

# OSQ Series

OSQ™ LED Utility Flood Luminaire

Rev. Date: V12 08/29/2022

## Product Description

The OSQ™ Utility Flood luminaire offers simple installation with a rugged die cast aluminum adjustable arm mount preset to 45° angle. Arm mounts to 2" [51mm] IP, 2.375" [60mm] O.D. tenon with choice of 8' 14/3 AWG cord exiting end of arm or side of arm. Direct arm mount versions are also available. The 6L lumen package is a suitable upgrade for HID applications up to 250 Watt, and the 11L lumen package is a suitable upgrade for HID applications up to 400 Watt. The 22L lumen package is a suitable upgrade for HID applications up to 750 Watts, and the 30L lumen package is a suitable upgrade for HID applications up to 1000 Watts. OSQ Utility Flood Series is a perfect fit for a wide array of applications, helping improve the economic value for DoTs, municipalities, or Utilities.

**Applications:** Utility floodlighting, tunnels and underpasses

## Performance Summary

NanoOptic® Precision Delivery Grid™ optic

Assembled in the USA by Cree Lighting from US and imported parts

**Initial Delivered Lumens:** 4,290 - 31,000

**Efficacy:** Up to 173 LPW

**CRI:** Minimum 70 CRI

**CCT:** 3000K, 4000K

**Limited Warranty\*:** 10 years on luminaire/10 years on Colorfast DeltaGuard® finish/up to 5 years for Synapse® accessories/1 year on luminaire accessories

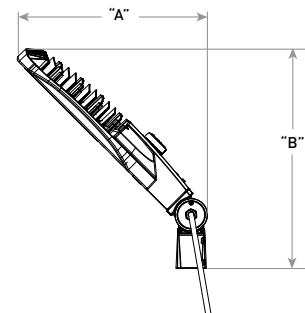
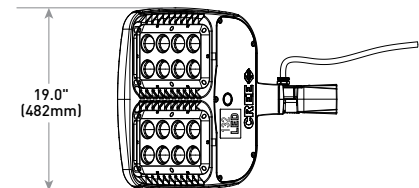
\* See <http://creelighting.com/warranty> for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Utility Highlights
<b>Utility Label and NEMA® Lift &amp; Lock 7-Pin Photocell Receptacle</b>
- External wattage label per ANSI C136.15
- 7-pin rotatable receptacle per ANSI C136.41
- Factory connected 0-10V dim leads
- Requires photocell or shorting cap by others

## Accessories

Field-Installed
<b>Shorting Cap</b>
XA-XSLSHRT

## UA Mount



Luminaire	Weight	DIM "A"	DIM "B"
OSQM	29.5 lbs. (13.4kg)	18.0" (458mm)	21.2" (538mm)
OSQL	33.1 lbs. (15.0kg)	19.6" (498mm)	22.8" (578mm)

Note: For additional mounts, refer to drawings on page 3.

## Ordering Information

Example: OSQM-B-11L-30K7-N5-UL-UA-BZ

Luminaire (Mount must be ordered separately)												
OSQ		B					N					
Family	Size	Series	Lumen Package*	CCT/CRI	Optic	Voltage	Mount	Color Options	Utility Label/Receptacle			
OSQ	M	B	<b>Medium</b>	30K7 3000K, 70 CRI	<b>Asymmetric</b> 3M Type III Medium	UL Universal 120-277V	<b>UA</b> 45° Utility Arm w/8' 14/3 AWG Cord Side Exit	<b>BK</b> Black	<b>N</b> <a href="#">Utility Label and NEMA® Lift &amp; Lock 7-Pin Photocell Receptacle</a>			
	L		4L							4,000 Lumens	<b>UB</b> 45° Utility Arm w/8' 14/3 AWG Cord End Exit	<b>BZ</b> Bronze
	Large		6L							6,000 Lumens	<b>UC</b> Direct Arm Mount w/ 12" 18/5 or 16/5 leads	<b>SV</b> Silver
			9L							9,000 Lumens	<b>UD</b> Trunnion Mount w/8' 14/3 AWG Cord	<b>WH</b> White
			<b>11L</b>	11,000 Lumens	<b>Symmetric</b> 5S NEMA® 5x5	UH Universal 347-480V - Not available with 4L or 6L lumen packages						
			<b>16L</b>	16,000 Lumens								
			<b>Large</b>									
			<b>22L</b>	22,000 Lumens								
			<b>30L</b>	30,000 Lumens								

