

EXTERIOR LIGHT FIXTURE TYPE EP3



Dark Sky External Halyard Beacon



Details

NOTE: WILL UPDATE AS YOU SELECT OPTIONS.

Item Number	ORN-750032D
US Patent	7,275,495
Material	Aluminum
Finish	Gold
Fits	Up to 3 1/2" Top Diameter Flagpole
Size	8" Diameter Beacon
Voltage	12V
Made In	USA

LIGHT FIXTURE TYPE R

Portfolio

DESCRIPTION

4 inch LED square recessed downlight designed for glare free, even illumination. Featuring a two-stage diffused reflector system producing smooth distribution with excellent light control and low aperture brightness. Lumen packages range from 1000 to 6000 with color temperatures of 2400K, 2700K, 3000K, 3500K, 4000K, and 5000K. VividTune: Dim-to-warm technology – similar to halogen at full power, the 3000K LED warms smoothly as dimmed to 1850K creating a rich warm glow within the space. Tunable white technology - adjust the color temperature from warm white to cool white while independently controlling intensity.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

Lower Shielding Reflector

Painted die cast aluminum or anodized aluminum lower reflector with a lensed upper optical chamber providing superior lumen output with minimal source brightness. Anodized reflectors are offered in all Portfolio Alzak® finishes. Available with non-conductive polymer trim. Reflector is retained with two torsion springs holding the flange tight to the finished ceiling surface. Plaster lathing ring accessory offered for flush reflector transition.

Plaster Frame / Collar

Galvanized steel plaster frame with adjustable collar adjusts for up to 2" thick ceilings and rotates +/- 7.5°.

Universal Mounting Bracket

Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

Junction Box

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring and push in lever connectors.

Thermal

Aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

LED

Chip on board with a multitude of highly efficient white LED's, combined with a high reflectance upper reflector and convex transitional lens produce even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses. Quick disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80, 90 or 97 CRI.

D2W™ – dim-to-warm shifts CCT from 3000K to 1850K as fixture dims mimicking halogen sources.

W2N - Tunable white CCT range 2700K to 6500K or 2000K to 5000K, 90 CRI.

Driver

Standard 120-277V 0-10V dimming driver provides flicker free dimming from 100% to 1%. Optional 120-277V phase dimming, <1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

LumaWatt Pro (powered by Enlighted) wireless tile mount sensor and relay accessory enables wireless control using a tile mount sensor accessory. Distributed low voltage power system combines power, lighting, and controls with ease of installation.

Code Compliance

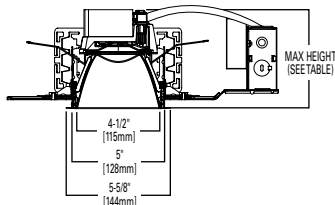
Thermally protected and cULus listed for wet locations with covered ceiling. Optional City of Chicago environmental air (CCEA) marking for plenum applications. EMI/RFI emissions per FCC 47CFR Part 18 Class B consumer limits. 2000 lumen and above are non-IC rated - insulation must be kept 3" from top and sides of housing. IC rated up to 1500 lumens. 5000 lumen and above are marked spacing and must follow spacing requirements. RoHS Compliant. Photometric testing completed in accordance with IES LM 79 and TM-30 standards. LED life testing completed in accordance with LM 80 standards.

Warranty

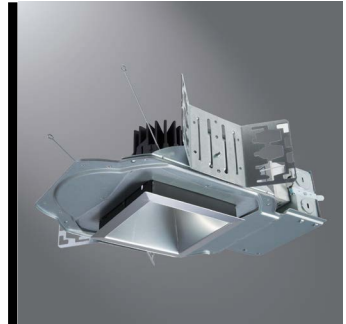
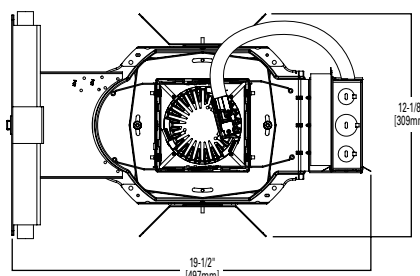
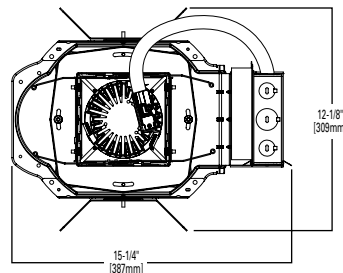
5-year warranty

Connected Lighting Systems

WaveLinX tilemount daylight sensor includes control module, sensor and cable allowing use with the comprehensive lighting system.



	1000-2000 LUMENS	3000-5000 LUMENS	6000 LUMENS
STANDARD	5-3/8" [137mm]	5-3/8" [137mm]	7-1/8" [181mm]
SHALLOW	4-7/16" [113mm]	4-7/16" [113mm]	NA



LDSQ4B EU4B 4LBSQ

1000-6000 Lumen LED

Die cast or Anodized Aluminum
Square Downlight
New Construction

VividTune
color tuning solutions

D2W™



Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Title 20 Appliance Efficiency Database.

ORDERING INFORMATION

SAMPLE NUMBER: LDSQ4B15D010EMBOD

Housing	Lumens ¹	Voltage	Driver	Options ⁵
LDSQ4B =LED Square Downlight 4" Nominal Aperture LDSQ4BCP =LED Square Downlight 4" Nominal Aperture, Chicago Plenum	10 =1000 lumens 15 =1500 lumens 20 =2000 lumens 30 =3000 lumens 40 =4000 lumens 50 =5000 lumens ¹² 60 =6000 lumens ¹²	Blank =120-277V/ 3 =347V (step down transformer)	1000-4000 D010 =0-10V Dimming, 1% to 100%, 120V-277V D010TR =0-10V or Line Voltage Dimming, 5% to 100%, 120V-277V DE010 =0-10V Linear Dimming, 0% to 100%, 120V-277V D5LT =Fifth Light® (DALI) Logarithmic Dimming, 0% to 100%, 120V-277V DMX =DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V ⁹ DL2 =Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 120V Only DLV =Low voltage dimming driver (1-100%) for use with DLVP system (3000 lumen and below) ^{6,10} 5000-6000 D010TE =0-10V 1% or trailing edge 10%, 120-277V (120V only with trailing edge dimming) Tunable white 1000-2000 Lumens ¹³ 1DE010W2N2050 =0-10V dimming, 0% to 100%, 120V, 2000K - 5000K 1DE010W2N2765 =0-10V dimming, 0% to 100%, 120V, 2700K - 6500K 1D5LTW2N2050 =Fifth Light (DALI), 0% to 100%, 120, 2000K - 5000K 1D5LTW2N2765 =Fifth Light (DALI), 0% to 100%, 120V, 2700K - 6500K 2DE010W2N2050 =0-10V dimming, 0% to 100%, 277V, 2000K - 5000K 2DE010W2N2765 =0-10V dimming, 0% to 100%, 277V, 2700K - 6500K 2D5LTW2N2050 =Fifth Light (DALI), 0% to 100%, 277V, 2000K - 5000K 2D5LTW2N2765 =Fifth Light (DALI), 0% to 100%, 277V, 2700K - 6500K	EMBOD =Bodine® Emergency Module with Remote Test Switch EM7 =7W Emergency Module with Remote Test Switch EM14 =14W Emergency Module with Remote Test Switch EMV7 =7W Low Voltage Emergency Module with Remote Test Switch ² EMV14 =14W Low Voltage Emergency Module with Remote Test Switch ² SWPD1 =Factory installed WaveLinX tilemount daylight sensor (includes control module, sensor, cable, and tile mount) LWTPD1 =Factory installed LumaWatt Pro wireless sensor kit

SAMPLE NUMBER: EU4B10208035

Power Module	Lumen Levels ¹	CRI	Color
EU4B =4" Universal LED Module	1020 =1000, 1500, 2000 lumens 3040 =3000-4000 lumens 5000 =5000 lumens ¹² 6000 =6000 lumens ¹² 1015IC =1000, 1500 lumen IC rated	80 =80 CRI Minimum 90 =90 CRI Minimum 97 =97 CRI Minimum	80 CRI 27 =2700K 30 =3000K 35 =3500K 40 =4000K 50 =5000K Tunable white ¹³ 1020W2N902050 =1000, 1500, 2000 lumens, 90 CRI, tunable white 2000K-5000K 1020W2N902765 =1000, 1500, 2000 lumens, 90 CRI, tunable white 2700K-6500K
	Dim 2 Warm 109030D2W =1000 lumen, 90 CRI, Dim 2 Warm, IC rated 159030D2W =1500 lumen, 90 CRI, Dim 2 Warm, IC rated 209030D2W =2000 lumen, 90 CRI, Dim 2 Warm 309030D2W =3000 lumen, 90 CRI, Dim 2 Warm		

SAMPLE NUMBER: 4LBSQ1LI

Trim	Distribution	Flange	Finish
4LB =4" LED	SQ =Square Anodized Aluminum CSSQ =Cast Shallow Square, Die Cast Aluminum ⁷ PSSQ =Plastic Shallow Non-Conductive ^{5,7}	0 =White Polymer Trim Ring ¹¹ 1 =Self-flanged ⁸ 2 =White Painted Self-flanged	LI =Specular Clear ³ H =Semi-Specular Clear ³ WMH =Warm Haze ³ WH =Wheat ³ GPH =Graphite Haze ³ B =Specular Black ³ MW =Matte White MB =Matte Black ⁴ MMS =Matte Metallic Silver ⁴

Accessories

PRSQ4=Plaster Lathing Ring for use with Rimless Flange (order with polymer trim ring flange option)

Bar Hangers

HB26=C-channel Bar Hanger, 26" Long, Pair

HB50=C-channel Bar Hanger, 50" Long, Pair

RMB22=Wood Joist Bar Hanger, 22" Long, Pair

Transformers

H347=347 to 120V Step Down Transformer, 75VA

H347200=347 to 120V Step Down Transformer, 200VA

Connected Lighting Systems

PORLWTPD1=LumaWatt Pro wireless sensor kit (0-10V only) field installed¹⁰

TMSWPD1=WaveLinX tilemount daylight sensor (includes control module, sensor, cable and tile mount) field installed¹⁰

Notes:

- Nominal Lumens will vary depending on selected color, driver and reflector finish.
- UL/US approved only.
- Available on anodized aluminum
- Available on cast aluminum only
- Matte white finish and self flange
- Not available with Chicago Plenum.
- Offered up to 4000 lumens
- Flange is the same finish as the reflector
- DMX fixtures default to full on upon loss of DMX signal.
- Refer to system specifications for additional information, features, and benefits.
Order either factory installed option or accessory. Use with 0-10V driver.
- Not available with cast shallow
- Product is marked spacing and must be installed with the following minimum spacing
- Center to center of adjacent luminaire: 36"
- Center of luminaire to side of building member: 18"
- Minimum overhead: 1/2"
- Non-IC

ENERGY

ENERGY DATA
Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -30°C (-22°F)
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)
Input Voltage: UNV (120V - 277V)
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)
Input Frequency: 50/60Hz

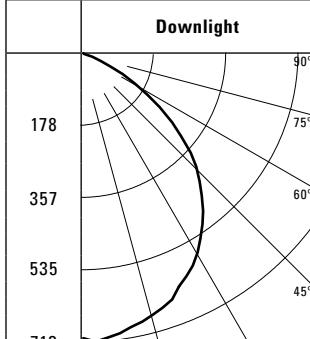
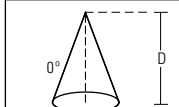
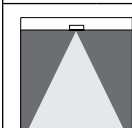
1000 Lumen D010		1500 Lumen D010	
Input Power: 11W	THD: <14%	Input Power: 15.5W	THD: <13%
120V Input Current: 0.09A	277V Input Current: 0.04A	120V Input Current: 0.13A	277V Input Current: 0.06A

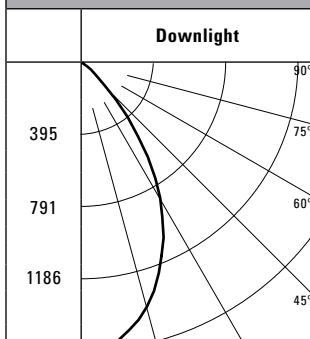
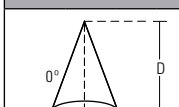
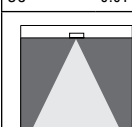
2000 Lumen D010		3000 Lumen D010	
Input Power: 21.2W	THD: <9%	Input Power: 27.6W	THD: <10%
120V Input Current: 0.18A	277V Input Current: 0.08A	120V Input Current: 0.23A	277V Input Current: 0.10A

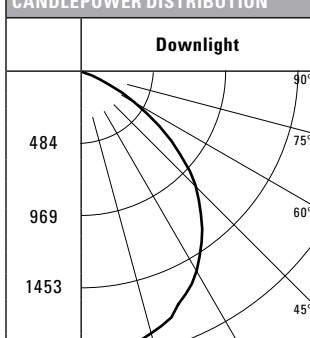
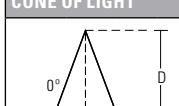
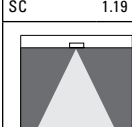
4000 Lumen D010	
Input Power: 41.8W	THD: <13%
120V Input Current: 0.35A	277V Input Current: 0.15A

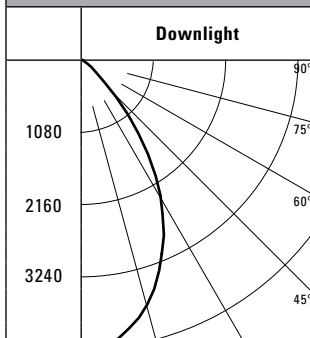
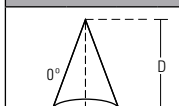
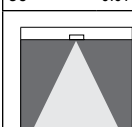
Lumens	120V		277V	
	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
1000 Lumen D010	1.02	0.041	2.18	0.021
1500 Lumen D010	1.02	0.042	2.24	0.064
2000 Lumen D010	1.02	0.077	2.43	0.027
3000 Lumen D010	1.15	0.067	3.26	0.027
4000 Lumen D010	1.2	0.088	3.9	0.03

PHOTOMETRY

		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P35089					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LDSQ4B15D010					0	704	0-30	534	35.5	45	43408
Module	EU4B10208035					5	690	0-40	857	57		
Trim	4LBCSSQ1MMS					15	663				0-60	1395
Lumens	1504					25	605	0-90	1504	100		
Efficacy	107.4 Lm/W	35	515	90-180	0	0	75				591	
SC	1.19	45	401					0-180	1504	100		85
		55	232									
		65	76									
		75	2									
		85	0									
		90	0									

		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE																																																										
Test Number	P35088					<table><tr><th>Degrees Vertical</th><th>Candela</th></tr><tr><td>0</td><td>1574</td></tr><tr><td>5</td><td>1550</td></tr><tr><td>15</td><td>1364</td></tr><tr><td>25</td><td>1017</td></tr><tr><td>35</td><td>440</td></tr><tr><td>45</td><td>97</td></tr><tr><td>55</td><td>14</td></tr><tr><td>65</td><td>4</td></tr><tr><td>75</td><td>1</td></tr><tr><td>85</td><td>0</td></tr><tr><td>90</td><td>0</td></tr></table>		Degrees Vertical	Candela	0	1574	5	1550	15	1364	25	1017	35	440	45	97	55	14	65	4	75	1	85	0	90	0	<table><tr><th>Zone</th><th>Lumens</th><th>% Fixture</th></tr><tr><td>0-30</td><td>996</td><td>68.5</td></tr><tr><td>0-40</td><td>1322</td><td>91</td></tr><tr><td>0-60</td><td>1447</td><td>99.5</td></tr><tr><td>0-90</td><td>1453</td><td>100</td></tr><tr><td>90-180</td><td>0</td><td>0</td></tr><tr><td>0-180</td><td>1453</td><td>100</td></tr></table>			Zone	Lumens	% Fixture	0-30	996	68.5	0-40	1322	91	0-60	1447	99.5	0-90	1453	100	90-180	0	0	0-180	1453	100	<table><tr><th>Average Candela Degrees</th><th>Average 0° Luminance</th></tr><tr><td>45</td><td>10500</td></tr><tr><td>55</td><td>1868</td></tr><tr><td>65</td><td>724</td></tr><tr><td>75</td><td>296</td></tr><tr><td>85</td><td>0</td></tr></table>		Average Candela Degrees	Average 0° Luminance	45	10500	55	1868	65	724	75	296	85	0
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Test Number	P202480					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LDSQ4B40D010					0	4301	0-30	2720	68.5	45	4058
Module	EU4B30508035					5	4235	0-40	3613	91		
Trim	4LBSQ1LI					15	3727				0-60	3952
Lumens	3970					25	2779	0-90	3970	100		
Efficacy	92.3 Lm/W	35	1202	90-180	0	0	75				113	
SC	0.91	45	265					0-180	3970	100		85
		55	38									
		65	11									
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LIGHT FIXTURE TYPE R1

Portfolio

DESCRIPTION

4 inch LED square recessed downlight designed for glare free, even illumination. Featuring a two-stage diffused reflector system producing smooth distribution with excellent light control and low aperture brightness. Lumen packages range from 1000 to 6000 with color temperatures of 2400K, 2700K, 3000K, 3500K, 4000K, and 5000K. VividTune: Dim-to-warm technology – similar to halogen at full power, the 3000K LED warms smoothly as dimmed to 1850K creating a rich warm glow within the space. Tunable white technology - adjust the color temperature from warm white to cool white while independently controlling intensity.

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Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

Junction Box

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring and push in lever connectors.

Thermal

Aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

LED

Chip on board with a multitude of highly efficient white LED's, combined with a high reflectance upper reflector and convex transitional lens produce even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses. Quick disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80, 90 or 97 CRI.

D2W™ – dim-to-warm shifts CCT from 3000K to 1850K as fixture dims mimicking halogen sources.

W2N - Tunable white CCT range 2700K to 6500K or 2000K to 5000K, 90 CRI.

Driver

Standard 120-277V 0-10V dimming driver provides flicker free dimming from 100% to 1%. Optional 120-277V phase dimming, <1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

LumaWatt Pro (powered by Enlighted) wireless tile mount sensor and relay accessory enables wireless control using a tile mount sensor accessory. Distributed low voltage power system combines power, lighting, and controls with ease of installation.

Code Compliance

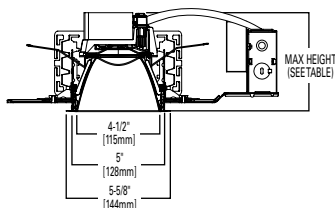
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Warranty

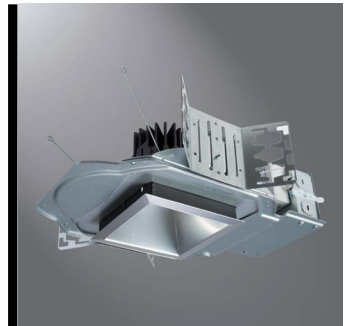
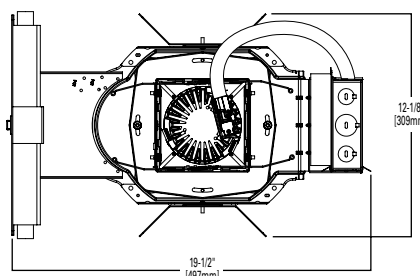
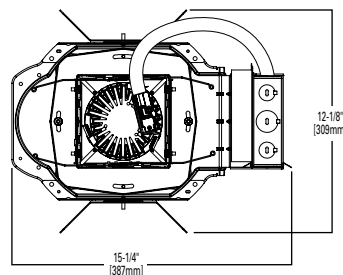
5-year warranty

Connected Lighting Systems

WaveLinX tilemount daylight sensor includes control module, sensor and cable allowing use with the comprehensive lighting system.



	1000-2000 LUMENS	3000-5000 LUMENS	6000 LUMENS
STANDARD	5-3/8" [137mm]	5-3/8" [137mm]	7-1/8" [181mm]
SHALLOW	4-7/16" [113mm]	4-7/16" [113mm]	NA



LDSQ4B EU4B 4LBSQ

1000-6000 Lumen LED

Die cast or Anodized Aluminum
Square Downlight
New Construction

VividTune
color tuning solutions

D2W™



Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Title 20 Appliance Efficiency Database.

ORDERING INFORMATION

SAMPLE NUMBER: LDSQ4B15D010EMBOD

Housing	Lumens ¹	Voltage	Driver	Options ⁵
LDSQ4B =LED Square Downlight 4" Nominal Aperture LDSQ4BCP =LED Square Downlight 4" Nominal Aperture, Chicago Plenum	10 =1000 lumens 15 =1500 lumens 20 =2000 lumens 30 =3000 lumens 40 =4000 lumens 50 =5000 lumens ¹² 60 =6000 lumens ¹²	Blank =120-277V/ 3 =347V (step down transformer)	1000-4000 D010 =0-10V Dimming, 1% to 100%, 120V-277V D010TR =0-10V or Line Voltage Dimming, 5% to 100%, 120V-277V DE010 =0-10V Linear Dimming, 0% to 100%, 120V-277V D5LT =Fifth Light® (DALI) Logarithmic Dimming, 0% to 100%, 120V-277V DMX =DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V ⁹ DL2 =Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 120V Only DLV =Low voltage dimming driver (1-100%) for use with DLVP system (3000 lumen and below) ^{6,10} 5000-6000 D010TE =0-10V 1% or trailing edge 10%, 120-277V (120V only with trailing edge dimming) Tunable white 1000-2000 Lumens¹³ 1DE010W2N2050 =0-10V dimming, 0% to 100%, 120V, 2000K - 5000K 1DE010W2N2765 =0-10V dimming, 0% to 100%, 120V, 2700K - 6500K 1D5LTW2N2050 =Fifth Light (DALI), 0% to 100%, 120, 2000K - 5000K 1D5LTW2N2765 =Fifth Light (DALI), 0% to 100%, 120V, 2700K - 6500K 2DE010W2N2050 =0-10V dimming, 0% to 100%, 277V, 2000K - 5000K 2DE010W2N2765 =0-10V dimming, 0% to 100%, 277V, 2700K - 6500K 2D5LTW2N2050 =Fifth Light (DALI), 0% to 100%, 277V, 2000K - 5000K 2D5LTW2N2765 =Fifth Light (DALI), 0% to 100%, 277V, 2700K - 6500K	EMBOD =Bodine® Emergency Module with Remote Test Switch EM7 =7W Emergency Module with Remote Test Switch EM14 =14W Emergency Module with Remote Test Switch EMV7 =7W Low Voltage Emergency Module with Remote Test Switch ² EMV14 =14W Low Voltage Emergency Module with Remote Test Switch ² SWPD1 =Factory installed WaveLinX tilemount daylight sensor (includes control module, sensor, cable, and tile mount) LWTPD1 =Factory installed LumaWatt Pro wireless sensor kit

SAMPLE NUMBER: EU4B10208035

Power Module	Lumen Levels ¹	CRI	Color
EU4B =4" Universal LED Module	1020 =1000, 1500, 2000 lumens 3040 =3000-4000 lumens 5000 =5000 lumens ¹² 6000 =6000 lumens ¹² 1015IC =1000, 1500 lumen IC rated	80 =80 CRI Minimum 90 =90 CRI Minimum 97 =97 CRI Minimum	80 CRI 27 =2700K 30 =3000K 35 =3500K 40 =4000K 50 =5000K Tunable white¹³ 1020W2N902050 =1000, 1500, 2000 lumens, 90 CRI, tunable white 2000K-5000K 1020W2N902765 =1000, 1500, 2000 lumens, 90 CRI, tunable white 2700K-6500K
	Dim 2 Warm 109030D2W =1000 lumen, 90 CRI, Dim 2 Warm, IC rated 159030D2W =1500 lumen, 90 CRI, Dim 2 Warm, IC rated 209030D2W =2000 lumen, 90 CRI, Dim 2 Warm 309030D2W =3000 lumen, 90 CRI, Dim 2 Warm		

SAMPLE NUMBER: 4LBSQ1LI

Trim	Distribution	Flange	Finish
4LB =4" LED	SQ =Square Anodized Aluminum CSSQ =Cast Shallow Square, Die Cast Aluminum ⁷ PSSQ =Plastic Shallow Non-Conductive ^{5,7}	0 =White Polymer Trim Ring ¹¹ 1 =Self-flanged ⁸ 2 =White Painted Self-flanged	LI =Specular Clear ³ H =Semi-Specular Clear ³ WMH =Warm Haze ³ WH =Wheat ³ GPH =Graphite Haze ³ B =Specular Black ³ MW =Matte White MB =Matte Black ⁴ MMS =Matte Metallic Silver ⁴

Accessories

PRSQ4=Plaster Lathing Ring for use with Rimless Flange (order with polymer trim ring flange option)

Bar Hangers

HB26=C-channel Bar Hanger, 26" Long, Pair

HB50=C-channel Bar Hanger, 50" Long, Pair

RMB22=Wood Joist Bar Hanger, 22" Long, Pair

Transformers

H347=347 to 120V Step Down Transformer, 75VA

H347200=347 to 120V Step Down Transformer, 200VA

Connected Lighting Systems

PORLWTPD1=LumaWatt Pro wireless sensor kit (0-10V only) field installed¹⁰

TMSWPD1=WaveLinX tilemount daylight sensor (includes control module, sensor, cable and tile mount) field installed¹⁰

Notes:

- Nominal Lumens will vary depending on selected color, driver and reflector finish.
- UL/US approved only.
- Available on anodized aluminum
- Available on cast aluminum only
- Matte white finish and self flange
- Not available with Chicago Plenum.
- Offered up to 4000 lumens
- Flange is the same finish as the reflector
- DMX fixtures default to full on upon loss of DMX signal.
- Refer to system specifications for additional information, features, and benefits.
Order either factory installed option or accessory. Use with 0-10V driver.
- Not available with cast shallow
- Product is marked spacing and must be installed with the following minimum spacing
- Center to center of adjacent luminaire: 36"
- Center of luminaire to side of building member: 18"
- Minimum overhead: 1/2"
- Non-IC

ENERGY

ENERGY DATA
Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -30°C (-22°F)
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)
Input Voltage: UNV (120V - 277V)
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)
Input Frequency: 50/60Hz

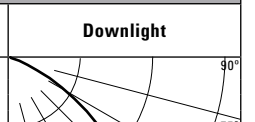
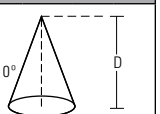
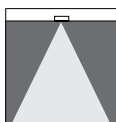
1000 Lumen D010		1500 Lumen D010	
Input Power: 11W	THD: <14%	Input Power: 15.5W	THD: <13%
120V Input Current: 0.09A	277V Input Current: 0.04A	120V Input Current: 0.13A	277V Input Current: 0.06A

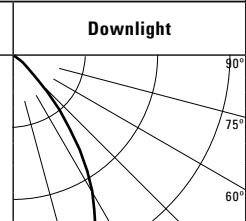
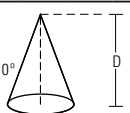
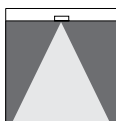
2000 Lumen D010		3000 Lumen D010	
Input Power: 21.2W	THD: <9%	Input Power: 27.6W	THD: <10%
120V Input Current: 0.18A	277V Input Current: 0.08A	120V Input Current: 0.23A	277V Input Current: 0.10A

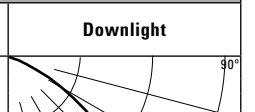
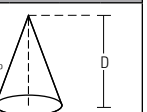

4000 Lumen D010	
Input Power: 41.8W	THD: <13%
120V Input Current: 0.35A	277V Input Current: 0.15A


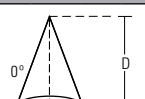

Lumens	120V		277V	
	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
1000 Lumen D010	1.02	0.041	2.18	0.021
1500 Lumen D010	1.02	0.042	2.24	0.064
2000 Lumen D010	1.02	0.077	2.43	0.027
3000 Lumen D010	1.15	0.067	3.26	0.027
4000 Lumen D010	1.2	0.088	3.9	0.03

PHOTOMETRY

		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE		
Test Number	P35089					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance	
Housing	LDSQ4B15D010					0	704	0-30	534	35.5	45	43408	
Module	EU4B10208035					5	690	0-40	857	57			
Trim	4LBCSSQ1MMS					15	663						
Lumens	1504					25	605	0-60	1395	92.7			
Efficacy	107.4 Lm/W	35	515	0-90	1504	100							
SC	1.19	45	401				90-180	0	0	75	591		
		55	232	0-180	1504	100						85	0
		65	76										
		75	2										
		85	0										
				90	0								
				D	FC	L	W						
				5.5'	24	6.4	6.4						
				7'	15	8.2	8.2						
				8'	11	9.4	9.4						
				9'	9	10.6	10.6						
				10'	7	11.8	11.8						
				12'	5	14.2	14.2						

		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE																																																										
Test Number	P35088					<table><tr><th>Degrees Vertical</th><th>Candela</th></tr><tr><td>0</td><td>1574</td></tr><tr><td>5</td><td>1550</td></tr><tr><td>15</td><td>1364</td></tr><tr><td>25</td><td>1017</td></tr><tr><td>35</td><td>440</td></tr><tr><td>45</td><td>97</td></tr><tr><td>55</td><td>14</td></tr><tr><td>65</td><td>4</td></tr><tr><td>75</td><td>1</td></tr><tr><td>85</td><td>0</td></tr><tr><td>90</td><td>0</td></tr></table>		Degrees Vertical	Candela	0	1574	5	1550	15	1364	25	1017	35	440	45	97	55	14	65	4	75	1	85	0	90	0	<table><tr><th>Zone</th><th>Lumens</th><th>% Fixture</th></tr><tr><td>0-30</td><td>996</td><td>68.5</td></tr><tr><td>0-40</td><td>1322</td><td>91</td></tr><tr><td>0-60</td><td>1447</td><td>99.5</td></tr><tr><td>0-90</td><td>1453</td><td>100</td></tr><tr><td>90-180</td><td>0</td><td>0</td></tr><tr><td>0-180</td><td>1453</td><td>100</td></tr></table>			Zone	Lumens	% Fixture	0-30	996	68.5	0-40	1322	91	0-60	1447	99.5	0-90	1453	100	90-180	0	0	0-180	1453	100	<table><tr><th>Average Candela Degrees</th><th>Average 0° Luminance</th></tr><tr><td>45</td><td>10500</td></tr><tr><td>55</td><td>1868</td></tr><tr><td>65</td><td>724</td></tr><tr><td>75</td><td>296</td></tr><tr><td>85</td><td>0</td></tr></table>		Average Candela Degrees	Average 0° Luminance	45	10500	55	1868	65	724	75	296	85	0
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		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P202481					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LDSQ4B40D010					0	1924	0-30	1458	35.5	45	18216
Module	EU4B30508035					5	1886	0-40	2342	57		
Trim	4LBCSSQ1MMS					15	1812					
Lumens	4110					25	1653					
Efficacy	95.5 Lm/W					35	1408	0-60	3812	92.7	55	15774
SC	1.19					45	1096	0-90	4110	100		
						55	634				90-180	0
						65	208					
						75	6					
						85	0	0-180	4110	100		
											90	0

		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P202480					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LDSQ4B40D010					0	4301	0-30	2720	68.5	45	4058
Module	EU4B30508035					5	4235	0-40	3613	91		
Trim	4LBSQ1LI					15	3727				0-60	3952
Lumens	3970					25	2779	0-90	3970	100		
Efficacy	92.3 Lm/W	35	1202	90-180	0	0						
SC	0.91	45	265				0-180	3970	100			
		65	38	75	3	0						
		75	11				85	0				
		85	0	90	0							
		90	0									

LIGHT FIXTURE TYPE R2

Portfolio

DESCRIPTION

4 inch LED square recessed downlight designed for glare free, even illumination. Featuring a two-stage diffused reflector system producing smooth distribution with excellent light control and low aperture brightness. Lumen packages range from 1000 to 6000 with color temperatures of 2400K, 2700K, 3000K, 3500K, 4000K, and 5000K. VividTune: Dim-to-warm technology – similar to halogen at full power, the 3000K LED warms smoothly as dimmed to 1850K creating a rich warm glow within the space. Tunable white technology - adjust the color temperature from warm white to cool white while independently controlling intensity.

