

#### CoreLED P/N 11003 (Square)

- 5H x 5V Square
- Compatible with 1010 and 2020 LED packages
  - Osram Oslon 1010
  - Nichia E17
  - Samsung 101B
  - Other LED packages may be compatible (Contact CoreLed Engineering for requests)



#### Product Description:

The SMR product family is a series of vacuum metallized high temperature polymer mini-reflectors that attach directly to PCB using standard reflow. These components achieve high light collection efficiency, a variety of engineered beam patterns, and are supplied for high volume pick and place electronics assembly.

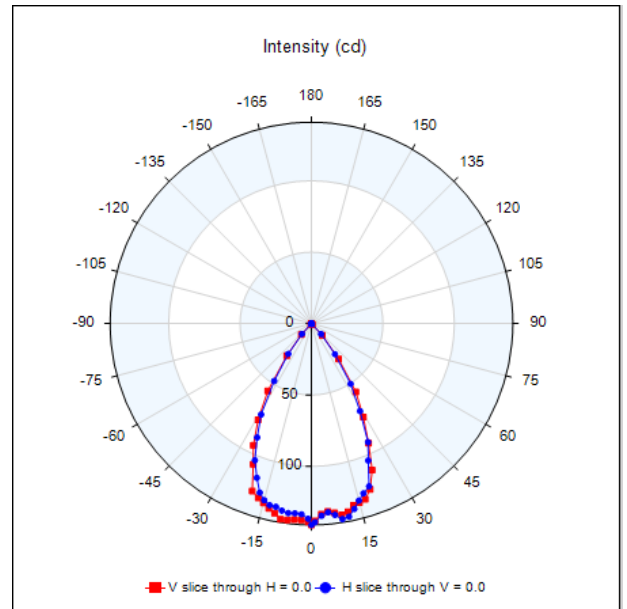
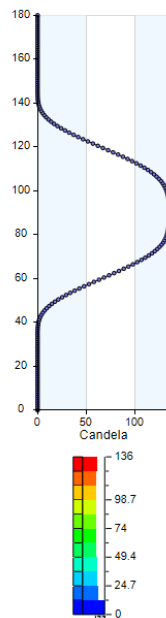
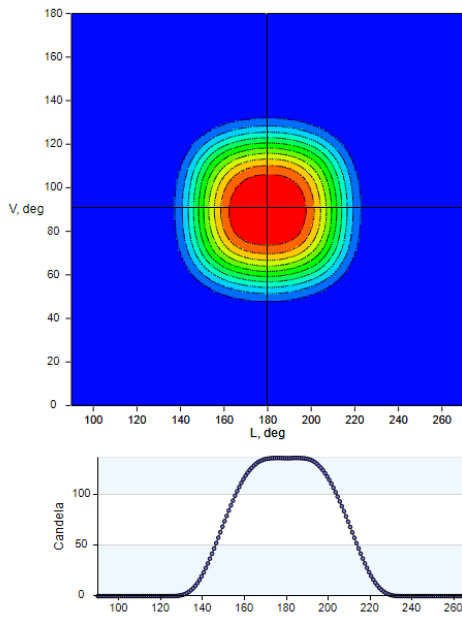
#### Key Features:

- Optical reflector reflow mounted at the same time as LED assembly
- Supplied in tape and reel
- Increased control of light output
- Precision alignment (within  $\pm 0.1\text{mm}$ )
- Family of optical beam patterns that will work using IR reflow
- Reflow solder lead frame integrated into reflector assembly
- Standard pick and place equipment
- Manufactured without the need for additional components to attach the optics

### Emitted Pattern Profile

#### Nichia E17 (Simulated)

IES NEMA Type	5H x 5V
Maximum Candela	141
Maximum Candela Angle	-9.0H -1.0V
Horizontal Beam Angle (50%)	60.6
Vertical Beam Angle (50%)	56.5
Horizontal Field Angle (10%)	83.1
Vertical Field Angle (10%)	81.8
Total Rated Lamp Lumens	150

