

Lens Datasheet

Model No: OPLLC0053

LED Source: XT-E

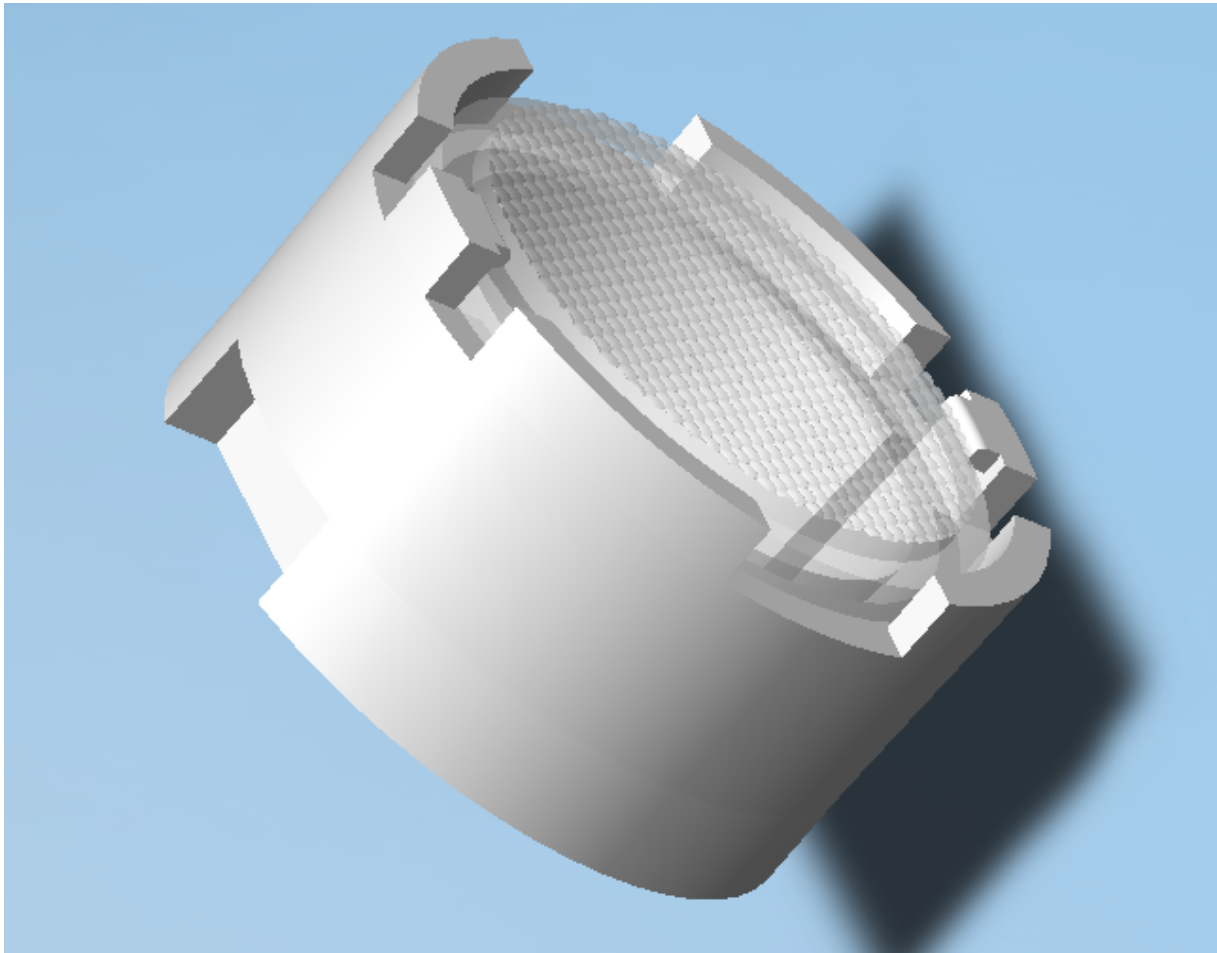
LED Manufacturer: CREE

Optics & Allied Engg.Pvt. Ltd.