\* 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



US: [creelighting.com](http://creelighting.com) (800) 236-6800

Canada: [creelighting-canada.com](http://creelighting-canada.com) (800) 473-1234

**CREE** ⇄ **LIGHTING**

**Product Specifications**

**CONSTRUCTION & MATERIALS**

- Slim, low profile design minimizes wind load requirements
- Luminaire housing is rugged die cast aluminum with an integral, weathertight LED driver compartment and high-performance heat sink
- Rugged die cast aluminum utility arm mounts (UA and UB) are preset to 45°, and mount to 2" (51mm) IP, 2.375" (60mm) O.D. tenon
- Utility arm mounts (UA and UB) can be field adjusted in 2.5° increments. Maximum tilt 45°
- Includes 8' (2.4m) 14/3 AWG SEOW black cord exiting the side of the mounting arm through watertight fitting (UA mount) or the end of the mounting arm (UB mount)
- UC direct arm mounts are rugged die cast aluminum and provide convenient interlocking mounting method
- UC direct arm mounts to 3" (76mm) or larger square or round pole and secures with two 5/16-18 UNC bolts spaced on 2" (51mm) center
- UC mount includes 12" (305mm) 18/5 or 16/5 leads exiting the luminaire
- UD trunnion mount is constructed of A500 and A1011 steel and is adjustable from 0-45° in 15° degree increments, factory preset to 45 degrees. Trunnion mount secures to surface with (1) 3/4" bolt or (2) 1/2" or 3/8" bolts
- UD mount includes 8' (2.4m) 14/3 cord exiting the luminaire
- Comes standard with Utility Label per ANSI C136.15 and 7-pin NEMA® Lift & Lock Photocell Receptacle per ANSI C136.41
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Bronze and silver are available
- **Weight:** See Weight Chart on pages 1 and 3

**ELECTRICAL SYSTEM**

- **Input Voltage:** 120-277V or 347-480V, 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
- **Maximum 10V Source Current:** 1mA

**REGULATORY & VOLUNTARY QUALIFICATIONS**

- cULus Listed
- Suitable for wet locations
- Certified to ANSI C136.31-2001, 3G bridge and overpass 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
- Meets Buy American requirements within ARRA
- DLC Premium qualified versions available. Please refer to <https://qpl.designlights.org/solid-state-lighting> for most current information
- RoHS compliant. Consult factory for additional details
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

**Product Specifications**

**SYNAPSE® SIMPLYSNAP INTELLIGENT CONTROL**

The Synapse SimplySNAP platform is a highly intuitive connected lighting solution featuring zone dimming, motion sensing, and daylight harvesting with utility-grade power monitoring and support of up to 1000 nodes per gateway. The system features a reliable and robust self-healing mesh network with a browser-based interface that runs on smartphones, tablets, and PCs. The Twist-Lock Lighting Controller (TL7-B2 or TL7-HVG) and Site Controller (SS450-002) take the OSQ Series to a new performance plateau, providing extreme energy productivity, code compliance and a better light experience.

Synapse Wireless Control Accessories	
<b>Twist-Lock Lighting Controller</b> TL7-B2 - Suitable for 120-277V (UL) voltage only - Requires NEMA/ANSI C136.41 7-Pin Dimming Receptacle - Provides On/Off switching, dimming, power metering, digital sensor input, and status monitoring of luminaire - Refer to <a href="#">TL7-B2 spec sheet</a> for details	<b>Synapse Wireless Sensor</b> WSN-DPM - Motion and light sensor - Control multiple zones - Refer to <a href="#">WSN-DPM spec sheet</a> for details <b>SimplySNAP On-Site Controller</b> SS450-002 - Verizon® LTE-enabled - Designed for indoor applications - Refer to <a href="#">SS450-002 spec sheet</a> for details <b>Building Management System (BMS) Gateway</b> BMS-GW-002 - Required for BACnet integration - Refer to <a href="#">BMS-GW-002 spec sheet</a> for details <b>Outdoor Antennas (Optional, for increased range, 8dB gain)</b> KIT-ANT420SM - Kit includes antenna, 20' cable and bracket KIT-ANT360 - Kit includes antenna, 30' cable and bracket KIT-ANT600 - Kit includes antenna, 50' cable and bracket - Refer to <a href="#">Outdoor antenna spec sheet</a> for details
<b>Twist-Lock Lighting Controller</b> TL7-HVG - Suitable for 120-480V (UL and UH) voltage - Requires NEMA/ANSI C136.41 7-Pin Dimming Receptacle - Provides On/Off switching, dimming, power metering, digital sensor input, and status monitoring of luminaire - Refer to <a href="#">TL7-HVG spec sheet</a> for details	
<b>SimplySNAP Central Base Station</b> CBS5W-450-002 - Includes On-Site Controller (SS450-002) and 5-button switch - Indoor and Outdoor rated - Refer to <a href="#">CBS5W-450-002 spec sheet</a> for details	