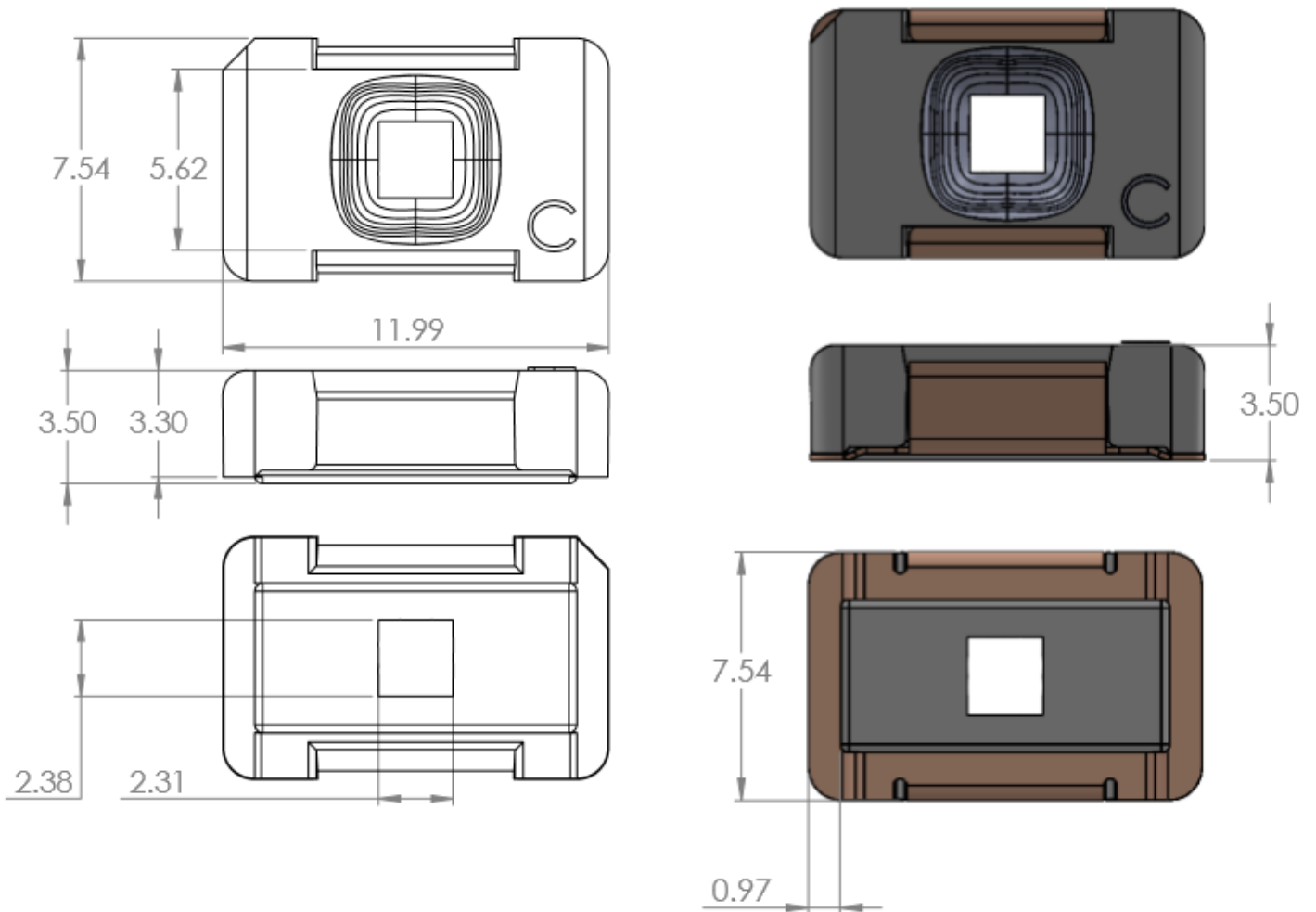


FLOOD/CANDELA VERSUS ANGLE

56 DEGREE FWHM

**IES files and Raytrace models are available upon request from CoreLed Engineering.**

### Mechanical Profile

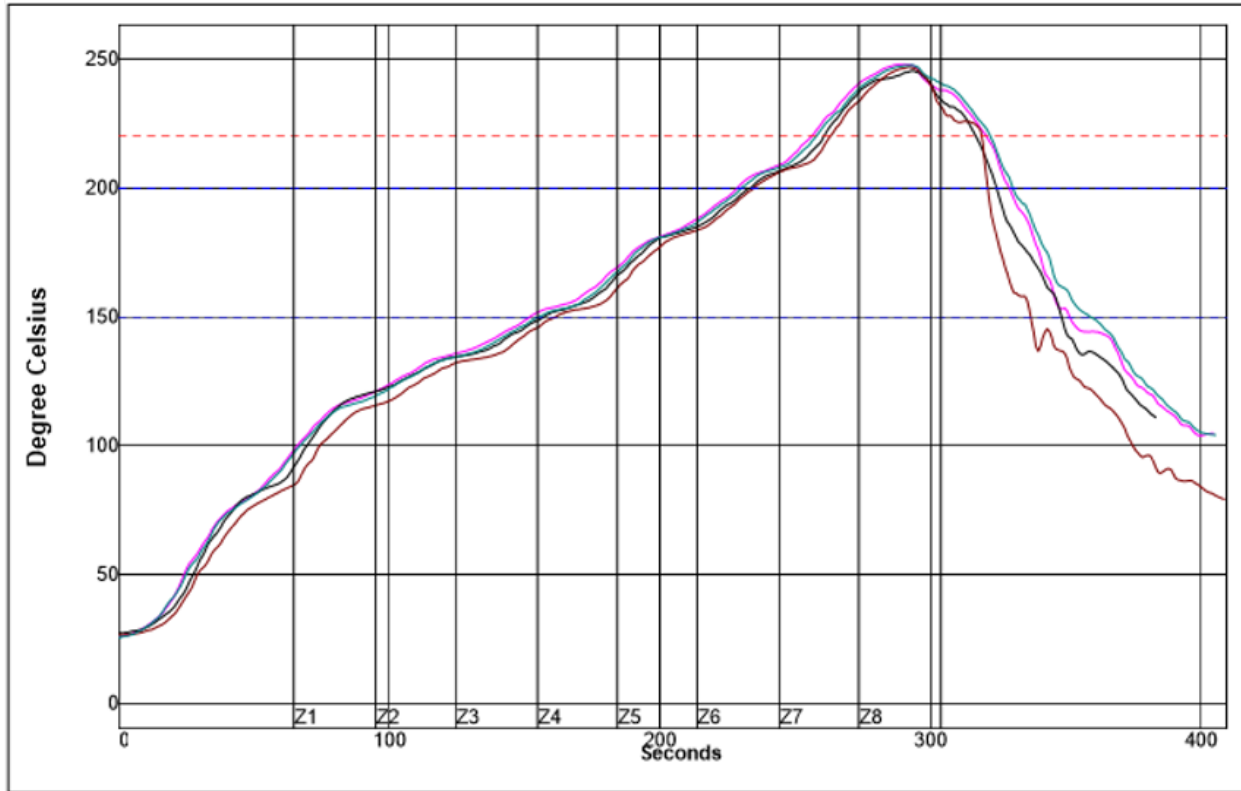


