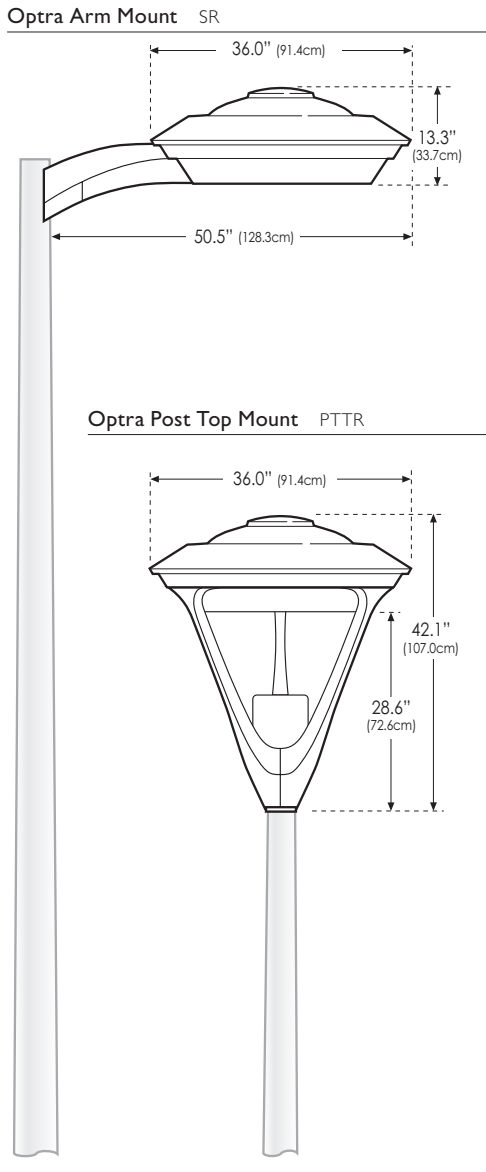


OP Series

Optra Area Luminaire, 250-1000W HID

Type:	Job:	Approvals:				
Catalog Number:						Date:
Series/Source-Wattage	Optics	Voltage	Mounting	Options (Factory Installed)	Finish	Accessories (Field Installed)
-	-	-	-	-	-	-
						Page 1 of 8

Overall Dimensions For Reference Only



Weight (maximum)

Arm Mount	Post Top Mount
98 lbs. (44.45 kgs)	111 lbs. (50.35 kgs)

EPA data shown on page 4.

Specifications



Housing

Die-cast aluminum housing with corrosion resistant hardware. The 250W-1000W Optra consists of a separate ballast and optical housing ensuring cooler operation and significantly longer component and unit life. Standard optic chamber constructed to IP65.

Full Cutoff Optics System

Revolutionary optics design incorporates the advantages of vertical lamping with an innovative inverse conical lens to provide compliance with IES Full Cutoff definition in addition to unrivaled photometric performance. Optical lens employs collimating lens technology to capture and focus uncontrolled lumens back into the main beam while masking arc tube glare. 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. The optical head is equipped with an electrical disconnect and is fully gasketed to ensure Dust-Tite construction for higher maintained light levels. Symmetric pattern provides excellent spacing to mounting height ratios with very low glare. Asymmetric pattern provides directional spill light control, useful for perimeter areas. Luminaire is Dark Sky Ordinance compliant.

Lamp / Socket

Mogul base lamps required. Sockets are 4KV pulse rated for Pulse Start Metal Halide and Metal Halide and 5KV pulse rated for High Pressure Sodium.

Lamp Access

Top of the fixture hinges open to provide toolless lamp access and relamping.

Lens

Precision manufactured, fully tempered inverse conical glass lens, in conjunction with the collimating optic lens, exceeds limitations of sag glass lens photometrics, which can provide no better than cutoff performance.

Ballast

Separate but integral ballast shall be high power factor with reliable starting to -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. Ballast has Class H, 180°C (356°F) rated insulation system. Ballast module shall be toolless for ease of installation and service.

