

AL3 Series

Spectra III Area Luminaire, 150-450W HID

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

Date:
Page 1 of 6

Overall Dimensions

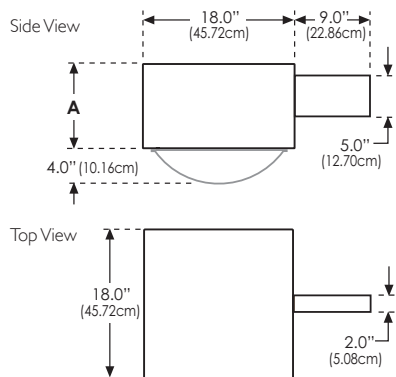
For Reference Only

150-400 Watt, non dimming unit	A = 10.00" (25.40cm) B = 27.25" (69.22cm)
450 Watt non dimming or 150-400 Watt Bi-Level unit	A = 12.00" (30.48cm) B = 29.25" (74.30cm)

AL3 arm mount

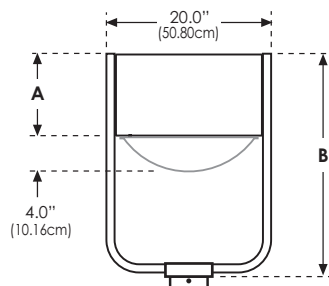
SS

Surface Arm Mount
to Square Pole
(standard)



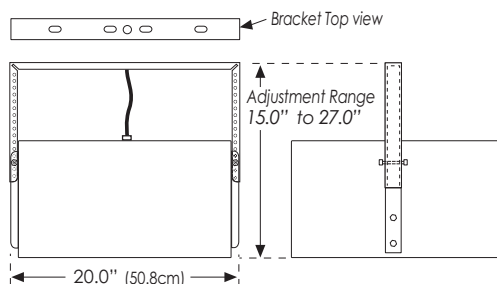
AL3 post top mount

PT(XY)



AL3 trunnion yoke mount

Y



Weight	150 - 400W 50 lbs. (22.68 kgs)	450 82 lbs. (37.19 kgs)
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EPA data shown on page 3.

Specifications

Housing

Formed aluminum sheet metal housing and top. The sides and top shall be mechanically and chemically sealed to ensure a rain-tight seal. Standard unit constructed to IP54.

Optical Module

Rotatable multi-faceted segmented reflectors shall be made of high purity, anodized "Super Sheet" aluminum with an inorganic dielectric coating, producing a minimum reflectivity of 94% for optimum efficiency. Optical assemblies shall be field rotatable at 90° increments and exchangeable. Lamp orientation and lens flexibility allow the AL3 Series (Spectra III Area Luminaire) to provide optics meeting the IES definitions of Full Cutoff, Cutoff, and Semi-Cutoff. "F" optics (available for 400W max Pulse Start Metal Halide only) combine standard flat glass lens with vertical lamp orientation to achieve Full Cutoff and is Dark Sky Ordinance compliant.

Lamp Access

Door frame shall be mitered anodized aluminum extrusion, gasketed to ensure a positive seal to the housing.

Lens

Lens shall be tempered glass to withstand thermal and physical shock. (Flat glass or sag glass is determined by wattage and type of optics specified.)

Socket

A porcelain, 4KV pulse-rated, grip-type, mogul based socket shall be used to prevent lamp loosening and to maintain proper lamp positioning. Optional Stabilux lamp socket is available for horizontal lamps to provide added protection to reduce lamp breakage due to mechanical shock and vibration.

Ballast

Ballast shall be high power factor with reliable starting at temperatures as low as -29°C (-20°F) for Metal Halide, -34°C (-30°F) for Pulse Start Metal Halide, and -40°C (-40°F) for High Pressure Sodium. Crest factor does not exceed 1.8. Class H, 180°C (356°F) rated insulation system.

Mounting

Surface arm mount (field installed) shall be of heavy gauge extruded aluminum. Threaded tension rods shall be used to bolt to square (standard) or round poles. Optional post top mount shall allow fixture to be mounted to square or round poles or tenons. Additional mounting options include direct mount to square pole, an adjustable arm mount, an adjustable mastfitter, a wall mount bracket (with or without arm), a trunnion yoke mount, and pole top tenon adapters with arm mount for square and round poles.

