

RSW Series

RSW™ LED Street Luminaire – Small

Product Description

The Cree® RSW Series, utilizing WaveMax™ Technology, will transform the way cities and municipalities light their residential streets, interchanges, and expressways. With the first viable LED streetlight at warm CCT, the RSW Series delivers up to 115 LPW, enhanced visual comfort with reduced glare and high color contrast leading to improved overall illumination using less energy. The RSW Series provides warm, inviting dark sky friendly lighting that makes good economic sense.

Applications: Roadway

Performance Summary

Utilizes Cree WaveMax™ Technology

Efficacy: Up to 115 LPW

CRI: 80 CRI

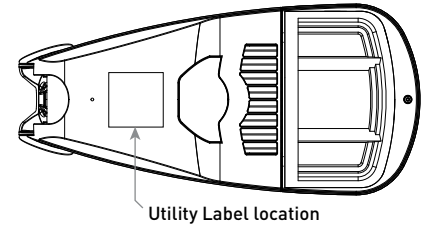
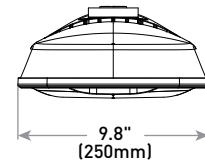
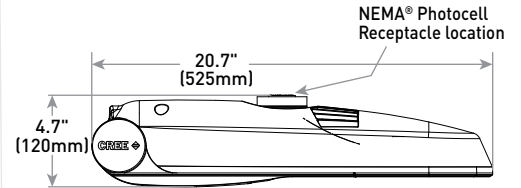
CCT: 3000K (+/- 175K); 4000K (+/- 300K)

Limited Warranty*: 10 years

* See <http://lighting.cree.com/warranty> for warranty terms

Accessories

Field-Installed	
Backlight Control Shield RSW-BLSS - Provides 1 mounting height cutoff	Bird Guard RSW-BRDGRDS



Weight*
6.5 lbs [2.9kg]

*RSW-BLSS Accessory: add 0.4 lbs. [0.2kg]

Ordering Information

Example: RSW-HT-2ME-30W-30K-UL-GY-N

RSW	HT				UL	GY	N	
Product	Mounting	Optic	Input Power	CCT	Voltage	Color Options	Utility Label/Receptacle	Options
RSW	HT Horizontal Tenon	2ME* Type II Medium 2LG* Type II Long 3ME* Type III Medium	30W 30W 50W 50W	30K 3000K 40K 4000K	UL Universal 120-277V	GY Grey	N Utility Label and NEMA® Photocell Receptacle - External wattage label per ANSI C136.15 - 7-pin receptacle per ANSI C136.41 - Factory connected 0-10V dim leads - Photocell and shorting cap by others	Q Field Adjustable Output - Refer to Field Adjustable Output spec sheet for details

* Available with Backlight Shield when ordered with field-installed accessory (see table above)

Rev. Date: V6 06/10/2016



US: lighting.cree.com/lighting

T (800) 236-6800 F (262) 504-5415

Canada: www.cree.com/canada



T (800) 473-1234 F (800) 890-7507

Product Specifications

CREE WAVEMAX™ TECHNOLOGY

Featuring up to 90% optical efficiency and precise control, Cree WaveMax™ Technology provides unmatched comfort and decreased LED source luminance by smoothly spreading brightness over a broader area. When integrated with luminous surfaces made of a polymer medium engineered with DiamondFacet™ optical elements, extremely high efficacy luminaires are the result – ultimately creating more visually comfortable and appealing environments while exceeding illumination performance.

CONSTRUCTION & MATERIALS

- Housing constructed of high strength, lightweight bulk molding compound for long weathering and durability
- UV stabilized polymeric door with handle pocket for tool-less entry
- Straight in wiring to terminal block for power input (#6-#14 AWG)
- IP66 rated optic box and driver
- Luminaire secured with two mounting bolts
- Mounts on 1.25" (32mm) IP, 1.66" (42mm) O.D. or 2" (51mm) IP, 2.375" (60mm) O.D. horizontal tenon (minimum 8" [203mm] in length) and is adjustable +/- 5° in 2.5° increments to allow for fixture leveling
- Comes standard with Utility Label per ANSI C136.15 and 7-pin NEMA® Photocell Receptacle per ANSI C136.41
- **Weight:** 6.5 lbs. (2.9kg); add 0.4 lbs. (0.2kg) for RSW-BLSS accessory

ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V, 50/60Hz
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV surge suppression protection standard
- To address inrush current, slow blow fuse or type C/D breaker should be used
- **10V Source Current:** 0.22mA
- **Operating Temperature Range:** -40°C - +40°C (-40°F - + 104°F)

REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- Meets CALTrans 611 Vibration testing
- 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
- RoHS compliant. Consult factory for additional details
- Dark Sky Friendly, IDA Approved when ordered with 30K CCT
- DLC qualified, premium classification. Please refer to www.designlights.org/QPL for most current information

