

Overview

The SR-04 high brightness, side emitting LED modules features a single Rebel LED reflow soldered to our CoolBase PCB with a [Fraen F360L-3C-S](#) side emitting optic fastened to the base with Loctite 460 Adhesive.

The FR4 CoolBase features a highly efficient thermal design that matches or outperforms* standard aluminium MCPCB bases.

Connections to the base can be soldered using standard bench top tools and hand soldering techniques, making it easy to integrate this modules into fixtures or for use in OEM/MRO applications.

The SR-04 Side Emitting modules can be ordered directly from our website at www.luxeonstar.com/sr-04.



Construction

The base of this modules uses a specially designed 0.8mm, thermally conductive FR4 PCB that provides an unprecedented thermal conductivity rate of 1.5°C/W, which directly translates into:

- **Longer LED life**
- **Better color stability**
- **Reduced cooling requirements**

Features:

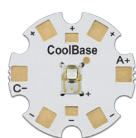
- Replacement option for the popular Luxeon Side Emitting LEDs
- Super efficient base design that matches or outperforms aluminium MCPCB bases
- Available with all currently produced Rebel LEDs
- RoHS compliant
- Pb free reflow soldered
- Extremely low thermal resistance
- Can be mounted with thermal tape

Module Specifications

Parameter	Value
Base Type	0.8mm FR4 PCB
Base Thermal Performance (Not including LED)	1.5°C/W
Finishing	Immersion Gold
Solder Mask Color	White
Solder Paste	AIM NC-258 No-Clean, Lead-Free
Max Operating Temperature (FR4 Base) ¹	95°C
Lens Adhesive	Loctite 460 Prism Instant Adhesive
Overall Dimensions (mm)	15.9L x 11W x 7.2H
Weight	0.8g

1. For maximum life, the FR4 board temperature must be kept below this value.

* Results will vary depending on the quality of the dielectric material used in the MCPCB base.



Power Drivers

The choice of power driver will depend on the Rebel LED that is mounted to the base, the number of LEDs being powered, the input voltage source and drive current. We offer a complete selection of compatible low and high voltage current regulated drivers on our website.

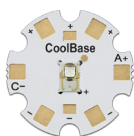
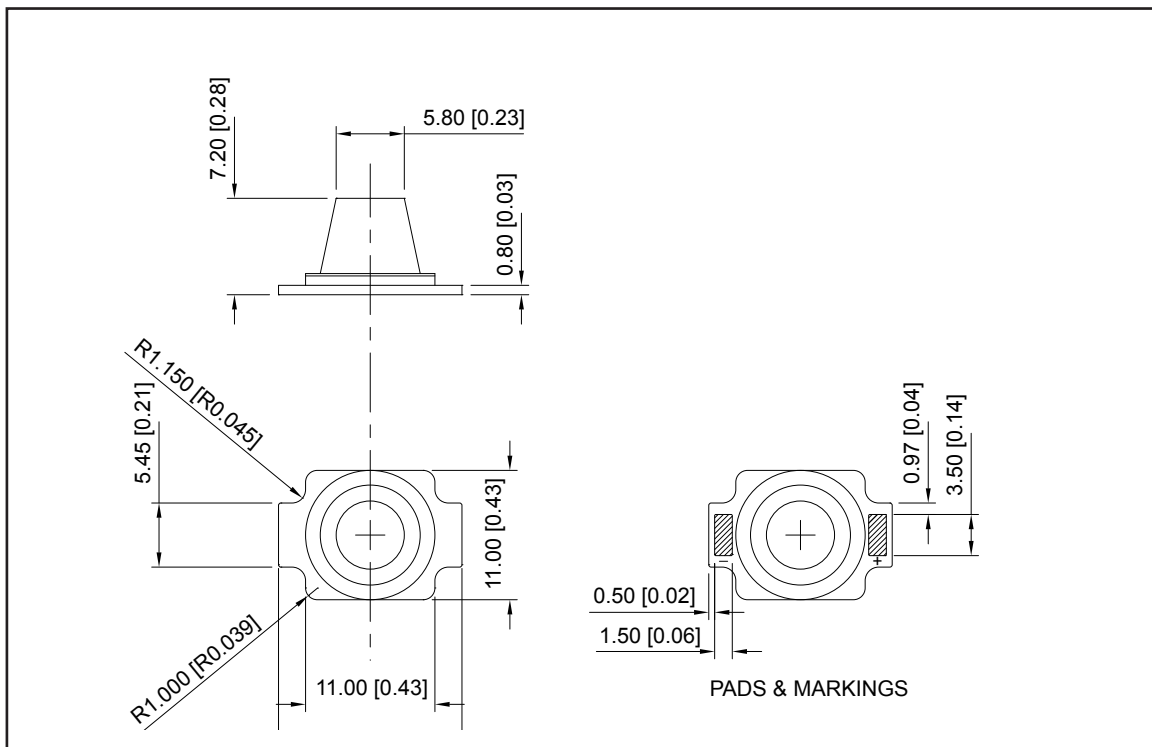
Mounting & Cooling

Use of this module requires careful attention to mounting and cooling to ensure that the junction temperature of the LED is kept well below the maximum rating as specified in the LED documentation published by Philips Lumileds.

For optimal cooling, we recommend that the module be mounted to a suitable heat sink (aluminum or copper) that is exposed to open air using a thermal interface material such as our [Bond-Ply® 100 pressure sensitive thermal tape](#) or [Arctic Silver™ thermal adhesive](#). The bottom of the LED module is electrically neutral, so it is not necessary to electrically isolate the LED base from the cooling surface.

Failure to ensure that the LED junction temperature is kept below its maximum temperature rating will result in poor color rendering, early degradation of light output, and premature LED failure!

Module Drawing



Safety:

The LED mounted onto this modules will produce a highly intense point of light. Do not stare directly at the LED for any length of time.

Restricted Use:

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