

OSQ Series

OSQP™ LED Pathway Bollard featuring Patented NanoComfort® Technology - Version C

Rev. Date: V3 07/11/2024

Product Description

The OSQP LED Pathway Bollard features NanoComfort® Technology to deliver precise and comfortable illumination and offers application flexibility with top-mounted rotatable optics. Using an updated and refined form factor to complement and carry forward the OSQ styling, the durable die-cast aluminum luminaire housing mounts directly to 4" (102mm) diameter pole (included) without visible mounting hardware for clean appearance. Pole mounts to rugged die cast aluminum internal flange secured by three 3/8" - 16x6" anchor bolts with 1-1/4" hook (provided). Note: T45 Torx 3/8" socket required for head installation. Suitable upgrade for existing 50-100W PSMH bollards.

Applications: Landscape, walk-ways and general site lighting

Performance Summary

Utilizes Patented NanoComfort® Technology
Assembled in the USA by Cree Lighting from US and imported parts
Initial Delivered Lumens: Up to 2,830
Input Power: 11 - 25W
Efficacy: Up to 142 LPW
CRI: Minimum 70 CRI
CCT: 2700K, 3000K, 4000K, 5000K, 5700K
Limited Warranty: 10 years for bollard/10 years for Colorfast DeltaGuard® finish/ 5 years for OCC1 and OCC2 controls/1 year for accessories
Limited Warranty Emergency Back Up (EB) Battery: 1 year for Battery Back Up. Test regularly in accordance with local code

* See <https://www.creelighting.com/resources/warranties/> for warranty terms

Field-Installed	
Upgrade Kit - Used for replacement of existing bollards with a bolt hole circle of 5.75" (146mm) - Not required for existing Cree Lighting bollards w/WB as they have a bolt circle of 5.75" (146mm) XA-XBP8RSV XA-XBP8RWH XA-XBP8RBK XA-XBP8RBZ	GFI Receptacle Outlet, 120V, 20A - Requires bollard with 12 voltage and GFI option OSQP-GFI

Ordering Information

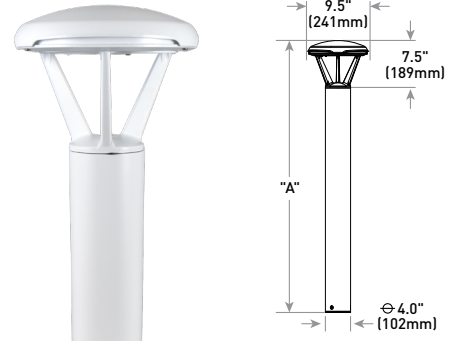
Fully assembled bollard is composed of two components that must be ordered separately.
 Example: **Anchor Bolts w/Template:** OSQP-C-P348-ABT-WB + **Bollard:** OSQP-C-2L-27K7-2R-12-P3-BK-GFI-WB
Note: Anchor bolts w/template should not be ordered with HD mount.