Mounting

Fixture is constructed for one-person installation. Field installed surface arm mount shall be of die-cast aluminum. Mounting arm with integral ballast tray assembly shall be used to bolt fixture to a 4-5" O.D. round or 4-6" square pole. (SW-OP Wall Mount Junction Box accessory may also be specified in conjunction with the arm mount unit.) Post top unit mounts to a 2-3/8" O.D. x 4" vertical tenon (4-5" round pole). Fitter accessories available.

Finish

Standard finish shall be textured satin aluminum 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 luminaire to the UL 1598 standards, 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

Philips Gardco luminaires feature a 5 year limited warranty. See Warranty Information on www.sitelighting.com 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.

OP Series

Optra Area Luminaire, 250-1000W HID

Type:	Job:	Page 2 of 8
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Series/Source-Wattage ⁽¹⁾	Optics (Distribution)	Voltage ⁽²⁾	Mounting
Metal Halide <input type="checkbox"/> OPM-1000	<input type="checkbox"/> S Symmetric <input type="checkbox"/> A Asymmetric	<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"/> SR Arm mount to Round Pole (4"-5" OD) ^(3,4) <input type="checkbox"/> SS Arm mount to Square Pole ⁽⁴⁾ <input type="checkbox"/> PTTR Post Top mount to 4" O.D. Round Pole ⁽⁵⁾
Pulse Start Metal Halide <input type="checkbox"/> OPP-250 <input type="checkbox"/> OPP-320 <input type="checkbox"/> OPP-350 <input type="checkbox"/> OPP-400	<input type="checkbox"/> OPS-250 <input type="checkbox"/> OPS-400 <input type="checkbox"/> OPS-1000		
High Pressure Sodium <input type="checkbox"/> OPS-250 <input type="checkbox"/> OPS-400 <input type="checkbox"/> OPS-1000			



(1) Consult factory for availability of 200W and below.

(2) Voltage must be specified. Luminaire provided with pre-wired disconnects.

(3) OP-SR3-(X) accessory required for mounting to 3"-3.9" OD Round Poles.

(4) Refer to Optra Arm Mount Drill Template #13.

(5) Post Top Mount to 2-3/8" O.D. x 4" vertical tenon (by others). Fitter adapter accessories available.

Options	Finish	Accessories (Ordered Separately)
<input type="checkbox"/> BL Bi-Level <input type="checkbox"/> CSR Hot Quartz Restrike <input type="checkbox"/> LQ Hot / Cold Quartz Restrike <input type="checkbox"/> LQ1 Separately Wired (120V) Hot/Cold 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 Receptacle <input type="checkbox"/> TLR-PC Twist-Lock Receptacle with Photocell (specify voltage) (not available in 480V) (not available on Post Top unit) <input type="checkbox"/> PCB Photocell Button (specify voltage) (not available in 480V) <input type="checkbox"/> 50HZ 50 Hz ballast	<input type="checkbox"/> TSA Textured Satin Aluminum <input type="checkbox"/> TDB Textured Dark Bronze <input type="checkbox"/> TBK Textured Black <input type="checkbox"/> TGR Textured Gray <input type="checkbox"/> TWHT Textured White <input type="checkbox"/> TGN Textured Green <input type="checkbox"/> RAL(*) Custom RAL color number (specify color)	<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"/> SK-OP120 External House Side Shield (Additional EPA per shield: 1.02) <input type="checkbox"/> SK-OP180 External House Side Shield (Additional EPA per shield: 1.18) <input type="checkbox"/> OP-SR3-(X) Arm mount adapter kit for 3" - 3.9" O.D. round poles <input type="checkbox"/> PTTR-5 Post Top Fitter for 5" Round Pole <input type="checkbox"/> PTTR-6 Post Top Fitter for 6" Round Pole <input type="checkbox"/> PTTS-4 Post Top Fitter for 4" Square Pole <input type="checkbox"/> PTTS-5 Post Top Fitter for 5" Square Pole <input type="checkbox"/> PTTS-6 Post Top Fitter for 6" Square Pole <input type="checkbox"/> RPTA-190-DT13 Round Pole Tenon Adapter - 1@90 <input type="checkbox"/> RPTA-290-DT13 Round Pole Tenon Adapter - 2@90 <input type="checkbox"/> RPTA-2180-DT13 Round Pole Tenon Adapter - 2@180 <input type="checkbox"/> RPTA-390-DT13 Round Pole Tenon Adapter - 3@90 <input type="checkbox"/> RPTA-3120-DT13 Round Pole Tenon Adapter - 3@120 <input type="checkbox"/> RPTA-490-DT13 Round Pole Tenon Adapter - 4@90 <input type="checkbox"/> SPTA-190-DT13 Square Pole Tenon Adapter - 1@90 <input type="checkbox"/> SPTA-290-DT13 Square Pole Tenon Adapter - 2@90 <input type="checkbox"/> SPTA-2180-DT13 Square Pole Tenon Adapter - 2@180 <input type="checkbox"/> SPTA-390-DT13 Square Pole Tenon Adapter - 3@90 <input type="checkbox"/> SPTA-490-DT13 Square Pole Tenon Adapter - 4@90 <input type="checkbox"/> SW-OP Wall Mount Junction Box