Electrical Data*					
Input Power	System Watts 120-277V	Total Current			
		120V	208V	240V	277V
30W	30	0.25	0.15	0.13	0.12
50W	50	0.41	0.24	0.21	0.19

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

Recommended RSW Series Lumen Maintenance Factors (LMF) ¹						
Ambient	Input Power	Initial LMF	25K hr Projected ² LMF	50K hr Projected ² LMF	75K hr Calculated ³ LMF	100K hr Calculated ³ LMF
5°C (41°F)	30W	1.04	0.99	0.95	0.92	0.89
	50W					
10°C (50°F)	30W	1.03	0.98	0.94	0.91	0.88
	50W					
15°C (59°F)	30W	1.02	0.97	0.93	0.90	0.87
	50W					
20°C (68°F)	30W	1.01	0.96	0.93	0.89	0.86
	50W					
25°C (77°F)	30W	1.00	0.95	0.92	0.88	0.85
	50W					

¹ Lumen maintenance values at 4000K and 25°C (77°F) are calculated per TM-21 based on LM-80 data and in-situ luminaire testing

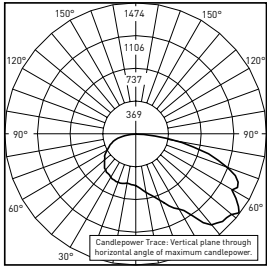
² In accordance with IESNA TM-21-11, Projected Values represent interpolated value based on time durations that are within six times (6X) the IESNA LM-80-08 total test duration [in hours] for the device under testing ([DUT] i.e. the packaged LED chip)

³ In accordance with IESNA TM-21-11, Calculated Values represent time durations that exceed six times (6X) the IESNA LM-80-08 total test duration [in hours] for the device under testing ([DUT] i.e. the packaged LED chip)

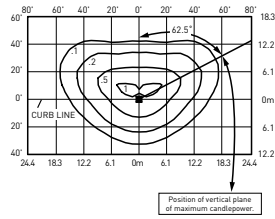
Photometry

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: www.cree.com/lighting

2ME



ITL Test Report #: 86560
RSW--2ME-30W-30K-UL-GY-N**
Initial Delivered Lumens: 3,245

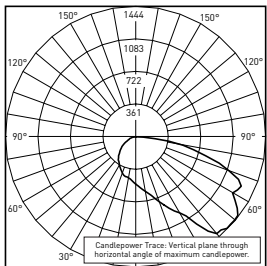


RSW--2ME-30W-30K-UL-GY-N**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 3,300
Initial FC at grade

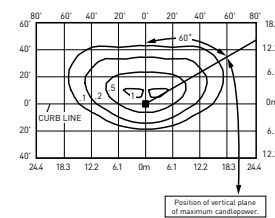
Type II Medium Distribution

Input Power	3000K		4000K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
30W	3,300	B1 U0 G1	3,300	B1 U0 G1
50W	5,000	B1 U0 G2	5,000	B1 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: www.ies.org/PDF/Erratas/TM-15-11BugRatingsAddendum.pdf. Valid with no tilt



RESTL Test Report #: PL07397-002A
RSW--2ME-30W-30K-UL-GY-N w/RSW-BLSS**
Initial Delivered Lumens: 2,770



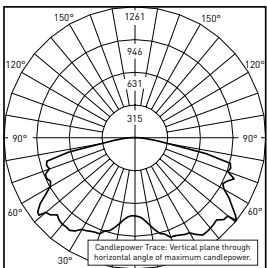
RSW--2ME-30W-30K-UL-GY-N w/RSW-BLSS**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 2,800
Initial FC at grade

Type II Medium w/BLS Distribution

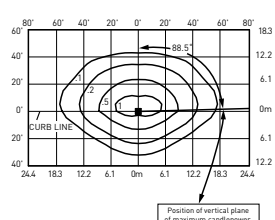
Input Power	3000K		4000K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
30W	2,800	B1 U1 G1	2,800	B1 U1 G1
50W	4,200	B1 U1 G2	4,200	B1 U1 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
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2LG



ITL Test Report #: 86227
RSW--2LG-30W-30K-UL-GY-N**
Initial Delivered Lumens: 3,306

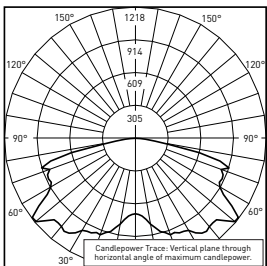


RSW--2LG-30W-30K-UL-GY-N**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 3,300
Initial FC at grade

