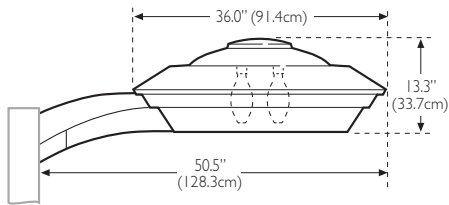


Optra EONS (Extended On System) Area Luminaire, 250-1000W HID

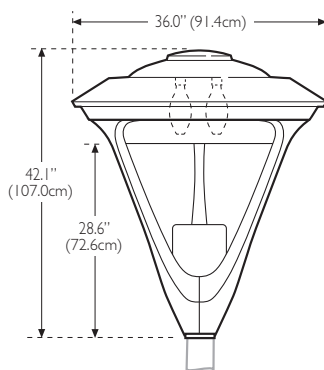
Type:	Job:						Approvals:
Catalog Number:							
-							
Series/Source-Wattage	Optics	Voltage	Mounting	Options (Factory Installed)	Finish	Accessories (Field Installed)	Date: Page 1 of 6

Overall Dimensions For Reference Only

OP-E Single Arm Mount SR



OP-E Post Top Mount PTTR



EPA (Effective Projected Area in Ft²)

	Arm Mount		Post Top single unit only
1@90		1.38	
2@180		2.76	
2@90		2.76	
2@120		2.76	
3@120		3.39	
3@90		3.79	
4@90		3.95	

Weight (maximum)

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

Specifications



Housing

Optra EONSystem shall consist of separate ballast and optical housings, ensuring cooler operation and significantly longer component and unit life. Die-cast aluminum housing. Corrosion resistant hardware. Standard optic chamber constructed to IP65.

Full Cutoff Optics System

Vertical lamping with flat lens meets IES Full Cutoff classification. Multi-faceted segmented reflectors of high purity, anodized "Super Sheet" aluminum, minimum 94% reflectivity with an inorganic dielectric coating. Optical head equipped with an electrical disconnect and fully gasketed to ensure Dust-Tite construction for higher maintained light levels. Symmetric pattern provides excellent spacing to mounting height ratios. Asymmetric pattern provides house side spill light control. Luminaire is Dark Sky Ordinance compliant.

Lamp Access

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

Lamp / Socket

All sockets shall be porcelain, grip-type, mogul base, 4KV (5KV for 1000W HPS) pulse rated for 250 through 1000 watts.

Lens

Precision manufactured fully tempered flat glass lens provides full cutoff performance.

Ballast

Separate but integral ballast shall be high power factor with reliable starting at temperatures as low as -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.

EONS Extended On System

Optra EONS features a dual-lamp optic and ballast system designed to ignite and operate the lamp with the highest remaining life. This innovative technology results in installations that sustain higher light levels for twice as long with faster restrike times. Other benefits include twice the time between group relamping, resulting in significant maintenance cost savings.

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.

Type:	Job:	Page 2 of 6
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Series/Source-Wattage	Optics (Distribution)	Voltage ³	Mounting
Pulse Start Metal Halide <input type="checkbox"/> OPP-250 BT-28 lamp <input type="checkbox"/> OPP-320 BT-28 lamp <input type="checkbox"/> OPP-350 BT-28 lamp <input type="checkbox"/> OPP-400 BT-28 lamp <input type="checkbox"/> OPP-450 BT-37 lamp <input type="checkbox"/> OPP-750 BT-37 lamp <input type="checkbox"/> OPP-875 BT-37 lamp <input type="checkbox"/> OPP-1000 BT-37 lamp 	High Pressure Sodium <input type="checkbox"/> OPS-250 E-18 lamp <input type="checkbox"/> OPS-400 E-18 lamp <input type="checkbox"/> OPS-750 BT-37 lamp <input type="checkbox"/> OPS-1000 BT-37 (dual arc) lamp <input type="checkbox"/> ES EONS Symmetric <input type="checkbox"/> EA¹ EONS Post Top Asymmetric <input type="checkbox"/> EA0² EONS Arm Mount Asymmetric 0° <input type="checkbox"/> EA90² EONS Arm Mount Asymmetric 90° <input type="checkbox"/> EA270² EONS Arm Mount Asymmetric 270°	<input type="checkbox"/> 120 <input type="checkbox"/> 208 <input type="checkbox"/> 240 <input type="checkbox"/> 277 <input type="checkbox"/> 480	<input type="checkbox"/> SR^{4,5} Arm mount to Round Pole (4"-5" OD) ^(3,4) <input type="checkbox"/> SS⁵ Arm mount to Square Pole ⁽⁴⁾ <input type="checkbox"/> PTTR⁶ Post Top mount to 4" O.D. Round Pole equipped with 2-3/8" tenon ⁽⁵⁾

1) Specify for Asymmetric distribution with post top unit only. Optics are field rotatable in post top unit only.
 2) Asymmetric orientation/distribution must be specified with arm mount unit. EA0 distribution is typical for perimeter areas.

