Mode	(1) Slide switch; Sets the amplifier for Lo-Z (4 or 8 Ω) or Hi-Z operation (70V or 100V)
Power Mode	(1) Slide switch; Selects Power Saver or Always On operation

Power

Main Power	1.2-0.6A @ 100-240VAC, 50/60 Hz
Power Consumption	75 W, (4 channels driven at 1/8th output power, 4 Ω); 16 W, idle (Hi-Z mode); 0.37 W, power saver (230VAC/50 Hz)

Environmental

Temperature	41 to 104°F (5° to 40°C)
Humidity	10% to 90% RH (non-condensing)
Heat Dissipation	107 BTU/hr @ 4 Ω, all channels driven at 1/8th output power; 55 BTU/hr, all channels idle (Hi-Z mode); 1.2 BTU/hr in standby

Construction

Chassis	Metal, convection cooled (fanless)
Front Panel	Metal, black finish with polycarbonate label overlay
Mounting	Freestanding, surface mount, or 1/2 width 1 RU 19 in. rack mountable; Gangable with other Crestron modular AMP series products (adhesive feet, surface mounting, rack mounting, and ganging hardware all included)

Dimensions

Height	1.75 in. (44 mm) without feet; 1.83 in. (46 mm) with feet
Width	8.67 in. (220 mm) without mounting brackets 19.00 in. (483 mm) with mounting brackets
Depth	11.04 in. (280 mm)

Weight

5.3 lb (2.4 kg)

Compliance

ENERGY STAR, ErP (1275/2008/EC), UL® 62368, FCC Class B residential use

Model

AMP-X300
Modular Amplifier

Available Accessories

For a list of available accessories, visit the AMP-X300 product page.

Note:

1. 3 channel operation requires two single ended loads and one bridged load.

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or by calling 855-263-8754.

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AMP-X300

X-Series Amplifier, 300 W

This product is covered under the Crestron standard limited warranty. Refer to www.crestron.com/warranty for full details.

The specific patents that cover Crestron products are listed online at patents.crestron.com.

Certain Crestron products contain open source software. For specific information, please visit www.crestron.com/opensource.

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Rev 04/11/24

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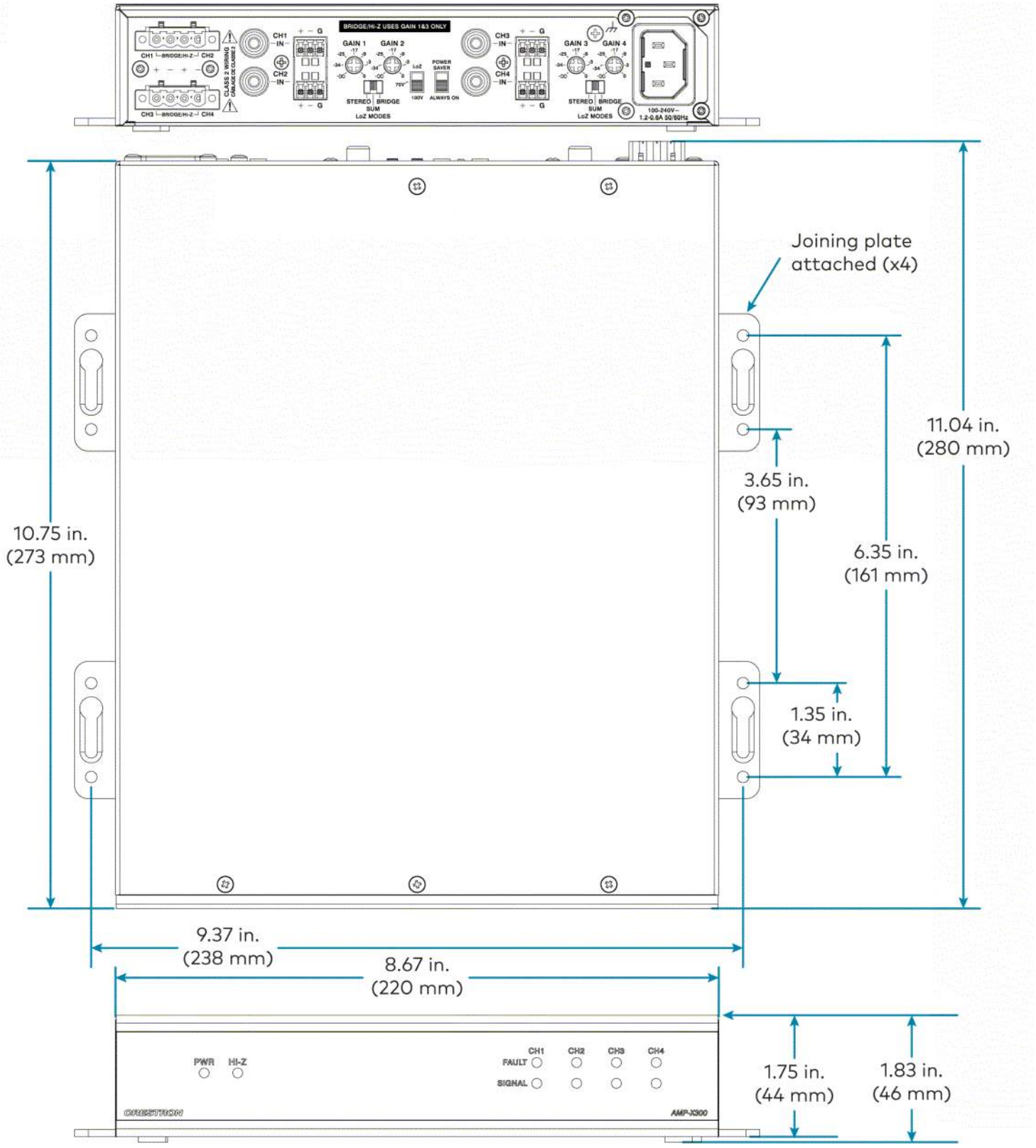
AMP-X300

X-Series Amplifier, 300 W



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HD-RX-4KZ-101

DM Lite® 4K60 4:4:4 Receiver for HDMI® Signal Extension over CATx Cable

- *Interoperability with a DM Lite® transmitter or DMPS Lite™ switcher*
- *Point-to-point extension of an HDMI® signal over a CAT5e or higher cable*
- *DM Lite transmission distance up to 130 ft (40 m) for UHD and 4K signals or up to 230 ft (70 m) for 1080p, WUXGA, and 2K signals*
- *4K60 4:4:4 capability*
- *HDR10, HDR10+, and Dolby Vision® video formats*
- *Compliance with HDCP 2.3*
- *CEC (Consumer Electronics Control) pass-through capability*
- *EDID pass-through capability*
- *Compact, surface-mountable design*
- *Power from 24VDC power pack (included) or from remote DM Lite transmitter or DMPS Lite switcher*

The HD-RX-4KZ-101 is a DM Lite® 4K60 4:4:4 receiver designed to interoperate with a DM Lite® transmitter or DMPS Lite™ switcher for the transmission of an HDMI® signal. A CAT5e or higher twisted pair cable is used to connect the HD-RX-4KZ-101 to the DM Lite transmitter or DMPS Lite switcher. For 1080p, WUXGA, and 2K signals, a cable length of up to 230 ft (70 m) is supported. For UHD and 4K signals, a cable length of up to 130 ft (40 m) is supported.[1]

Interoperability with a DM Lite Transmitter or DMPS Lite Switcher

The DM Lite input port of the HD-RX-4KZ-101 must be connected to a DM Lite output port of a DM Lite transmitter or DMPS Lite switcher. Examples of supported DM Lite 4K60 4:4:4 transmitters are the HD-TX-4KZ-101, HD-TX-4KZ-111, HD-TXA-4KZ-101, HD-TXC-4KZ-101, and HD-TXCA-4KZ-101. Supported DM Lite 4K60 4:2:0 transmitters are the HD-TX-101-C-E, HD-TXC-101-C-E, HD-TX-301-C-E, HD-TX-101-C-1G-E, HD-TXC-101-C-1G-E, and HD-TX-201-C-2G-E. Supported DMPS Lite switchers are the HD-PS622, HD-PS621, HD-PS402, and HD-PS401.

The HD-RX-4KZ-101 can be configured and controlled only when it is used with a DMPS Lite switcher. The web interface of the switcher can be used to configure the HD-RX-4KZ-101. In addition, control system programming and .AV Framework™ software support of the HD-RX-4KZ-101 is hosted by the switcher.

4K60 4:4:4 and HDR Support

The HD-RX-4KZ-101 supports video resolutions up to 4K60 with 4:4:4 color sampling. HDR10, HDR10+, and Dolby Vision® video formats are also supported.[2]

Compact, Surface-Mountable Design

Compact in design, the HD-RX-4KZ-101 can be mounted onto a flat surface such a wall behind a flat-panel display or a ceiling above a projector. It can also be attached to a single rack rail in the back of an equipment cabinet. The HD-RX-4KZ-101 can receive power from the included power pack or from the remote DM Lite transmitter or DMPS Lite switcher.[3]

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HD-RX-4KZ-101

DM Lite® 4K60 4:4:4 Receiver for HDMI® Signal Extension over CATx Cable

Specifications

Video

Input Signal Type	DM Lite® with HDR10, HDR10+, Dolby Vision®, Deep Color, and 4K60 4:4:4 support[2]
Output Signal Type	HDMI® with HDR10, HDR10+, Dolby Vision, Deep Color, and 4K60 4:4:4 support (DVI compatible)[4]
Copy Protection	HDCP 2.3
Resolutions	Common resolutions are listed in the following table.

Scan Type	Resolution	Frame Rate	Color Sampling	Color Depth
Progressive	4096x2160 DCI 4K & 3840x2160 4K UHD	24 Hz	4:4:4	12 bit
		30 Hz	4:4:4	12 bit
		60 Hz	4:2:2	12 bit
		60 Hz	4:4:4	8 bit
	2560x1600 WQXGA	60 Hz	4:4:4	8 bit
	1920x1080 FHD 1080p	60 Hz	4:4:4	12 bit
Interlaced	1920x1080 HD 1080i	30 Hz	4:4:4	12 bit

NOTE: *The maximum supported resolution is 4K60 with 4:4:4 color sampling. Custom resolutions are supported at pixel clock rates up to 600 MHz.*

Audio

Input Signal Type	DM Lite
Output Signal Type	HDMI
Digital Formats	Dolby Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby® TrueHD, Dolby Atmos®, DTS®, DTS ES, DTS 96/24, DTS HD® High Res, DTS-HD Master Audio, DTS:X®, LPCM up to 8 channels

Communications

HDMI	HDCP 2.3, EDID, CEC pass-through
DM Lite	HDCP 2.3, EDID pass-through

Connectors

HDMI OUT	(1) HDMI Type A connector, female; HDMI digital video/audio output; DVI compatible[4]
DM LITE IN	(1) 8-pin RJ-45 yellow connector, female, shielded; DM Lite input port for connection to the DM Lite output port of a DM Lite transmitter or DMPS Lite™ switcher[1, 5]
24V 1.25A	(1) 2.1 x 5.5 mm DC power connector; 24VDC power input; PW-2420RU power pack included[3]
Ground	(1) Chassis ground lug

Controls and Indicators

LINK	(1) Green LED, indicates that a DM Lite link is established.
PWR	(1) LED, indicates that power is being applied to the device. Amber indicates that the device is booting. Green indicates that the device is operational.
HDMI OUT	(1) Green LED, indicates that the device is transmitting an HDMI signal
DM LITE IN	(2) LEDs on RJ 45 connector. Green indicates that a DM Lite link is established. Flashing amber indicates non-HDCP video, and solid amber indicates HDCP video.

Power

Power Pack (Included)	Input: 100-240VAC Output: 24VDC 2.5A Model: PW-2420RU[3]

Environmental

Temperature	32° to 104°F (0° to 40°C)
Humidity	20% to 90% RH (non-condensing)

Enclosure

Chassis	Metal, black finish, vented sides, 2 mounting brackets included
Mounting	Freestanding, surface mountable, or attachment to a single rack rail

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HD-RX-4KZ-101

DM Lite® 4K60 4:4:4 Receiver for HDMI® Signal Extension over CATx Cable

Dimensions

Height	4.13 in. (105 mm)
Width	4.18 in. (106 mm)
Depth	1.08 in. (27 mm)

Weight

11.82 oz (335 g)

Compliance

Regulatory Model: M202047002

Intertek® Listed for US and Canada, CE, IC, FCC Part 15 Class B digital device

To search for product certificates, refer to support.crestron.com/app/certificates.

Model

HD-RX-4KZ-101
DM Lite® 4K60 4:4:4 Receiver for HDMI® Signal Extension over CATx Cable

Included Accessories

PW-2420RU
Desktop Power Pack, 24VDC, 2.5A, 2.1 mm

Available Accessories

For a list of available accessories, visit the HD-RX-4KZ-101 product page.

Notes:

1. For DM Lite connections, use Crestron DM-CBL-8G, Crestron DM-CBL-ULTRA, or third-party CAT5e or higher cable. For information about the maximum transmission distance for each cable type, refer to Online Help Answer ID 1001567.

   To safeguard against unpredictable environmental electrical noise that may impact performance at resolutions above 1080p, shielded cable and connectors are recommended for all applications and are required when bundling multiple cables in a wire run. Cables are sold separately.
2. 4K60 4:4:4 performance and HDR support require the use of HDMI cables and couplers with a minimum TMDS bandwidth of 18 Gbps. If 4K60 4:2:0 or 4K30 4:4:4 performance is acceptable, cables and couplers with a minimum bandwidth of 10.2 Gbps may be used. Bandwidth loss is cumulative; therefore, performance may be reduced when inserting multiple cables and couplers inline.
3. When a surface-mountable DM Lite receiver is paired with a surface-mountable DM Lite transmitter, either the power pack included with the receiver or the transmitter can be used to power both devices. A power pack must not be connected to both devices simultaneously.

   When a surface-mountable DM Lite receiver is paired with a wall plate DM Lite transmitter, the power pack included with the receiver must be used to power both devices.

   When a DM Lite receiver is paired with an HD-PS622, HD-PS621, HD-PS402, or HD-PS401 DMPS Lite switcher, the switcher provides power to the DM Lite receiver. The DM Lite receiver must not be connected to the included power pack.
4. The HDMI output requires an appropriate adapter or interface cable to accommodate a DVI signal. CBL-HD-DVI interface cables are sold separately.
5. Examples of supported DM Lite 4K60 4:4:4 transmitters are the HD-TX-4KZ-101, HD-TX-4KZ-111, HD-TXA-4KZ-101, HD-TXC-4KZ-101, and HD-TXCA-4KZ-101. Supported DM Lite 4K60 4:2:0 transmitters are the HD-TX-101-C-E, HD-TXC-101-C-E, HD-TX-301-C-E, HD-TX-101-C-1G-E, HD-TXC-101-C-1G-E, and HD-TX-201-C-2G-E. Supported DMPS Lite switchers are the HD-PS622, HD-PS621, HD-PS402, and HD-PS401.

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HD-RX-4KZ-101

DM Lite® 4K60 4:4:4 Receiver for HDMI® Signal Extension over CATx Cable

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or contact us for additional information by visiting www.crestron.com/contact/our-locations for your local contact.

This product is covered under the Crestron standard limited warranty. Refer to www.crestron.com/warranty for full details.

The specific patents that cover Crestron products are listed online at patents.crestron.com.

Certain Crestron products contain open-source software. For specific information, please visit www.crestron.com/opensource.

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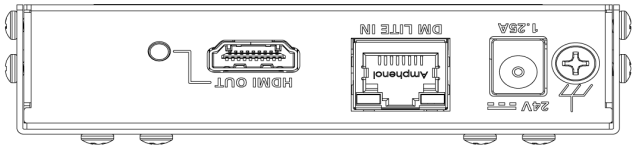
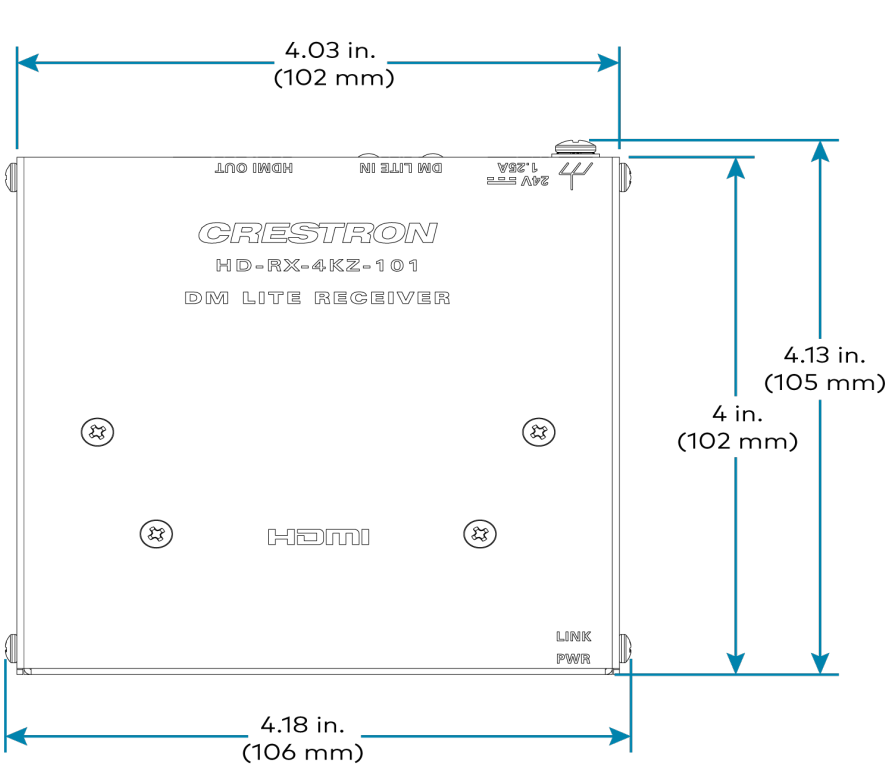
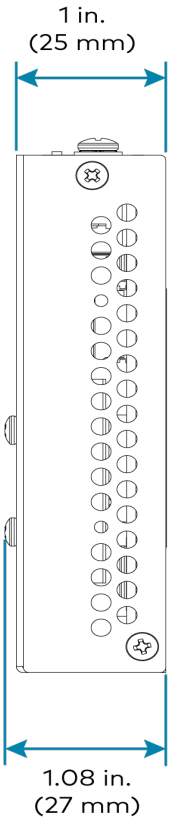
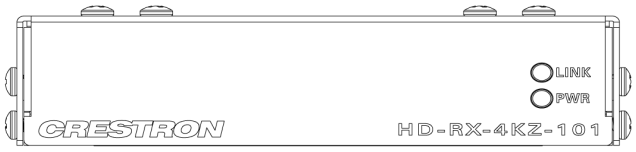
HD-RX-4KZ-101

DM Lite® 4K60 4:4:4 Receiver for HDMI® Signal Extension over CATx Cable









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HD-TX-4KZ-101

DigitalMedia™

DM Lite® 4K60 4:4:4 Transmitter for HDMI® Signal Extension over CATx Cable

- *Interoperability with a DM Lite® receiver or DMPS Lite™ switcher*
- *Point-to-point extension of an HDMI® signal over a CAT5e or higher cable*
- *DM Lite transmission distance up to 130 ft (40 m) for UHD and 4K signals or up to 230 ft (70 m) for 1080p, WUXGA, and 2K signals*
- *4K60 4:4:4 capability*
- *HDR10, HDR10+, and Dolby Vision® video formats*
- *Compliance with HDCP 2.3*
- *CEC (Consumer Electronics Control) pass-through capability*
- *EDID pass-through capability*
- *Compact, surface-mountable design*
- *Power from 24VDC power pack (included) or from remote DM Lite receiver or DMPS Lite switcher*

The HD-TX-4KZ-101 is a DM Lite® 4K60 4:4:4 transmitter designed to interoperate with a DM Lite® receiver or DMPS Lite™ switcher for the transmission of an HDMI® signal. A CAT5e or higher twisted pair cable is used to connect the HD-TX-4KZ-101 to the DM Lite receiver or DMPS Lite switcher. For 1080p, WUXGA, and 2K signals, a cable length of up to 230 ft (70 m) is supported. For UHD and 4K signals, a cable length of up to 130 ft (40 m) is supported.[1]

Interoperability with a DM Lite Receiver or DMPS Lite Switcher

The DM Lite output port of the HD-TX-4KZ-101 must be connected to a DM Lite input port of a DM Lite receiver or DMPS Lite switcher. Examples of supported DM Lite 4K60 4:4:4 receivers are the HD-RX-4KZ-101, HD-RXA-4KZ-101, HD-RXC-4KZ-101, and HD-RXCA-4KZ-101. Supported DM Lite 4K60 4:2:0 receivers are the HD-RX-101-C-E, HD-RXC-101-C-E, HD-RX-201-C-E, HD-RX-101-C-1G-E, and HD-RXC-101-C-1G-E. Supported DMPS Lite switchers are the HD-PS622, HD-PS621, HD-PS402, HD-PS401, and HD-RX-4K-210-C-E(-POE).

The HD-TX-4KZ-101 can be configured and controlled only when it is used with a DMPS Lite switcher. The web interface of the switcher can be used to configure the HD-TX-4KZ-101. In addition, control system programming and .AV Framework™ software support of the HD-TX-4KZ-101 is hosted by the switcher.

4K60 4:4:4 and HDR Support

The HD-TX-4KZ-101 supports video resolutions up to 4K60 with 4:4:4 color sampling. HDR10, HDR10+, and Dolby Vision® video formats are also supported.[2]

Compact, Surface-Mountable Design

Compact in design, the HD-TX-4KZ-101 can be mounted onto a flat surface such as the underside of a table, behind a credenza, or inside a podium. It can also be attached to a single rack rail in the back of an equipment cabinet. The HD-TX-4KZ-101 can receive power from the included power pack or from the remote DM Lite receiver or DMPS Lite switcher.[3]

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HD-TX-4KZ-101

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DM Lite® 4K60 4:4:4 Transmitter for HDMI® Signal Extension over CATx Cable

Specifications

Video

Input Signal Type	HDMI® with HDR10, HDR10+, Dolby Vision®, Deep Color, and 4K60 4:4:4 support[2] (DVI and Dual-Mode DisplayPort™ interface compatible[4])
Output Signal Type	DM Lite® with HDR10, HDR10+, Dolby Vision, Deep Color, and 4K60 4:4:4 support[2]
Copy Protection	HDCP 2.3
Resolutions	Common resolutions are listed in the following table.

Scan Type	Resolution	Frame Rate	Color Sampling	Color Depth
Progressive	4096x2160 DCI 4K & 3840x2160 4K UHD	24 Hz	4:4:4	12 bit
		30 Hz	4:4:4	12 bit
		60 Hz	4:2:2	12 bit
		60 Hz	4:4:4	8 bit
	2560x1600 WQXGA	60 Hz	4:4:4	8 bit
	1920x1080 FHD 1080p	60 Hz	4:4:4	12 bit
Interlaced	1920x1080 HD 1080i	30 Hz	4:4:4	12 bit

NOTE: *The maximum supported resolution is 4K60 with 4:4:4 color sampling. Custom resolutions are supported at pixel clock rates up to 600 MHz.*

Audio

Input Signal Type	HDMI
Output Signal Type	DM Lite
Digital Formats	Dolby Digital®, Dolby Digital EX, Dolby Digital Plus, Dolby® TrueHD, Dolby Atmos®, DTS®, DTS ES, DTS 96/24, DTS HD® High Res, DTS-HD Master Audio, DTS:X®, LPCM up to 8 channels

Communications

HDMI	HDCP 2.3, EDID, CEC pass-through
DM Lite	HDCP 2.3, EDID pass-through

Connectors

HDMI IN	(1) HDMI Type A connector, female; HDMI digital video/audio input; DVI and Dual-Mode DisplayPort™ interface compatible[4]
DM LITE OUT	(1) 8-pin RJ-45 yellow connector, female, shielded; DM Lite output port for connection to a DM Lite receiver or DMPS Lite™ switcher[1, 5]
24V 1.25A	(1) 2.1 x 5.5 mm DC power connector; 24VDC power input; PW-2420RU power pack included[3]
Ground	(1) Chassis ground lug

Controls and Indicators

LINK	(1) Green LED, indicates that a DM Lite link is established.
PWR	(1) LED, indicates that power is being applied to the device. Amber indicates that the device is booting. Green indicates that the device is operational.
HDMI IN	(1) Green LED, indicates that the device is receiving an HDMI signal
DM LITE OUT	(2) LEDs on RJ-45 connector. Green indicates that a DM Lite link is established. Flashing amber indicates non-HDCP video, and solid amber indicates HDCP video.

Power

Power Pack (Included)	Input: 100-240VAC Output: 24VDC 2.5A Model: PW-2420RU[3]

Environmental

Temperature	32° to 104°F (0° to 40°C)
Humidity	20% to 90% RH (non-condensing)

Enclosure

Chassis	Metal, black finish, vented sides, 2 mounting brackets included
Mounting	Freestanding, surface mountable, or attachment to a single rack rail

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HD-TX-4KZ-101

DigitalMedia™

DM Lite® 4K60 4:4:4 Transmitter for HDMI® Signal Extension over CATx Cable

Dimensions

Height	4.13 in. (105 mm)
Width	4.18 in. (106 mm)
Depth	1.08 in. (27 mm)

Weight

11.92 oz (337 g)

Compliance

Regulatory Model: M202047002

Intertek® Listed for US and Canada, CE, IC, FCC Part 15 Class B digital device

To search for product certificates, refer to support.crestron.com/app/certificates.

Model

HD-TX-4KZ-101
DM Lite® 4K60 4:4:4 Transmitter for HDMI® Signal Extension over CATx Cable

Included Accessories

PW-2420RU
Desktop Power Pack, 24VDC, 2.5A, 2.1 mm

Available Accessories

For a list of available accessories, visit the HD-TX-4KZ-101 product page.

