OSQ Series

OSQ™ LED Area/Flood Luminaire – Medium

Type: L31/L32/L33/L34

Product Description

The OSQ™ Area/Flood luminaire blends extreme optical control, advanced thermal management and aesthetics, ideas seamlessly. Built to last, the housing is rugged cast aluminum with an integral, weatherproof LED driver compartment and high performance heat sink.

Conventional mounting/aiming mounting method on sport cast mount. Mounting adapter is rugged die cast aluminum and mounts to 2-3" (76mm) nominal square or round pole, fastened by two M10-1.5 UNC bolts spaced on 2" (51mm) centers.

Mounting for the adjustable arm mount adapter is rugged die cast aluminum and mounts to 2" (51mm) IP, 2.375" (60mm) O.D. tenon.

Adjustable arm mount can be adjusted 180° in 2.5° increments.

Designed for uplight and downlight applications.

Exclusive Colorfast Sensitivity® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, bronze, black, and white are available.

Weight: 26.5 lbs. (12kg)

Performance Summary

Non-Glare™ Precision Optical Unit™ optic

Assembled in the U.S.A. of U.S. and imported parts

Initial Delivered Lumens: Up to 19,291

Efficacy: Up to 136 LPW

CRI: Minimum 70 CRI (4000K & 5700K), 3000K approximate typical, 80 CRI (3000K symmetric optics)

CCT: 3000K (by 300K), 4000K (-L), 5700K (-D, -DG)

Limited Warranty[1]: 10 years on luminaire/15 years on Colorfast Dark Bronze® finish

[1] See the Warranty Terms and Conditions for complete terms.

Accessories

Field-Installed	Wood Pole Access
Backlight Shield OSQ-SSHR - Black, bronze, white OSQ-RLSHR - Black, bronze, white	20-SDXWBKR Wood pole access kit includes (1) 20" (508mm) x 4" (102mm) x .060" (1.5mm) thick weather resistant aluminum plate with hole pattern, (4) #10 x 3" (76mm) SS wood screws, and (4) #10 SS washers.

Ordering Information

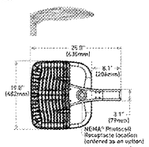
Note: Luminaire/Mount is comprised of two components that must be ordered separately.

Mount (Luminaire must be ordered separately)*	
OSQ-DA OSQ-AA Adjustable Arm OSQ-SA Swivel Arm	CS Color Options: 65 Silver

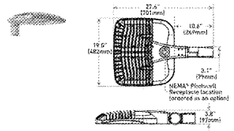
*Minimum 1 EA and 1 unit of luminaire ordered required per pack.

Luminaire (Mount must be ordered separately)														
OSQ	A	NM	4ME	B	57K	UL	CS							
Product	Version	Mounting	Optic	Voltage (Multi-Voltage Driver)	CCT	Voltage	Color Options	Options						
OSQ	A	NM No Mount	Asymmetric 2ME* Type II Medium 3ME* Type III Medium Symmetric 4ME Type IV Medium 5ME Type V Square 5H Type V Short WSH Wide Short WSL Wide Long 2SD Type II Short 4SD Type IV Short	AMP* Type II Medium 4MP Type IV Medium	B 120V H 208V J 240V T 277V	30K 3000K 40K 4000K 57K 5700K 3K7 4000K	UL Universal 120-277V HV 347-480V	CS Silver	DDB 3-10V Dimming - Dimmer by others - Includes 2 dimming wire leads for power supply - Dims from full range of specified input power supply F Fuse - When used in fused housing, slow-blow fuse included on 120, 277, 347 & 480V applications only ML Multi-Level - Integral motion, ambient light sensor - Available with DC voltage only - Units will be dimmed 100% when unoccupied PIR1 Programmable Multi-Level, 15-20' Mounting Height - Integral motion, ambient light sensor - Units will be dimmed 100% when unoccupied PIR1E Programmable Multi-Level, 30-40' Mounting Height - Integral motion, ambient light sensor - Units will be dimmed 100% when unoccupied SCR Shorting Cap - Provides for shorting cap on unused leads SF Fold-Adjustable Tenon - Allows for fold-adjustable tenon X NEMA® Photocell Receptacle - Intended for downlight applications - Includes NEMA® photocell - For high voltage, use ANSI C136.10 - Provides one mounting, up to 1" (25mm) WL Rotate Left - Left and side arm rotated to the left XR Rotate Right - Left and side arm rotated to the right							

