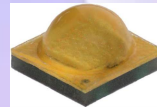




# DATA SHEET

**Lens Part No : OPLLS0123C**

**LED: CREE XLAMP XP-G3**





## 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 × W × H)               | 121.10 x 54.10 x 7.11mm |
| 3.    | Operating Temperature (T <sub>Opt</sub> ) | -40 to +120° 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 12 in 1 street light 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   | 125 <sup>0</sup> |
| 6.    | Number of Sources   | 12               |
| 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.

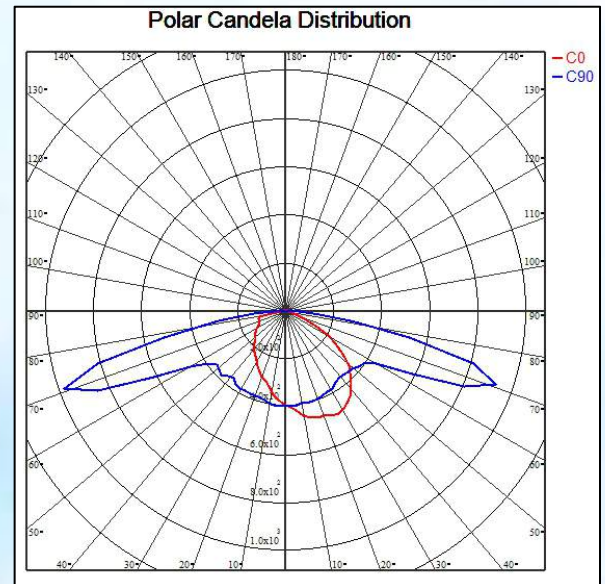
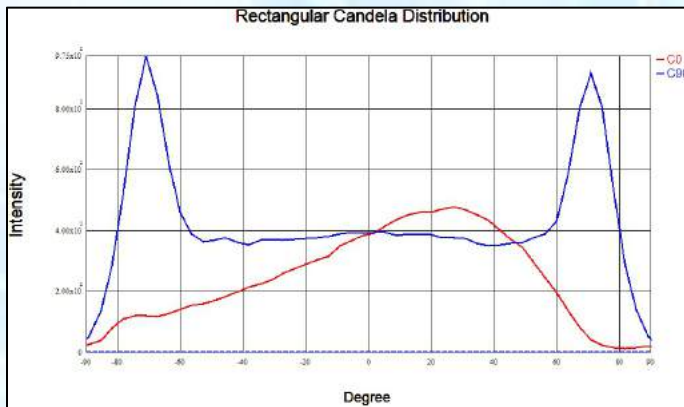
It combines design, ray tracing, analysis, optimization methods to solve a wide variety of new problems in illumination design.

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:



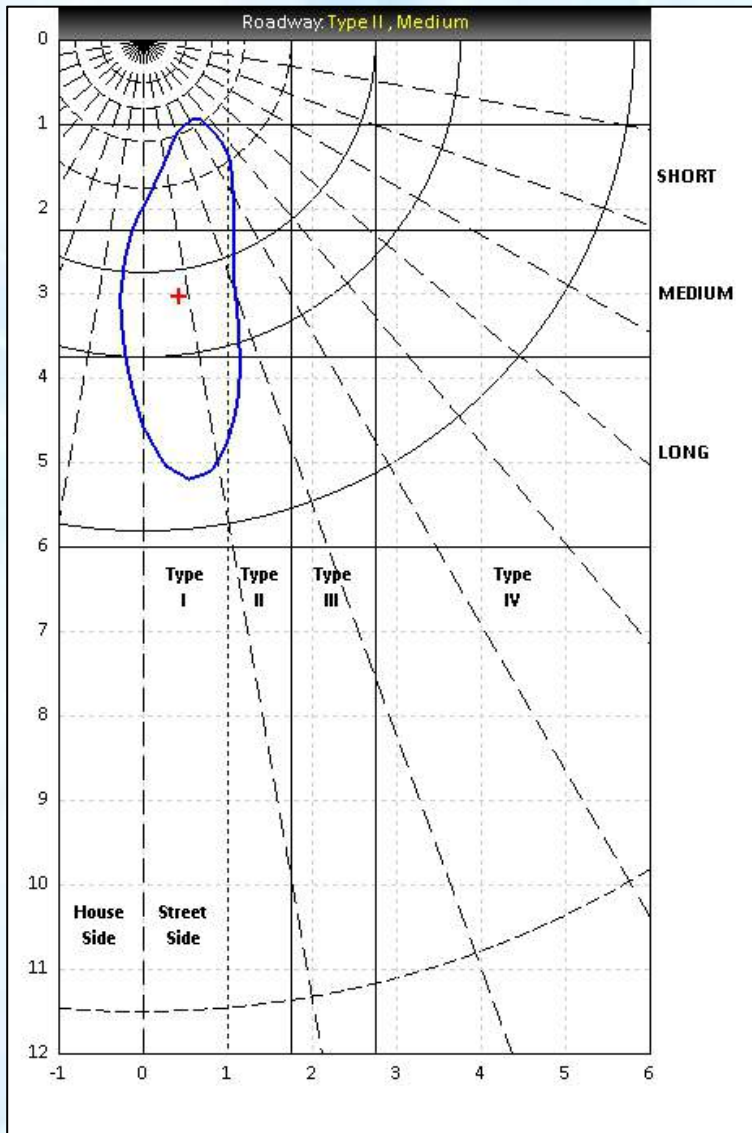
| S. No | Parameter  | Spread      | Throw       |
|-------|------------|-------------|-------------|
| 1.    | FWHM Angle | $156^\circ$ | $85^\circ$  |
| 2.    | FWTM Angle | $170^\circ$ | $153^\circ$ |
| 3.    | Efficiency | 88%         |             |
| 4.    | cd/lm      | 0.70        |             |

#### 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 |
|---------------|----------------------|
| 0°            | II MEDIUM            |
| 5°            | II MEDIUM            |
| 10°           | II MEDIUM            |
| 15°           | III MEDIUM           |

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