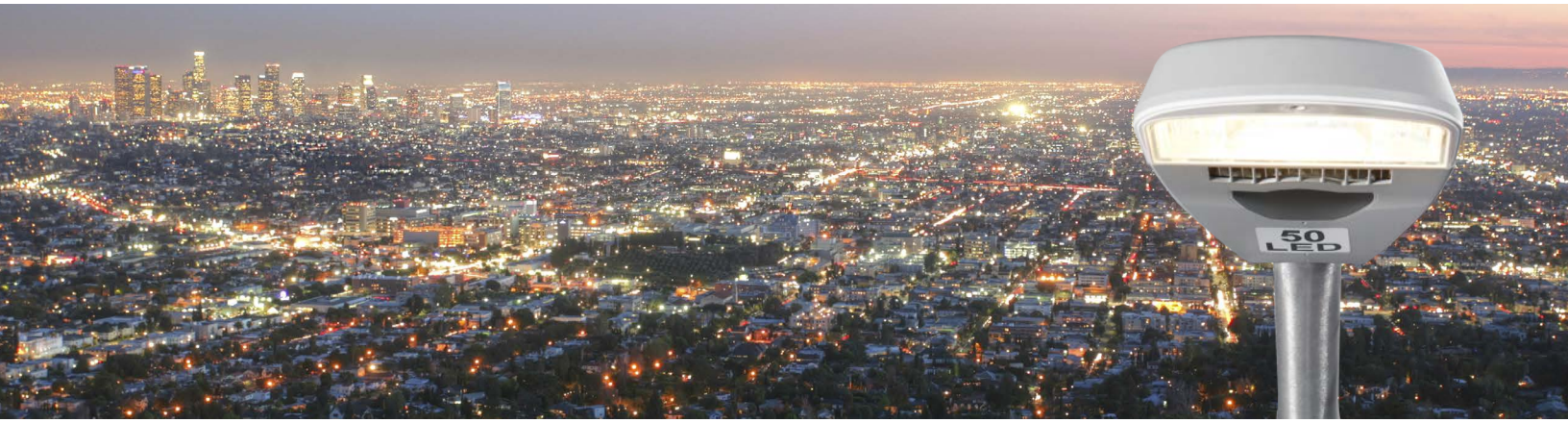
FAQ: RSW SERIES

DISCOVER THE WARMER SIDE OF COOL



Cree RSW™ LED Street luminaires go beyond the traditional lighting standards of cool. They look at the limits of fixture design and actually redefined them. Unlike many other street lighting platforms on the market, our RSW Series utilizes breakthrough WaveMax™ Technology to provide municipalities and utilities across the globe with a portfolio that delivers LED energy savings and reliability in preferred color temperatures.

What lumen packages are available with the RSW?
The RSW Small is available in 3300 and 5000 lumen packages. However, upcoming models will replace outdated high-intensity discharge fixtures of 70-100W HPS, 150W HPS, 250W HPS and 400W HPS.

What optic packages are available with the RSW?
The RSW Small is available with 2LG, 2ME, and 3ME.

What is the lumen quantity difference between an RSW with the 2ME and 3ME optics?
The lumen quantity difference between 2ME and 3ME optics is only 1-1.5%.

How does the RSW deliver similar lumen quantity for both the 3000K and 4000K CCTs?
This is achieved by using color mixing of fully powered LEDs.

Why is a warmer color temp (3000K) important for residential settings?
Lights with a cooler CCT (4000, 5000, 5700K) have historically been well received in commercial and high speed roadway settings, but as LED street lights are starting to make their way into more and more residential applications, residents are looking for the warmer color that they are used to with traditional street lighting.

What are the settings for the Q-option?
Please refer to the Field Adjustable spec sheet for details.

Is the RSW DLC listed?
Yes, the RSW is DLC qualified, premium classification. Please refer to www.designlights.org/QPL for most current information.

How is the RSW mounting hardware prepped for coastal environments?
- RSW Mount system features Steel Zinclad 3/8"-16 machine bolts and nuts, both of which are designed to prevent Galling or cross-threading.
- The bolts thread into steel nuts instead of aluminum cores for increased strength and durability.
- Bolts and nuts are coated with a hexavalent chromium-free coating. Each fastener has a minimum of 8 microns of zinc nickel deposit with a high build iridescent passivate and clear topcoat. This meets the highest industry and application demands and also meets minimum automotive performance for corrosion resistance.
- The bolts and nuts pass ASTM B117 salt fog testing with first white corrosion at 240hrs and first red corrosion at 1000hrs.
- Bolts and nuts are both the same material, this is done to prevent galvanic corrosion. Galvanic corrosion significantly accelerates corrosion when using bolts and threads of 2 dissimilar materials.
- The mounting clamp is same as what is currently available in the XSPR, and is hot dip galvanized: 12GA CQCRS HotDip GALV.

What are the torque specs for the RSW bolts?