DA Mount



AA Mount



Product Specifications

CONSTRUCTION & MATERIALS

- Sleek, low profile design maximizes wind load resistance
- Luminaire housing is rugged die cast aluminum with an integral, weatherproof LED driver compartment and high performance heat sink
- Conventional mounting/aiming mounting method on sport cast mount. Mounting adapter is rugged die cast aluminum and mounts to 2-3" (76mm) nominal square or round pole, fastened by two M10-1.5 UNC bolts spaced on 2" (51mm) centers
- Mounting for the adjustable arm mount adapter is rugged die cast aluminum and mounts to 2" (51mm) IP, 2.375" (60mm) O.D. tenon
- Adjustable arm mount can be adjusted 180° in 2.5° increments
- Designed for uplight and downlight applications
- Exclusive Colorfast Sensitivity® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, bronze, black, and white are available
- **Weight:** 26.5 lbs. (12kg)

ELECTRICAL SYSTEM

- **Input Voltage:** 120–277V or 347–480V, 50/60Hz. Class 1 driver
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- When ordered properly, fusing is now field-replaceable. Fuse holder should be installed at time of luminaire install
- **10V Source Current,** 0.15mA

REGULATORY & VOLUNTARY QUALIFICATIONS

- 40K is listed
- Suitable for wet locations
- Rated for operation per IEC 60598 when ordered without R option
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- 10kV surge suppression protection tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A standards for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 1,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Meets Buy American requirements within ARRA
- DLC and DLC Premium qualifications available. Specs exceptions apply. Please refer to https://www.designlights.org/search/ for most current information
- Title 24 compliant. Consult factory for additional details
- Dark Sky Friendly. IDA Approved when ordered with 3000 CCT. Please refer to http://darksky.org/flp/fsa/products/ for most current information

Electrical Data*

Input Power Designator	System Watts, 120-480V	Total Current (A)					
		120V	208V	240V	277V	347V	480V
A	84	0.70	0.41	0.37	0.31	0.25	0.19
J	108	1.20	0.69	0.58	0.49	0.36	0.28

*Electrical data at 25°C (77°F). Actual wattage may differ by ±10% when operating between 120-480V ± 10%.

Recommended OSQ Series Lumen Maintenance Factors (LMF):

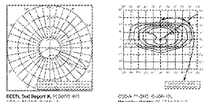
Ambient	Optic	Initial LMF	25K hr Projected LMF	50K hr Projected LMF	100K hr Projected/ Calculated* LMF
25°C (77°F)	Asymmetric	1.00	0.98	0.96	0.92
	Symmetric	1.00	0.96	0.94	0.90
30°C (86°F)	Asymmetric	1.00	0.97	0.95	0.90
	Symmetric	1.00	0.95	0.92	0.85
40°C (104°F)	Asymmetric	1.00	0.96	0.93	0.87
	Symmetric	1.00	0.93	0.90	0.81
50°C (122°F)	Asymmetric	1.00	0.95	0.91	0.84
	Symmetric	1.00	0.91	0.87	0.77

*Lumen maintenance data at 25°C (77°F). Future production luminaires are tested to applicable IESNA standards. Calculated data per IESNA TM-21-11 and is for reference purposes only. Actual performance may differ. Data does not include LED or optical component failure. Data assumes operation for 12 hours per day.

Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: http://lighting.cree.com/products/outdoor/arealarge-series

2ME



Type II Medium Distribution

Input Power Designator	3000K Initial Delivered Lumens*	3000K BUG Rating* Per TM-15-11	4000K Initial Delivered Lumens*	4000K BUG Ratings* Per TM-15-11	5700K Initial Delivered Lumens*	5700K BUG Rating* Per TM-15-11
A	10,795	B2 U0 G2	11,400	B2 U0 G2	11,466	B2 U0 G2
B	13,911	B2 U0 G2	14,694	B2 U0 G2	14,778	B2 U0 G2
N	16,982	B2 U0 G2	17,935	B2 U0 G2	18,038	B2 U0 G2

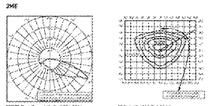
*Initial delivered lumens at 25°C (77°F). Actual production luminaires may vary between -10% and +10% of listed values.