OP Series

Optra Area Luminaire, 250-1000W HID

Type:	Job:	Page 3 of 8
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Distribution Guide & Ballast Data

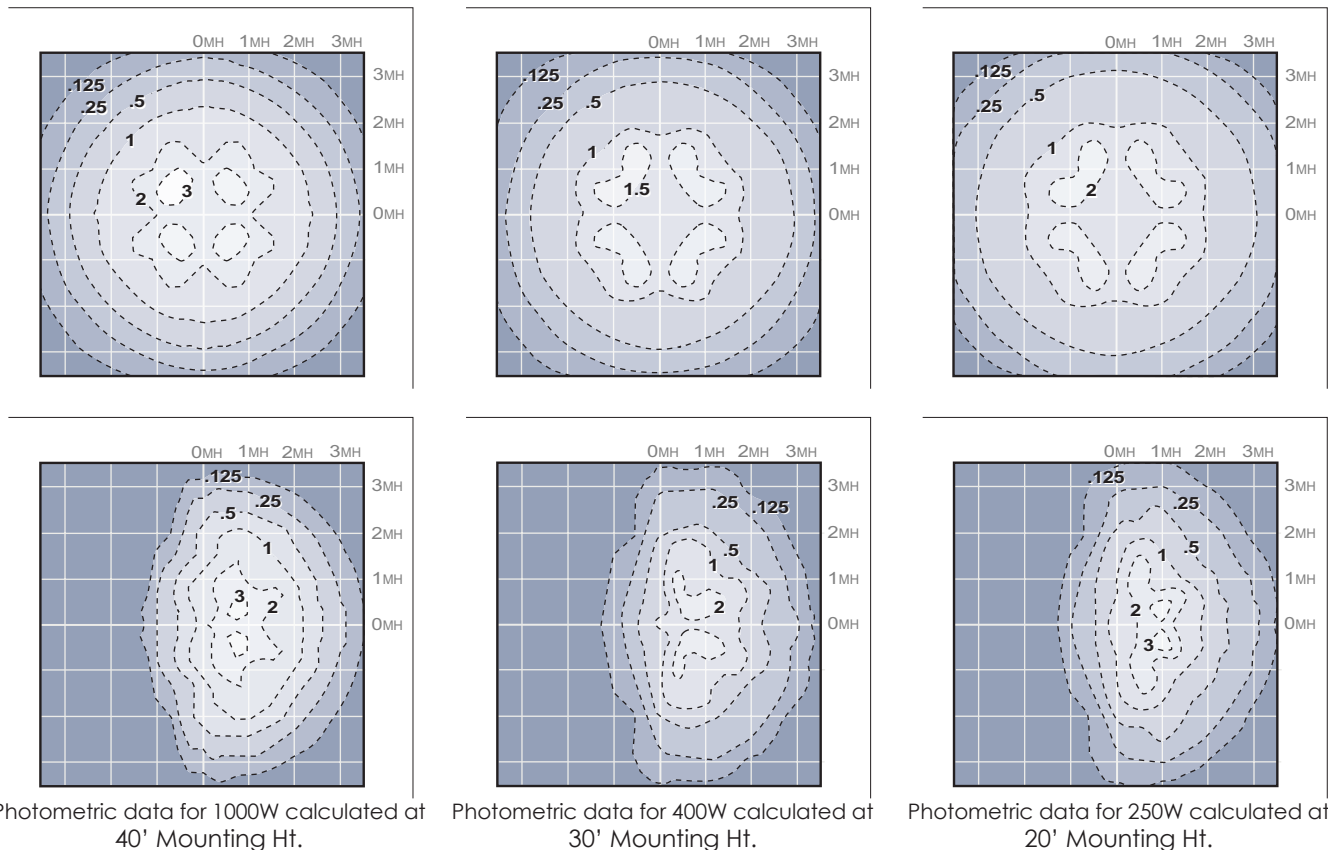
Source Type ⁽⁴⁾	Catalog Number	Lamp Envelope ⁽⁵⁾	Recommended Max. Spacing	Cutoff Level	.ies File Name ⁽⁶⁾	ANSI Code	Line Current 120 / 208 / 240 / 277 / 480	Line Watts
PS	OPP-250	BT28	5:1	Full	opp25(*).ies	M138 / M153	2.8 / 1.5 / 1.3 / 1.2 / 0.6	298
	OPP-320	BT28	5:1	Full	opp32(*).ies	M132 / M154	3.3 / 1.9 / 1.7 / 1.4 / 0.8	368
	OPP-350	BT28	5:1	Full	opp35(*).ies	M131	3.7 / 2.1 / 1.8 / 1.6 / 0.9	400
	OPP-400	BT28	5:1	Full	opp40(*).ies	M135 / M155	4.0 / 2.2 / 1.9 / 1.8 / 1.0	456
	OPP-450	BT37	5:1	Full	opp45(*).ies	M144	4.4 / 2.6 / 2.2 / 1.9 / 1.1	514
	OPP-750	BT37	5:1	Full	opp75(*).ies	M149	7.0 / 4.0 / 3.5 / 3.0 / 1.7	820
	OPP-875	BT37	5:1	Full	opp87(*).ies	M166	7.8 / 4.3 / 3.9 / 3.4 / 2.0	945
