

## RATIO Area/Site Roadway

AREA/SITE ROADWAY



Timeless design with multiple optical configurations and easy installation features

- Applications include: area/site, roadway, and security lighting
- Replaces up to 750w HID
- Universal mounting block optional; Mast arm fitter option available for 2 3/8" OD arms (if ordering with poles, select B3 drill pattern)
- Lens distributions are field rotatable (in 90° increments) or exchangeable for job site fine tuning
- -40°C to 40°C ambient operation
- Compact and lightweight design with low EPA

- 10KA surge protection standard; Automatically takes fixture off-line for protection when device is consumed
- 7-pin photocontrol receptacle option available for twist lock photocontrols or wireless control module (control accessories sold separately)
- Utilizes low current, high efficacy LEDs
- ANSI 3G rated for high vibration applications
- Listed to UL1598 for use in wet locations
- IP65 optical assembly

### STOCK

Catalog Number	Lumens	Wattage	LED Count	CCT/CRI	Voltage	Distribution	Mounting	Finish
RAR1-100-4K-3	12,000	100W	160L	4000K/70CRI	120-277V	Type 4W	Square Arm	Bronze
RAR1-100-4K-4W	12,000	100W	160L	4000K/70CRI	120-277V	Type 4W	Square Arm	Bronze
RAR2-140-4K-3	18,000	140W	320L	4000K/70CRI	120-277V	Type 4W	Square Arm	Bronze
RAR2-140-4K-4W	18,000	140W	320L	4000K/70CRI	120-277V	Type 4W	Square Arm	Bronze
RAR2-165-4K-3	21,000	165W	320L	4000K/70CRI	120-277V	Type 4W	Square Arm	Bronze
RAR2-165-4K-4W	21,000	165W	320L	4000K/70CRI	120-277V	Type 4W	Square Arm	Bronze

### ACCESSORIES

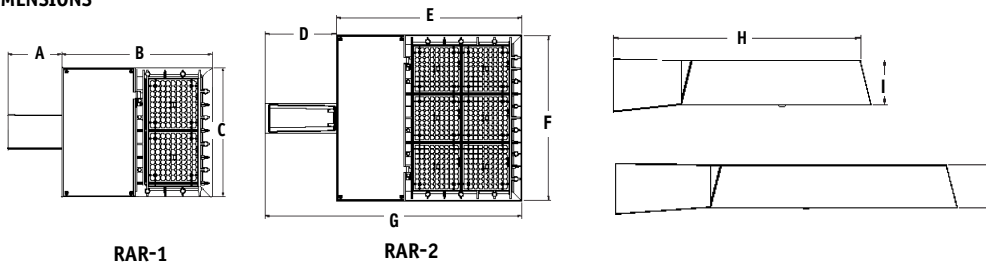
Catalog Number	Description
RARRPA3DB	RAR Round Pole Adapter 3.5" TO 4.13"
RARA3UDB	Universal Mount for square pole or round pole 3.5" TO 4.13"

\* Available Summer 2018

### EQUIVALENCY INFORMATION

Series Number	Equivalency		Energy Savings
	MH	HPS	
RAR1-80L	175W	150W	76%
RAR1-160L	250W	250W	69%
RAR2-320L	400W	400W	71%
RAR2-480L	750W	750W	72%

### DIMENSIONS



A	B	C	D	E	F	G	H	I	RAR-1 EPA@0°	RAR-2 EPA@0°	RAR-1 EPA@30°	RAR-2 EPA@30°
5.0"	14.0"	12.0"	7.5"	19.5"	17.39"	27.0"	18.2"	3.25"	.45 ft. <sup>2</sup>	.55 ft. <sup>2</sup>	.56 ft. <sup>2</sup>	1.48 ft. <sup>2</sup>
127mm	355.6mm	304.8mm	190.5mm	495.3mm	441.7mm	685.8mm	462.8mm	82.5mm	.13 m <sup>2</sup>	.17 m <sup>2</sup>	.17 m <sup>2</sup>	.45 m <sup>2</sup>

#### Weight

RAR-1	13.5 lbs (6.12 kgs)
RAR-2	24.0 lbs (10.8 kgs)

SERIES	# LEDS WATTAGE	OPTICS ROTATION	MOUNTING SQUARE POLES	COLOR	OPTIONS
<b>RAR1</b> Ratio Area Size 1	<b>80L-25</b> 25W - 3,000 Lumens <b>80L-50</b> 50W - 6,000 Lumens <b>160L-70</b> 70W - 9,000 Lumens <b>160L-100</b> 100W - 12,000 Lumens	Blank for no rotation L Optic rotation left R Optic rotation right	<b>ASQ</b> Arm mount for square pole/flat surface <b>ASQU</b> Universal arm mount for square pole/flat surface	<b>BL</b> Black textured <b>DB</b> Dark bronze textured <b>GT</b> Graphite textured <b>GYS</b> Light gray smooth <b>PS</b> Platinum silver smooth <b>WH</b> White textured <b>CC</b> Custom Color	<b>BC</b> Backlight control <b>CD</b> Continuous dimming <b>F</b> Fusing (must specify voltage) <b>TB</b> Terminal Block <b>2PF</b> 2 power feed with 2 drivers <sup>3</sup>
<b>RAR2</b> Ratio Area Size 2	<b>320L-110</b> 110W - 15,000 Lumens <b>320L-140</b> 140W - 18,000 Lumens <b>320L-165</b> 165W - 21,000 Lumens <b>480L-185</b> 185W - 24,000 Lumens <b>480L-210</b> 210W - 27,000 Lumens <b>480L-240</b> 240W - 30,000 Lumens	<b>DISTRIBUTION</b> 2 TYPE II 3 TYPE III <b>4W</b> TYPE IV Wide <b>5QW</b> TYPE V Square Wide	<b>MOUNTING ROUND POLES</b> <b>A_1</b> Arm mount for round pole <b>A_U<sup>1</sup></b> Universal arm mount for round point	<b>CONTROL OPTIONS NETWORK</b> <b>NXWE</b> NX Wireless Enabled (module + radio) <b>NXSPW_F<sup>2</sup></b> NX Wireless, PIR Occ. Sensor, Daylight Harvesting <b>NXSP_F<sup>2</sup></b> NX, PIR Occ. Sensor, Daylight Harvesting	
	<b>CCT/CRI</b> <b>3K7</b> 3000K, 70 CRI <b>4K7</b> 4000K, 70 CRI <b>5K7</b> 5000K, 70 CRI	<b>VOLTAGE</b> <b>UNV</b> Universal 120-277V <b>347</b> 347V <b>480</b> 480V	<b>MOUNTING OTHER</b> <b>WB</b> Wall Bracket <b>MAF</b> Mast Arm Fitter for 2-3/8" OD horizontal arm <b>K</b> Knuckle	<b>CONTROL OPTIONS OTHER</b> <b>SCP-40F<sup>4</sup></b> Programmable Occupancy Sensor <b>7PR</b> 7-Pin Twist Lock Receptacle <b>7PR-SC</b> 7 pin receptacle with shorting cap <b>7PR-MD40F</b> Low voltage sensor for 7PR <b>7PR-TL</b> 7 pin PCR with photo control	

- 1 - Replace "\_" with "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole
- 2 - Replace "\_" with "14" for up to 14' mounting height, "30F" for 15-30' mounting height
- 3 - Not available with 80 LED versions
- 4 - At least one SCPREMOTE required to program SCP motion sensor

### MADE TO ORDER ACCESSORIES - Order Separately

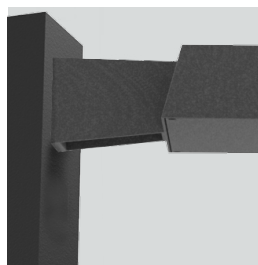
Catalog Number	Description
<b>RAR-ASQU-XX</b>	Universal Am mount for square pole / flat surface
<b>RAR-A_U-XX</b>	Universal arm mount for round poles
<b>RAR-RPA_XX</b>	Round pole adapter
<b>TPLBARA3</b>	Twin Parallel Luminaire Bracket
<b>SETAVP</b>	4" square pole top tenon adapter, 2 3/8" OD slipfitter
<b>RETAVP</b>	4" Round pole top tenon adapter; 2 3/8" OD slipfitter for max. four fixtures (90°); Order 4" round pole adapters separately
<b>TETAVP</b>	Three-sided pole top tenon adapter, 2 3/8" OD slipfitter
<b>SPIKE</b>	Bird Deterrent
<b>RARWB-XX</b>	Wall Bracket - use with Mast Arm Fitter or Knuckle

Replace "XX" with "BL" for Black, "DB" for Dark Bronze, "GT" for Graphite, "GYS" for Gray Smooth, "PS" for Platinum Silver, "WH" for White  
 Replace "\_" with "3" for 3.5"-4.13" OD pole, "4" for 4.18"-5.25" OD pole, "5" for 5.5"-6.5" OD pole

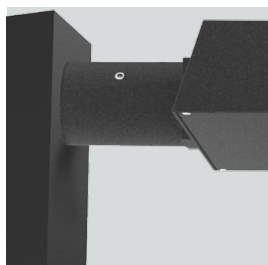
### CONTROLS ACCESSORIES - Order Separately

Catalog Number	Description
<b>SW7PR</b>	SiteSync on fixture module via 7PR
<b>SWUSB</b>	SiteSync Software on USB
<b>SWTAB</b>	SiteSync Windows Tablet
<b>SWBRG</b>	SiteSync Wireless Bridge Node
<b>SWFC</b>	SiteSync Field Commission Serv
<b>SCPREMOTE</b>	Order at least one per project location to program and control
<b>WIR-RME-L</b>	wiSCAPE external control node; use with 7PR
<b>NXOFM-1R1D-UNV</b>	NX external control node; use with 7PR

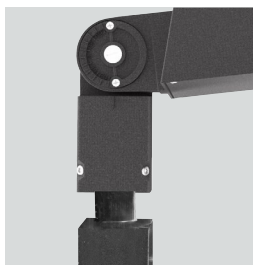
### MOUNTING



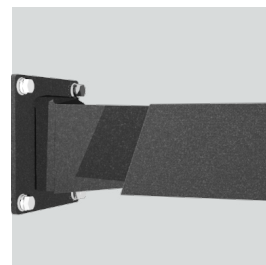
**Arm Mount** - Fixture ships with integral arm for ease of installation. Compatible with Hubbell Outdoor B3 drill pattern.