Type III Medium w/BLS Distribution

Input Power Designator	3000K Initial Delivered Lumens*	3000K BUG Ratings* Per TM-15-11	4000K Initial Delivered Lumens*	4000K BUG Ratings* Per TM-15-11	5700K Initial Delivered Lumens*	5700K BUG Rating* Per TM-15-11
A	10,795	B2 U0 G2	11,400	B2 U0 G2	11,466	B2 U0 G2
B	13,911	B2 U0 G2	14,694	B2 U0 G2	14,778	B2 U0 G2
N	16,982	B2 U0 G2	17,935	B2 U0 G2	18,038	B2 U0 G2

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

3ME

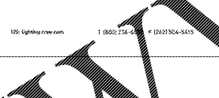


Type III Medium Distribution

Input Power Designator	3000K Initial Delivered Lumens*	3000K BUG Ratings* Per TM-15-11	4000K Initial Delivered Lumens*	4000K BUG Ratings* Per TM-15-11	5700K Initial Delivered Lumens*	5700K BUG Rating* Per TM-15-11
A	9,597	B1 U0 G2	10,134	B2 U0 G2	10,193	B2 U0 G2
B	12,370	B2 U0 G2	13,064	B2 U0 G2	13,138	B2 U0 G2
N	15,099	B2 U0 G2	15,942	B2 U0 G2	16,034	B2 U0 G2

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

4ME



Type IV Medium Distribution

Input Power Designator	3000K Initial Delivered Lumens*	3000K BUG Ratings* Per TM-15-11	4000K Initial Delivered Lumens*	4000K BUG Ratings* Per TM-15-11	5700K Initial Delivered Lumens*	5700K BUG Rating* Per TM-15-11
A	10,795	B2 U0 G2	11,400	B2 U0 G2	11,466	B2 U0 G2
B	13,911	B2 U0 G2	14,694	B2 U0 G2	14,778	B2 U0 G2
N	16,982	B2 U0 G2	17,935	B2 U0 G2	18,038	B2 U0 G2

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

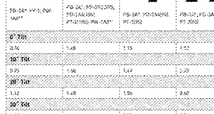
5ME

Type V Medium Distribution

Input Power Designator	3000K Initial Delivered Lumens*	3000K BUG Ratings* Per TM-15-11	4000K Initial Delivered Lumens*	4000K BUG Ratings* Per TM-15-11	5700K Initial Delivered Lumens*	5700K BUG Rating* Per TM-15-11
A	9,597	B1 U0 G2	10,134	B2 U0 G2	10,193	B2 U0 G2
B	13,919	B2 U0 G2	13,064	B2 U0 G2	13,138	B2 U0 G2
N	15,099	B2 U0 G2	15,942	B2 U0 G2	16,034	B2 U0 G2

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

5SH



Type V Short Distribution

Input Power Designator	3000K Initial Delivered Lumens*	3000K BUG Ratings* Per TM-15-11	4000K Initial Delivered Lumens*	4000K BUG Ratings* Per TM-15-11	5700K Initial Delivered Lumens*	5700K BUG Rating* Per TM-15-11
A	9,597	B1 U0 G2	10,134	B2 U0 G2	10,193	B2 U0 G2
B	13,919	B2 U0 G2	13,064	B2 U0 G2	13,138	B2 U0 G2
N	15,099	B2 U0 G2	15,942	B2 U0 G2	16,034	B2 U0 G2

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

Photometry

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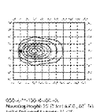
15D

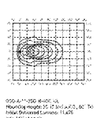


15° Fixed Distribution

Input Power Designator	3000K Initial Delivered Lumens*	4000K Initial Delivered Lumens*	5700K Initial Delivered Lumens*
B	9,916	11,409	11,476
N	14,894	15,955	17,179

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

25D

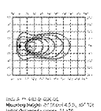


25° Fixed Distribution

Input Power Designator	3000K Initial Delivered Lumens*	4000K Initial Delivered Lumens*	5700K Initial Delivered Lumens*
B	9,916	11,409	11,476
N	14,894	15,955	17,179

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

40D



40° Fixed Distribution

Input Power Designator	3000K Initial Delivered Lumens*	4000K Initial Delivered Lumens*	5700K Initial Delivered Lumens*
B	9,916	11,409	11,476
N	14,894	15,955	17,179