	OPP-1000	BT37	5:1	Full	opp10(*).ies	M141	9.0 / 5.2 / 4.5 / 3.9 / 2.4	1080
MH	OPM-1000	BT37	5:1	Full	opm10(*).ies	M47 / H36	9.2 / 5.6 / 4.7 / 4.1 / 2.4	1080
HPS	OPS-250	E18	5:1	Full	ops25(*).ies	S50	2.7 / 1.6 / 1.3 / 1.2 / 0.7	310
	OPS-400	E18	5:1	Full	ops40(*).ies	S51	4.1 / 2.5 / 2.1 / 1.9 / 1.1	467
	OPS-1000	BT37(dual arc)	5:1	Full	ops10(*).ies	S52	9.5 / 5.5 / 4.8 / 4.2 / 2.5	1100

- (1) The Optra accommodates a variety of other wattages and lamps. Consult factory.
 (2) The Optra meets IES Full Cutoff specifications in all wattages and lamp sources.

- (3) Ballast type: CWA (Constant Wattage Autotransformer).
 (4) PS = Pulse Start Metal Halide, MH = Metal Halide, HPS = High Pressure Sodium.

- (5) Clear lamps are recommended for optimum photometric performance.
 (6) Replace (*) with Reflector type: S (symmetric) or A (asymmetric).

