

# DATA SHIEET

Lens Part No: OPLLS0042

LED: CREE XLAMP XP-E



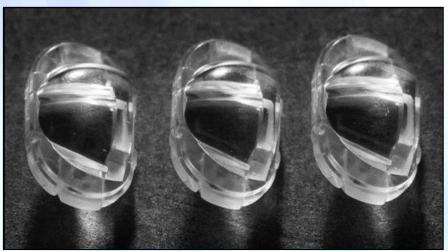




# Contents

- 1. Lens Details, Usage & Maintenance
- 2. LED Source Details
- 3. Simulation Tool Details
- 4. Plots and Results
- 5. Lens Drawing And Package Specification
- 6. Contact Details





### 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-E LED.



### **LED Source Details**

SL.No	Parameter	Specification
1.	Lamp	XLAMP XP-E
2.	LED Manufacture	CREE
3.	LED Forward Current	350 mA
4.	LED Forward Voltage	3.05 V
5.	LED Viewing Angle	1150
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.

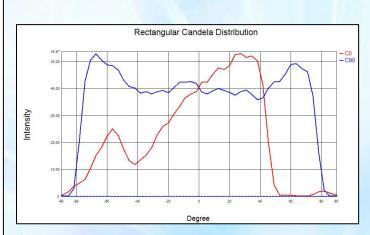
It combines design, ray tracing, analysis, optimization methods to solve a wide variety of new problems in illumination design.

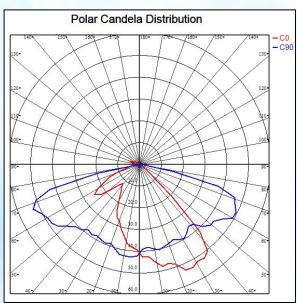
It provides advanced tools for designing medical devices, illumination, display back lights, light pipes, automotive lighting and many other applications.



### **Plots and Results**

### **Intensity Distribution Plots:**





S. No	Parameter	Spread	Throw
1.	FWHM Angle	153°	65°
2.	FWTM Angle	163°	126°
3.	Efficiency	90%	
4.	cd/lm	0.52	

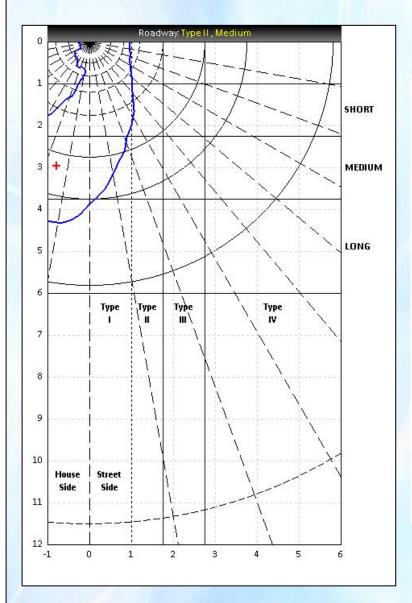
#### Note:

**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:**

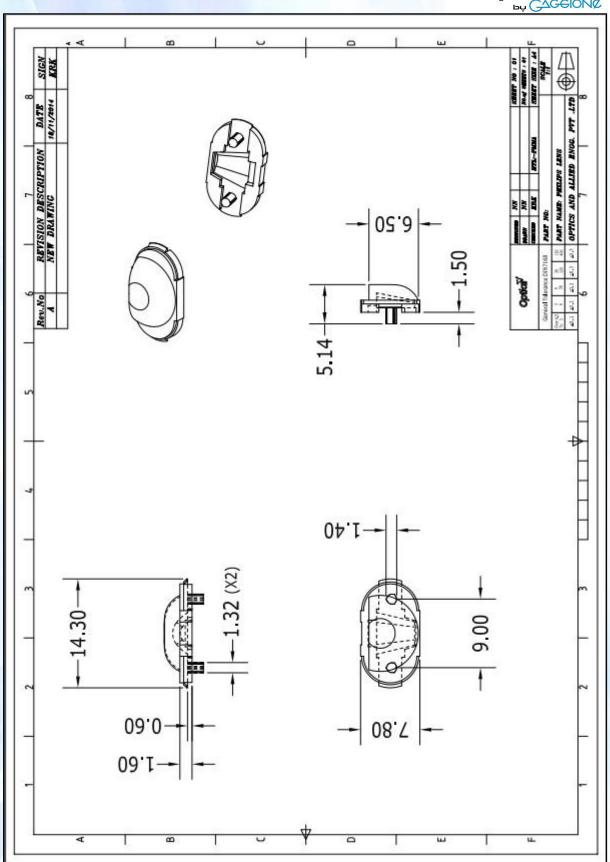


## **Roadway Analysis:**

BOOM ANGLE	DISTRIBUTION TYPE
O°	II MEDIUM
5°	II MEDIUM
10°	II MEDIUM
15°	III MEDIUM

# **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**

### Optics & Allied Engg. Pvt. Ltd.

No. 9Q, 1st Phase, Jigani Link Road, Bommasandra Industrial Area, Bangalore-560099, INDIA

Tel: (+91) 80-4113-4421

Email: sales@opticsindia.com