Catalog #	Type
Project	
Comments	Date
Prepared by	

SPECIFICATION FEATURES

Lower Shielding Reflector

Painted die cast aluminum or anodized aluminum lower reflector with a lensed upper optical chamber providing superior lumen output with minimal source brightness. Anodized reflectors are offered in all Portfolio Alzak® finishes. Available with non-conductive polymer trim. Reflector is retained with two torsion springs holding the flange tight to the finished ceiling surface. Plaster lathing ring accessory offered for flush reflector transition.

Plaster Frame / Collar

Galvanized steel plaster frame with adjustable collar adjusts for up to 2" thick ceilings and rotates +/- 7.5°.

Universal Mounting Bracket

Accepts 1/2" EMT, C channel and bar hangers and adjusts 5" vertically from above and below the ceiling.

Junction Box

(4) 1/2" and (2) 3/4" trade size pry outs positioned to allow straight conduit runs. Listed for (8) #12 AWG (four in, four out) 90°C conductors and feed thru branch wiring and push in lever connectors.

Thermal

Aluminum heat sink conducts heat away from the LED module for optimal performance and long life.

LED

Chip on board with a multitude of highly efficient white LED's, combined with a high reflectance upper reflector and convex transitional lens produce even distribution with no pixilation. Rated for 50,000 hours at 70% lumen maintenance. Auto resetting, thermally protected, LED's are turned off when safe operating temperatures are exceeded. Color variation within 3-step MacAdam ellipses. Quick disconnect allows for tool-less replacement of LED engine from below ceiling. Available in 80, 90 or 97 CRI.

D2W™ – dim-to-warm shifts CCT from 3000K to 1850K as fixture dims mimicking halogen sources.

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Standard 120-277V 0-10V dimming driver provides flicker free dimming from 100% to 1%. Optional 120-277V phase dimming, <1% 0-10V, Fifth Light, DMX or Lutron® Ecosystem. Driver can be serviced from above or through the aperture.

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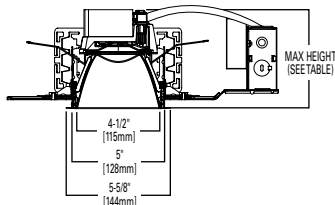
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Warranty

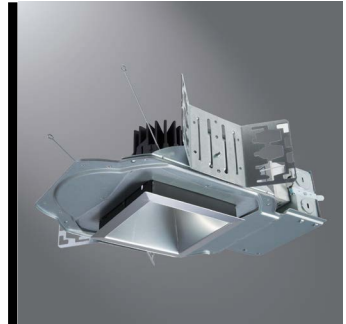
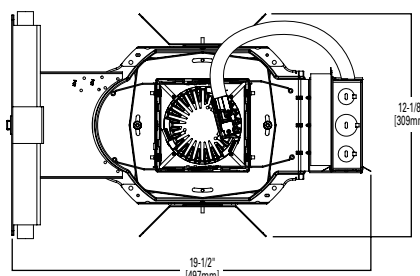
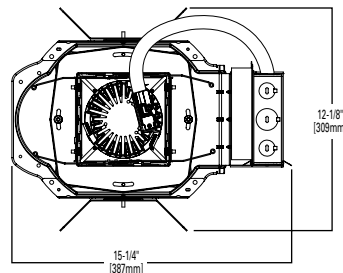
5-year warranty

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SHALLOW	4-7/16" [113mm]	4-7/16" [113mm]	NA



LDSQ4B EU4B 4LBSQ

1000-6000 Lumen LED

Die cast or Anodized Aluminum
Square Downlight
New Construction

VividTune
color tuning solutions

D2W™



Refer to ENERGY STAR® Qualified Products List. Can be used to comply with California Title 24 High Efficacy requirements. Certified to California Title 20 Appliance Efficiency Database.

ORDERING INFORMATION

SAMPLE NUMBER: LDSQ4B15D010EMBOD

Housing	Lumens ¹	Voltage	Driver	Options ⁵
LDSQ4B =LED Square Downlight 4" Nominal Aperture LDSQ4BCP =LED Square Downlight 4" Nominal Aperture, Chicago Plenum	10 =1000 lumens 15 =1500 lumens 20 =2000 lumens 30 =3000 lumens 40 =4000 lumens 50 =5000 lumens ¹² 60 =6000 lumens ¹²	Blank =120-277V/ 3 =347V (step down transformer)	1000-4000 D010 =0-10V Dimming, 1% to 100%, 120V-277V D010TR =0-10V or Line Voltage Dimming, 5% to 100%, 120V-277V DE010 =0-10V Linear Dimming, 0% to 100%, 120V-277V D5LT =Fifth Light® (DALI) Logarithmic Dimming, 0% to 100%, 120V-277V DMX =DMX/RDM Logarithmic Dimming, 0% to 100%, 120V-277V ⁹ DL2 =Lutron® Hi-Lume Forward Phase Dimming, 1% to 100%, 120V Only DLV =Low voltage dimming driver (1-100%) for use with DLVP system (3000 lumen and below) ^{6,10} 5000-6000 D010TE =0-10V 1% or trailing edge 10%, 120-277V (120V only with trailing edge dimming) Tunable white 1000-2000 Lumens ¹³ 1DE010W2N2050 =0-10V dimming, 0% to 100%, 120V, 2000K - 5000K 1DE010W2N2765 =0-10V dimming, 0% to 100%, 120V, 2700K - 6500K 1D5LTW2N2050 =Fifth Light (DALI), 0% to 100%, 120, 2000K - 5000K 1D5LTW2N2765 =Fifth Light (DALI), 0% to 100%, 120V, 2700K - 6500K 2DE010W2N2050 =0-10V dimming, 0% to 100%, 277V, 2000K - 5000K 2DE010W2N2765 =0-10V dimming, 0% to 100%, 277V, 2700K - 6500K 2D5LTW2N2050 =Fifth Light (DALI), 0% to 100%, 277V, 2000K - 5000K 2D5LTW2N2765 =Fifth Light (DALI), 0% to 100%, 277V, 2700K - 6500K	EMBOD =Bodine® Emergency Module with Remote Test Switch EM7 =7W Emergency Module with Remote Test Switch EM14 =14W Emergency Module with Remote Test Switch EMV7 =7W Low Voltage Emergency Module with Remote Test Switch ² EMV14 =14W Low Voltage Emergency Module with Remote Test Switch ² SWPD1 =Factory installed WaveLinX tilemount daylight sensor (includes control module, sensor, cable, and tile mount) LWTPD1 =Factory installed LumaWatt Pro wireless sensor kit

SAMPLE NUMBER: EU4B10208035

Power Module	Lumen Levels ¹	CRI	Color		
EU4B =4" Universal LED Module	1020 =1000, 1500, 2000 lumens 3040 =3000-4000 lumens 5000 =5000 lumens ¹² 6000 =6000 lumens ¹² 1015IC =1000, 1500 lumen IC rated	80 =80 CRI Minimum 90 =90 CRI Minimum 97 =97 CRI Minimum	80 CRI 27 =2700K 30 =3000K 35 =3500K 40 =4000K 50 =5000K	90 CRI 24 =2400K 27 =2700K 30 =3000K 35 =3500K 40 =4000K 50 =5000K	97 CRI 27 =2700K 30 =3000K
	Dim 2 Warm 109030D2W =1000 lumen, 90 CRI, Dim 2 Warm, IC rated 159030D2W =1500 lumen, 90 CRI, Dim 2 Warm, IC rated 209030D2W =2000 lumen, 90 CRI, Dim 2 Warm 309030D2W =3000 lumen, 90 CRI, Dim 2 Warm		Tunable white ¹³ 1020W2N902050 =1000, 1500, 2000 lumens, 90 CRI, tunable white 2000K-5000K 1020W2N902765 =1000, 1500, 2000 lumens, 90 CRI, tunable white 2700K-6500K		

SAMPLE NUMBER: 4LBSQ1LI

Trim	Distribution	Flange	Finish
4LB =4" LED	SQ =Square Anodized Aluminum CSSQ =Cast Shallow Square, Die Cast Aluminum ⁷ PSSQ =Plastic Shallow Non-Conductive ^{5,7}	0 =White Polymer Trim Ring ¹¹ 1 =Self-flanged ⁸ 2 =White Painted Self-flanged	LI =Specular Clear ³ H =Semi-Specular Clear ³ WMH =Warm Haze ³ WH =Wheat ³ GPH =Graphite Haze ³ B =Specular Black ³ MW =Matte White MB =Matte Black ⁴ MMS =Matte Metallic Silver ⁴

Accessories

PRSQ4=Plaster Lathing Ring for use with Rimless Flange (order with polymer trim ring flange option)

Bar Hangers

HB26=C-channel Bar Hanger, 26" Long, Pair

HB50=C-channel Bar Hanger, 50" Long, Pair

RMB22=Wood Joist Bar Hanger, 22" Long, Pair

Transformers

H347=347 to 120V Step Down Transformer, 75VA

H347200=347 to 120V Step Down Transformer, 200VA

Connected Lighting Systems

PORLWTPD1=LumaWatt Pro wireless sensor kit (0-10V only) field installed¹⁰

TMSWPD1=WaveLinX tilemount daylight sensor (includes control module, sensor, cable and tile mount) field installed¹⁰

Notes:

- Nominal Lumens will vary depending on selected color, driver and reflector finish.
- UL/US approved only.
- Available on anodized aluminum
- Available on cast aluminum only
- Matte white finish and self flange
- Not available with Chicago Plenum.
- Offered up to 4000 lumens
- Flange is the same finish as the reflector
- DMX fixtures default to full on upon loss of DMX signal.
- Refer to system specifications for additional information, features, and benefits.
Order either factory installed option or accessory. Use with 0-10V driver.
- Not available with cast shallow
- Product is marked spacing and must be installed with the following minimum spacing
 - Center to center of adjacent luminaire: 36"
 - Center of luminaire to side of building member: 18"
 - Minimum overhead: 1/2"
- Non-IC

ENERGY

ENERGY DATA
Sound Rating: Class A standards
(Values at non-dimming line voltage)
Minimum Starting Temperature: -30°C (-22°F)
EMI/RFI: FCC Title 47 CFR, Part 15, Class B (Consumer)
Input Voltage: UNV (120V - 277V)
Power Factor: >0.90 (at nominal input 120-277 VAC & 100% of Rated Output Power)
Input Frequency: 50/60Hz

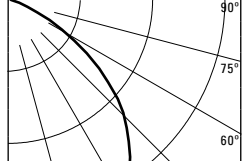
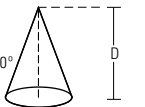

1000 Lumen D010		1500 Lumen D010	
Input Power: 11W	THD: <14%	Input Power: 15.5W	THD: <13%
120V Input Current: 0.09A	277V Input Current: 0.04A	120V Input Current: 0.13A	277V Input Current: 0.06A

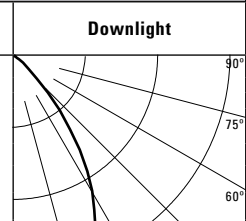
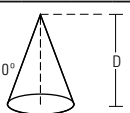
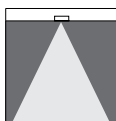
2000 Lumen D010		3000 Lumen D010	
Input Power: 21.2W	THD: <9%	Input Power: 27.6W	THD: <10%
120V Input Current: 0.18A	277V Input Current: 0.08A	120V Input Current: 0.23A	277V Input Current: 0.10A

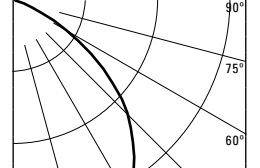
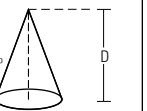

4000 Lumen D010	
Input Power: 41.8W	THD: <13%
120V Input Current: 0.35A	277V Input Current: 0.15A


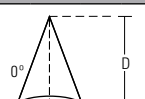

Lumens	120V		277V	
	Inrush (A)	Duration (ms)	Inrush (A)	Duration (ms)
1000 Lumen D010	1.02	0.041	2.18	0.021
1500 Lumen D010	1.02	0.042	2.24	0.064
2000 Lumen D010	1.02	0.077	2.43	0.027
3000 Lumen D010	1.15	0.067	3.26	0.027
4000 Lumen D010	1.2	0.088	3.9	0.03

PHOTOMETRY

		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE																																																										
Test Number	P35089					<table><tr><th>Degrees Vertical</th><th>Candela</th></tr><tr><td>0</td><td>704</td></tr><tr><td>5</td><td>690</td></tr><tr><td>15</td><td>663</td></tr><tr><td>25</td><td>605</td></tr><tr><td>35</td><td>515</td></tr><tr><td>45</td><td>401</td></tr><tr><td>55</td><td>232</td></tr><tr><td>65</td><td>76</td></tr><tr><td>75</td><td>2</td></tr><tr><td>85</td><td>0</td></tr><tr><td>90</td><td>0</td></tr></table>		Degrees Vertical	Candela	0	704	5	690	15	663	25	605	35	515	45	401	55	232	65	76	75	2	85	0	90	0	<table><tr><th>Zone</th><th>Lumens</th><th>% Fixture</th></tr><tr><td>0-30</td><td>534</td><td>35.5</td></tr><tr><td>0-40</td><td>857</td><td>57</td></tr><tr><td>0-60</td><td>1395</td><td>92.7</td></tr><tr><td>0-90</td><td>1504</td><td>100</td></tr><tr><td>90-180</td><td>0</td><td>0</td></tr><tr><td>0-180</td><td>1504</td><td>100</td></tr></table>			Zone	Lumens	% Fixture	0-30	534	35.5	0-40	857	57	0-60	1395	92.7	0-90	1504	100	90-180	0	0	0-180	1504	100	<table><tr><th>Average Candela Degrees</th><th>Average 0° Luminance</th></tr><tr><td>45</td><td>43408</td></tr><tr><td>55</td><td>30960</td></tr><tr><td>65</td><td>13765</td></tr><tr><td>75</td><td>591</td></tr><tr><td>85</td><td>0</td></tr></table>		Average Candela Degrees	Average 0° Luminance	45	43408	55	30960	65	13765	75	591	85	0
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Module	EU4B10208035																																																																				
Trim	4LBCSSQ1MMS																																																																				
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Efficacy	107.4 Lm/W																																																																				
SC	1.19																																																																				
																																																																					

		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE																																																										
Test Number	P35088					<table><tr><th>Degrees Vertical</th><th>Candela</th></tr><tr><td>0</td><td>1574</td></tr><tr><td>5</td><td>1550</td></tr><tr><td>15</td><td>1364</td></tr><tr><td>25</td><td>1017</td></tr><tr><td>35</td><td>440</td></tr><tr><td>45</td><td>97</td></tr><tr><td>55</td><td>14</td></tr><tr><td>65</td><td>4</td></tr><tr><td>75</td><td>1</td></tr><tr><td>85</td><td>0</td></tr><tr><td>90</td><td>0</td></tr></table>		Degrees Vertical	Candela	0	1574	5	1550	15	1364	25	1017	35	440	45	97	55	14	65	4	75	1	85	0	90	0	<table><tr><th>Zone</th><th>Lumens</th><th>% Fixture</th></tr><tr><td>0-30</td><td>996</td><td>68.5</td></tr><tr><td>0-40</td><td>1322</td><td>91</td></tr><tr><td>0-60</td><td>1447</td><td>99.5</td></tr><tr><td>0-90</td><td>1453</td><td>100</td></tr><tr><td>90-180</td><td>0</td><td>0</td></tr><tr><td>0-180</td><td>1453</td><td>100</td></tr></table>			Zone	Lumens	% Fixture	0-30	996	68.5	0-40	1322	91	0-60	1447	99.5	0-90	1453	100	90-180	0	0	0-180	1453	100	<table><tr><th>Average Candela Degrees</th><th>Average 0° Luminance</th></tr><tr><td>45</td><td>10500</td></tr><tr><td>55</td><td>1868</td></tr><tr><td>65</td><td>724</td></tr><tr><td>75</td><td>296</td></tr><tr><td>85</td><td>0</td></tr></table>		Average Candela Degrees	Average 0° Luminance	45	10500	55	1868	65	724	75	296	85	0
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Lumens	1453																																																																				
Efficacy	103.8 Lm/W																																																																				
SC	0.91																																																																				
																																																																					

		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P202481					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LDSQ4B40D010					0	1924	0-30	1458	35.5	45	18216
Module	EU4B30508035					5	1886	0-40	2342	57		
Trim	4LBCSSQ1MMS					15	1812				0-60	3812
Lumens	4110					25	1653	0-90	4110	100		
Efficacy	95.5 Lm/W	35	1408	90-180	0	0	75				2368	
SC	1.19	45	1096					0-180	4110	100		85
		55	634									
		65	208									
		75	6									
		85	0									
		90	0									

		CANDLEPOWER DISTRIBUTION		CONE OF LIGHT		CANDELA TABLE		ZONAL LUMEN SUMMARY			LUMINANCE	
Test Number	P202480					Degrees Vertical	Candela	Zone	Lumens	% Fixture	Average Candela Degrees	Average 0° Luminance
Housing	LDSQ4B40D010					0	4301	0-30	2720	68.5	45	4058
Module	EU4B30508035					5	4235	0-40	3613	91		
Trim	4LBSQ1LI					15	3727				0-60	3952
Lumens	3970					25	2779	0-90	3970	100		
Efficacy	92.3 Lm/W	35	1202	90-180	0	0	75				113	
SC	0.91	45	265					0-180	3970	100		85
		55	38									
		65	11									
		75	3									
		85	0									
		90	0									

LIGHT FIXTURE TYPE S3

Date: _____ Customer: _____
 Project: _____
 Type: _____ Qty: _____



Saturn Cutoff 2 LED



Order Code: SAC2L - - - - -

Pole Order Code:

SAC2L	Series	Series			Height	Finish	Options		
		SAC2L Saturn 2 Cutoff LED							
	Optics	R1 Type I	R2 Type II	R3 Type III	R3W Type III (Wide)	R4 Type IV	R5R Type V (Round)	R5S Type V (Square)	R5Q Type V (Rectangular)
	Mounting	1 Single	1A Single Arm Mount	2 Double	W Wall Mount				
	Light Engine	5G450 39W/4352lm	5G700 62W/6537lm	5G105 94W/9101lm					*Based on R1 distribution and 3000K CCT
	CCT	27 ¹ 2700K	30 ¹ 3000K	40 4000K					¹ IDA Approved *For other CCT please consult factory
	Power Cord Length	8* 8'	10* 10'	12* 12'	14* 14'	16* 16'	18* 18'	XX* XX'	*For 1 mounting use the pole height. For 1A or 2 mounting use the pole height +2
	Finish	WH White	BK Black	BL Semi-Matte Black	BZ Bronze	SV Silver	SP Specify Premium Color		
	Voltage	120 120V	240 240V	277 277V	347 ² 347V	480 ² 480V	² Equipped with step-down transformer		
	Options	DM ⁴ Dimming (0-10V)	HS ³ House Side Shield (180°)	HL30 ^{4,5} Hi-Lo Switching Low Output 30%	HL50 ^{4,5} Hi-Lo Switching Low Output 50%	DS No Uplight Finish	PCT Photocell Tenon	³ Type I, II, III, and IV only ⁴ DM or HLXX, cannot be combined. ⁵ 120V, 240V or 277V only ⁶ Only available at 120/230/240/277V. Consult factory for 208/347/480V.	
	Pole Motion Sensor ⁶ with optional photocell See page 3 for order code								

Product Modifications

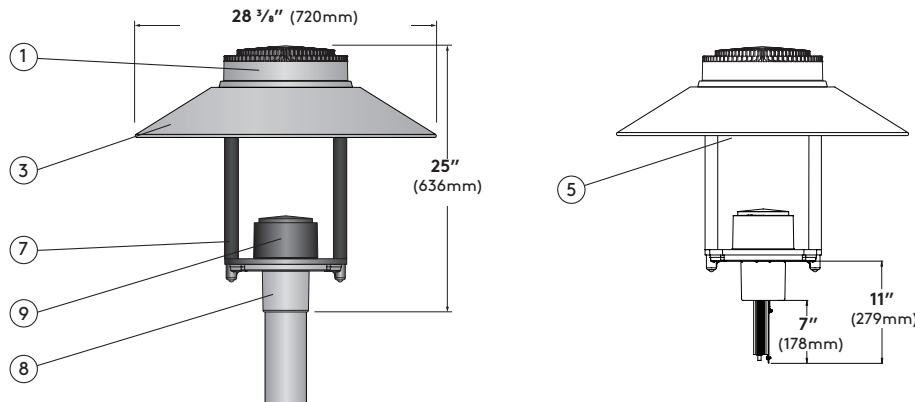
Please list modification requirements for review by factory:

Approvals



Date: _____

SAC2L-1-XX-DS



For further details, please see installation instructions.

Specifications

1. Luminaire Cover - Die cast aluminum cover made from low copper alloy, designed to ensure optimal thermal management for extra long life time of LED light engine.

2. Gasketing - (not shown) Continuous gasket provides weatherproofing, dust and insect control at all fixture connections.

3. Luminaire Hood - Aluminum shade with white painted interior.

4. LED Array - (not shown) High flux LEDs mounted to PC boards and attached to aluminum heat sink for maximum LED performance and life. CCT tolerance ¼ step binning for 3000K, and 4000K. CRI minimum 80. Complete light engine can be removed easily for future upgrade. LED light engine provides a reported lumen maintenance of 93% at 50,000 hours. L70 calculated greater than 100,000 hours.

5. LED Optics - Technical Optics (R1, R2, R3, R3W, R4, R5S, R5Q and R5R) use Selux signature light pattern acrylic lens holder to secure proprietary silicone optics. Micro house side shield available for distributions types I, II, III and IV.

6. LED Driver - (not shown) LEDs are driven by RoHS compliant constant current programmable LED driver. Driver includes 0-10V dimming to 10%, meets the requirements of IP66. Driver assembly located inside the head.

7. Hood Supports - Two aluminum arms support shade and optic assembly and attach to the die cast aluminum pole fitter (shown painted matte black for DS option).

8. Pole Fitter - Self-leveling, die-cast low-copper aluminum alloy, fitter base secured to pole with three, stainless steel, Allen head set screws. Fitter for 3 ½" (90mm) O.D. poles.

9. Driver cover - Die cast aluminum cover made from low copper alloy, removes for tool-less access to driver. Driver secured to removable tray for ease of maintenance (shown painted matte black for DS option).

10. Surge Protector - (not shown) Designed to protect luminaire from electrical surge (20kA).

11. Power Cord - (not shown) Pre-installed at factory. Please specify power cord length in accordance to height of the pole. Add 2 feet to power cord length if double mounting (2) or single arm mount (1A) is specified.

Exterior Luminaire Finish - Selux utilizes a high quality Polyester Powder Coating. All Selux luminaires and poles are finished in our Tiger Drylac certified facility and undergo a five stage intensive pretreatment process where product is thoroughly cleaned, phosphated and sealed. Selux powder coated products provide excellent salt and humidity resistance as well as ultraviolet resistance for color retention. All products are tested in accordance with test specifications for coatings from ASTM and PCI. Standard exterior colors are White (WH), Black (BK), Semi-Matte Black (BL), Bronze (BZ), and Silver (SV). Selux premium colors (SP) are available, please specify from your Selux color selection guide.

5 Year Limited LED Luminaire Warranty -

Selux offers a 5 Year Limited Warranty to the original purchaser that the Saturn Cutoff LED luminaire shall be free from defects in material and workmanship for up to five (5) years from date of shipment. This limited warranty covers the LED driver and LED array when installed and operated according to Selux instructions. For details, see "Selux Terms and Condition of Sale."

Listings and Ratings: Luminaire and LED tested to IP65 and IESNA LM-79-08 standards. LED tested to LM-80 standards. Luminaire and LED tested at 25°C ambient temperature.