Notes:

1. For DM Lite connections, use Crestron DM-CBL-8G, Crestron DM-CBL-ULTRA, or third-party CAT5e or higher cable. For information about the maximum transmission distance for each cable type, refer to Online Help Answer ID 1001567.

   To safeguard against unpredictable environmental electrical noise that may impact performance at resolutions above 1080p, shielded cable and connectors are recommended for all applications and are required when bundling multiple cables in a wire run. Cables are sold separately.
2. 4K60 4:4:4 performance and HDR support require the use of HDMI cables and couplers with a minimum TMDS bandwidth of 18 Gbps. If 4K60 4:2:0 or 4K30 4:4:4 performance is acceptable, cables and couplers with a minimum bandwidth of 10.2 Gbps may be used. Bandwidth loss is cumulative; therefore, performance may be reduced when inserting multiple cables and couplers inline.
3. When a surface-mountable DM Lite transmitter is paired with a surface-mountable DM Lite receiver, either the power pack included with the transmitter or the receiver can be used to power both devices. A power pack must not be connected to both devices simultaneously.

   When a surface-mountable DM Lite transmitter is paired with a wall plate DM Lite receiver, the power pack included with the transmitter is used to power both devices.

   When a DM Lite transmitter is paired with a DMPS Lite switcher, the switcher provides power to the DM Lite transmitter. The DM Lite transmitter must not be connected to the included power pack.
4. The HDMI input requires an appropriate adapter or interface cable to accommodate a Dual-Mode DisplayPort or DVI signal. CBL-HD-DVI interface cables are sold separately.
5. Examples of supported DM Lite 4K60 4:4:4 receivers are the HD-RX-4KZ-101, HD-RXA-4KZ-101, HD-RXC-4KZ-101, and HD-RXCA-4KZ-101. Supported DM Lite 4K60 4:2:0 receivers are the HD-RX-101-C-E, HD-RXC-101-C-E, HD-RX-201-C-E, HD-RX-101-C-1G-E, and HD-RXC-101-C-1G-E. Supported DMPS Lite switchers are the HD-PS622, HD-PS621, HD-PS402, HD-PS401, and HD-RX-4K-210-C-E (-POE).

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CRESTRON

HD-TX-4KZ-101

DigitalMedia™

DM Lite® 4K60 4:4:4 Transmitter for HDMI® Signal Extension over CATx Cable

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or contact us for additional information by visiting www.crestron.com/contact/our-locations for your local contact.

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HDMI

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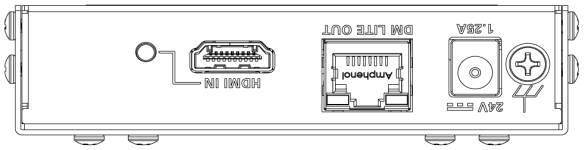
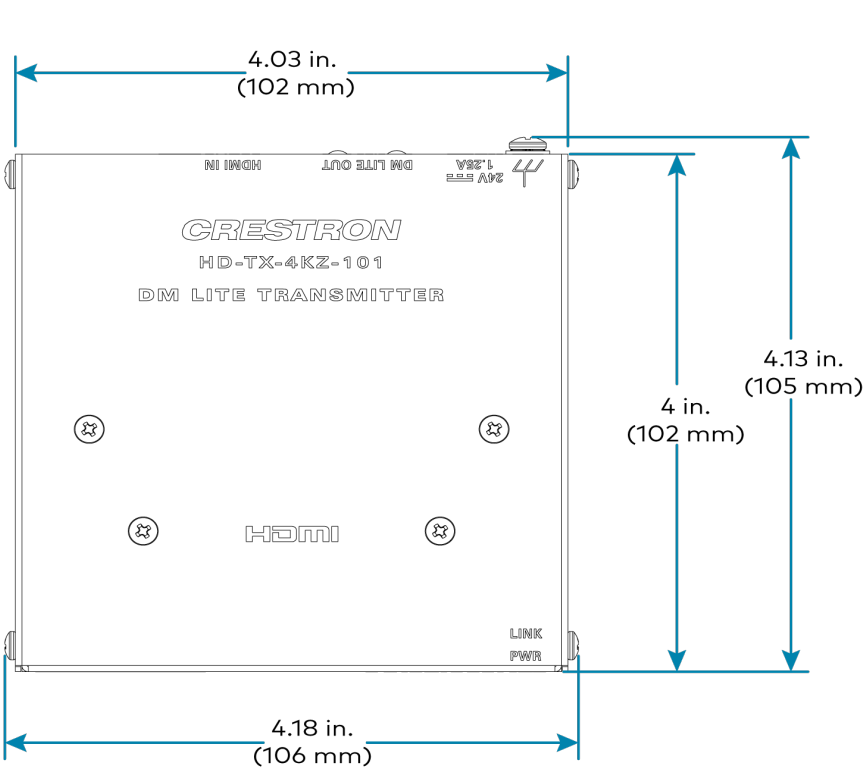
CRESTRON

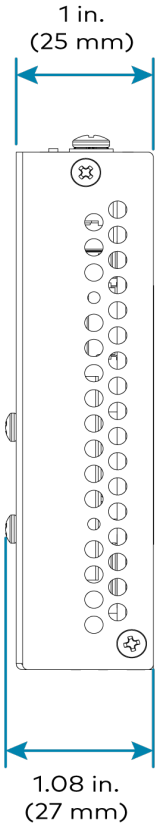
HD-TX-4KZ-101

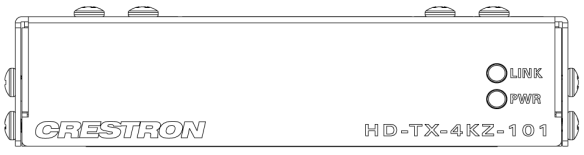
DigitalMedia™

DM Lite® 4K60 4:4:4 Transmitter for HDMI® Signal Extension over CATx Cable









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CRESTRON

UC-C100-T

Crestron Flex Video Conference System Integrator Kit for Microsoft Teams® Rooms

- *Conferencing integration solution for Microsoft Teams® Rooms software*
- *Native Microsoft Teams® Rooms touch screen UI provides a consistent, simple user experience with one-touch meeting joins*
- *Complete kit contains a 10.1 in. tabletop touch screen and UC bracket assembly*
- *Supports Shure® IntelliMix® Room DSP software*
- *Optional integration with Crestron® control systems*
- *Direct connection option between UC Engine and tabletop touch screen for simple installation and configuration*
- *Network management and provisioning, system alerts, and tabletop touch screen pairing to the system's UC Engine through the XiO Cloud® service*
- *Premium-level support with Crestron Flex Care (optional)*
- *Enterprise-grade security - connects and communicates securely over any enterprise or SMB network*
- *Supports single or dual video displays (not included)*

The UC-C100-T Crestron Flex integrator kit provides a customizable video conference solution for use with Microsoft Teams® Rooms software. It supports single or dual video displays[1] (not included) and features a tabletop touch screen and a UC bracket assembly.

Native Microsoft Teams® Rooms Experience

The UC-C100-T system brings the full Microsoft Teams Rooms UC experience to any meeting space in an enterprise or SMB facility.

Custom Room Integration

The UC-C100-T system provides the essential components needed to design a fully custom video conferencing space using your choice of display devices, cameras, speakers, microphones, and other AV equipment. Any Microsoft Teams software compliant USB camera and USB audio conferencing interface (or speakerphone) may be used.

Shure® IntelliMix® Room Integration

The UC-C100-T supports Shure IntelliMix Room[2] digital signal processing (DSP) software to enable integration with custom audio components such as networked microphones and power amplifiers.

IntelliMix Room integrates seamlessly with the UC-C100-T and runs on the UC Engine as conferencing software with no additional hardware requirements.

Intuitive User Interface

With a large 10.1 in. (257 mm) capacitive touch screen display, the Crestron® tabletop touch screen (TS-1070) provides superior conferencing control in meeting rooms, huddle spaces, and executive offices. The touch screen also offers optional control of room lighting, shades, thermostats, and other equipment.[3]

Simplified Deployment

The UC Bracket Assembly provides preassembled components on one ready-to-mount bracket to simplify installation. The assembly can be mounted on a wall, or it can be attached to the rear of the display device. Crestron's direct connection method further simplifies installation with a single connection from the tabletop touch screen to the UC Bracket Assembly.[4]

Crestron Control System Integration

The UC-C100-T integrates with a Crestron control system to enable touch screen control of room lighting, motorized window shades, climate control, AV, and other amenities.[3]

Enterprise-Grade Security

Crestron Flex is an enterprise-grade solution, engineered in partnership with Microsoft to integrate seamlessly into any Microsoft Teams Rooms software deployment. Crestron Flex is ideally equipped for mass deployment throughout any sized corporate, university, medical, military, or government facility.

Easy Provisioning and Device Management

The XiO Cloud service is an IoT cloud based provisioning service (available separately) that enables installers and IT managers to easily deploy and manage thousands of devices. The XiO Cloud service provides system alerts, network

UC-C100-T

Crestron Flex Video Conference System Integrator Kit for Microsoft Teams® Rooms

management and provisioning, and the pairing of a control device to the system's UC Engine. System updates are controlled by Windows® software update.

Visit www.crestron.com/xiocloud for additional information.

Premium-Level Support

Crestron Flex Care is an optional subscription service that automatically renews annually, providing 24/7 live remote technical support, an extended five year warranty on Crestron® branded hardware, expedited advance replacements, and a discounted rate for on-site support.

Visit www.crestron.com/flexcare for detailed terms and conditions and additional information.

Dual Control Option

A TS- or TSW- 70 series 10.1 in. touch screen may be added to the solution as an additional control point for the Microsoft Teams Rooms environment.[3, 4]

Deployment Resources

View the Crestron Flex Pre-Deployment Checklist to help plan your Crestron Flex installation.

Specifications

Included Components

TS-1070-B-S	10.1 in. (257 mm) tabletop touch screen, black
UC-BRKT-200-S-T-ASSY	UC Bracket Assembly comprised of: • UC Engine: Mini PC with Microsoft Teams video • ADPT-USB-ENET: USB-to-Ethernet Adapter • HDMI® to USB 3.0 converter for content ingest • Mounting hardware
CBL-4K-DP-HD-6	DisplayPort™ to HDMI Cable, 6 ft (1.8 m); secondary display
CBL-CAT5E-7	(2) Ethernet LAN cable for UC Engine, RJ-45-to-RJ-45, black, 7 ft (2.1 m)
CBL-HD-6	HDMI Interface Cable, 6 ft (1.8 m); primary display
CBL-HD-20	HDMI Interface Cable, 20 ft (6.1 m); content sharing
DM-CBL-ULTRA-PC-20	Ethernet LAN cable, CAT6a, RJ-45-to-RJ-45, blue, 20 ft (6.1 m)
PWE-4803RU	PoE Injector

Tabletop Touch Screen

Touch Screen	10.1 in. (257 mm) diagonal capacitive multi-touch TFT active matrix color LCD, 1920 x 1200 pixels
UI	Microsoft Teams UI plus optional Crestron Smart Graphics® room control UI[3]
Ethernet	100 Mbps, auto switching, auto negotiating, auto discovery, full/half duplex, TCP/IP, UDP/IP, CIP, DHCP, SSL, TLS, SSH, SFTP (SSH File Transfer Protocol), IEEE 802.1X, SNMP, IPv4 or IPv6, Active Directory® service authentication, HTTPS web browser setup, XiO Cloud® client, IEEE 802.3at compliant
Power over Ethernet	IEEE 802.3at Type 2 compliant PoE+ PD (Powered Device); Normally requests 15 W from an 802.3at Type 2 PSE with LLDP advanced power management; With room scheduling and USB enabled, requests 18 W from an 802.3at Type 2 PSE with LLDP; Requests 30 W (PoE+ Class 4) from an 802.3at Type 2 PSE without LLDP; Requests 15.4 W (PoE Class 0) from an 802.3af (or 802.3at Type 1) PSE
PoE Injector	A PoE injector is included to power the touch screen if network PoE is not available
Construction	Plastic, smooth black finish, edge-to-edge glass with black surround
Dimensions	Height: 5.29 in. (134 mm) Width: 9.63 in. (245 mm) Depth: 4.67 in. (119 mm)
Weight	2.44 lb (1105 g)

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UC-C100-T

Crestron Flex Video Conference System Integrator Kit for Microsoft Teams® Rooms

UC Bracket Assembly

UC Engine	Mini PC, Intel Core® processor with Windows® 10 IoT Edition OS and 100/1000 Mbps Ethernet connectivity
UC Client	Microsoft Teams Rooms
Management Client	XiO Cloud Service
Content Ingest	HDMI input via HDMI to USB 3.0 converter
Display Output	Single or dual display support[1]
Display Output Resolution	1080p
Power	100-240VAC, 50/60 Hz adapter (included)
Construction	Metal mounting bracket, black, preassembled with UC Engine and HDMI to USB 3.0 converter
Mounting	Surface wall mount behind the display device, or attach to the rear of the display device via the bolts attaching the display to a VESA® compliant display mount; Bracket includes mounting holes on both side edges, spaced 100, 200, and 300 mm vertically, to allow for attachment to either side of the display mounting plate
Dimensions	Height: 15.00 in. (381 mm) Width: 14.50 in. (368 mm) Depth: 1.87 in. (48 mm) (UC Bracket Assembly with HD-CONV-USB-200) 1.93 in. (49 mm) (UC Bracket Assembly with HD-CONV-USB-300)
Weight	7.7 lb (3.5 kg) (UC Bracket Assembly with HD-CONV-USB-200) 7.95 lb (3.6 kg) (UC Bracket Assembly with HD-CONV-USB-300)

Model

UC-C100-T
Crestron Flex Video Conference System Integrator Kit for Microsoft Teams® Rooms

Available Accessories

For a list of available accessories, visit the UC-C100-T product page.

Notes:

1. Display must support "Wake on Sync" and "Sleep on No Sync" functionality. Consult the display manufacturer's specifications or internal settings of the specific display.
2. For detailed instructions on planning, deploying, and managing Shure IntelliMix Room, refer to Shure's documentation.
3. Room control capability (lighting, shades, thermostats, etc.) requires additional equipment and commissioning to be provided by a Crestron authorized integrator and/or programmer. Additional costs may apply.
4. A maximum of two touch screens or one touch screen and one Crestron Mercury device can be accommodated by the system. Only one control device may be connected via direct connection method.

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or contact us for additional information by visiting https://www.crestron.com/contact/our-locations for your local contact.

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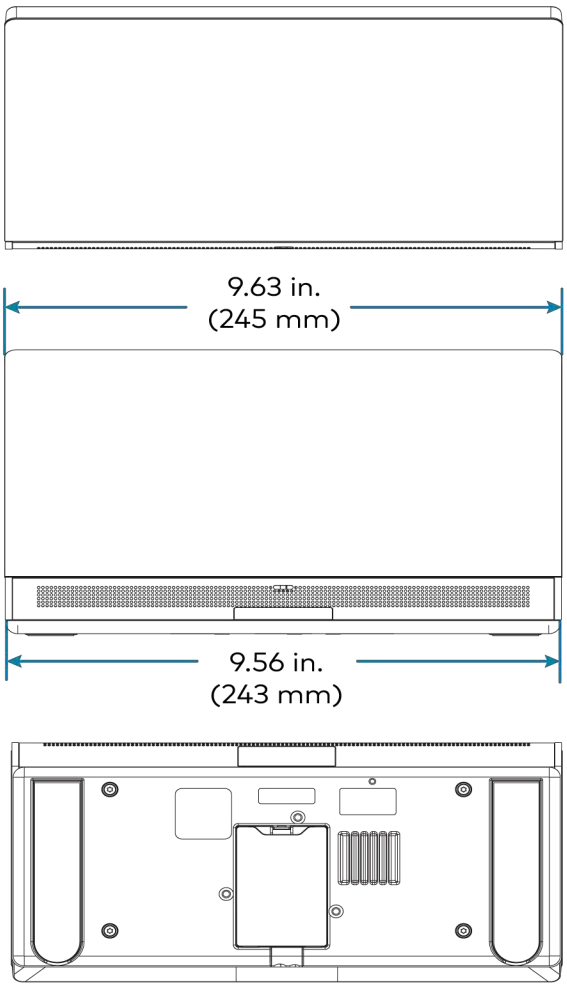
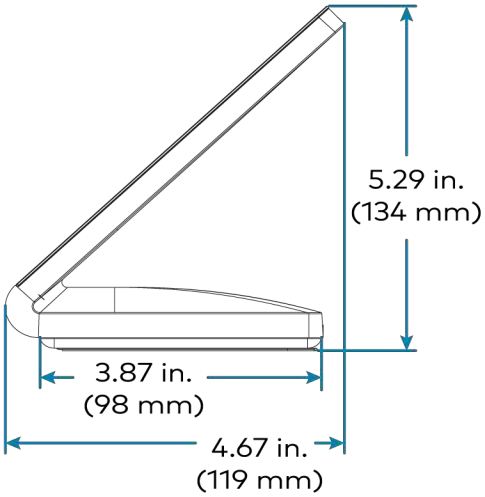
UC-C100-T

Crestron Flex Video Conference System Integrator Kit for Microsoft Teams® Rooms

Touch Screen (TS-1070-B-S-T-V)





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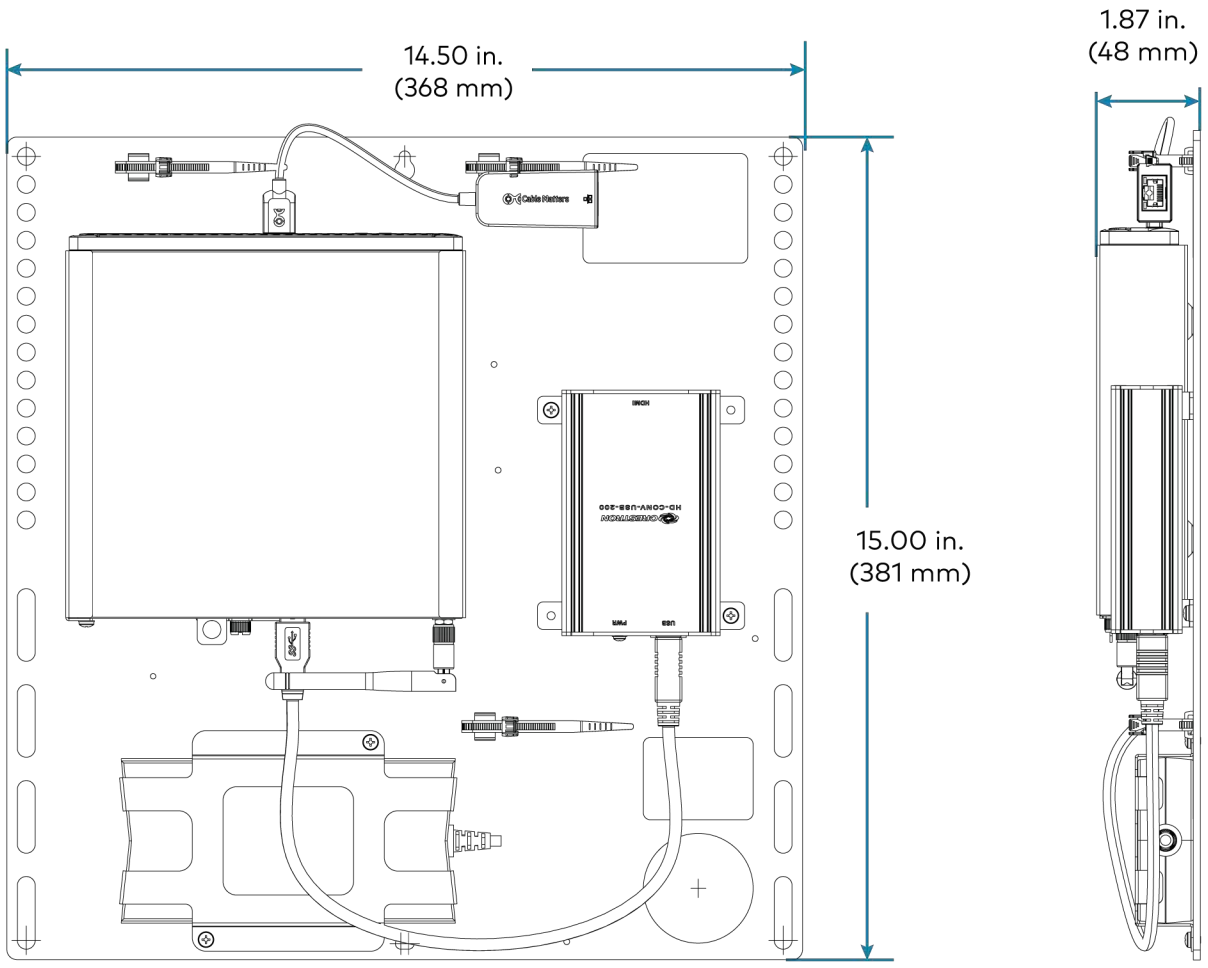
UC-C100-T

Crestron Flex Video Conference System Integrator Kit for Microsoft Teams® Rooms

UC Bracket Assembly with HD-CONV-USB-200



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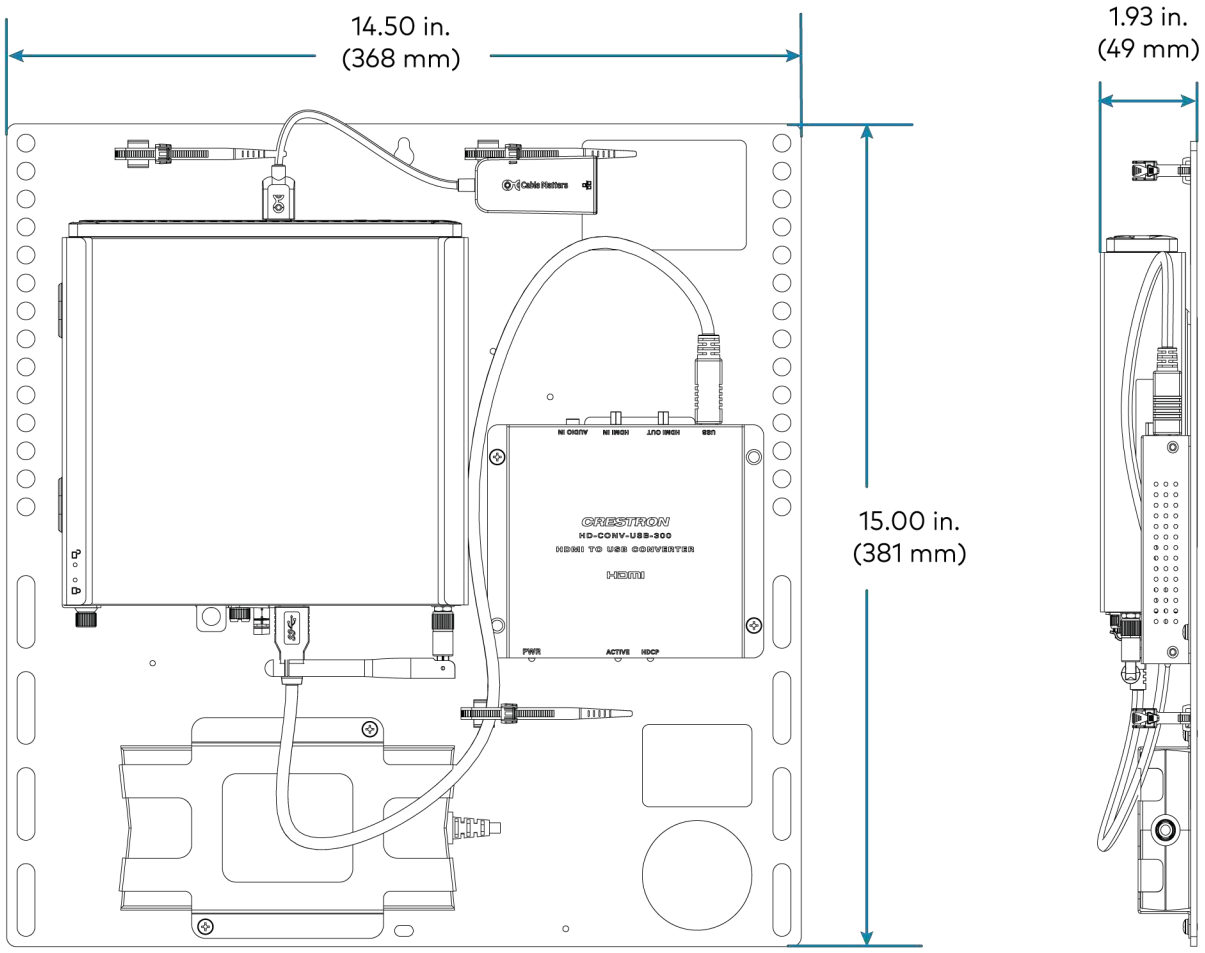
UC-C100-T

Crestron Flex Video Conference System Integrator Kit for Microsoft Teams® Rooms

UC Bracket Assembly with HD-CONV-USB-300



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UC-CAM-L1

Huddly® L1™ AI Collaboration Camera for Large Meeting Rooms

- *Full HD 1080p video quality*
- *Wide-angle 103° diagonal field of view*
- *High precision, aspherical glass lens reduces spherical aberrations*
- *Advanced video processing engine provides excellent image quality*
- *5x digital zoom, pan, and tilt*
- *Genius Framing digital autozoom*
- *People counting analytics*
- *Auto-Flip automatic 180° image rotation*
- *Silent operation with no moving parts*
- *Compatible with Crestron Flex systems*
- *POE powered*
- *Upgradable software*
- *Wall and shelf mountable*

The UC-CAM-L1 is an intelligent, high-definition collaboration camera compatible with Crestron Flex large meeting room videoconferencing solutions. It features a wide-angle 103° diagonal field of view to capture an entire conference room with Full HD 1080p resolution. High precision aspherical optics, a 20.30 MP 1 in. CMOS sensor, portrait lighting, and advanced video processing ensure an immersive, crystal clear video image free from light or noise artifacts or optical aberrations. The camera has no moving parts, ensuring quiet operation, reliability, and accuracy while adjusting Pan, Tilt and Zoom functions.

