

AL2R Series

Spectra II Round Area Luminaire, 70-200W HID

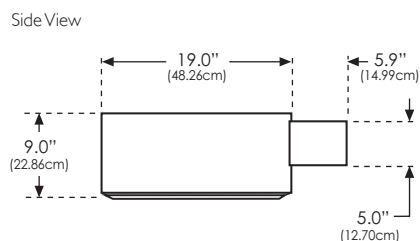
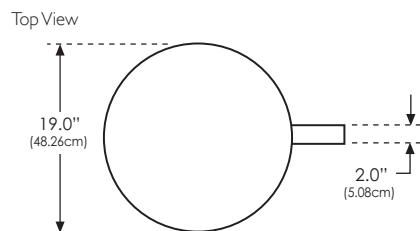
Type:	Job:	Approvals:
Catalog Number:		
Series/Source-Wattage	Optics (Distribution)	Voltage
Mounting	Options (Factory Installed)	Finish
Accessories (Field Installed)		Date: Page 1 of 4

Overall Dimensions

For Reference Only

AL2R

arm mount (SS) Surface Arm Mount to Square Pole (standard)



EPA Effective Projected Area in Ft²

Arm Mount (SS/SR)	Number of Fixtures			
	1	2	3	4
	0.8	1.5	1.8	2.0

Note: AL2R available with Flat Lens only.

Consult Mounting Configuration chart on page 3 and contact factory for corresponding EPA data.

Weight

40 lbs. (18.14 kgs)

Specifications

Housing

Seamless spun aluminum housing. Standard unit constructed to IP54.

Optical Module

Rotatable multi-faceted segmented reflectors shall be made of high purity, anodized aluminum. Optical assemblies shall be field rotatable at 90° increments and exchangeable. (Type III optics may not be rotated toward pole.) The AL2R Series (Spectra II Round Luminaires) provides optics meeting the IES definition of Full Cutoff with a flat glass lens and either vertical or horizontal lamp. Unique "F" optics combine a flat glass lens with desirable vertical lamp orientation to achieve Full Cutoff. The resulting luminaire is Dark Sky Ordinance compliant (Flat glass) with the advantage of precision uniformity (Vertical Lamp), delivering superior performance over conventional horizontally lamped optics. "H" optics (horizontal lamp / flat glass) available as well.

Lamp Access

Door frame shall be die-cast aluminum and is gasketed to ensure a positive seal to the housing.

Lens

Flat glass lens shall be of tempered glass to withstand thermal and physical shock.

Socket

A porcelain, 4KV pulse-rated, grip-type medium base socket shall be used for PSMH units to prevent lamp loosening and to maintain proper lamp positioning. Mogul base socket shall be used for HPS units.

Ballast

High power factor constant-wattage autotransformer (CWA) ballast with reliable starting to 29°C (-20°F) for Metal Halide, -34°C (-30°F) for Pulse Start Metal Halide, -40°C (-40°F) for High Pressure Sodium.

180°C (356°F) Class H insulation system. Crest factor does not exceed 1.8.

Mounting

Standard surface arm mount (field installed) shall be of heavy gauge extruded aluminum. Threaded tension rods shall be used to bolt to 3.5" and larger square or round poles. Additional mounting options include a mastfitter arm mount for a horizontal tenon, a wall mount bracket with 6" arm, and pole top tenon adapters with arm mount for square and round poles.

Finish

Standard finish shall be Textured Dark Bronze UltraClad polyester powder coating, 2.5 mil nominal thickness, electrostatically applied and oven cured to ensure extreme durability. Other colors may be specified.

Listings

ETL/cETL listed to the UL 1598 standard, suitable for Wet Locations.

The quality systems of this facility have been Registered by UL to the ISO 9000 Series Standards.

Warranty

Philips Gardco luminaires feature a 5 year limited warranty. See Warranty Information for complete details and exclusions. Polycarbonate lenses carry a 1 year warranty only.