Mechanical design features without solder clip

Mechanical design features with solder clip

**CAD files available upon request from CoreLed Engineering**

### Reflow Profile

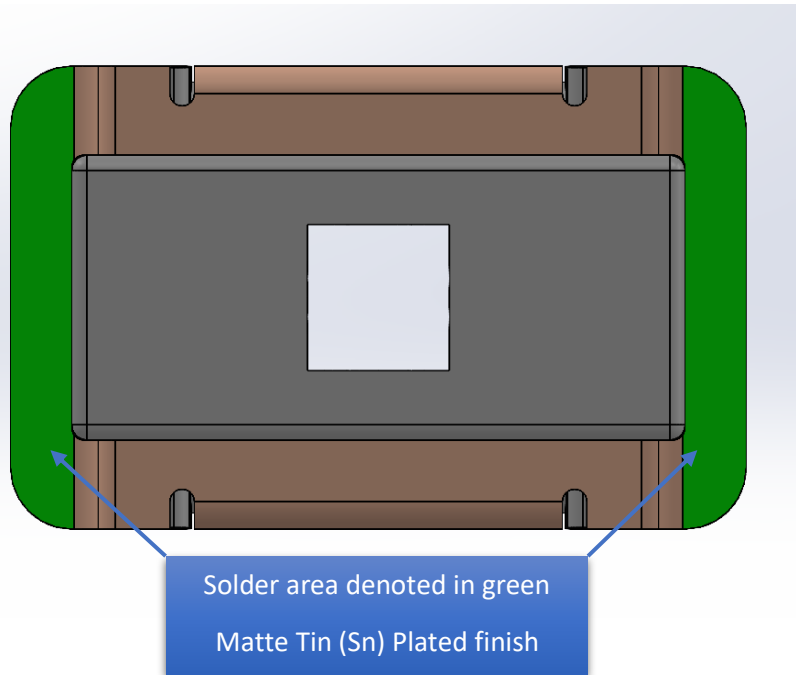
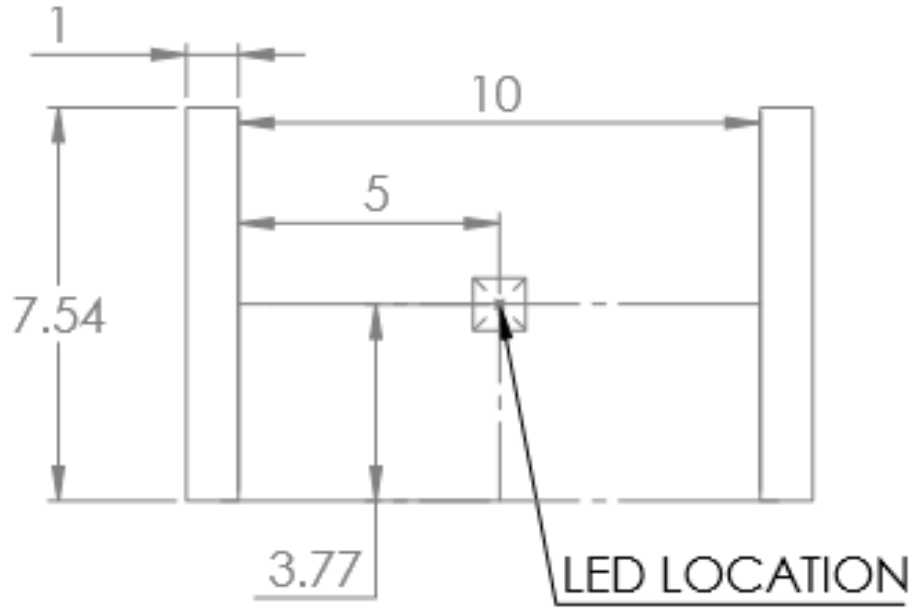