Advanced Video Processing

The video processing engine uses real-time scaling and artificial intelligence (AI) to understand lighting conditions and adjust exposure accordingly. The engine also uses visual noise filtering to deliver excellent image quality. Genius Framing digital autozoom intelligently detects the people in the room and frames them perfectly for an optimal view with no loss of resolution. People counting analytics detects and reports the number of people in frame for analysis by room utilization software. The camera's software is also upgradeable, allowing for regular enhancements and feature updates.

Mounting Options

The camera's aluminum unibody construction is tripod compatible and includes a mounting bracket for surface or wall installation. The auto-flip feature automatically rotates the image 180° when the camera is installed upside down, providing even more options for installation.

The UC-CAM-L1 is a POE-powered camera that can be mounted at any convenient location up to 100 ft (~30 m) from the included USB to POE adapter.[1]

Specifications

Included components

(1) UC-CAM-L1 Camera

(1) USB to POE Adapter

(1) Wall and Shelf Mount

(1) 3.3 ft (1 m) Power Adapter

(1) 6.6 ft (2 m) Ethernet Cable

(1) USB Type-C® Male to USB Type-C Male Cable

(1) USB Type-C Male to USB 3.0 Type-A Male Cable

Optics & Processing

Image Sensor	20.30 Megapixels 1 in. CMOS Sensor
Lens	High precision, wide angle, aspherical glass lens
Field of View	103° diagonal, 92° horizontal, 65° vertical
Aperture	f/2.9
Pan/Tilt/Zoom	5x digital zoom, pan, and tilt
Autozoom	Genius Framing automatic lossless digital zoom intelligently frames around people in the room
Auto-Flip	Automatic 180° image rotation when mounted upside down
Dynamic Light Optimization	Auto-adjusts light levels and white balance
Aspect Ratio Output	16:9

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UC-CAM-L1

Huddly® L1™ AI Collaboration Camera for Large Meeting Rooms

Noise Reduction	Noise reduction through bias compensating spatio-temporal filtering, wide area chroma filtering, flicker elimination
Scaling	Real-time scaling, dewarping, and perspective correction
People Counting	Detects and reports the number of people in the frame

Video

Output Resolution	HD 1080p @ 30 fps

Connectivity

Connector	RJ45
Cable	Cat 5e/6/7
USB	USB 3.0 port (via included USB to PoE Adapter)[1]

Power

Power Requirement	5VDC

Construction

Housing	Aluminum unibody
Mounting	Wall and shelf mount

Dimensions

Height	2.1 in. (53 mm)
Width	4.8 in. (122 mm)
Depth	3.5 in. (89 mm)

Weight

1.3 lb (0.6 kg)

Model

UC-CAM-L1
Huddly® L1™ AI Collaboration Camera for Large Meeting Rooms

Available Accessories

For a list of available accessories, visit the UC-CAM-L1 product page.

Note:

1. The UC-CAM-L1 with network adapter requires driver installation on the connected laptop. A USB plug-and-play adapter, UC-CAMA-ADPT-ENET-USB, can be purchased separately to avoid driver installation.

This product may be purchased from select authorized Crestron dealers and distributors. To find a dealer or distributor, please contact the Crestron sales representative for your area. A list of sales representatives is available online at www.crestron.com/How-To-Buy/Find-a-Representative or contact us for additional information by visiting https://www.crestron.com/contact/our-locations for your local contact.

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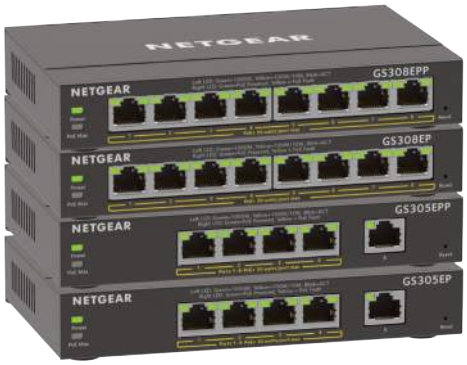
NETGEAR BUSINESS

Data Sheet | **GS305EP, GS305EPP, GS308EP, GS308EPP, GS316EP, GS316EPP**

PoE+ Gigabit Ethernet Plus Switches



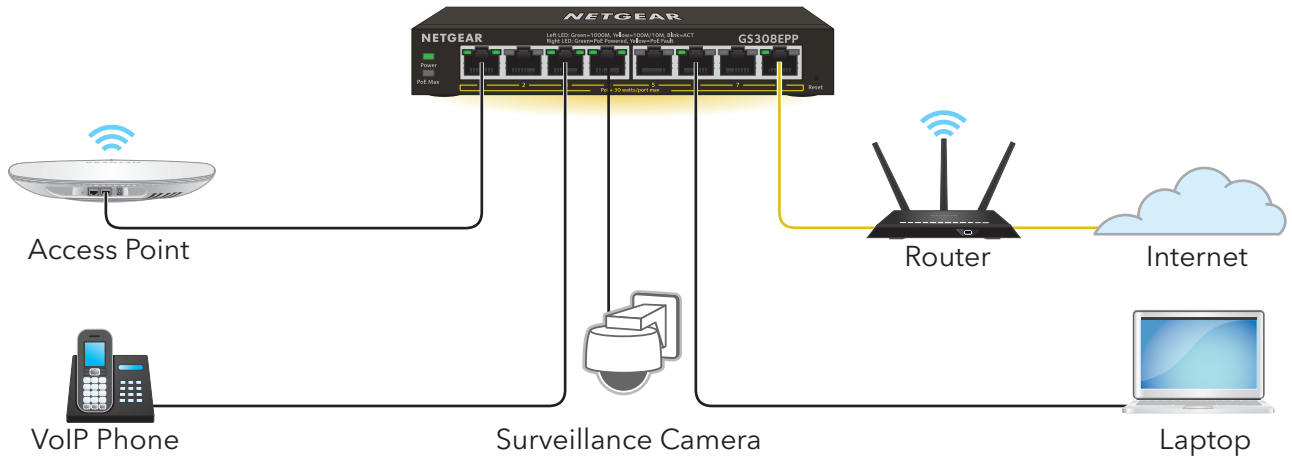
Control and Configure Beyond Plug-and-Play

NETGEAR Plus Switches with PoE meets business networks growing need by providing fundamental network features such as simplified VLANs, QoS set-up and IGMP Snooping that will help optimize the performance of business networks. Plus Switches are the perfect upgrade from the plug-and-play unmanaged switch, delivering essential networking features at a very affordable price. These models support Power-Over-Ethernet (PoE) and can power devices such as VOIP phones, surveillance IP cameras, wireless access points and many other applications. These new PoE+ Gigabit Ethernet Plus switches models include uninterruptable PoE to help optimize the performance and troubleshooting of business networks. The new and improved business-friendly GUI allows easy management and simple configuration. With the growing deployment of applications and an all-in-one solution, providing management and power to these applications would be ideal.

Highlights

- Enable network configuration and management at the price point of unmanaged switches
- Simple, yet useful network set-up on top of plug-and-play connectivity
- Business-friendly and easy-to-use web browser-based management GUI
- VLAN support for traffic segmentation
- Quality of Service (QoS) for traffic prioritization
- Auto "denial-of-service" (DoS) prevention
- Troubleshoot connection issues via cable test
- Loop prevention[1], loop detection[2], and broadcast storm controls
- Rate limiting for better bandwidth allocation
- Port mirroring for network monitoring
- Jumbo frame support
- Advanced features such as per port PoE controls
- Uninterrupted PoE keeps PoE power on even when the switch is updating firmware or performing software reboot.
- 802.3at standard offering 30W/port
- Fanless and versatile mounting option (desktop and wall-mountable)

Small Office/Home Office Network Diagram



[1] Applies to GS316EP, GS316EPP

[2] Applies to GS305EP, GS305EPP, GS308EP, GS308EPP

Technical Specifications

Features	GS305EP	GS305EPP	GS308EP	GS308EPP	GS316EP	GS316EPP
10/100/1000 RJ45 Copper Ports (Auto Uplink)	5	5	8	8	16	16
Enclosure	Metal	Metal	Metal	Metal	Metal	Metal
Connector Type	Metal	Metal	Metal	Metal	Metal	Metal
PoE						
# of PoE ports	4	4	8	8	15	15
# PoE+ 802.3at Ports	4	4	8	8	15	15
SFP ports	0	0	0	0	1	1
Total PoE/PoE+ Budget	63W	120W	62W	123W	180W	231W
Advanced PoE Controls	Yes	Yes	Yes	Yes	Yes	Yes
PoE Scheduling	No	No	No	No	Yes	Yes
Uninterrupted PoE	Yes	Yes	Yes	Yes	Yes	Yes
Performance Specification						
Forwarding modes	Store-and-forward					
Bandwidth	10Gbps	10Gbps	16Gbps	16Gbps	32Gbps	32Gbps
Max MAC entries	4K	4K	4K	4K	4K	4K
Buffer Size	192KB	192KB	192KB	192KB	192KB	192KB
Energy Efficient Ethernet (IEEE 802.3az) compliant	Yes	Yes	Yes	Yes	Yes	Yes
Priority queuing	WRR	WRR	WRR	WRR	WRR	WRR
Jumbo frame support	9,216 bytes	9,216 bytes	9,216 bytes	9,216 bytes	10,000 bytes	10,000 bytes
Acoustic noise level @ 25° C (dBA) (ANSI-S10.12)	0	0	0	0	0	0
Mean Time Between Failures (MTBF) @ 25° C	1,164,104 hrs	853,770 hrs	859,126 hrs	842,428 hrs	784,742 hrs	570,435 hrs
L2 Services - VLANS						
VLAN (# Supported)	64	64	64	64	64	64
IEEE 802.1Q VLAN Tagging	Yes	Yes	Yes	Yes	Yes	Yes
Port-based VLANs	Yes	Yes	Yes	Yes	Yes	Yes
L2 Services - Availability						
Link Aggregation/Port Trunking	Yes	Yes	Yes	Yes	Yes	Yes
Number of Static Manual LAGs and # of members	2/4	2/4	2/4	2/4	8/8	8/8
L2 Services - Multicast Filtering						
IGMP snooping (v1, v2, and v3)	Yes	Yes	Yes	Yes	Yes	Yes
Block unknown multicast	Yes	Yes	Yes	Yes	Yes	Yes
Supported Multicast groups	128	128	128	128	128	128
L3 Services - DHCP						
DHCP client	Yes	Yes	Yes	Yes	Yes	Yes
Quality of Service						
Rate Limiting	Yes	Yes	Yes	Yes	Yes	Yes
DSCP	Yes	Yes	Yes	Yes	Yes	Yes
IEEE 802.1p COS	Yes	Yes	Yes	Yes	Yes	Yes
Port-based VLAN	Yes	Yes	Yes	Yes	Yes	Yes
TOS	Yes	Yes	Yes	Yes	Yes	Yes
WRR (Weighted Round Robin)	Yes	Yes	Yes	Yes	Yes	Yes
Strict Priority queue technology	No	No	No	No	No	No

Technical Specifications

IEEE Network Protocols	GS305EP	GS305EPP	GS308EP	GS308EPP	GS316EP	GS316EPP
• IEEE 802.3 Ethernet • IEEE 802.3ab 1000BASE-T • IEEE 802.3u 100BASE-T • EEE 802.1p Class of Service	• IEEE 802.1Q VLAN Tagging • IEEE 802.3x Full-duplex Flow Control • IEEE 802.3af PoE • IEEE 802.3at PoE+					
Management						
System Password	Yes	Yes	Yes	Yes	Yes	Yes
Web browserbased management GUI	Yes	Yes	Yes	Yes	Yes	Yes
PC Utility	No	No	No	No	No	No
Configurable Management VLAN	No	No	No	No	Yes	Yes
Port Mirroring	Yes	Yes	Yes	Yes	Yes	Yes
Max number of source ports allowed (one-to-one port mirroring)	1	1	1	1	1	1
Many-to-one Port Mirroring	Yes	Yes	Yes	Yes	Yes	Yes
Cable Test Utility	Yes	Yes	Yes	Yes	Yes	Yes
FW Upgrade Thru Plus Utility (TFTP)	No	No	No	No	No	No
Config download (to Switch) thru Plus Utility	No	No	No	No	No	No
Config upload (to server)	Yes	Yes	Yes	Yes	Yes	Yes
LEDs						
Per port	Speed, Link, Activity, PoE					
Per device	Power, System, PoE Max					
Physical Specifications						
Dimensions (W x D x H)	158 x 101 x 27 mm (6.2 x 4.0 x 1.1 in)	158 x 101 x 27 mm (6.2 x 4.0 x 1.1 in)	158 x 101 x 27 mm (6.2 x 4.0 x 1.1 in)	158 x 101 x 27 mm (6.2 x 4.0 x 1.1 in)	286 x 102 x 27 mm (11.26 x 4.02 x 1.06 in)	286 x 102 x 27 mm (11.26 x 4.02 x 1.06 in)
Weight	0.39 kg (0.86 lb)	0.40 kg (0.88 lb)	0.49 kg (1.08 lb)	0.49 kg (1.08 lb)	0.883 kg (1.95 lb)	0.883 kg (1.95 lb)
Environmental Specifications						
Operating						
Operating temperature	32° to 104°F (0° to 40°C)					
Humidity (relative)	90% maximum relative humidity (RH), non-condensing					
Altitude	10,000 ft (3,000 m) maximum					
Storage						
Storage temperature	- 4° to 158°F (-20° to 70°C)					
Humidity (relative)	95% maximum relative humidity (RH), non-condensing					
Altitude	10,000 ft (3,000 m) maximum					

Technical Specifications

Electromagnetic Emissions and Immunity	GS305EP	GS305EPP	GS308EP	GS308EPP	GS316EP	GS316EPP
Certifications	CE mark, commercial FCC Part 15 class B CE/EN55032/24 VCCI ACMA CSA safety KC BSMI					
Warranty and Support						
Hardware Warranty (All Except China/India)	5-year warranty					
China/India	1-year warranty					
External Power Adapter Warranty	2-year warranty					
Technical Support (online, phone)	90 days free of Technical Support with registration					
ProSUPPORT OnCall 24x7 Service Plans	Category S1 PMB0S11-10000S PMB0S31-10000S PMB0S51-10000S	Category S1 PMB0S11-10000S PMB0S31-10000S PMB0S51-10000S	Category S1 PMB0S11-10000S PMB0S31-10000S PMB0S51-10000S	Category S1 PMB0S11-10000S PMB0S31-10000S PMB0S51-10000S	Category 1 PMB0311-10000S PMB0331-10000S PMB0351-10000S	Category 1 PMB0311-10000S PMB0331-10000S PMB0351-10000S
Package Contents						
All Models	NETGEAR Plus Switch Power adapter (power cable varies by region) Wall installation kit Rubber feet Installation guide					
Optional Modules, Software Licenses and Accessories (For GS316EP and GS316EPP only)						
AGM731F	FP Transceiver 1000BASE-SX (Short range, multimode)					
AGM732F	SFP Transceiver 1000BASE-LX (Long range, single mode)					
AGM734-10000S	SFP Transceiver 1000BASE-T Copper RJ45 GBIC					

*This product comes with a limited warranty that is valid only if purchased from a NETGEAR authorized reseller, and covers unmodified hardware, fans and internal power supplies –not software or external power supplies, and requires product registration at https://www.netgear.com/business/registration within 90 days of purchase; see https://www.netgear.com/about/warranty for details. Intended for indoor use only.

† NETGEAR #1 in US Market Share according to NPD data for Unmanaged and Smart Switches, September 2019. NETGEAR #1 in Europe Market Share according to Context data for Unmanaged and Smart Switches, September 2019.

The use of the proper type of cable is required for optimum performance. Please consult this Knowledge Base article for more information: www.netgear.com/cables

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D-GS305EP/GS305EPP/GS308EP/GS308EPP/GS316EP/GS316EPP-1Aug22

AcousticDesign™ Series AD-C6T-LP

KEY FEATURES

- Consistent tonal characteristics across the entire AcousticDesign family for surface, ceiling, and pendant applications
- DMT (Directivity Matched Transition™) waveguide ensures smooth, uniform frequency response over the coverage area
- Snap-fit magnetic grille
- 3x double stepped, long travel dog-ear blind mount system
- Intrinsic Correction™ voicings available via Q-SYS Platforms and CXD amplifiers
- Low-saturation and low-loss 70/100 V transformers with 16 Ω bypass
- Blemish-free removable logo
- Removable conduit cover plate, also available as accessory for pre-install wiring
- UL1480 and UL2043 certified
- Available in white (RAL 9010)
- Complete EASE, CF2, CAD, & BIM information available online

Certified for
Microsoft Teams

AcousticDesign™ Series AD-C6T-LP

6.5" small format, low profile, ceiling mount loudspeaker

The QSC AcousticDesign™ AD-C6T-LP is a 6.5" two-way low profile ceiling loudspeaker ideally suited for a wide variety of foreground and background sound reinforcement applications which utilize 70/100 V or 16 Ω bypass configurations.

The AcousticDesign™ Series offers integrators a premium quality installed sound solution where performance, consistent coverage, and aesthetics are paramount. Specifically designed to maintain a consistent tonal characteristic across the entire family in ceiling, surface, and pendant applications, the AcousticDesign™ series allows integrators seamless transitions within blended installations.

The AD-C6T-LP features a high quality 6.5" weather treated paper cone woofer with a 1" voice coil and a .75" aluminum dome tweeter which is positioned on a DMT waveguide.

DMT (Directivity Matched Transition™) is QSC's design philosophy where the high frequency waveguide is matched to the natural conical behavior of the woofer at the crossover point. The result is a coherent transition between transducers with improved off-axis power response for consistent 135° conical DMT coverage.

The accurate frequency response of the AD-C6T-LP is maintained even in 70/100 V applications by use of a low-loss, low-saturation 60-watt transformer with selectable taps, including 16 Ω bypass, using a rotary selector located under the snap-fit magnetically attached powder coat steel grille.

To retain lasting good looks, the rugged ABS baffle is further protected by using UV inhibitors that prevent discoloration and by a powder coated steel back can. The magnetic grille features a stick-on logo that can be removed blemish-free for installations where branding is not permitted.

IInstallers will appreciate the 3x double stepped, long travel dog-ear blind mounting system, which captures from 0" - 2.25" of ceiling thickness. The conduit cover plate can be easily removed by losening the single captive Phillips screw allowing access to the locking 4-pole Euro-block connector which can accept up to four 18 AWG pairs, eliminating the hassles of star topology wiring designs.

Intrinsic Correction™ voicings that optimize performance and speed the install process are easily deployed via the Q-SYS Platforms, including CXD Series amplifiers, as part of a complete QSC systems solution.

The AD-C6T-LP is available in QSC standard white (RAL 9010) and may be painted to match any decor.

For your system integration needs, complete EASE, CF2, CAD, and BIM files are available for download at QSC.com.

AD-C6T-LP

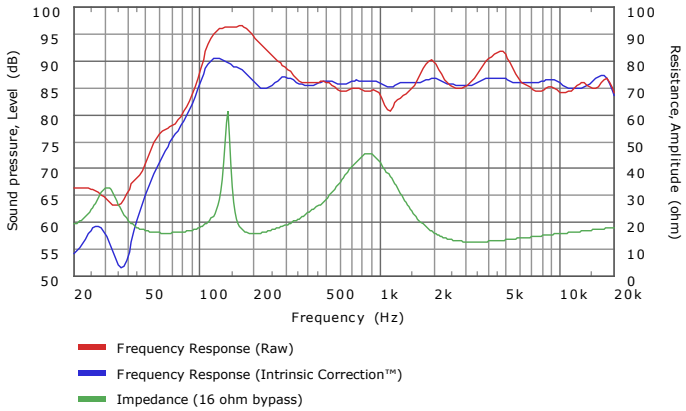
System Detail

LF transducer	165 mm [6.5 in] weather treated paper cone woofer
HF transducer	19 mm [.75 in] aluminum dome tweeter
Effective frequency range [1, 2, 3, 8]	65 Hz – 20 kHz
Rated noise power / voltage [6]	60 W / 31 V (rms)
Sensitivity [dB]	Rated @ 1W, 1m [2, 3, 4, 8] : 88
Coverage (-6 dB) [°]	Rated [2, 5, 8] : 135 conical DMT
Directivity factor [2, 5, 8]	6.5
Directivity index [dB] [2, 5, 8]	8
Maximum SPL [dB]	Rated (continuous / peak) [7] : 106 / 112
Transformer taps / impedance	1Bypass:16 Ω 7.5 W (70 V); 15 W (100 V) Tap: 667 Ω 15 W (70 V); 30 W (100 V) Tap: 333 Ω 30 W (70 V); 60 W (100 V) Tap: 167 Ω 60 W (70 V); N/A (100 V) Tap: 83 Ω
Input connector type	Euroblock connector with parallel output
Enclosure material	ABS baffle on powder coated steel back can
Grille material	Powder coated steel
Ingress protection	IP-34
Operating environment	Designed for indoor use
Operating temperature range	-20 to 50° C [-4 to 122° F]
Cutout dimension	Ø 305 mm [Ø 12 in]
Net Weight	4.2 kg [9.3 lb]
Product dimensions (Ø x H)	Ø 340 x 100 mm [Ø 13.37 x 3.95 in.]
Shipping weight	13.3 kg [29.3 lb] (pair packed)
Shipping dimensions (H x W x D)	178 x 864 x 470 mm [7 x 34 x 18.5 in] (pair packed)
Included accessories	C-ring and tile rails, rail screws, euroblock connector, cut-out template, grille
Optional accessories	AD-MR8 (pre-install mud ring)
Safety Agency	UL1480, UL2043, NFPA90, NFPA70 suitable for use in air handling spaces. Transformer UL registered per UL1876, ROHS, CE compliant. Baffle meets UL94-V0 and UL94-5VB flamibility rating; in accordance with IEC60849 / EN60849 systems.

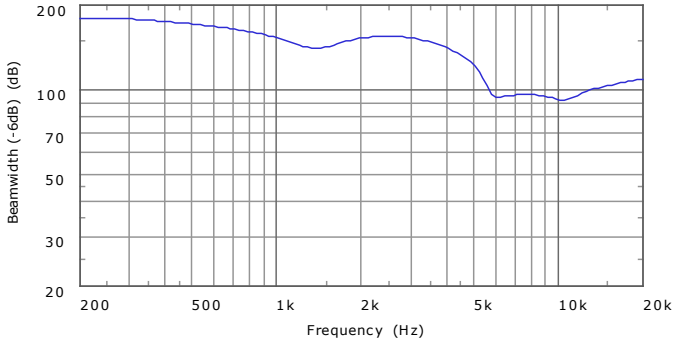
1 -10 dB from rated sensitivity
2 Full-space, IEC baffle, 4 m
3 Reference axis
4 200 - 10 kHz average
5 500 - 5 kHz average
6 IEC, 2hrs
7 Calculated from rated noise power and sensitivity
8 Reference plane is the plane coincident with the loudspeaker baffle plane. Reference axis is the axis perpendicular to the reference plane and passing through the center of the baffle. Vertical plane is the plane intersecting the reference plane at a right angle, including the reference axis and the taps selector knob. Horizontal plane is the plane intersecting the reference plane and the vertical plane at a right angle, including the reference axis.

AD-C6T-LP

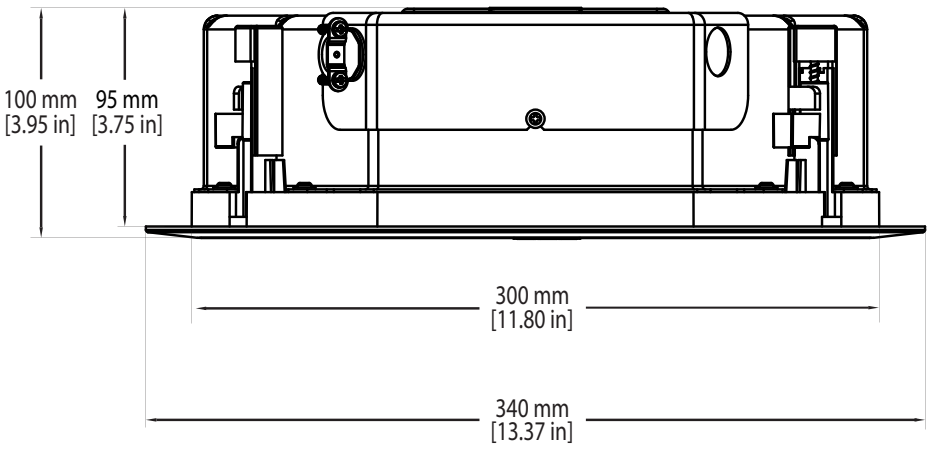
Impedance / Frequency Response:



Beamwidth:



Dimensions:



As part of QSC's ongoing commitment to product development, specifications are subject to change without notice.

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MXA310

Specifications

Version: 0 (2019-E)

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Specifications **3**

Frequency Response **4**

IP Ports and Protocols **9**

MXA310 Specifications

Specifications

All specifications measured from cardioid polar pattern. Values for all patterns are within ± 3 dB of these specifications unless otherwise noted.