See OP-E Arm Mount Asymmetric Distribution Diagrams.
 3) Voltage must be specified. Luminaire provided with pre-wired disconnects.
 4) Specify OP-SR3-(X) accessory for mounting to 3"-3.9" round

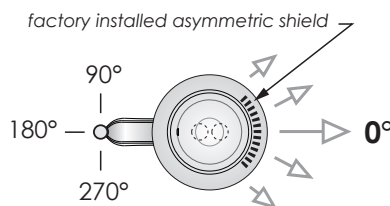
poles.
 5) Requires drill template #13.
 6) Optra Post Top mounting requires a 2-3/8" x 4" vertical tenon.

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 (120/277V) <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

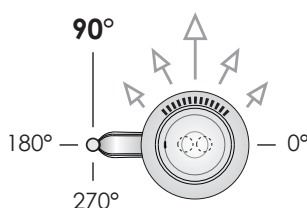
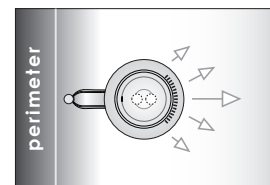
Type:	Job:	Page 3 of 6
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OP-E Arm Mount Asymmetric Distribution Diagrams OP-E unit and pole shown in Plan View (viewed from above).

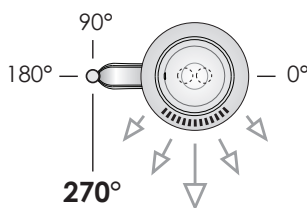
Asymmetric optics in the arm mount unit are non-rotatable and thus do not allow re-orientation in the field. Knowledge of desired plan view distribution pattern is essential at order point. Note that factory-installed internal shield is positioned opposite perimeter to block reflected beam.



EA0 distribution Typical for single unit perimeter installation.

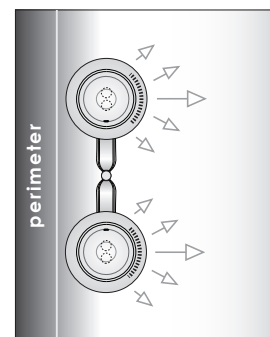


EA90 distribution



EA270 distribution

Twin perimeter units typically require one EA90 and one EA270 optic.



EONS Lamp Life Chart

Optra EONSsystem doubles the average lamp life of each luminaire

PSMH Wattage	Rated Life in hours	HPS Wattage	Rated Life in hours	
250W	30,000	250W	40,000	
320W	40,000+	250W	80,000	With standby lamp.
350W	40,000+	400W	48,000	
400W	40,000+	400W	80,000	With standby lamp.
450W	40,000+	750W	48,000	
750W	32,000	1000W	48,000	
875W	40,000+			
1000W	30,000+			

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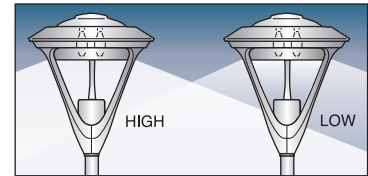
Option details (Factory Installed)

BL Bi-Level (high / low dimming)

Note: BL option may not be combined with the LQ1 option in the OP-E 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:

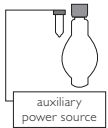
Quartz lamp energized at initial cold start or at restrike after a temporary power interruption.



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 OP-E Post Top Mount.

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

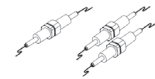
Note: Standard 250 watt (120V) double contact bayonet base socket. Combined Quartz wattage may not exceed HID lamp wattage.

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

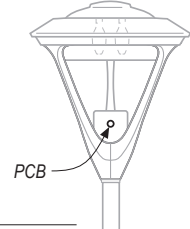
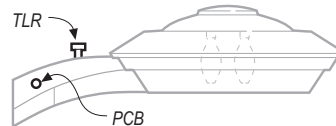
Note: Voltage must be specified.

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

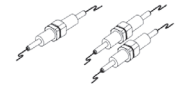
Specified for applications (outside the U.S.) where 50 Hertz operation is standard. Consult factory for availability.