Finish

Finish color options include Satin Aluminum, Black, Dark Bronze, White, Grey and Green. Finishes are a polyester powder coating, 2.5 mil nominal thickness, electrostatically applied and oven cured to ensure extreme durability. Other colors may be specified. Decorative striping option also available.

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 / Terms and Conditions

Mechanical, finish and electrical shall be covered by a limited 3-year warranty. Warranty is 1-year when purchased with the ASL (acrylic sag lens) option.

The current Philips Wide-Lite Warranty may be found at www.wide-lite.com (keyword: warranty) as well as the current Standard Terms and Conditions of Sale (keyword: terms).

All sales of items in this catalogue shall be subject to the Philips Wide-Lite Standard Terms and Conditions of Sale current at the time of shipment. If you do not have a copy of the Philips Wide-Lite Warranty and Standard Terms, please contact the factory for same prior to ordering.

 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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Bulletin No. WLSP0126J0512

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AL3 Series

Spectra III Area Luminaire, 150-450W HID

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Series/Source-Wattage ¹	Optics (Distribution)	Voltage	Mounting ⁷
Pulse Start Metal Halide <input type="checkbox"/> AL3P-150 <input type="checkbox"/> AL3P-175 <input type="checkbox"/> AL3P-250 <input type="checkbox"/> AL3P-320 <input type="checkbox"/> AL3P-350 <input type="checkbox"/> AL3P-400 <input type="checkbox"/> AL3P-450 ^{2, 3}	AL3 Type IV optics include an internal house side shield. Consult factory to specify Type IV optics without internal house side shield. Vertical lamp Full Cutoff, Flat Glass ⁴ <input type="checkbox"/> 2F Type II <input type="checkbox"/> 3F Type III <input type="checkbox"/> 4F Type IV <input type="checkbox"/> 5F Type V Vertical lamp Cutoff / Semi-Cutoff, Sag Glass ⁵ <input type="checkbox"/> 2V Type II <input type="checkbox"/> 3V Type III <input type="checkbox"/> 4V Type IV <input type="checkbox"/> 5V Type V Horizontal lamp Full Cutoff, Flat Glass <input type="checkbox"/> 2H Type II <input type="checkbox"/> 3H Type III <input type="checkbox"/> 4H Type IV <input type="checkbox"/> 5H Type V Distribution Patterns 	<input type="checkbox"/> 120 <input type="checkbox"/> 208 <input type="checkbox"/> 240 <input type="checkbox"/> 277 <input type="checkbox"/> 480 <input type="checkbox"/> QV ⁶	<input type="checkbox"/> SS Surface arm mount to square pole (standard) <input type="checkbox"/> SR(X) ⁸ Surface arm mount to round pole <i>Mounting edge of arm is contoured to match pole radius.</i> <input type="checkbox"/> H HIBRED Arm System (HID/LED Night Ambient Series (HIB)) <i>See current HIBRED spec sheet WLSP0278 to specify AL3 HIBRED system. Not available in 480V.</i> <input type="checkbox"/> DM Direct mount to square pole <i>Luminaire housing mounts flush to pole without the use of mounting arms. 1@90 or 2@180 mount only.</i> <input type="checkbox"/> SA2 ⁹ Adjustable arm mount to square pole <i>Includes transition plate.</i> <input type="checkbox"/> MA2 Adjustable mastfitter mount to 2-3/8" O.D. tenon <i>Includes transition plate.</i> <input type="checkbox"/> RTA-(X)-(Y) ^{10,11} Round pole tenon adapter <i>Slipfitter for Round Pole with 2.375" O.D. x 4" vertical tenon, 9" arm included.</i> <input type="checkbox"/> SPTA-(X)-2.375 ¹⁰ Square pole tenon adapter <i>Slipfitter for Square Pole with 2.375" O.D. x 4" vertical tenon, 9" arm included.</i> <input type="checkbox"/> WB Wall mount bracket <input type="checkbox"/> WBA Wall mount bracket with 6" arm <input type="checkbox"/> PT(XY) ¹² Post top yoke mount <input type="checkbox"/> Y Trunnion yoke mount



High Pressure Sodium

- ☐ **AL3S-150**
- ☐ **AL3S-250**
- ☐ **AL3S-400**

Options (Factory Installed)