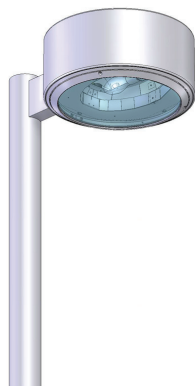










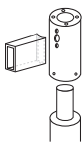
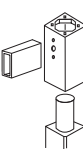
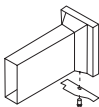
Some luminaires use fluorescent or high intensity discharge (HID) lamps that contain small amounts of mercury. Such lamps are labeled 'Contain Mercury' and/or with the symbol 'Hg'. Lamps that contain mercury must be disposed of in accordance with local requirements. Information regarding lamp recycle and disposal can be found at www.lamprecycle.org.

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Series/Source-Wattage	Optics (Distribution)	Voltage	Mounting ⁴
Pulse Start Metal Halide ¹ <input type="checkbox"/> AL2RP-100 <input type="checkbox"/> AL2RP-150 <input type="checkbox"/> AL2RP-200 ² 	<input type="checkbox"/> 3F Type III Vertical lamp, Flat Glass <input type="checkbox"/> 4F Type IV (Forward Throw) Vertical lamp, Flat Glass <input type="checkbox"/> 5F Type V (Square) Vertical lamp, Flat Glass <input type="checkbox"/> 2H Type II Horizontal lamp, Flat Glass <input type="checkbox"/> 3H Type III Horizontal lamp, Flat Glass <input type="checkbox"/> 4H Type IV (Forward Throw) Horizontal lamp, Flat Glass <input type="checkbox"/> 5H Type V (Square) Horizontal lamp, Flat Glass Distribution Patterns <i>Basic Roadway Distribution Patterns as follows:</i>  Type II  Type III  Type IV Forward Throw  Type V Square	<input type="checkbox"/> 120 <input type="checkbox"/> 208 <input type="checkbox"/> 240 <input type="checkbox"/> 277 <input type="checkbox"/> 347 <input type="checkbox"/> 480 <input type="checkbox"/> QV ³	<input type="checkbox"/> SS Surface arm mount to square pole (standard)  <input type="checkbox"/> SR(X) ⁵ Surface arm mount to round pole <i>Mounting edge of arm is contoured to match pole radius.</i>  <input type="checkbox"/> SM Mastfitter arm mount to 2-3/8" O.D. x 5" horizontal tenon  <input type="checkbox"/> RTA-(X)-(Y) ^{6,7} Round pole tenon adapter <i>Slipfitter for Round Pole with 2.375" O.D. x 4" vertical tenon, 6" arm included.</i>  <input type="checkbox"/> SPTA-(X)-2.375 ⁶ Square pole tenon adapter <i>Slipfitter for Square Pole with 2.375" O.D. x 4" vertical tenon, 6" arm included.</i>  <input type="checkbox"/> WBA Wall mount bracket with 6" arm 

Options	Finish	Accessories (Ordered Separately)
<input type="checkbox"/> LQ Hot/Cold Quartz Restrike (150 watt quartz lamp) <input type="checkbox"/> LQ1 Separately Wired (120V) Hot Quartz Restrike (150 watt quartz lamp) <input type="checkbox"/> F1 Single Fuse (120/277/347V) <input type="checkbox"/> F2 Double Fuse (208/240/480V) <input type="checkbox"/> F3 Double Fuse (208/240/480V) (Canadian Double Pull) <input type="checkbox"/> TLR Twist-Lock Photocell Receptacle (top installation) <input type="checkbox"/> TLR-PC(***)V Twist-Lock Receptacle with Photocell (top installation) <i>Specify voltage, 480V not available.</i> <input type="checkbox"/> PCB(***)V Photocell Button (side wall installation) <i>Specify voltage, 480V not available.</i>	<input type="checkbox"/> TSA Textured Satin Aluminum <input type="checkbox"/> BRP Bronze Paint <input type="checkbox"/> BLP Black Paint <input type="checkbox"/> WP White Paint <input type="checkbox"/> NP Natural Paint <input type="checkbox"/> VP Verde Paint <input type="checkbox"/> OC (*) Optional Color Specify RAL Designation <input type="checkbox"/> SC Special Color Paint (specify, must supply color chip)	<input type="checkbox"/> F1-KIT Single Fuse Kit (120/277/347V) <input type="checkbox"/> F2-KIT Double Fuse Kit (208/240/480V) <input type="checkbox"/> F3-KIT Double Fuse Kit (208/240/480V) (Canadian Double Pull)

Notes

- 1) 175W Pulse Start Metal Halide unit not available due to ballast size.
2) Not available with Horizontal optics.
3) Allows field selection of 120/208/240/277 voltage. (No 480V). Certain options may require voltage selection as well.