Distribution Patterns

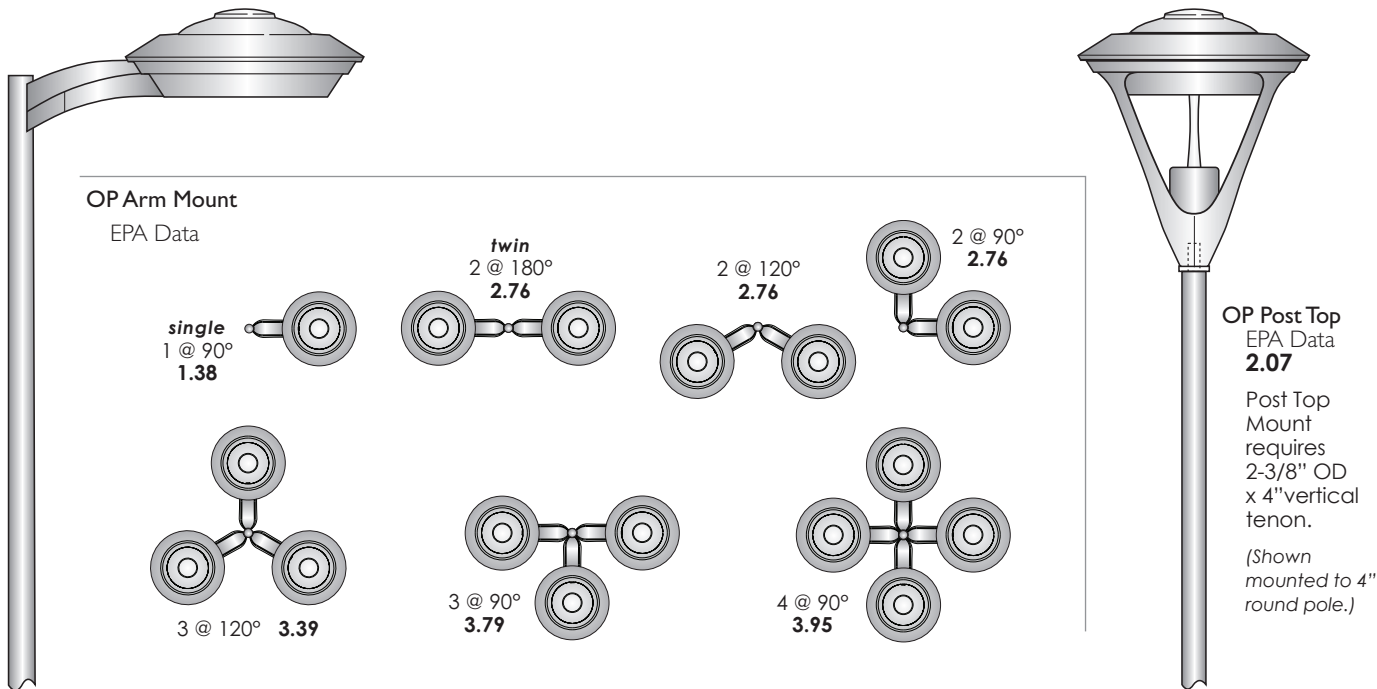


OP Series

Optra Area Luminaire, 250-1000W HID

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EPA Effective Projected Area in Ft²



Sturdy yet lightweight all aluminum construction and computer designed profile ensure low EPA's: only 1.38 sq. ft. for the single arm mount unit.
EPA calculations are confirmed by wind tunnel testing.

OP Series

Optra Area Luminaire, 250-1000W HID

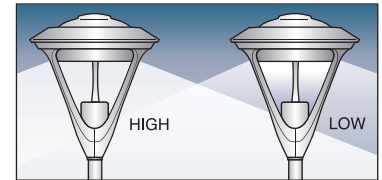
Type:	Job:	Page 5 of 8
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Option details (Factory Installed)


BL Bi-Level (high / low dimming)
Note: BL option may not be combined with the LQ1 option in the Optra Post Top Mount unit.

Bi-level provides high / low level of lamp output with up to 50% power consumption. Zero crossover network avoids strobing and lamp dropout.

Unlike horizontal lamp full cutoff fixtures, the Optra's vertical lamp system can accommodate energy efficiency standards requiring bi-level systems.




Auxiliary / Emergency Lighting (250 watt quartz lamp)



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

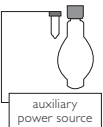
CSR Auxiliary Quartz Operation

Normal Start:
 Quartz lamp energized until main HID lamp strikes.
HID Lamp Reaches Full Brightness:
 Auxiliary quartz lamp automatically extinguished when main HID lamp strikes. (Takes approximately 3 minutes to reach approx. 40% brightness.)