**Electrical Data\***

Input Power Designator	Optic	System Watts 120-480V	Utility Label Wattage	Total Current [A]					
				120V	208V	240V	277V	347V	480V
4L**	All	29	30	0.25	0.14	0.12	0.11	N/A	N/A
6L**	Asymmetric	48	50	0.41	0.23	0.20	0.17	N/A	N/A
	Symmetric	39	40	0.33	0.19	0.17	0.14	N/A	N/A
9L	All	60	60	0.51	0.29	0.25	0.22	0.18	0.13
11L	All	72	70	0.62	0.36	0.31	0.27	0.21	0.16
16L	All	104	100	0.89	0.51	0.43	0.39	0.31	0.22
22L	All	132	130	1.12	0.63	0.55	0.47	0.39	0.28
30L	All	202	200	1.72	0.96	0.84	0.72	0.60	0.43

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

\*\* Available with UL voltage only

**OSQ Series Ambient Adjusted Lumen Maintenance<sup>1</sup>**

Ambient	Optic	Initial LMF	25K hr Reported <sup>2</sup> LMF	50K hr Reported <sup>2</sup> LMF	75K hr Reported <sup>2</sup> /Estimated <sup>3</sup> LMF	100K hr Reported <sup>2</sup> /Estimated <sup>3</sup> LMF
5°C (41°F)	Asymmetric	1.04	1.03	1.01	0.99 <sup>2</sup>	0.97 <sup>2</sup>
	Symmetric	1.05	1.05	1.05	1.05 <sup>3</sup>	1.05 <sup>3</sup>
10°C (50°F)	Asymmetric	1.03	1.02	1.00	0.98 <sup>2</sup>	0.96 <sup>2</sup>
	Symmetric	1.04	1.03	1.03	1.03 <sup>3</sup>	1.03 <sup>3</sup>
15°C (59°F)	Asymmetric	1.02	1.01	0.99	0.97 <sup>2</sup>	0.95 <sup>2</sup>
	Symmetric	1.02	1.02	1.02	1.02 <sup>3</sup>	1.02 <sup>3</sup>
20°C (68°F)	Asymmetric	1.01	1.00	0.98	0.96 <sup>2</sup>	0.94 <sup>2</sup>
	Symmetric	1.01	1.01	1.01	1.01 <sup>3</sup>	1.01 <sup>3</sup>
25°C (77°F)	Asymmetric	1.00	0.99	0.97	0.95 <sup>2</sup>	0.93 <sup>2</sup>
	Symmetric	1.00	1.00	1.00	1.00 <sup>3</sup>	1.00 <sup>3</sup>

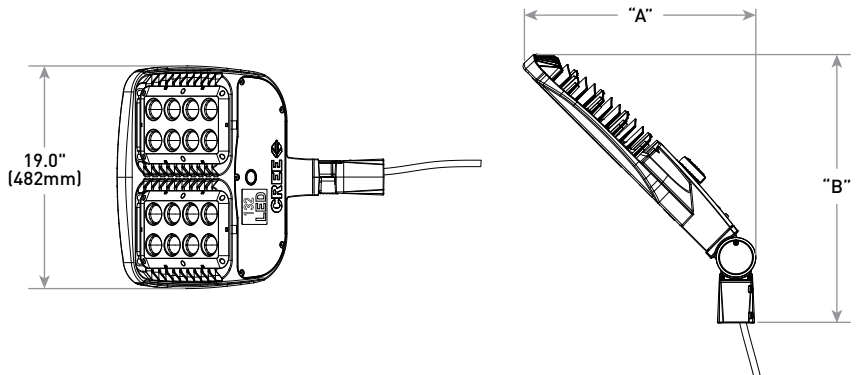
<sup>1</sup> Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the [Temperature Zone Reference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

<sup>2</sup> 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.