Polar Pattern

All channels independently adjustable

Cardioid, Hypercardioid, Supercardioid, Toroid, Omnidirectional, Bidirectional

Connector Type

RJ45

Power Requirements

Power over Ethernet (PoE), Class 0

Power Consumption

4W, maximum

Weight

362 g (0.8 lbs)

Dimensions

H x W x D

3.6 x 13.4 x 13.4 cm (1.4 x 5.3 x 5.3 in.)

control application

HTML5 Browser-based

Operating Temperature Range

−6.7°C (20°F) to 40°C (104°F)

Storage Temperature Range

−29°C (-20°F) to 74°C (165°F)

Audio

Frequency Response

100 to 20,000 Hz

Dante Digital Output

Channel Count	5 total channels (4 independent transmit channels, 1 Automatic mixing transmit channel)

Sampling Rate	48 kHz
Bit Depth	24

Sensitivity
at 1 kHz, , -15 dB Gain Setting

-21 dBFS/Pa

Maximum SPL
1 kHz at 1% THD, -15 dB Gain Setting

115.2 dB SPL

Signal-To-Noise Ratio
Ref. 94 dB SPL at 1 kHz, -15 dB Gain Setting

Cardioid	75 dB
Toroid	67 dB

Latency
Not including Dante latency

<1 ms

Self Noise
-15 dB Gain Setting

Cardioid	19.2 dB SPL-A
Toroid	26.8 dB SPL-A

Dynamic Range
-15 dB Gain Setting

Cardioid	96 dB
Toroid	90 dB SPL

Built-in Digital Signal Processing

Per Channel	Equalizer (4-band Parametric) , Mute, Gain (140 dB range)
System	Automatic mixing, Low-Cut Filter (-12 dB/octave @150 Hz)

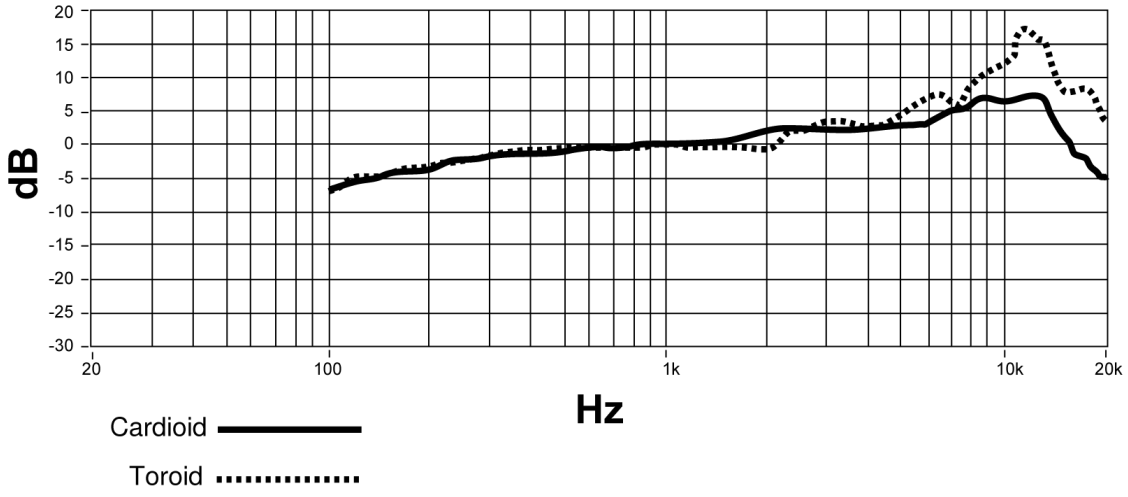
Networking

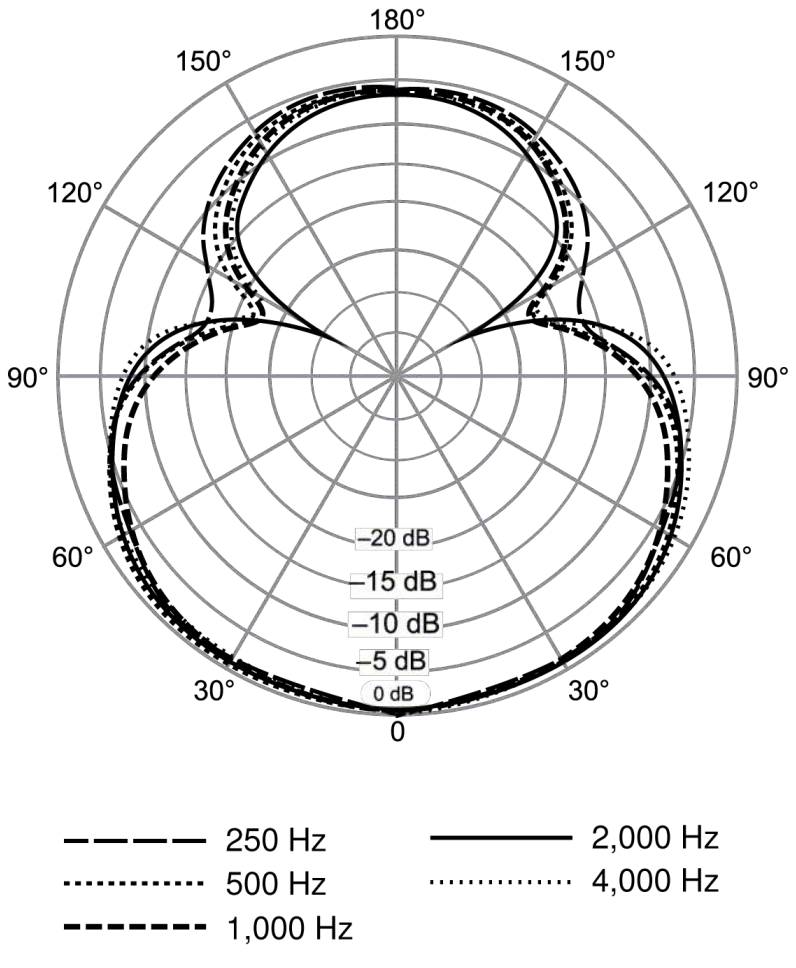
Cable Requirements

Cat 5e or higher (shielded cable recommended)

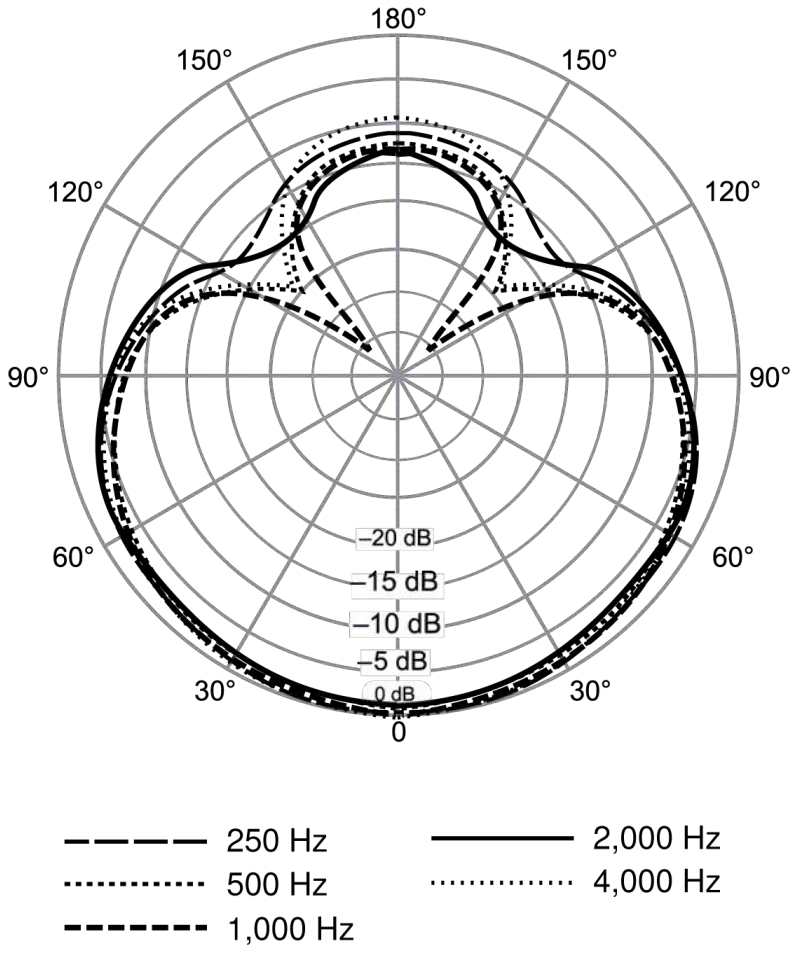
Frequency Response

Frequency response measured from a distance of 2 feet (61 cm).

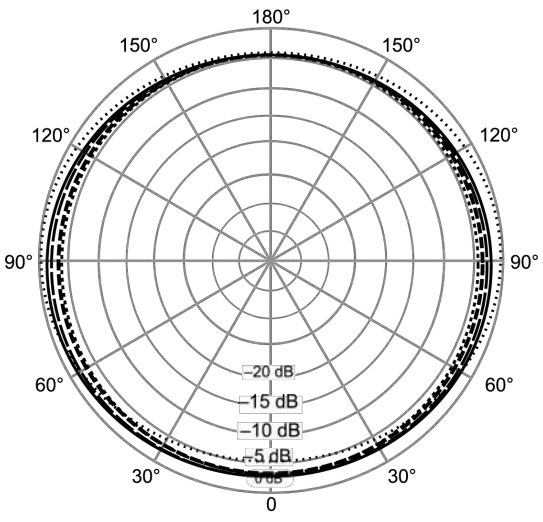


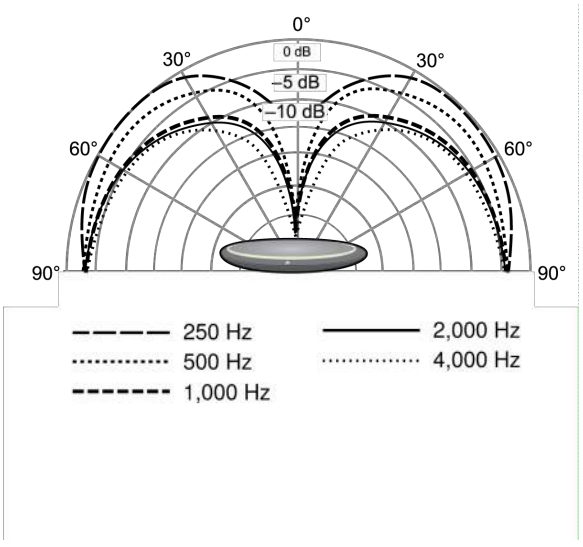


Hypercardioid

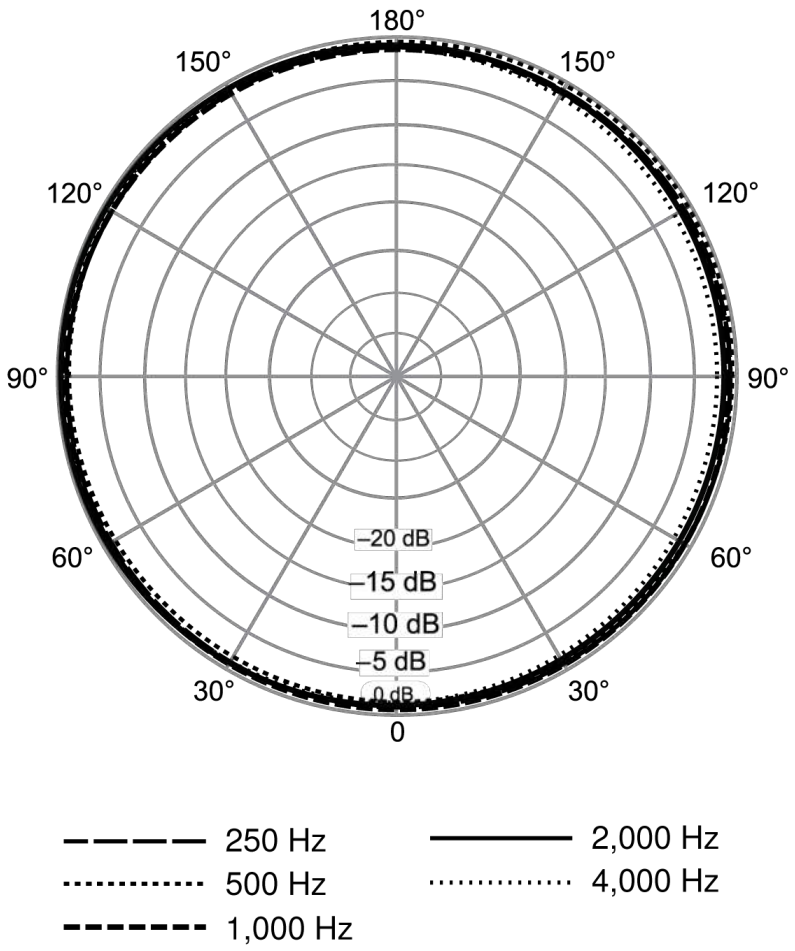


Supercardioid

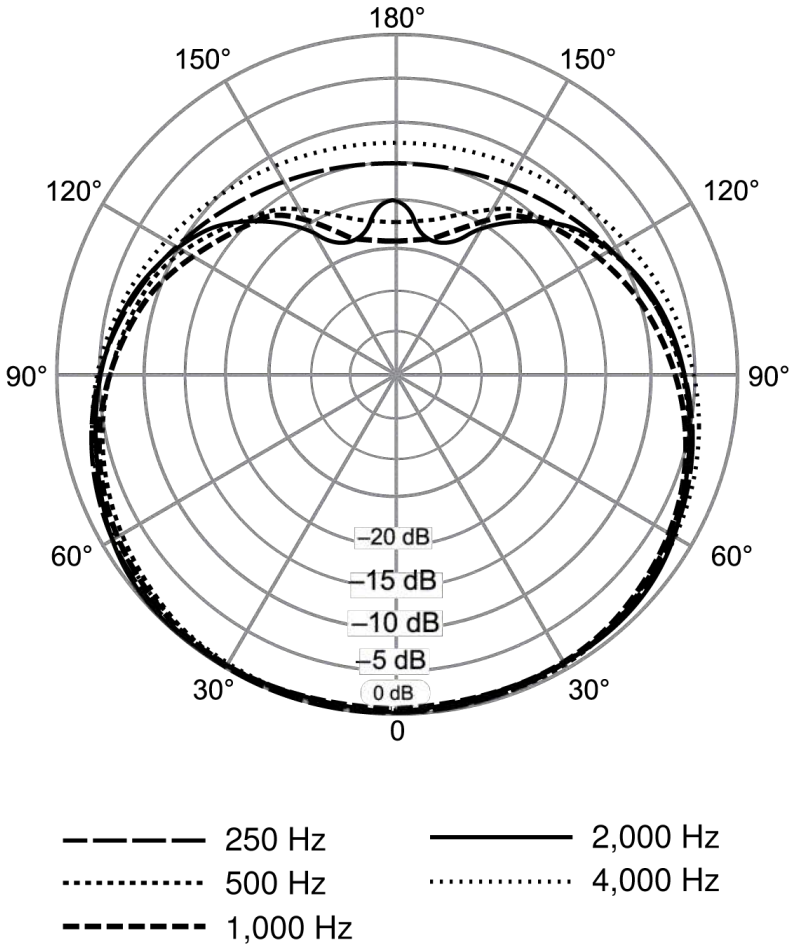




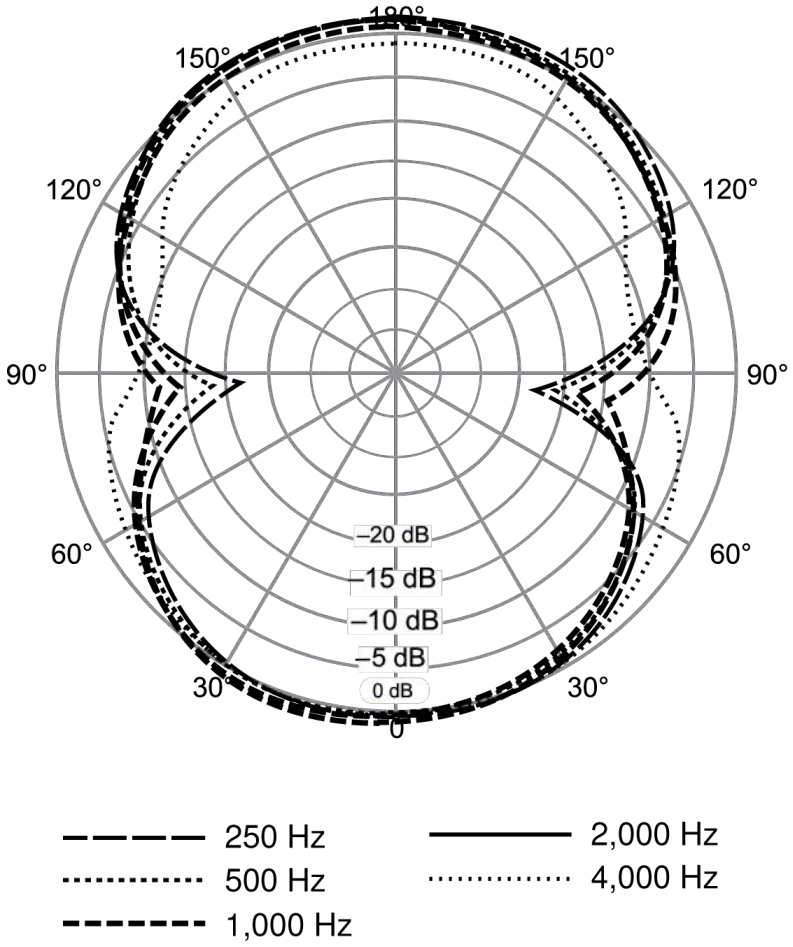
Toroid



Omnidirectional


180°
150°
150°
120°
120°
90°
90°
60°
60°
30°
30°
0
–20 dB
–15 dB
–10 dB
–5 dB
0 dB
250 Hz
500 Hz
1,000 Hz
2,000 Hz
4,000 Hz

Cardioid



Bidirectional

IP Ports and Protocols

Shure Control

Port	TCP/UDP	Protocol	Description	Factory Default
21	tcp	FTP	Required for firmware updates (otherwise closed)	Closed
22	tcp	SSH	Not supported	Closed
23	tcp	Telnet	Standard console interface	Closed
68	udp	DHCP	Dynamic Host Configuration Protocol	Open
80*	tcp	HTTP	Required to launch embedded web server	Open
427	tcp/udp	SLP†	Required for inter-device communication	Open

Port	TCP/UDP	Protocol	Description	Factory Default
443	tcp	HTTPS	Not supported	Closed
161	tcp	SNMP	Not supported	Closed
162	tcp	SNMP	Not supported	Closed
2202	tcp	ASCII	Required for 3rd party control strings	Open
5353	udp	mDNS†	Required for device discovery	Open
5568	udp	SDT†	Required for inter-device communication	Open
8023	tcp	Telnet	Debug console interface	Password
8180*	tcp	HTML	Required for web application	Open
8427	udp	Multcast SLP†	Required for inter-device communication	Open
64000	tcp	Telnet	Required for Shure firmware update	Open

Dante Audio & Controller

Port	TCP/UDP	Protocol	Description
162	udp	SNMP	Used by Dante
[319-320]*	udp	PTP†	Dante clocking
2203	udp	Custom	Required for packet bridge
4321, 14336-14600	udp	Dante	Dante audio
[4440, 4444, 4455]*	udp	Dante	Dante audio routing
5353	udp	mDNS†	Used by Dante
[8700-8706, 8800]*	udp	Dante	Dante Control and Monitoring
8751	udp	Dante	Dante Controller
16000-65536	udp	Dante	Used by Dante

*These ports must be open on the PC or control system to access the device through a firewall.

†These protocols require multicast. Ensure multicast has been correctly configured for your network.

P300

Version: 2 (2020-A)

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P300 **3**

P300

Specifications

General

Input	(2) 3-pin block connector (Active Balanced)
Output	(2) 3-pin block connector (Impedance Balanced)
Mobile	(1) TRRS 3.5 mm (1/8")

USB Connections

(1) USB 2.0, Type B

Single port carries 2 input and 2 output channels (Summed mono)

Network Connections (Dante Digital Audio)

(1) RJ45

10 Dante Inputs , 8 Dante Outputs

Polarity

Non-inverting, any input to any output

Power Requirements

802.3 at Type 2 (PoE Plus), Class 4

Power Consumption

17.5 W, maximum

Weight

1710 g (3.8 lbs)

Dimensions

H x W x D

4 x 21 x 22.6 cm (1.6 x 8.3 x 8.9 in.)

Control Software

Shure Designer

Operating Temperature Range

−6.7°C (20°F) to 50°C (122°F)

Storage Temperature Range

−29°C (-20°F) to 74°C (165°F)

Thermal Power Dissipation

Maximum	17.5 W (60 BTU/hr)
typical	14.6 W (50 BTU/hr)

Audio

Frequency Response

+1, -1.5 dB

20 to 20,000 Hz

Dante Digital Audio

Sampling Rate	48 kHz
Bit Depth	24

USB Audio

Sampling Rate	48 kHz
Bit Depth	16, 24

Latency

Does not include Dante latency

Firmware 4.1 and newer	Dante 1-8 in to Dante out (AEC enabled)	15.4 ms
	Dante 1-8 in to Dante out (AEC disabled)	8.7 ms
	Dante 9-10 in to Dante out	3.4 ms
	Analog in to Analog out	3.8 ms
Firmware 3.1 and older	Dante 1-8 in to Dante out (AEC enabled)	12.5 ms
	Dante 1-8 in to Dante out (AEC disabled)	5.8 ms
	Dante 9-10 in to Dante out	1.8 ms
	Analog in to Analog out	2.2 ms

Analog Connections (Block Connectors)

Dynamic Range

20 Hz to 20 kHz, A-weighted, typical

Analog-to-Dante	113 dB
Dante-to-Analog	117 dB

Equivalent Input Noise

20 Hz to 20 kHz, A-weighted, input terminated with 150Ω

Line	-86 dBV
Aux	-98 dBV

Total Harmonic Distortion
@ 1 kHz, 0 dBV Input, 0 dB analog gain

<0.05%

Common Mode Rejection Ratio
150Ω balanced source @ 1 kHz

>50 dB

Input Impedance
9.6 kΩ

Input Clipping Level

Line	+27 dBV
Aux	+15 dBV

Output Impedance
80 Ω

Output Clipping Level

Line	+20 dBV
Aux	+0 dBV
Mic	-26 dBV

Mobile Connection (3.5 mm Connector)

Pin Assignments

Tip	Audio Input (Left)
Ring 1	Audio Input (Right)
Ring 2	Ground
Sleeve	Audio Output (To Phone)

Dynamic Range
20 Hz to 20 kHz, A-weighted, typical

Analog-to-Dante	99 dB
Dante-to-Analog	90 dB

Equivalent Input Noise
20 Hz to 20 kHz, A-weighted, input terminated with 20Ω

-95 dBV

Total Harmonic Distortion
@ 1 kHz, 0 dBV Input, 0 dB analog gain

<0.05%

Input Impedance

3.7 kΩ

Input Clipping Level

+4 dBV

Output Impedance

1.4 kΩ

Output Clipping Level

Output terminated with 2.2 kΩ

-20 dBV

Networking

Cable Requirements

Cat 5e or higher (shielded cable recommended)

SONY

FW-85BZ40L

85” Exceptionally bright 4K HDR professional display with unique Deep Black Non-Glare technology

Overview

Superlative picture quality. Made for professionals.

Engineered to perform flawlessly in demanding retail, corporate and educational environments, the FW-85BZ40L is a truly professional display. It’s packed with Sony innovation – including the latest Deep Black Non-Glare technology – for impressively bright, high-contrast 4K HDR images with sumptuous colors and exquisite detail. Pro-friendly features simplify integration, easy operation and seamless content sharing in today’s connected AV environments. And with generous customization options, the FW-85BZ40L is the premium LED display that fits right in with your business needs.

Features

Deep Black Non-Glare

Featured exclusively on BRAVIA BZ40L, Sony’s Deep Black Non-Glare Coating combines anti-glare and low-reflection technologies. Reducing reflections and boosting contrast, it’s the key to dynamic visuals bursting with true-to-life color and detail that inspire everyone, from corporate visitors and staff to shoppers and students.

Exquisite images that always stand out

Our 85” FW-85BZ40L grabs your audience’s attention with extremely high 650 nit screen brightness for punchy, high-impact

visuals that are always seen clearly. Advanced Sony picture processing technologies ensure your content looks its very best. The panel's extra-wide viewing angle ensures that everyone in the room can enjoy clear, bright images wherever they're positioned.

Richer, more natural color

Sony's power-packed 4K HDR Processor X1 and TRILUMINOS Pro technology faithfully reproduces a phenomenal range of rich, true-to-life colors.

Finer detail

4K X-Reality PRO processing upscales pictures closer to true 4K quality. Images are sharpened and refined in real time, revealing extra detail from lower-resolution picture sources.

Smoother movement

Motionflow XR ensures smoother, more natural reproduction of rapidly-moving on-screen images.

Installation flexibility to suit every environment

The sleek, minimal design of the FW-85BZ40L Series brings impeccable style to any business environment. The display's elegant lines are further enhanced by practical touches for seamless integration in retail stores, colleges and corporate workspaces.

Wall-Mount Adjuster

BRAVIA comes supplied with a Wall-Mount Adjuster, giving extra flexibility for mounting the display centrally in portrait or landscape orientation.

Side Mounted interfaces

Signal connections, networking and other interfaces are conveniently side mounted for easy installation and access when the display is in portrait position.

Discreet Logo
The Sony logo is discreetly positioned on the edge of the display's bezel – with nothing distracting your audience from immersive images.

Landscape, Portratint and Tilt
Install BRAVIA in portrait or landscape orientation to suit any corporate or retail space. The display can also be tilted at an angle for even greater flexibility.

Round the Clock Reliability
Business never sleeps: BRAVIA is engineered for dependable 24/7 operation in the most challenging corporate and commercial environments.

Special settings for professional use
Pro Settings mode makes doing business even easier, allowing you to customize BRAVIA settings and operating modes to suit the demands of corporate or retail environments. Disable input or remote control functions, schedule on/off times, remove labels and block buttons to avoid tampering when the screen's being used in public spaces. Customize and store display settings, then copy them easily from display to display via USB flash memory.

Get great pictures fast
Forget fiddling with display settings – focus on getting amazing results without fuss. One Step Setting offers presets tuned to your environment, including meeting room, vivid signage, natural signage and graphics. Just pick a preset: BRAVIA instantly configures picture mode, input, control settings and more.

Easy multi-screen setup
Configuring multiple screens for large display applications is easier than ever. The Multi Display Setting (MDS) app helps you create stunning video walls with multiple BRAVIA displays "tiled" together.

Easy integration

FW-85BZ40L is made for today's connected world. There's seamless support for today's leading automation and control platforms, while open APIs simplify integration with other vendor solutions.