Luminaire suitable for ambient temperature of 45°C. Minimum operating temperature of luminaire at -40°C (-40°F)

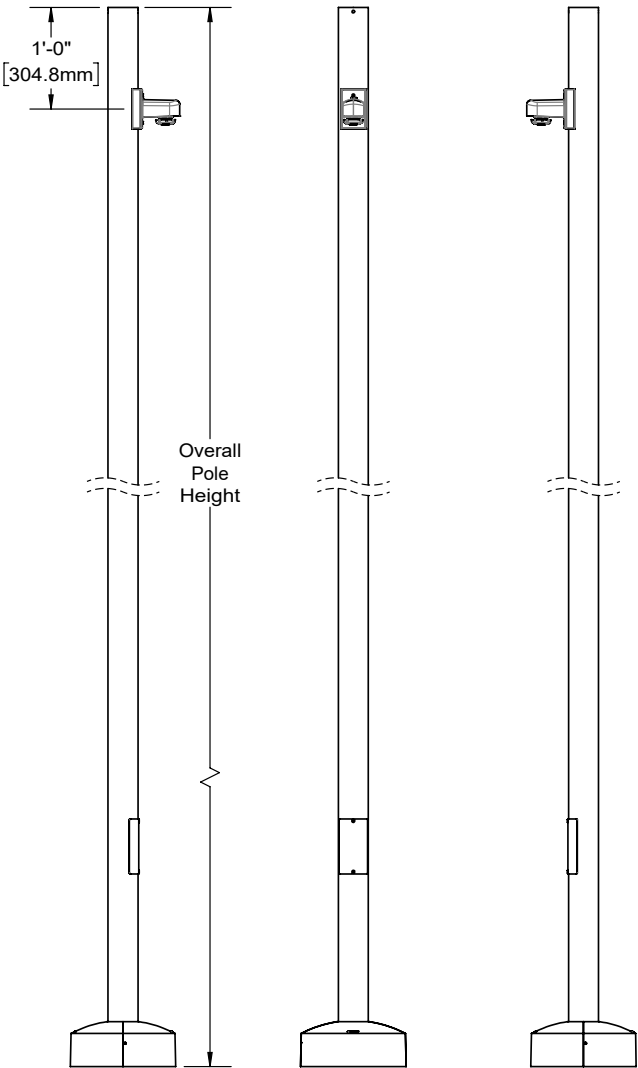
NRTL Listed (i.e. UL, CSA)

Visit selux.us for our LED End of Life recycling policy.

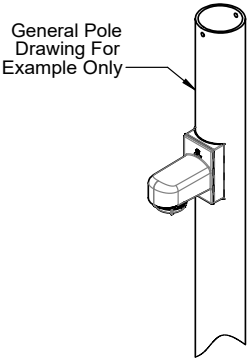
Pole Motion Sensor

The Selux outdoor rated sensor incorporates Passive Infrared (PIR) Technology for motion sensing and also includes a built in photocell. Designed to mount to a single gang face-plate on a pole/column, the FSP-211 utilizes 100% Digital Passive Infrared (PIR) Technology that is tuned for walking size tasks while preventing false tripping from the environment.

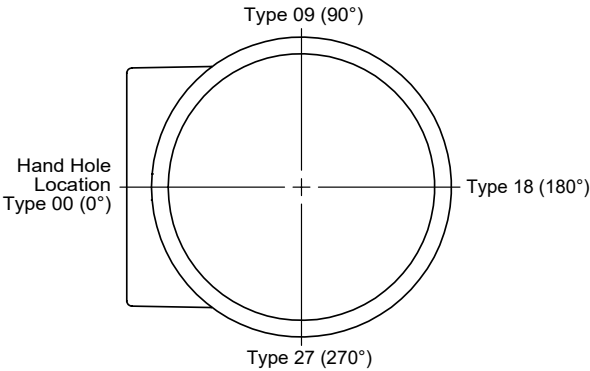
Series	Optics	Handhole Orientation	Voltage
MS Motion Sensor	1 270° Coverage Single Sensor	00 0° Clockwise from Handhole	UNV (120-277V)
		09 90° Clockwise from Handhole	347 *347V
		18 180° Clockwise from Handhole	480 *480V
		27 270° Clockwise from Handhole	* Consult Factory for 347V and 480V



- Factory Defaults:**
- Time Delay: 5 minutes
 - Cut off: 1 hour
 - Sensitivity: Max
 - Ramp Up Time: Disabled
 - Photo Cell: Disabled
 - Factory Programming: Consult Factory



Sensor angular orientation from hand hole 0°
90° increments clockwise around pole (Type 00, 09, 18, 27)



Mounting

Single (1)

Die-cast aluminum fitter base secured to pole with three stainless steel, Allen head set screws.

EPA = 1.7ft² (0.16m²)

Weight = 39lbs. (17.7kg)

Single Arm Mount (1A)

Die-cast aluminum single luminaire mounting arm secured to pole with four stainless steel, Allen head set screws. Outer slip fitter for 3½" O.D. tenon.

EPA = 2.7ft² (0.25m²)

Weight = 53lbs. (24.0kg)

Double (2)

Die-cast aluminum double luminaire mounting arm secured to pole with four stainless steel, Allen head set screws. Outer slip fitter for 3½" O.D. tenon.

EPA = 5ft² (0.46m²)

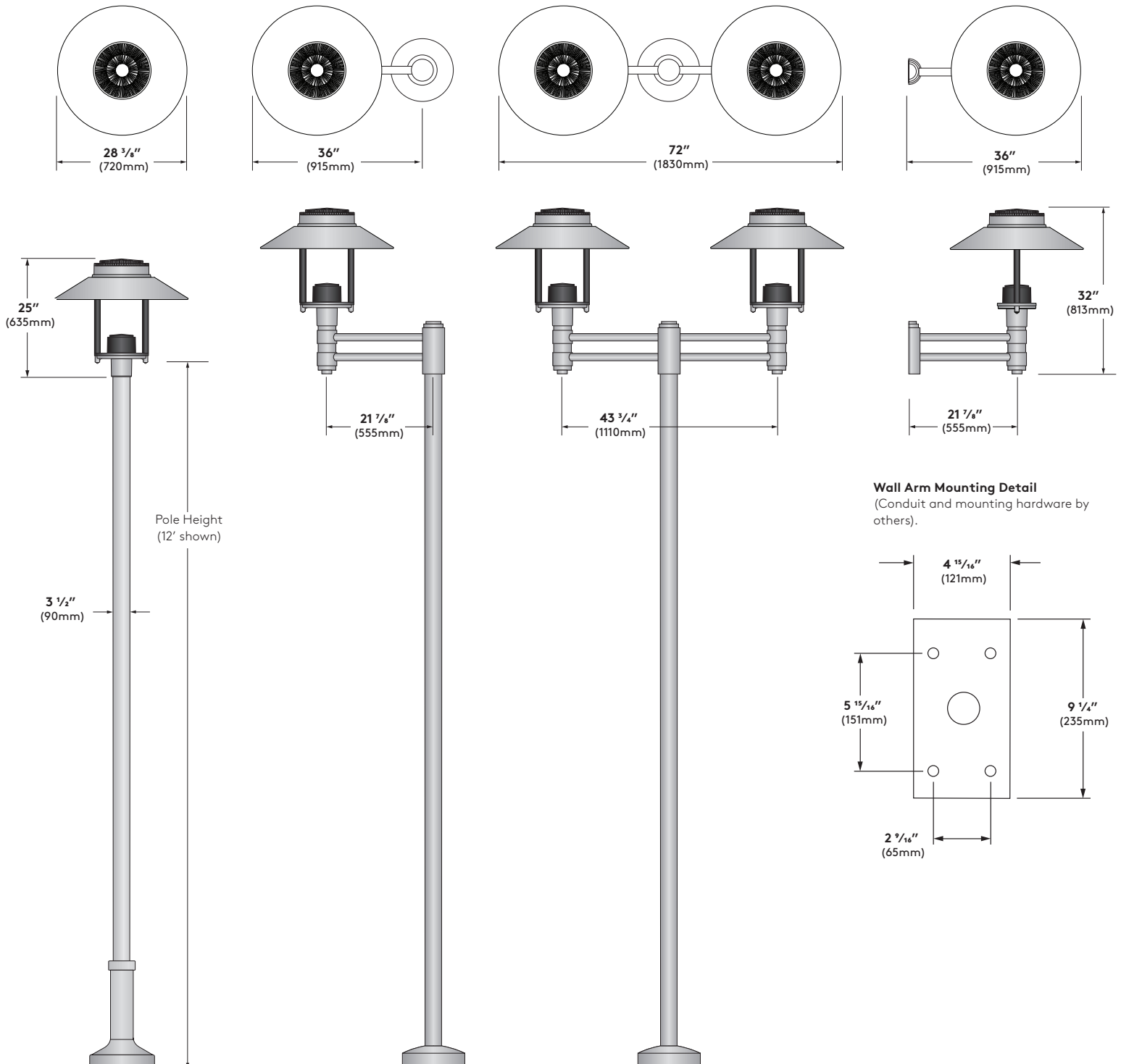
Weight = 100lbs. (79.8kg)

Wall (W)

Die-cast aluminum double round wall mount arm. Secured to wall with ¼" diameter threaded fasteners (by others).

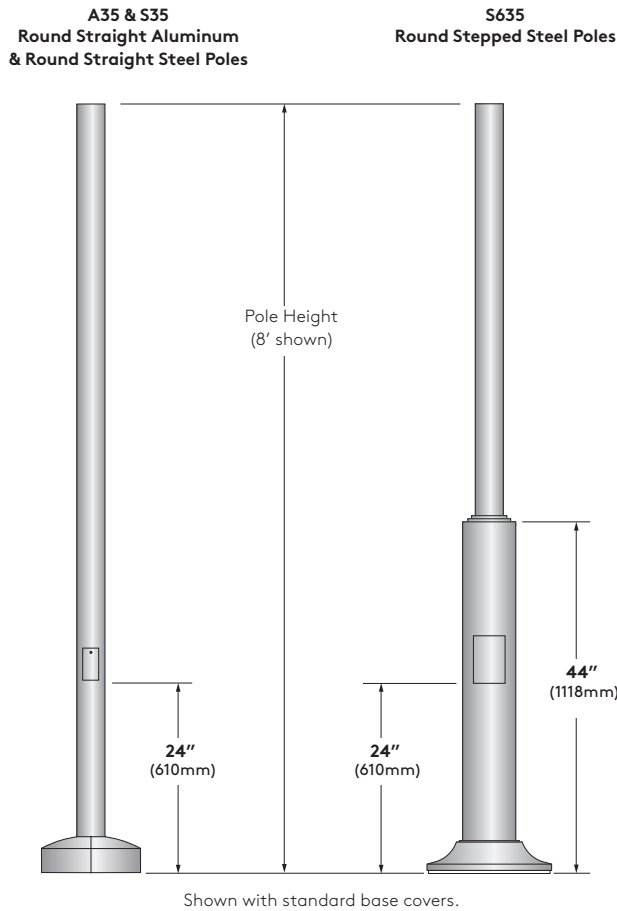
EPA = 2.5ft² (0.23m²)

Weight = 50lbs. (22.7kg)



Pole Information

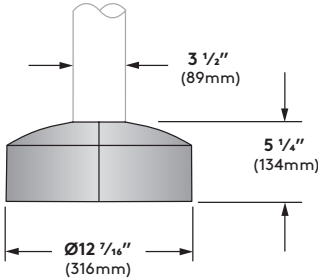
Refer to pole specification sheets for construction details, anchorage information and additional options.



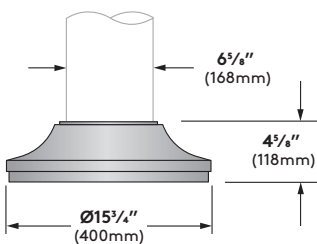
Base Cover Information

Refer to pole specification sheets for construction details, anchorage information and additional options.

Standard Base Cover (BC5)
Supplied with A35 and S35
Two-piece cast aluminum



Standard Base Cover (BC6)
Supplied with S635
One-piece cast aluminum

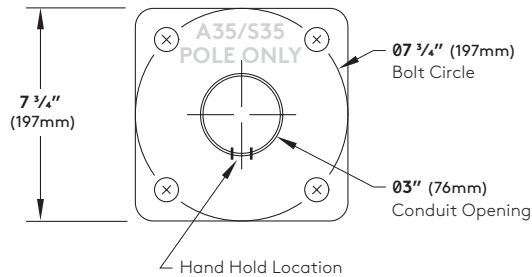


Pole Data Chart

Pole Series	Bolt Circle	EPA Information					Height	Finish	Options
		70mph	80mph	90mph	100mph	110mph			
S635 3 1/2" Diameter Stepped Steel Pole	Ø9"	57.6	44.3	34.6	27.5	22.8	8 8ft.	WH White	REC GFCI Receptacle with weatherproof cover ¹ (120V only) REC2 GFCI Receptacle with padlockable in-use cover ¹ (120V only) REC3 USB and Duplex Receptacle with weather proof cover REC4 USB Duplex Receptacle with weatherproof padlockable in-use MS Motion Sensor w/ Optional Photocell (Meets Title 24 Requirements)
A35 3 1/2" Diameter Straight Aluminum Pole	Ø7 3/4"	16.1	12.2	9.4	7.3	5.9		BK Black	
S35 3 1/2" Diameter Straight Steel Pole	Ø7 3/4"	14.8	11.3	8.6	6.7	5.4		BL Semi-matte Black	
S635 3 1/2" Diameter Stepped Steel Pole	Ø9"	45.6	35.0	27.3	21.6	17.8	10 10 ft.	BZ Bronze	
A35 3 1/2" Diameter Straight Aluminum Pole	Ø7 3/4"	12.4	9.3	7.1	5.4	4.3		SV Silver	
S35 3 1/2" Diameter Straight Steel Pole	Ø7 3/4"	11.4	8.6	6.5	4.9	3.9		SP Specify Premium Color	
S635 3 1/2" Diameter Stepped Steel Pole	Ø9"	37.6	28.7	22.3	17.5	14.4	12 12 ft.		
A35 3 1/2" Diameter Straight Aluminum Pole	Ø7 3/4"	9.9	7.3	5.4	4.0	3.1			
S35 3 1/2" Diameter Straight Steel Pole	Ø7 3/4"	9.1	6.7	4.9	3.6	2.8			
S635 3 1/2" Diameter Stepped Steel Pole	Ø9"	31.7	24.2	18.6	14.6	11.9	14 14 ft.		
A35 3 1/2" Diameter Straight Aluminum Pole	Ø7 3/4"	8.0	5.8	4.2	3.0	2.2			
S35 3 1/2" Diameter Straight Steel Pole	Ø7 3/4"	7.3	5.3	3.8	2.7	1.9			
S635 3 1/2" Diameter Stepped Steel Pole	Ø9"	21.7	15.8	12.3	9.6	7.6	16 16 ft.		
A35 3 1/2" Diameter Straight Aluminum Pole	Ø7 3/4"	4.9	3.2	2.2	1.4	N/A			
S35 3 1/2" Diameter Straight Steel Pole	Ø7 3/4"	4.4	2.8	1.9	N/A	N/A			

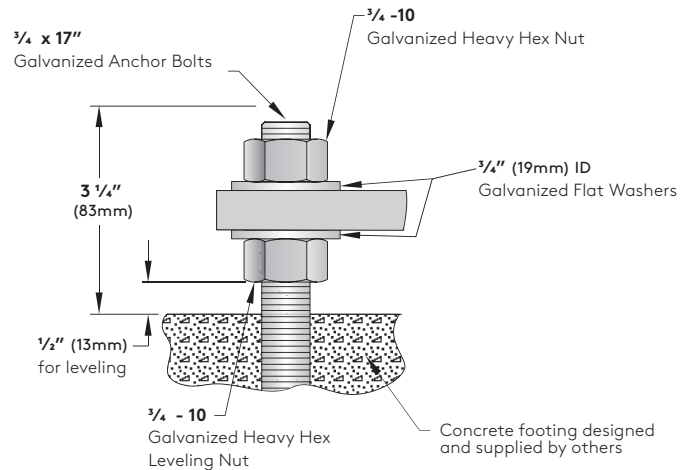
Bolt Circle for A35 & S35

Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimensions shown



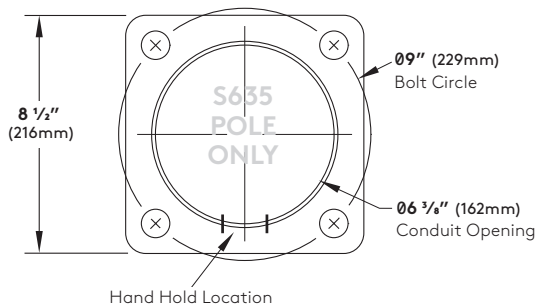
Note: Adequate drainage must be provided in concrete foundation.

Anchor Bolt Detail for A35 & S35



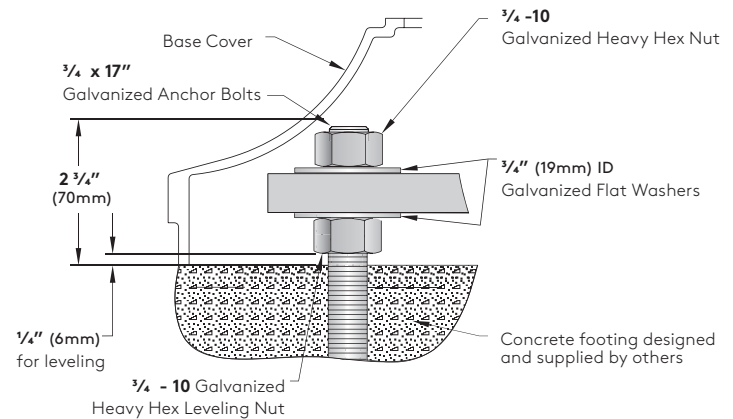
Bolt Circle for S635

Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimensions shown.



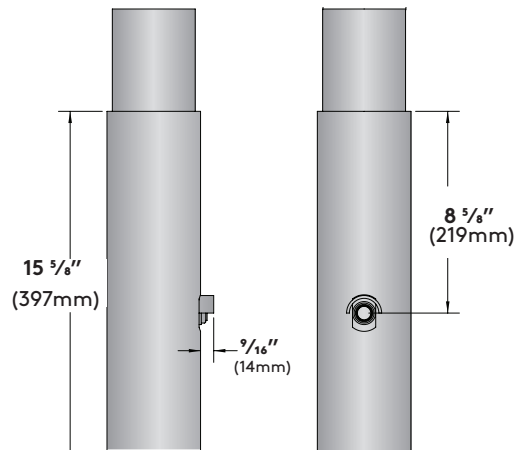
Note: Adequate drainage must be provided in concrete foundation.

Anchor Bolt Detail for S635

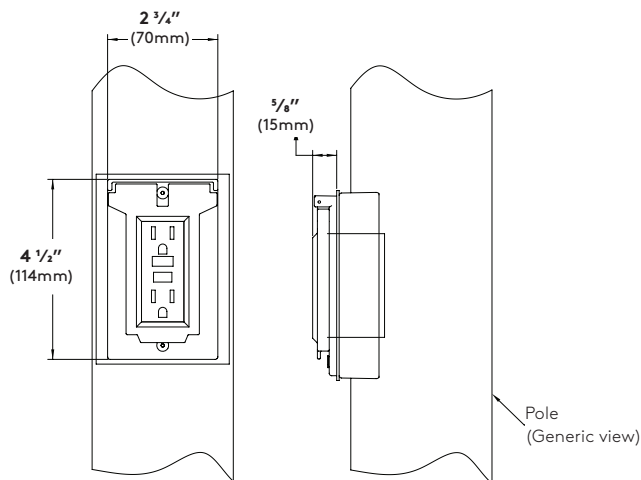


Optional Accessories

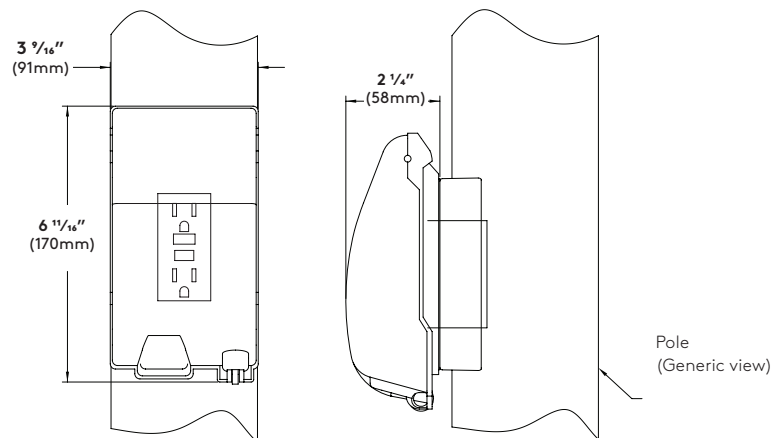
Photo Cell Tenon (PCT) - Button type photocell mounted in cast aluminum pole top tenon. Tenon has integral cast visor to prevent false start/stop cycle and can be oriented for optimum performance. Refer to luminaire spec sheet to determine if this option is applicable.



GFCI Receptacle (REC) - 120V 15A GFCI duplex receptacle with weather-proof, self-closing, non-lockable cover; located 36" (915mm) from base of pole, inline with handhole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel. For use with 120V applications only. For use with luminaires with other than 120V rating, please consult factory for wire segregation.



GFCI Receptacle (REC2) - 120V 15A GFCI duplex receptacle with weather-proof, self-closing, padlockable in-use cover; located 36" (915mm) from base of pole, inline with handhole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel. For use with 120V applications only. For use with luminaires with other than 120V rating, please consult factory for wire segregation.



USB & Duplex Receptacle (REC3) (not shown) - 120V 15A duplex receptacle with USB combination ports. (1) type A and (1) type C high power 5 Amp, 5 Volt USB outlets. With weather-proof, self-closing cover; located 36" (915mm) from base of pole, inline with handhole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel.

Note: Must be used in conjunction with GFCI breaker by others

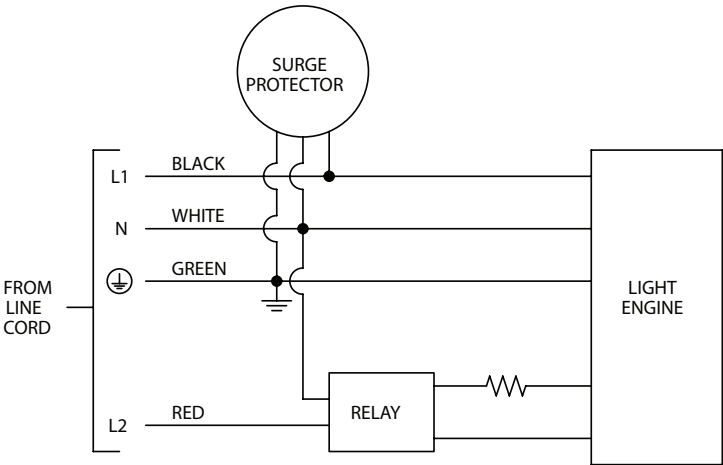
USB & Duplex Receptacle (REC4) (not shown) - 120V 15A duplex receptacle with USB combination ports. (1) type A and (1) type C high power 5 Amp, 5 Volt USB outlets. With weather-proof, self-closing padlockable in-use cover; located 36" (915mm) from base of pole, inline with handhole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel.

Note: Must be used in conjunction with GFCI breaker by others

Wiring

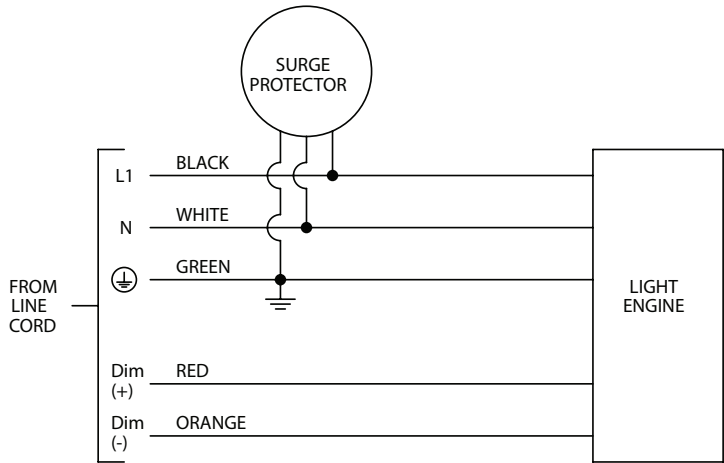
Hi-Lo Switching Option (HL) Wiring

120V, 240V, 277V. When red is energized, light output will be at "Lo" level.

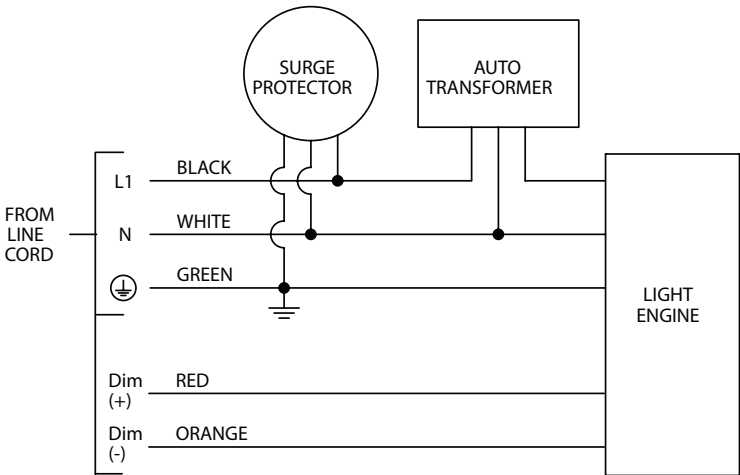


0-10V Dimming Option (DM) Wiring

120-277V.



347/480 V



Photometry

R1 Optics / 39W / 3000K CCT

Catalog #: SAC2L-R1-5G450-30

Delivered Lumens: 4352

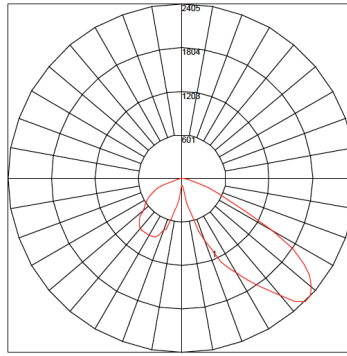
Efficacy: 112lm/W

Maximum candela of 2405 at 47.5° from vertical.

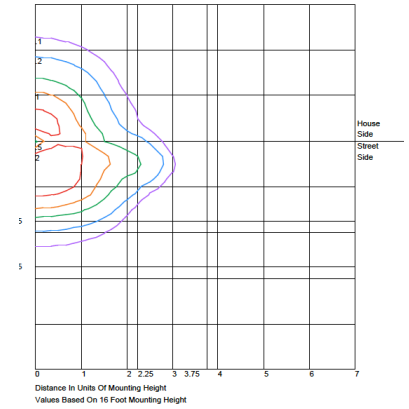
IES classification - Type II

Mounting Height = 16'

B1-U0-G1



Maximum Candela = 2405 Located At Horizontal Angle = 35, Vertical Angle = 47.5
 #1 - Vertical Plane Through Horizontal Angles (35 - 215) (Through Max. Cd.)



Distance In Units Of Mounting Height
 Values Based On 16 Foot Mounting Height

R1 Optics with HS / 39W / 3000K CCT

Catalog #: SAC2L-R1-5G450-30-HS

Delivered Lumens: 3330

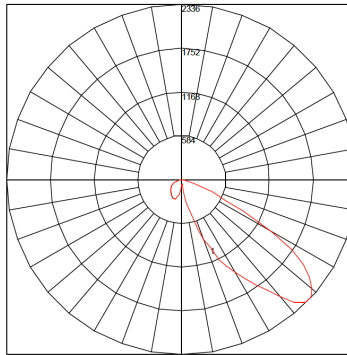
Efficacy: 85lm/W

Maximum candela of 2336.3 at 47.5° from vertical.

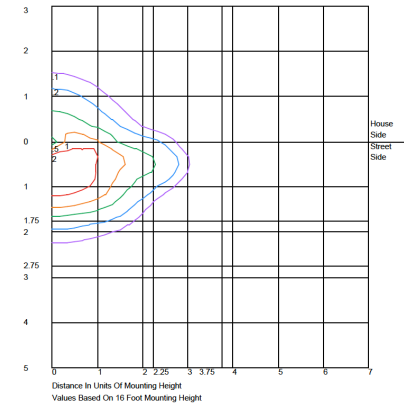
IES classification - Type II

Mounting Height = 16'

B1-U0-G0



Maximum Candela = 2336.3 Located At Horizontal Angle = 35, Vertical Angle = 47.5
 #1 - Vertical Plane Through Horizontal Angles (35 - 215) (Through Max. Cd.)