<sup>3</sup> Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

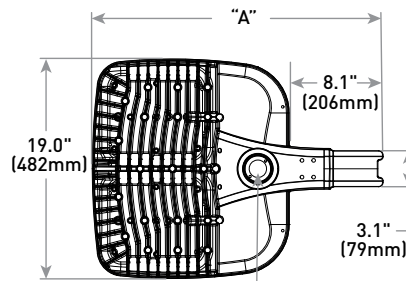
OSQ™ LED Utility Flood Luminaire

UB Mount



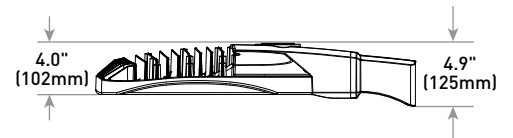
Input Power Designator	Weight	DIM "A"	DIM "B"
OSQM	29.5 lbs. (13.4kg)	18.0" (458mm)	21.2" (538mm)
OSQL	33.1 lbs. (15.0kg)	19.6" (498mm)	22.8" (578mm)

UC Mount



NEMA® 7-Pin Lift & Lock Photocell Receptacle location

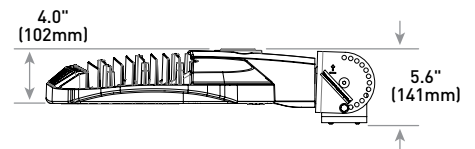
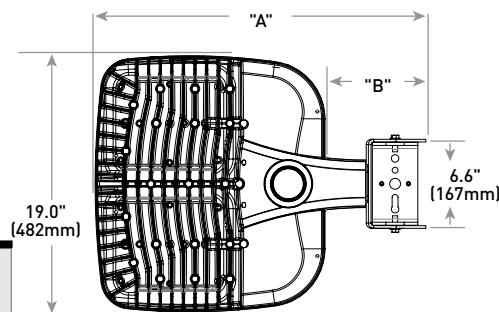
UC Mount



Input Power Designator	Weight	DIM "A"
OSQM	28.9 lbs. (13.1kg)	25.0" (635mm)
OSQL	32.4 lbs. (14.7kg)	27.2" (691mm)

Note: Refer to page 5 for fixture mounting drill pattern.

UD Mount



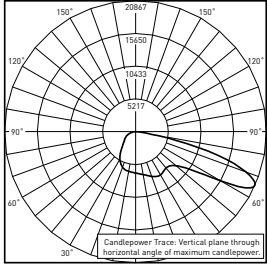
Input Power Designator	Weight	DIM "A"	DIM "B"
OSQM	32.6 lbs. (14.8kg)	24.4" (619mm)	5.6" (189.0mm)
OSQL	36.1 lbs. (16.4kg)	26.6" (675mm)	7.4" (189mm)

# OSQ™ LED Utility Flood Luminaire

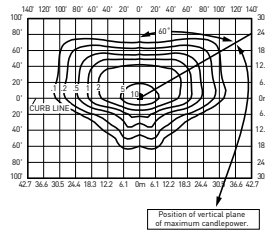
## Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/osq-series-utility>

### 3M



RESTL Test Report #: PL16051-001A  
OSQL-B-30L-40K7-3M-UL  
Initial Delivered Lumens: 30,908



OSQL-B-30L-40K7-3M-UL  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 31,000  
Initial FC at grade

### Type III Mid Distribution

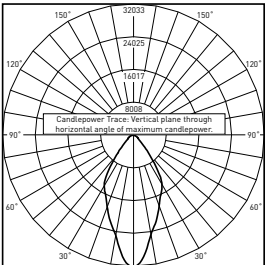
Lumen Package	3000K (70 CRI)		4000K (70 CRI)	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
4L	4,290	B1 U0 G1	4,440	B1 U0 G1
6L	6,650	B1 U0 G2	6,900	B1 U0 G2
9L	8,875	B2 U0 G2	9,200	B2 U0 G2
11L	10,800	B2 U0 G2	11,175	B2 U0 G2
16L	15,500	B3 U0 G3	16,100	B3 U0 G3
22L	20,700	B3 U0 G3	22,100	B3 U0 G3
30L	27,800	B3 U0 G4	31,000	B3 U0 G4

\* 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>. Valid with no tilt

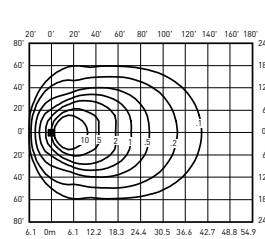
## Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/osq-series-utility>

### 55



RESTL Test Report #: PL16061-001A  
OSQL-B-30L-40K7-55-UL  
Initial Delivered Lumens: 29,479



