OSQ Series
OSQW™ LED Wall Mount Luminaire featuring Patented NanoComfort® Technology

Product Description

The OSQW™ LED wall mount luminaire has a slim, low profile design intended for outdoor wall mounted applications. The rugged lightweight aluminum housing and mounting box are designed for installation over standard single gang J-Boxes and mud ring single gang J-Boxes. The luminaire allows for through-wired or conduit entry from the top, bottom, sides and rear. The housing design is intended specifically for LED technology including a weathertight LED driver compartment and thermal management. Optic design features industry-leading NanoComfort Technology which provides superior glare reduction and visual comfort with high-efficiency illumination delivered precisely where it is needed.

Applications: General area and security lighting

Performance Summary

Utilizes Patented NanoComfort® Technology
Utilizes Cree TrueWhite® Technology on 5000K Luminaires
Assembled in the USA by Cree Lighting from US and imported parts

Initial Delivered Lumens: Up to 8,600

Input Power: 16 - 55 watts

Efficacy: Up to 159 LPW

CRI: Minimum 70 CRI (2700K, 3000K, 4000K & 5700K); 90 CRI (5000K)

CCT: 2700K, 3000K, 4000K, 5000K, 5700K

Limited Warranty†: 10 years for luminaire/10 years for Colorfast DeltaGuard® finish/5 years for BML and ML sensors/up to 5 years for Synapse® accessories/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. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

Accessories

Field-Installed

Beauty Plate
WM-PLT12** - 12" (305mm) Square
WM-PLT14** - 14" (356mm) Square
- Covers holes left by incumbent wall packs

Synapse® SimplySnap 10V Interface
DIM10-220F
- 120V-277V
- Requires either Synapse Central Base Station or On-Site Controller
- Refer to DIM10-220F spec sheet for details

Synapse SimplySNAP Central Base Station
CBSSW-450-002
- Includes On-Site Controller (SS450-002) and 5-button switch
- Indoor and Outdoor rated
- Refer to CBSSW-450-002 spec sheet for details

Synapse SimplySNAP On-Site Controller
SS450-002
- Verizon® LTE-enabled
- Designed for indoor applications
- Refer to SS450-002 spec sheet for details

Synapse Building Management System (BMS) Gateway
BMS-GW-002
- Required for BACnet integration
- Refer to BMS-GW-002 spec sheet for details

Synapse Wireless Sensor
WSN-DPM
- Motion and light sensor
- Control multiple zones
- Refer to WSN-DPM spec sheet for details

** Must specify color

Dimensions

11.95" (304mm)

4.4" (112mm)

3.7" (94mm)

Multi-Level/Bluetooth Programmable Multi-Level Sensor location (ordered as an option)

9.37" (238mm)

EB Version

EB Test Switch location (ordered as an option)

9.37" (238mm)

Luminaire	Weight
Standard	9.0 lbs. (4.1kg)
Emergency	10.0 lbs. (4.5kg)

Ordering Information

Example: OSQW-C-2L-27K7-2M-UL-WM-BK

OSQW	C								
Family	**Series**	**Lumen Package***	**CCT/CRI**	**Optic**	**Voltage**	**Mounting**	**Finish**	**Controls****	**Options**
OSQW	C	**2L** 2,550 lumens - Available only with UL voltage **4L** 4,020 lumens **6L** 6,075 lumens **8L** 8,600 lumens	**27K7** 2700K, 70 CRI **30K7** 3000K, 70 CRI **40K7** 4000K, 70 CRI **50K9** 5000K, 90 CRI **57K7** 5700K, 70 CRI	**2M** Type II Mid **3M** Type III Mid **4M** Type IV Mid	**UL** Universal 120-277V **UH** Universal 347-480V - Not available with 2L lumen package, controls options, or EB option **34** 347V - Available only with P control - Not available with 2L lumen package, BML or ML controls, or EB option	**WM** Wall	**BK** Black **BZ** Bronze **SV** Silver **WH** White	**BML Bluetooth® Technology Enabled Multi-Level Sensor** - Available only with UL voltage - Utilizes a multifunction sensor - Refer to BML spec sheet for details - 8-20' sensor lens installed on luminaire; 20-40' sensor lens and aisle shrouds included - Not available with other controls or EB option **ML Multi-Level** - Refer to ML spec sheet for details - Utilizes a multifunction sensor - Available only with UL voltage - Not available with other controls or EB option **P Button Photocell** - Available with UL and 34 voltages only - Not available with other controls or EB option	**20KV 20kV/10kA Surge Suppression** - Replaces standard 10kV/5kA surge protection **EB Emergency Battery Back-Up** - Provides 90 minutes and 7W of power in emergency mode - Available only with UL voltage - Not available with BML, ML or P controls

