

# DATA SHIEET

Lens Part No: OPLLS0042

LED: CREE XLAMP XP-G3



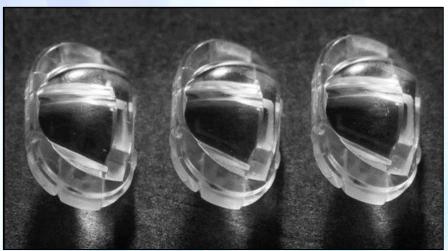




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### Lens Details, Usage & Maintenance

| SL.No | Parameter                                 | Specification         |
|-------|---|-----------------------|
| 1.    | Lens Material                             | Polycarbonate         |
| 2.    | Lens Dimensions ( $L \times W \times H$ ) | 14.30 x 7.80 x 5.14mm |
| 3.    | Operating Temperature $(T_{Opt})$         | -40 to +125° C        |
| 4.    | Lighting Application                      | Street Light          |

- 1. If necessary, clean Lenses with mild soap, water and soft cloth.
- 2. Never use any commercial cleaning solvents on Lenses, like alcohol.
- 3. Please handle or install Lenses with wearing gloves, skin oil may damage Lens or its Optical Characteristic.

Note: Simulation carried out by coupling single Lens with CREE XLAMP XP-G3 LED.



### **LED Source Details**

| SL.No | Parameter           | Specification |
|-------|---------------------|---------------|
| 1.    | Lamp                | XLAMP XP-G3   |
| 2.    | LED Manufacture     | CREE          |
| 3.    | LED Forward Current | 350 mA        |
| 4.    | LED Forward Voltage | 2.73 V        |
| 5.    | LED Viewing Angle   | 1250          |
| 6.    | Number of Sources   | 1             |
| 7.    | Simulation Tool     | Trace-Pro     |

## **Simulation Tool: Trace-Pro**

Trace-Pro is Award-Winning Opto-Mechanical software developed by 'Lamda Research Corporation'USA, under SBIR grant from NASA.

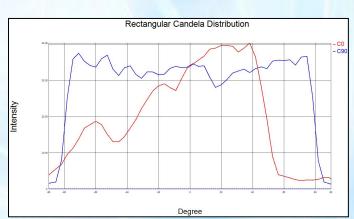
It combines design, ray tracing, analysis, optimization methods to solve a wide variety of new problems in illumination design.

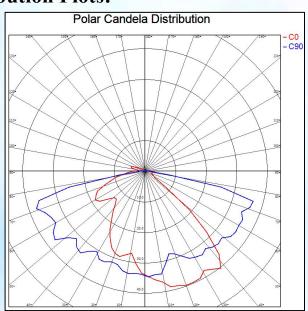
It provides advanced tools for designing medical devices, illumination, display back lights, light pipes, automotive lighting and many other applications.



### **Plots and Results**

### **Intensity Distribution Plots:**





| S. No | Parameter  | Spread | Throw |
|-------|------------|--------|-------|
| 1.    | FWHM Angle | 160°   | 83°   |
| 2.    | FWTM Angle | 166°   | 145°  |
| 3.    | Efficiency | 90.6%  |       |
| 4.    | cd/lm      | 0.32   |       |

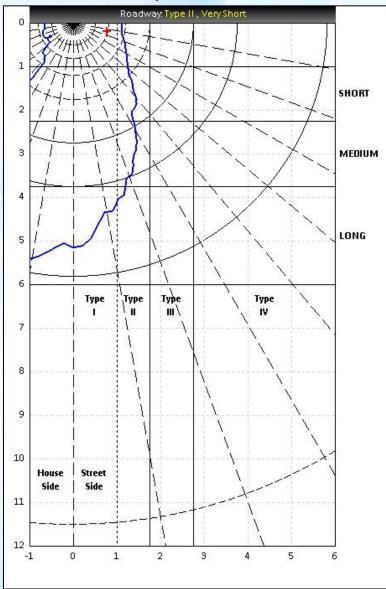
#### Note:

**FWHM angle** -Full Width Half Maximum angle (Beam angle at 50% of the maximum Intensity)

**FWTM angle -** Full Width Tenth Maximum angle (Beam angle at 10% of the maximum Intensity)



### **Roadway Classification:**

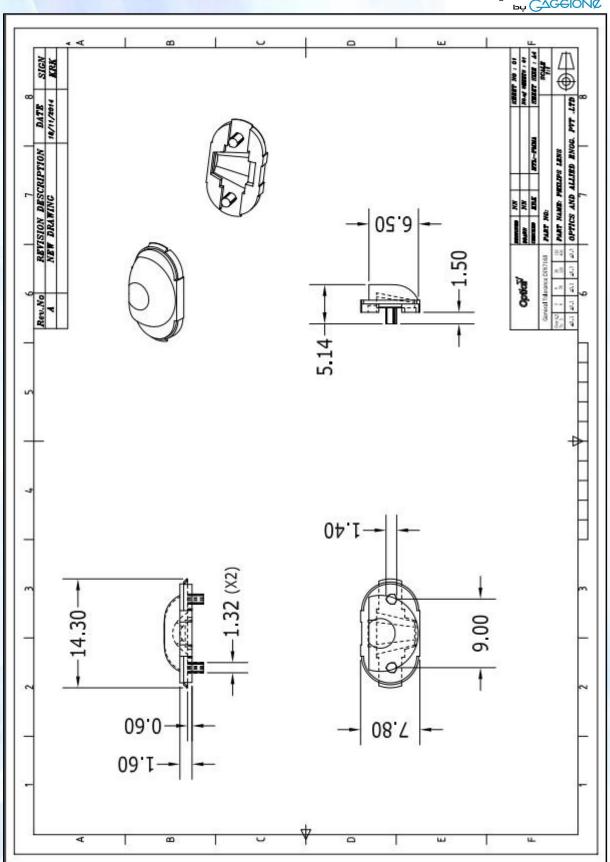


## **Roadway Analysis:**

| BOOM<br>ANGLE | DISTRIBUTION<br>TYPE |
|---------------|----------------------|
| <b>0</b> °    | II VERY SHORT        |
| 5°            | III VERY SHORT       |
| 10°           | III VERY SHORT       |
| 15°           | IV VERY SHORT        |

# **Lens Drawing:**





### "We Are Ready To Lead You Into The Future Of Optics"

- Our Components of high efficiency, are easy to mount and compact in size.
- ❖ Any flow lines on the external surface of the lens are acceptable if the optical characteristics are not affected.
- We are incredibly responsive to your requests and value your questions.



### **GET IN TOUCH WITH US**

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