**MAF** - Fits 2-3/8" OD arms Roadway applications.



**Knuckle** - Knuckle mount 15° aiming angle increments for precise aiming and control, fits 2-3/8" tenons or pipes.



**Wall Mount** - Wall mount bracket designed for building mount applications.





**Garden bollards**  
with shielded, directed light

A series of pathway luminaires with shielded, directed light for use in the private sector. These luminaires are ideally suited for gardens, entryways, and for many applications on paths and terraces. Anchorage units are available for direct burial in concrete or soil, or with a hardscape base for installation on foundations or paved surfaces.

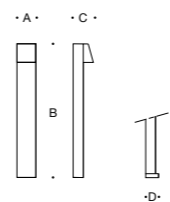
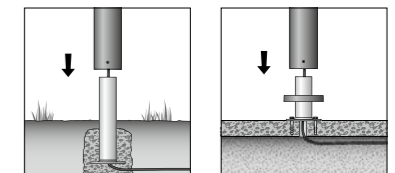
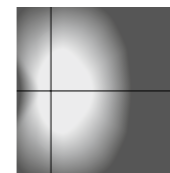
Die cast and extruded aluminum · Clear safety glass  
Reflector made of pure anodized aluminum · Galvanized steel anchorage

LED color temperatures: 2700 K, 3000 K, 3500 K, 4000 K

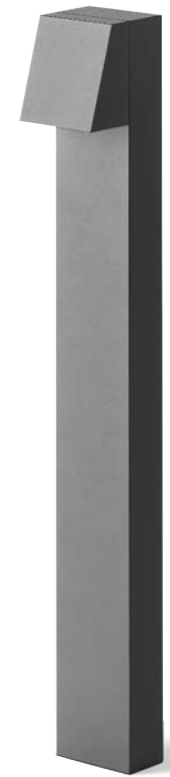
BEGA luminaires offer a minimum service life of 60,000 hours, with suitable LED replacement modules guaranteed for up to 20 years after date of purchase. Further LED technical data including luminous flux, CRI, dimming and electrical characteristics are provided on the individual luminaire specification sheets, available at [www.bega-us.com](http://www.bega-us.com)

All BEGA standard finishes are matte, textured powder coat with minimum 3 mil thickness. BEGA Unidure® finish, a fluoropolymer technology, provides superior fade protection in Black, Bronze, and Silver. BEGA standard White, as well as optionally available RAL and custom colors, are a polyester powder.

NRTL listed to North American standards · Suitable for wet locations  
Protection class IP 65



Garden bollards		LED	A	B	C	D
<b>77 237</b>	with direct burial anchorage	3.6 W	3 1/2	27%	4 1/8	—
<b>77 238</b>	with hardscape base	3.6 W	3 1/2	27%	4 1/8	2 5/8





**Recessed wall luminaires**

Asymmetric or asymmetric wide spread distribution

For decades, BEGA has set the standard for recessed wall luminaires worldwide. Newly redesigned with a refined look, broader range of delivered lumens, and contractor friendly enhancements for ease of installation and quality assurance, BEGA's unwavering commitment to quality above all permeates everything about this new approach to recessed wall luminaires.

Recessed wall luminaires with asymmetric or asymmetric wide spread light distribution. The asymmetric distribution provides light in a forward orientation and is suitable for lighting ground surfaces, building entrances, and stairways. The asymmetric wide spread light distribution is ideally suited for illuminating corridors and pathways. Separate installation housing allows for seamless coordination into construction and easy maintenance.

Die-cast aluminum housing and faceplate · Composite installation housing  
Safety glass with optical texture

LED color temperatures: 2700K, 3000K, 3500K, 4000K

BEGA luminaires offer a minimum service life of 60,000 hours, with suitable LED replacement modules guaranteed for up to 20 years after date of purchase. Further LED technical data including luminous flux, CRI, dimming and electrical characteristics are provided on the individual luminaire specification sheets, available at [www.bega-us.com](http://www.bega-us.com)

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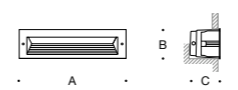
NRTL listed to North American standards · Suitable for wet locations  
Protection class IP 65



Asymmetric light distribution



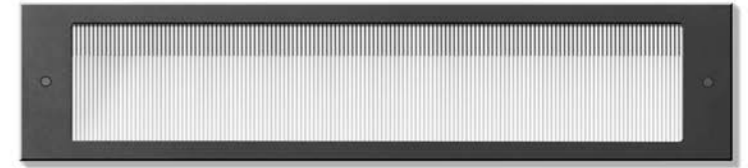
Asymmetric wide spread light distribution



Asymmetric				
	LED	A	B	C
<b>33 053</b>	4.1 W	6 5/8"	2 3/4"	5"
<b>33 054</b>	5.9 W	10 1/8"	2 3/4"	5"
<b>33 055</b>	8.4 W	12 1/2"	2 3/4"	5"
<b>33 058</b>	12.3 W	13"	4 7/8"	5 1/2"
<b>33 059</b>	16.4 W	16 1/2"	4 7/8"	5 1/2"
<b>33 060</b>	20.5 W	20 1/2"	4 7/8"	5 1/2"

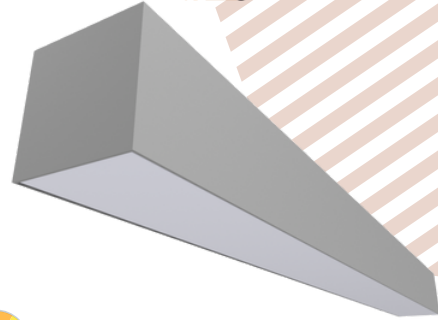


Asymmetric wide spread				
	LED	A	B	C
<b>33 023</b>	4.0 W	6 5/8"	2 3/4"	5"
<b>33 046</b>	5.9 W	10 1/8"	2 3/4"	5"
<b>33 049</b>	7.8 W	12 1/2"	2 3/4"	5"
<b>33 062</b>	12.3 W	13"	4 7/8"	5 1/2"
<b>33 067</b>	16.4 W	16 1/2"	4 7/8"	5 1/2"
<b>33 098</b>	20.5 W	20 1/2"	4 7/8"	5 1/2"





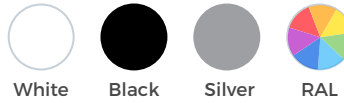
**QS-ES44**  
**EXTRUDED ALUMINUM**  
**DIRECT QUICK SHIP LINEAR**



## FEATURES

- Direct distribution from a single row of high efficiency LED boards
- Polyester powder coat finish In choices of white, black, silver, or RAL colors
- Standard 0-10V, 1% dimming drivers
- L90 greater than 36,000 hours
- Construction: Welded extruded aluminum housing with internal components made from die formed cold rolled steel.
- cETLus Listed, Damp Location rated

### FINISH



<b>FIXTURE TYPE:</b>		<b>PROJECT:</b>		
<b>SERIES: QS-ES44</b>	<b>DISTR: D</b>	<b>MOUNTING:</b>	<b>COLOR TEMP:</b>	<b>LUMEN:</b>
<b>LENGTH:</b>	<b>DIFFUSER: D</b>	<b>FINISH:</b>	<b>VOLTAGE: UNV</b>	<b>OPTIONS:</b>

1. SERIES	2. DISTRIBUTION	3. MOUNTING	4. COLOR TEMPERATURE	5. LUMEN OUTPUT
<b>QS-ES44</b>	<b>D - DIRECT</b>	<b>AC - ADJUSTABLE AIRCRAFT CABLE (48" STANDARD)</b> <b>S - SURFACE</b>	<b>35K - 3500K</b> <b>40K - 4000K</b>	<b>055 - 550LM/FT - 3.4W/FT</b> <b>110 - 1100LM/FT - 6.8W/FT</b>
6. LENGTH	7. DIFFUSER	8. FINISH	9. VOLTAGE	10. OPTIONS
<b>4' - AC &amp; S MOUNTING</b> <b>8' - AC &amp; S MOUNTING</b>  SEE PAGE 2 FOR ACTUAL LENGTHS	<b>D - DIFFUSE</b>	<b>WHT - WHITE POWDER COAT</b> <b>BLK - BLACK POWDER COAT</b> <b>SLV - SILVER POWDER COAT</b> <b>RAL - ANY RAL PAINT COLOR: 4-DIGIT RAL CODE MUST BE SPECIFIED</b>  VISIT OUR WEBSITE TO VIEW OUR RAL COLOR CHART <a href="http://PMCLIGHTING.COM/FINISHES">PMCLIGHTING.COM/FINISHES</a>	<b>UNV - UNIVERSAL (120/277V)</b>	<b>NONE</b>