- | | |
|--|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> BL Bi-Level dimming <input type="checkbox"/> CSR Hot Quartz Restrike <input type="checkbox"/> LQ Hot/Cold Quartz Restrike <input type="checkbox"/> LQ1 Separately Wired (120V) Quartz Restrike <input type="checkbox"/> F1 Single Fuse (120/277V) <input type="checkbox"/> F2 Double Fuse (208/240/480V) <input type="checkbox"/> TLR Twist-Lock Photocell Receptacle <input type="checkbox"/> TLR-PC(***)V Twist-Lock Receptacle with Photocell
<i>Specify voltage, 480V not available.</i> <input type="checkbox"/> PCB(***)V Photocell Button
<i>Specify voltage, 480V not available.</i> | <ul style="list-style-type: none"> <input type="checkbox"/> HSS-H-AL3 Internal House Side Shield (for flat glass optics)
(internal house side shield is standard with Type IV optics) <input type="checkbox"/> HSS-V-AL3 Internal House Side Shield (for sag glass optics)
(internal house side shield is standard with Type IV optics) <input type="checkbox"/> ASL Acrylic Sag Lens <input type="checkbox"/> SLS Stabilux Socket (for H optics only) <input type="checkbox"/> DS(XX) Decorative Striping
 XX = color:
 01 = White
 02 = Black
 03 = Gold metallic
 04 = Red
 05 = Silver metallic
 08 = Blue
 69 = Dark Green |
|--|--|

Finish

- ☐ **SA** Satin Aluminum
- ☐ **BK** Black
- ☐ **DB** Dark Bronze
- ☐ **WH** White
- ☐ **GR** Gray
- ☐ **GN** Green

Accessories (Ordered Separately)

- ☐ **F1-KIT** Single Fuse Kit (120/277V)
- ☐ **F2-KIT** Double Fuse Kit (208/240/480V)
- ☐ **HSS-H-AL3** Internal House Side Shield (for flat glass optics)
(internal house side shield is standard with Type IV optics)
- ☐ **HSS-V-AL3** Internal House Side Shield (for sag glass optics)
(internal house side shield is standard with Type IV optics)
- ☐ **SK-AL3-(F)** External Glare Shield
F = Specify finish

Notes

- 1) Depth of housing dependent on wattage.
- 2) 2H reflector not available.
- 3) Vertical burn lamp only, at time of publication.
- 4) 400 watt and below, Pulse Start Metal Halide only.
- 5) Cutoff distribution at 150-400 watts.
Semi-Cutoff at 450 watts.
- 6) Allows field selection of 120/208/240/277V. (No 480V).
Certain options require voltage selection as well.
- 7) Refer to page 6 for Drill Templates.
- 8) X = Specify pole size: (3.5 / 4)" OD; (4 / 5)" OD.
- 9) May be used in the following configurations only:
1 @ 90°; 2 @ 180°.
- 10) X = Specify configuration: 1 @ 90°; 2 @ 90°; 3 @ 90°; 4 @ 90°; 2 @ 180°; 2 @ 120°; 3 @ 120°.
- 11) Y = Specify tenon size: 2.375" OD x 4" tall; 3 / 3.5" OD x 6" tall; 3.5 / 4" OD x 6" tall.
- 12) XY = Specify pole size and type: 4S, 5S, 2.375R, 3R, or 4R.

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AL3 Series

Spectra III Area Luminaire, 150-450W HID

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Distribution Guide & Ballast Data ¹