Large 32 GB internal storage

The internal memory on some other displays is eaten up by the operating system, leaving little space for your own apps and content. FW-85BZ40L doubles internal storage from 16 GB to a generous 32 GB – giving loads more room on board to hold apps, photos, videos and digital signage.

Signage made simple

Informing and guiding visitors with digital signage in retail stores and corporate spaces has never been simpler. Built-in support for HTML5 makes it easy to display interactive signage content on BRAVIA without the need for a dedicated set-top box, media player or PC. On-board BRAVIA Signage Free (BSF) software automatically plays out HTML content, video and photos when a USB stick memory is slipped into BRAVIA. It's that simple.

Wireless screen mirroring

Easily mirror content wirelessly from handheld device onto BRAVIA with in-built support for Apple AirPlay and Google Chromecast.

Meet more easily

Get Google Meet from Google Play Store, and pair BRAVIA with a compatible webcam for easy video meetings.

With BRAVIA, sustainability in every scene

With growing demand for ever larger display screens, there is also the risk of greater resource and energy use. However, Sony's sustainability commitments are realizing efficiency gains from product development right through to customers' viewing screens.

Specifications

General Features	
Screen Size	85"
Brightness (cd/ft^2)	650
Contrast Ratio	6000:1
Dynamic Contrast Ratio	500,000:1
Response Time (ms)	15.9
Display Resolution (H x V, pixels)	3840 x 2160
HDR (High Dynamic Range) Compatibility	Yes (HDR10, HLG, Dolby Vision)
Aspect Ratio	16:9
Portrait/Tilt Compatibility	Yes

Display Features	
Dimming Type	Frame Dimming
Display Device	LCD
Panel Type	VA

Backlight Type	Direct LED
TRILUMINOS Display	TRILUMINOS PRO
Color Gamut (DCI-P3)	92%
Picture Processor	4K HDR Processor X1
Operation Time	24/7
Deep Black Non-Glare Coating	Yes
Haze (%)	58%
Viewing Angle (Right/Left)	178 (89/89) degree (CR >10)
Viewing Angle (Up/Down)	178 (89/89) degree (CR >10)

Video Specification

Video Processing	4K X-Reality PRO
Motion Enhancer	Motionflow XR 240 (Native 60Hz)
HDMI Signal	4096 x 2160 p (24, 60 Hz), 3840 x 2160 p (24, 30, 60 Hz), 1080 p (24, 30, 60 Hz), 1080 i (60 Hz), 720 p (24, 30, 60 Hz), 480 p

Audio Specification

Speaker Position	Down Firing
Audio Power Output	10W + 10W

Professional Features

Pro Mode	Yes
HDMI Auto Wake-Up	Yes
HTML5 Platform	Yes
Multicast/IPTV	Yes
Operating System	Android TV
On-board Storage (GB)	32 GB

Network Specification

Wi-Fi Direct	Yes
Wi-Fi Certified	Yes
Wireless LAN	Integrated

Convenience Features

USB Playback Codecs	MPEG1: MPEG1 / MPEG2PS: MPEG2- / MPEG2TS (HDV, AVCHD): MPEG2, AVC / MP4 (XAVCS): AVC, MPEG4, HEVC / AVI: Xvid, MotionJpeg / ASF (WMV): VC1 / MOV: AVC, MPEG4, MotionJpeg / MKV: Xvid, AVC, MPEG4, VP8.HEVC / WEBM: VP8 / 3GPP: MPEG4, AVC / MP3 / ASF (WMA) / LPCM / WAV / MP4AAC / FLAC / JPEG
On-screen Clock	Yes
Sleep Timer	Yes
On/Off Timer	Yes
Chromecast Built-In	Yes
Apple AirPlay	Yes

Control Specifications

IP Control	Yes
RS-232C Control	Yes
HDMI-CEC	Yes

Inputs and Outputs

HDCP	HDCP2.3 (for HDMI 1/2/3/4)
Composite Video Input (s)	1(Side, Mini jack)
HDMI Inputs Total	4 (4 Side)
Analog Audio Input (s) (Total)	1 (Side Analog Conversion)
Digital Audio Output (s)	1 (Side)
USB Ports	2 (Side)
Ethernet Inputs	1 (Side)

Design Features

VESA® Hole Pitch (W x H)	400 x 400 mm/15 3/4 x 15 3/4 inch

Environment Specifications

Rated Power Consumption	373 W
Power Consumption (in Standby)	0.5 W
Dynamic Backlight	

Control	Yes
Power Saving Mode	Yes

Measurements

Dimension of TV without Stand (W x H x D)	1899 x 1089 x 71 mm / 74 7/8 x 42 7/8 x 2 7/8 in
Dimension of Package Carton (W x H x D)	2036 x 1239 x 258 mm / 80 1/4 x 48 7/8 x 10 1/4 inch

Weight

Weight of TV without Stand	44.5 kg / 98.1 lb
Weight of Package Carton (Gross)	62 kg / 136.6 lb

Accessories

Wall-mount adjuster (Bundled)	Yes (Depending on Region)
Table-top stand (Optional)	No stand

Related products

BRAVIA BZ40L Series

Exceptionally bright 4K HDR professional displays with unique Deep Black Non-Glare technology. Available in multiple screen sizes

Gallery

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AVI SYSTEMS OVERVIEW

Parent Company

World Leader in Integrated Solutions

Largest Global Footprint

Global Delivery

Leader in Microsoft Services

Teams, O365

Company Overview
Corporate Profile

OUR KEY BUSINESS UNITS

AVI Systems has made several strategic acquisitions and partnerships over the past few years to provide customers like Microsoft with specialized technical capability and complete solutions.

Magenium Solutions “Powered by AVI”, ranks in the top 1% of Microsoft Partners in the U.S. Based in Chicago, the company delivers comprehensive services for Microsoft O365, Azure and Dynamics

GPA is an organization comprised of 35 regional businesses that locally deliver audiovisual, unified collaboration and digital media solutions in more than 50 countries expanding our capability to deliver consistent, optimum user experiences all over the world.

MAGENIUM

GPA
THINK GLOBAL, ACT GLOBAL

AVI

AVI Business Timeline

1974 – Incorporated as Audiovisual Inc. in 1974 in Bismarck ND.

- **1983** – New offices in Des Moines & Omaha
- **1990** – Open in Minneapolis; added Audio, Video Presentation and Conferencing
- **1996** – Open in Kansas City; launched video conferencing solutions

- **2000** – Acquired North Dakota company adding solutions for sound masking, sound reinforcement and security
- **2004** – Open in Chicago, Milwaukee, Madison and Grand Rapids
- **2005** – Launched Advanced Managed Services

- **2008** – Consolidated all companies and subsidiaries under AVI Systems Inc.
- **2009** – Jeff Stoebner named CEO; launched Digital Signage Asset Management and Conference Support Solutions
- **2010** – Became a 100% Employee-Owned Company

- **2016** – Open in Denver; acquires Antech Labs of St Louis; launched Global Support Center in Minneapolis
- **2018** - Acquired Magenium to enhance Microsoft expertise

- **2020** – Joins GPA; Acquires Avyve expanding reach and service capabilities in the southeastern U.S.
- **2021** - Expansion in the Northeast, with account teams in New York and Boston
- **2022** - Acquisition of Onsite AV in Austin, Texas and CIM/CCS in Indianapolis.
- **2022** - AVI Systems ranked #1 systems integrator by Systems Contractor News.
- **2023** – Acquisition of Neurilink in Boise, Idaho, and Seattle.
- **2023** – Acquisition of LOTH in Columbus, Ohio.

Providing comprehensive solutions to clients since 1974.

Experts in Audiovisual, Unified Collaboration, Digital Media, Microsoft Teams, Managed Services, Enterprise and Broadcast solutions.

AVI SYSTEMS OVERVIEW

Founded in

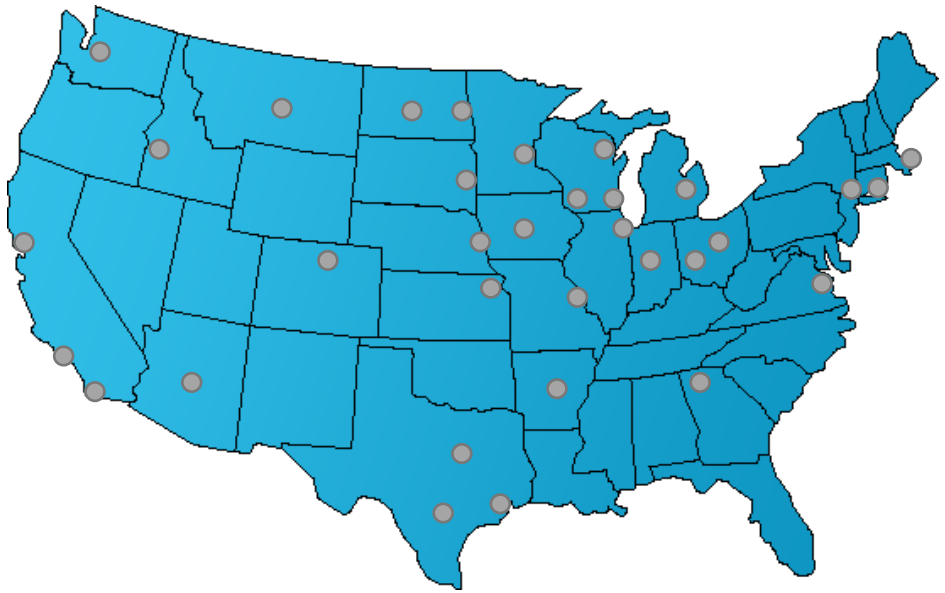
1974

4:1 ratio of support staff to sales staff

400+

MANUFACTURER PARTNERS

enable us to provide optimal AV solutions.



With **34** locations in the US, AVI designs your solution from the ground up. Before your system is installed, we validate it by building and testing it at one of our **Enterprise Deployment Centers.**

Over 950 Employee-Owners, Creating Better Outcomes for Our Customers

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LARGEST GLOBAL SYSTEMS INTEGRATOR

AVI | GPA

SCN TOP 50 SYSTEMS INTEGRATORS 2022

VALUES

Oneness makes us stronger

We are more than a collection of individuals, we're a part of something larger than our departments, offices and even our company. We understand and support the roles of others in our company. Our oneness creates a customer experience second to none.

Stewardship reflects responsibility

We leave every situation better off than the way we found it. Time is one of our non-renewable resources; we respect our customers' time, and our coworkers' time. We spend our resources and our customers' resources wisely.

Integrity makes us who we are

Some would say it's an overused term. That's fine. At AVI the value stands, and no other value matters without integrity. It is what you think, what you do, and what you stand for. Our integrity is driven by our Code of Ethics — our code teaches us what to do when no one else is looking.

Curiosity drives innovation

We ask questions and we welcome feedback. We find the good in that. Our curiosity drives innovation. The free flow of ideas carries our organization and our customers forward. We believe in curious leadership.

Elevation takes us higher

We seek a better vision of our surroundings and our customers' surroundings. We achieve elevation through learning and growing ourselves, our company, and our customers. We are always trying to reach new heights.

A STRONG PARTNER

Just as we design our AV solutions to last, we've built AVI for the long haul — laying a financial foundation strong enough to weather volatile markets; investing in systems, infrastructure, and personnel; and making AVI a 100% employee-owned company.

Our focus on stability, transparency and shared success not only provides security for the future, it's the ultimate warranty for our customers.

AVI SYSTEMS IS A 100% EMPLOYEE-OWNED COMPANY.

We're an open book company.

As of 2022, AVI has approximately $30 million of working capital, and our current ratio is 1.5 to 1.0. There is also a significant amount of liquidity in our working capital assets, and our metrics for managing
and measuring inventory and accounts receivables are some of the best in our industry.

We're responsible about debt.

With a Debt to Tangible Net Worth ratio of 1.2 to 1.0, AVI Systems has the capital and financial wherewithal to hire leading- edge talent and invest in the systems and infrastructure that are the prerequisite
to providing best-in-class service to our customers.

We're fully insured.

For government agencies, large contracts, and corporate enterprises, AVI provides top- notch protection to back up your decision. We offer general liability coverage totaling $12 million and single job and aggregate bonding capacity ($15M/$45M). This level of protection puts AVI in the position of being able to accommodate virtually 100% of the risk management and bonding requirements specified by our clients.

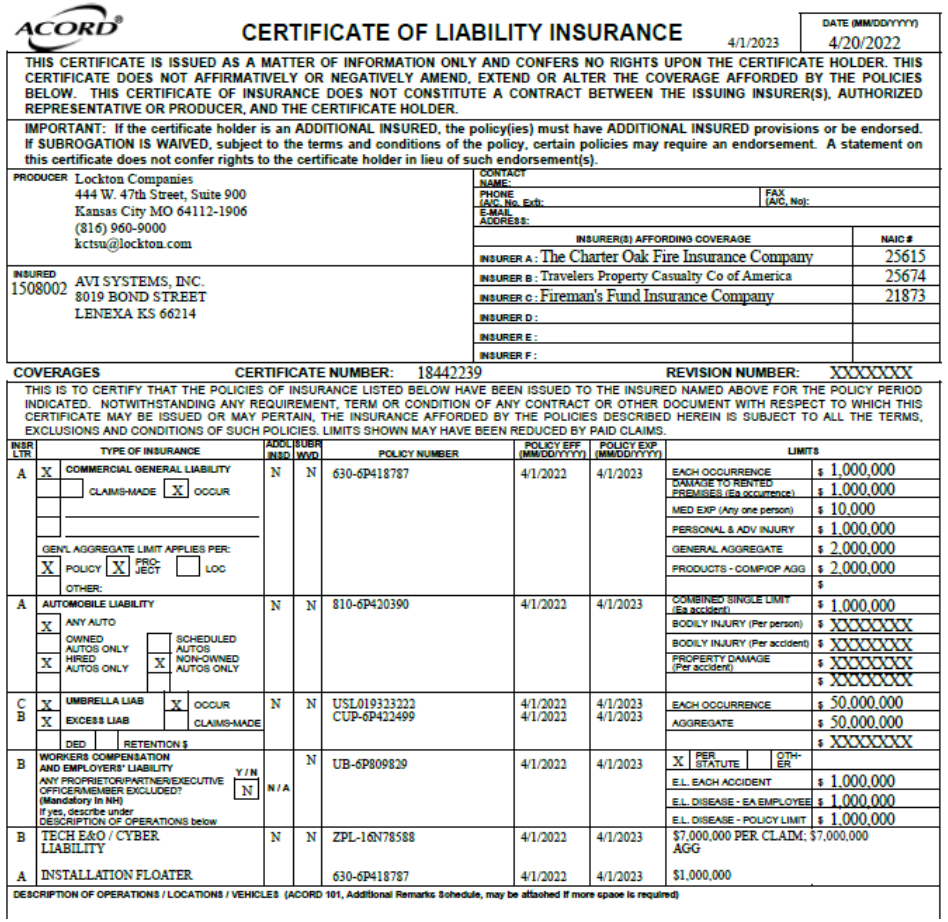
Insurance and Bonding

MANAGING RISK

As of March 31, 2022, AVI has more than $30 million in working capital. AVI Systems has the capital and financial wherewithal to hire leading-edge talent and invest in the systems and infrastructure that are prerequisite to proving best-in-class service to our customers.

AVI has a well-founded reputation for financial stability:

- Largest self-funded and capitalized integrator
- AVI is debt free
- We have excess working capital
- AVI can bond any project our clients bring to us, regardless of size.



ACORD

CERTIFICATE OF LIABILITY INSURANCE 4/1/2023

DATE (MM/DD/YYYY): 4/20/2022

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER: Lockton Companies, 444 W. 47th Street, Suite 900, Kansas City MO 64112-1906, (816) 960-9000, kctsu@lockton.com

CONTACT NAME:
PHONE (A/C, No, Ext): FAX (A/C, No):
E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : The Charter Oak Fire Insurance Company	25615
INSURER B : Travelers Property Casualty Co of America	25674
INSURER C : Fireman's Fund Insurance Company	21873
INSURER D :	
INSURER E :	
INSURER F :	

INSURED 1508002: AVI SYSTEMS, INC., 8019 BOND STREET, LENEXA KS 66214

COVERAGES CERTIFICATE NUMBER: 18442239 REVISION NUMBER: XXXXXXX

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: [X] POLICY [X] PRO-JECT [ ] LOC OTHER:	N	N	630-6P418787	4/1/2022	4/1/2023	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG $	$ 1,000,000 $ 1,000,000 $ 10,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
A	AUTOMOBILE LIABILITY X ANY AUTO OWNED AUTOS ONLY [ ] SCHEDULED AUTOS X HIRED AUTOS ONLY [X] NON-OWNED AUTOS ONLY	N	N	810-6P420390	4/1/2022	4/1/2023	COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident) $	$ 1,000,000 $ XXXXXXX $ XXXXXXX $ XXXXXXX $ XXXXXXX
C B	X UMBRELLA LIAB [X] OCCUR X EXCESS LIAB [ ] CLAIMS-MADE DED [ ] RETENTION $	N	N	USL019333222 CUP-6P422499	4/1/2022 4/1/2022	4/1/2023 4/1/2023	EACH OCCURRENCE AGGREGATE $	$ 50,000,000 $ 50,000,000 $ XXXXXXX
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) Y/N [N] N/A If yes, describe under DESCRIPTION OF OPERATIONS below		N	UB-6P809829	4/1/2022	4/1/2023	X PER STATUTE [ ] OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$ 1,000,000 $ 1,000,000 $ 1,000,000
B	TECH E&O / CYBER LIABILITY	N	N	ZPL-16N78588	4/1/2022	4/1/2023	$7,000,000 PER CLAIM; $7,000,000 AGG	
A	INSTALLATION FLOATER			630-6P418787	4/1/2022	4/1/2023	$1,000,000	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

AVI Systems Sustainability

As the largest global audio-visual services provider, AVI believes protecting the environment is of fundamental importance.

AVI Systems actively promotes recycling both internally and amongst our customers and suppliers. Through environmental awareness training our team is aware of how the environment can affect and be affected by their decisions. Throughout the life of a project AVI is always trying to minimize waste by evaluating operations and ensuring we are efficient as possible. This includes using natural resources, including raw materials, energy, and water.

As commercial buildings account for 30 to 40 percent of energy use, AVI is always promoting a “greener” solution to our customers by integrating smart building technology to improve control and sustainability. AVI offers a sustainable solution through **Velocity,** a subscription based preconfigured meeting room solution, ready for installation – a net zero technology investment.

As an employee- owned company, everyone who works at AVI has a stake in your success. To assure our commitment to delivering exceptional work to our customers, AVI invests in our workers’ health and education. AVI offers all employees and their families a free assistance program (EAP) to help with everyday issues like job pressures, relationships, retirement planning or personal impact of grief, loss, or a disability.

AVI Systems Diversity, Equity, and Inclusion

AVI Systems will not discriminate against any employee or applicant for employment because of race, creed, religion, sex, sexual or affectional orientation, color, national origin, ancestry, genetic information, familial status, age, height, weight, disability, misdemeanor arrest record, membership or activity in a local human rights commission, marital status or status with regard to public assistance. AVI Systems will maintain zero tolerance for harassment of or by any employee or applicant for employment because of race, creed, religion, sex, sexual or affectional orientation, color, national origin, ancestry, genetic information, familial status, age, height, weight, disability, misdemeanor arrest record, marital status or status with regard to public assistance.

AVI Systems will take Affirmative Action (AA) to ensure that all employment practices are free of such discrimination and harassment. Such employment practices include, but are not limited to, the following: hiring, upgrading, demotion, transfer, recruitment or recruitment advertising, selection, layoff, disciplinary action, termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. Reasonable accommodation to applicants and employees with disabilities will be provided. AVI Systems will use every good faith effort to provide business enterprises owned by minorities, women, and individuals with disabilities with the maximum practicable opportunity to supply materials and/or participate in the performance of any contracts in which we engage. AVI Systems fully supports incorporation of non-discrimination and affirmative action rules and regulations into contracts.

AVI Systems will commit the necessary time and resources, both financial and human, to achieve the goals of Equal Employment Opportunity and Affirmative Action

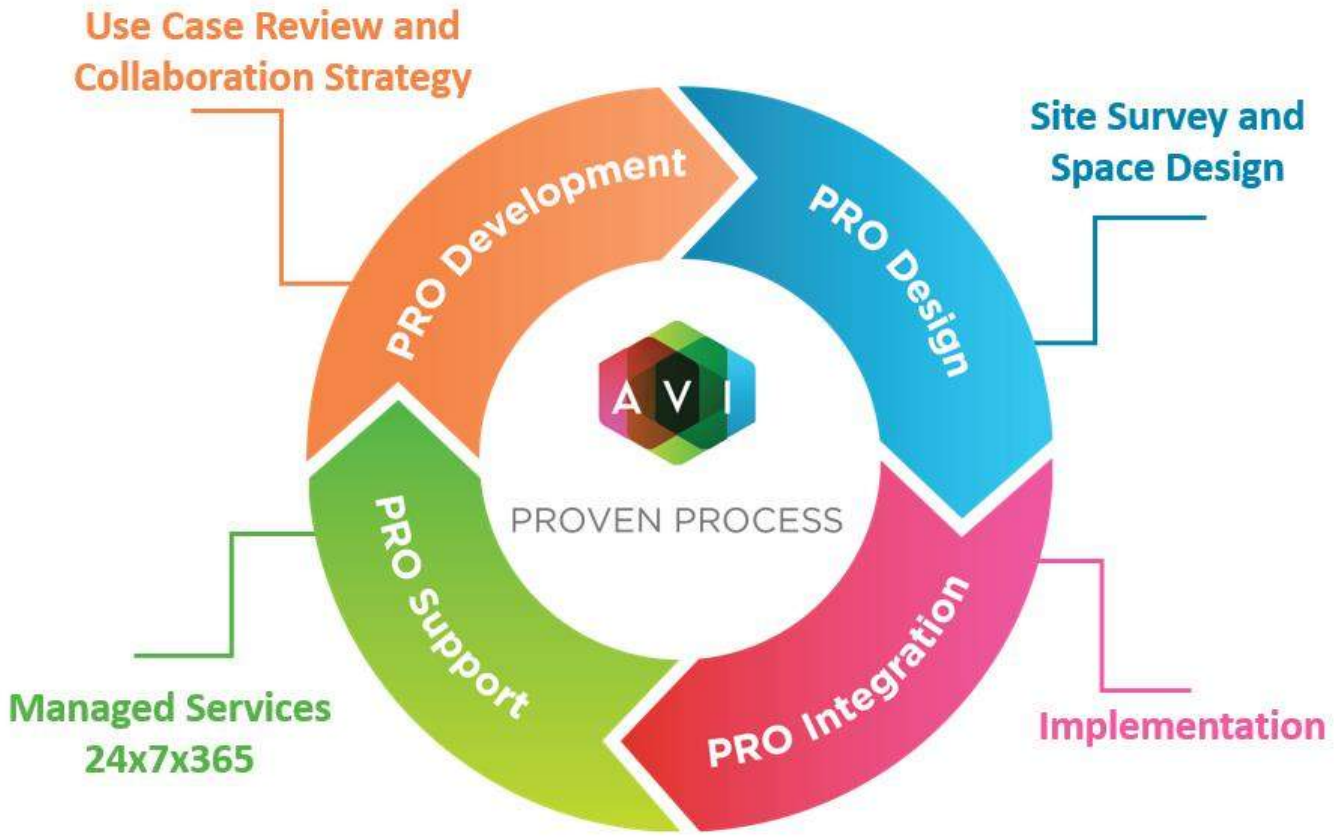
THE AVI SYSTEMS PROCESS

Our Approach

AVI's unique four-step planning process delivers better adoption.

We rely on our five decades of experience to create solutions that work for you.

We developed the Proven Process to ensure that your solution is installed on time, delivered within budget, and performs as promised. Tailored specifically to your project, it accounts for every detail. And it works every time.



IDENTIFY THE SOLUTION

PRO DEVELOPMENT

Our PRO Development phase lays the foundation for exceptional user adoption. We take a different approach to systems design, by first identifying the ways your users prefer to work, their expectations for technology, and the overall goals of the organization.
This phase aligns AVI and our expertise with your internal teams so that we can find a clear path from business goals to technical solutions. A modest investment of planning time at the front end of the project pays large dividends when the project is completed.

AVI PRO DEVELOPMENT DELIVERS

- Executive summary that defines benefits
- Solution overview with system requirement
- Documented priorities and processes
- Preliminary budget
- Factors for consideration

TEST AND BUILD

PRO DESIGN

PRO Design applies engineering best practices to develop the standards that help your organization scale its workflows and optimize its investment. In this phase, we continue building a strategy that details how we take this project across the finish line.

Together, we develop a scope of work based on the information gathered in PRO Development. The design team then defines system flow, system specifications, including infrastructure as needed, and the implementation plan to integrate and deliver the completed system after testing it in our lab.

AVI PRO DESIGN DELIVERS

- Detailed project scope of work and budget
- System specifications, including infrastructure as needed
- Engineering and architectural drawing
- Equipment lists as specified (Bill of Materials)
- System operational and post-operational support requirements

TEST AND BUILD

PRO INTEGRATION

PRO Integration ensures your project is completed on time, on budget, and meets your high expectations. Our skilled and certified project managers, technicians, and engineers integrate the solutions, adhering to ISO, CTS, and PMI standards. Through this approach, our industry-leading integration process allows your organization to scale its technical solutions — without disruption.

From an integration perspective, we view technology — whether it's audiovisual, unified collaboration, or digital media — as interconnected and belonging to a greater ecosystem. Our technical services aim to seamlessly integrate these technologies to deliver better outcomes that will improve adoption.