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.)

Note: LQ1 may not be combined with the BL option with the Optra Post Top Mount.

LQ1 requires an Interlock (by others) to ensure HID and Quartz source are not operated concurrently.

Note: Standard 250 watt (120V) double contact bayonet base socket. Combined Quartz wattage may not exceed HID lamp wattage.

F1 Single Fuse, 120/277V

F2 Double Fuse, 208/240/480V

Note: Voltage must be specified.

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



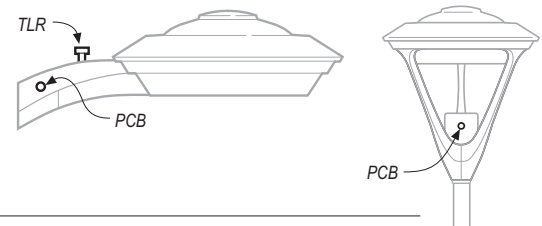
TLR Twist Lock Photocell Receptacle
Note: Voltage must be specified.

TLR-PC Twist Lock Photocell Receptacle with Photocontrol

Note: Voltage must be specified. Not available in 480V

Factory installed photocell receptacle.

TLR and TLR-PC are available with Arm Mount only.



PCB Photocell Button
Note: Voltage must be specified. Not available in 480V

Factory installed photocell button.

50 HZ 50 Hz Ballast Operation

Specified for applications (outside the U.S.) where 50 Hertz operation is standard. Consult factory for availability.

OP Series

Optra Area Luminaire, 250-1000W HID

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Accessory details (Field Installed - Shipped Separately)

F1-Kit = Single Fuse (120V/277V)

Consists of 1 or 2 fuse holders and 1 or 2 KTK 30 amp fuses. Field installed.



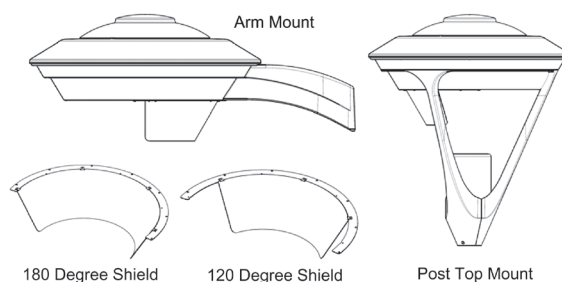
F2-Kit = Double Fuse (208V/240V/480V)

SK-OP120 = External House Side Shield
additional EPA per shield: **1.02**

Field installed accessory provides supplemental spill light control.

SK-OP180 = External House Side Shield
additional EPA per shield: **1.18**

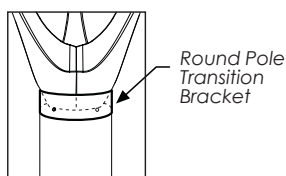
120° version designed for use with post top mounting configuration specifically.



OP-SR3-(X) = Arm mount adapter kit for 3" - 3.9" OD round poles

PTTR-5 = Post Top Fitter for 5" Round Pole

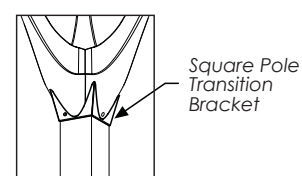
PTTR-6 = Post Top Fitter for 6" Round Pole



PTTS-4 = Post Top Fitter for 4" Square Pole

PTTS-5 = Post Top Fitter for 5" Square Pole

PTTS-6 = Post Top Fitter for 6" Square Pole



RPTA-190-DT13 = Round Pole Tenon Adapter - 1 @ 90°

RPTA-290-DT13 = Round Pole Tenon Adapter - 2 @ 90°

RPTA-2180-DT13 = Round Pole Tenon Adapter - 2 @ 180°

RPTA-390-DT13 = Round Pole Tenon Adapter - 3 @ 90°

RPTA-3120-DT13 = Round Pole Tenon Adapter - 3 @ 120°

RPTA-490-DT13 = Round Pole Tenon Adapter - 4 @ 90°

Round Pole Tenon Adapter allows mounting of Optra with standard "SR" arm mount to round pole with 2-3/8" O.D. X 4" tall pole top tenon.