4) Refer to page 4 for Drill Templates.

5) X = Specify pole size: (3.5 / 4)" OD; (4 / 5)" OD.

6) X = Specify configuration: 1 @ 90°; 2 @ 90°; 3 @ 90°; 4 @ 90°; 2 @ 180°; 2 @ 120°; 3 @ 120°.

7) Y = Specify tenon size: 2.375" OD x 4" tall; 3 / 3.5" OD x 6" tall; 3.5 / 4" OD x 6" tall.

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Specifications are subject to change without notice.

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Distribution Guide & Ballast Data¹

Source Type ⁽²⁾	Catalog Number	Lamp Envelope	Reflector Type	Cutoff Level	.ies File Name ⁽³⁾	Ballast Type ⁽⁴⁾	ANSI Code	Line Current 120 / 208 / 240 / 277 / 480	Line Watts
PS	AL2RP-100	ED / BT17	3F, 4F, 5F, 2H, 3H, 4H, 5H	Full	al2p10(*).ies	HX-HPF	M90 / M140	2.8 / 1.4 / 1.4 / 1.2 / 0.6	130
PS	AL2RP-150	ED / BT17	3F, 4F, 5F, 2H, 3H, 4H, 5H	Full	al2p15(*).ies	HX-HPF	M102 / M142	3.7 / 2.1 / 1.8 / 1.6 / 1.0	185
PS	AL2RP-200	ED / BT17	3F, 4F, 5F	Full	al2p20(*).ies	CWA	M136	2.2 / 1.3 / 1.1 / 1.0 / 0.5	240
HPS	AL2RS-70	E23.5	3F, 4F, 5F, 2H, 3H, 4H, 5H	Full	al2s70(*).ies	HX-HPF	S62	1.7 / 1.0 / 0.9 / 0.8 / 0.4	94
HPS	AL2RS-100	E23.5	3F, 4F, 5F, 2H, 3H, 4H, 5H	Full	al2s10(*).ies	HX-HPF	S54	2.3 / 1.3 / 1.1 / 1.0 / 0.6	135
HPS	AL2RS-150	E23.5	3F, 4F, 5F, 2H, 3H, 4H, 5H	Full	al2s15(*).ies	HX-HPF	S55	3.2 / 1.7 / 1.6 / 1.4 / 0.7	195

1) The Spectra AL2R Series can accommodate a variety of other wattages and lamps. Consult factory with specific requirements. 175W PSMH not available.

2) PS = Pulse Start Metal Halide, HPS = High Pressure Sodium. Clear lamps recommended.

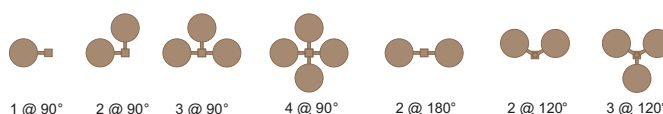
4) CWA = Constant Wattage Autotransformer, HX-HPF = High Reactance High Power Factor.

3) Replace (*) with Reflector Type:
3F, 4F, 5F (Vertical Lamp / Flat Glass / Full Cutoff)
2H, 3H, 4H, 5H (Horizontal Lamp / Flat Glass / Full Cutoff)

Mounting Configurations

Note: 2 @ 120° and 3 @ 120° mounting configurations require Round Poles or use of Round Pole Tenon Adapter.

All other configurations may be used with Round or Square Poles.



Option details (Factory Installed)

Auxiliary / Emergency Lighting (150 watt quartz lamp, standard)

Combined quartz wattage may not exceed HID lamp wattage. 120V double contact bayonet base. LQ1 requires an interlock by others to ensure HID and quartz source are not operated together.