AVI PRO INTEGRATION DELIVERS

- A highly trained and certified professional integration team
- Dedicated project manager aligns with all trades involved
- Industry-leading integration best practices, in line with AVAQ, ISO, CTS, and PMI standards
- Project-specific test plan including use case validation of calibrated devices
- Turnover for ongoing system support per your customize plan
- Strict adherence to PPE protocols and policies
- Global technical services resources and expertise

PEACE OF MIND DELIVERED

PRO SUPPORT

PRO Support supplements IT departments, enabling your team to focus on more strategic priorities. Our managed services team handles everything from a remote help desk, software updates, and on-site meeting services. PRO Support follows ITIL, ITSM, and agile models, making it easily adopted into IT workflows.
Count on us to be there in a time of need, to help you prepare for an important event, conduct staff training, or to provide further adjustments to maximize ROI throughout the life of the system.
.

AVI PRO SUPPORT DELIVERS

- Customer Care
- Meeting Services
- Strategic On-Site Staffing
- Advocate Services
- AVI Insight

AVI Systems Supply Chain Mitigations

With the chip shortage, shipping issues and price increases due to the global pandemic AVI has adopted the following practices to cope with current challenging market and supply conditions:

Global Forecasting Methodology

AVI uses a global forecasting methodology. This allows us to place orders for safety stock based on the forecast and equipment that is time critical (rolling stock program). Rolling stock programs are continuously reviewed and adjusted.

Premier Partnership

AVI has longstanding partnerships with our industries top manufacturers. This allows our team to leverages our status with these manufacturer partners to place pre-orders for customers.

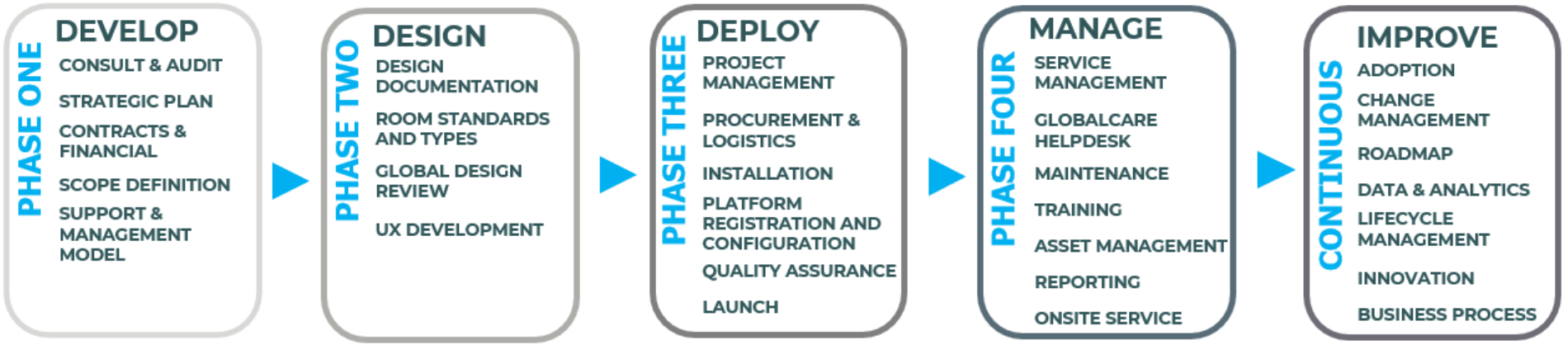
Functional Alternatives

AVI's engineering team are tasked to continuously look for possible alternative products to achieve guarantee customers implementation goals.

Technical Roadmap

AVI works with our clients to understand projects across the enterprise. This allows us to identify when/where product and resources are available and make recommendation for project and schedule changes in order to keep the initiatives moving forward.

AVI Systems Delivery Methodology



MASTER SERVICES AGREEMENT & OPERATIONAL FRAMEWORK

PROGRAM MANAGEMENT MODEL

SERVICE DELIVERY & SUPPORT STRUCTURE

GOVERNANCE & REPORTING

Meeting/Report	Description	Frequency
Transition Status	Status of ongoing transition of services	Weekly during Transition
1:1	1:1 meeting with onsite Project Manager	Weekly
Staff Meeting	Operational review of program service delivery	Monthly
Quarterly Business Review	Strategic review of the overall program to retain alignment. • Past project review with lessons learned • Key program sales metrics • Review of activity over the quarter to identify trends and areas of opportunity. • Look ahead at next quarter to plan for strategic priorities	Quarterly
Project Status	Update on status of open projects across 70 locations	Monthly

Sample Implementation Schedule

TASK	START	END	DAYS
Digital Media Integration Project Setup	4/30/20	5/22/20	23
Purchase Order Received//Processed	4/30/20	5/1/20	2
Site Visits	5/11/20	5/15/20	5
RFI's resolved	5/11/20	5/13/20	2
Engineering	5/13/20	5/20/20	7
Drawing review and approval (including power heat load and rack s	5/22/20	5/22/20	2
Pre-Install	5/26/20	6/19/20	25
Equipment Order/Receipt	5/26/20	6/5/20	11
Headend - Triple Play Pre-Build	6/1/20	6/5/20	5
Endpoint Equipment Programming Phase 1	6/8/20	6/12/20	8
Endpoint Equipment Programming Phase 2	6/15/20	6/17/20	5
Endpoint Equipment Programming Phase 3	6/18/20	6/19/20	4

TASK	START	END	DAYS
Onsite Install	6/8/20	7/15/20	38
Phase 1 - Headend	6/8/20	6/12/20	5
Phase 1 - Durant Endpoints	6/15/20	6/26/20	10
Phase 2 - Pocola Endpoints	6/29/20	7/3/20	5
Phase 2 - Grant Endpoints	7/6/20	7/8/20	3
Phase 3 - Stringtown Endpoints	7/9/20	7/10/20	2
Phase 3 - McAlester Endpoints	7/13/20	7/15/20	3
24/7/365 Support Transition	5/25/20	6/15/20	22
Managed Services Kickoff Meeting with Transition Manager	5/25/20	5/25/20	1
Service Integration	5/26/20	5/29/20	4
Operational Readiness	6/1/20	6/5/20	5
Admin and Support User Training	6/8/20	6/12/20	5
Go-Live Support	6/15/20	6/15/20	1

AVI Transition Process

Ensuring a Successful Onboarding

A Transition Team will be assigned to facilitate this onboarding process and will be responsible for the Service Implementation planning and Transition. AVI Systems will work with Customer to scope the onboarding timeline once the full details of the supported environment are finalized. Keeping in mind the onboarding will be streamlined due to our closely held relationship over the past years of working together as a team.

Project Implementation → End User Acceptance & Training

Kick off meetings to review and validate service requirements and statement of work.	Identify AVI Systems and Customer's resources that will participate in the transition process and ongoing support.	Host project meetings between kickoff and go live.	Manage the project plan to track and report out on process.	Host discovery workshops to identify and document: • Support use cases and workflow • Resolver Groups that will be used for specific escalation types. • Tools that will be used in support model. • Enterprise Practice consultation.	Perform Service Integration to document operational workflows that reflect how AVI Systems will: • Deliver on the support used cases. • Escalate to resolve issues. • Communicate between the teams. • Report out on process.	General Transition Deliverables: • Across functional workflow • An escalation matrix • A support RACI matrix (responsible, accountable, consulted, informed.)	Validate operational readiness to test the workflows to make sure the tools operate as we expect, the hand offs between groups are done properly, and communication methods and frequency are correct.	Create user documentation

AVI SYSTEMS AV PRACTICES

AVI Practice Overview

AVI Delivers a Unique Approach to Systems Integration

Your audiovisual solutions shouldn't function in a silo. Instead, AV technologies should connect with unified collaboration platforms, digital media, and other collaboration tools -- supported by robust managed services capabilities to create an ecosystem that improves communication and workflow. AVI Systems takes a strategic approach to your project, integrating the best solutions to help employees do more while maximizing ROI.

AVI helps simplify this challenge by bring technologies and creating a seamless experience. We offer six Practice Areas to help solve this challenge.

Audiovisual

Increase Employee Adoption of Your Collaboration Spaces

•Collaboration Spaces/Meeting Rooms
•Global Reference Designs
•Multipurpose Facilities
•Command and Control Rooms
•Experience Centers

Unified Collaboration

Outcomes-Driven Approach to Connecting People, Places & Work Product

•Hybrid: On-Prem + Cloud
•Microsoft Gold
•Cisco Certified
•Zoom Certified
•Google Meet Certified

Digital Media

Communicate More Effectively with your Audience

•Digital Signage
•Digital Streaming and IPTV
•Media Storage and Workflow

Microsoft Consultancy

Gold-Certified Microsoft Consulting Partner

- Teams Integration
- O365
- Azure
- Dynamics

Enterprise

A Strategic Approach to Maximizing Business Outcome.

- Development
- Design
- Integration
- Support

Broadcast

Reach your Audience with an Optimized Workflow

- Broadcast vs Narrowcast
- Production Process
- Bridging, Recording, and Streaming
- Audi/Video Acquisition

Managed Services

Driven Better Adoption of your Visual Collaboration Ecosystems.

- Customer Care
- Proactive Monitoring and Management
- Strategic Onsite Staffing

Audiovisual

Unified Collaboration

Digital Media

Microsoft Consultancy

Enterprise

Broadcast

Managed Services

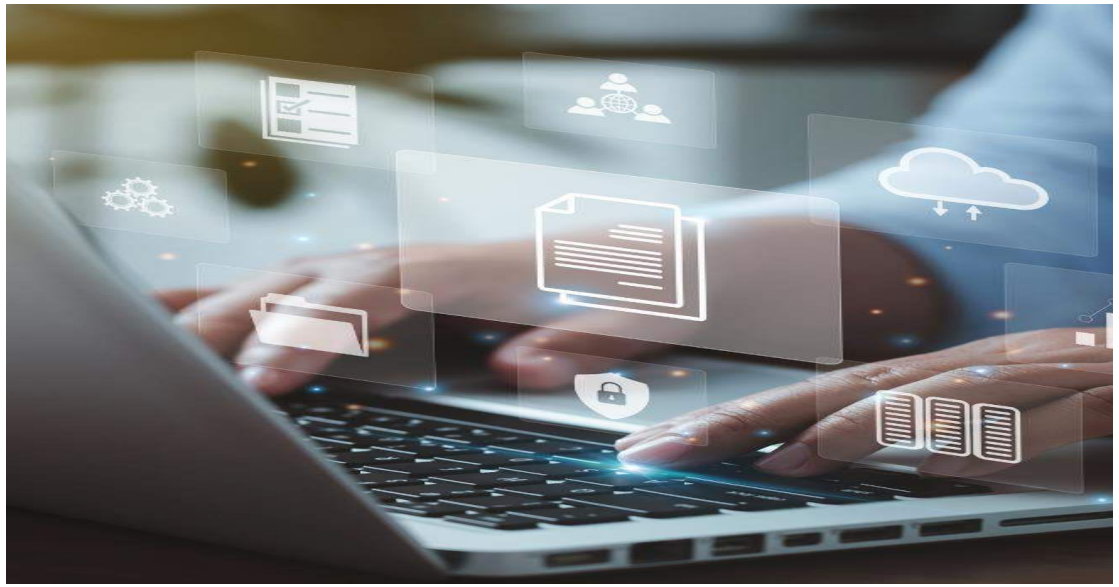
AV+

AVI will help you create an ecosystem that integrates AV technology to support unified collaboration and digital media applications. When we properly integrated, these elements enhance user-adoption and employee productivity skyrockets. It creates human impact.

- ✓ Collaboration Spaces
- ✓ Meeting Rooms
- ✓ Global Reference Designs
- ✓ Multipurpose Facilities
- ✓ Command and Control Rooms
- ✓ Experience Centers

Unified Collaboration

AVI supports a variety of UC platforms including Microsoft Teams, Cisco Webex, and Zoom in on-premise, cloud, and hybrid environments. But what makes us different is the unique way we think about UC. We believe UC platform you deploy becomes part of an overall system that helps you achieve specific business goals.

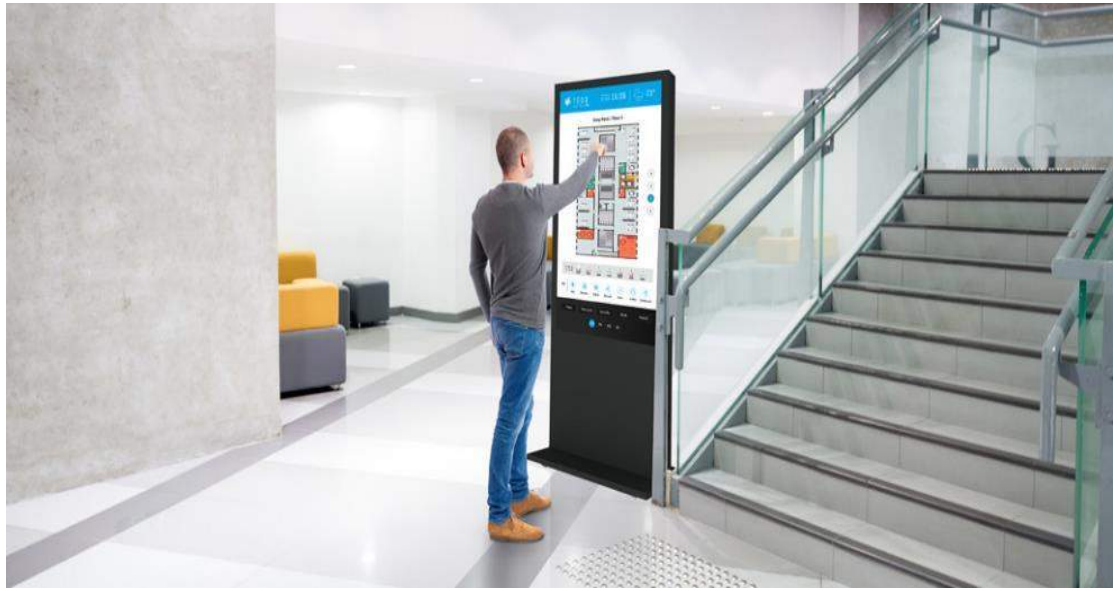


- ✓ Hybrid: On – Prem + Cloud
- ✓ Microsoft Gold
- ✓ Cisco Certified
- ✓ Zoom Certified
- ✓ Google Meet Certified

Digital Media

We understand the power of digital signage to share messages at universities, hospitals, and corporate offices. As your technology partner, we implement dynamic, manageable, and cost-effective digital signage strategies.

But the displays are just one element of a successful digital signage initiative. To deliver engaging content, we work closely with your teams to understand the audience, application, and workflow. This collaboration leads to solutions that maximize best practices for communication.



- ✓ Video Walls and Event Displays
- ✓ Office and Room Signage
- ✓ Virtual Customer Service
- ✓ Motion-and-gesture Signage
- ✓ Way Finding and Menu Displays

Audiovisual

Unified Collaboration

Digital Media

Microsoft Consultancy

Enterprise

Broadcast

Managed Services

Magenium Solutions

AVI Systems' acquisition of Magenium brings Microsoft solutions to our customers. Enhancing AVI's visual communication technology expertise with services including IT staffing, cloud computing, and mobile app development, Magenium and AVI help clients grow their business, boost productivity, stay competitive, and reduce cost.

Ranked among the top 1% of Microsoft partners worldwide, Chicago-based Magenium Solutions hold multiple Microsoft competencies and offers a rich portfolio of IT solutions to hundreds of client nationwide.

- ✓ Microsoft Teams
- ✓ Dynamics 365
- ✓ Office 365
- ✓ Azure
- ✓ Custom Application Development

Audiovisual

Unified Collaboration

Digital Media

Microsoft Consultancy

Enterprise

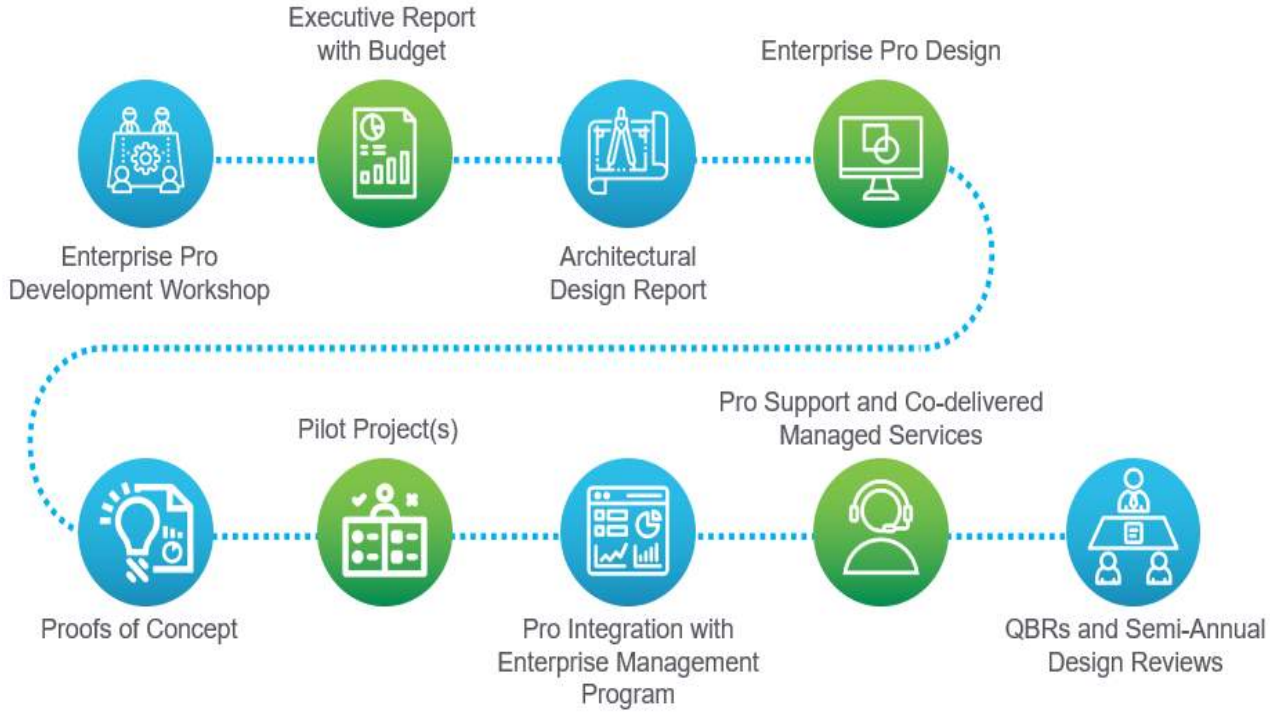
Broadcast

Managed Services

Enterprise

Our approach to enterprise engagements begins with understanding the outcomes your organization needs to achieve. Using a methodical approach that aligns with ITIL, ITSM, and agile models, we build a visual collaboration ecosystem that delivers on your outcomes. We like to call the result Human Impact – higher user adoption and measurable ROI.

Strategic Approach to Maximizing Business Outcomes



Broadcast

Capturing, recording and distributing high-quality, low-latency audio and video has become a critical part of many organizations' infrastructure as more people work remotely, learn from home, and visit doctors using their smartphones or tablets.

Reaching a remote audience requires bridging, recording, and streaming solutions to ensure that audio and video can reach its intended audience without disruption or delay.

These solutions take many forms – both hardware and software – and our broadcast team can help you find what best aligns with your internal workflows and goals.

- ✓ Town Halls
- ✓ All Hands
- ✓ Webinars
- ✓ Product Release
- ✓ Live Production
- ✓ Sporting Events
- ✓ Control Rooms

Audiovisual

Unified Collaboration

Digital Media

Microsoft Consultancy

Enterprise

Broadcast

Managed Services

Managed Services

AVI Systems offers comprehensive and flexible managed services packages. Managed Service is everything to make sure Day 2 operations runs smoothly in the enterprise.

Solutions are flexible to fill gaps so you can your team can focus on your core business and strategic projects.

- ✓ Customer Care
- ✓ Proactive Monitoring and Management
- ✓ Strategic Onsite Staffing
- ✓ Advocate Services
- ✓ Meeting Services

Velocity

Velocity is a preconfigured meeting room solution, ready for installation. You supply the furniture, network, and the power and we deliver the collaboration technology. Once activated, Velocity can connect users to the hybrid workforce via Microsoft Teams, Zoom, or virtually any other platform through BYOM connectivity.

- **Meeting room platform:** You can choose from Microsoft Teams or Zoom. Other platforms are supported via BYOM connectivity options.
- **Meeting room size**: Configurations are available for three meeting room sizes: small (up to five people); medium (up to 10 people); and large (up to 15 people).
- **Purchase or Subscription Model**: Velocity's difference is the subscription option in which you never own the technology itself. You can purchase Velocity systems if you choose. We base our transparent pricing on room size, so there are no surprises.
- **Sustainable Technology Investment**: True operational expense service provided by AVI Systems. Technology is re-used, not eWasted.

✓ **Advantage #1: Speed to solution**

✓ **Advantage #2: Own or Subscribe**

✓ **Advantage #3: Speed to turn on**

MICROSOFT SERVICES

Ranking among the top 1% of Microsoft partners worldwide, Chicago-based Magenium Solutions holds multiple Microsoft competencies and offers a rich portfolio of IT solutions to hundreds of clients nationwide.

AVI Systems' acquisition of Magenium brings Microsoft solutions to AVI's rapidly growing client base in areas ranging from Unified Communications To Enterprise Systems Management. Enhancing AVI's visual communications technology expertise with services including IT staffing, cloud computing, and mobile app development, Magenium and AVI help clients grow their businesses, boost productivity, stay competitive, and reduce costs.

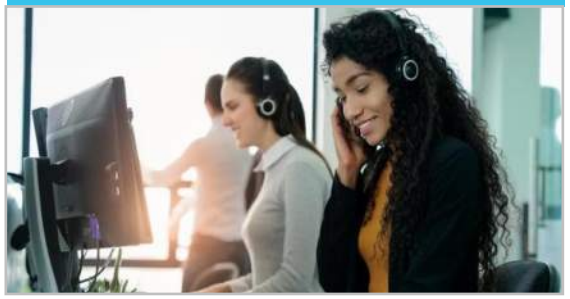
MTR Advance Support

Supporting your Microsoft Teams Rooms Experience

We understand it can be challenging for organizations to find Microsoft teams room support staff with the right expertise. Now, your customers don’t have to. AVI Systems Microsoft consultancy Magenium, built a world-class certified support team so we can effectively manage our customers MTR room estate. Let's discuss how:

Proactive Monitoring and Management

Controlled Software and Security Management



Unlimited Remote and Onsite Support

Reporting and Enhanced Services

MTR Managed Services

AVI Systems/Magenium has been serving Microsoft Teams Room clients for years. We support all Microsoft Teams rooms end-to-end from Kitted/Standard Conference rooms to Custom Meeting spaces. We have a full-service team not only locally but across the country that will scale to all your offices.

Our Service Team and Onsite Technicians also have access to the following:

- Escalation paths to Magenium/AVI Systems Engineering Team which encompasses SME's with expertise in Exchange, MS Security, Audio Video, Pro Audio, and Custom controls
- Escalation paths to the Microsoft Teams and Teams Room Product Groups
- Escalation paths to the OEMs (i.e. Crestron, Logitech, Shure, Biamp, Poly)
- A fully developed Service Desk with escalation paths
- Solution Architects that maintain knowledge and expertise on the latest technological advances in this space
- Local offices in 25 locations
- Global Regional Business Units to support you globally

ENTERPRISE PROGRAM MANAGEMENT

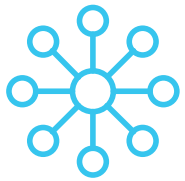
Enterprise Advantage

ENTERPRISE PLANNING

- Architectural design report: business outcomes, user expectations, use case and user stories
- Basis of design to complete delivery documents
- Acceptance testing and documentation
- PoC and pilot validation prior to production deployment

PROGRAM MANAGEMENT

- Single point of contact for your programs
- Streamline coordination and communication
- Globally consistent customer experience for your projects
- Perfect for multiple projects that require flawless execution
- Scalable to match the needs of your annual plans
- Quarterly business reviews track customer KPIs and ROI



ENTERPRISE DEPLOYMENT CENTER

- We build, commission, and test technology and systems prior to delivery and installation
- Increase project preparation scalability and efficiency
- Centralized logistics = consistent experience

SERVICE DELIVERY MANAGEMENT

- Personal touch global service manager
- Recruiting support for strategic onsite staffing support
- New service orientation and onboarding
- Day to day service management (quality review, escalations)
- Customer QBR support and reporting

Enterprise Program Management

Your Program Manager

Focused on delivering exceptional customer experience, Program Managers are responsible for delivery of standards, efficiency, and support throughout the project lifecycle. Program Managers bring specific expertise in the complexities of global project delivery and serve as a consistent central coordination and escalation resource for customers, delivery members, and any other related project stakeholders alike.

Our Global Program Managers are trained on best practices enabling our ability to scale with your organizational workload. This includes consistent oversight for proposals, implementations, support, invoicing, and on-going business analysis.

PROJECT

Coordinates the customer's priorities, goals, and strategic initiatives.

DEPLOYMENT

Onboard all the project teams and coordinate the customer's delivery standards between all projects.

REPORTING

Oversees and reports to the customer all the project's status.

PEOPLE

Mentor the various project teams.

Enterprise Program Management

Global Program Management services are critical to global deployment success, ensuring global standards, and a clearly defined deployment strategy is implemented consistently for all regions and locations, large or small. Global Program Management is the bridge between the centralized and strategic oversight & alignment of the primary global management team & stakeholders, and the tactical delivery efforts and “Project” management of each GPA delivering member in each region

Structured Program Governance

A structured program delivery governance model including, a project by project delivery team engagement, and regularly scheduled customer stakeholder stewardship meetings (aka QBRs) to provide consolidated program status reporting, risk analysis, and lessons learned.

Common global management platforms

A consistent set of globally adopted management tools allowing a global dashboard to provide real-time status of all aspects of program delivery, from project initiation requests to service ticketing.

Local ‘In-Country’ Project Management Support

Vested and aligned regional project management resources to align unique regional delivery considerations, provide local cultural and language context in managing local project stakeholders, and provide standardized and consistent reporting and escalation to the Global Program Management team.