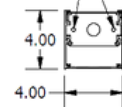
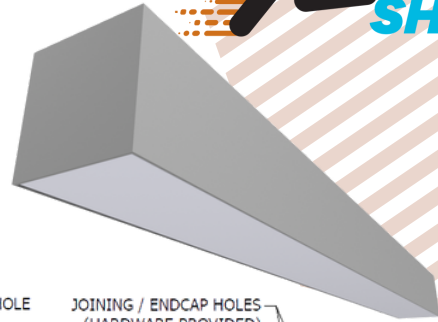
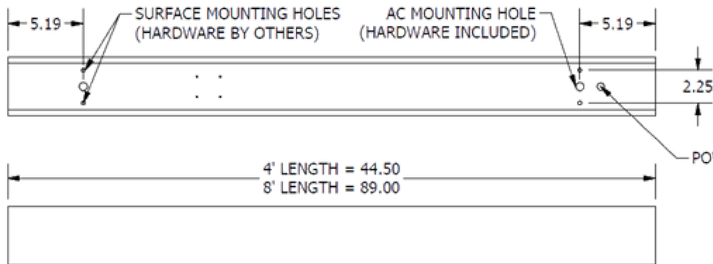


PMC Lighting | 100 Gilbane Street Warwick, RI 02886  
 (P) 401-738-7266 | (F) 401-738-0618 | [www.PMCLighting.com](http://www.PMCLighting.com)

Specifications and Dimensions are subject to change without notice.



**QS-ES44**  
**EXTRUDED ALUMINUM**  
**DIRECT QUICK SHIP LINEAR**



**PMC Lighting QUICK SHIP product configurations include:**

- (1) Fixture assembly per the ordering code designated.
- (1) Joining hardware kit for joining one fixture to another when combining fixtures into rows. (Not used when fixtures are individually mounted).
- (2) Endcap assemblies that allow each fixture to be configured as Individually mounted, or in a Beginning or End of row position when combining fixtures into rows. See page 3 for more information on Endcap use.
- (1) Fixture to fixture wiring quick connect male-female connections. (Note - At Power Feed locations, cut the connector off the internal fixture wire harness and splice in power feed wires.)

**When designated as Aircraft Cable Mounted:**

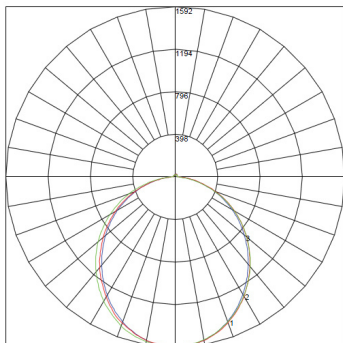
- (1) Power-Feed 48" Adjustable Length AC kit w/ 18awg 5 conductor cord for power and dimming control.
- (1) Non-Power Feed 48" Adjustable Length AC kit

(Notes - AC kits provided with white canopies and white power cords. Individual and Beginning of Row mounted fixtures use both AC kits. Intermediate and End of Row mounted fixtures use just the Non-Power Feed kit.)

**When designated as Surface Mounted:**

All hardware required for surface mounting fixtures is "by others" and must be selected based on the surface material the fixture is being mounted against. Hardware must support the entire fixture weight.

IES INDOOR REPORT  
 PHOTOMETRIC FILENAME : ES44-D-1450LM\_FT.DIFFUSE.IES  
 POLAR GRAPH



Maximum Candela = 1591.952 Located At Horizontal Angle = 90, Vertical Angle = 1  
 # 1 - Vertical Plane Through Horizontal Angles (90 - 270) (Through Max. Cd.)  
 # 2 - Vertical Plane Through Horizontal Angles (45 - 225)  
 # 3 - Vertical Plane Through Horizontal Angles (0 - 180)

**CHARACTERISTICS**

Lumens Per Lamp	4452 (1 lamp)
Total Lamp Lumens	4452
Luminaire Lumens	4454
Total Luminaire Efficiency	100 %
Luminaire Efficacy Rating (LER)	109
Total Luminaire Watts	40.77
Ballast Factor	1.00
CIE Type	Direct
Spacing Criterion (0-180)	1.22
Spacing Criterion (90-270)	1.20
Spacing Criterion (Diagonal)	1.34
Basic Luminous Shape	Unknown
Luminous Length (0-180)	0.00 m
Luminous Width (90-270)	0.09 m
Luminous Height	0.00 m

**ZONAL LUMEN SUMMARY**

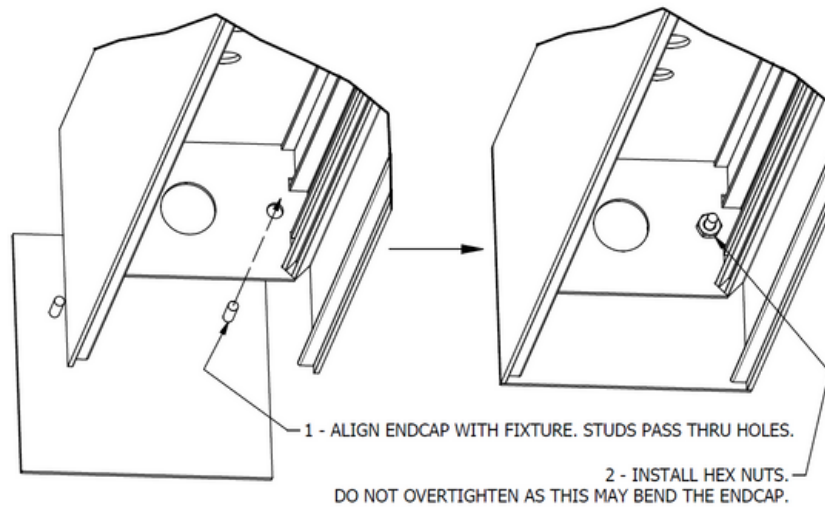
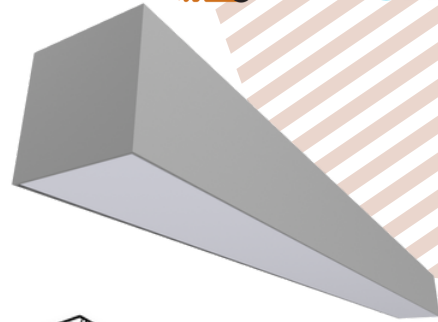
Zone	Lumens	% Lamp	%Fixt
0-20	575.63	12.90	12.90
0-30	1210.38	27.20	27.20
0-40	1960.1	44.00	44.00
0-60	3408.4	76.60	76.50
0-80	4235.64	95.10	95.10
0-90	4334.71	97.40	97.30
10-90	4184.81	94.00	94.00
20-40	1384.47	31.10	31.10
20-50	2148.84	48.30	48.20
40-70	1970.76	44.30	44.20
60-80	827.23	18.60	18.60
70-80	304.78	6.80	6.80
80-90	99.07	2.20	2.20
90-110	39.38	0.90	0.90
90-120	57.42	1.30	1.30
90-130	74.22	1.70	1.70
90-150	101.82	2.30	2.30
90-180	119.58	2.70	2.70
110-180	80.20	1.80	1.80
0-180	4454.29	100.10	100.00

**Total Luminaire Efficiency = 100.10%**

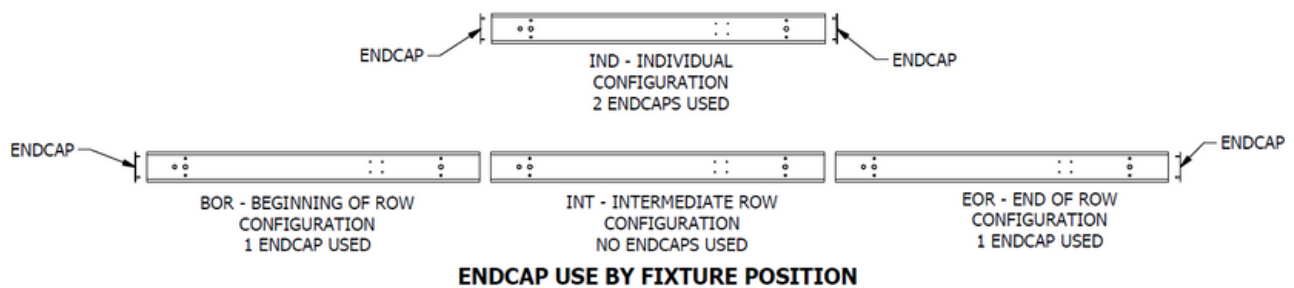


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**ENDCAP INSTALLATION - AS REQUIRED**



**ENDCAP USE BY FIXTURE POSITION**

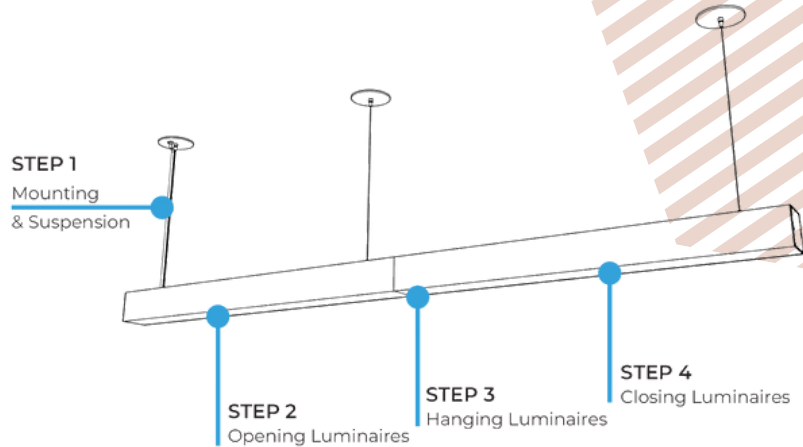



Luminaires must be installed by qualified electrician ( check with local and national codes for proper installation).