* Lumen Package codes identify approximate light output only. Actual lumen output levels vary depending on CCT selection. Refer to Initial Delivered Lumen tables for specific lumen values.
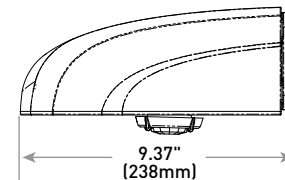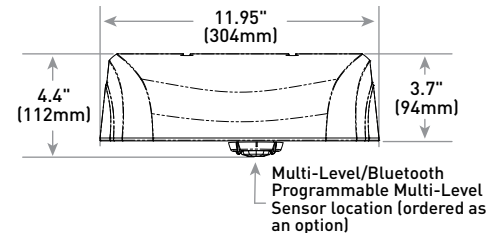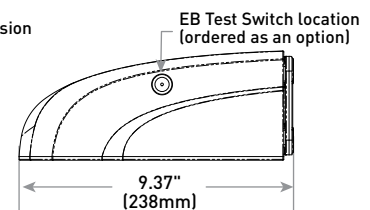** Luminaire comes standard with 0-10V dimming. Controls by others.

UL CERTIFIED | Cree TrueWhite® Technology | RoHS COMPLIANT | DESIGNED ENGINEERED ASSEMBLED USA | DLC LISTED PREMIUM | DLC LUNA | BAA

CREE ⇔ LIGHTING®

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.

CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

CONSTRUCTION & MATERIALS

- Slim, low profile design
- Luminaire housing specifically designed for LED applications with advanced LED thermal management and driver
- Acrylic optic w/clear tempered glass lens
- Some versions are provided with full circuit board, but not fully populated with LEDs or optics to scale back lumen package
- Luminaire mounting box designed for installation over standard single gang J-Boxes and mud ring single gang J-Boxes
- Luminaire can also be direct mounted to a wall and surface wired
- Includes (4) 3/16" mounting holes for customer supplied hardware. Select hardware appropriate for mounting surface
- Conduit entry from top, bottom, sides, and rear
- 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. Silver, black, white and bronze are available
- **Weight:** Standard - 9.0 lbs. (4.1kg); Emergency - 10.0 lbs. (4.5kg)
- Includes QR code on back 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 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; 20kV/10kA surge suppression protection optional
- 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)
- **Maximum 10V Source Current:** 1 mA
- Refer to Dimming spec sheet for details
- **Operating Temperature Range:** -40°C - +50°C (-40°F - +122°F); Minimum operating temperature with EB option: -20°C (-4°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Designed for downlight applications only
- UL924 (EB Option) Maximum mounting height: 20.0'(6.1m)
- Enclosure rated IP66 per IEC 60598
- ANSI C136.2 10kV/5kA (standard) and 20kV/10kA (optional) 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
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards

- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Lens meets IK09 requirements per IEC 60068-2
- Assembled in the USA by Cree Lighting from US and imported parts
- Meets the requirements for Buy American Act (BAA) because it qualifies as a commercially-available off-the-shelf (COTS) item. Please refer to www.creelighting.com/BAA-BABA
- RoHS compliant. Consult factory for additional details
- 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 for most current information
- DLC Premium qualified SKUs available. Please refer to https://qpl.designlights.org/solid-state-lighting for most current information
- DLC Luna qualified when ordered with 27K7 or 30K7 CCTs. Please refer to https://qpl.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 120-480V** | System Watts | | | | | | EB System Watts 120-277V | Total Current (A) | | | |
		120V	208V	240V	277V	347V**	480V**		120V	208V	240V	277V
2L	16	0.13	0.08	0.07	0.06	N/A	N/A	19	0.16	0.09	0.08	0.07
4L	27	0.22	0.13	0.11	0.10	0.08	0.06	30	0.24	0.14	0.12	0.11
6L	40	0.34	0.19	0.17	0.14	0.12	0.08	43	0.36	0.21	0.18	0.16
8L	55	0.47	0.27	0.23	0.20	0.16	0.12	58	0.49	0.28	0.24	0.21

* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347- 480V +/- 10%.
** 2L lumen package is only available with 120-277V.