No. 9Q, 1st Phase, Jigani Link Road,
Bommasandra Industrial Area,

Bangalore, INDIA

Tel: (+91) 80-4904-4904



Features:

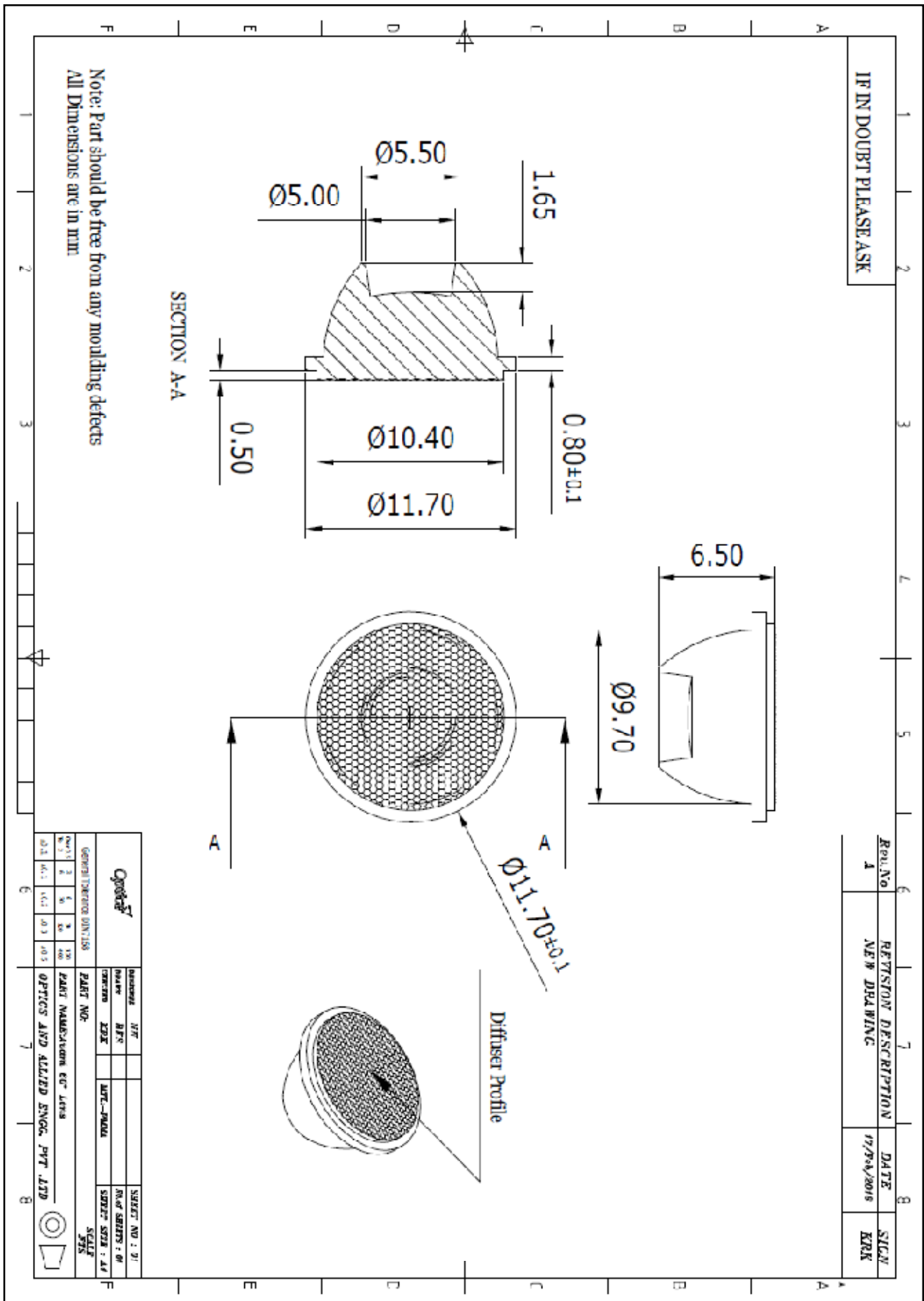
- High Efficiency
- Wide beam output
- Easy to mount

Lens Details:

S.No.	Parameter	Specification
1.	Lens Material	PMMA
2.	Lens Dimensions	Dia 11.70mm & Height 6.50mm
3.	Operating Temperature (T_{opr})	-40 to +80°C
4.	Holder Dimensions	Dia 13.53mm & Height 7.20mm