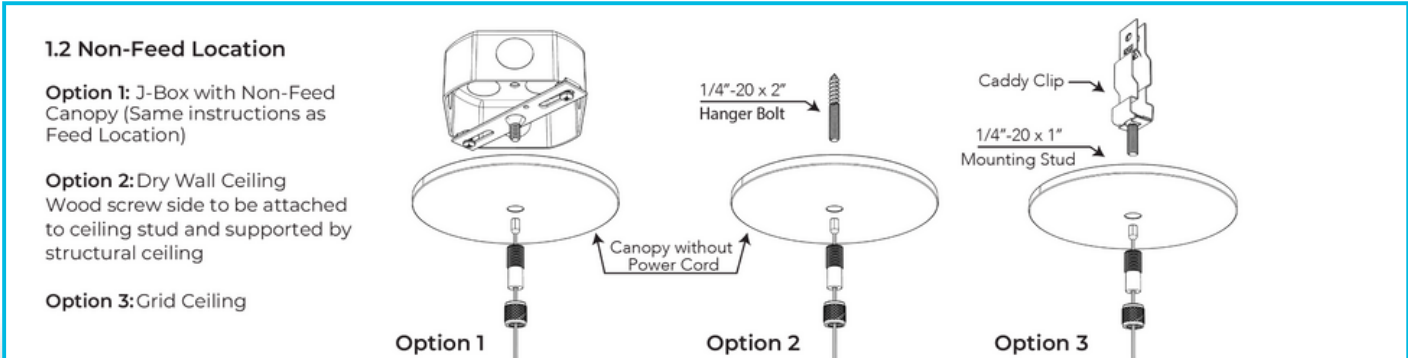
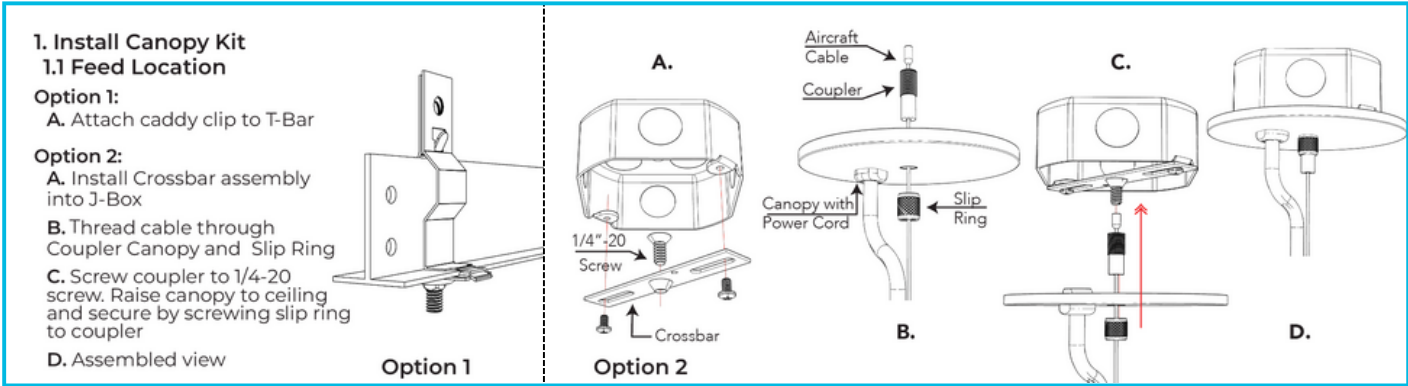
To prevent electrical shock, disconnect electrical supply before installation or servicing.

Contractor is responsible for adequately reinforcing wall and/or ceilings to support fixture weight.

PMC Lighting, Inc. accepts no responsibility for inadequately reinforced walls and/or ceilings.



<p><b>Supplied by others:</b> - 4" Octagonal J-Box(es);</p> 	<p><b>Option 1</b> <b>T-Bar Mounting with Caddy Clips</b></p> <ul style="list-style-type: none"> <li>Install Caddy Clip and electrical conduit at feed locations</li> <li>Install electrical conduit at feed locations</li> <li>All caddy clips are to be secured to structure, per local building codes</li> </ul>	<p><b>Option 2</b> <b>Drywall or other hard surfaces - J-Box and Anchor Bolts</b></p> <ul style="list-style-type: none"> <li>Install J-Box and electrical conduit at feed locations</li> <li>Install anchor bolts at mounting point locations</li> <li>All anchor bolts are to be secured to structure, per local building codes</li> <li>Other hard surfaces include: wood, sheet metal panel, sheet beams, concrete, or masonry. Use hardware appropriate for each surface material type</li> </ul>
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**2.2 Remove Snap-In Diffuser**

- Insert a Putty Knife in the gap between the diffuser and the Fixture and carefully prime the diffuser.
- Set aside all diffusers to prevent from getting dirty or damaged.

**2.3 Remove LED Tray Assembly**

- To remove the LED Tray Assembly, locate all the screws inside the fixture.
- Using a Phillips screwdriver, remove all screws and set them aside.
- Carefully remove the LED tray assembly.

**3.1 Hanging to suspension cable**

- Push the plunger and insert cable.
- Adjust and level fixture in the same manner.
- Lock the Gripper by screwing the plunger.

**3.2 Attach Fixture**

- Insert the Gripper to fixture.
- Secure Gripper with Hex Nut.

**3.3 Connect Fixtures**

- Connect wires.
- Connect fixtures.

**3.4 Leveling Luminaires**

- Level fixture section by adjusting cable height.

**3.5 Connect Power**

WIRING LEGEND		
BLACK	HOT	Line Voltage
WHITE	NEUTRAL	Line Voltage
GREEN	GROUND	
GRAY	DIMMING	0- 10V DC
PURPLE	DIMMING	0- 10V DC

**4. Closing Luminaires**

Insert LED Tray Assembly

Mount Diffusion Lens

Secure LED Tray Assembly with Screws



# D-Series Size 2 LED Area Luminaire

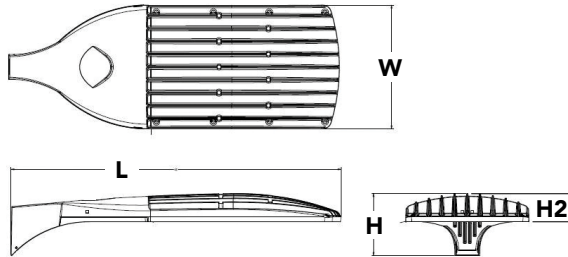


Catalog Number
Notes
Type

Hit the Tab key or mouse over the page to see all interactive elements.

## Specifications

EPA:	1.1 ft <sup>2</sup> (0.10 m <sup>2</sup> )
Length:	40" (101.6 cm)
Width:	15" (38.1 cm)
Height 1:	7-1/4" (18.4 cm)
Height 2: (max):	3.5"
Weight:	36lbs



## Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment.

The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. The Size 2 is ideal for replacing 400-1000W metal halide in area lighting applications with energy savings of up to 80% and expected service life of over 100,000 hours.

## Ordering Information

**EXAMPLE:** DSX2 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

DSX2 LED		EXAMPLE: DSX2 LED P7 40K T3M MVOLT SPA NLTAIR2 PIRHN DDBXD				
Series	LEDs	Color temperature	Distribution	Voltage	Mounting	
<b>DSX2 LED</b>	<b>Forward optics</b> P1 P5 <sup>1</sup> P2 P6 P3 P7 <sup>1</sup> P4 P8 <sup>1</sup> <b>Rotated optics</b> P10 <sup>2</sup> P13 <sup>1,2</sup> P11 <sup>2</sup> P14 <sup>1,2</sup> P12 <sup>2</sup>	30K 3000 K <b>40K</b> 4000 K 50K 5000 K	T1S Type I Short (Automotive) T2S Type II Short T2M Type II Medium T3S Type III Short T3M Type III Medium T4M Type IV Medium TFTM Forward Throw Medium	T5VS Type V Very Short <sup>3</sup> T5S Type V Short <sup>3</sup> <b>T5M</b> Type V Medium <sup>3</sup> T5W Type V Wide <sup>3</sup> BLC Backlight control <sup>4</sup> LCCO Left corner cutoff <sup>4</sup> RCCO Right corner cutoff <sup>4</sup>	<b>MVOLT</b> <sup>5</sup> XVOLT (277V-480V) <sup>6,7,8</sup> 120 <sup>9</sup> 208 <sup>9</sup> 240 <sup>9</sup> 277 <sup>9</sup> 347 <sup>9</sup> 480 <sup>9</sup>	<b>Shipped included</b> SPA Square pole mounting <b>RPA</b> Round pole mounting <sup>10</sup> WBA Wall bracket <sup>3</sup> SPUMBA Square pole universal mounting adaptor <sup>11</sup> RPUMBA Round pole universal mounting adaptor <sup>11</sup> <b>Shipped separately</b> KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) <sup>10</sup>