Anchor Bolts w/Template (Bollard must be ordered separately)									
Standard Base (P3 & P4 Mounts ONLY) - 2.7" Bolt Circle OSQP-C-P34-ABT - Anchor Bolts & Template for P3 or P4 Mounts w/Standard Pole Base - Includes (3) 3/8"-16x6" anchor bolts with 1.25" hook - 2.7" (69mm) Bolt Circle (refer to page 5 for details)					Welded Base (Optional w/P3 & P4 Mounts; Included with P8 Mount) - 5.75" Bolt Circle OSQP-C-P348-ABT-WB - Anchor Bolts & Template for P3, P4 or P8 Mounts w/Welded Base - Includes (3) 3/8"-16x6" anchor bolts with 1.25" hook - 5.75" (150mm) Bolt Circle (refer to page 5 for details)				
Bollard (Anchor Bolts w/Template must be ordered separately)									
OSQP	C								
Family	Series	Lumen Package [†]	CCT/CRI	Optic	Voltage*	Mounting	Finish	Controls**	Options
OSQP	C	2L 2,000 lumens 3L 3,000 lumens	27K7 2700K, 70 CRI 30K7 3000K, 70 CRI 40K7 4000K, 70 CRI 50K7 5000K, 70 CRI 57K7 5700K, 70 CRI	2R Type II Mid Rotatable 3R Type III Mid Rotatable 5M Type V Mid	UL Universal 120-277V 12 120V - Available only when OCC1 or OCC2 controls or GFI option is selected 27 277V - Available only when OCC1 or OCC2 controls are selected 34 347V 48 480V	HD Head only (no pole) - For use only with Cree Lighting bollard poles P3 36.5" [927mm] pathway P4 42.5" [1080mm] pathway P8 96.5" [2451mm] pathway	BK Black BZ Bronze SV Silver WH White	HL High/Low (Dual Circuit Input) - Sensor not included - Provides 40% or 60% low dimming - Available with UL, 34 (347V) or 48 (480V) voltages - Not available with other controls - Refer to HL spec sheet for details OCC1 Microwave Sensor (40% Dim/Full Power) - Utilizes a multifunction sensor - Available only with 12 (120V) or 27 (277V) voltages - Not available with other controls - Refer to OCC/TL spec sheet for details OCC2 Microwave Sensor (Off/Full Power) - Utilizes a multifunction sensor - Available only with 12 (120V) or 27 (277V) voltages - Not available with other controls - Refer to OCC/TL spec sheet for details P Button Photocell - Not available with other controls - Not available with HD mount	EB Emergency Battery Back-Up - Provides 90 minutes and 7W of power in emergency mode - Available only with UL, 34 and 48 voltages - Not available with HL, OCC1, OCC2, or P controls F Fusing - Compatible only with 120V or 277V (phase to neutral) - Consult factory if fusing is required for 208V or 240V (phase to phase) - When code dictates fusing, use time delay fuse - Not available with EB option GFI Standard GFI Festoon - Located 7.7" (195mm) above the base of the pole - Available only with 12 (120V) voltage - Not available with HD mount - Requires OSQP-GFI GFI Receptacle Outlet accessory (refer to accessory table above) WB Welded Base Plate - Not available with HD mount - Available for P3 and P4 mount - WB suffix not required for P8 mount, ships standard - Includes welded base cover

[†] Lumen Package codes identify approximate light output only. Actual lumen output levels vary by CCT and optic selection. Refer to Initial Delivered Lumen tables for specific lumen values.

* 34 (347V) and 48 (480V) utilize magnetic step-down transformers. For input power for 347V and 480V, refer to the Electrical Data table on page 2.

** Bollard comes standard with 0-10V dimming. Controls by others.



Model	Dim. "A"	Weight
Head Only (HD)	-	7.6 lbs. (3.45kg)
Pathway (P3)	36.5" (927 mm)	14.4 lbs. (6.53kg)
Pathway (P4)	42.5" (1080 mm)	15.2 lbs. (6.89kg)
Pedestrian (P8)	96.5" [2451 mm]	24.6 lbs. [11.16kg]

Please refer to page 4 for drawing of OSQP with GFI, photocell and WB options, and page 5 for base plate and base cover drawings.

Option	Weight Adder
EB	2.2 lbs. (1.00kg)
GFI	1.0 lb. (0.45kg)
34/48 Volt	1.2 lbs. (0.54kg)
34/48 Volt w/EB	4.6 lbs. (2.09kg)
WB*	1.2 lbs. (0.54kg)

* WB adder is for P3 & P4 models only. WB weight is included on P8.
Note: XA-XBP8R weighs 5.2 lbs. (2.3kg); OSQP-GFI weighs 0.75 lbs. (0.3kg); OSQP-C-P34-ABT weighs 0.7 lbs. (0.3kg); OSQP-C-P348-ABT-WB weighs 0.8 lbs. (0.4kg).



Website: creelighting.com

US: (800) 236-6800 Canada: (800) 473-1234



Product Specifications

CREE LIGHTING NANOCOMFORT® TECHNOLOGY

Cree Lighting's NanoComfort® Technology ends the trade-offs in outdoor lighting by providing superior glare reduction and visual comfort in high-efficiency illumination delivered precisely where it is needed. The basic building block of NanoComfort® Technology is a compact 4x4 array of LEDs. Each of the 16 LEDs in a module is in contact with its own acrylic polymer lens to capture and precisely direct light. With NanoComfort® Technology, the acrylic optics are cut and sculpted into facets that relieve the glare and harshness while improving visual comfort – all while retaining superb efficacy and control.