SPTA-190-DT13 = Square Pole Tenon Adapter - 1 @ 90°

SPTA-290-DT13 = Square Pole Tenon Adapter - 2 @ 90°

SPTA-2180-DT13 = Square Pole Tenon Adapter - 2 @ 180°

SPTA-390-DT13 = Square Pole Tenon Adapter - 3 @ 90°

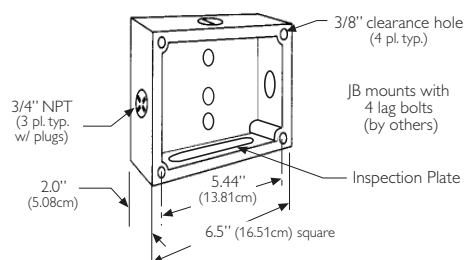
SPTA-490-DT13 = Square Pole Tenon Adapter - 4 @ 90°

Square Pole Tenon Adapter allows mounting of Optra with standard "SS" arm mount to square pole with 2-3/8" O.D. X 4" tall pole top tenon.



SW-OP = Wall Mount Junction Box

Thru-Wire junction box allows wall mounting using standard surface arms.

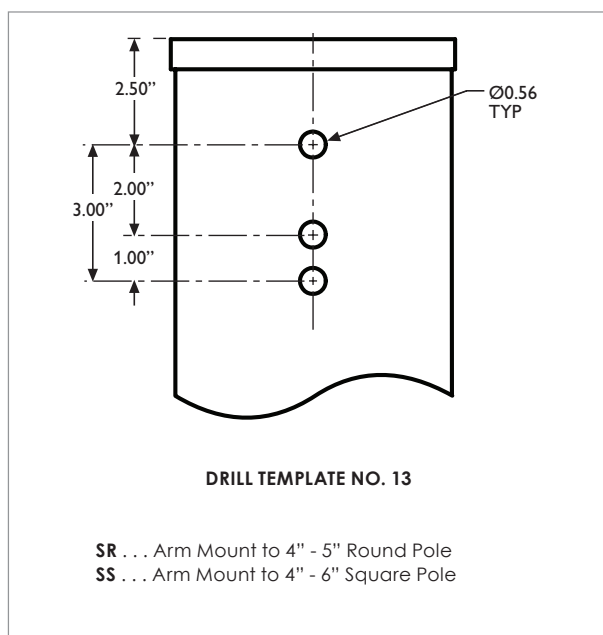


OP Series

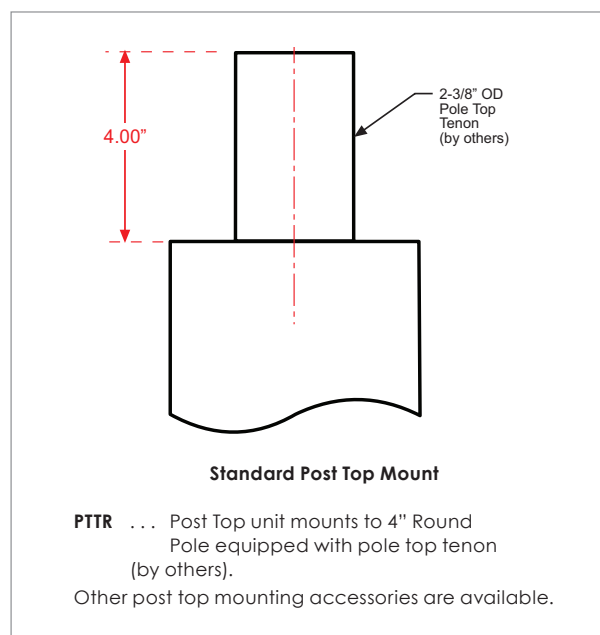
Optra Area Luminaire, 250-1000W HID

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Arm Mount Drill Template (NTS)



Post Top Mount Tenon Requirement (NTS)



OP Series

Optra Area Luminaire, 250-1000W HID

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Notes



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Specifications are subject to change without notice.
www.philips.com/luminaires

G200-107/0313

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