OSQL-B-30L-40K7-55-UL  
Mounting Height: 25' (7.6m) A.F.G., 45° Tilt  
Initial Delivered Lumens: 29,700  
Initial FC at grade

### NEMA® 5x5 Distribution

Lumen Package	3000K (70 CRI)	4000K (70 CRI)
	Initial Delivered Lumens*	Initial Delivered Lumens*
4L	4,430	4,620
6L	6,225	6,500
9L	9,825	10,250
11L	11,450	11,950
16L	15,475	16,125
22L	21,300	22,900
30L	28,400	29,700




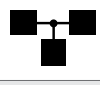
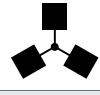
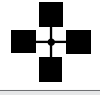
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

## Luminaire EPA

Utility Arms (UA/UB) – 4L-16L Weight: 29.5 lbs. (13.4kg); 22L-30L Weight: 33.1 lbs. (15.0kg)						
	Single	2 @ 180°	2 @ 90°	3 @ 90°	3 @ 120°	4 @ 90°
<b>Input Power Designator</b>						
<b>45° Tilt</b>						
OSQM	1.96	1.96	2.69	3.43	4.54	5.38
OSQL	2.20	2.20	3.00	3.80	5.07	6.00

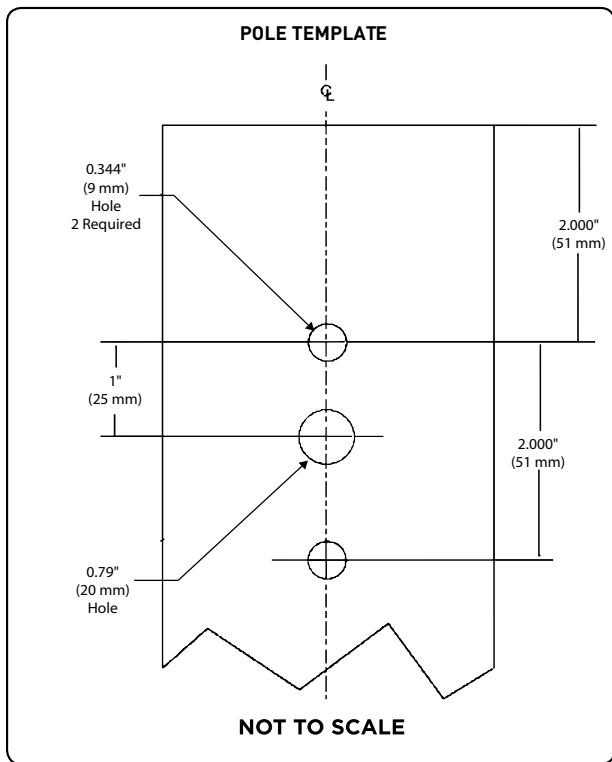
Note: For tilt angles other than 45°, refer to OSQ Series LED Area/Flood luminaire spec sheets

OSQ™ LED Utility Flood Luminaire

Direct Arm Mounts (UC) – 4L-16L Weight: 28.9 lbs. (13.1kg); 22L-30L Weight: 32.4 lbs. (14.7kg)						
	Single	2 @ 180°	2 @ 90°	3 @ 90°	3 @ 120°	4 @ 90°
<b>Input Power Designator</b>						
						
<b>Direct Arm</b>						
OSQM	0.74	1.48	1.19 <sup>1</sup>	1.93 <sup>1</sup>	1.63 <sup>1,2</sup>	2.38 <sup>1</sup>
OSQL	0.80	1.61	1.26 <sup>1</sup>	2.06 <sup>1</sup>	1.68 <sup>1,2</sup>	2.52 <sup>1</sup>

**Note:**  
<sup>1</sup> Not suitable for use with 3" square or round poles  
<sup>2</sup> Not suitable for use with square poles

**Fixture Mounting Drill Pattern for UC Mount**



OSQM w/UD Mount – 4L-16L Weight: 32.6 lbs. (14.8kg)
Single
<b>0° Tilt</b>
0.75
<b>15° Tilt</b>
0.99
<b>30° Tilt</b>
1.57
<b>45° Tilt</b>
2.07

OSQL w/UD Mount – 22L-30L Weight: 36.1 lbs. (16.4kg)
Single
<b>0° Tilt</b>
0.81
<b>15° Tilt</b>
1.12
<b>30° Tilt</b>
1.74
<b>45° Tilt</b>
2.35

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