CONSTRUCTION & MATERIALS

- Durable die-cast aluminum luminaire housing mounts directly to 4" (102mm) diameter pole (included) without visible mounting hardware for clean appearance
- Pole mounts to rugged die cast aluminum internal flange secured by three 3/8" - 16x6" anchor bolts with 1-1/4" hook (provided).
Note: T45 Torx 3/8" socket required for head installation
- Acrylic optic w/clear tempered glass lens
- 2R and 3R optics include lockable rotatable optic which provides superior optical performance and light control
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultradurable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver and white are available
- **Weight:** See Dimension and Weight Chart on pages 1 and 4
- Includes QR code on driver plate which provides access to: Online installation instructions, Luminaire information (Part number, Serial number, Build date, and Warranty end date), and Warranty claim submission form
- Duplicate 1" and 2" QR code labels are included. 1" labels can be affixed inside pole bases, next to fixtures, on site plans, or in maintenance records. 2" labels can be scanned from the ground when placed at an appropriate height

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V; 347V or 480V with step-down transformer; 50/60Hz
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV/5kA surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Designed with 0-10V dimming capabilities. Dims to 10%. Controls by others
- 0-10V ANSI C137.1-2019 (8-Volt)
- **10V Source Current:** 0.15 mA
- Refer to Dimming spec sheet for details
- **Operating Temperature Range:** -40°C - +55°C (-40°F - +131°F); Operating temperature with EB option: -20°C - +45°C (-4°F - +113°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- UL924 (EB Option) Maximum mounting height: 8.0' (2.4m)
- OSQP is suitable for use in wind zones up to 180 MPH
- Luminaire meets IP66 requirements per IEC 60598-1
- Certified to ANSI C136.31-2018, 1.5G normal vibration standards
- ANSI C136.2 10kV/5kA surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Assembled in the USA by Cree Lighting from US and imported parts
- Some configurations meet requirements of BAA and/or BABA. Consult factory when needed for a project: www.creelighting.com/BAA-BABA
- RoHS compliant. Consult factory for additional details
- Lens meets IK06 requirements per IEC 60068-2
- DarkSky Approved when ordered with 27K7 or 30K7 CCTs. Please refer to <https://darksky.org/what-we-do/darksky-approved/products-companies/#/!/-/search/keyword=cree>
- DLC Premium qualified SKUs available. Please refer to <https://apl.designlights.org/solid-state-lighting> for most current information
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – www.p65warnings.ca.gov

Electrical Data*								
Lumen Package	System Watts 120-277V	System Watts 347/480V**	Total Current (A)					
			120V	208V	240V	277V	347V	480V
2L	11	13	0.09	0.05	0.05	0.04	0.04	0.03
3L	20	22	0.17	0.10	0.08	0.07	0.06	0.05

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or at 347 or 480V +/- 10%.
** Utilizes step-down transformer.

Emergency Electrical Data*								
Lumen Package	System Watts 120-277V	System Watts 347/480V**	Total Current (A)					
			120V	208V	240V	277V	347V	480V
2L	14	16	0.12	0.07	0.06	0.05	0.04	0.03
3L	23	25	0.19	0.11	0.10	0.08	0.07	0.05

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or at 347 or 480V +/- 10%.
** Utilizes step-down transformer.

Delivered Emergency Lumens		
Lumen Package	CCT/CRI	
	2700K/3000K, 70 CRI	4000K/5000K/5700K, 70 CRI
2L	920	950
3L	950	990

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or at 347 or 480V +/- 10%.
** Utilizes step-down transformer.