Source Type ²	Catalog Number	Lamp Envelope	Housing Depth	Reflector Type ^{5,6}	Cutoff Level	.ies File Name ³	Ballast Type ⁴	ANSI Code	Line Current ⁶ 120 / 208 / 240 / 277 / 480	Line Watts
PS	AL3P-150	BT / ED28	10"	2V, 3V, 4V, 5V 2F, 3F, 4F, 5F	Cutoff Full Cutoff	alp15(*).ies	HX-HPF	M102 / M142	3.7 / 2.1 / 1.8 / 1.6 / 1.0	185
PS	AL3P-175	BT / ED28	10" (12" w/ Bi-Level)	2V, 3V, 4V, 5V 2F, 3F, 4F, 5F, 2H, 3H, 4H, 5H	Cutoff Full Cutoff	alp17(*).ies	CWA	M137 / M152	2.0 / 1.1 / 0.9 / 0.8 / 0.5	220
PS	AL3P-250	BT / ED28	10" (12" w/ Bi-Level)	2V, 3V, 4V, 5V 2F, 3F, 4F, 5F, 2H, 3H, 4H, 5H	Cutoff Full Cutoff	alp25(*).ies	CWA	M138 / M153	2.8 / 1.5 / 1.3 / 1.2 / 0.6	298
PS	AL3P-320	BT / ED28	10" (12" w/ Bi-Level)	2V, 3V, 4V, 5V 2F, 3F, 4F, 5F, 2H, 3H, 4H, 5H	Cutoff Full Cutoff	alp32(*).ies	CWA	M132 / M154	3.3 / 1.9 / 1.7 / 1.4 / 0.8	368
PS	AL3P-350	BT / ED28	10" (12" w/ Bi-Level)	2V, 3V, 4V, 5V 2F, 3F, 4F, 5F, 2H, 3H, 4H, 5H	Cutoff Full Cutoff	alp35(*).ies	CWA	M131	3.7 / 2.1 / 1.8 / 1.6 / 0.9	400
PS	AL3P-400	BT / ED28	10" (12" w/ Bi-Level)	2V, 3V, 4V, 5V 2F, 3F, 4F, 5F, 2H, 3H, 4H, 5H	Cutoff Full Cutoff	alp40(*).ies	CWA	M135 / M155	4.0 / 2.2 / 1.9 / 1.8 / 1.0	456
PS	AL3P-450	BT / ED37	12"	2V, 3V, 4V, 5V	Semi Cutoff	alp45(*).ies	CWA	M144	4.4 / 2.6 / 2.2 / 1.9 / 1.1	514
HPS	AL3S-150	E23½	10"	2V, 3V, 4V, 5V 2F, 3F, 4F, 5F, 2H, 3H, 4H, 5H	Cutoff Full Cutoff	als15(*).ies	HX-HPF	S55	3.2 / 1.7 / 1.6 / 1.4 / 0.7	195
HPS	AL3S-250	E18	10" (12" w/ Bi-Level)	2V, 3V, 4V, 5V 2H, 3H, 4H, 5H	Cutoff Full Cutoff	als25(*).ies	CWA	S50	2.7 / 1.5 / 1.3 / 1.2 / 0.7	310
HPS	AL3S-400	E18	10" (12" w/ Bi-Level)	2V, 3V, 4V, 5V 2H, 3H, 4H, 5H	Cutoff Full Cutoff	als40(*).ies	CWA	S51	4.1 / 2.5 / 2.1 / 1.9 / 1.1	467

(1) The Spectra AL3 Series can accommodate a variety of other wattages and lamps. Please consult factory with specific requirements.

(2) PS = Pulse Start Metal Halide, HPS = High Pressure Sodium. Clear lamps are recommended for optimum uniformity.

(3) Replace (*) with Reflector Type:

2V, 3V, 4V, 5V (Vertical Lamp / Sag Glass: Cutoff: 150-400W, Semi-Cutoff: 450W)

2F, 3F, 4F, 5F (Vertical Lamp / Flat Glass / Full Cutoff)

2H, 3H, 4H, 5H (Horizontal Lamp / Flat Glass / Full Cutoff)

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

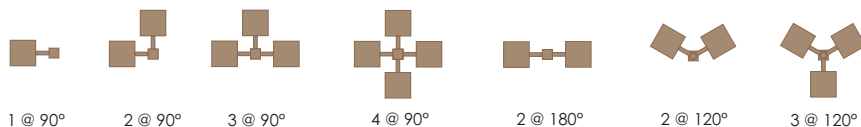
(5) All Horizontal Lamp AL3 reflectors are equipped with POMB sockets and can accommodate Standard or High Output Lamps.

(6) Internal house side shield is standard on AL3 Type IV optics. Consult factory to specify Type IV optics without internal house side shield. Consult factory for photometry.

EPA *Effective Projected Area in Ft²*
EPA calculations confirmed by wind tunnel testing.