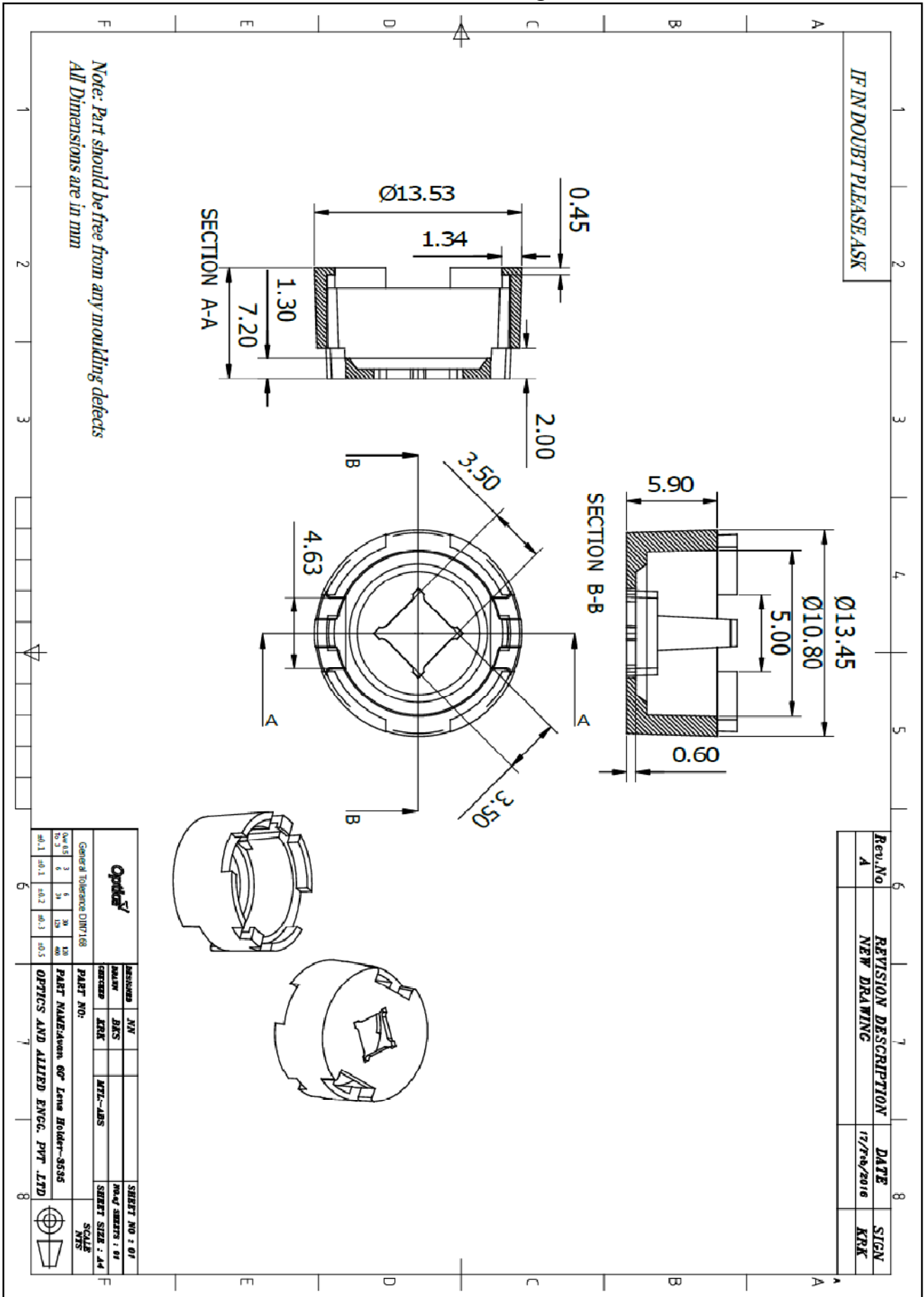
Lens Datasheet
Model No: OPLLC0053

Lens Drawing



Lens Datasheet
Model No: OPLLC0053

Holder Drawing



Lens Datasheet

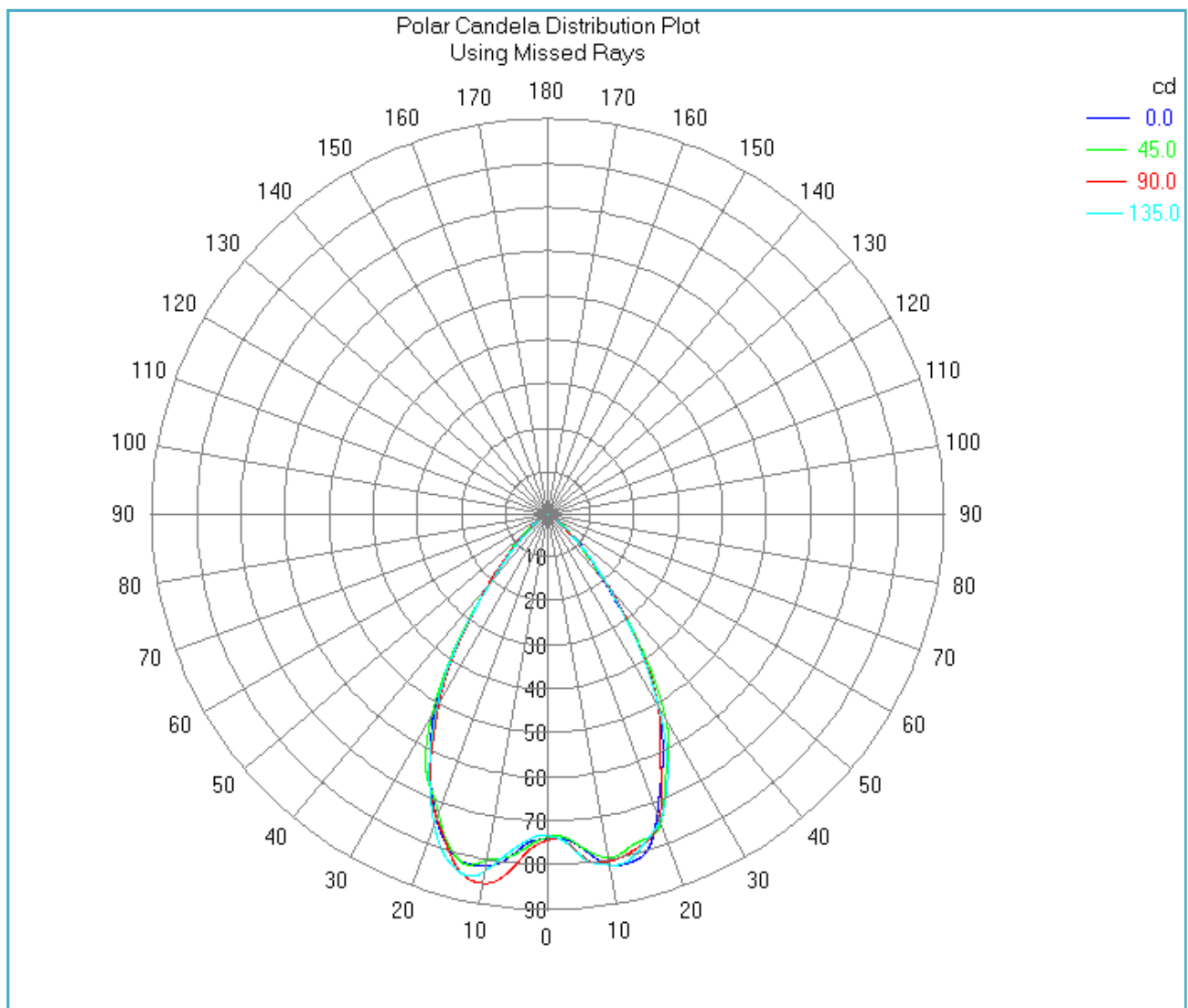
Model No: OPLLC0053

LED Source details:

S.No.	Parameter	Specification
1.	LED Source	XT-E
2.	LED Manufacturer	CREE
3.	LED Operating Current	350mA
4.	Forward Voltage	2.85V
5.	Average luminous flux	105 lm
6.	LED viewing angle	115 °
7.	Detector distance	2.5 Meter
8.	Simulation Tool	TracePro