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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.



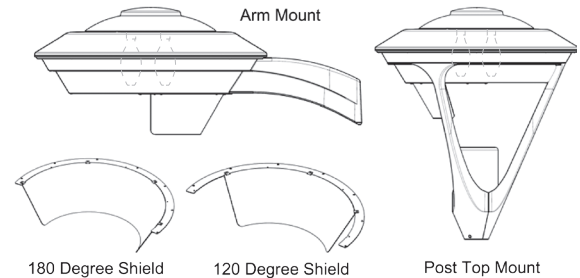
F2-Kit = Double Fuse (208V/240V/480V)

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**

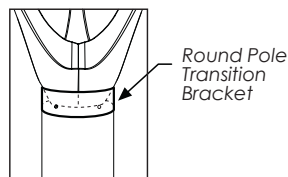
120° version designed for use with post top mounting configuration specifically.



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

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

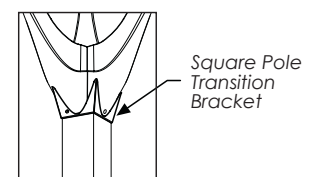
PTTR-6 = Post Top Fitter for
6" Round Pole



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 OP-E 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°

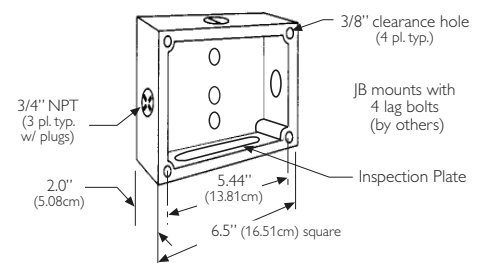
SPTA-490-DT13 = Square Pole Tenon Adapter - 4 @ 90°

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



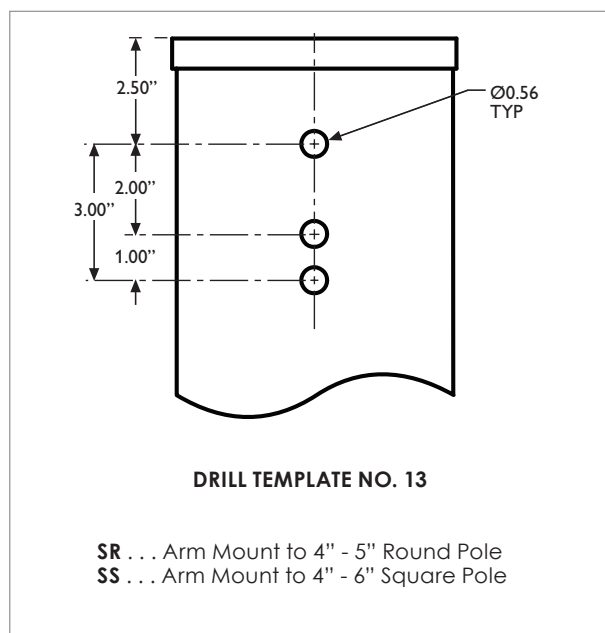
SW-OP = Wall Mount Junction Box

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

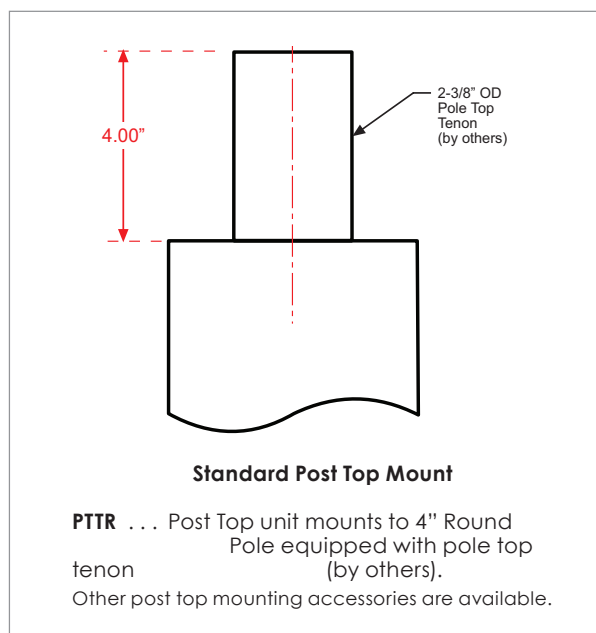


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Arm Mount Drill Template (NTS)



Post Top Mount Tenon Requirement (NTS)



Notes



ISO 9001
Certified



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G200-105/0313

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