Standardized Documentation and Workflow

Includes the development & documentation of the customers’ technology roadmaps, to the establishment of a customer-approved communication and escalation plan, to an as-built documentation archive

Enterprise Program Management

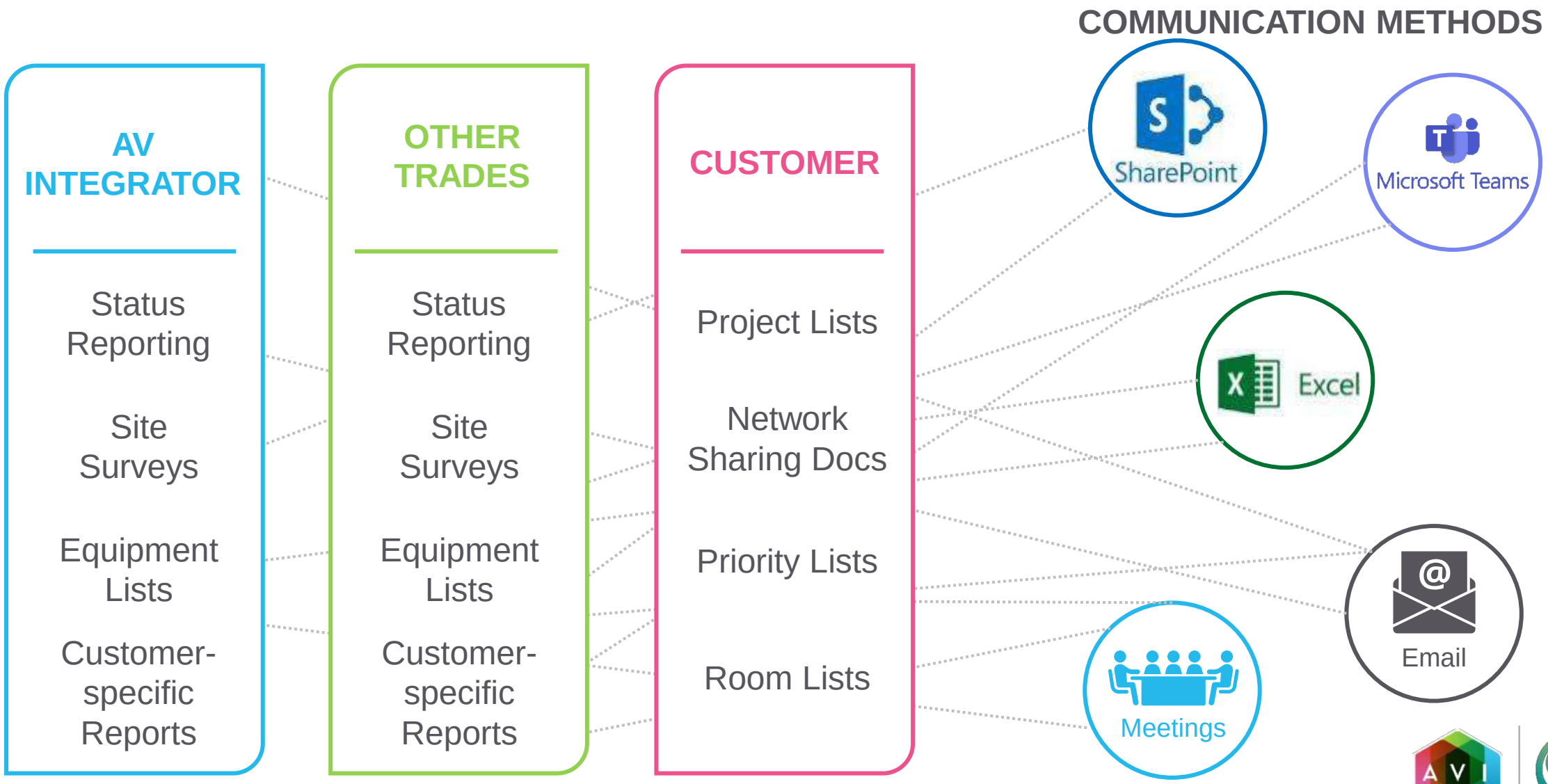
Enterprise Program Dashboard

AVI's true management platform that extracts real time data to a customer facing dashboard. Enabling our customers complete visibility to their global program status in a single window.

AVI Enterprise Project Delivery Roles.

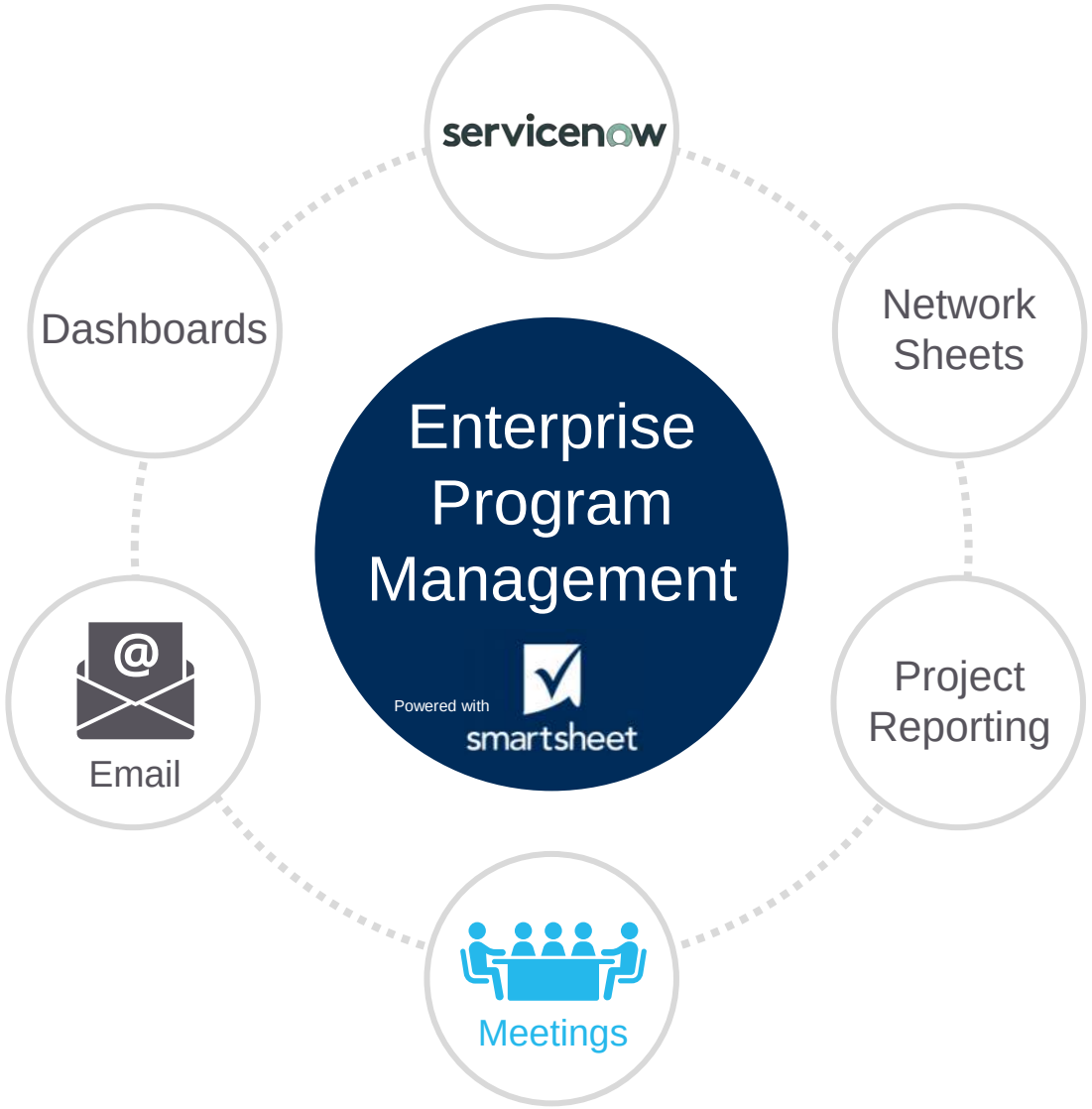
PROGRAM MANAGEMENT Manages the ***Benefits***		**PROJECT** MANAGEMENT Manages the ***Outcome***
Coordinates with the customer on their multiple projects' priority, goals, and how they fit in the customer's strategic initiative.	PROJECT	Manages the delivery of the project. Manages the cost, schedule, and scope.
Onboard project managers and coordinate the customer's delivery standards between all projects.	DELIVERY	Carry out the delivery standards for the project.
Oversees and reports to the customer all the project's status. Bubbles up necessary escalations.	REPORTING	Send regularly occurring status reports.
Mentor to the various project teams.	PEOPLE	Identify project risks and raise them up to the Program Manager.
Manages global deployment between other GPA partners in other countries.	DEPLOYMENT	

Solving for Siloed Systems and Data.



Program Management Transparency.

The glue that holds it together



- ✓ Realtime dashboard
- ✓ Realtime customer reports
- ✓ Project tracking sheets
- ✓ Global room list
- ✓ Customer-specific needs tracking
- ✓ Intaking new projects
- ✓ Realtime customer collaboration

MANAGED SERVICES

Enterprise Managed Services Portfolio

Comprehensive and Flexible Managed Services Packages

CUSTOMER CARE

STRATEGIC ON-SITE STAFFING

AVI INSIGHT

ADVOCATE SERVICES

MEETING SERVICES

✓ **Flexible Solutions**

✓ **Extends Your IT Team**

✓ **Specialized Skills**

Managed Services

Customer Care

8 X 5 or

24 X 7

	Entitlements	Service Level
REACTIVE	Service Desk / Incident Management	2 Business Hours
REACTIVE	Remote Support	8 Business Hours
REACTIVE	Parts Repair or Replacement	Included
REACTIVE	Field Dispatch Support	8 Business Hours
PROACTIVE	Service Delivery Management	On-Demand
PROACTIVE	System Health Checks	2 per Year

- Essentials of ITIL support
- Comprehensive support backed by world-class specialists
- Multi-tier escalating process

CUSTOMIZED TO MEET YOUR NEEDS

Managed Services

SERVICE DELIVERY AGENT

- Ticket Creation
- Entitlement Authorization
- System ID and Location
- Initial Trouble and Symptoms
- Tier 2 Tech Assignment

SPECIALIST SUPPORT TECH

- Remote Diagnostics & Support
- Software Updates (as needed)
- Remote Login (if provided)
- Resolution Reporting
- Asset Reporting (as needed)
- Tier 3 Engineer Dispatch

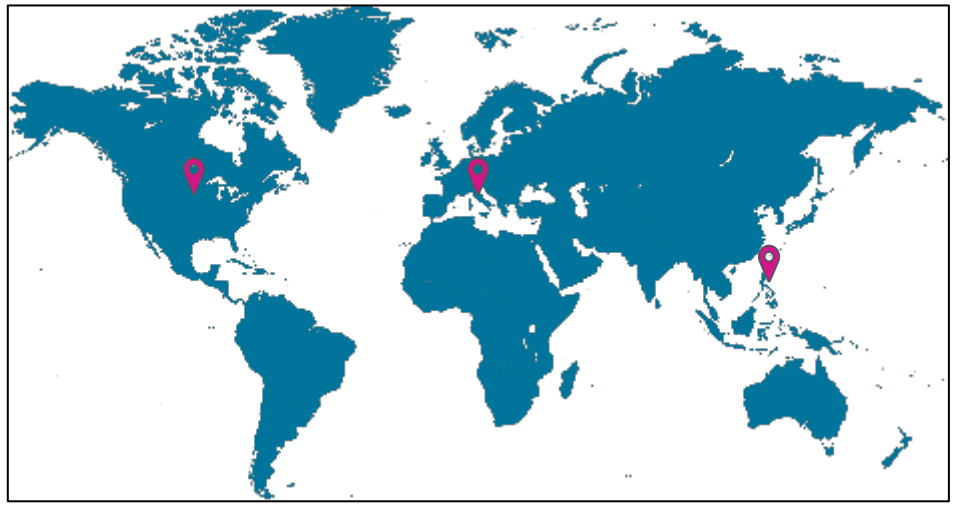
SPECIALIST SUPPORT ENGINEER

- Remote Diagnostics & Support
- On-site Support (as needed)
- Software Updates (as needed)
- Remote Login (if provided)
- Advanced Parts Replacement (as needed)
- Resolution Reporting
- Asset Reporting (as needed)
- Tier 4 Engineer Dispatch (as needed)

CUSTOMIZED TO MEET YOUR NEEDS

Managed Services

Follow the Sun Helpdesk

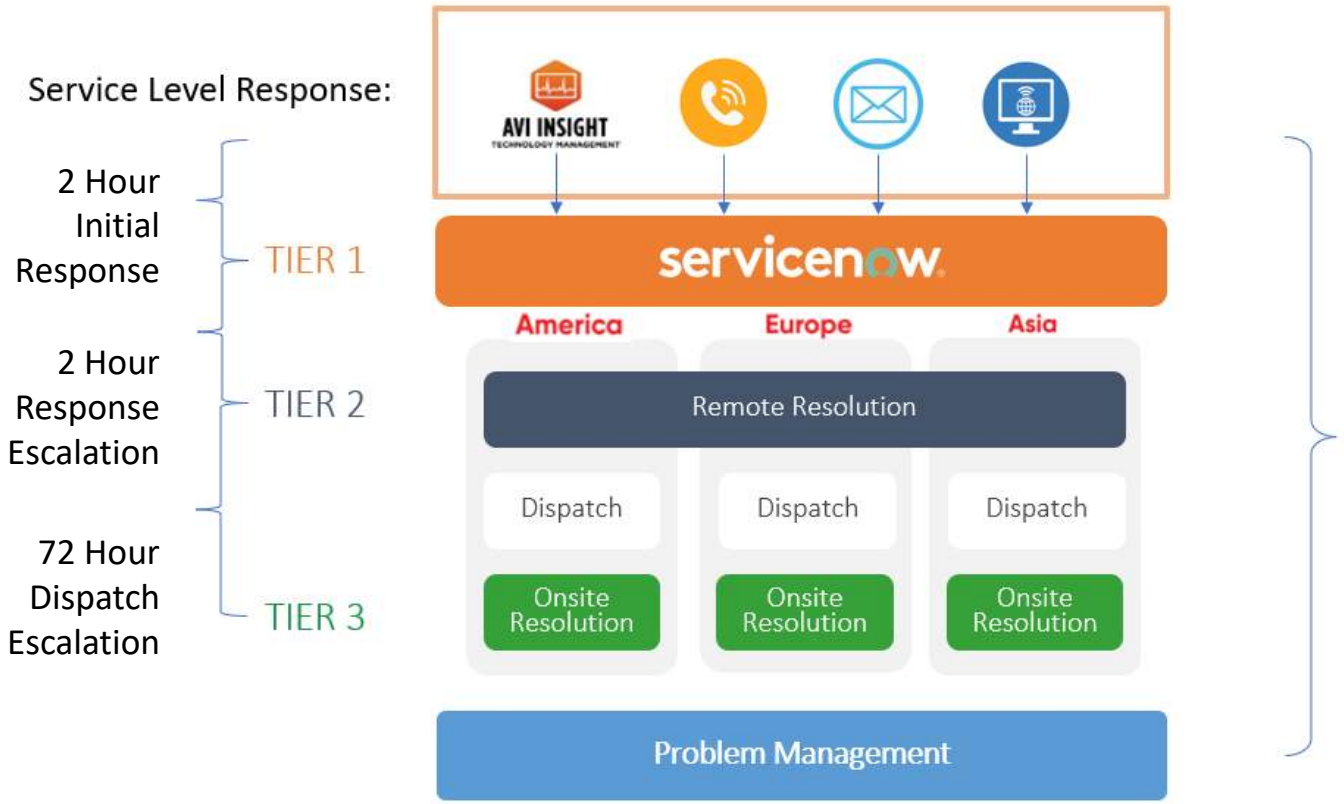


Global Call Centers – APAC – EMEA – AMER

	America	Europe	Asia
	Centralized Email		
	Dedicated	Dedicated	Dedicated

AVI Systems Global Helpdesk (staffed by 200 service personnel) provides follow the sun support. Our support centers are located in Minneapolis, Chicago, Zurich, and Singapore providing tiered support globally.

Managed Services



Problem Management :

- 2 Hour Initial Response
- Multiple incidents of the same nature across multiple sites and systems
- Any tier can escalate to Tier 4
- Root cause analysis reporting and full remediation strategy

CUSTOMIZED TO MEET YOUR NEEDS

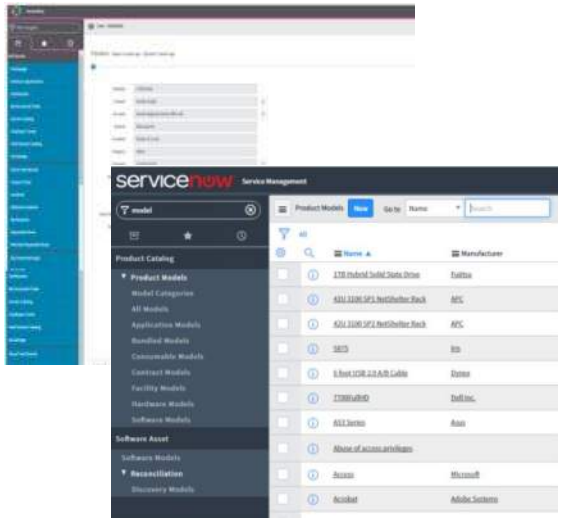
ServiceNow & Insight

Logi Sync
XiO Cloud
MTR Pro Portal
QSC Portal
Zoom Cloud
Poly lens

Cloud Integration

servicenow

- Ebonding (ITSM Integration)
- Automatic Ticket Creation
- Asset Management
- Service Catalog
- Service History Reporting



INSIGHT
Technology Management

- Proactive Monitoring
- Workflow Automation
- Vendor Cloud Integration
- Event Management
- Reporting and Analytics
- Hardware Event Log Monitoring

Speed to Resolution

Reporting and Analytics

- AVI Systems can provide standard helpdesk data related to tickets and incidents.
- As a value-added offering, AVI can provide proactive managed services through our Insight Platform.
- Through proactive monitoring and management, we are able to collect information from any room device with an IP address.
- Over the course of the engagement, the platform can analyze the data and provide valuable insight

Managed Services

On-Site Technician Roles

SKILLS		ROLES							
		Meeting Support Specialist I	Meeting Support Specialist II	Support Technician I	Support Technician II	Support Technician III	Broadcast Support Specialist	Broadcast Support Engineer	AV Service Manager
		Meeting Services		Technical Support, Admin, Engineering Services			Broadcast Services		Management
Meeting and Support and Room Operation	End User Support								
End User Support (customer service)									
Troubleshooting / Problem Solving									
Maintenance	Systems Technology Services								
AV Technical Support (hardware and software)									
Network / Switch Support									
Project Management									
Research and Development	Advanced Services								
Event Support									
System Programming Support									
Risk Assessment									
People Management	Personnel Management								
Training									

Unskilled Semi-skilled Skilled Skilled Advanced Expert

CUSTOMIZED TO MEET YOUR NEEDS

QUALIFICATIONS

Unmatched Expertise

Engineering

Includes the project managers and technical specialist. Usually mechanical or electrical engineers.

Programming

Responsible for building the GUI and logic between the software and the hardware in each room.

Service

Dedicated engineers and technicians who focus on troubleshooting and preventative maintenance.

Installation

The field technicians who are on-site for the duration of the project. Must have 2+ years of relevant experience.

Integration

Responsible for preparing, connecting and testing all components before they are transported and installed on project.

CERTIFICATIONS

PROGRAMMING

- AMX
- CRESTRON
- EXTRON

NETWORKING

- BICSI
- CISCO
- COMPTIA
- MICROSOFT
- SYMETRIX

DIGITAL SIGNAGE

- AMX
- Crestron

VIDEO CONFERENCING

- AVAYA
- CISCO
- POLYCOM
- TANDERG
- VIDYO

AUDIO ENGINEERING

- BIAMP
- BSS

COLLABORATION TECHNOLOGY

- CISCO
- SMART
- SONIC FOUNDRY

INFOCOMM CERTIFICATIONS

CTS	CTS-D	CTS-I
175	50	42

AVI Systems Partners

AVI is authorized to integrate and service products manufactured by the world's top providers. This allows us to provide the optimal solutions for each customer. It gives you one point of contact for maintenance, repair, and replacement of any component of your technology ecosystems.

Audio

Allen and Heath
Anchor Audio
Ashly
Atlas Sound
Audio Technica
Biamp
Beyerdynamic, Inc.
Bogen Communications
Bose
Cambridge Sound Management
Catchbox
Clear-Com
Clearone
Clockaudio
Comrex
Denon-Marantz
DPA Microphones
Dukane
Electrovoice
Extron
Hall Research
Innovox
Klipsch
LEA
Lectrosonics
Leon Speakers
Listen Technologies
Mackie
Media Vision
Nureva
Owi
PreSonus Audio
QSC
Sennheiser
Shure
Sonance
Soundtube Entertainment (MSE Audio)
Stewart Audio
Symetrix
Telex
Toa
Williams AV
Whirlwind
Yamaha Pro Audio

Display

Absen
Avocor
Barco
Christie
Clear Touch
Daktronics
Digital Projection
Draper
Eiki
Elo Touch Solutions
Epson
LG
Lumens
Maxell-Hitachi
Mimo Monitors
Multitaction
Newline Interactive
Optoma
Panasonic
Philips Signage Solutions
Planar
QOMO
Samsung
Screen Innovations
Sharp
SMART Technology
SNA Displays
Sony
Viewsonic Corp.

AVI Systems Partners

Signal Processing and Distribution

Aja Video Systems
Analog Way
Apantac
Atlona
Aurora Multimedia
Black Magic Design
Crestron
Epiphan Systems
Evertz
Extron
Harman
IHSE
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Vitec Imaging (Manfrotto\Bogen Imaging)
Vitec Production

AVI Systems is an authorized dear for all the products specified herein.

Global Customers Who Have Trusted Us

- 6,000 Employees
- 1.6B Revenue

Principal

AVI designs, deploys, and maintains conference rooms and video conferencing systems for Principal Financial Group.

AVI Systems provided complete integration services for 60 global offices refreshed in 2021

AVI Provides to Principal the following Managed Services

- •2 onsite technicians at the Des Moines campus.
- •Management of 75 remote locations
- •Maintain service contracts on all Poly endpoints and infrastructure

TD Ameritrade

Designed and installed a $2M TV studio for streaming financial news and market updates.

New Corporate Headquarters: AVI Systems integrated the technology throughout the newly constructed TD Ameritrade 600,000 sq ft campus. The 12 story office tower included:

- Command Center
- Café
- Multipurpose Room
- Tiered Classroom
- Training Rooms
- Conference Rooms
- Presentation Rooms
- Boardroom
- Room Garden AV System
- 176 signage TV throughout the building

3M selected AVI Systems to support their Modern Conferencing Initiative to enable the Hybrid work model. AVI's 3M designated Program Manager oversees the 4,000 Crestron FLEX MTR deployment program over 3 years.

AVI designed, implements and supports 3Ms MTR standards globally.

- ✓ Crestron Flex USB System
- ✓ Currently AVI is deploying the Crestron Flex USB solution in 25% of global rooms (at varying size levels)

Thank You

D

Appendix

- Architectural Products

BANCROFT ARCHITECTS + ENGINEERS

8" x 8" Sample
Shown in Sandstone finish

Whisper

Few things convey depth as softly as this botanical pattern that's rendered in monochromatic tones of green, grey, and white.

MATERIAL DETAILS

Gauges	Varia: 1/8", 3/16", 1/4", 3/8", 1/2", 3/4", 1"
Panel Sizes	Varia: 48" x 96", 48" x 120"
Pattern Direction	Parallel to long side Can be rotated
Available Materials	Varia
Price Group	C
Fire Rating	Class A: 1/16", 1/8", 3/16", 1" Class B: 1/4", 3/8", 1/2", 3/4"
Notes	The Varia system panels utilizing natural products as a decorative interlayer may change in appearance over time. Natural materials are also subject to inherent inconsistency in color, texture, and shape.
Lead Time	4 weeks

Mannington COMMERCIAL

Active Lines Collection

Style	**Bend, Crisscross, Grid, Shift**
Construction	Luxury Vinyl Tile Non-ortho Phthalate
Classification	ASTM F1700 Class III, Type B
Total Thickness	0.098" (2.5 mm)
Wear Layer Thickness	40 mil (1 mm)
Wear Layer	Quantum Guard Elite®
Edge Treatment	Micro-bevel or Unbeveled
Sizes	6" x 36" (152 x 915 mm), 18" x 18" (457 x 457 mm)
Colors	112
Packaging Adhesive	6" x 36" - 30 pcs, 45 ft^2 (4.181 m^2), 30.06 lbs (13.63 kg) 18" x 18" - 20 pcs, 45 ft^2 (4.181 m^2), 33.3 lbs (15.1 kg)
QuickStix®	Packaging may differ for QuickStix® **Porous & Non-porous Substrates:** V-88 Full Spread, Transitional Pressure Sensitive MoistureLoc Full Spread, One Component V-95 Full Spread, 2-Part Epoxy XpressStep for LVT & Sheet Vinyl Full Coverage Spray Note: Must use V-95, MoistureLoc, or XpressStep adhesive under hospital beds and heavy rolling load areas. In more abusive conditions such as areas subject to dragging force, direct sunlight or where topical moisture would be a concern, only V-95 or MoistureLoc should be used.
Installation Method	Available with QuickStix® pre-applied adhesive, reducing time and labor required to install the flooring.
Testing	QuickStix® floors can be used immediately after installation, even in extreme moisture areas. All arrows in the same direction. Planks should have end joints offset by at least 6" and staggered to create a random appearance.