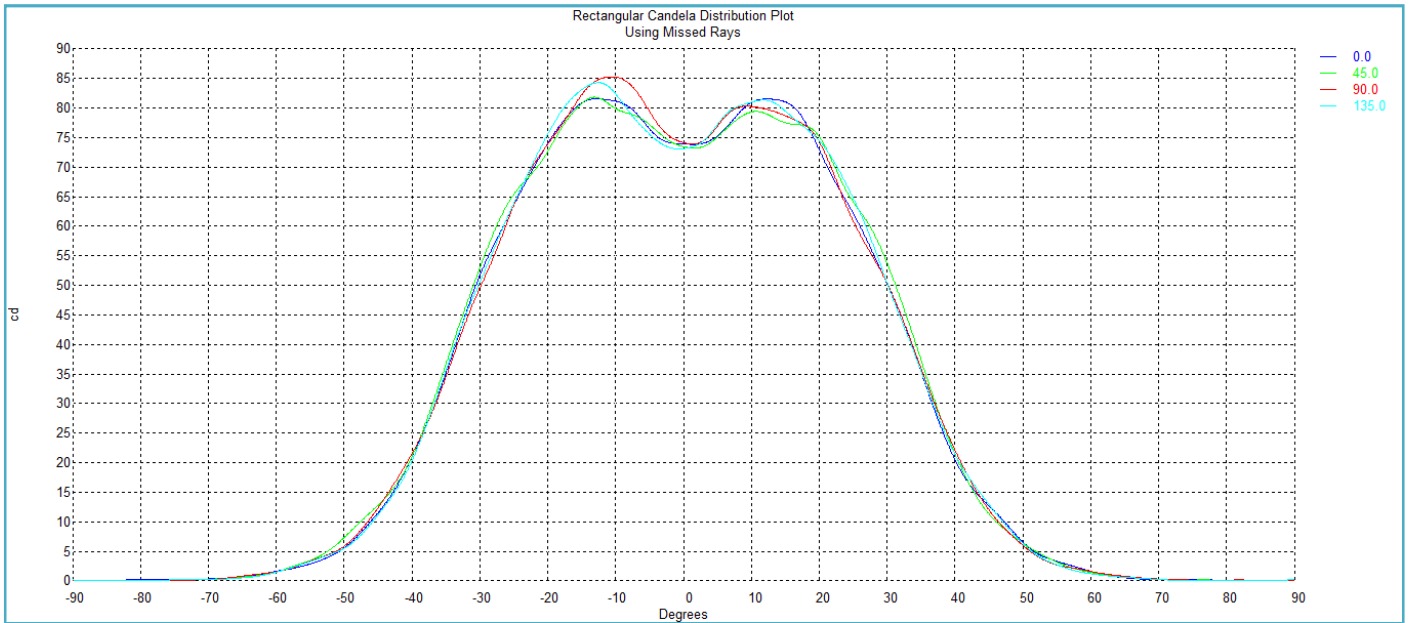
Note: Simulation carried out by coupling OPLLC0053 lens with CREE XT-E LED