Distance In Units Of Mounting Height
 Values Based On 16 Foot Mounting Height

R2 Optics / 39W / 3000K CCT

Catalog #: SAC2L-R2-5G450-30

Delivered Lumens: 4416

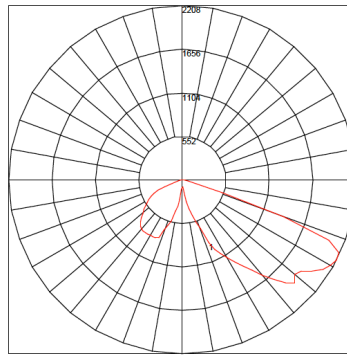
Efficacy: 113lm/W

Maximum candela of 2208.4 at 62.5° from vertical.

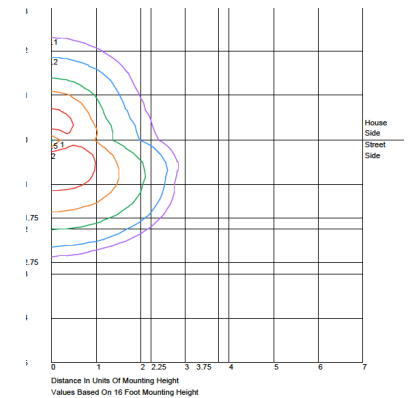
IES classification - Type III

Mounting Height = 16'

B1-U0-G1



Maximum Candela = 2208.4 Located At Horizontal Angle = 55, Vertical Angle = 62.5
 #1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)



Distance In Units Of Mounting Height
 Values Based On 16 Foot Mounting Height

R3 Optics / 39W / 3000K CCT

Catalog #: SAC2L-R3-5G450-30

Delivered Lumens: 4414

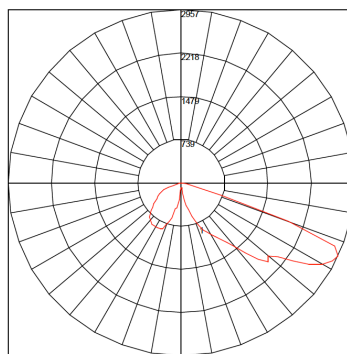
Efficacy: 113lm/W

Maximum candela of 2957.1 at 65° from vertical.

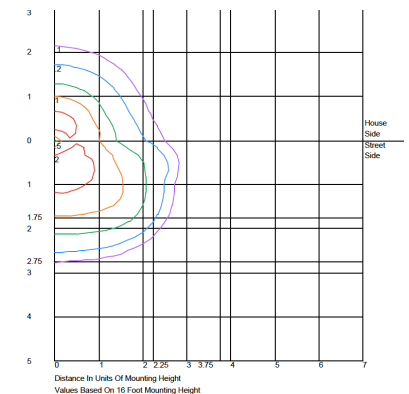
IES classification - Type III

Mounting Height = 16'

B1-U0-G1



Maximum Candela = 2957.1 Located At Horizontal Angle = 45, Vertical Angle = 65
 #1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)



Distance In Units Of Mounting Height
 Values Based On 16 Foot Mounting Height

R3W Optics / 39W / 3000K CCT

Catalog #: SAC2L-R3W-5G450-30

Delivered Lumens: 4479

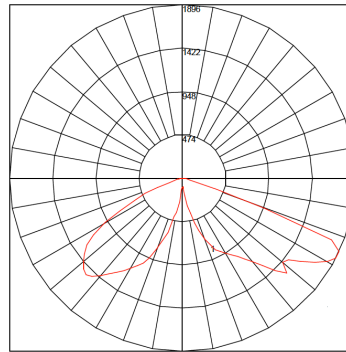
Efficacy: 115lm/W

Maximum candela of 1896 at 62.5° from vertical.

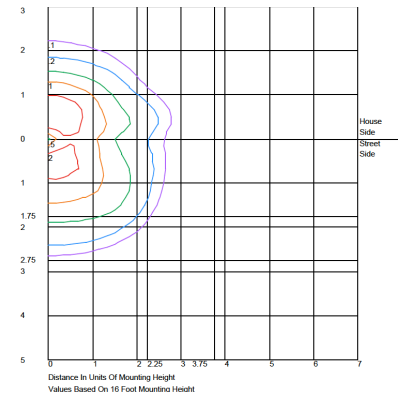
IES classification - Type III

Mounting Height = 16'

B2-U0-G1



Maximum Candela = 1896 Located At Horizontal Angle = 45, Vertical Angle = 62.5
 # 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)



R4 Optics / 39W / 3000K CCT

Catalog #: SAC2L-R4-5G450-30

Delivered Lumens: 4423

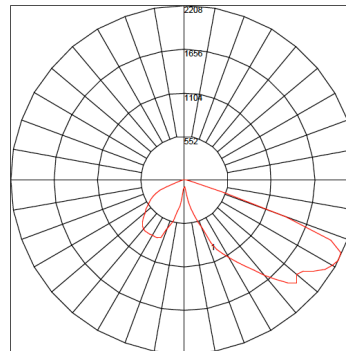
Efficacy: 113lm/W

Maximum candela of 3146.1 at 67.5° from vertical.

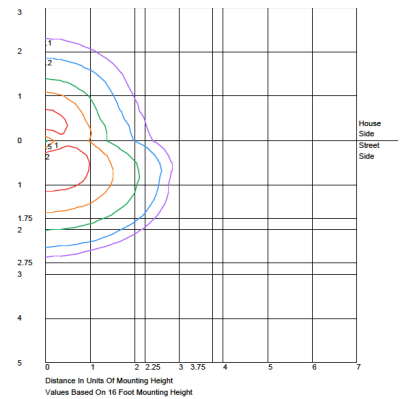
IES classification - Type III

Mounting Height = 16'

B1-U1-G1



Maximum Candela = 3146.1 Located At Horizontal Angle = 55, Vertical Angle = 62.5
 # 1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)



R5R Optics / 39W / 3000K CCT

Catalog #: SAC2L-R5R-5G450-30

Delivered Lumens: 4548

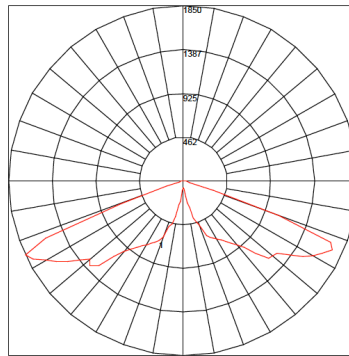
Efficacy: 117lm/W

Maximum candela of 1849.9 at 65° from vertical.

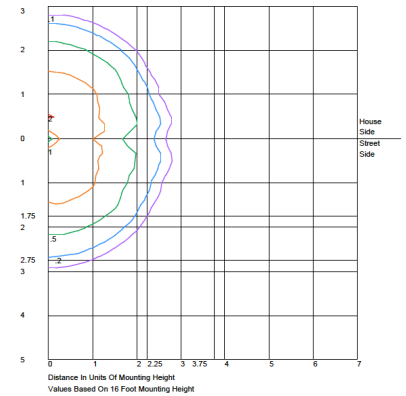
IES classification - N/A

Mounting Height = 16'

B2-U0-G2



Maximum Candela = 1849.9 Located At Horizontal Angle = 180, Vertical Angle = 65
 # 1 - Vertical Plane Through Horizontal Angles (180 - 0) (Through Max. Cd.)



R5S Optics / 39W / 3000K CCT

Catalog #: SAC2L-R5S-5G450-30

Delivered Lumens: 4517

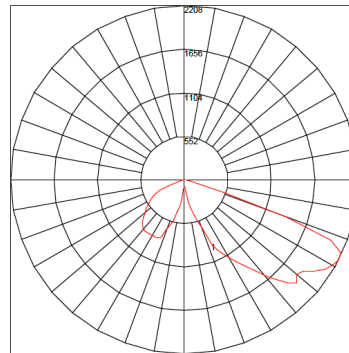
Efficacy: 116lm/W

Maximum candela of 1943 at 65° from vertical.

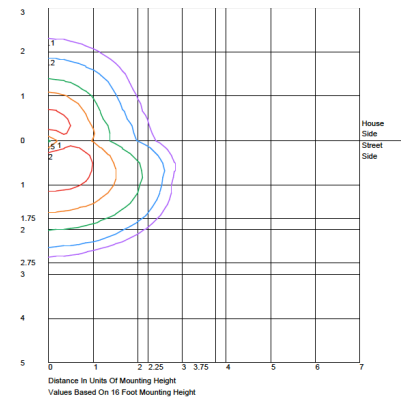
IES classification - N/A

Mounting Height = 16'

B2-U0-G2



Maximum Candela = 2208.4 Located At Horizontal Angle = 55, Vertical Angle = 62.5
 # 1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)



R5Q Optics / 39W / 3000K CCT

Catalog #: SAC2L-R5Q-5G450-30-HS

Delivered Lumens: 4475

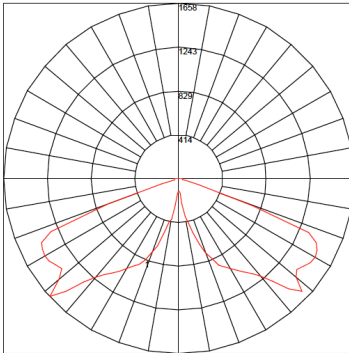
Efficacy: 115lm/W

Maximum candela of 1657.7 at 47.5° from vertical.

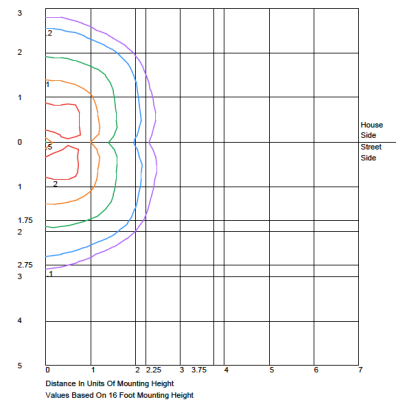
IES classification - N/A

Mounting Height = 16'

B2-U0-G2



Maximum Candela = 1657.7 Located At Horizontal Angle = 145, Vertical Angle = 47.5
 # 1 - Vertical Plane Through Horizontal Angles (145 - 325) (Through Max. Cd.)



LIGHT FIXTURE TYPE S3C

Date: _____ Customer: _____
 Project: _____
 Type: _____ Qty: _____



Saturn Cutoff 2 LED



Order Code: SAC2L - - - - -

Pole Order Code:

SAC2L	Series	Series				Height	Finish	Options	
		SAC2L Saturn 2 Cutoff LED							
	Optics	R1 Type I	R2 Type II	R3 Type III	R3W Type III (Wide)	R4 Type IV	R5R Type V (Round)	R5S Type V (Square)	R5Q Type V (Rectangular)
	Mounting	1 Single	1A Single Arm Mount	2 Double	W Wall Mount				
	Light Engine	5G450 39W/4352lm	5G700 62W/6537lm	5G105 94W/9101lm					*Based on R1 distribution and 3000K CCT
	CCT	27 ¹ 2700K	30 ¹ 3000K	40 4000K					¹ IDA Approved *For other CCT please consult factory
	Power Cord Length	8* 8'	10* 10'	12* 12'	14* 14'	16* 16'	18* 18'	XX* XX'	*For 1 mounting use the pole height. For 1A or 2 mounting use the pole height +2
	Finish	WH White	BK Black	BL Semi-Matte Black	BZ Bronze	SV Silver	SP Specify Premium Color		
	Voltage	120 120V	240 240V	277 277V	347 ² 347V	480 ² 480V	² Equipped with step-down transformer		
	Options	DM ⁴ Dimming (0-10V)	HS ³ House Side Shield (180°)	HL30 ^{4,5} Hi-Lo Switching Low Output 30%	HL50 ^{4,5} Hi-Lo Switching Low Output 50%	DS No Uplight Finish	PCT Photocell Tenon	³ Type I, II, III, and IV only ⁴ DM or HLXX, cannot be combined. ⁵ 120V, 240V or 277V only ⁶ Only available at 120/230/240/277V. Consult factory for 208/347/480V.	
	Pole Motion Sensor ⁶ with optional photocell See page 3 for order code								

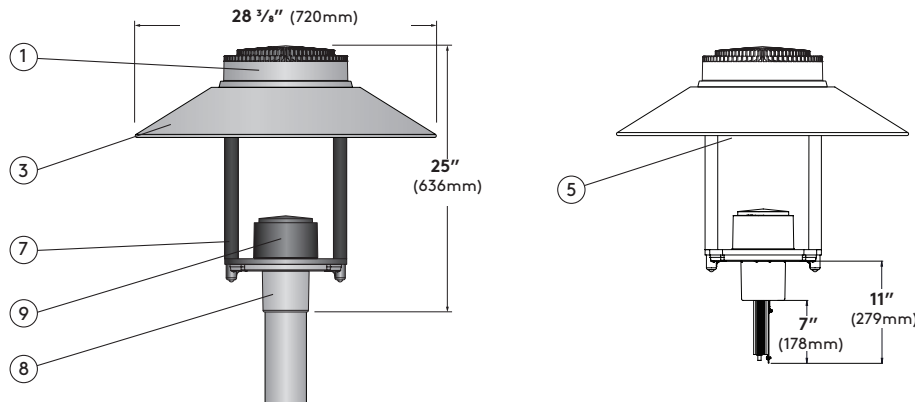
Product Modifications

Please list modification requirements for review by factory:

Approvals

Date: _____

SAC2L-1-XX-DS



For further details, please see installation instructions.

Specifications

1. Luminaire Cover - Die cast aluminum cover made from low copper alloy, designed to ensure optimal thermal management for extra long life time of LED light engine.

2. Gasketing - (not shown) Continuous gasket provides weatherproofing, dust and insect control at all fixture connections.

3. Luminaire Hood - Aluminum shade with white painted interior.

4. LED Array - (not shown) High flux LEDs mounted to PC boards and attached to aluminum heat sink for maximum LED performance and life. CCT tolerance 1/4 step binning for 3000K, and 4000K. CRI minimum 80. Complete light engine can be removed easily for future upgrade. LED light engine provides a reported lumen maintenance of 93% at 50,000 hours. L70 calculated greater than 100,000 hours.

5. LED Optics - Technical Optics (R1, R2, R3, R3W, R4, R5S, R5Q and R5R) use Selux signature light pattern acrylic lens holder to secure proprietary silicone optics. Micro house side shield available for distributions types I, II, III and IV.

6. LED Driver - (not shown) LEDs are driven by RoHS compliant constant current programmable LED driver. Driver includes 0-10V dimming to 10%, meets the requirements of IP66. Driver assembly located inside the head.

7. Hood Supports - Two aluminum arms support shade and optic assembly and attach to the die cast aluminum pole fitter (shown painted matte black for DS option).

8. Pole Fitter - Self-leveling, die-cast low-copper aluminum alloy, fitter base secured to pole with three, stainless steel, Allen head set screws. Fitter for 3 1/2\" (90mm) O.D. poles.

9. Driver cover - Die cast aluminum cover made from low copper alloy, removes for tool-less access to driver. Driver secured to removable tray for ease of maintenance (shown painted matte black for DS option).

10. Surge Protector - (not shown) Designed to protect luminaire from electrical surge (20kA).

11. Power Cord - (not shown) Pre-installed at factory. Please specify power cord length in accordance to height of the pole. Add 2 feet to power cord length if double mounting (2) or single arm mount (1A) is specified.

Exterior Luminaire Finish - Selux utilizes a high quality Polyester Powder Coating. All Selux luminaires and poles are finished in our Tiger Drylac certified facility and undergo a five stage intensive pretreatment process where product is thoroughly cleaned, phosphated and sealed. Selux powder coated products provide excellent salt and humidity resistance as well as ultraviolet resistance for color retention. All products are tested in accordance with test specifications for coatings from ASTM and PCI. Standard exterior colors are White (WH), Black (BK), Semi-Matte Black (BL), Bronze (BZ), and Silver (SV). Selux premium colors (SP) are available, please specify from your Selux color selection guide.

5 Year Limited LED Luminaire Warranty -

Selux offers a 5 Year Limited Warranty to the original purchaser that the Saturn Cutoff LED luminaire shall be free from defects in material and workmanship for up to five (5) years from date of shipment. This limited warranty covers the LED driver and LED array when installed and operated according to Selux instructions. For details, see "Selux Terms and Condition of Sale."

Listings and Ratings: Luminaire and LED tested to IP65 and IESNA LM-79-08 standards. LED tested to LM-80 standards. Luminaire and LED tested at 25°C ambient temperature.

Luminaire suitable for ambient temperature of 45°C. Minimum operating temperature of luminaire at -40°C (-40°F)

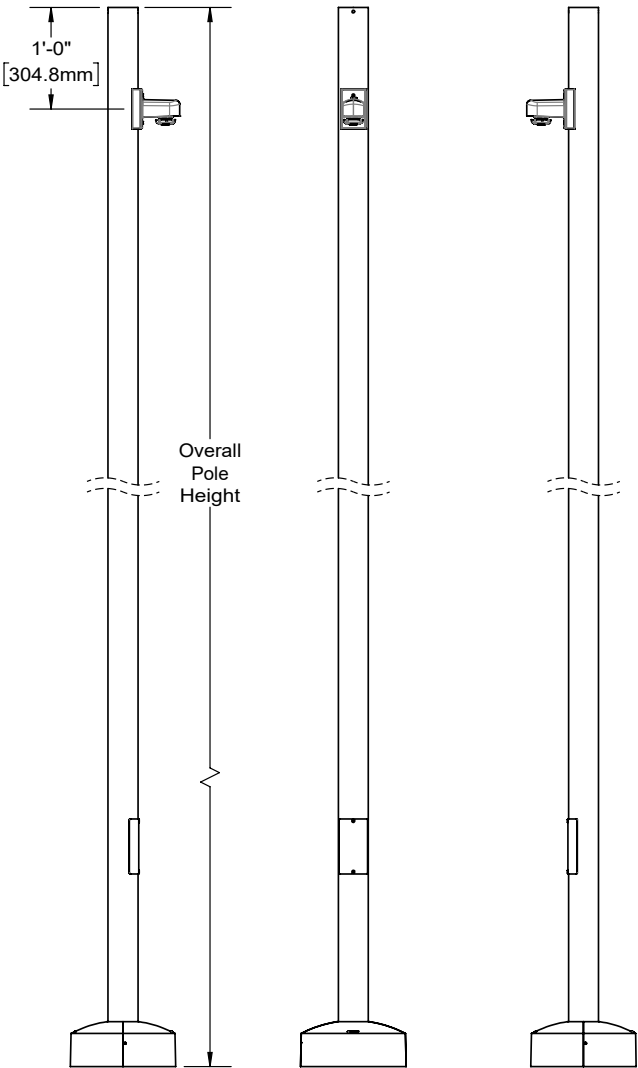
NRTL Listed (i.e. UL, CSA)

Visit selux.us for our LED End of Life recycling policy.

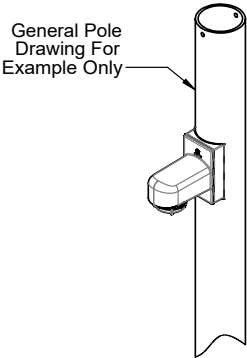
Pole Motion Sensor

The Selux outdoor rated sensor incorporates Passive Infrared (PIR) Technology for motion sensing and also includes a built in photocell. Designed to mount to a single gang face-plate on a pole/column, the FSP-211 utilizes 100% Digital Passive Infrared (PIR) Technology that is tuned for walking size tasks while preventing false tripping from the environment.

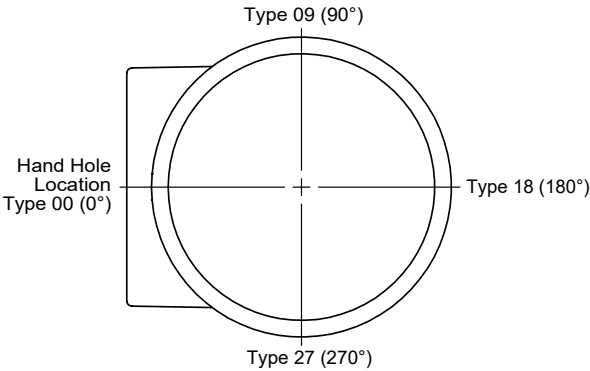
Series	Optics	Handhole Orientation	Voltage
MS Motion Sensor	1 270° Coverage Single Sensor	00 0° Clockwise from Handhole	UNV (120-277V)
		09 90° Clockwise from Handhole	347 *347V
		18 180° Clockwise from Handhole	480 *480V
		27 270° Clockwise from Handhole	* Consult Factory for 347V and 480V



- Factory Defaults:**
- Time Delay: 5 minutes
 - Cut off: 1 hour
 - Sensitivity: Max
 - Ramp Up Time: Disabled
 - Photo Cell: Disabled
 - Factory Programming: Consult Factory



Sensor angular orientation from hand hole 0°
90° increments clockwise around pole (Type 00, 09, 18, 27)



Mounting

Single (1)

Die-cast aluminum fitter base secured to pole with three stainless steel, Allen head set screws.

EPA = 1.7ft² (0.16m²)

Weight = 39lbs. (17.7kg)

Single Arm Mount (1A)

Die-cast aluminum single luminaire mounting arm secured to pole with four stainless steel, Allen head set screws. Outer slip fitter for 3½" O.D. tenon.

EPA = 2.7ft² (0.25m²)

Weight = 53lbs. (24.0kg)

Double (2)

Die-cast aluminum double luminaire mounting arm secured to pole with four stainless steel, Allen head set screws. Outer slip fitter for 3½" O.D. tenon.

EPA = 5ft² (0.46m²)

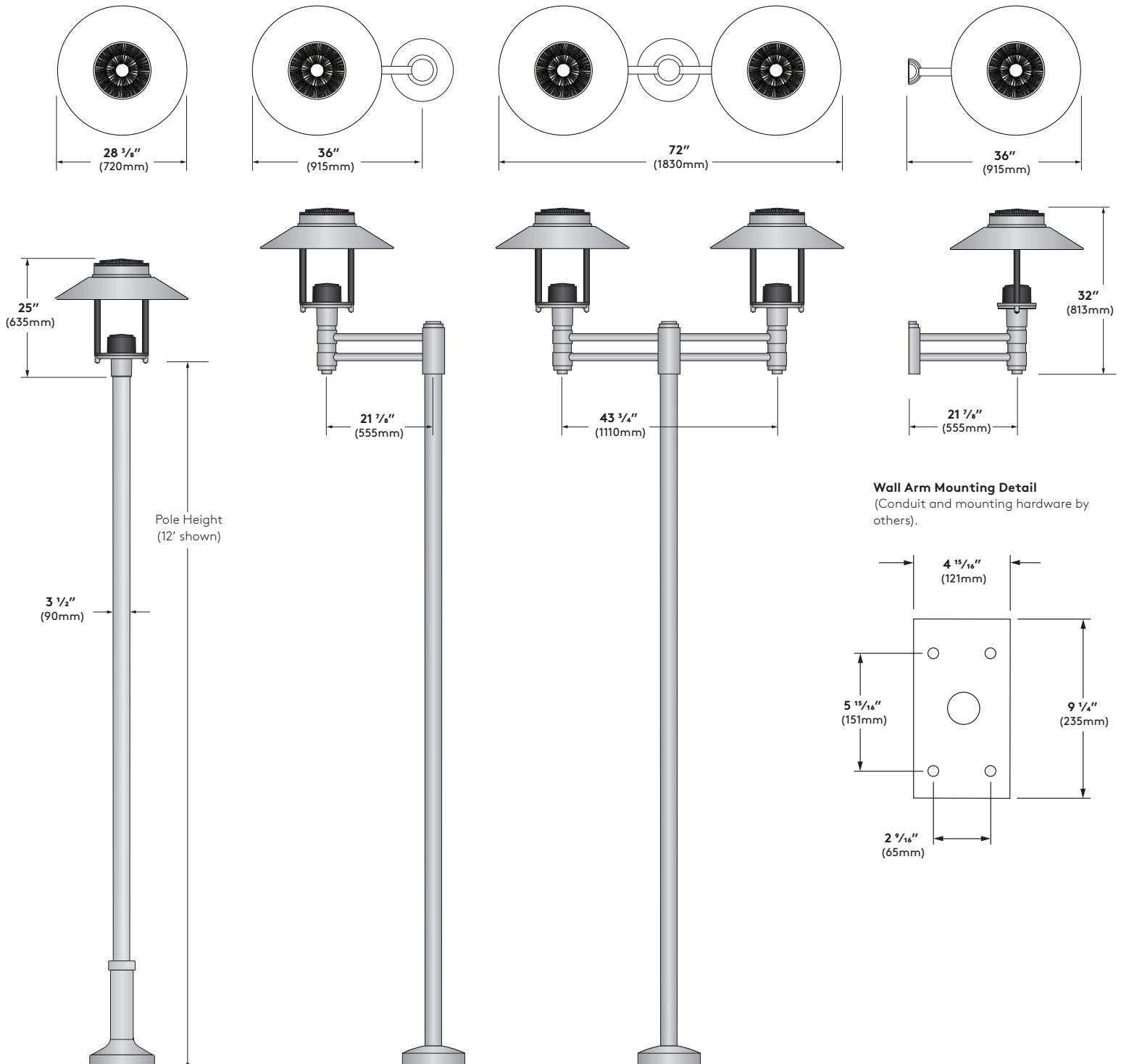
Weight = 100lbs. (79.8kg)

Wall (W)

Die-cast aluminum double round wall mount arm. Secured to wall with ¼" diameter threaded fasteners (by others).

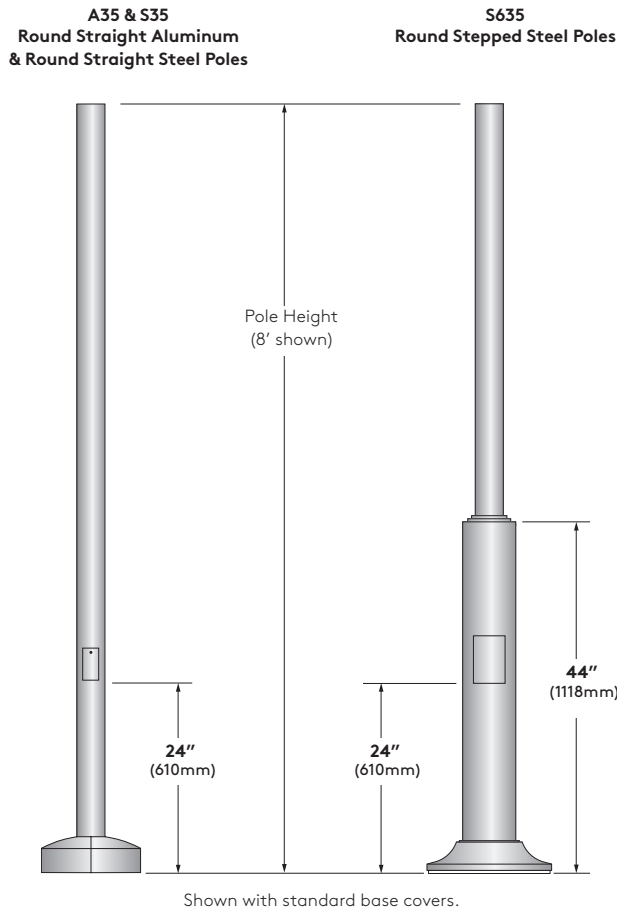
EPA = 2.5ft² (0.23m²)

Weight = 50lbs. (22.7kg)



Pole Information

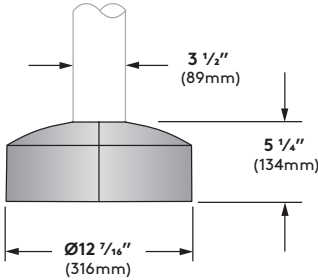
Refer to pole specification sheets for construction details, anchorage information and additional options.