Control options	Other options	Finish (required)
<b>Shipped installed</b> <b>NLTAIR2</b> nLight AIR generation 2 enabled <sup>13</sup> PIRHN Network, Bi-Level motion/ambient sensor <sup>14</sup> PER NEMA twist-lock receptacle only (no controls) <sup>15</sup> PER5 Five-wire receptacle only (no controls) <sup>15,16</sup> PER7 Seven-wire receptacle only (no controls) <sup>15,16</sup> DMG 0-10V dimming extend out back of housing for external control (no controls) <sup>17</sup> DS Dual switching <sup>18,19</sup>	<b>Shipped installed</b> HS House-side shield <sup>22</sup> SF Single fuse (120, 277, 347V) <sup>9</sup> DF Double fuse (208, 240, 480V) <sup>9</sup> L90 Left rotated optics <sup>2</sup> R90 Right rotated optics <sup>2</sup> HA 50°C ambient operations <sup>1</sup> BAA Buy America(n) Act Compliant <b>Shipped separately</b> <b>BS</b> Bird spikes <sup>23</sup> EGS External glare shield	DDBXD Dark bronze DBLXD Black <b>DNAXD</b> Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLTXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white



## Ordering Information

### Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) <sup>24</sup>
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) <sup>24</sup>
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) <sup>24</sup>
DSHORT SBK U	Shorting cap <sup>24</sup>
DSX2HS 80C U	House-side shield for 80 LED unit <sup>22</sup>
DSX2HS 90C U	House-side shield for 90 LED unit <sup>22</sup>
DSX2HS 100C U	House-side shield for 100 LED unit <sup>22</sup>
PUMBA DDBXD U*	Square and round pole universal mounting bracket (specify finish) <sup>25</sup>
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) <sup>25</sup>
DSX2EGS (FINISH) U	External glare shield

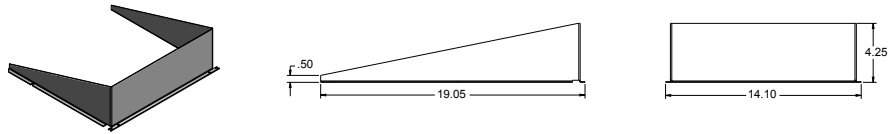
For more control options, visit [DTL](#) and [ROAM](#) online.

### NOTES

- HA not available with P5, P7, P8, P13, and P14.
- P10, P11, P12, P13 or P14 and rotated optics (L90, R90) only available together.
- Any Type 5 distribution with photocell, is not available with WBA.
- Not available with HS.
- MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- XVOLT is only suitable for use with P5, P6, P7, P8, P13 and P14.
- XVOLT works with any voltage between 277V and 480V.
- XVOLT not available with fusing (SF or DF) and not available with PIRH or PIRH1FC3V.
- Single fuse (SF) requires 120V, 277V or 347V. Double fuse (DF) requires 208V, 240V or 480V.
- Suitable for mounting to round poles between 3.5" and 12" diameter.
- Universal mounting bracket intended for retrofit on existing pre-drilled poles only. 1.5 G vibration load rating per ANCI C136.31. Only usable when pole's drill pattern is NOT Lithonia template #8.
- Must order fixture with SPA option. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" diameter mast arm (not included).
- Must be ordered with PIRHN. Sensor cover only available in dark bronze, black, white or natural aluminum color.
- Must be ordered with NLTAIR2. For more information on nLight Air 2 visit [this link](#).
- Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option. Shorting Cap included.
- If ROAM® node required, it must be ordered and shipped as a separate line item from Acuity Brands Controls. Node with integral dimming. .
- DMG not available with PIRHN, PER5, PER7, PIR, PIRH, PIR1FC3V or PIRH1FC3V, FAO.
- Requires (2) separately switched circuits with isolated neutrals.
- Provides 50/50 fixture operation via (2) independent drivers. Not available with PER, PER5, PER7, PIR or PIRH. Not available with P1, P2, P10.
- Reference Controls Options table settings table on page 4. Reference Motion Sensor Default table on page 4 to see functionality.
- Reference controls options table on page 4.
- Not available with BLC, LCCO and RCCO distribution. Also available as a separate accessories; see Accessories information.
- Must be ordered with fixture for factory pre-drilling.
- Requires luminaire to be specified with PER, PER5 and PER7 option. Ordered and shipped as a separate line item from Acuity Brands Controls.
- For retrofit use only. Only usable when pole's drill pattern is NOT Lithonia template #8.

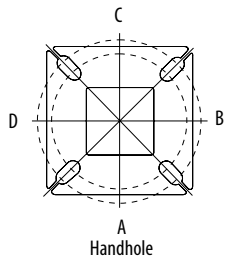
## Options

### EGS - External Glare Shield



## Drilling

### HANDHOLE ORIENTATION



### Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

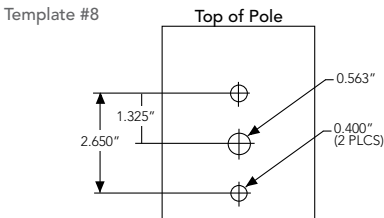
Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS

### DSX2 Area Luminaire - EPA

\*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

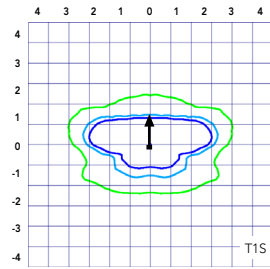
Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX2 LED	1.100	2.200	2.120	3.300	2.850	4.064

	Drilling Template	Minimum Acceptable Outside Pole Dimension					
SPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
RPA	#8	2-7/8"	2-7/8"	3.5"	3.5"	3"	3.5"
SPUMBA	#5	2-7/8"	3"	4"	4"	3.5"	4"
RPUMBA	#5	2-7/8"	3.5"	5"	5"	3.5"	5"

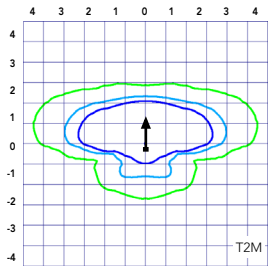


Isofootcandle plots for the DSX2 LED 80C 1000 40K. Distances are in units of mounting height (30').

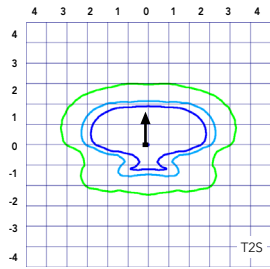
- LEGEND**
- 0.1 fc
  - 0.5 fc
  - 1.0 fc



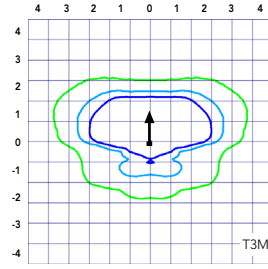
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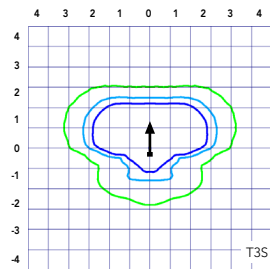
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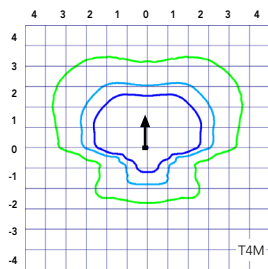
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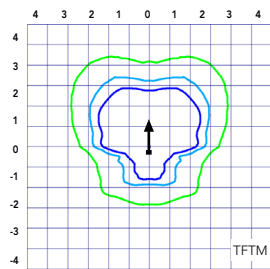
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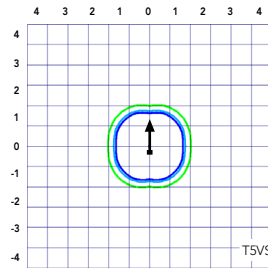
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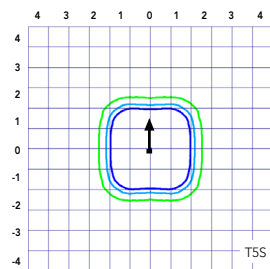
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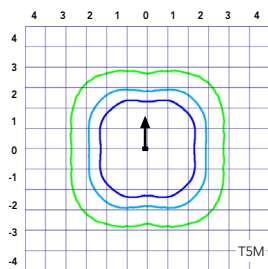
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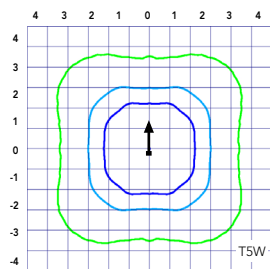
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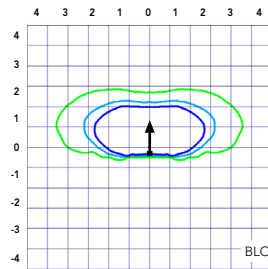
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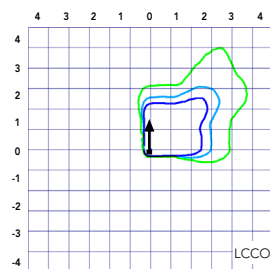
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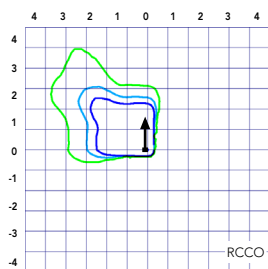
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Test No. LT.22430P1 tested in accordance with IESNA LM-79-08.