LQ LiteMatic Hot / Cold Quartz Restrike



Provides LiteMatic quartz auxiliary operation for fixtures with 120V or multi-tap ballasts. 120V auxiliary LiteMatic quartz lamp power supplied by ballast (AC line voltage). Quartz lamp remains on for three minutes after main HID lamp strikes and reaches approximately 40% light output.

Activation: At (initial) Cold Start or Restrike (after a momentary "Brown Out" or extended "Black Out" power interruption), through Run Down, Restrike and Ramp Up.

LQ Auxiliary LiteMatic Quartz Operation



Normal Start:

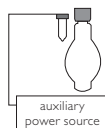
Quartz lamp energized at initial cold start or at restrike after a temporary power interruption.



Quartz Lamp Remains on during Ramp Up:

Besides providing illumination while the main HID lamp reaches full brightness, the warmth provided by the quartz lamp helps to create a favorable restrike condition for the main HID lamp (useful in extreme cold temperatures).

LQ1 Separately Wired (120V) Hot / Cold Quartz Restrike



Externally controlled emergency lighting from a separate power source. Quartz lamp is extinguished once power is restored. To ensure integrity of the emergency lighting system, LQ1 leads should be hardwired.

Activation: At "Black Out" conditions only. Normal HID operation will occur at all other times.

LQ1 Emergency Quartz Operation



At AC Power Interruption:

During AC line voltage power interruption, auxiliary quartz lamp is automatically energized by separately wired power source.



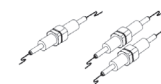
Once Power is Restored, Quartz Lamp Automatically Extinguishes:

Used specifically for emergency lighting during "Black Out" periods, or times of extended power interruption. (Takes approximately 3 minutes for HID lamp to reach full brightness.)

Ballast Fusing Voltage must be specified.

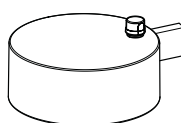
F1	Single Fuse, 120 / 277V
F2	Double Fuse, 208 / 240 / 480V

Standard unit consists of 1 or 2 KTK 30 amp fuses mounted internally on the ballast plate.

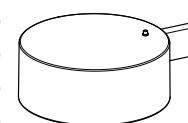


Photocontrol Factory installed through top wall of luminaire. Photocells are not available in 480V.

TLR	Twist-Lock Receptacle
TLR-PC120V	Twist-Lock Receptacle with 120V Photocell
TLR-PC208V	Twist-Lock Receptacle with 208V Photocell
TLR-PC240V	Twist-Lock Receptacle with 240V Photocell
TLR-PC277V	Twist-Lock Receptacle with 277V Photocell



PCB120V	120V Photocell Button
PCB208V	208V Photocell Button
PCB240V	240V Photocell Button
PCB277V	277V Photocell Button



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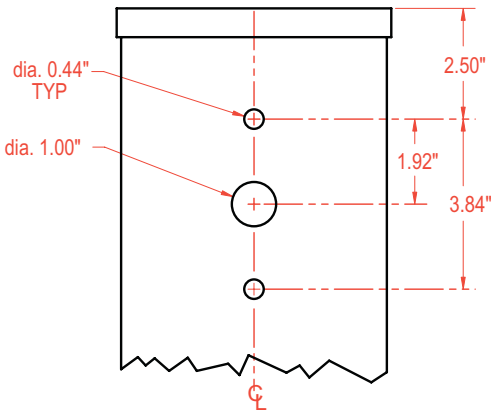
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Accessory details (Field Installed - Shipped Separately)

F1-KIT	Single Fuse Kit, 120 / 277V
F2-KIT	Double Fuse Kit, 208 / 240 / 480V
	Kit consists of 1 or 2 fuse holders and 1 or 2 KTK 30 amp fuses for field installation.
	(Voltage must be specified.)

Notes

Drill Template No. 8 (NTS)



- SS Arm Mount to Square Pole
- SR Arm Mount to Round Pole

for 4" - 6" Square Pole or
3.5" - 5" Round Pole



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Philips Lighting Company
200 Franklin Square Drive
Somerset, NJ 08873
Phone: 855-486-2216

Philips Lighting Company
281 Hillmount Road
Markham ON, Canada L6C 2S3
Phone: 800-668-9008