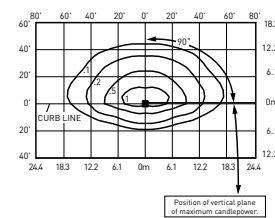
Type II Long Distribution

Input Power	3000K		4000K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
30W	3,300	B1 U0 G1	3,300	B1 U0 G1
50W	5,000	B1 U0 G2	5,000	B1 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
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RESTL Test Report #: PL07397-003A
RSW--2LG-30W-30K-UL-GY-N w/RSW-BLSS**
Initial Delivered Lumens: 2,794



RSW--2LG-30W-30K-UL-GY-N w/RSW-BLSS**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 2,800
Initial FC at grade

Type II Long w/BLS Distribution

Input Power	3000K		4000K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
30W	2,800	B1 U1 G1	2,800	B1 U1 G1
50W	4,200	B1 U1 G2	4,200	B1 U1 G2

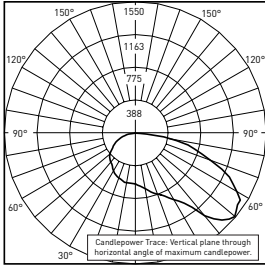
* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
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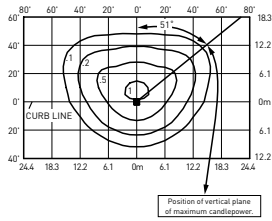
Photometry

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: www.cree.com/lighting

3ME



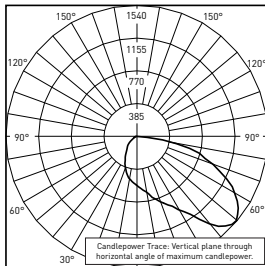
ITL Test Report #: 86228
RSW--3ME-30W-30K-UL-GY-N**
Initial Delivered Lumens: 3,294



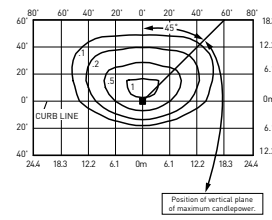
RSW--3ME-30W-30K-UL-GY-N**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 3,300
 Initial FC at grade

Type III Medium Distribution				
Input Power	3000K		4000K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
30W	3,300	B1 U0 G1	3,300	B1 U0 G1
50W	5,000	B1 U0 G2	5,000	B1 U0 G2

* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens
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RESTL Test Report #: PL07397-001A
RSW--3ME-30W-30K-UL-GY-N w/RSW-BLSS**
Initial Delivered Lumens: 2,829



RSW--3ME-30W-30K-UL-GY-N w/RSW-BLSS**
Mounting Height: 25' (7.6m) A.F.G.
Initial Delivered Lumens: 2,800
 Initial FC at grade

Type III Medium w/BLS Distribution				
Input Power	3000K		4000K	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11	Initial Delivered Lumens*	BUG Ratings** Per TM-15-11
30W	2,800	B1 U1 G1	2,800	B1 U1 G1
50W	4,200	B1 U1 G2	4,200	B1 U1 G2

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

Horizontal Tenon Mount – Weight: 6.5 lbs. (2.9kg); RSW-BLSS Accessory: add 0.4 lbs. (0.2kg)					
Luminaire	Single	2 @ 90°	2 @ 180°	3 @ 90°	4 @ 90°
Tenon Configuration If used with Cree tenons, please add tenon EPA with luminaire EPA					
	PD-1H4; PT-1H	PD-2H4(90); PT-2H(90)	PD-2H4(180); PT-2H(180)	PD-3H4(90); PT-3H(90)	PD-4H4(90); PT-4H(90)
Standard Luminaire	0.59	1.17	0.85	1.44	1.57
Luminaire w/RSW-BLSS Accessory	0.63	1.17	1.22	1.80	2.12

Tenon EPA

Part Number	EPA
PD Series Tenons	0.09
PT Series Tenons	0.10
WM-2L	0.13
XA-TMDA8	0.19

Tenons and Brackets* (must specify color)	
Square Internal Mount Horizontal Tenons (Aluminum) - Mounts to 4" (102mm) square aluminum or steel poles PD-1H4 – Single PD-2H4(90) – 90° Twin PD-2H4(180) – 180° Twin PD-3H4(90) – 90° Triple PD-4H4(90) – 90° Quad	Round External Mount Horizontal Tenons (Aluminum) - Mounts to 2.375"-3" (60-76mm) O.D. round aluminum or steel poles or tenons PT-1H – Single PT-2H(90) – 90° Twin PT-2H(180) – 180° Twin PT-3H(90) – 90° Triple PT-4H(90) – 90° Quad
Wall Mount Brackets - Mounts to wall or roof WM-2L – Extended Horizontal	Direct Arm Pole Adaptor Bracket - Mounts to 3-6" (76-152mm) round or square aluminum or steel poles XA-TMDA8

* Refer to the [Bracket and Tenons spec sheet](#) for more details