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

Photometry

All published luminaire photometric testing performed to IESNA LM-79-08 standards by a NVLAP accredited laboratory. To obtain an IES file specific to your project consult: http://lighting.cree.com/products/outdoor/arealarge-series

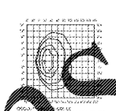
46D

40° Fixed Distribution

Input Power Designator	3000K Initial Delivered Lumens*	4000K Initial Delivered Lumens*	5700K Initial Delivered Lumens*
B	9,916	11,409	11,476
N	14,894	15,955	17,179

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

WSH



Wide Short Distribution

Input Power Designator	3000K Initial Delivered Lumens*	4000K Initial Delivered Lumens*	5700K Initial Delivered Lumens*
B	9,916	11,409	11,476
N	14,894	15,955	17,179

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

Luminaire EPA

Fixed Arm Mount – OSQ-DA (Weight: 7.0 lbs. (3.2kg))

Shape	0°	90°	180°	270°
EPA	1.05	1.39	1.05	1.39

Adjustable Arm Mount – OSQ-AA (Weight: 20.5 lbs. (9.3kg))

Tenon Configuration	0° - 60°	90°	120°	180°	240°	270°	300°
	PB-DA*, PM-1, PM-1A**	PB-2A*, PB-2AM250, PB-2AM350, PM-2AM**	PB-3A*, PB-3AM250, PB-3AM350, PM-3AM**	PB-2A*, PB-3AM250, PB-3AM350, PM-3AM**	PB-3A*, PB-4A*, PB-4BL250, PB-4BL350	PB-4A*, PB-4AM250, PB-4AM350	PB-4BL250, PB-4BL350, PB-4AM250, PB-4AM350, PM-4BL**
0° Tilt							
0.76	1.48	1.19	1.52	1.48	2.39	4.48	2.39
10° Tilt							
0.99	1.96	1.64	2.09	2.16	4.20	5.94	3.99
20° Tilt							
1.12	1.48	1.86	2.60	2.85	5.51	7.32	5.72
30° Tilt							
1.16	1.48	2.00	2.94	3.56	6.24	8.65	6.65
45° Tilt							
1.19	1.56	2.04	3.07	4.24	7.01	10.68	9.38
60° Tilt							
1.11	1.48	1.99	3.01	4.31	6.94	12.05	9.76
90° Tilt							
1.19	1.69	2.21	3.40	5.11	7.63	13.90	6.48
120° Tilt							
1.20	1.79	2.20	3.36	5.11	7.31	13.56	4.44

Tenon Configuration (0° - 60° Tenon is used on Fixed Arm, shown and sized with EPA on Luminaire) EPA

	PB-DA*, PM-1, PM-1A**	PB-2A*, PB-2AM250, PB-2AM350, PM-2AM**	PB-3A*, PB-3AM250, PB-3AM350, PM-3AM**	PB-4A*, PB-4BL250, PB-4BL350, PM-4BL**	PB-4AM250, PB-4AM350
0° Tilt					
0.76	1.48	1.19	1.52	2.39	4.48
10° Tilt					
0.99	1.96	1.64	2.09	4.20	5.94
20° Tilt					
1.12	1.48	1.86	2.60	5.51	7.32
30° Tilt					
1.16	1.48	2.00	2.94	6.24	8.65
45° Tilt					
1.19	1.56	2.04	3.07	7.01	10.68
60° Tilt					
1.11	1.48	1.99	3.01	6.94	12.05
90° Tilt					
1.19	1.69	2.21	3.40	7.63	13.90
120° Tilt					
1.20	1.79	2.20	3.36	7.31	13.56

*Mounts with slip fitter (PB-2A, PB-3A, PB-4A) are EPA rated for tenon mount only. Fixed arm mount is not rated for tenon mount.
**Direct mount configurations are not rated for tenon mount. Tenon mounting configurations have been tested per ANSI C136.3-2017 & C29.1

Tenon EPA

Part Number	EPA
PB-1A**	None
PB-2A*	1.05
PB-3A*	1.39
PB-4A*	1.77
PB-AM250	1.91
PB-AM350	2.52
PM-2AM250	1.42
PB-4BL250	2.52
PB-Series Screw	0.91
PB-Series Tenons	0.37
PM-2A2**	2.42
PM-3A2**	3.45
9982	2.28
9984	3.24
9986	4.29
With UH	None