OSQP Series Ambient Adjusted Lumen Maintenance ¹					
Ambient	Initial LMF	25K hr Reported ² LMF	50K hr Reported ² LMF	75K hr Reported ² LMF	100K hr Reported ² LMF
5°C (41°F)	1.02	0.99	0.97	0.94	0.92
10°C (50°F)	1.02	0.99	0.96	0.94	0.91
15°C (59°F)	1.01	0.98	0.96	0.93	0.91
20°C (68°F)	1.01	0.97	0.95	0.93	0.90
25°C (77°F)	1.00	0.97	0.94	0.92	0.90
30°C (86°F)	0.99	0.96	0.94	0.91	0.89
35°C (95°F)	0.99	0.96	0.93	0.91	0.88
40°C (104°F)	0.98	0.95	0.92	0.90	0.87
45°C (113°F)	0.98	0.94	0.92	0.89	0.87
50°C (122°F)	0.97	0.94	0.91	0.88	0.86
55°C (131°F)	0.96	0.93	0.90	0.88	0.85

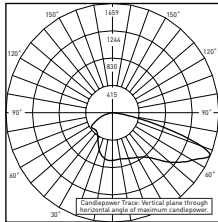
¹ Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the [Temperature Zone Reference Document](#) for outdoor average nighttime ambient conditions.

² In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

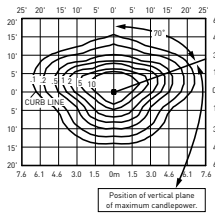
Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <https://www.creelighting.com/products/outdoor/bollards-and-pathway/osq-series-3/>

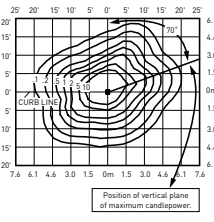
2R



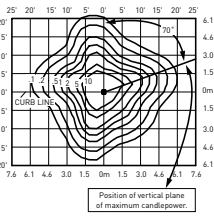
RESTL Test Report #: PL18124-001A
OSQP-C-3L-40K7-2R-UL Light Engine
Initial Delivered Lumens: 2,862



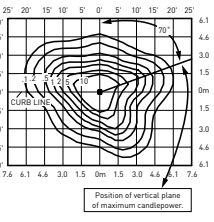
OSQP-C-3L-40K7-2R-UL Light Engine
Mounting Height: 4' (1.2m) A.F.G., 0°
Rotation
Initial Delivered Lumens: 2,830
Initial FC at grade



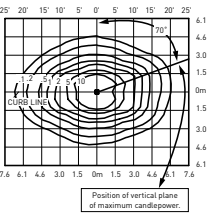
OSQP-C-3L-40K7-2R-UL Light Engine
Mounting Height: 4' (1.2m) A.F.G., 45°
Rotation
Initial Delivered Lumens: 2,830
Initial FC at grade



OSQP-C-3L-40K7-2R-UL Light Engine
Mounting Height: 4' (1.2m) A.F.G., 90°
Rotation
Initial Delivered Lumens: 2,830
Initial FC at grade



OSQP-C-3L-40K7-2R-UL Light Engine
Mounting Height: 4' (1.2m) A.F.G., 135°
Rotation
Initial Delivered Lumens: 2,830
Initial FC at grade



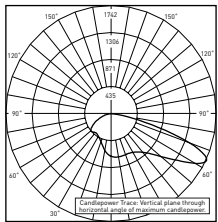
OSQP-C-3L-40K7-2R-UL Light Engine
Mounting Height: 4' (1.2m) A.F.G., 180°
Rotation
Initial Delivered Lumens: 2,830
Initial FC at grade

Type II Mid Rotatable				
Lumen Package	2700K/3000K, 70 CRI		4000K/5000K/5700K, 70 CRI	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
2L	1,440	B1 U0 G1	1,500	B1 U0 G1
3L	2,710	B1 U0 G1	2,830	B1 U0 G1

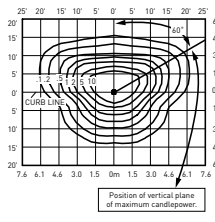
* Initial delivered lumens at 25°C [77°F]. Actual production yield may vary between -10 and +10% of initial delivered lumens.

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>.