Setpoints (Degree Celsius)								
Zone	1	2	3	4	5	6	7	8
Top	125	148	152	173	210	235	268	257
Bottom	125	148	152	173	210	235	268	257
Conveyor Speed	50.0 cm/min							

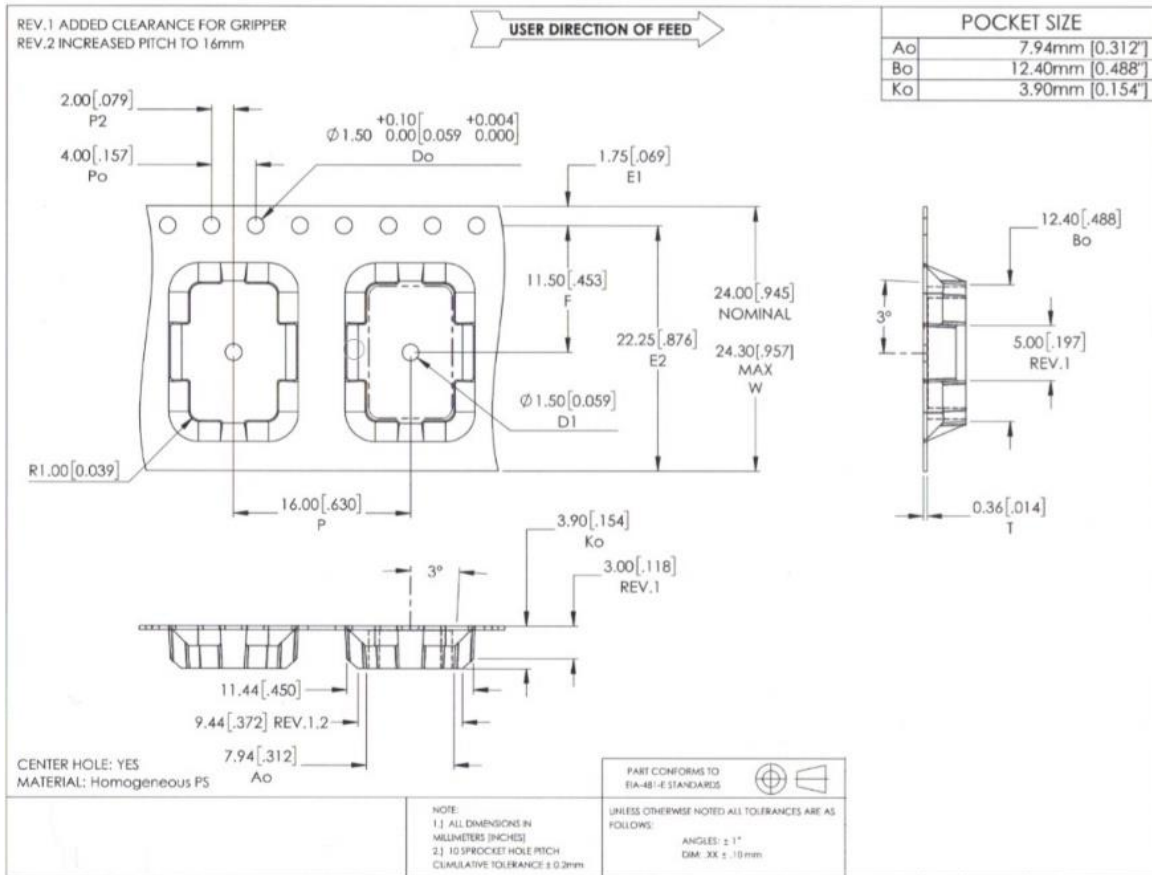
**Example Reflow profile used for testing of SMR units by CoreLed**

### Solder Pad drawing

Dimensions are in mm



### Packaging



Packaging information for tape and reel delivery.