*Mounts with slip fitter (PB-2A, PB-3A, PB-4A) are EPA rated for tenon mount only. Fixed arm mount is not rated for tenon mount.
**Direct mount configurations are not rated for tenon mount. Tenon mounting configurations have been tested per ANSI C136.3-2017 & C29.1

Square and Bracket Mount (must specify color)

Square Internal Mount Vertical Tenons (Steel)
- Mounts to 3-5/16" (84mm) square aluminum or steel pole or tenon
- PB-2A* – Single — PB-2AT2S – Twin
- PB-3A* – 120° Twin — PB-3AT2S – Triple
- PB-3A* – 180° Triple

Square External Mount Horizontal Tenons (Aluminum)
- Mounts to square pole with 3-5/16" (84mm) O.D. round aluminum or steel tenon
- PB-2AM250 – 90° Twin — PB-2AM350 – 90° Quad
- PB-3AM250 – 90° Triple — PB-3AM350 – 90° Quad

Square External Mount Horizontal Tenons (Aluminum)
- Mounts to square pole with 3-5/16" (84mm) O.D. round aluminum or steel tenon
- PB-4AM250 – 90° Twin — PB-4AM350 – 90° Quad
- PB-4BL250 – 180° Twin — PB-4BL350 – 180° Quad

Wall Mount Bracket
- Mounts to wall or roof
- WM-1 – Horizontal for OSQ-AA mount
- WM-4 – L-Shape for OSQ-AA mount
- WM-DBA – Plate for OSQ-DA mount

Round External Mount Vertical Tenons (Steel)
- Mounts to 3.0" (76mm) round aluminum or steel tenon
- PB-3AT2R – Twin — PB-3AT3R – Triple
- PB-4AT2R – Twin — PB-4AT3R – Quad

Round External Mount Horizontal Tenons (Aluminum)
- Mounts to 3.0" (76mm) round aluminum or steel tenon
- PB-4AM250 – 90° Twin — PB-4AM350 – 90° Quad
- PB-4BL250 – 180° Twin — PB-4BL350 – 180° Quad

Mid-Pole Bracket
- Mounts to round pole
- PM-2AT** – Single — PM-2AT2** – Twin

Ground Mount Post
- Pier ground mount Steel Connectors
- PGM-1 – for OSQ-AA mount

*Mount is not rated for tenon mount. **Direct mount configurations are not rated for tenon mount.

Direct Mount Configurations

Compatibility with OSQ-DA Direct Mounts Bracket					
Input Power Designator	2@ 90°	2@ 180°	3@ 90°	3@ 120°	4@ 90°
3" Square					
3.0 in	N/A		N/A	N/A	N/A
3" Round					
3.0 in	N/A	✓	N/A	N/A	N/A
4" Square					
4.0 in	✓	✓	✓	N/A	✓
4" Round					
4.0 in	✓	✓	✓	✓	✓
5" Square					
5.0 in	✓	✓	✓	N/A	✓
5" Round					
5.0 in	✓	✓	✓	✓	✓
6" Square					
6.0 in	✓	✓	✓	N/A	✓
6" Round					
6.0 in	✓	✓	✓	✓	✓

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3

C-13.1 PHOTOMETRIC DETAILS
FOR REFERENCE ONLY

*DLC V4 is in effect as of April 1, 2017, which impacts the rebate eligibility of many LED products. If you require DLC-qualified fixtures, please reference https://www.designlights.org/search/ for updated qualified product listings. Email rebates@cree.com<mailto:rebates@cree.com> for assistance.

CREE

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Project Name: ALDI - CHARLOTTE, NC	SR-24574
Date:1/8/2018	Scale: 1"=30' / Footcandles calculated at grade
Filename: V:\Common\Appling\NAT\ALD-17070SC1HNCCJB.AGI	Layout by: CHRIS BOSANEC

Illumination results shown on this lighting design are based on project parameters provided to Cree, Inc. used in conjunction with luminaire test procedures conducted under laboratory conditions. As such project conditions differing from these design parameters may affect field results. The customer is responsible for verifying dimensional accuracy along with compliance with any applicable electrical, lighting, or energy code.

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