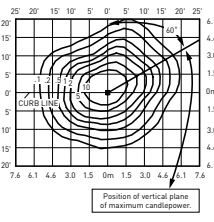
3R



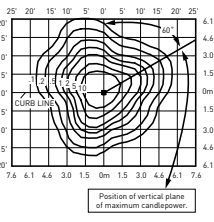
RESTL Test Report #: PL18122-001A
OSQP-C-3L-40K7-3R-UL Light Engine
Initial Delivered Lumens: 2,846



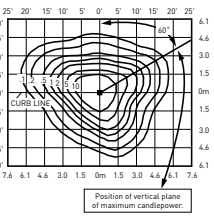
OSQP-C-3L-40K7-3R-UL Light Engine
Mounting Height: 4' (1.2m) A.F.G., 0°
Rotation
Initial Delivered Lumens: 2,830
Initial FC at grade



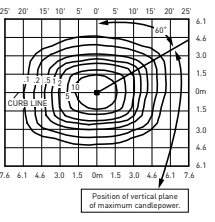
OSQP-C-3L-40K7-3R-UL Light Engine
Mounting Height: 4' (1.2m) A.F.G., 45°
Rotation
Initial Delivered Lumens: 2,830
Initial FC at grade



OSQP-C-3L-40K7-3R-UL Light Engine
Mounting Height: 4' (1.2m) A.F.G., 90°
Rotation
Initial Delivered Lumens: 2,830
Initial FC at grade



OSQP-C-3L-40K7-3R-UL Light Engine
Mounting Height: 4' (1.2m) A.F.G., 135°
Rotation
Initial Delivered Lumens: 2,830
Initial FC at grade



OSQP-C-3L-40K7-3R-UL Light Engine
Mounting Height: 4' (1.2m) A.F.G., 180°
Rotation
Initial Delivered Lumens: 2,830
Initial FC at grade

Type III Mid Rotatable				
Lumen Package	2700K/3000K, 70 CRI		4000K/5000K/5700K, 70 CRI	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
2L	1,440	B1 U0 G1	1,500	B1 U0 G1
3L	2,710	B1 U0 G1	2,830	B1 U0 G1

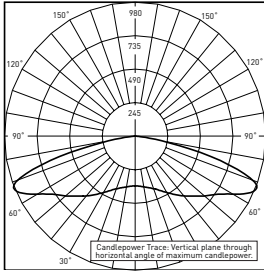
* Initial delivered lumens at 25°C [77°F]. Actual production yield may vary between -10 and +10% of initial delivered lumens.

** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>.

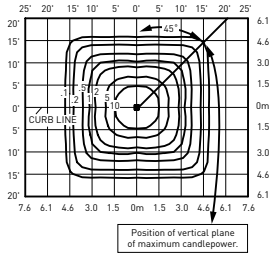
Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <https://www.creelighting.com/products/outdoor/bollards-and-pathway/osq-series-3/>

5M



RESTL Test Report #: PL18125-001A
OSQP-C-3L-40K7-5M-UL Light Engine
Initial Delivered Lumens: 2,850

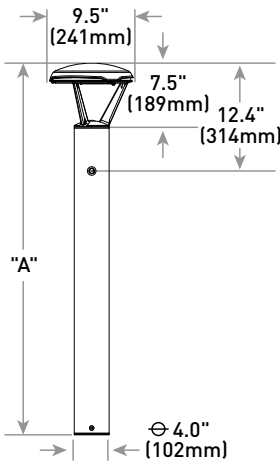


OSQP-C-3L-40K7-5M-UL Light Engine
Mounting Height: 4' (1.2m) A.F.G.
Initial Delivered Lumens: 2,830
Initial FC at grade

Type V Mid				
Lumen Package	2700K/3000K, 70 CRI		4000K/5000K/5700K, 70 CRI	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
2L	1,440	B1 U0 G0	1,500	B1 U0 G0
3L	2,710	B1 U0 G1	2,830	B1 U0 G1

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens.
** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>.

OSQP shown with Photocell Option



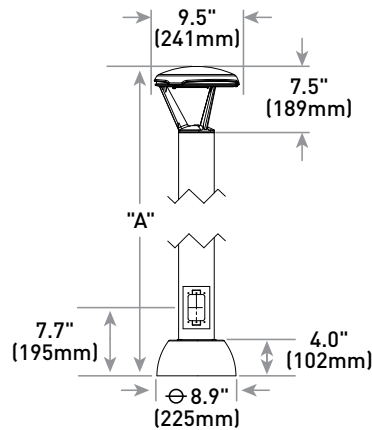
Model	Dim. "A"	Weight
Pathway (P3)	36.5" (927 mm)	14.4 lbs. (6.53 kg)
Pathway (P4)	42.5" (1080 mm)	15.2 lbs. (6.89 kg)
Pedestrian (P8)	96.5" (2451 mm)	24.6 lbs. (11.16kg)

Option	Weight Adder
GFI	1.0 lb. (0.45 kg)
34/48 Volt	1.2 lbs. (0.54 kg)
WB*	1.2 lbs. (0.54kg)

* WB adder is for P3 & P4 models only. WB weight is included on P8.