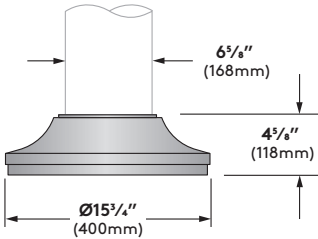
Base Cover Information

Refer to pole specification sheets for construction details, anchorage information and additional options.

Standard Base Cover (BC5)
Supplied with A35 and S35
Two-piece cast aluminum



Standard Base Cover (BC6)
Supplied with S635
One-piece cast aluminum

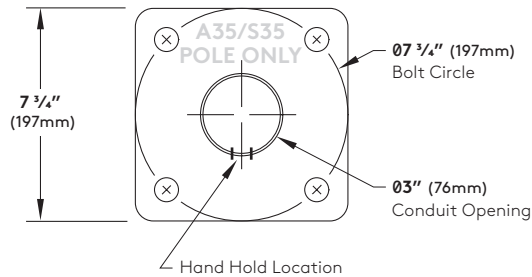


Pole Data Chart

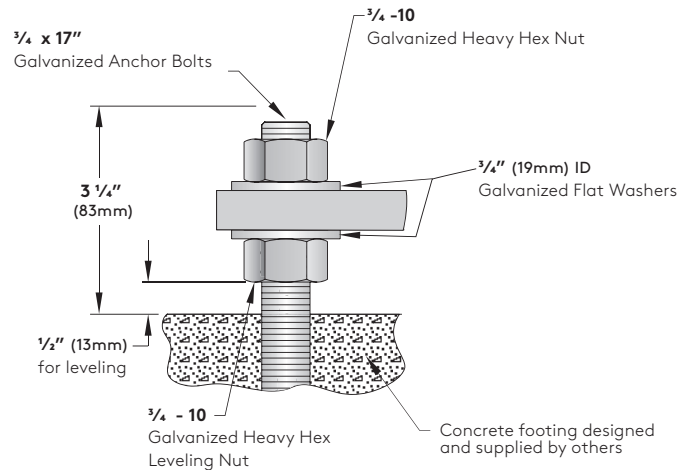
Pole Series	Bolt Circle	EPA Information					Height	Finish	Options
		70mph	80mph	90mph	100mph	110mph			
S635 3 1/2" Diameter Stepped Steel Pole	Ø9"	57.6	44.3	34.6	27.5	22.8	8 ft.	WH White	REC GFCI Receptacle with weatherproof cover ¹ (120V only) REC2 GFCI Receptacle with padlockable in-use cover ¹ (120V only) REC3 USB and Duplex Receptacle with weather proof cover REC4 USB Duplex Receptacle with weatherproof padlockable in-use MS Motion Sensor w/ Optional Photocell (Meets Title 24 Requirements)
A35 3 1/2" Diameter Straight Aluminum Pole	Ø7 3/4"	16.1	12.2	9.4	7.3	5.9		BK Black	
S35 3 1/2" Diameter Straight Steel Pole	Ø7 3/4"	14.8	11.3	8.6	6.7	5.4		BL Semi-matte Black	
S635 3 1/2" Diameter Stepped Steel Pole	Ø9"	45.6	35.0	27.3	21.6	17.8	10 10 ft.	BZ Bronze	
A35 3 1/2" Diameter Straight Aluminum Pole	Ø7 3/4"	12.4	9.3	7.1	5.4	4.3		SV Silver	
S35 3 1/2" Diameter Straight Steel Pole	Ø7 3/4"	11.4	8.6	6.5	4.9	3.9		SP Specify Premium Color	
S635 3 1/2" Diameter Stepped Steel Pole	Ø9"	37.6	28.7	22.3	17.5	14.4	12 12 ft.		
A35 3 1/2" Diameter Straight Aluminum Pole	Ø7 3/4"	9.9	7.3	5.4	4.0	3.1			
S35 3 1/2" Diameter Straight Steel Pole	Ø7 3/4"	9.1	6.7	4.9	3.6	2.8			
S635 3 1/2" Diameter Stepped Steel Pole	Ø9"	31.7	24.2	18.6	14.6	11.9	14 14 ft.		
A35 3 1/2" Diameter Straight Aluminum Pole	Ø7 3/4"	8.0	5.8	4.2	3.0	2.2			
S35 3 1/2" Diameter Straight Steel Pole	Ø7 3/4"	7.3	5.3	3.8	2.7	1.9			
S635 3 1/2" Diameter Stepped Steel Pole	Ø9"	21.7	15.8	12.3	9.6	7.6	16 16 ft.		
A35 3 1/2" Diameter Straight Aluminum Pole	Ø7 3/4"	4.9	3.2	2.2	1.4	N/A			
S35 3 1/2" Diameter Straight Steel Pole	Ø7 3/4"	4.4	2.8	1.9	N/A	N/A			

Bolt Circle for A35 & S35

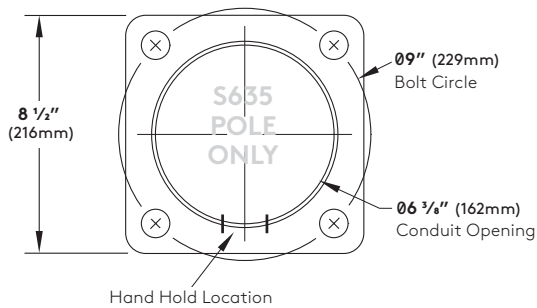
Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimensions shown



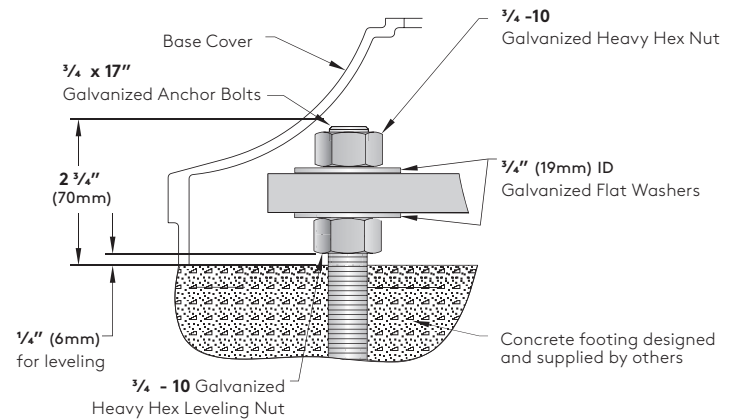
Note: Adequate drainage must be provided in concrete foundation.

Anchor Bolt Detail for A35 & S35**Bolt Circle for S635**

Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimensions shown.

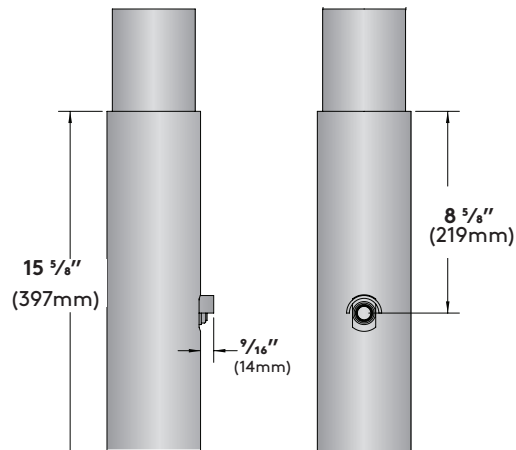


Note: Adequate drainage must be provided in concrete foundation.

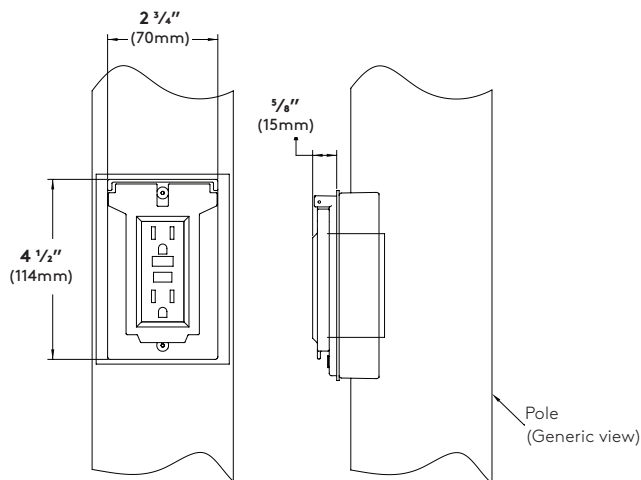
Anchor Bolt Detail for S635

Optional Accessories

Photo Cell Tenon (PCT) - Button type photocell mounted in cast aluminum pole top tenon. Tenon has integral cast visor to prevent false start/stop cycle and can be oriented for optimum performance. Refer to luminaire spec sheet to determine if this option is applicable.



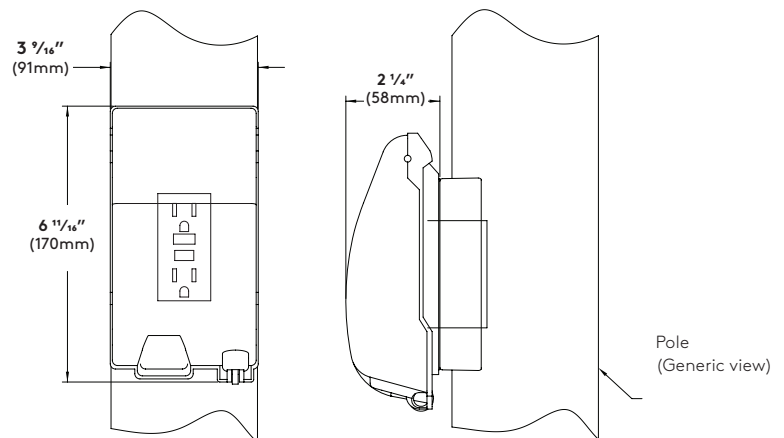
GFCI Receptacle (REC) - 120V 15A GFCI duplex receptacle with weather-proof, self-closing, non-lockable cover; located 36" (915mm) from base of pole, inline with handhole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel. For use with 120V applications only. For use with luminaires with other than 120V rating, please consult factory for wire segregation.



USB & Duplex Receptacle (REC3) (not shown) - 120V 15A duplex receptacle with USB combination ports. (1) type A and (1) type C high power 5 Amp, 5 Volt USB outlets. With weather-proof, self-closing cover; located 36" (915mm) from base of pole, inline with handhole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel.

Note: Must be used in conjunction with GFCI breaker by others

GFCI Receptacle (REC2) - 120V 15A GFCI duplex receptacle with weather-proof, self-closing, padlockable in-use cover; located 36" (915mm) from base of pole, inline with handhole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel. For use with 120V applications only. For use with luminaires with other than 120V rating, please consult factory for wire segregation.



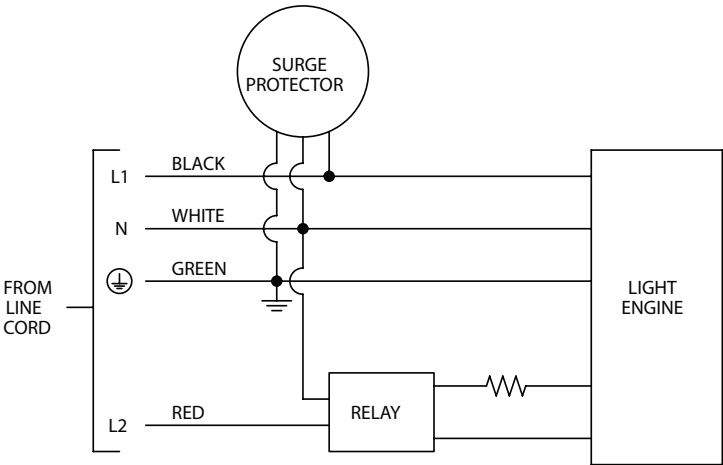
USB & Duplex Receptacle (REC4) (not shown) - 120V 15A duplex receptacle with USB combination ports. (1) type A and (1) type C high power 5 Amp, 5 Volt USB outlets. With weather-proof, self-closing padlockable in-use cover; located 36" (915mm) from base of pole, inline with handhole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel.

Note: Must be used in conjunction with GFCI breaker by others

Wiring

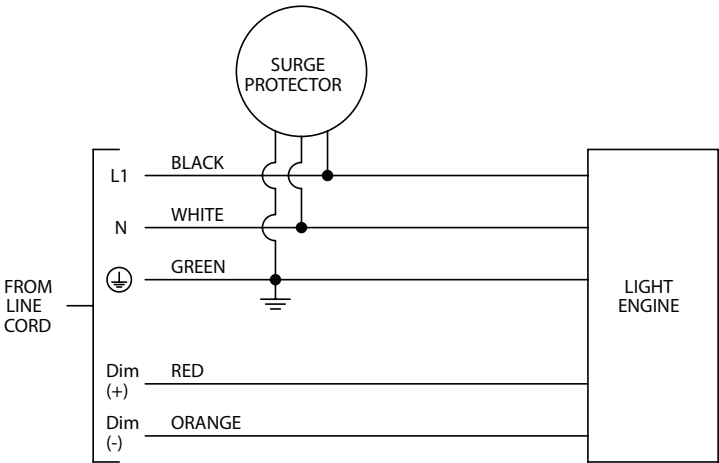
Hi-Lo Switching Option (HL) Wiring

120V, 240V, 277V. When red is energized, light output will be at "Lo" level.

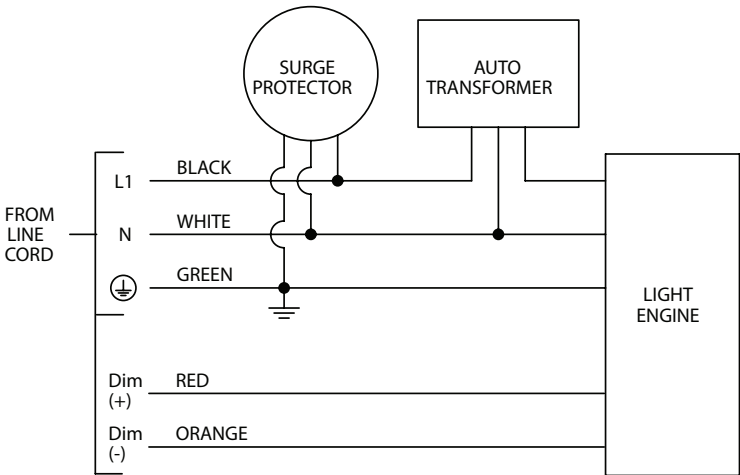


0-10V Dimming Option (DM) Wiring

120-277V.



347/480 V



Photometry

R1 Optics / 39W / 3000K CCT

Catalog #: SAC2L-R1-5G450-30

Delivered Lumens: 4352

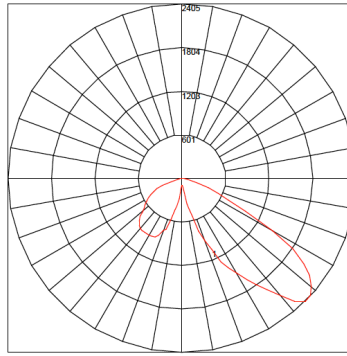
Efficacy: 112lm/W

Maximum candela of 2405 at 47.5° from vertical.

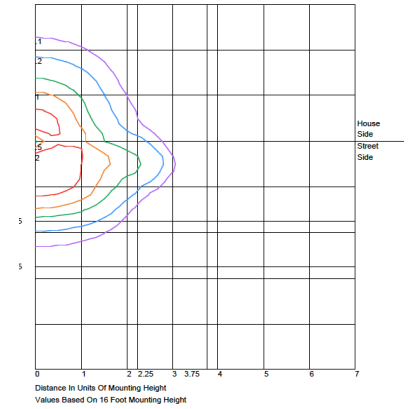
IES classification - Type II

Mounting Height = 16'

B1-U0-G1



Maximum Candela = 2405 Located At Horizontal Angle = 35, Vertical Angle = 47.5
#1 - Vertical Plane Through Horizontal Angles (35 - 215) (Through Max. Cd.)



Distance In Units Of Mounting Height
Values Based On 16 Foot Mounting Height

R1 Optics with HS / 39W / 3000K CCT

Catalog #: SAC2L-R1-5G450-30-HS

Delivered Lumens: 3330

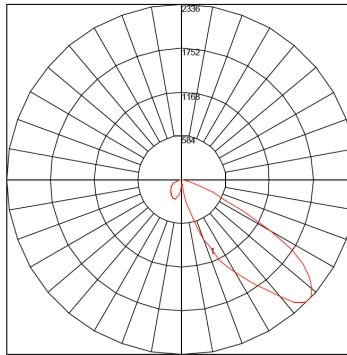
Efficacy: 85lm/W

Maximum candela of 2336.3 at 47.5° from vertical.

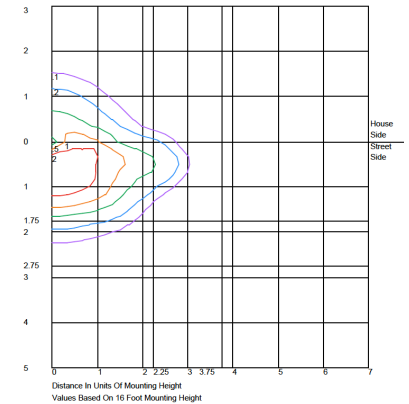
IES classification - Type II

Mounting Height = 16'

B1-U0-G0



Maximum Candela = 2336.3 Located At Horizontal Angle = 35, Vertical Angle = 47.5
#1 - Vertical Plane Through Horizontal Angles (35 - 215) (Through Max. Cd.)



Distance In Units Of Mounting Height
Values Based On 16 Foot Mounting Height

R2 Optics / 39W / 3000K CCT

Catalog #: SAC2L-R2-5G450-30

Delivered Lumens: 4416

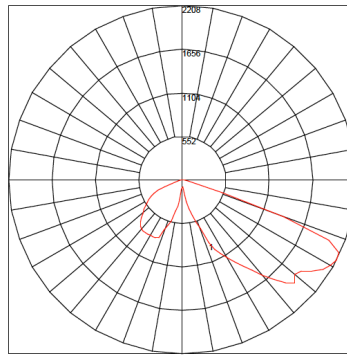
Efficacy: 113lm/W

Maximum candela of 2208.4 at 62.5° from vertical.

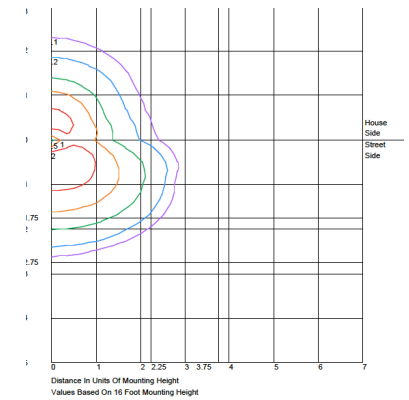
IES classification - Type III

Mounting Height = 16'

B1-U0-G1



Maximum Candela = 2208.4 Located At Horizontal Angle = 55, Vertical Angle = 62.5
#1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)



Distance In Units Of Mounting Height
Values Based On 16 Foot Mounting Height

R3 Optics / 39W / 3000K CCT

Catalog #: SAC2L-R3-5G450-30

Delivered Lumens: 4414

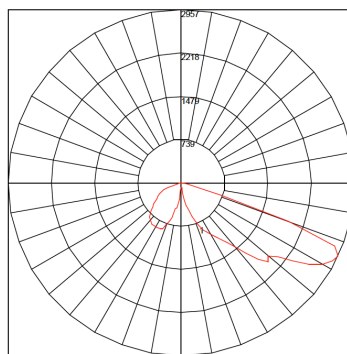
Efficacy: 113lm/W

Maximum candela of 2957.1 at 65° from vertical.

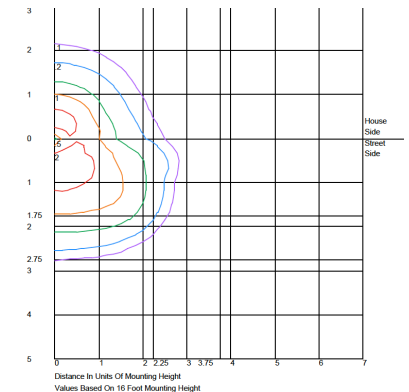
IES classification - Type III

Mounting Height = 16'

B1-U0-G1



Maximum Candela = 2957.1 Located At Horizontal Angle = 45, Vertical Angle = 65
#1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)



Distance In Units Of Mounting Height
Values Based On 16 Foot Mounting Height

R3W Optics / 39W / 3000K CCT

Catalog #: SAC2L-R3W-5G450-30

Delivered Lumens: 4479

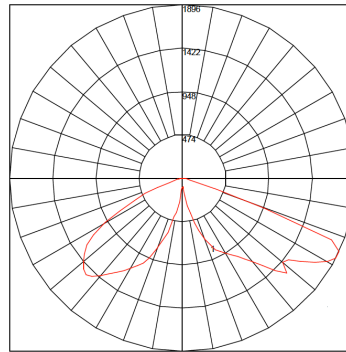
Efficacy: 115lm/W

Maximum candela of 1896 at 62.5° from vertical.

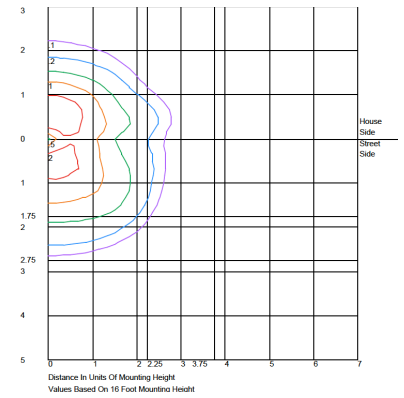
IES classification - Type III

Mounting Height = 16'

B2-U0-G1



Maximum Candela = 1896 Located At Horizontal Angle = 45, Vertical Angle = 62.5
 # 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)



R4 Optics / 39W / 3000K CCT

Catalog #: SAC2L-R4-5G450-30

Delivered Lumens: 4423

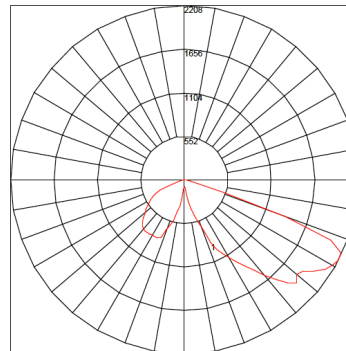
Efficacy: 113lm/W

Maximum candela of 2208.4 at 67.5° from vertical.

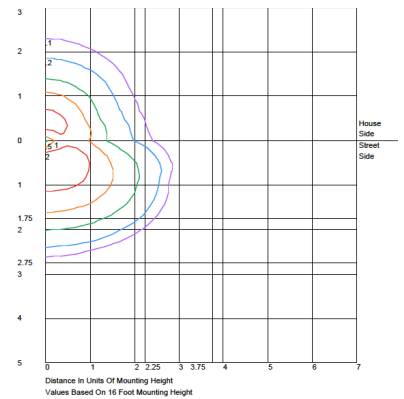
IES classification - Type III

Mounting Height = 16'

B1-U1-G1



Maximum Candela = 2208.4 Located At Horizontal Angle = 55, Vertical Angle = 62.5
 # 1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)



R5R Optics / 39W / 3000K CCT

Catalog #: SAC2L-R5R-5G450-30

Delivered Lumens: 4548

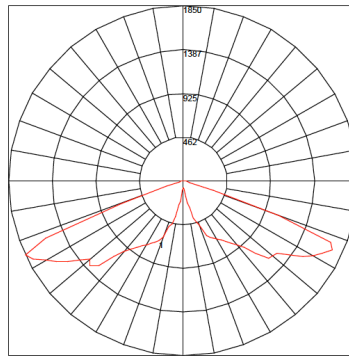
Efficacy: 117lm/W

Maximum candela of 1849.9 at 65° from vertical.

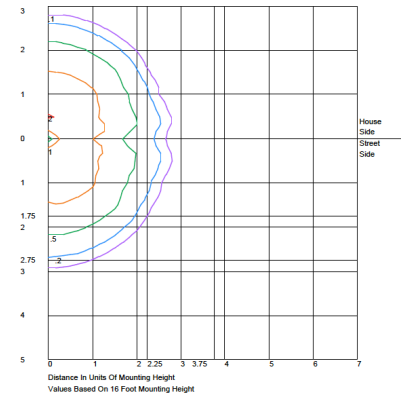
IES classification - N/A

Mounting Height = 16'

B2-U0-G2



Maximum Candela = 1849.9 Located At Horizontal Angle = 180, Vertical Angle = 65
 # 1 - Vertical Plane Through Horizontal Angles (180 - 0) (Through Max. Cd.)



R5S Optics / 39W / 3000K CCT

Catalog #: SAC2L-R5S-5G450-30

Delivered Lumens: 4517

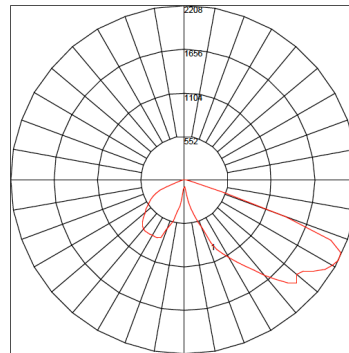
Efficacy: 116lm/W

Maximum candela of 1943 at 65° from vertical.

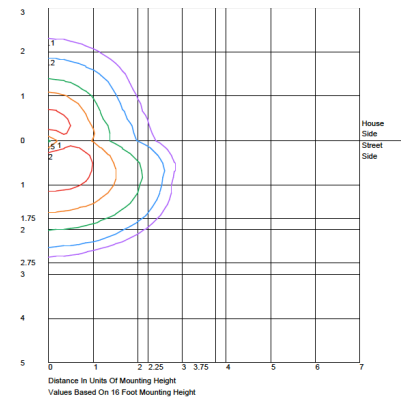
IES classification - N/A

Mounting Height = 16'

B2-U0-G2



Maximum Candela = 2208.4 Located At Horizontal Angle = 55, Vertical Angle = 62.5
 # 1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)



R5Q Optics / 39W / 3000K CCT

Catalog #: SAC2L-R5Q-5G450-30-HS

Delivered Lumens: 4475

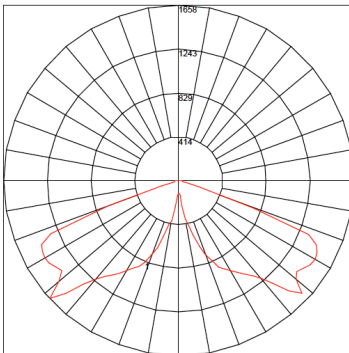
Efficacy: 115lm/W

Maximum candela of 1657.7 at 47.5° from vertical.

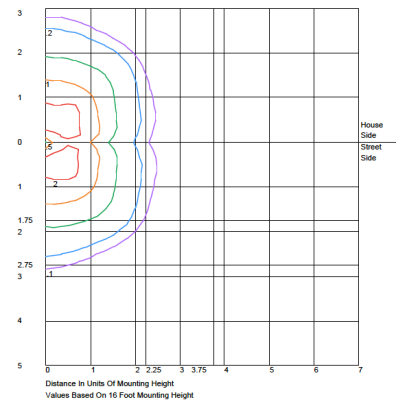
IES classification - N/A

Mounting Height = 16'

B2-U0-G2



Maximum Candela = 1657.7 Located At Horizontal Angle = 145, Vertical Angle = 47.5
 # 1 - Vertical Plane Through Horizontal Angles (145 - 325) (Through Max. Cd.)