OSQW Series Ambient Adjusted Lumen Maintenance Factors[1]

Ambient	Lumen Package	Initial LMF	25K hr Reported[2] LMF	50K hr Reported[2] LMF	75K hr Reported[2] LMF	100K hr Reported[2] LMF
5°C	2L	1.02	0.99	0.97	0.94	0.92
	4L-8L	1.02	0.99	0.93	0.88	0.83
10°C	2L	1.02	0.99	0.96	0.94	0.91
	4L-8L	1.02	0.98	0.93	0.87	0.82
15°C	2L	1.01	0.98	0.96	0.93	0.91
	4L-8L	1.01	0.98	0.92	0.87	0.82
20°C	2L	1.01	0.97	0.95	0.93	0.90
	4L-8L	1.01	0.97	0.92	0.86	0.81
25°C	2L	1.00	0.97	0.94	0.92	0.90
	4L-8L	1.00	0.97	0.91	0.86	0.81
30°C	2L	0.99	0.96	0.94	0.91	0.89
	4L-8L	0.99	0.96	0.90	0.85	0.80
35°C	2L	0.99	0.96	0.93	0.91	0.89
	4L-8L	0.99	0.95	0.90	0.85	0.80
40°C	2L	0.98	0.95	0.93	0.90	0.88
	4L-8L	0.98	0.95	0.89	0.84	0.79
45°C	2L	0.98	0.95	0.92	0.90	0.87
	4L-8L	0.98	0.94	0.89	0.84	0.79
50°C	2L	0.97	0.94	0.91	0.89	0.87
	4L-8L	0.97	0.94	0.88	0.83	0.79

[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.
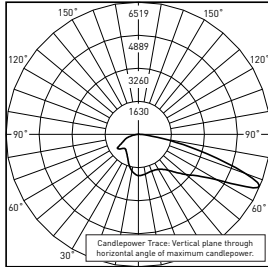
Delivered Emergency Lumens

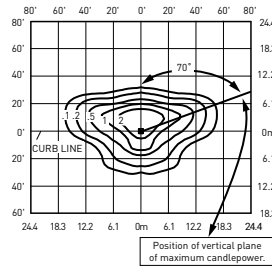| Lumen Package | CCT/CRI | | | |
	2700K/3000K, 70 CRI	4000K, 70 CRI	5000K, 90 CRI	5700K, 70 CRI
2L	1,070	1,120	810	1,120
4L	1,000	1,040	760	1,040
6L	1,020	1,060	780	1,060
8L	1,110	1,160	800	1,160

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/wall-mount/osq-series-2/

2M

RESTL Test Report #: PL18035-001A
OSQW-C-8L-30K7-2M-UL-WM-WH
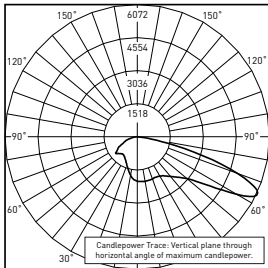**Initial Delivered Lumens:** 8,577

OSQW-C-4L-40K7-2M-Ux-WM-xx-xx
Mounting Height: 15' (4.6) A.F.G.
Initial Delivered Lumens: 4,020
Initial FC at grade