HUD/FHA	Passes
Flexibility (ASTM F137)	Passes - 1" Mandrel - No Crack/Break
Dimensional Stability (ASTM F2199)	Passes - Max 0.020 in/lin ft
Squareness (ASTM F2055)	Passes - Max 0.010"
Static Load (ASTM F970 mod.)	Passes - 2,000 PSI; Residual Indent ≤ 0.005"
Residual Indentation (ASTM F1914)	Passes - ≤ 8% Avg / 10% Single Value
Flooring Radiant Panel (ASTM E648)	Passes - Class 1; ≥ 0.45 watts/cm^2
Smoke Density (ASTM E662)	Passes - ≤ 450
Slip Resistance (ASTM C1028)	Passes - ≥ 0.5 Leather; 0.6 Rubber
Resistance to Light (ASTM F1515)	Passes
Chemical Resistance (ASTM F925)	Passes
Resistance to Heat (ASTM F1514)	Passes

Environmental Data	
Rapidly Renewable Content	Contains 2% rapidly renewable resource content
Indoor Air Quality	FloorScore Certified; CDPH v1.2-2017
Product Declarations	Third Party Verified EPD, HPD
Carbon Offset LEED	105% Cradle to Gate (A1 - A3), visit website for more information May contribute to LEED credits: Building Product Disclosure & Optimization - EPDs Building Product Disclosure & Optimization - Sourcing Raw Materials
mindful MATERIALS Manufacturing	Building Product Disclosure & Optimization - Material Ingredients; IEQc2 - Low Emitting Materials Visit mindfulmaterials.com for current transparency information
Warranty	Madison, GA (USA) - ISO 14001 EMS & ISO 9001 QMS Registered, +Vantage Vinyl Verified Silver

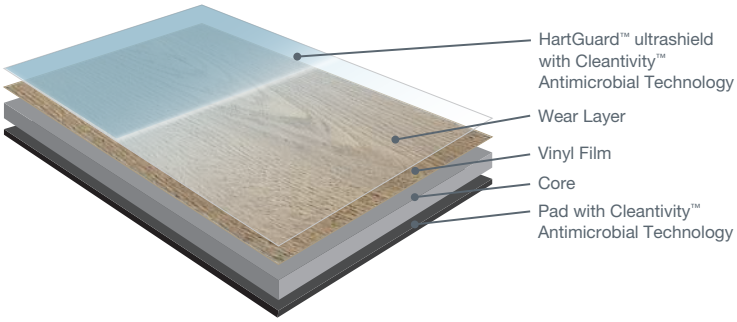
Limited 25-Year Commercial Warranty

Limited 25-Year Quantum Guard Elite® Wear Warranty

5.2 mm 20 mil Rigid Core Flooring

Product Information

Construction: SPC Rigid Core Vinyl Tile (Luxury Vinyl)
Sizes: 7.08″ x 47.64″, 8.66″ x 59.45″, 12″ x 24″, 16″ x 32″
Overall Thickness: 5.2 mm (0.204″)
Finish: HartGuard™ ultrashield with Cleantivity™ antimicrobial technology
Installation: Locking/floating application
Maintenance: No waxing, buffing, sealers or finishes required.
Floor should be swept regularly to remove excess dirt and grit.



Testing

Attribute	Test Protocol	Requirement	Performance
Thickness	ASTM F386	Average 0.082″ (2.08 mm)	Passed
Wear Layer Thickness	ASTM F410	0.020″ (0.5 mm) minimum for Commercial Use	Passed
Residual Indentation	ASTM F1914	≤ 0.012″ (0.31 mm)	Passed
Chemical Resistance	ASTM F925	No more than slight change in surface dulling, attack or staining	Passed
Resistance to Heat	ASTM F1514	ΔE < 8 avg., max	Passed
Resistance to Light	ASTM F1515	ΔE < 8 avg., max	Passed
Static Load Resistance @ 250	ASTM F970	≤ 0.005″	Passed
Fire Test Data – Flame Spread	ASTM E648	0.45 W/cm^2 or more Class 1	Passed
Fire Test Data – Smoke Evolution	ASTM E662	450 or less	Passed
ADA Standards for Accessible Design	Chapter 3, Section 302.1	Floor surfaces shall be stable, firm and slip resistant	Passed
Static Coefficient of Friction**	ASTM D2047/UL 410	≥ 0.5	Passed

Sustainability

WELL v1 Feature		Contribution
Air	Feature 04 - VOC Reduction	Tested and third party certified by FloorScore as complying with CDPH v1.2
Well Being	Feature 97 - Material Transparency	Readily available Health Product Declaration (HPD) to 1000 ppm
	Feature 88 (Part 2) Biophilia I - Qualitative	Products available that incorporate nature patterns
	Feature 99 - Beauty and Design II	Patterns and colors to aid in wayfinding and spatial familiarity (Part 3)

Limited Warranty

15-Year Commercial Warranty when installed in strict accordance with the detailed instructions.

Visit AHFContract.com | Customer Relations 1.866.243.2726

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ArmstrongFlooring™

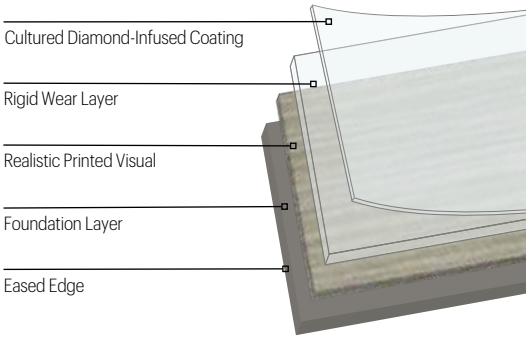
Diamond 10 Technology™

LUXURY FLOORING

Theorem™

Product Information

Construction - Solid Vinyl Tile (Luxury Vinyl Tile / LVT)
International Specifications - ASTM F1700, Class III, Type B embossed surface
Overall Thickness - 0.100 in. (2.5 mm)
Wear Layer Thickness - 0.020 in. (0.5 mm)
Factory Finish - Diamond 10® Technology
Installation - Adhesives: S-995, S-319 Roll Strong™,S-1000
Maintenance Options - No Polish - No Buff, Polish Optional



Packaging

Size	Pieces per Carton/Coverage	Shipping Weight per Carton
6 in. x 36 in. (152.4 mm x 914.4 mm)	24 / (36 sq. ft.) 3.35 m^2	39 lbs. (17.73 kg)

Testing

ASTM 1700			
Performance	**Test Method**	**Requirement**	**Performance vs. Requirement**
Thickness	ASTM F386	Nominal ±0.005 in.	Meets
Wear Layer Thickness	ASTM F410	0.020 in. (0.5 mm) minimum for Commercial Use	Meets
Size	ASTM F2421	± 0.016 in. per linear foot	Meets
Squareness	ASTM F2421	0.010 in. maximum	Meets
Residual Indentation	ASTM F1914	Average less than 8%	Meets
Chemical Resistance	ASTM F925	No more than slight change in surface dulling, attack or staining	Meets
Resistance to Heat	ASTM F1514	ΔE < 8 avg., max	Meets
Resistance to Light	ASTM F1515	ΔE < 8 avg., max	Meets
Additional Testing			
Dimensional Stability	Internal	≤ 0.018 in. per linear ft. MD ≤ 0.012 in. per lin. ft. AMD	Meets
Static Load Resistance	ASTM F970*	≤ 0.005 in.	2000 psi
Fire Test Data – Flame Spread	ASTM E648	0.45 W/cm^2 or more Class 1	Meets
Fire Test Data – Smoke Evolution	ASTM E662	450 or less	Meets
Fire Test Data – Canada	CAN/ULC S-102.2	Use dependent	Flame Spread - 5 | Smoke Developed - 75
ADA Standards for Accessible Design	Chapter 3, Section 302.1	Floor surfaces shall be stable, firm and slip resistant	Meets
Static Coefficient of Friction**	ASTM D2047/UL 410	≥ 0.5	Meets
Acoustics	ASTM E492 (IIC) ASTM E90 (STC) ASTM E2179 (DELTA IIC)	International Building Code (IIC ≥50) International Building Code (STC ≥50) Sound Transmission Reduction	6 in. concrete, no ceiling with S-1840 Quiet Comfort Luxury Flooring Underlayment IIC - 53 STC - 51 Delta IIC - 22

ArmstrongFlooring™

Diamond 10 Technology™

LUXURY FLOORING

Theorem™

Sustainability

WELL v1 Feature		Theorem	Contribution
Air	Feature 04 - VOC Reduction	✓	Tested and third party certified by FloorScore® as complying with CDPH v1.2
	Feature 11 - Fundamental Material Safety	✓	Product is free of asbestos and added lead (Part 1)
	Feature 25 - Toxic Material Reduction	✓	Free of flame retardants (Part 2) and phthalates (Part 3)
Mind	Feature 97 - Material Transparency	✓	Readily available Health Product Declaration® (HPD) to 1000 ppm
	Feature 88 (Part 2) Biophilia I - Qualitative	✓	Products available that incorporate nature patterns
	Feature 99 - Beauty and Design II	✓	Patterns and colors to aid in wayfinding and spatial familiarity (Part 3)

WELL v2 Feature		Theorem	Contribution
Air	Feature X12 - Short Term Emission Control	✓	Adhesives associated with product are tested and third party certified by FloorScore as complying with CDPH v1.2
	Feature X11 Long-Term Emission Control	✓	Flooring is tested and third party certified by FloorScore as complying with CDPH v1.2
	Feature X01 Fundamental Material Precautions	✓	Product is free of asbestos
Materials	Feature X10 Volatile Organic Compound	✓	Free of flame retardants (Part 2) and phthalates (Part 3)
	Feature X14 Material Transparency	✓	Readily available Health Product Declaration (HPD) to 1000 ppm
Mind	Feature M02 Access to Nature	✓	Products available that incorporate nature patterns
Community	Feature C13 (Part 2) Accessibility and Universal Design	✓	Patterns and colors to aid in wayfinding and spatial familiarity

LEED™ v4.1	Theorem
BPDO - EPD	Product Specific
BPDO - Material Ingredient	HPD
BPDO - Sourcing	29% pre-consumer recycled content
Location of Manufacturer	USA
Low Emitting Flooring	Tested and third party certified by FloorScore as complying with CDPH v1.2
Low Emitting Adhesives	Tested and compliant to CDPH v1.2; Methylene Chloride and Perchloroethylene not intentionally added; FloorScore Certified
SCAQMD #1168 Compliant. Adhesives meet <50 g/L requirement	S-319 Roll Strong – 0 g/L S-995 – 0 g/L S-1000 – 0.1 g/L

Carbon Footprint	Theorem
Global Warming Potential, excluding Biogenic Carbon Raw Materials (A1) through Production (A3)	0.64 Kg CO^2 eq. / square foot (6.88 Kg CO^2 eq. / square meter)

Limited Warranty

20-year Commercial Warranty when installed in strict accordance with the detailed instructions.

Visit ArmstrongFlooring.com
for complete Product, Technical, Adhesives, Installation & Maintenance recommendations.

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*Testing at loads above 250 psi is outside the scope of the test method. Since testing is conducted on uninstalled flooring, results do not consider the performance of the adhesive, underlayment, or subfloor. These test results are not an indicator of the installed flooring system performance. **Using the James Machine as described in D2047 and as directed in UL 410 for floor covering materials (FCM) using a leather foot under dry conditions. The application of site-applied floor sealers, polishes and other types of finishes routinel used to maintain resilient flooring materials will change the walking surface and consequently the SCOF value.

Mannington COMMERCIAL

Color Anchor LVT Collection

Style	Groove, Stride
Construction	Luxury Vinyl Tile Non-ortho Phthalate
Classification	ASTM F1700 Class III, Type B
Total Thickness	0.098" (2.5 mm)
Wear Layer Thickness	20 mil (0.51 mm)
Wear Layer	Quantum Guard Elite®
Edge Treatment	Bevel or Unbevel
Sizes	6" x 36" (152 x 915 mm) 12" x 24" (305 x 610 mm) 18" x 18" (457 x 457 mm)
Colors	29 colors per style
Packaging	6" x 36" - 30 pcs, 45 ft^2 (4.181 m^2), 33.53 lbs (15.21 kg) 12" x 24" - 18 pcs, 36 ft^2 (3.345 m^2), 26.82 lbs (12.17 kg) 18" x 18" - 12 pcs, 27 ft^2 (2.508 m^2), 20.12 lbs (9.126 kg) Packaging may differ for QuickStix®
Adhesive	**Porous & Non-porous Substrates:** **Amtico PSA or V-88** Full Spread, Transitional Pressure Sensitive **MoistureLoc or Amtico RP-18** Full Spread, One Component **V95** Full Spread, 2-part Epoxy **XpressStep** for LVT & Sheet Vinyl Full Coverage Spray **Note:** Must use Amtico RP-18, V-95, MoistureLoc, QuickStix or XpressStep adhesive under stationary heavy point loads. In more abusive conditions such as areas subject to dragging force, direct sunlight or where topical moisture would be a concern, only RP-18, V-95, MoistureLoc or QuickStix should be used.
QuickStix®	Available with QuickStix® pre-applied adhesive, reducing time and labor required to install the flooring. QuickStix® floors can be used immediately after installation, even in extreme moisture areas.
Installation Method	All arrows in the same direction. Planks should have end joints offset by at least 6" and staggered to create a random appearance. Tiles should be installed block or staggered; when quarter turned, arrows should alternate.

Testing	
HUD/FHA	Passes
Flexibility (ASTM F137)	Passes - 1" Mandrel - No Crack/Break
Dimensional Stability (ASTM F2199)	Passes - Max 0.020 in/lin ft
Squareness (ASTM F540)	Passes - Max 0.010"
Static Load (ASTM F970 mod.)	Passes - 2,000 PSI; Residual Indent ≤ 0.005"
Residual Indentation (ASTM F1914)	Passes - < 8% Avg / 10% Single Value
Flooring Radiant Panel (ASTM E648)	Passes - Class 1; ≥ 0.45 watts/cm^2
Smoke Density (ASTM E662)	Passes - ≤ 450
Slip Resistance (ASTM C1028)	Passes - ≥ 0.5 Leather; 0.6 Rubber
Resistance to Light (ASTM F1515)	Passes
Chemical Resistance (ASTM F925)	Passes
Resistance to Heat (ASTM F1514)	Passes

Environmental Data	
Rapidly Renewable Content	Contains 2% rapidly renewable resource content
Indoor Air Quality	FloorScore Certified; CDPH v1.2-2017
Product Declarations	Third Party Verified EPD, HPD
Carbon Offset	105% (Cradle to Gate (A1-A3); visit website for more information
LEED	May contribute to LEED credits: Building Product Disclosure & Optimization - EPDs Building Product Disclosure & Optimization - Sourcing Raw Materials Building Product Disclosure & Optimization - Material Ingredients; IEQc2 - Low Emitting Materials
mindful MATERIALS	Visit mindfulmaterials.com for current transparency information
Manufacturing	Madison, GA (USA) - ISO 14001 EMS & ISO 9001 QMS Registered, +Vantage Vinyl™ Verified Silver

Warranty	
	Limited 15-Year Commercial Warranty Limited 15-Year Quantum Guard Elite® Wear Warranty

Double Boucle #A0010

Product Specification

Face Construction	Imperial		Metric	
Construction	Tufted Patterned Loop			
Face Weight	15	oz/sq yd	508.5	g/sq m
Gauge	1/10		39.4	rows/10 cm
Stitches per Inch	10.0		39.4	pu/10 cm
Tuft Density	100	tufts/sq in	15.5	tufts/sq cm
Pile Height Average	0.234	inch	5.9	mm
Pile Thickness	0.080	inch	2.0	mm
Density Factor	6,750	oz/cu yd	249.8	kg/cu m
Fiber System	Dynex SD® Nylon (Permanent Stain Resistance)			
Dye Method	100% Solution Dyed			
Fluorine-Free Soil Protection	Eco-Ensure		7.3	Kilotex
Primary Tufting Substrate	Synthetic Non-Woven			
Pattern Match	Not Required			

Third Party Environmental Certifications

	Product	Recycled Content*		NSF 140	Cradle to Cradle
		Overall	Postconsumer	SCS Certified	Certified™ v3.1**
Certified	ethos® Modular with Omnicoat Technology®	47-75%	28%	Platinum	Silver
Certified	Powerbond® Cushion	7-33%	7%	Gold	
Certified	Flex-Aire Modular® Cushion	21-41%	4%	Gold	
Certified	Powerbond® Medfloor®	7-33%	7%		

*Minimum recycled content certified by Scientific Certification Sytems (SCS) and varies by product style.

**Cradle to Cradle Certified is a certification mark licensed by the Cradle to Cradle Products Innovation Institute

Product Testing/Information

Antimicrobial Chemicals	No antimicrobials (EPA Registered pesticides) added to product (ASTM E2471-05)
Electrostatic Propensity	1.7 kV (AATCC 134); Permanent Conductive Fiber
Surface Flammability	Passes CPSC FF 1-70 (ASTM D-2859)
Flooring Radiant Panel	Class 1 (mean average CRF: 0.45 w/sq cm or higher) (ASTM E-648)
Smoke Generation	Less than 450 (ASTM E-662)
Colorfastness to Light	≥ 4 after 100 hours (AATCC 16E)
Soil Protection	Application Rate: 2% of Face Weight
Stain Resistance	≥ 8 (AATCC 175-08 Stain Resistance Pile Floor Coverings)

Installation Methods

Peel and Stick	RS Adhesive System - Full Coverage Peel & Stick
Wet Spread	Backing specific Tarkett Adhesives
Installation Method	24" x 24" Vertical Ashlar; 18" x 36", 9" x 36" Herringbone, Vertical Ashlar

Product Notes

1. Specifications are subject to nominal manufacturing variances. Material supply and/or manufacturing processes may necessitate changes without notice. Colors may vary slightly from dye lot to dye lot.
2. U.S. Patent numbers: 4,849,267; 6,406,574, US 9,988,760 B2
3. Chair pads are recommended for optimum textural performance. Absent the use of chair pads, more intensive maintenance will be required for areas in direct contact with chair caster traffic, and some degree of appearance change is to be expected.

Tarkett North America
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1735 Cleveland Hwy
Dalton, GA 30721
800.248.2878 Fax 706.259.2621
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www.tarkettna.com

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	IMPERIAL				METRIC		TEST METHOD

Warranty: Lifetime limited warranty against excessive surface wear, static, delamination, edge ravel, zippering, backing resiliency loss & stain resistance.

ethos® Modular with Omnicoat Technology®

Total Minimum Recycled Content	60.0%						SCS Certified total 47-75%
Pre-Consumer	24.4%						SCS Certified
Postconsumer	35.6%						SCS Certified
Third Party Certification NSF-140	Platinum						SCS Certified
Cradle to Cradle Certification	Silver (Certification #1904)						Cradle to Cradle Certified™ v3.1
Product Size	24" x 24" Tile	(9" x 36" and 18" x 36" also available)					
Secondary Backing	50% Recycled Content						
Intermediate Layer	Fiberglass Reinforced Sealant						
Product Construction	No Delamination per ASTM D-3936						
Secondary Backing Density	65.0	lbs/cu ft			1041	kg/cu m	
Secondary Backing Thickness	0.050	inch			1.3	mm	
Total Weight	92.9		oz/sq yd +/-5%		3149	g/sq m	
CRI Green Label Plus Certification	GLP8320						

Flex-Aire Modular® Cushion

Total Minimum Recycled Content	25.9%						SCS Certified total 21-41%
Pre-Consumer	20.0%						SCS Certified
Postconsumer	5.9%						SCS Certified
Third Party Certification NSF-140	Gold						SCS Certified
Product Size	24" x 24" Tile	(9" x 36" and 18" x 36" also available)					
Secondary Backing	Fiberglass Reinforced Composite Closed Cell Cushion						
Intermediate Layer	Fiberglass Reinforced Sealant						
Product Construction	No Delamination per ASTM D-3936						
Cushion Weight	35.5	oz/sq yd			1203	g/sq m	ASTM D1667
Cushion Density	18.5	lbs/cu ft			296	kg/cu m	ASTM D1667
Cushion Thickness	0.156	inch			4.0	mm	ASTM D1667
Total Weight with RS / Non-RS	114.1	112.7	oz/sq yd +/-5%	3869	3822	g/sq m	
Compression Set	Max. 10%						ASTM D1667
Compression Deflection	5 Min.	25 max	lbs/sq inch @ 25%	352	1758	g/sq cm	ASTM D1667
CRI Green Label Plus Certification	GLP6558						

Powerbond® Cushion

Total Minimum Recycled Content	8.8%						
Pre-Consumer	0.0%						
Postconsumer	8.8%						
Third Party Certification NSF-140	Gold						
Product Size	6 ft.						
Cushion	Closed Cell Cushion						
Heterogeneous Construction	No Delamination per ASTM D-3936						
Cushion Weight	35.5	oz/sq yd			1203	g/sq m	ASTM D1667
Cushion Density	18.5	lbs/cu ft			296	kg/cu m	ASTM D1667
Cushion Thickness	0.156	inch			4.0	mm	ASTM D1667
Total Weight with RS / Non-RS	76.0	73.7	oz/sq yd +/-5%	2578	2500	g/sq m	
Compression Set	Max. 10%						ASTM D1667
Compression Deflection	7 Min.	25 max	lbs/sq inch @ 25%	492	1758	g/sq cm	ASTM D1667
CRI Green Label Plus Certification	GLP9744						

Powerbond Medfloor®

Total Minimum Recycled Content	9.3%						
Pre-Consumer	0.0%						
Postconsumer	9.3%						
Product Size	6 ft.						
Cushion	Medfloor						
Heterogeneous Construction	No Delamination per ASTM D-3936						
Cushion Weight	37	oz/sq yd			1254	g/sq m	ASTM D1667
Cushion Density	30	lbs/cu ft			481	kg/cu m	ASTM D1667
Cushion Thickness	0.085	inch			2.2	mm	ASTM D1667
Total Weight	75.2		oz/sq yd +/-5%		2551	g/sq m	
Compression Set	Max. 10%						ASTM D1667
Compression Deflection	29		lbs/sq inch @ 25%		2039	g/sq cm	ASTM D1667
CRI Green Label Plus Certification	GLP9744						

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Vinyl Rx Spec Sheet

Product Characteristic: Forest Rx, Strait Rx, Cosmos Rx, Infinity Rx, & Crossings Rx

Construction
Heterogeneous Sheet Vinyl fusion bonded to a Vulcanized Composition Rubber (VCR) backing

Total Thickness
0.27" (7mm)

Wear Layer
27 mil PUR Enhanced Vinyl Wear Layer

Surface Layer
2mm Heterogeneous Sheet Vinyl

Base Layer
5mm Vulcanized Composition Rubber

Width
6' (1.83 m)

Roll Length
Standard: 30 LF; Maximum: 45 LF; custom roll lengths available

Colors
Forest Rx: 17; Strait Rx: 6; Cosmos Rx: 6; Infinity Rx: 9; Crossings Rx: 8

Packaging
Standard: 180 ft^2 per roll; Packaging varies for custom roll lengths

Weight
1.40lbs/ft^2 (6130g/m^2)

Warranty

See ECOsurfaces Warranty Guide for more information.

Contact

Contact your ECOsurfaces' Sales Representative or visit www.ecosurfaces.com/Products/Rx for more information.

Note: Visuals or color may vary from roll to roll. These variations do not affect the physical properties of the product.

Installation Information

Adhesive
ES-90 - Full Spread, One-Part Urethane, up to 90% Relative Humidity (RH)
E-Grip 95 - Full Spread, One-Part Urethane, up to 95% RH
E-Grip 99 - Full Spread, One-Part Modified Urethane, up to 99% RH
E-Grip Tape - Immediate Use, up to 80% RH

Seam Method
Heat weld: Welding rod under this specification shall be a vinyl weld rod distributed by Ecore. (3mm x 328 LF)

Sanitary Base
Sanitary Wall base under this specification shall be Sanitary Wall Base distributed by Ecore used with 4mm VCR underlayment.
Adhere with Ecore E-Flash Tape. Heat weld flat seams and cold weld vertical seams.
Material: Proprietary thermoplastic rubber formulation
Dimensions: 2.8mm thick x 25 LF coils; 4" high with 2" toe

Flash Cove
Flash Cove under this specification shall be unbacked Ecore Vinyl Rx (2mm) used with 5mm VCR underlayment. The flash cove shall be adhered with Ecore's E-Flash Tape, and shall use a 1-1/4" cove stick. Heat weld all seams.

Typical Test Results

PERFORMANCE		
Recovery after Static Load	ASTM F970 Modified	0.004" (@400 psi)
Recovery after Static Load	ASTM F970 Modified	0.004"(@1,000 psi) after 96 hours
Dynamic Rolling Load	ASTM F2753	No Damage, No Change (@10,000 cycles)
Chemical Resistance	ASTM F925	Excellent
Abrasion Resistance	ASTM D3389	Pass
Dimensional Stability	ASTM F2199	+ or - 0.4%
Vertical Deformation	ASTM F2157	0.72mm (Class B)
Resistance to Light	ASTM F1515	Pass
Resistance to Heat	ASTM F1514	Pass
SAFETY		
Indoor Sports Floor	ASTM F2772	Class I
Coefficient of Friction	ASTM D2047	> 0.6
Flammability-Critial Radiant Flux	ASTM E648	Class I
ERGONOMICS		
Force Reduction	Deltec Field Tester	11.50%
Energy Restitution	Deltec Field Tester	72.00%
ACOUSTICS **Tested on a 6" concrete slab with no ceiling.*		
Impact Insulation Class (IIC)*	ASTM E492	52
Delta IIC*	ASTM E2179	23
Floor Impact Sound	ASTM E3133	77 dBA
Sound Transmission Class (STC)*	ASTM E90	56

Environmental Information

VOC Compliant
CA01350, Pass

Recycled Content
Contains 65% post-consumer recycled content

Indoor Air Quality
FloorScore Certified; CDPH v1.2-2017

Product Declarations
EPD, HPD

LEED Scoreboard
v4: Building Product Disclosure & Optimization - EPDs; Building Product Disclosure & Optimization - Sourcing Raw Materials; Building Product Disclosure and Optimization-Material Ingredients, Construction and Demolition Waste Management, Low Emitting Materials

mindful Materials
Mindful Materials: Visit mM Origin website, mindfulmaterials.origin.build, for current transparency information

Manufacturing
York, PA (USA)