Test No. LT.22425P1 tested in accordance with IESNA LM-79-08.



Test No. LT.22434P1 tested in accordance with IESNA LM-79-08.

## Performance Data

### Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
<b>25°C</b>	<b>77°F</b>	<b>1.00</b>
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

### Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25000	50000	100000
Lumen Maintenance Factor	1.00	0.96	0.92	0.85

### Electrical Load

	Performance Package	LED Count	Drive Current	Wattage	Current (A)					
					120	208	240	277	347	480
Forward Optics (Non-Rotated)	P1	80	530	140	1.18	0.68	0.59	0.51	0.40	0.32
	P2	80	700	185	1.56	0.90	0.78	0.66	0.52	0.39
	P3	80	850	217	1.82	1.05	0.90	0.80	0.63	0.48
	P4	80	1050	270	2.27	1.31	1.12	0.99	0.79	0.59
	P5	80	1250	321	2.68	1.54	1.34	1.17	0.93	0.68
	P6	100	1050	343	2.89	1.66	1.59	1.37	1.00	0.71
	P7	100	1250	398	3.31	1.91	1.66	1.45	1.16	0.81
	P8	100	1350	431	3.61	2.07	1.81	1.57	1.25	0.91
Rotated Optics (Requires L90 or R90)	P10	90	530	156	1.30	0.76	0.65	0.62	0.45	0.32
	P11	90	700	207	1.75	1.01	0.87	0.74	0.60	0.46
	P12	90	850	254	2.12	1.22	1.06	0.94	0.73	0.55
	P13	90	1200	344	2.88	1.65	1.44	1.25	1.00	0.73
	P14	90	1400	405	3.39	1.95	1.71	1.48	1.18	0.86

### Motion Sensor Default Settings

Option	Dimmed State	High Level (when triggered)	Photocell Operation	Dwell Time	Ramp-up Time	Ramp-down Time
PIR or PIRH	3V (37%) Output	10V (100%) Output	Enabled @ 5FC	5 min	3 sec	5 min
*PIR1FC3V or PIRH1FC3V	3V (37%) Output	10V (100%) Output	Enabled @ 1FC	5 min	3 sec	5 min

\*for use when motion sensor is used as dusk to dawn control.

### Controls Options

Nomenclature	Description	Functionality	Primary control device	Notes
FAO	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PERS or PER7	Twist-lock photocell receptical	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire
PIR or PIRH	Motion sensors with integral photocell. PIR for 8-15' mounting; PIRH for 15-30' mounting	Luminaires dim when no occupancy is detected.	Acuity Controls SBGR	Also available with PIRH1FC3V when the sensor photocell is used for dusk-to-dawn operation.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Eclipse.	nLight Air rSBGR	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app.









## FEATURES & SPECIFICATIONS

### INTENDED USE

The sleek design of the D-Series Area Size 2 reflects the embedded high performance LED technology. It is ideal for applications like car dealerships and large parking lots adjacent to malls, transit stations, grocery stores, home centers, and other big-box retailers.

### CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.1 ft<sup>2</sup>) for optimized pole wind loading.

### FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

### OPTICS

Precision-molded proprietary acrylic lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in 3000 K, 4000 K, or 5000 K (70 CRI) configurations. The D-Series Size 2 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

### ELECTRICAL

Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L85/100,000 hrs at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily-serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

### INSTALLATION

Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 2 to withstand up to a 2.0 G vibration load rating per ANSI C136.31. The D-Series Size 2 utilizes the AERIS™ series pole drilling pattern (Template #8). NEMA photocontrol receptacle is available.

### STANDARD CONTROLS

The DSX2 LED area luminaire has a number of control options. DSX Size 2, comes standard with 0-10V dimming drivers. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensors with on-board photocells feature field-adjustable programming and are suitable for mounting heights up to 30 feet.

### nLIGHT AIR CONTROLS

The DSX2 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaires can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclipse. Additional information about nLight Air can be found [here](#).

### LISTINGS

UL listed to meet U.S. and Canadian standards. UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D670,857 S. International patent pending.

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](http://www.designlights.org/QPL) to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

### BUY AMERICAN

Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to [www.acuitybrands.com/buy-american](http://www.acuitybrands.com/buy-american) for additional information.

### WARRANTY

5-year limited warranty. Complete warranty terms located at: [www.acuitybrands.com/support/warranty/terms-and-conditions](http://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.



## DESCRIPTION

The Invue Arbor post top brings architectural style to area/site and pedestrian scale applications. Its dayform appearance brings a desired organic look into the urban environment. WaveStream LED Optics provide a uniform pixelation free image, managing glare while providing high levels of visibility.

<b>Catalog #</b>		<b>Type</b>	
<b>Project</b>			
<b>Comments</b>		<b>Date</b>	
<b>Prepared by</b>			

## SPECIFICATION FEATURES

### Construction

Two-piece IP66 rated housing is cast from low copper content corrosion resistant aluminum, maintaining strength and precision to sustain long term dayform appearance. ANSI C136.31 testing compliance prevents damage from installation generated vibration. External hardware and casting seams are minimized to enhance appearance.

### Optics

Specifically designed for pedestrian applications, WaveStream LED optical waveguide technology produces both symmetric NEMA type V and asymmetric NEMA II, III, IV distributions. The waveguide is manufactured from precision injection molded acrylic resulting in a pixelation free optical image for improved glare control and visual comfort. Luminaire efficacy's measure up to 100 lm/w for 4000K (+/- 275K) CCT at 70 CRI (min), optional 3000K CCT at 80 CRI is also available.

### Electrical

LED driver(s) are directly mounted to upper housing thermal pad for optimal thermal performance.

Standard 0-10V dimming drivers and Cooper Lighting Solutions' proprietary surge protection module are designed to withstand 10kV of transient line surge. Drivers operate at 120-277V 50/60Hz with 347V/60Hz or 480V/60Hz operation optional. Suitable for ambient temperature applications as low as -40°C (40°F) to 40°C (104°F). Limited high ambient options allow for 50°C operation.

### Controls

The Arbor LED luminaire control options are designed to be simple and cost-effective ASHRAE and California Title 24 compliant solutions. The ANSI C136.41 compliant NEMA 7-PIN receptacle enables wireless dimming when used with compatible photocontrol. See control options page for more details.

### Mounting

Fitter assembly mounts over 2-3/8" O.D. tenon and is secured via six concealed stainless steel set screws. Design of fitter provides seamless transition to 3" O.D. round pole top. Additional mounting accessories include a single fixture arm mount, twin

fixture arm mount and wall mount arm. Additional pole mount accessories mount to a 3" x 4" long tenon for 4" - 5" O.D. poles tops. For existing 2-3/8" tenons an adapter is shipped standard.

### Finish

Cooper Lighting Solutions ("CLS") utilizes premium ultra-weatherable TGIC based polyester powder coatings that are specifically formulated to withstand extended outdoor exposure. The powders are formulated exclusively for CLS to serve functionally as well as decorative. Good film appearance combined with excellent mechanical an exterior exposure qualities display greater than twice as much gloss retention. RAL and custom color matches available. Finish is compliant with ASTM B117 3000hr salt spray standard. Options to meet Buy American Act requirements.

### Warranty

Five-year warranty.

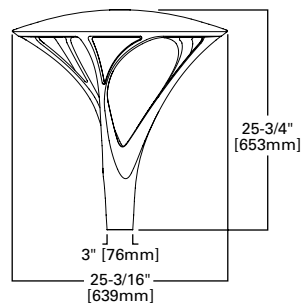


## ARB ARBOR POST TOP

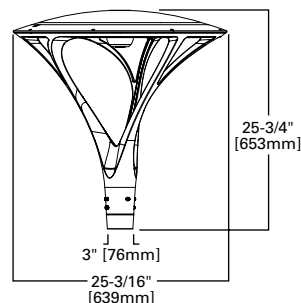
DECORATIVE LUMINAIRE

## DIMENSIONS

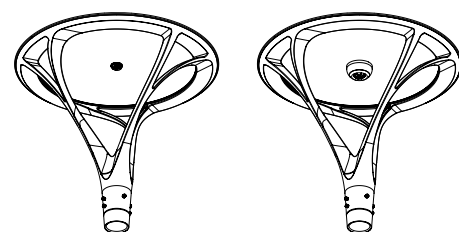
### Pole Mount



### Pole Mount with WaveLinx



### Pole Mount with WaveLinx



### CERTIFICATION DATA

UL/cUL Listed  
IEC 60529 IP66 Housing  
ASTM B117 SaH Spray Tested  
ASTM A3560 Low Cooper Alloy  
ISO 9001  
Dark Sky Approved (3000K CCT and warmer only)  
ANSI C136.31 3G Vibration Tested (Post Top)  
ANSI C136.31 1.5G Vibration Tested (Twin Mount / Accessory Arm Mount)