OSQP shown with GFI Option and Welded Base

Note: OSQP-GFI accessory required for outlet.

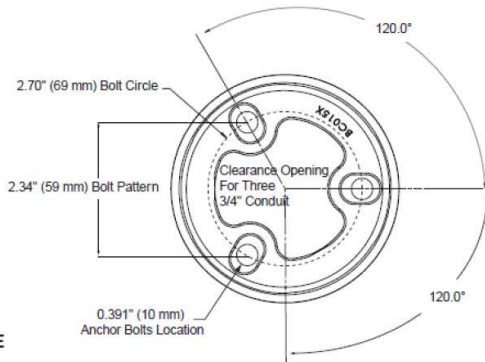


Model	Dim. "A"	Weight
Pathway (P3)	36.5" (927 mm)	16.6 (7.53kg)
Pathway (P4)	42.5" (1080 mm)	17.4 (7.89kg)
Pedestrian (P8)	96.5" (2451 mm)	25.6 lbs. (11.61kg)

Option	Weight Adder
EB	2.2 lbs. (1.00 kg)

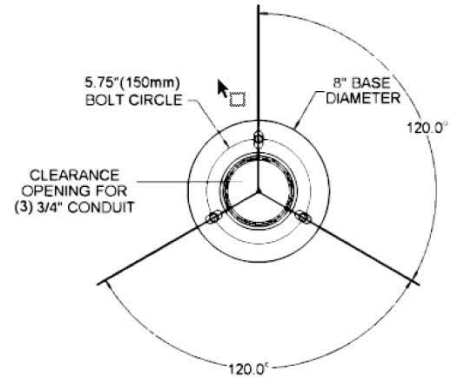
Standard Base Plate Detail

Standard on P3 & P4 Mounts



Welded Base (WB) Base Plate Detail

Included on P8, Optional on P3 & P4 Mounts



Base Cover

Not included with Standard Base Plates
(P3 & P4 Mounts)

Base Cover

Welded Base
(Included on P8, Optional on P3 & P4 Mounts)



Replacement Parts

EB Replacement Kit
OSQP-C-EBKIT

- For use with UL, 34 or 48 voltages
- For 347 or 480V applications, separate transformer kit(s) may be required depending on mode of failure (see transformer replacement kits to the right)

Transformer Replacement Kits

NOTE: Depending on mode of failure, separate driver replacement kit(s) may also be required (see driver replacement kits below)

- OSQP-C-TRFKT-34**
- For use in 347V applications
- OSQP-C-TRFKT-48**
- For use in 480V applications

Driver Replacement Kits

Product	Lumen Package	Controls
OSQP-C-DVRKT	2L 2,000 Lumens	BLANK - For use with no controls (standard 0-10V dimming), OCC2 or P controls HL-L - For use with luminaires with OCC1 option with issues in low mode (40% Dim) - For use with luminaires with HL option where output isn't working properly on Line 1 - Depending on mode of failure, both HL-L and HL-H kits may be required for luminaires with OCC1 or HL option - Sensor not included HL-H - For use with luminaires with OCC1 option with issues in high mode (Full Power) - For use with luminaires with HL option where output isn't working properly on Line 2 - Depending on mode of failure, both HL-H and HL-L kits may be required for luminaires with OCC1 or HL options - Sensor not included
	3L 3,000 Lumens	

NOTE: For 347 or 480V applications, separate transformer kit(s) may be required depending on mode of failure (see transformer replacement kits above).

Base Cover

Welded Base (Included on P8, Optional on P3 & P4 Mounts) w/GFI Option and Required OSQP-GFI Accessory