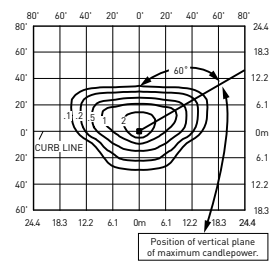| Type II Mid Distribution								
	2700K/3000K, 70CRI		4000K, 70CRI		5000K, 90CRI		5700K, 70CRI	
Lumen Package	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
2L	2,450	B1 U0 G1	2,550	B1 U0 G1	1,860	B1 U0 G1	2,550	B1 U0 G1
4L	3,870	B1 U0 G1	4,020	B1 U0 G1	2,940	B1 U0 G1	4,020	B1 U0 G1
6L	5,825	B1 U0 G1	6,075	B1 U0 G1	4,430	B1 U0 G1	6,075	B1 U0 G1
8L	8,250	B2 U0 G2	8,600	B2 U0 G2	6,275	B1 U0 G1	8,600	B2 U0 G2

* 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.

3M

RESTL Test Report #: PL18036-001A
OSQW-C-8L-30K7-3M-UL-WM-WH
Initial Delivered Lumens: 8,543

OSQW-C-4L-40K7-3M-Ux-WM-xx-xx
Mounting Height: 15' (4.6) A.F.G.
Initial Delivered Lumens: 4,020
Initial FC at grade

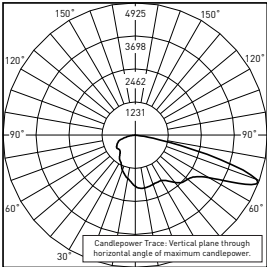| Type III Mid Distribution								
	2700K/3000K, 70CRI		4000K, 70CRI		5000K, 90CRI		5700K, 70CRI	
Lumen Package	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
2L	2,450	B1 U0 G1	2,550	B1 U0 G1	1,860	B1 U0 G1	2,550	B1 U0 G1
4L	3,870	B1 U0 G1	4,020	B1 U0 G1	2,940	B1 U0 G1	4,020	B1 U0 G1
6L	5,825	B1 U0 G1	6,075	B1 U0 G1	4,430	B1 U0 G1	6,075	B1 U0 G1
8L	8,250	B2 U0 G2	8,600	B2 U0 G2	6,275	B1 U0 G1	8,600	B2 U0 G2

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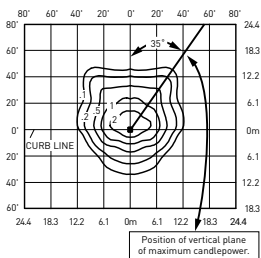** For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf.

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/wall-mount/osq-series-2/

4M

RESTL Test Report #: PL18037-001A
OSQW-C-8L-30K7-4M-UL-WM-WH
Initial Delivered Lumens: 8,441

OSQW-C-4L-40K7-4M-Ux-WM-xx-xx
Mounting Height: 15' (4.6) A.F.G.
Initial Delivered Lumens: 4,020
Initial FC at grade

Type IV Mid Distribution								
	2700K/3000K, 70CRI		4000K, 70CRI		5000K, 90CRI		5700K, 70CRI	
Lumen Package	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
2L	2,450	B1 U0 G1	2,550	B1 U0 G1	1,860	B1 U0 G1	2,550	B1 U0 G1
4L	3,870	B1 U0 G1	4,020	B1 U0 G1	2,940	B1 U0 G1	4,020	B1 U0 G1
6L	5,825	B1 U0 G1	6,075	B1 U0 G1	4,430	B1 U0 G1	6,075	B1 U0 G1
8L	8,250	B2 U0 G2	8,600	B2 U0 G2	6,275	B1 U0 G1	8,600	B2 U0 G2

* 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.

Replacement Parts	
EB Replacement Kit **OSQW-C-EBKIT** - Suitable for use with all lumen packages and UL voltage	**Back Box Replacement KIt** **OSQW-C-JBOXKIT** - Suitable for use with all OSQW-C luminaires

Driver Replacement Parts		
Product	**Lumen Package**	**Voltage**
OSQW-C-DVRKT	**2L** 2,550 Lumens - Available only with UL voltage **4L** 4,020 Lumens **6L** 6,075 Lumens **8L** 8,600 Lumens	**UL** 120-277V **UH** 347-480V - For use with UH and 34 voltages - Not available with 2L lumen package

CREE ⇕ LIGHTING®

Website: creelighting.com
US: (800) 236-6800 **Canada:** (800) 473-1234