TORQUE VALUES			
PIPE SIZE	**PIPE POSITION**	**BOLT TORQUE REQUIRED (IN-LBS)**	**BOLT TORQUE REQUIRED (N-M)**
1.66 IN O.D.	+5.0 degrees tilt	100	11
	+2.5 degrees tilt	100	11
	0 degrees (No tilt)	100	11
	-2.5 degrees tilt	100	11
	-5.0 degrees tilt	100	11
2.38 IN O.D.	+5.0 degrees tilt	100	11
	+2.5 degrees tilt	100	11
	0 degrees (No tilt)	100	11
	-2.5 degrees tilt	100	11
	-5.0 degrees tilt	100	11

Has the back shield been tested for wind?

- The backlight shield for a RSW Small fixture is a folded stainless steel part that snaps into the heat sink slots of the fixture door. Based on the area of the RSW Small backlight shield, the force on it at 110mph wind (category 2 hurricane) will be 7.74 pounds. This is not enough to dislodge it or open the door.
- The back light shield EPA information is on the spec sheet.

Is the RSW recyclable?

COMPONENT	**MATERIALS**	**NOTES**
Housing	Polyester Bulk Molding Compound	Thermo-set material can be recycled by grinding it into powder and used as fillers for other materials.
Door	Polycarbonate	Thermoplastic that is directly recyclable
Optics Assembly	Lens – Acrylic Box & over-mold – polycarbonate IP seal - silicone	These thermoplastics are recyclable when separable. In our subassembly the polycarbonate box and acrylic lens are over-molded in another layer of polycarbonate, making them impossible to separate. The seal is removable but not recyclable.
Heat sink	Anodized aluminum	The LED PCB is bonded to the heat sink with thermal interface epoxy. This will have to be scraped off to recycle just the aluminum.
LED PCB	RoHS compliant PCB assembly	Aluminum based plastic film & copper trace PCB that will be damaged when removing from heat sink. What's left of it can be recycled as RoHS compliant electronics.
Driver	RoHS compliant PCB assembly Thermal interface pad	The thermal interface pad can be removed and disposed of. The PCB is a typical power supply with dry capacitors. Can be recycled as general RoHS compliant electronics.
Driver Cover	Snap cover - polycarbonate Heat sink plate – Aluminum Gasket – die cut foam or molded silicone	Separable and recyclable except for the gasket.
Wiring and controls	Terminal block, surge protector, dimming module, with copper wiring	Commercial terminal block, surge suppressor, dimming module, copper wires, heat shrink tubing, crimps, etc. can be stripped out and recycled as general RoHS compliant electronics.
Hardware	Galvanized cold rolled steel mounting bracket and fasteners.	Can be recycled

Will the RSW be available with 480V?

There is no current plan for RSW Small or Medium to be available with 480V. However, both the Large and Extra Large versions of the RSW will be available with 480V.

What is the operating temperature range of the XSP and the RSW?

The RSW™ street luminaire is rated for temperatures from -40°C to +40°C (-40°F - + 104°F) and is designed to linearly dim down as needed until it reaches an acceptable temperature.

At what point does it start to dim down?

Between 40°C and 45°C (104°F and 113°F)

What is the bottom – how low will it dim before it shuts off?

The temperature starts to drop as soon as the fixture starts to dim. Above 45°C (113°F) ambient, the light output drops to 80%.

BULK MOLDING COMPOUND

What is it?

Bulk Molding Comp (BMC) is an Engineered Composite. Specifically, a glass-filled thermal-set polyester composite. The manufacturing technology dates back to 1950 and has been used in the lighting and electrical industry for decades. When utilized properly, BMC offers significant value advantages over alternate materials and processes such as cast aluminum technologies.

The BMC (raw material) is manufactured (compounded) by mixing strands (>1") of chopped glass fibers in a mixer with polyester resin. The glass fibers in BMC result in better strength properties than standard thermoplastic products.

Why is Cree using it?

As LED technology continues to advance, Cree is constantly researching and implementing ways to increase overall performance and value for the solutions we provide. Incorporating the highest value materials and manufacturing processes is one of the ways Cree will continue to provide the most innovative and highest value solutions to our customers.

What testing has been done to ensure that the BMC is a durable material?

- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- Meets CALTrans 611 Vibration testing
- QUV exposure to ASTM D4329-05 Cycle A: Currently at 1000 hours
- Certified to UL1598 enclosure impact
- IK07 Rated

WAVEMAX™ TECHNOLOGY

What has been done to prevent the WaveMax™ lens from yellowing?

The lens uses the same high-grade, UV stabilized optical acrylic material that is used in the XSP Series and is constructed from a Class 3 PMMA, or poly (methyl methacrylate) compound per ASTM D788-93. Class 3 polymers are highly regarded for excellent resistance to outdoor weathering, specifically exposure to UV rays from the sun.

Another key advantage over other plastics is that lens made from PMMA compounds do not deteriorate with age, since they resists weathering and is non-yellowing. For more information on WaveMax™ Technology, please visit: lighting.cree.com/wavemax.

Visit **lighting.cree.com/rsw-series** or contact a Cree lighting representative to learn more.