LIGHT FIXTURE TYPE S5

Date: _____ Customer: _____

Project: _____

Type: _____ Qty: _____



Saturn Cutoff 2 LED



Order Code: SAC2L - - - - -

Pole Order Code:

SAC2L	Series	Series					Height	Finish	Options
		SAC2L Saturn 2 Cutoff LED							
	Optics	R1 Type I	R2 Type II	R3 Type III	R3W Type III (Wide)	R4 Type IV	R5R Type V (Round)	R5S Type V (Square)	R5Q Type V (Rectangular)
	Mounting	1 Single	1A Single Arm Mount	2 Double	W Wall Mount				
	Light Engine	5G450 39W/4352lm	5G700 62W/6537lm	5G105 94W/9101lm					*Based on R1 distribution and 3000K CCT
	CCT	27 ¹ 2700K	30 ¹ 3000K	40 4000K					¹ IDA Approved *For other CCT please consult factory
	Power Cord Length	8* 8'	10* 10'	12* 12'	14* 14'	16* 16'	18* 18'	XX* XX'	*For 1 mounting use the pole height. For 1A or 2 mounting use the pole height +2
	Finish	WH White	BK Black	BL Semi-Matte Black	BZ Bronze	SV Silver	SP Specify Premium Color		
	Voltage	120 120V	240 240V	277 277V	347 ² 347V	480 ² 480V			² Equipped with step-down transformer
	Options	DM ⁴ Dimming (0-10V)	HS ³ House Side Shield (180°)	HL30 ^{4,5} Hi-Lo Switching Low Output 30%	HL50 ^{4,5} Hi-Lo Switching Low Output 50%	DS No Uplight Finish	PCT Photocell Tenon		³ Type I, II, III, and IV only ⁴ DM or HLXX, cannot be combined. ⁵ 120V, 240V or 277V only ⁶ Only available at 120/230/240/277V. Consult factory for 208/347/480V.
		Pole Motion Sensor ⁶ with optional photocell See page 3 for order code							

Product Modifications

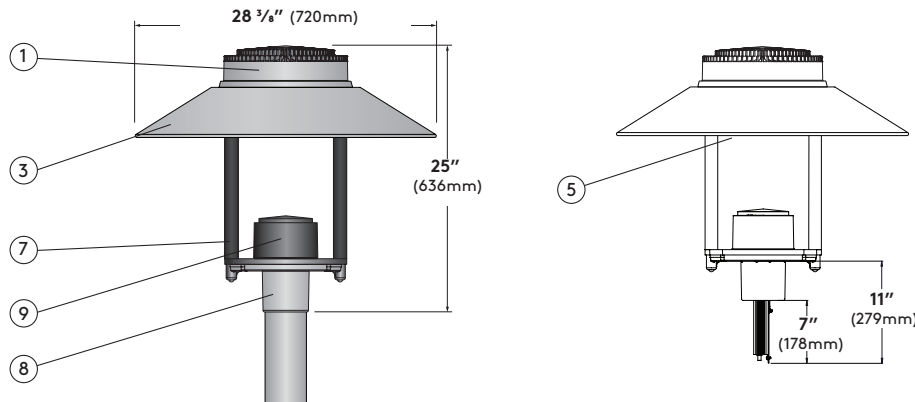
Please list modification requirements for review by factory:

Approvals



Date: _____

SAC2L-1-XX-DS



For further details, please see installation instructions.

Specifications

1. Luminaire Cover - Die cast aluminum cover made from low copper alloy, designed to ensure optimal thermal management for extra long life time of LED light engine.

2. Gasketing - (not shown) Continuous gasket provides weatherproofing, dust and insect control at all fixture connections.

3. Luminaire Hood - Aluminum shade with white painted interior.

4. LED Array - (not shown) High flux LEDs mounted to PC boards and attached to aluminum heat sink for maximum LED performance and life. CCT tolerance ¼ step binning for 3000K, and 4000K. CRI minimum 80. Complete light engine can be removed easily for future upgrade. LED light engine provides a reported lumen maintenance of 93% at 50,000 hours. L70 calculated greater than 100,000 hours.

5. LED Optics - Technical Optics (R1, R2, R3, R3W, R4, R5S, R5Q and R5R) use Selux signature light pattern acrylic lens holder to secure proprietary silicone optics. Micro house side shield available for distributions types I, II, III and IV.

6. LED Driver - (not shown) LEDs are driven by RoHS compliant constant current programmable LED driver. Driver includes 0-10V dimming to 10%, meets the requirements of IP66. Driver assembly located inside the head.

7. Hood Supports - Two aluminum arms support shade and optic assembly and attach to the die cast aluminum pole fitter (shown painted matte black for DS option).

8. Pole Fitter - Self-leveling, die-cast low-copper aluminum alloy, fitter base secured to pole with three, stainless steel, Allen head set screws. Fitter for 3 ½" (90mm) O.D. poles.

9. Driver cover - Die cast aluminum cover made from low copper alloy, removes for tool-less access to driver. Driver secured to removable tray for ease of maintenance (shown painted matte black for DS option).

10. Surge Protector - (not shown) Designed to protect luminaire from electrical surge (20kA).

11. Power Cord - (not shown) Pre-installed at factory. Please specify power cord length in accordance to height of the pole. Add 2 feet to power cord length if double mounting (2) or single arm mount (1A) is specified.

Exterior Luminaire Finish - Selux utilizes a high quality Polyester Powder Coating. All Selux luminaires and poles are finished in our Tiger Drylac certified facility and undergo a five stage intensive pretreatment process where product is thoroughly cleaned, phosphated and sealed. Selux powder coated products provide excellent salt and humidity resistance as well as ultraviolet resistance for color retention. All products are tested in accordance with test specifications for coatings from ASTM and PCI. Standard exterior colors are White (WH), Black (BK), Semi-Matte Black (BL), Bronze (BZ), and Silver (SV). Selux premium colors (SP) are available, please specify from your Selux color selection guide.

5 Year Limited LED Luminaire Warranty -

Selux offers a 5 Year Limited Warranty to the original purchaser that the Saturn Cutoff LED luminaire shall be free from defects in material and workmanship for up to five (5) years from date of shipment. This limited warranty covers the LED driver and LED array when installed and operated according to Selux instructions. For details, see "Selux Terms and Condition of Sale."

Listings and Ratings: Luminaire and LED tested to IP65 and IESNA LM-79-08 standards. LED tested to LM-80 standards. Luminaire and LED tested at 25°C ambient temperature.

Luminaire suitable for ambient temperature of 45°C. Minimum operating temperature of luminaire at -40°C (-40°F)

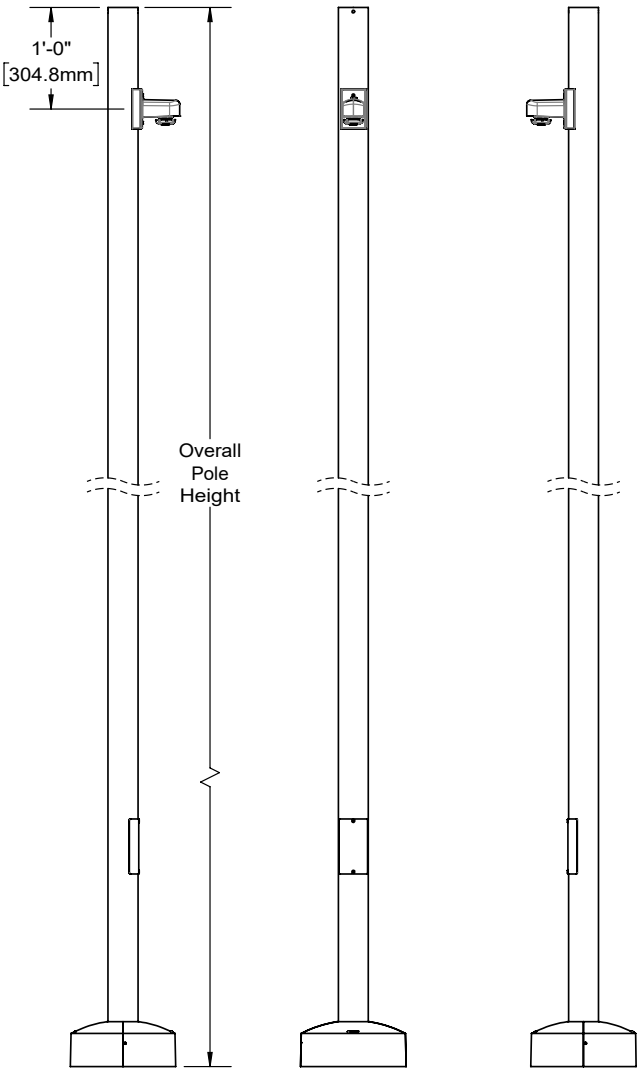
NRTL Listed (i.e. UL, CSA)

Visit selux.us for our LED End of Life recycling policy.

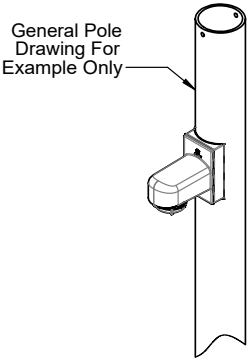
Pole Motion Sensor

The Selux outdoor rated sensor incorporates Passive Infrared (PIR) Technology for motion sensing and also includes a built in photocell. Designed to mount to a single gang face-plate on a pole/column, the FSP-211 utilizes 100% Digital Passive Infrared (PIR) Technology that is tuned for walking size tasks while preventing false tripping from the environment.

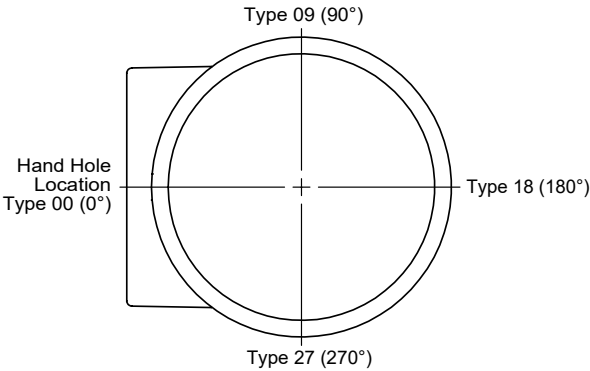
Series	Optics	Handhole Orientation	Voltage
MS Motion Sensor	1 270° Coverage Single Sensor	00 0° Clockwise from Handhole	UNV (120-277V)
		09 90° Clockwise from Handhole	347 *347V
		18 180° Clockwise from Handhole	480 *480V
		27 270° Clockwise from Handhole	* Consult Factory for 347V and 480V



- Factory Defaults:**
- Time Delay: 5 minutes
 - Cut off: 1 hour
 - Sensitivity: Max
 - Ramp Up Time: Disabled
 - Photo Cell: Disabled
 - Factory Programming: Consult Factory



Sensor angular orientation from hand hole 0°
90° increments clockwise around pole (Type 00, 09, 18, 27)



Mounting

Single (1)

Die-cast aluminum fitter base secured to pole with three stainless steel, Allen head set screws.

EPA = 1.7ft² (0.16m²)

Weight = 39lbs. (17.7kg)

Single Arm Mount (1A)

Die-cast aluminum single luminaire mounting arm secured to pole with four stainless steel, Allen head set screws. Outer slip fitter for 3½" O.D. tenon.

EPA = 2.7ft² (0.25m²)

Weight = 53lbs. (24.0kg)

Double (2)

Die-cast aluminum double luminaire mounting arm secured to pole with four stainless steel, Allen head set screws. Outer slip fitter for 3½" O.D. tenon.

EPA = 5ft² (0.46m²)

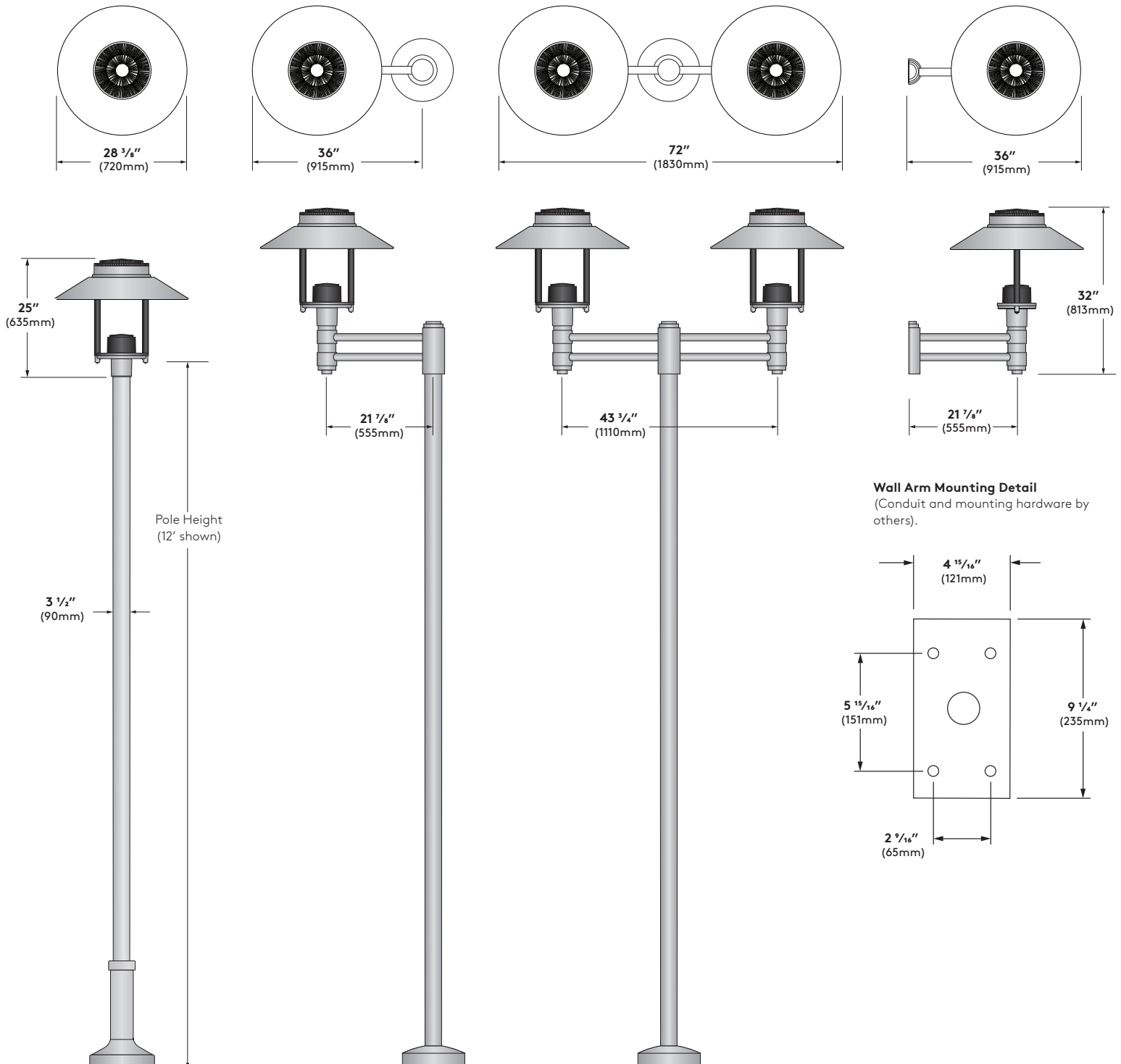
Weight = 100lbs. (79.8kg)

Wall (W)

Die-cast aluminum double round wall mount arm. Secured to wall with ¼" diameter threaded fasteners (by others).

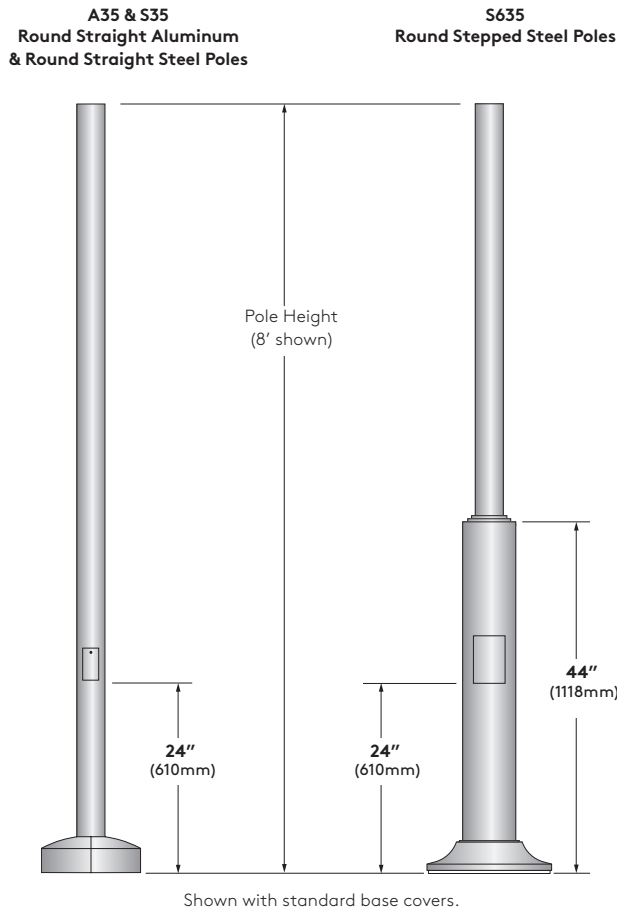
EPA = 2.5ft² (0.23m²)

Weight = 50lbs. (22.7kg)



Pole Information

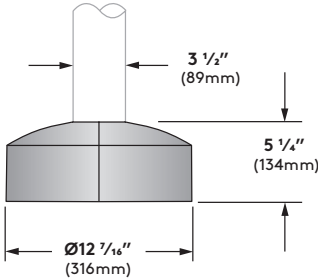
Refer to pole specification sheets for construction details, anchorage information and additional options.



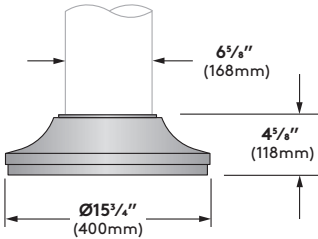
Base Cover Information

Refer to pole specification sheets for construction details, anchorage information and additional options.

Standard Base Cover (BC5)
Supplied with A35 and S35
Two-piece cast aluminum



Standard Base Cover (BC6)
Supplied with S635
One-piece cast aluminum

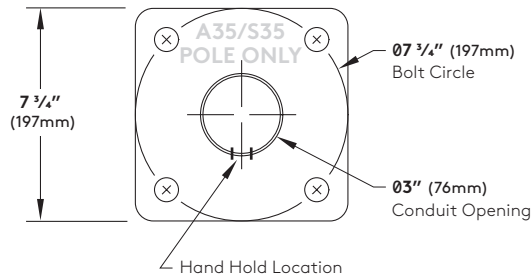


Pole Data Chart

Pole Series	Bolt Circle	EPA Information					Height	Finish	Options
		70mph	80mph	90mph	100mph	110mph			
S635 3 1/2" Diameter Stepped Steel Pole	Ø9"	57.6	44.3	34.6	27.5	22.8	8 8ft.	WH White	REC GFCI Receptacle with weatherproof cover ¹ (120V only) REC2 GFCI Receptacle with padlockable in-use cover ¹ (120V only) REC3 USB and Duplex Receptacle with weather proof cover REC4 USB Duplex Receptacle with weatherproof padlockable in-use MS Motion Sensor w/ Optional Photocell (Meets Title 24 Requirements)
A35 3 1/2" Diameter Straight Aluminum Pole	Ø7 3/4"	16.1	12.2	9.4	7.3	5.9		BK Black	
S35 3 1/2" Diameter Straight Steel Pole	Ø7 3/4"	14.8	11.3	8.6	6.7	5.4		BL Semi-matte Black	
S635 3 1/2" Diameter Stepped Steel Pole	Ø9"	45.6	35.0	27.3	21.6	17.8	10 10 ft.	BZ Bronze	
A35 3 1/2" Diameter Straight Aluminum Pole	Ø7 3/4"	12.4	9.3	7.1	5.4	4.3		SV Silver	
S35 3 1/2" Diameter Straight Steel Pole	Ø7 3/4"	11.4	8.6	6.5	4.9	3.9		SP Specify Premium Color	
S635 3 1/2" Diameter Stepped Steel Pole	Ø9"	37.6	28.7	22.3	17.5	14.4	12 12 ft.		
A35 3 1/2" Diameter Straight Aluminum Pole	Ø7 3/4"	9.9	7.3	5.4	4.0	3.1			
S35 3 1/2" Diameter Straight Steel Pole	Ø7 3/4"	9.1	6.7	4.9	3.6	2.8			
S635 3 1/2" Diameter Stepped Steel Pole	Ø9"	31.7	24.2	18.6	14.6	11.9	14 14 ft.		
A35 3 1/2" Diameter Straight Aluminum Pole	Ø7 3/4"	8.0	5.8	4.2	3.0	2.2			
S35 3 1/2" Diameter Straight Steel Pole	Ø7 3/4"	7.3	5.3	3.8	2.7	1.9			
S635 3 1/2" Diameter Stepped Steel Pole	Ø9"	21.7	15.8	12.3	9.6	7.6	16 16 ft.		
A35 3 1/2" Diameter Straight Aluminum Pole	Ø7 3/4"	4.9	3.2	2.2	1.4	N/A			
S35 3 1/2" Diameter Straight Steel Pole	Ø7 3/4"	4.4	2.8	1.9	N/A	N/A			

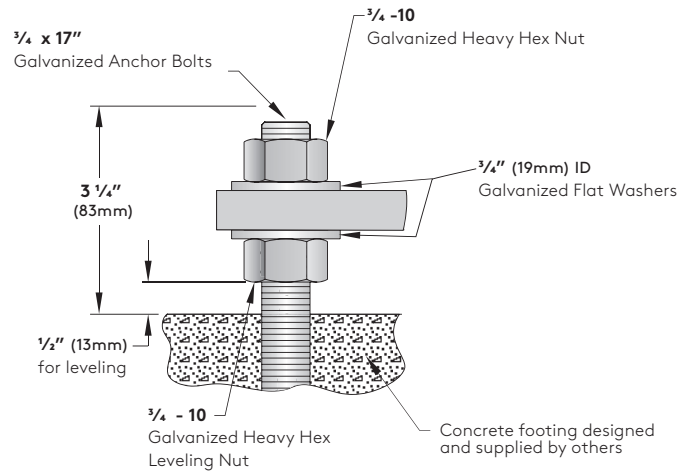
Bolt Circle for A35 & S35

Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimensions shown



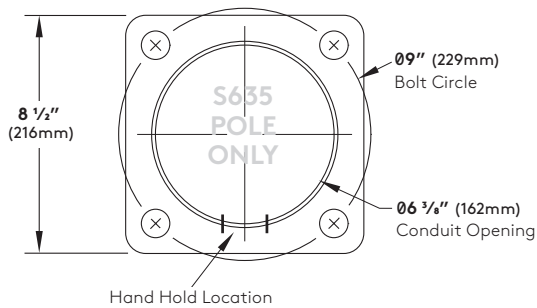
Note: Adequate drainage must be provided in concrete foundation.

Anchor Bolt Detail for A35 & S35



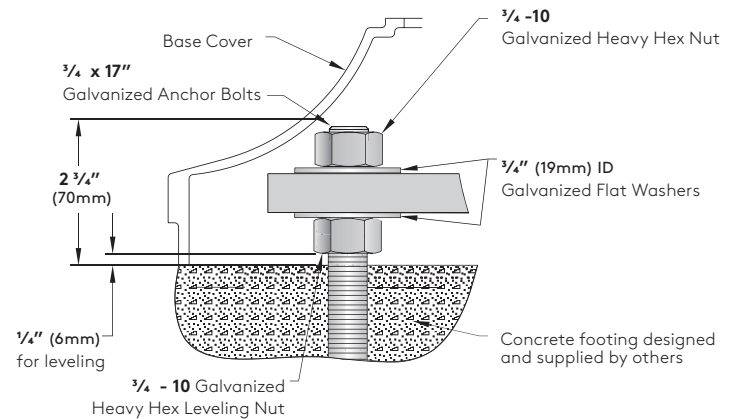
Bolt Circle for S635

Use caution when setting anchor bolts. Bolts must be vertically straight and centered on dimensions shown.



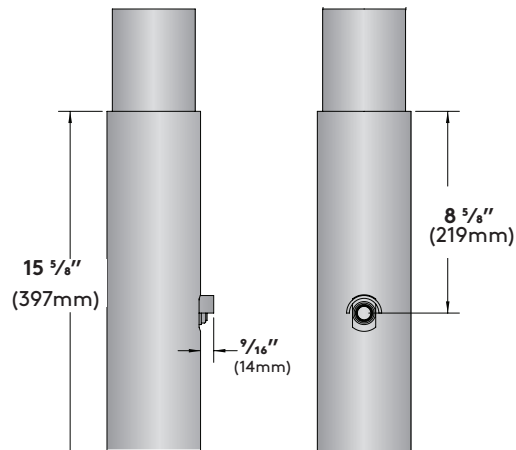
Note: Adequate drainage must be provided in concrete foundation.

Anchor Bolt Detail for S635

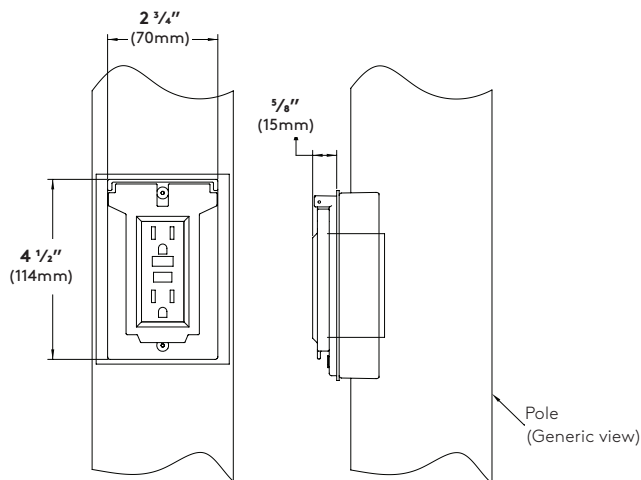


Optional Accessories

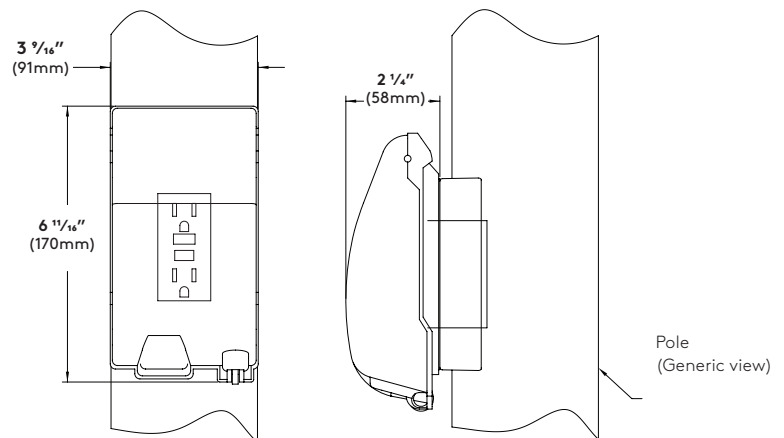
Photo Cell Tenon (PCT) - Button type photocell mounted in cast aluminum pole top tenon. Tenon has integral cast visor to prevent false start/stop cycle and can be oriented for optimum performance. Refer to luminaire spec sheet to determine if this option is applicable.



GFCI Receptacle (REC) - 120V 15A GFCI duplex receptacle with weather-proof, self-closing, non-lockable cover; located 36" (915mm) from base of pole, inline with handhole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel. For use with 120V applications only. For use with luminaires with other than 120V rating, please consult factory for wire segregation.



GFCI Receptacle (REC2) - 120V 15A GFCI duplex receptacle with weather-proof, self-closing, padlockable in-use cover; located 36" (915mm) from base of pole, inline with handhole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel. For use with 120V applications only. For use with luminaires with other than 120V rating, please consult factory for wire segregation.



USB & Duplex Receptacle (REC3) (not shown) - 120V 15A duplex receptacle with USB combination ports. (1) type A and (1) type C high power 5 Amp, 5 Volt USB outlets. With weather-proof, self-closing cover; located 36" (915mm) from base of pole, inline with handhole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel.