Polar Intensity Distribution



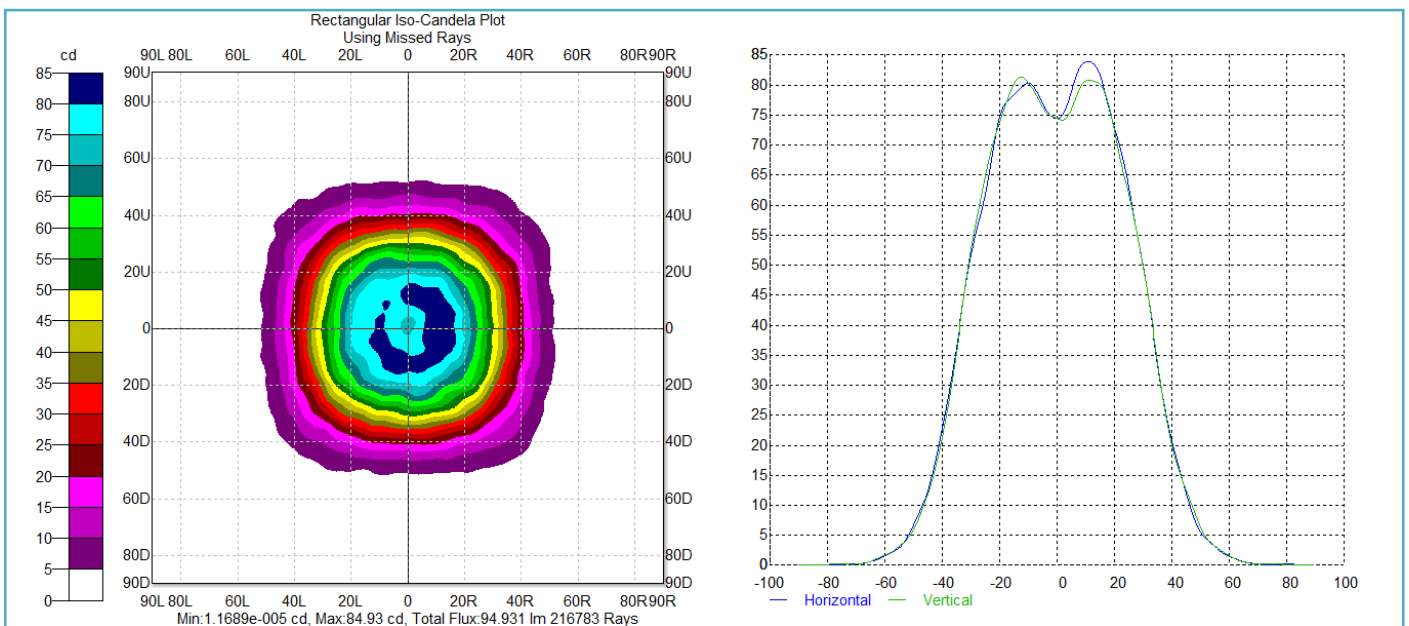
Lens Datasheet
Model No: OPLLC0053

Rectangular Intensity Distribution



FWHM Angle of the beam is 66.0°
FWTM Angle of the beam is 96.0°

Rectangular Iso-Candela Plot



Rectangular Iso-candela plot of the lens with average input flux 105 lumen

Output flux is 94.931 lumen

Lens Datasheet
Model No: OPLLC0053

True Color Map

Total - True Color Map for Incident Flux
Detector Screen



True Color Total Flux:94.511 lm 211940 Incident Rays

Note:

FWHM Angle - Full width half maximum (Beam angle at 50% of the maximum Intensity)

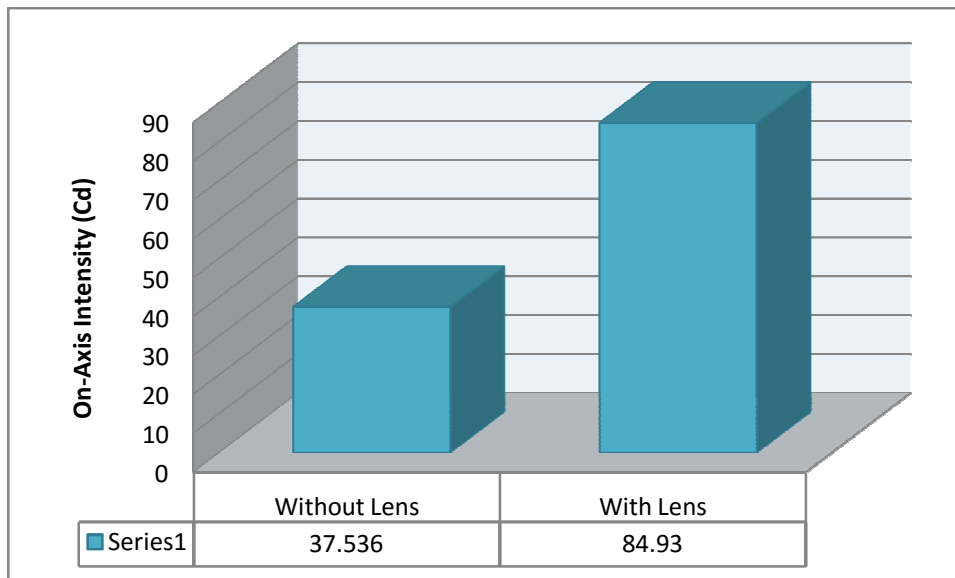
FWTM Angle - Full width tenth maximum (Beam angle at 10% of the maximum Intensity)

Lens Datasheet

Model No: OPLLC0053

Lens Characteristics

S.No.	Parameter	Value	Units
1.	FWHM Angle of the beam	66.0	Degrees
2.	FWTM Angle of the beam	96.0	Degrees
3.	Average Input Flux	105	Lumen
4.	Output Flux	94.931	Lumen
5.	On-axis Intensity of the LED without lens	37.536	Candela (Cd)
6.	On-axis Intensity of the LED with lens	84.93	Candela (Cd)
7.	Efficiency of the lens	90.4	%
8.	Candela per lumen	0.81	Cd/lm



Comparison of On-Axis Intensity of the LED with average emitted flux 105 Lumen with and without Optica OPLLC0053 Lens

Note:

- Don't handle the lens without wearing the gloves, finger prints may reduce the lens efficiency
- Any flow lines on the external surface of the lens are acceptable if the optical characteristics are not affected