Arm Mount (SS)	10" deep flat glass	10" deep sag glass	12" deep flat glass	12" deep sag glass
1 @ 90°	1.9	2.1	2.2	2.3
2 @ 90°	3.8	4.2	4.3	4.7
2 @ 180°	3.8	4.2	4.3	4.7
3 @ 90°	4.8	5.6	5.6	6.1
3 @ 120°	4.8	5.6	5.6	6.1
4 @ 90°	5.0	5.9	5.9	6.4
Post Top Mount	2.2	2.4	2.5	2.7

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.

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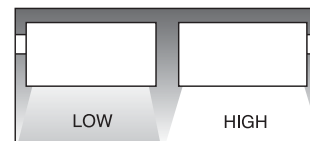
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Option details (Factory Installed)

BL	<i>Bi-Level</i>	<i>Bi-Level provides high/low level of lamp output with up to 50% power consumption.</i>
<i>Note:</i>	<i>Suitable for HPS in any aiming position. Consult factory when specifying dimming with Metal Halide.</i>	<i>Zero crossover network avoids strobing and lamp dropout.</i>
		Not available with HX-HPF ballasts.




Auxiliary / Emergency Lighting (150 watt quartz lamp, standard)
Combined quartz wattage may not exceed HID lamp wattage. 120V double contact bayonet base.

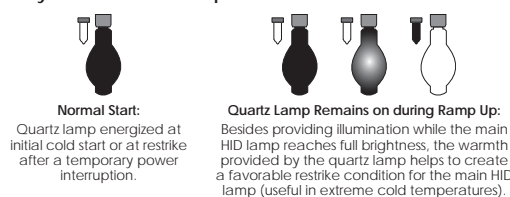
CSR	<i>Hot Quartz Restrike using Current Sensing Relay (without time delay)</i>
	<i>Extinguishes auxiliary quartz lamp when arc of the main HID lamp strikes.</i> Activation: At (initial) Cold Start or Restrike (after a momentary "Brown Out" or extended "Black Out" power interruption), through Run Down.

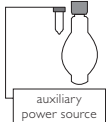
CSR Auxiliary Quartz Operation



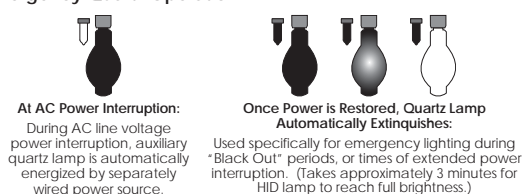
LQ	<i>LiteMatic Hot / Cold Quartz Restrike</i>
	<i>Provides LiteMatic quartz auxiliary operation for fixtures with 120V or multi-tap ballasts. 120V auxiliary LiteMatic quartz lamp power supplied by ballast (AC line voltage). Quartz lamp remains on for three minutes after main HID lamp strikes and reaches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




LQ1	<i>Separately Wired (120V) Hot / Cold Quartz Restrike</i>
	<i>Externally controlled emergency lighting from a separate power source. Quartz lamp is extinguished once power is restored.</i> <i>To ensure integrity of the emergency lighting system, LQ1 leads should be hardwired.</i> Activation: At "Black Out" conditions only. Normal HID operation will occur at all other times.

LQ1 Emergency Quartz Operation



LQ1 requires an interlock by others to ensure HID and quartz source are not operated together.

Ballast Fusing	<i>Voltage must be specified.</i>	<i>Standard unit consists of 1 or 2 KTK 30 amp fuses mounted internally on the ballast plate.</i>	
F1	<i>Single Fuse, 120 / 277V</i>	Factory installed fusing options are not available for 450 watt units.	
F2	<i>Double Fuse, 208 / 240 / 480V</i>	<i>See inline fusing accessories F1-KIT and F2-KIT.</i>	

Photocontrol	<i>Not available in 480V.</i> <i>Not available for 450 watt units.</i>
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Factory installed through top wall of luminaire.

Factory installed through side wall of luminaire.

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

PCB120V	<i>120V Photocell Button</i>
PCB208V	<i>208V Photocell Button</i>
PCB240V	<i>240V Photocell Button</i>
PCB277V	<i>277V Photocell Button</i>

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Option details (continued)

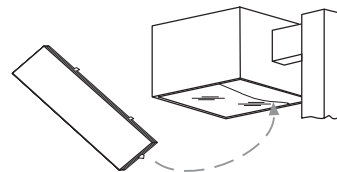
Factory Installed Internal House Side Shield options

Note: All standard AL3 Type IV optics include internal house side shield.