Note: Must be used in conjunction with GFCI breaker by others

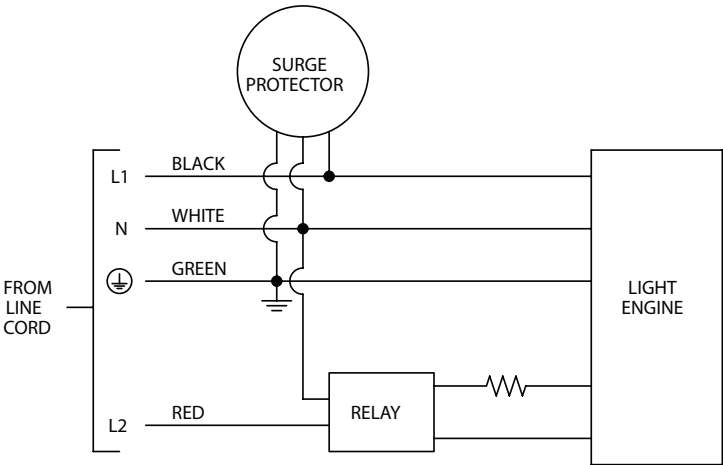
USB & Duplex Receptacle (REC4) (not shown) - 120V 15A duplex receptacle with USB combination ports. (1) type A and (1) type C high power 5 Amp, 5 Volt USB outlets. With weather-proof, self-closing padlockable in-use cover; located 36" (915mm) from base of pole, inline with handhole. Receptacle is intended only for portable tools or other portable equipment to be connected to outlet only when attended by operating personnel.

Note: Must be used in conjunction with GFCI breaker by others

Wiring

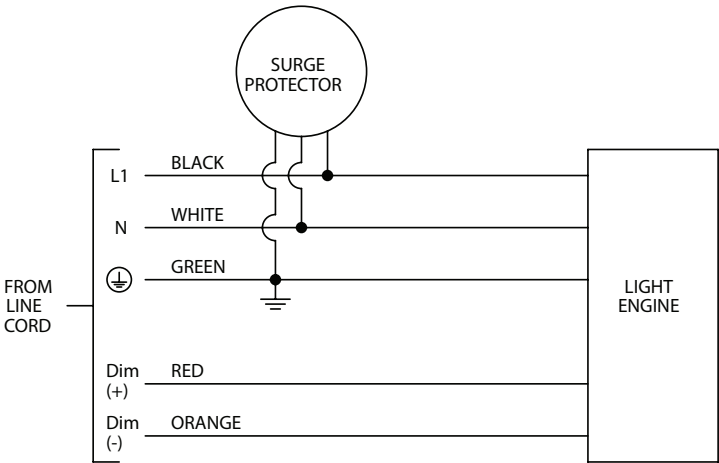
Hi-Lo Switching Option (HL) Wiring

120V, 240V, 277V. When red is energized, light output will be at "Lo" level.

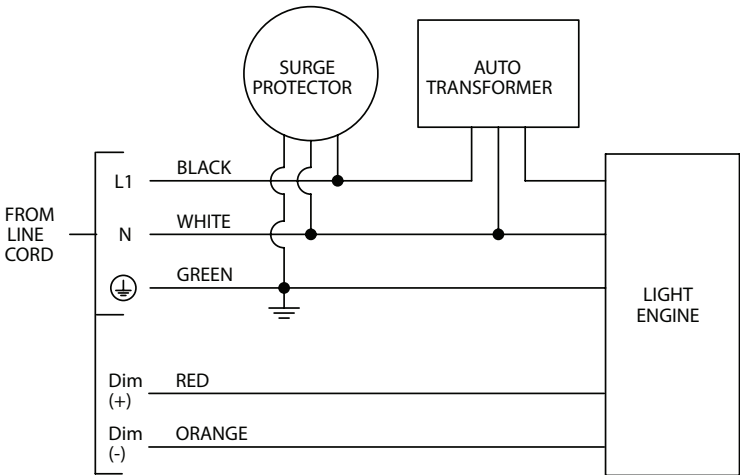


0-10V Dimming Option (DM) Wiring

120-277V.



347/480 V



Photometry

R1 Optics / 39W / 3000K CCT

Catalog #: SAC2L-R1-5G450-30

Delivered Lumens: 4352

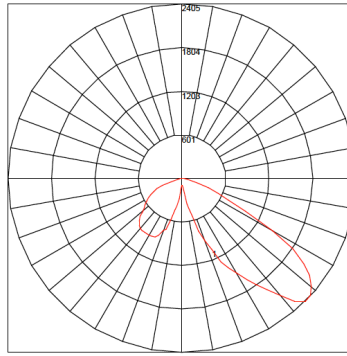
Efficacy: 112lm/W

Maximum candela of 2405 at 47.5° from vertical.

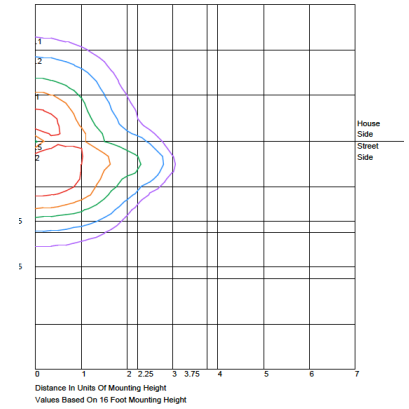
IES classification - Type II

Mounting Height = 16'

B1-U0-G1



Maximum Candela = 2405 Located At Horizontal Angle = 35, Vertical Angle = 47.5
#1 - Vertical Plane Through Horizontal Angles (35 - 215) (Through Max. Cd.)



Distance In Units Of Mounting Height
Values Based On 16 Foot Mounting Height

R1 Optics with HS / 39W / 3000K CCT

Catalog #: SAC2L-R1-5G450-30-HS

Delivered Lumens: 3330

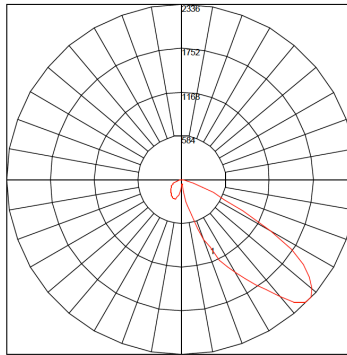
Efficacy: 85lm/W

Maximum candela of 2336.3 at 47.5° from vertical.

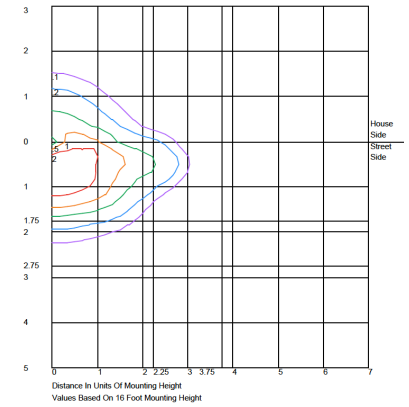
IES classification - Type II

Mounting Height = 16'

B1-U0-G0



Maximum Candela = 2336.3 Located At Horizontal Angle = 35, Vertical Angle = 47.5
#1 - Vertical Plane Through Horizontal Angles (35 - 215) (Through Max. Cd.)



Distance In Units Of Mounting Height
Values Based On 16 Foot Mounting Height

R2 Optics / 39W / 3000K CCT

Catalog #: SAC2L-R2-5G450-30

Delivered Lumens: 4416

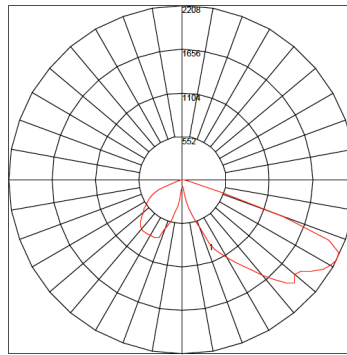
Efficacy: 113lm/W

Maximum candela of 2208.4 at 62.5° from vertical.

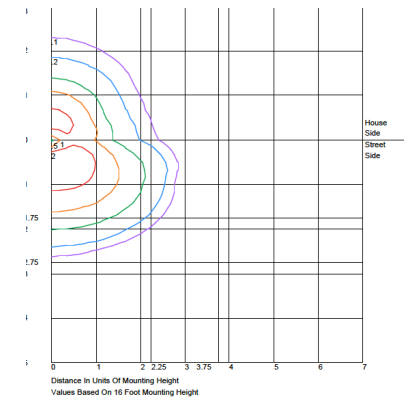
IES classification - Type III

Mounting Height = 16'

B1-U0-G1



Maximum Candela = 2208.4 Located At Horizontal Angle = 55, Vertical Angle = 62.5
#1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)



Distance In Units Of Mounting Height
Values Based On 16 Foot Mounting Height

R3 Optics / 39W / 3000K CCT

Catalog #: SAC2L-R3-5G450-30

Delivered Lumens: 4414

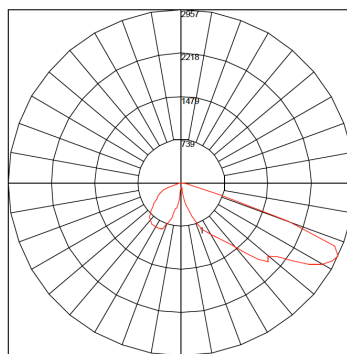
Efficacy: 113lm/W

Maximum candela of 2957.1 at 65° from vertical.

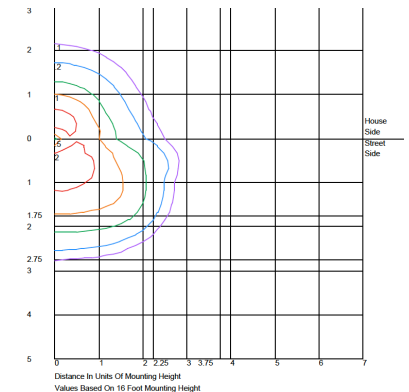
IES classification - Type III

Mounting Height = 16'

B1-U0-G1



Maximum Candela = 2957.1 Located At Horizontal Angle = 45, Vertical Angle = 65
#1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)



Distance In Units Of Mounting Height
Values Based On 16 Foot Mounting Height

R3W Optics / 39W / 3000K CCT

Catalog #: SAC2L-R3W-5G450-30

Delivered Lumens: 4479

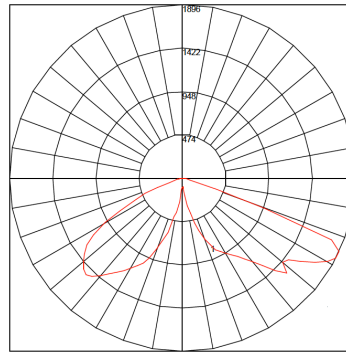
Efficacy: 115lm/W

Maximum candela of 1896 at 62.5° from vertical.

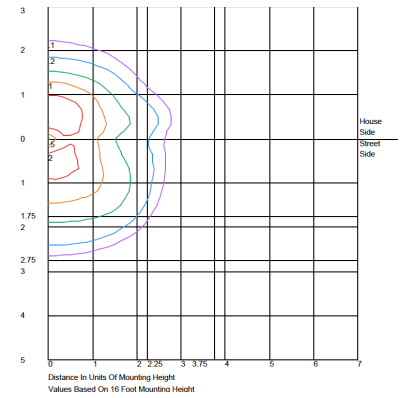
IES classification - Type III

Mounting Height = 16'

B2-U0-G1



Maximum Candela = 1896 Located At Horizontal Angle = 45, Vertical Angle = 62.5
 # 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)



R4 Optics / 39W / 3000K CCT

Catalog #: SAC2L-R4-5G450-30

Delivered Lumens: 4423

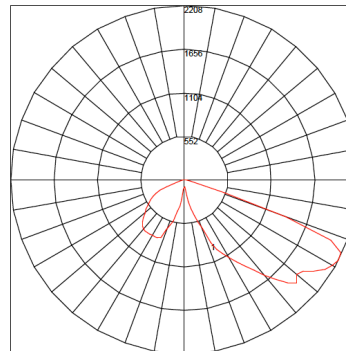
Efficacy: 113lm/W

Maximum candela of 3146.1 at 67.5° from vertical.

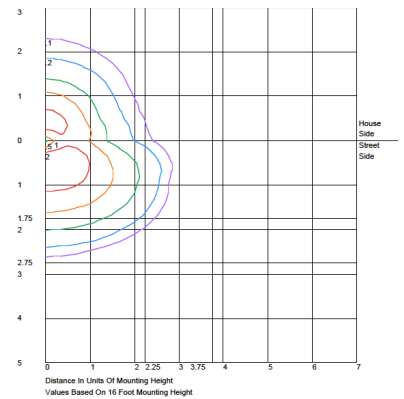
IES classification - Type III

Mounting Height = 16'

B1-U1-G1



Maximum Candela = 3146.1 Located At Horizontal Angle = 55, Vertical Angle = 62.5
 # 1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)



R5R Optics / 39W / 3000K CCT

Catalog #: SAC2L-R5R-5G450-30

Delivered Lumens: 4548

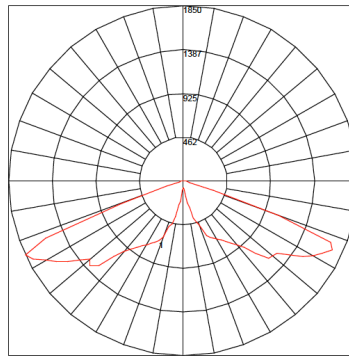
Efficacy: 117lm/W

Maximum candela of 1849.9 at 65° from vertical.

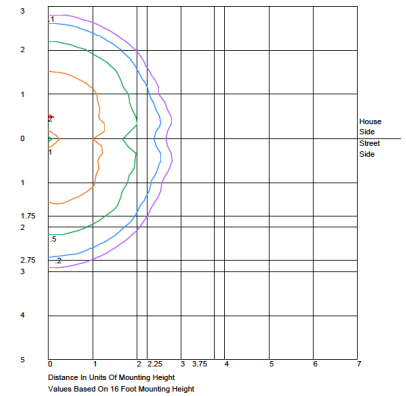
IES classification - N/A

Mounting Height = 16'

B2-U0-G2



Maximum Candela = 1849.9 Located At Horizontal Angle = 180, Vertical Angle = 65
 # 1 - Vertical Plane Through Horizontal Angles (180 - 0) (Through Max. Cd.)



R5S Optics / 39W / 3000K CCT

Catalog #: SAC2L-R5S-5G450-30

Delivered Lumens: 4517

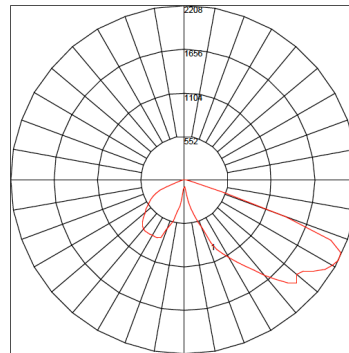
Efficacy: 116lm/W

Maximum candela of 1943 at 65° from vertical.

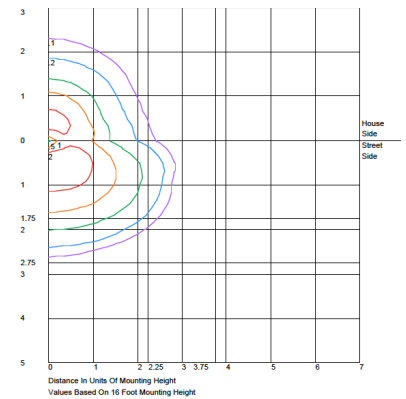
IES classification - N/A

Mounting Height = 16'

B2-U0-G2



Maximum Candela = 2208.4 Located At Horizontal Angle = 55, Vertical Angle = 62.5
 # 1 - Vertical Plane Through Horizontal Angles (55 - 235) (Through Max. Cd.)



R5Q Optics / 39W / 3000K CCT

Catalog #: SAC2L-R5Q-5G450-30-HS

Delivered Lumens: 4475

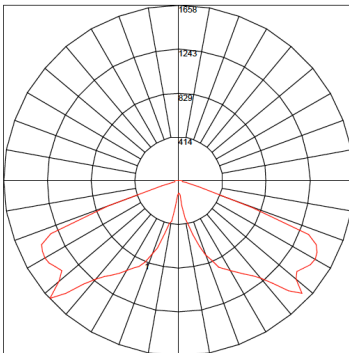
Efficacy: 115lm/W

Maximum candela of 1657.7 at 47.5° from vertical.

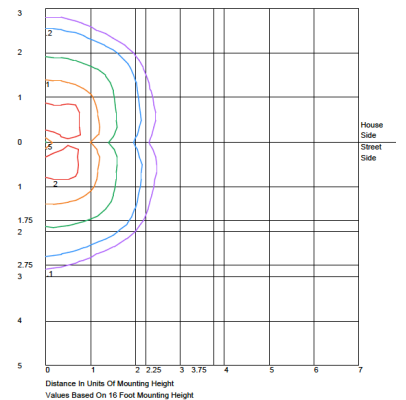
IES classification - N/A

Mounting Height = 16'

B2-U0-G2



Maximum Candela = 1657.7 Located At Horizontal Angle = 145, Vertical Angle = 47.5
 # 1 - Vertical Plane Through Horizontal Angles (145 - 325) (Through Max. Cd.)





KBR8 LED

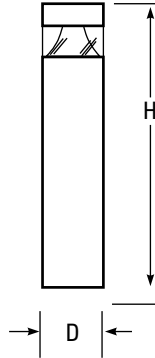
LED Specification Bollard

Specifications

8" Round
(20.3 cm)

Height: 40"
(101.6 cm)

Weight (max): 27 lbs
(12.25 kg)



Catalog
Number

Notes

Type

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

Introduction

The KBR8 Bollard is a stylish, fully integrated LED solution for walkways. It features a sleek, modern design and is carefully engineered to provide long-lasting, energy-efficient lighting with a variety of optical and control options for customized performance.

With an expected service life of over 20 years of nighttime use and up to 70% in energy savings over comparable 100W metal halide luminaires, the KBR8 Bollard is a reliable, low-maintenance lighting solution that produces sites that are exceptionally illuminated.

Ordering Information

EXAMPLE: KBR8 LED 16C 700 40K SYM MVOLT DDBXD

KBR8 LED																
Series	LEDs	Drive current		Color temperature		Distribution		Voltage	Control options	Other options	Finish <i>(required)</i>					
KBR8 LED	Asymmetric 12C 12 LEDs ¹	350	350 mA	30K	3000 K	ASY Asymmetric ¹ SYM Symmetric ²	MVOLT ⁵ 120 ⁵ 208 ⁵ 240 ⁵ 277 ⁵ 347 ⁴	Shipped installed PE Photoelectric cell, button type DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ELCW Emergency battery backup ⁶	Shipped installed SF Single fuse (120, 277, 347V) ^{4,7} DF Double fuse (208, 240V) ^{4,7} H24 24" overall height H30 30" overall height H36 36" overall height FG Ground-fault festoon outlet L/AB Without anchor bolts (3 bolt base) L/AB4 4 bolt retrofit base without anchor bolts ⁸	DWHXD	White					
		450	450 mA ^{3,4}	40K	4000 K					DNAXD	Natural aluminum					
		530	530 mA	50K	5000 K					DDBXD	Dark bronze					
	Symmetric 16C 16 LEDs ²	700	700 mA	AMBPC	Amber phosphor converted					DBLXD	Black					
				AMBLW	Amber limited wavelength ^{3,4}					DDBTXD	Textured dark bronze					
										DBLBXD	Textured black					
														DNATXD	Textured natural aluminum	
															DWHGXD	Textured white

Accessories

Ordered and shipped separately.

MRAB U Anchor bolts for KBR8 LED⁸

NOTES

- 1 Only available in the 12C, ASY version.
- 2 Only available in the 16C, SYM version.
- 3 Only available with 450 AMBLW version.
- 4 Not available with ELCW.
- 5 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options), or photocontrol (PE option).
- 6 Not available with 347V. Not available with fusing. Not available with 450 AMBLW.
- 7 Single fuse (SF) requires 120, 277, or 347 voltage option. Double fuse (DF) requires 208 or 240 voltage option.
- 8 MRAB U not available with L/AB4 option.

Performance Data

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Actual wattage may differ by +/- 8% when operating between 120-480V +/- 10%.

Light Engines	Drive Current	System Watts	3000 K					4000 K					5000 K					Limited Wavelength Amber				
			Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G	Lumens	LPW	B	U	G
Asymmetric 3 Engines (12 LEDs)	350	16	641	40	1	1	1	809	51	1	1	1	870	54	1	1	1					
	530	22	947	43	1	1	1	1,191	54	1	1	1	1,282	58	1	1	1					
	700	31	1,214	40	1	1	1	1,527	51	1	1	1	1,646	55	1	1	1					
	Amber 450	16																324	20	0	1	0
Symmetric 4 Engines (16 LEDs)	350	20	888	44	1	0	0	1,116	56	1	0	0	1,203	60	1	0	0					
	530	28	1,254	45	1	0	0	1,598	57	1	0	1	1,719	61	1	0	1					
	700	39	1,608	41	1	0	1	2,022	52	1	0	1	2,180	56	2	0	1					
	Amber 450	20																374	19	0	0	0

Note: Available with phosphor-converted amber LED's (nomenclature AMBPC). These LED's produce light with 97+% >530 nm. Output can be calculated by applying a 0.7 factor to 4000 K lumen values and photometric files.

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	25,000	50,000	100,000
Lumen Maintenance Factor	1.00	0.98	0.97	0.95

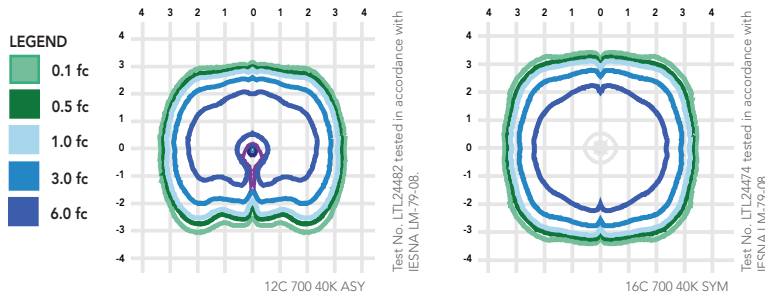
Electrical Load

Light Engines	Drive Current (mA)	System Watts	Current (A)				
			120	208	240	277	347
12C	350	16W	0.158	0.118	0.114	0.109	0.105
	530	22W	0.217	0.146	0.136	0.128	0.118
	700	31W	0.296	0.185	0.168	0.153	0.139
	Amber 450	16W	0.161	0.120	0.115	0.110	0.106
16C	350	20W	0.197	0.137	0.128	0.121	0.114
	530	28W	0.282	0.178	0.162	0.148	0.135
	700	39W	0.385	0.231	0.207	0.185	0.163
	Amber 450	20W	0.199	0.139	0.130	0.123	0.116

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [KBR8 Bollard homepage](#).

Isofootcandle plots for the KB LED Bollards. Distances are in units of mounting height (3').



FEATURES & SPECIFICATIONS

INTENDED USE

The rugged construction and clean lines of the KBA bollard is ideal for illuminating building entryways, walking paths, and pedestrian plazas, as well as any other location requiring a low mounting height light source with fully cutoff illumination.

CONSTRUCTION

One-piece 8-inch round extruded aluminum shaft with thick side walls for extreme durability, a high-impact clear acrylic lens and welded top cap. Die-cast aluminum mounting ring allows for easy leveling even in sloped locations and a full 360-degree rotation for precise alignment during installation. Three 1/2" x 11" anchor bolts with double nuts and washers and 3 3/4" bolt circle template ensure stability. Overall height is 42" standard.

FINISH

Exterior parts are protected by a zinc-infused super durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering for maximum retention of gloss and luster. A tightly controlled multi-stage process ensures a minimum 3-mil thickness for a finish that can withstand the elements without cracking or peeling. Available in both textured and non-textured finishes.

OPTICS

Two fully cutoff optical distributions are available: symmetrical and asymmetrical. IP66 sealed LED light engine provides smoothly graduated illumination without any uplight. Light engines are available in standard 4000 K (>70 CRI) or optional 3000 K (>80 CRI) or 5000 K (67 CRI). Limited-wavelength amber LEDs are also available.

ELECTRICAL

Light engines consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (L95/100,000 hours at 700mA at 25°C). Class 2 electronic drivers are designed for an expected life of 100,000 hours with < 1% failure rate. Electrical components are mounted on a removable power tray.

LISTINGS

CSA certified to U.S. and Canadian standards. Light engines are IP66 rated. Rated for -40°C minimum ambient. Cold-weather emergency battery backup rated for -20°C minimum ambient.

WARRANTY

Five-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx.

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.



Kurba Horizontal | Flexible LED strip - 24 VDC



Kurba Horizontal is a direct view, small profile, energy efficient and flexible LED strip suitable for wet locations capable of horizontal bends up to 2.5" radius. Built with robust factory made power feeds or joiners, Kurba Horizontal mounts to a specifically designed aluminum extruded channel.

Applications:
Outdoor wet location

Operating voltage
24 VDC

Operating temperature
-4°F to 113°F
(-20°C to 45°C)

Average life
50,000 hours

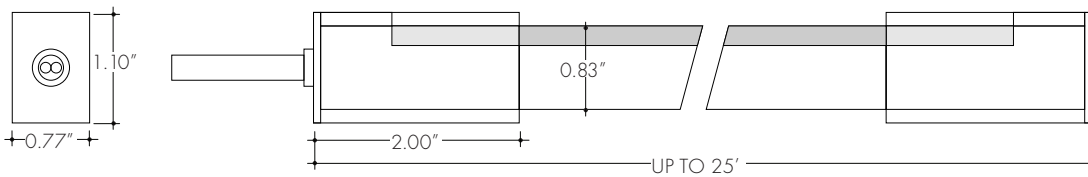
Dimming
low voltage dimmer and class 2 dimming power supply required

Approvals
Class 2 wet listed, IP67

Warranty
3 years



Overall Standard Dimensions



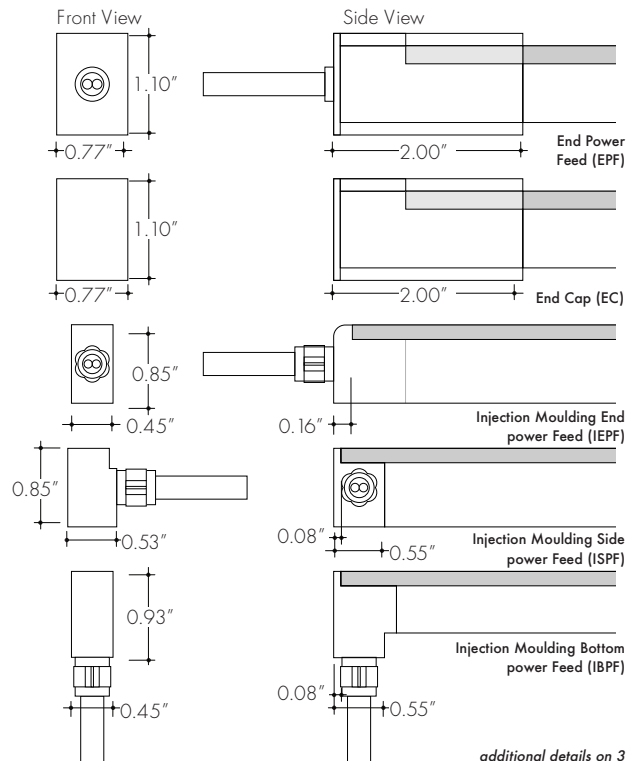
Technical information

Model	KBM-XX
LEDs/ft	22
Light output at 3000K	122 lm/ft
Average power consumption at 4'	3.4 W/ft
Ordering increment	3.28"
Maximum run length (in series)	26 ft

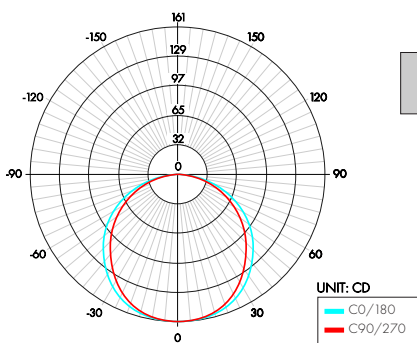
CCT Info/Lumen Multiplier

Color temperature	Multiplier (referenced from 3000K)
2400K	1.00
2700K	1.03
3000K	1.00
3500K	1.09
4100K	1.10

Section Start/End Powerfeed option



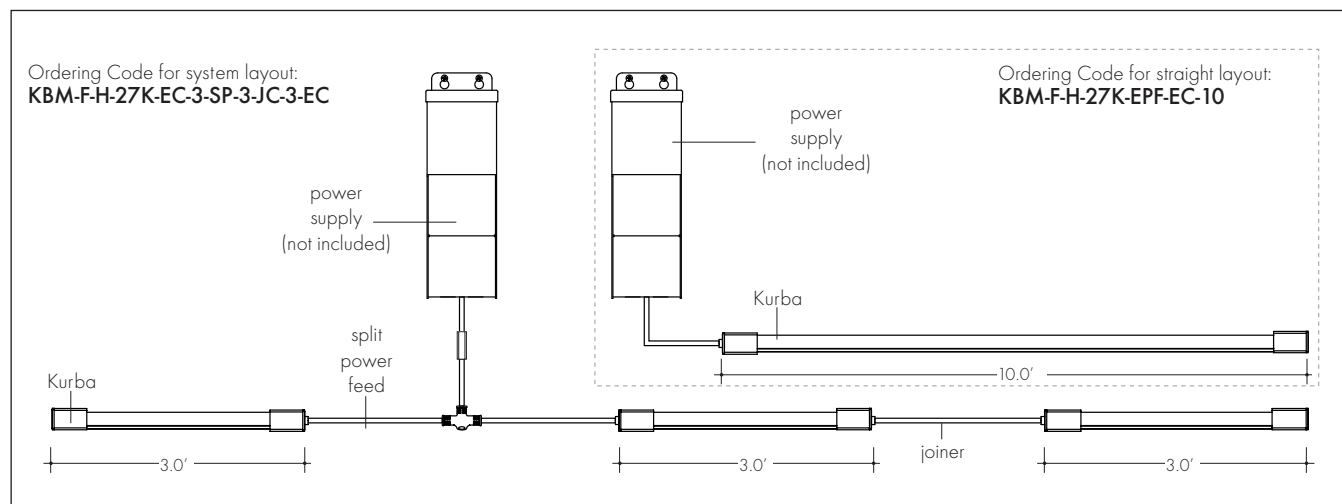
CANDLE POWER DISTRIBUTION (41K)



Ordering code

MODEL	COLOR TEMPERATURE	SECTION START	SECTION END	LENGTH
KBM-F-H	24K	EPF	EC	
KBM-F-H - Kurba medium, flat horizontal	24K - 2400K 27K - 2700K 30K - 3000K 35K - 3500K 41K - 4100K	EPF - End power feed (9' wire lead) EC - End cap IEPF - Injection Moulding End power feed (9' wire lead) IBPF - Injection Moulding Bottom power feed (9' wire lead) ISPF - Injection Moulding Side power feed (9' wire lead) IEC - Injection Moulding End cap	EPF - End power feed (9' wire lead) EC - End cap IEPF - Injection Moulding End power feed (9' wire lead) IBPF - Injection Moulding Bottom power feed (9' wire lead) ISPF - Injection Moulding Side power feed (9' wire lead) IEC - Injection Moulding End cap	view table above for ordering increment, for additional information reference page3

Sample layout

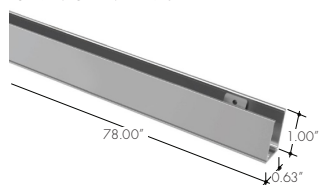


The diagram shows two technical drawings of components used in the assembly:

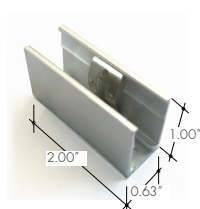
- Split Power Feed (SP):** A cross-sectional view showing a central vertical feed with a diameter of 18.00". The horizontal base has a total width of 24.00", divided into three sections: 11.00" on the left, 2.00" in the center, and 11.00" on the right.
- Joiner (JC):** A cross-sectional view showing a horizontal component with a total width of 10.00".