### ENERGY DATA

**Electronic LED Driver**  
>0.9 Power Factor  
<20% Total Harmonic Distortion  
120-277V 50/60Hz, 347V/60Hz,  
480V/60Hz  
40°C Ambient Temperature Rating  
As low as -40°C (-40°F) minimum temperature  
\*See MINIMUM TEMPERATURE table

### EPA

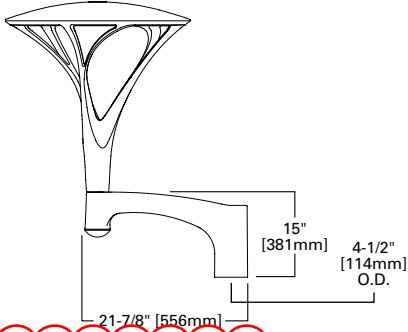
Effective Projected Area: (Sq. Ft.) 0.9

### Approximate Net Weight:

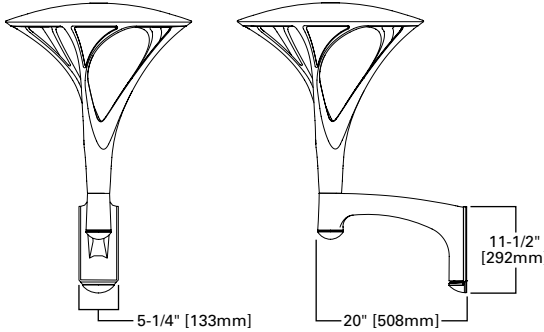
37 lbs. [16.8 kgs.]

**MOUNTING CONFIGURATIONS (WEIGHT AND EPAS INCLUDES FIXTURE)**

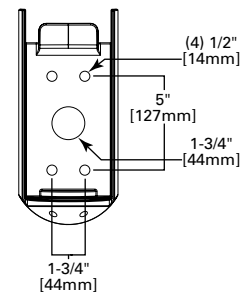
**Single Arm Mount (ARSA-XX)**  
**Weight:** 56 lbs. [25.45 kgs.]  
**EPA:** 1.7 Sq. Ft.



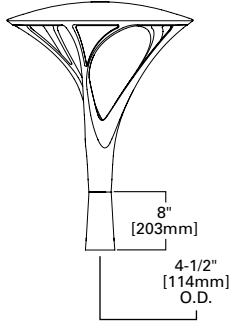
**Wall Mount Arm (ARWM-XX)**  
**Weight:** 57 lbs. [25.91 kgs.]  
**EPA:** 1.8 Sq. Ft.



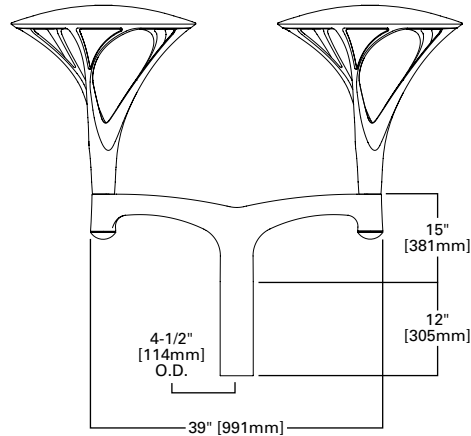
**Wall Mount Arm Drill Pattern**



**Post Top Adapter (ARPA4-XX)**  
**Weight:** 41 lbs. [18.63 kgs.]  
**EPA:** 1.2 Sq. Ft.



**Twin Arm Mount (ARTA15-XX)**  
**Weight:** 114 lbs. [51.81 kgs.]  
**EPA:** 3.45 Sq. Ft.



**MOUNTING REQUIREMENTS CHART**

Tenon O.D. (Inches)	2-3/8" Tenon		
Pole Top O.D. (Inches)	3"	4"	5"
Post Top	Standard	Spacer (Provided) & ARPA4-XX (Order Separately)	Spacer (Provided) & ARPA4-XX (Order Separately)
Single Arm Mount	Spacer (Provided)	Spacer (Provided)	Spacer (Provided)

Tenon O.D. (Inches)	3" Tenon		
Pole Top O.D. (Inches)		4"	5"
Post Top		ARPA4-XX (Order Separately)	ARPA4-XX (Order Separately)
Single Arm Mount		Standard	Standard
Twin Mount		Standard	Standard

**POLE CONFIGURATIONS (ARP DECORATIVE POLE SHOWN)**



**ORDERING INFORMATION**

Sample Number: ARB-B2-LED-D1-T2-GM

Product Family <sup>1,2</sup>	Lumens <sup>3</sup>	Lamp Type	Voltage	Distribution	Color <sup>7</sup>
ARB=Arbor Post Top BAA-ARB=Arbor Post Top Buy American Act Compliant <sup>25</sup>	B1=Nominal 2,300 Lumens B2=Nominal 4,500 Lumens B3=Nominal 8,500 Lumens B4=Nominal 9,500 Lumens <sup>4</sup>	LED=Solid State Light Emitting Diodes	D1=Dimming Driver (120-277V) 347=347V <sup>5</sup> 480=480V <sup>5,6</sup>	T2=Type II T3=Type III T4=Type IV T5=Type V	AP=Grey BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White
<b>Options (Add as Suffix)</b>			<b>Accessories (Order Separately) <sup>19,26</sup></b>		
<p>7030=70 CRI / 3000K CCT <sup>8</sup>                      7035=70 CRI / 3500K CCT <sup>8</sup>                      8030=80 CRI / 3000K CCT <sup>8</sup>                      8035=80 CRI / 3500K CCT <sup>8</sup>                      AMB=Amber 590nm <sup>11,27</sup>                      20MSP=20kV MOV Surge Protective Device                      20K=20kV UL 1449 Fused Surge Protective Device                      PC=Button Type Photocontrol                      PER=NEMA 3-PIN Twistlock Photocontrol Receptacle                      PER7=NEMA 7-PIN Twistlock Photocontrol Receptacle                      HA=50°C High Ambient Temperature <sup>9</sup>                      SPB1=Dimming Occupancy Sensor with Bluetooth Interface, &lt;8' Mounting <sup>23</sup>                      SPB2=Dimming Occupancy Sensor with Bluetooth Interface, 8'-20' Mounting <sup>23</sup>                      SPB4=Dimming Occupancy Sensor with Bluetooth Interface, 21'-40' Mounting <sup>23</sup>                      MS-L08=Motion Sensor for ON/OFF Operation, Maximum 8' Mounting Height <sup>10,11</sup>                      MS-L20=Motion Sensor for ON/OFF Operation, 9' - 20' Mounting Height <sup>10,11</sup>                      MS-L40W=Motion Sensor for ON/OFF Operation, 21' - 40' Mounting Height <sup>10,11</sup>                      MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height <sup>10,11</sup>                      MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height <sup>10,11</sup>                      MS/DIM-L40W=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height <sup>10,11</sup>                      ZW=WaveLinx-enabled 4-PIN Twistlock Receptacle <sup>10,12,13,29,30</sup>                      ZD=SR Driver-enabled 4-PIN Twistlock Receptacle <sup>10,12,13,29,30</sup>                      ZW-WOBWH=WaveLinx Lite, Dimming Motion and Daylight, Bluetooth Programmable, 7' - 15' Mounting                      ZW-WOFWH=WaveLinx Lite, Dimming Motion and Daylight, Bluetooth Programmable, 15' - 40' Mounting                      ZD-WOBWH=WaveLinx Lite, SR Driver, Dimming Motion and Daylight, Bluetooth Programmable, 7' - 15' Mounting                      ZD-WOFWH=WaveLinx Lite, SR Driver, Dimming Motion and Daylight, Bluetooth Programmable, 15' - 40' Mounting                      ZW-SWPD4WH=WaveLinx Pro, Dimming Motion and Daylight, WAC Programmable, 7' - 15' Mounting <sup>10,12,13,15,19,29,30</sup>                      ZW-SWPD5WH=WaveLinx Pro, Dimming Motion and Daylight, WAC Programmable, 15' - 40' Mounting <sup>10,12,13,15,19,29,30</sup>                      ZD-SWPD4WH=WaveLinx Pro, SR Driver, Dimming Motion and Daylight, WAC Programmable, 7' - 15' Mounting <sup>10,12,13,15,19,29,30</sup>                      ZD-SWPD5WH=WaveLinx Pro, SR Driver, Dimming Motion and Daylight, WAC Programmable, 15' - 40' Mounting <sup>10,12,13,15,19,29,30</sup>                      LWR-LW=Enlighted Wireless Sensor, Wide Lens for 8' - 16' Mounting Height <sup>10,16</sup>                      LWR-LN=Enlighted Wireless Sensor, Narrow Lens for 16' - 40' Mounting Height <sup>10,16</sup>                      5LTD=Fifth Light Dali Driver <sup>10,17</sup>                      DIM=0-10V External Dimming Leads <sup>10,18</sup>                      VS=Tempered Glass Vandal Shield                      CC=Coastal Construction <sup>24</sup>                      SPBL2=FDP-301-L2 (Wattstopper DALI sensor)                      SPBL4=FDP-301-L7 (Wattstopper DALI sensor)                      TH=Toolless hardware                      F=Single Fuse <sup>28</sup></p>			<p>ARSA-XX=Single Pole Mount Arm <sup>20</sup>                      ARWM-XX=Wall Mount Arm                      ARTA15-XX=Twin Mount Bracket <sup>21</sup>                      ARPA4-XX=Pole Adapter 4" O.D. Pole                      FSIR-100=Wireless Configuration Tool for Occupancy Sensor <sup>21</sup>                      WOLC-7P-10A=WaveLinx Outdoor Control Module (7-PIN) <sup>10,22</sup>                      WOB-WH= WaveLinx Lite Sensor, Dimming Motion and Daylight, Bluetooth Programmable, 7' - 15' Mounting                      WOF-WH= WaveLinx Lite Sensor, Dimming Motion and Daylight, Bluetooth Programmable, 15' - 40' Mounting                      SWPD4-WH= WaveLinx Sensor, Dimming Motion and Daylight, WAC Programmable, 7' - 15' Mounting <sup>13,15,19,29</sup>                      SWPD5-WH= WaveLinx Sensor, Dimming Motion and Daylight, WAC Programmable, 15' - 40' Mounting <sup>13,15,19,29</sup></p>		