HSS-H-AL3

*Internal House Side Shield for Flat Lens optics:
Type II, Type III, or Type V*

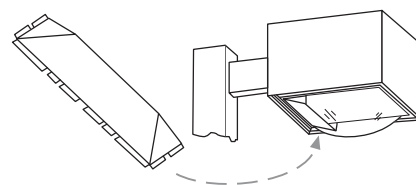
(also available as a field installed accessory)



HSS-V-AL3

*Internal House Side Shield for Sag Lens optics:
Type II, Type III, or Type V*

(also available as a field installed accessory)



ASL

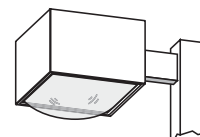
Acrylic Sag Lens option

Available for 250 watt and below only.

Cost efficient alternative to conventional glass sag lens.

Consult factory for per fixture savings with this option.

One year warranty.



SLS

Stabilux Socket option

Available for horizontally lamped optics only: 2H, 3H, 4H, 5H.

Adjustable lamp support, insulated with woven ceramic fabric, for applications requiring added protection to reduce lamp breakage due to mechanical shock and vibration.

DS(XX)

Decorative Striping options

Specify color as shown on page 2.

AL3 Series

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Accessory details (Field Installed - Shipped Separately)

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

Field installed internal house side shield accessories:

AL3 internal house side shields may be ordered as factory installed options or field installed accessories.

HSS-H-AL3	Internal House Side Shield For use with Flat lens optics: Type II, Type III, or Type V.
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HSS-V-AL3	Internal House Side Shield For use with Sag lens optics: Type II, Type III, or Type V.
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Note:

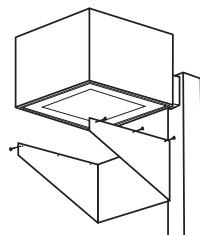
All AL3 Type IV optics include an internal house side shield.

SK-AL3-(F)	External Glare Shield
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F = Specify finish.

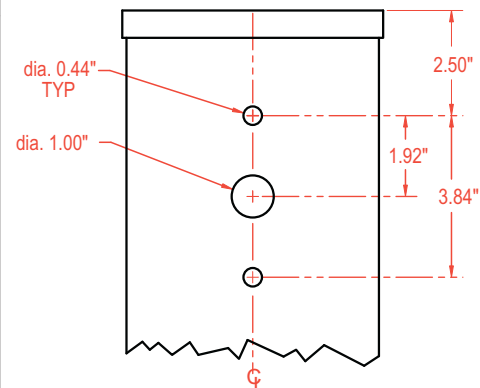
Field installed accessory provides advanced directional control of spill light. Mounts to housing.

Recommended finish is BK (Black).



Notes

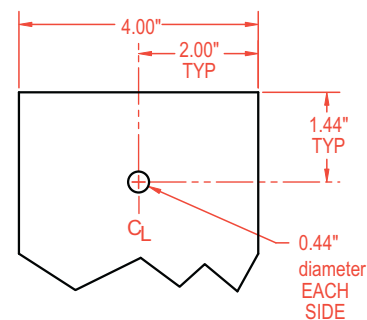
Drill Template No. 8 (NTS)



- DM** Direct Mount to Square Pole
- SS** Arm Mount to Square Pole
- SR** Arm Mount to Round Pole
- SA2** Adjustable Arm Mount to Square Pole

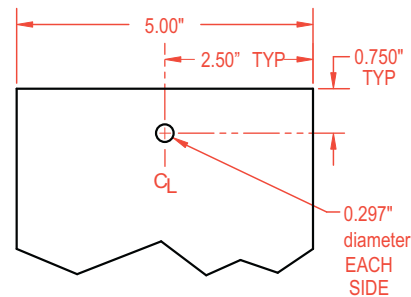
4"-6" Square Pole or 3.5"-5" Round Pole

Drill Template No. 9 (NTS)



PT Post Top Mount to 4" Square Pole

Drill Template No. 10 (NTS)



PT Post Top Mount to 5" Square Pole



ISO 9001
Certified