MODEL	COLOR TEMPERATURE	SECTION START	FIXTURE LENGTH	JOINER TYPE	FIXTURE LENGTH	SECTION END
KBM-F-H	24K	EPF		SP		EC
KBM-F-H - Kurba medium, flat horizontal	24K - 2400K 27K - 2700K 30K - 3000K 35K - 3500K 41K - 4100K	EC - End cap EPF - End power feed (72" wire lead) IEC - Injection Moulding End cap	view table on page 1 for increment options and maximum run limits	SP - Split power feed JC - Joiner	reference page 3 for actual measurements	EC - End cap EPF - End power feed (72" wire lead) IEC - Injection Moulding End cap

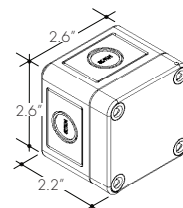
aluminum channel,
*IK08 rated, when aluminum channel used
throughout the complete installation.*
Part # MC-KBM-F-H-78



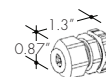
mounting bracket,
recommended every 8 inches
Part # MB-KBM-F-H-2IN



Splice Box: Wet rated, low voltage splice box, gray
Part # LVSP-WET



Connector: low voltage splice
box wet cable management gray
Part # LVSP-WET-CM



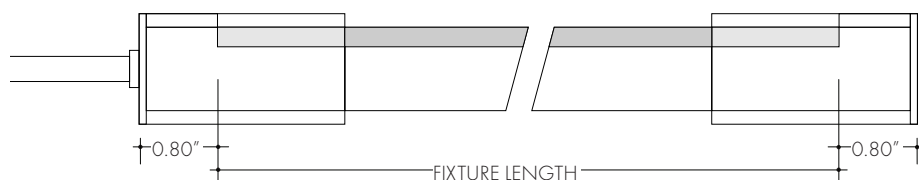
Power consumption per fixture length

Based on operation with PSD series of power supplies.

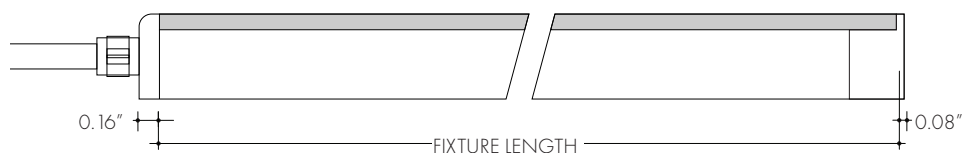
Cut Increment (3.28")	Actual Length (in)	Total wattage	Cut Increment (3.28")	Actual Length (in)	Total wattage	Cut Increment (3.28")	Actual Length (in)	Total wattage	Cut Increment (3.28")	Actual Length (in)	Total wattage
1	3.28"	1.23	26	85.66"	24.70	51	168.04"	47.65	76 (21 FT)	250.42"	70.00
2	6.58"	2.47	27	88.95"	25.60	52	171.34"	48.60	77	253.72"	70.85
3 (1 FT)	9.87"	3.70	28 (8 FT)	92.25"	26.50	53	174.63"	49.48	78	257.01"	71.70
4	13.17"	4.38	29	95.55"	27.48	54 (15 FT)	177.93"	50.50	79	260.31"	72.55
5	16.46"	5.05	30	98.84"	28.45	55	181.22"	51.35	80 (22 FT)	263.60"	73.40
6	19.76"	5.72	31	102.14"	29.43	56	184.52"	52.20	81	266.90"	74.26
7 (2 FT)	23.05"	6.40	32 (9 FT)	105.43"	30.40	57	187.81"	53.05	82	270.19"	75.12
8	26.35"	7.56	33	108.73"	31.33	58 (16 FT)	191.11"	53.90	83 (23 FT)	273.49"	76.00
9	29.64"	8.72	34	112.02"	32.25	59	194.40"	54.76	84	276.78"	76.88
10 (3 FT)	32.94"	9.90	35	115.32"	33.18	60	197.70"	55.62	85	280.08"	77.75
11	36.23"	10.85	36 (10 FT)	118.61"	34.10	61 (17 FT)	201.00"	56.50	86	283.37"	78.63
12	39.53"	11.80	37	121.91"	35.00	62	204.29"	57.48	87 (24 FT)	286.67"	79.50
13	42.82"	12.75	38	125.20"	35.95	63	207.58"	58.45	88	289.96"	80.15
14 (4 FT)	46.12"	13.70	39 (11 FT)	128.50"	36.80	64	210.88"	59.43	89	293.26"	80.80
15	49.41"	14.60	40	131.79"	37.63	65 (18 FT)	214.17"	60.40	90	296.55"	84.45
16	52.71"	15.50	41	135.10"	38.45	66	217.47"	61.25	91 (25 FT)	299.85"	82.10
17 (5 FT)	56.00"	16.40	42	138.38"	39.28	67	220.76"	62.10	92	303.14"	82.90
18	59.30"	17.35	43 (12 FT)	141.68"	40.10	68	224.06"	62.95	93	306.44"	83.90
19	62.59"	18.30	44	144.97"	41.08	69 (19 FT)	227.35"	63.80	94	309.73"	84.60
20	65.89"	19.25	45	148.27"	42.05	70	230.65"	64.76	95 (26 FT)	313.03"	85.30
21 (6 FT)	69.18"	20.10	46	151.56"	43.03	71	233.95"	65.72	tolerance +/- 0.25"		
22	72.48"	21.02	47 (13 FT)	154.86"	44.00	72 (20 FT)	237.24"	66.70			
23	75.77"	21.98	48	158.16"	44.90	73	240.54"	64.53			
24	79.07"	22.93	49	161.45"	45.80	74	243.83"	68.35			
25 (7 FT)	82.36"	23.80	50 (14 FT)	164.75"	46.70	75	247.13"	69.18			

Must also take into consideration endcap (reference below) for complete length

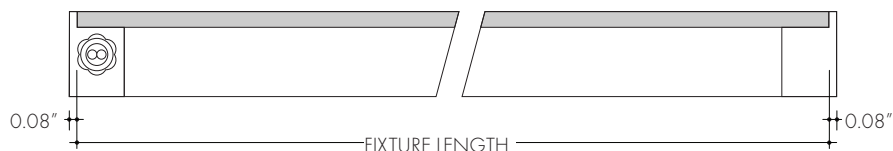
Standard Model



Injection Moulding Model (End feed)



Injection Moulding Model (Side & Bottom feed)



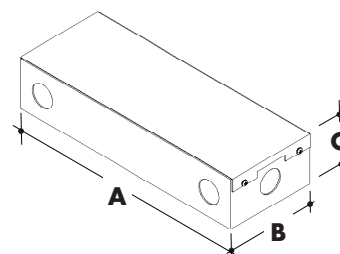
Power supply

See fixture and power supply instructions & spec sheet for wiring information. Dimming possible in select models - view luminii website for list of compatible dimmers.

Non-Dimming:

MODEL	POWER	OUTPUT	DIMMING	LOCATION
PSV	40	24	U2ND	D
PSV - PSV Series	40 - 40 W 60 - 60 W 96 - 96 W	24 - 24 VDC	U2ND - Non Dimming	D - Dry Location IP65 - Wet Location

MODELS	PSV Dry	PSV Wet
A Length	9.2"	9.5"
B Width	3.4"	4.12"
C Depth	1.9"	2.3"

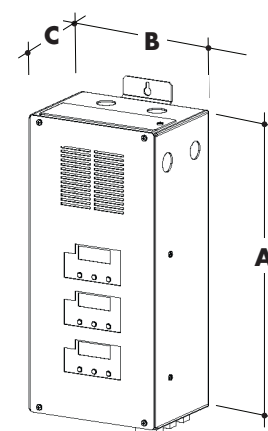


Dimming 0-10V:

MODEL	POWER	OUTPUT	DIMMING
PS010V	3X96	24	LIN
PS010V - 0-10V Power Supply dims down to 0%	3X96 - 3 X 96 WATT	24 - 24 VDC	LIN - Linear LOG - Logarithmic

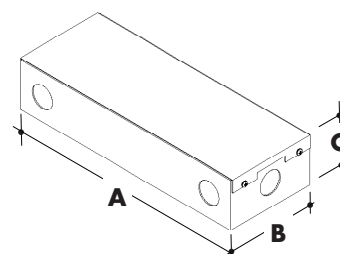
- features eldoLED's LINEARdrive configurable 0-10V drivers
- Suitable for dry location only

MODELS	PS010V
A Length	15.75"
B Width	6.60"
C Depth	4.80"



MODEL	POWER	OUTPUT	DIMMING	LOCATION
PSV	40	24	U2DIM	D
PSV - PSV Series dims down to 5%	40 - 40 W 60 - 60 W 96 - 96 W	24 - 24 VDC	U2DIM - Dimming 0-10V	D - Dry Location IP65 - Wet Location

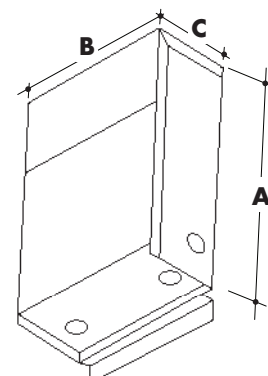
MODELS	PSV Dry	PSV Wet
A Length	9.2"	9.5"
B Width	3.4"	4.12"
C Depth	1.9"	2.3"



Dimming Magnetic low voltage:

MODEL	POWER	OUTPUT	INPUT
PSD	48	24	
PSD - PSD Series dims down to 0%	48 - 48 W 96 - 96 W 288 - 288 W (3x 96W)	24 - 24 VDC	Blank - 120 V 240 - 240 V 277 - 277 V

MODELS	PSD 48	PSD 96	PSD 288
A Length	11.25"	11.25"	13.06"
B Width	3.42"	3.42"	8.42"
C Depth	3.42"	3.27"	4.47"



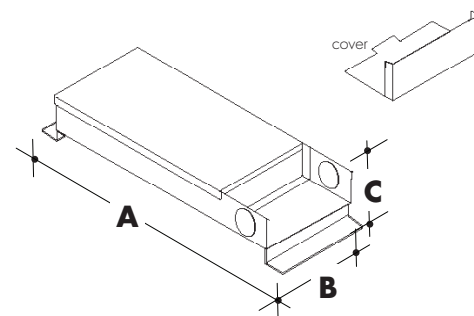
Power supply

See fixture and power supply instructions & spec sheet for wiring information. Dimming possible in select models - view luminii website for list of compatible dimmers.

Dimming Electronic low voltage:

MODEL	CIRCUIT x POWER	OUTPUT	INPUT
CVE	48D	24	
CVE - CVE Series	48D - 48W	24 - 24 VDC	Blank - 120 V
dims down to 0.1%	48X2D - 2 x 48W		277 - 240/277 V
	48X3D - 3 x 48W		
	48X4D - 4 x 48W		
	96D - 96W		
	96X2D - 2 x 96W		
	96X3D - 3 x 96W		
	96X4D - 4 x 96W		

- Suitable for damp location only



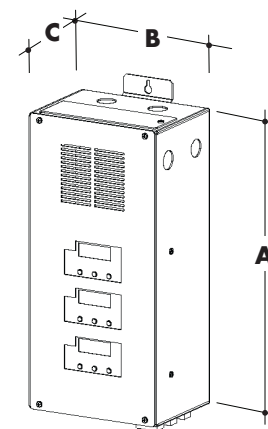
MODELS	Single circuit	Dual circuit	Three circuit	Four circuit
A Length	13.9"	13.8"	13.8"	13.8"
B Width	2.3"	4.0"	5.9"	7.75"
C Depth	1.3"	1.9"	1.9"	1.9"

DMX & DALI:

MODEL	POWER	OUTPUT
PSDMX	3X96	24
PSDMX - DMX Power Supply	3X96 - 3 X 96 WATT	24 - 24 VDC
PSDALI - DALI Power Supply		
dims down to 0%		

- Features eldoLED's LINEARdrive configurable dimmable drivers
- Suitable for dry location only

MODELS	PSDMX	PSDALI
A Length	15.75"	15.75"
B Width	6.60"	6.60"
C Depth	4.80"	4.80"

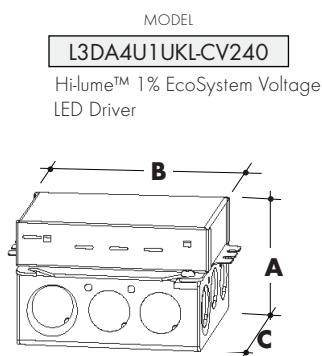


Luminii is a Lutron OEM Advantage Partner

- Suitable for dry location only

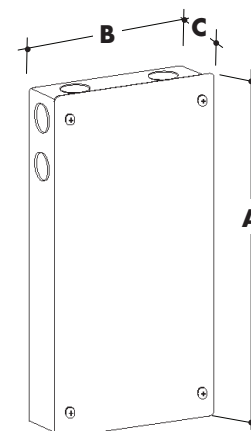
MODEL
LTEA4U1UKL-CV240
Lutron - Hi-lume™ 1% 2-wire LED driver (120V forward phase only)

MODELS	LTEA	L3DA
A Length	4.89"	4.89"
B Width	2.66"	2.66"
C Depth	4.00"	4.00"



MODEL
L3DO-96W24V-U
Hi-lume™ 0.1% EcoSystem Voltage LED Driver with Soft-On, Fade-to-Black™

MODELS	L3DO
A Length	10.50"
B Width	5.50"
C Depth	2.00"



luxrail™

INTERIOR/EXTERIOR
APPLICATIONS

Application

ANSI and ADA compliant, **luxrail** is an indoor/outdoor LED-based handrail that delivers functional illumination. Three intensities may be specified: standard output, mid output, and high output. The standard light output version delivers illuminance levels appropriate for exterior applications (2 footcandles at grade) as well as for dark interior environments with low ambient illumination levels (e.g., themed environments, theatres and residential areas). The high output version delivers illuminance levels applicable to interior environments – providing in excess of 10 footcandles along the path of egress (ANSI required for stair treads). Independent photometric test reports and IES Format data are available at www.iolighting.com.

luxrail's standard handrail gripping surfaces are circular in cross section and meet 2004 ADAAG (Americans with Disability Act Accessibility Guidelines). Patented optical assemblies deliver 10°, 25°, and 55° beam spreads, as well as an asymmetric option. The 25° and 55° beam patterns are most suitable for illuminating pathways, while the 10° beam spread offers accent lighting for optional glass or stainless steel cable railing infills. Reference page 54 of this catalog for information regarding infill options. Projected average rated life is 50,000 hours at 70% of lamp lumen output. Contact factory for IES LM-80 compliance. To ensure proper performance, architectural details should allow for ventilation and air flow around the fixture. Ambient temperature surrounding the fixture shall not exceed 122°F (50°C).

Light Output

Three luminous intensities are available for white light. All values below represent the initial raw lumens of the LED. IES format photometry of Lighting Facts labels represent actual light output measured in lumens and candle power. Light output losses include optical, thermal and power supply inefficiencies. IES LM-79 format files may be obtained from the factory or downloaded from www.iolighting.com. Results are typical measurements.

	Standard Output	Mid Output	High Output
2700K White:	72 lms/ft	181 lms/ft	253 lms/ft
3000K White:	81 lms/ft	203 lms/ft	284 lms/ft
3500K White:	83 lms/ft	206 lms/ft	289 lms/ft
4000K White:	88 lms/ft	219 lms/ft	307 lms/ft
5000K White:	88 lms/ft	219 lms/ft	307 lms/ft

Construction

luxrail may be post mounted or wall mounted. **io** recommends installation be completed by a qualified handrail installer. Mounting hardware (post or wall) is typically required up to 5' O.C., depending on the handrail alloy. Final post and wall bracket spacing must be determined by a licensed architect or structural engineer. **luxrail** is available in stainless steel and aluminum. Vandal resistant access chamber allows units to be removed for maintenance purposes.

All handrail component parts are engineered for quick installation. Field welding or cutting is typically not required. All parts are prefabricated to field dimensions and are assembled in the field with mechanical connection or epoxy. Contact **io** Lighting for recommended handrail installers.

The LED light fixture inside the caprail is UL Listed for wet locations. Handrail alloy options include stainless steel and aluminum. Contact factory for maintenance guidelines.

Electrical

luxrail houses a low voltage LED-based light fixture that is integrated into the underside of the handrail. 24 volt 100 watt power supplies are provided as a standard. For detailed information regarding daisy chain limitations, remote distance limitations, power supply options, and dimming options consult the **io** website (www.iolighting.com) or an **io** representative.

Driver Remote Distance

7'-0" (2.1m) w/22 AWG
18'-0" (5.5m) w/18 AWG
46'-0" (14.0m) w/14 AWG
71'-0" (21.6m) w/12 AWG

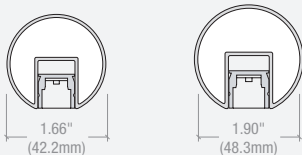
Dimming modules must be specified separately. For detailed information download the power supply specification sheet from www.iolighting.com.

Power Consumption

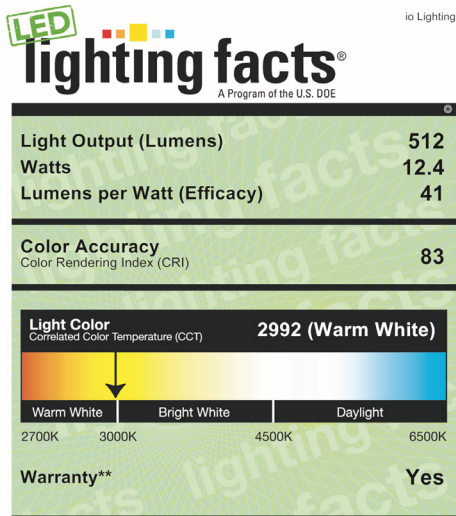
Power consumption does not include power supply losses.

Standard Output	Mid Output	High Output
1.02 w/ft	2.54 w/ft	3.81 w/ft

Dimensions



1-year warranty



All results, except LED Lumen Maintenance, are according to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting. The U.S. Department of Energy (DOE) verifies product test data and results.

** See www.lightingfacts.com/products for details.

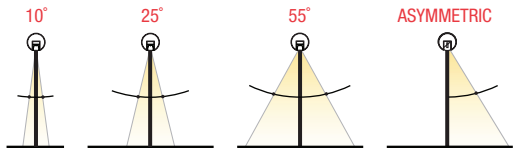
Registration Number: PNE4-KCVQNN (7/11/2013)

Model Number: 0.031.3KHO.55.1.06.2

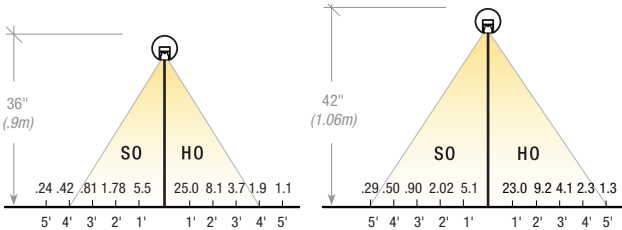
Type: Outdoor path/step/rail light

Label references 30" **luxrail** fixture with a 55° beam spread in High Output 3000K. Lighting Facts for additional beam spreads and light output levels may be obtained from **io** Lighting.

BEAM SPREAD OPTIONS

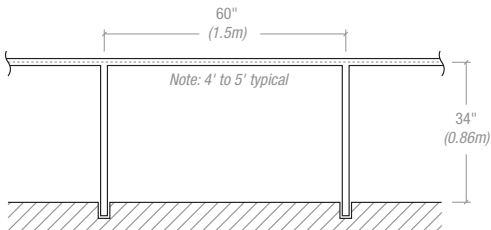


LIGHT OUTPUT - 55 DEGREE WARM WHITE



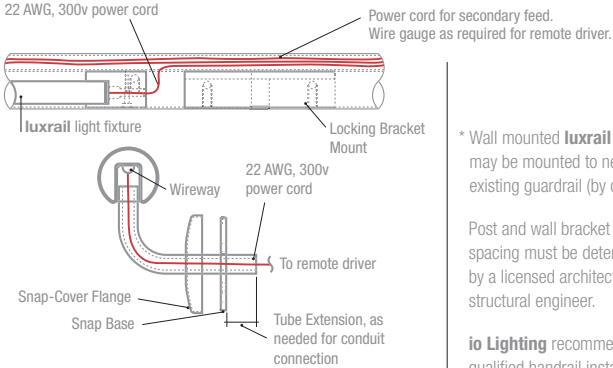
Calculation assumes 12'0" run length. All footcandle values are initial.

POST MOUNT APPLICATION



Note: Will depend on alloy and diameter specifications.

WALL MOUNT DETAILS*



* Wall mounted luxrail may be mounted to new or existing guardrail (by others).
Post and wall bracket spacing must be determined by a licensed architect or structural engineer.

io Lighting recommends a qualified handrail installer be on site during install.

LIGHT OUTPUT CONVERSION TABLE

	Standard Output	Mid Output	High Output
2700K White	0.25 ⁽¹⁾	0.69 ⁽¹⁾	0.94 ⁽¹⁾
3000K White	0.27 ⁽¹⁾	0.73 ⁽¹⁾	1.00 ⁽¹⁾
3500K White	0.29 ⁽¹⁾	0.78 ⁽¹⁾	1.06 ⁽¹⁾
4000K White	0.29 ⁽¹⁾	0.78 ⁽¹⁾	1.06 ⁽¹⁾
5000K White	0.32 ⁽¹⁾	0.87 ⁽¹⁾	1.19 ⁽¹⁾

Note: Visit www.iolighting.com or contact an io representative for IES format photometrics.

Color Light Output	RED	GREEN	BLUE	AMBER
Light Output Multiplier	0.53 ⁽²⁾	0.51 ⁽²⁾	0.30 ⁽²⁾	0.51 ⁽²⁾

Light Output / Distributions

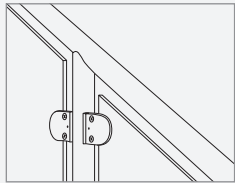
Mounting / Infill Options



PM (post mounted)



WM (wall mount intermediate)



Glass infill
(glass provided by others)



Stainless steel cable infill
(only available on flat surfaces)

Order Code

Footnotes

0	06	1	2	3	4	5	6	7	8	9	10	11
io	1	2	3	4	5	6	7	8	9	10	11	
1. PRODUCT FAMILY	06 luxrail											
2. ALLOY / FINISH	SSS Stainless steel satin											
	SSP Stainless steel polished											
	CAA Clear anodized aluminum											
3. SIZE	1 1.66" O.D. (1¼" pipe size) (available in SS only)											
	2 1.90" O.D. (1½" pipe size) (available for SS & CAA)											
4. MOUNTING	PMC Post mount concrete											
	PMW Post mount wood											
	PMS Post mount stone											
	WM Wall or guard rail mounted											
5. INFILL	AC Stainless steel cable ⁽⁵⁾											
	GL Glass (provided by others)											
	C Custom											
	NR Not required											
6. LIGHT DISTRIBUTION	10 10 Degree											
	25 25 Degree											
	55 55 Degree											
	ASYM Asymmetric											
	NI Handrail only (not illuminated)											
7. LIGHT COLOR	27K Warm White											
	3K Warm White ⁽³⁾											
	35K Warm White											
	4K Warm White											
	5K Cool White ⁽³⁾											
8. LENGTH	GB2 Grab Bar 2' nominal ⁽⁷⁾											
	GB3 Grab Bar 3' nominal ⁽⁷⁾											
	GB4 Grab Bar 4' nominal ⁽⁷⁾											
	GB5 Grab Bar 5' nominal ⁽⁷⁾											
	HR Hand Rail length in Feet / Inches (provide overall length of each handrail section) ⁽²⁾⁽⁶⁾											
	HRC Hand Rail Curved length in Feet / Inches (provide overall length of each handrail section) ⁽²⁾⁽⁶⁾											
9. VOLTAGE / DIMMING	1 120v											
	2 277v											
	3 120v w/dim											
	4 277v w/dim											
	5 Other (International voltage)											
10. SPECIFY DRIVER / DIMMING ⁽¹⁾	Note: If not specified otherwise, io will supply 100 watt drivers. Download Power Supply specification sheet from www.iolighting.com .											
11.	CE Available upon request.											

1. Power Supply Specification Sheet may be downloaded from www.iolighting.com.
2. Each handrail application will be custom to accommodate varying field conditions and design requirements. Shop drawings will be required to manage specifics of each handrail section.
3. White light variance between LEDs is equal to or better than 3-step MacAdam Binning.
4. Only available in 5.08 w/ft.
5. Stainless Steel cable available for flat surfaces only.
6. Detailed elevation drawings of handrail section are required for quote.
7. Non-standard color temperature and CRI are available. Consult factory for availability.



YouTube

luxrail applications
youtube.com/iolighting