- NOTES:**
- Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional information.
  - Fixture slipfits over standard 2-3/8" tenon. 3" O.D. tenon when used with a ARPA4-XX 4" O.D. pole adapter.
  - Standard 4000K CCT, nominal 70CRI.
  - B4 only available with Type V distribution.
  - Requires the use of a step down transformer.
  - Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
  - Custom and RAL color matching available upon request. Consult your lighting representative for more information.
  - Extended lead times apply. Use dedicated IES files when performing layouts.
  - Not available with B3 lumen package in Type II, III, or IV distributions.
  - Controls system is not available with photocontrol (PC), photocontrol receptacle (PER or PER7), or controls systems MS, LWR, DIM or SPBx.
  - Not available with HA option.
  - Sensor passive infrared (PIR) may be overly sensitive below -20°C (-4°F).
  - For device to be field-configurable, requires WAC Gateway components WAC-POE and WPOE-120 in appropriate quantities. Only compatible with WaveLinx system and software and requires system components to be installed for operation. See website for more WaveLinx application information.
  - Not available on B1 or B4 lumen packages.
  - Requires 4-PIN twistlock receptacle (ZD or ZW) option.
  - Enlighted wireless sensors are factory installed and require network components LWP-EM-1, LWP-GW-1, and LWP-PoE8 in appropriate quantities. See website for application information.
  - Not available in B4 lumen package.
  - Low voltage control leads brought 18" outside fixture.
  - Replace XX with paint color.
  - Fits on 3" O.D. x 4" long tenon for nominal 4-1/2" O.D. pole top.
  - This tool enables adjustment to Motion Sensor (MS) parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative for more information.
  - Requires 7-PIN NEMA twistlock photocontrol receptacle (PER7) option. The WOLC-7 cannot be used in conjunction with other controls systems (MS, ZW, ZD or LWR). Operates on 120-347V input voltages.
  - Smart device with mobile application required to change system defaults. See controls section for details.
  - Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654.
  - Only product configurations with this designated prefix are built to be compliant with the Buy American Act of 1933 (BAA). Please refer to [DOMESTIC PREFERENCES](#) website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
  - Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.
  - Narrow-band 590nm +/- 5nm for wildlife and observatory use. Choose Lumen Package B1. See IES files for photometric performance.
  - Must specify voltage (120V, 277V, or 347V) to fuse the single hot leg.
  - Not available with 5LTD option.
  - If ZD or ZW only, shorting cap will be installed on 4-pin receptacle.

**POWER AND LUMENS**

Lumen Package	B1	B2	B3	B4	
<b>Drive Current</b>					
Power Wattage (Watts)	24W	48W	96W	99W	
Input Current (mA) @ 120V	200	400	800	830	
Input Current (mA) @ 208V	120	240	470	480	
Input Current (mA) @ 240V	100	200	400	420	
Input Current (mA) @ 277V	90	180	350	360	
Power Wattage (Watts)	26W	53W	107W	108W	
Input Current (mA) @ 347V	79	161	325	328	
Input Current (mA) @ 480V	58	117	235	237	
<b>Optics</b>					
<b>Type II</b>	Lumens	2,045	3,994	7,362	--
	BUG Rating	B1-U0-G1	B1-U0-G2	B3-U0-G3	--
<b>Type III</b>	Lumens	2,324	4,534	8,451	--
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	--
<b>Type IV</b>	Lumens	2,408	4,691	8,740	--
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	--
<b>Type V</b>	Lumens	2,311	4,529	8,511	9,464
	BUG Rating	B2-U0-G1	B3-U0-G2	B3-U0-G3	B3-U0-G3

**LUMEN MULTIPLIER**

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

**LUMEN MAINTENANCE**

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Calculated L70 (Hours)
25°C	>91%	>230,000
40°C	>88%	>172,000
50°C	>86%	>142,000

NOTE: Maintenance data applies to the highest drive current and represents the worst case at the highest wattage.

**COLOR TEMPERATURE**

Color Temperature (CCT)	CRI (Nominal)	Multiplier
4000	70	1.00
3000	80	0.91

**MINIMUM AMBIENT TEMPERATURE**

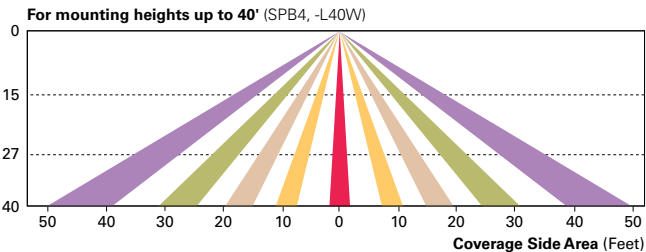
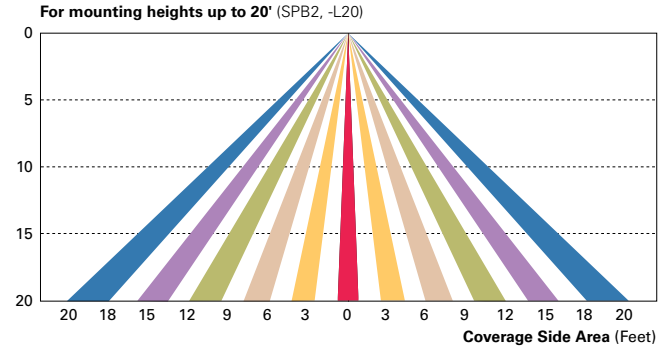
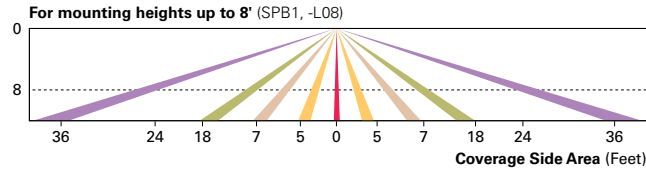
Lumen Package	Temperature
B1	-40°C
B2	-35°C
B3	-35°C
B4	-40°C
All DALI powered lumen packages	-20°C

CONTROL OPTIONS

0-10V (D) The dimming option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (PER and PER7) Photocontrol receptacles provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-pin standards can be utilized with the PER7 receptacle.

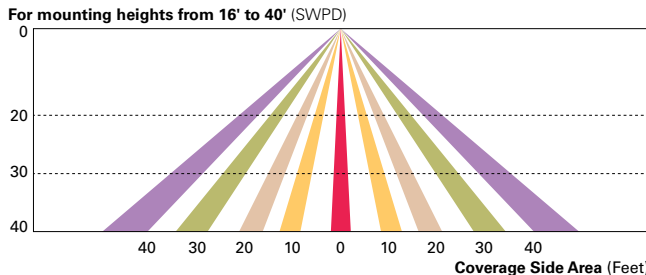
Dimming Occupancy Sensor (SPB, MS/DIM-LXX and MS-LXX) These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.



WaveLinx Wireless Control and Monitoring System Available in 7-PIN or 4-PIN configurations, the WaveLinx Outdoor control platform operates on a wireless mesh network based on IEEE 802.15.4 standards enabling wireless control of outdoor lighting. Use the WaveLinx Mobile application for set-up and configuration. At least one Wireless Area Controller (WAC) is required for full functionality and remote communication (including adjustment of any factory pre-sets).

WaveLinx Outdoor Control Module (WOLC-7P-10A) A photocontrol that enables astronomical or time-based schedules to provide ON, OFF and dimming control of fixtures utilizing a 7-PIN receptacle. The out-of-box functionality is ON at dusk and OFF at dawn.

WaveLinx Wireless Sensor (SWPD4 and SWPD5) These outdoor sensors offer passive infrared (PIR) occupancy and a photocell for closed loop daylight sensing. These sensors can be factory installed or field-installed via simple, tool-less integration into luminaires equipped with the Zhaga Book 18 compliant 4-PIN receptacle (ZD or ZW). These sensors are factory preset to dim down to approximately 50 percent power after 15 minutes of no activity detected. These occupancy sensors include an integral photocell for "dusk-to-dawn" control or daylight harvesting that is factory-enabled. A variety of sensor lenses are available to optimize the coverage pattern for mounting heights from 7'-40'.



Enlighted Wireless Control and Monitoring System (LWR-LW and LWR-LN) The Enlighted System is a connected lighting solution that combines LED luminaires with an integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of other resources beyond lighting.

