

Lens Datasheet

Model No: OPLLC0053

LED Source: NVSW219B

LED Manufacturer: NICHIA

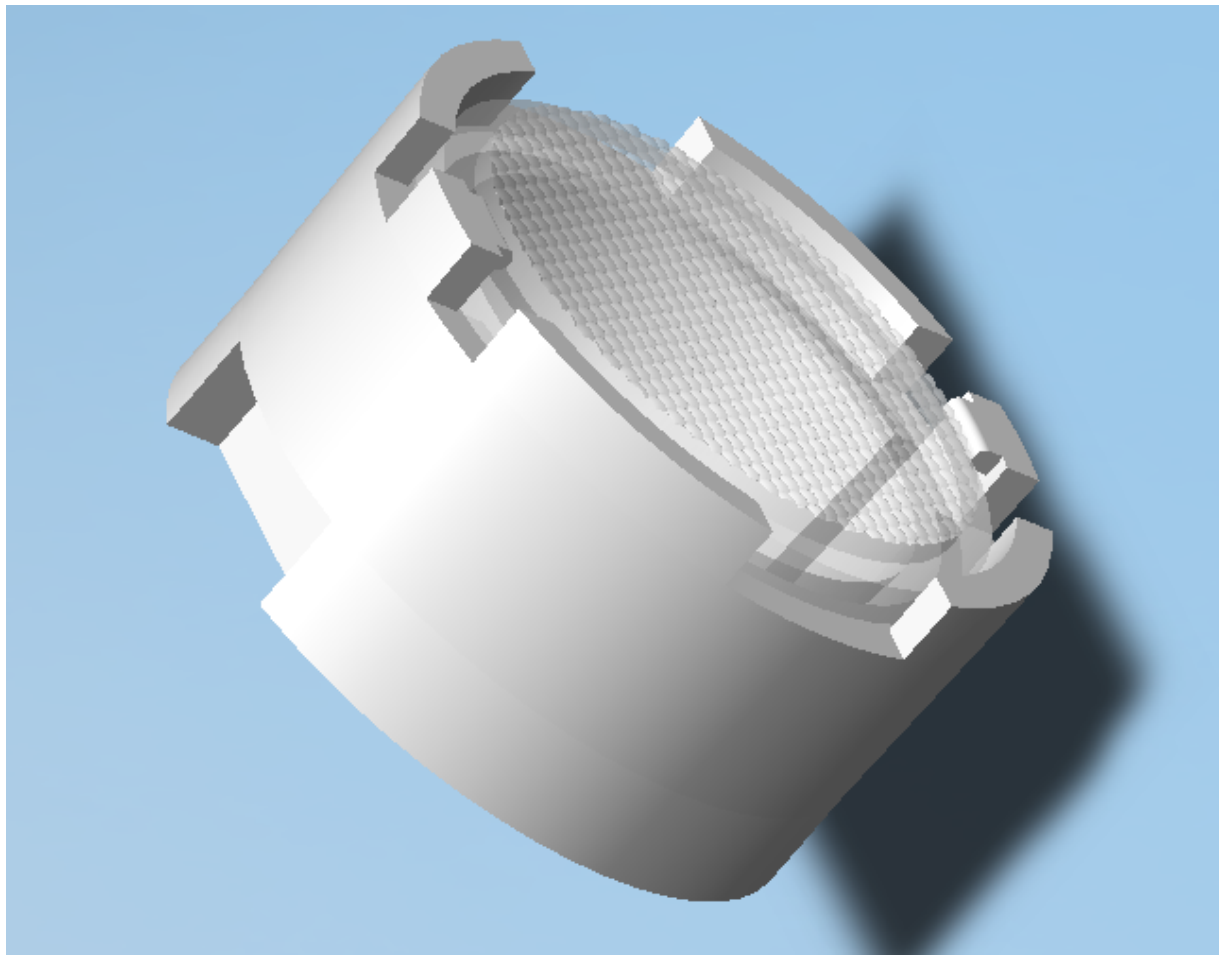
Optics & Allied Engg.Pvt. Ltd.

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Bommasandra Industrial Area,

Bangalore, INDIA

Tel: (+91) 80-4904-4904



Features:

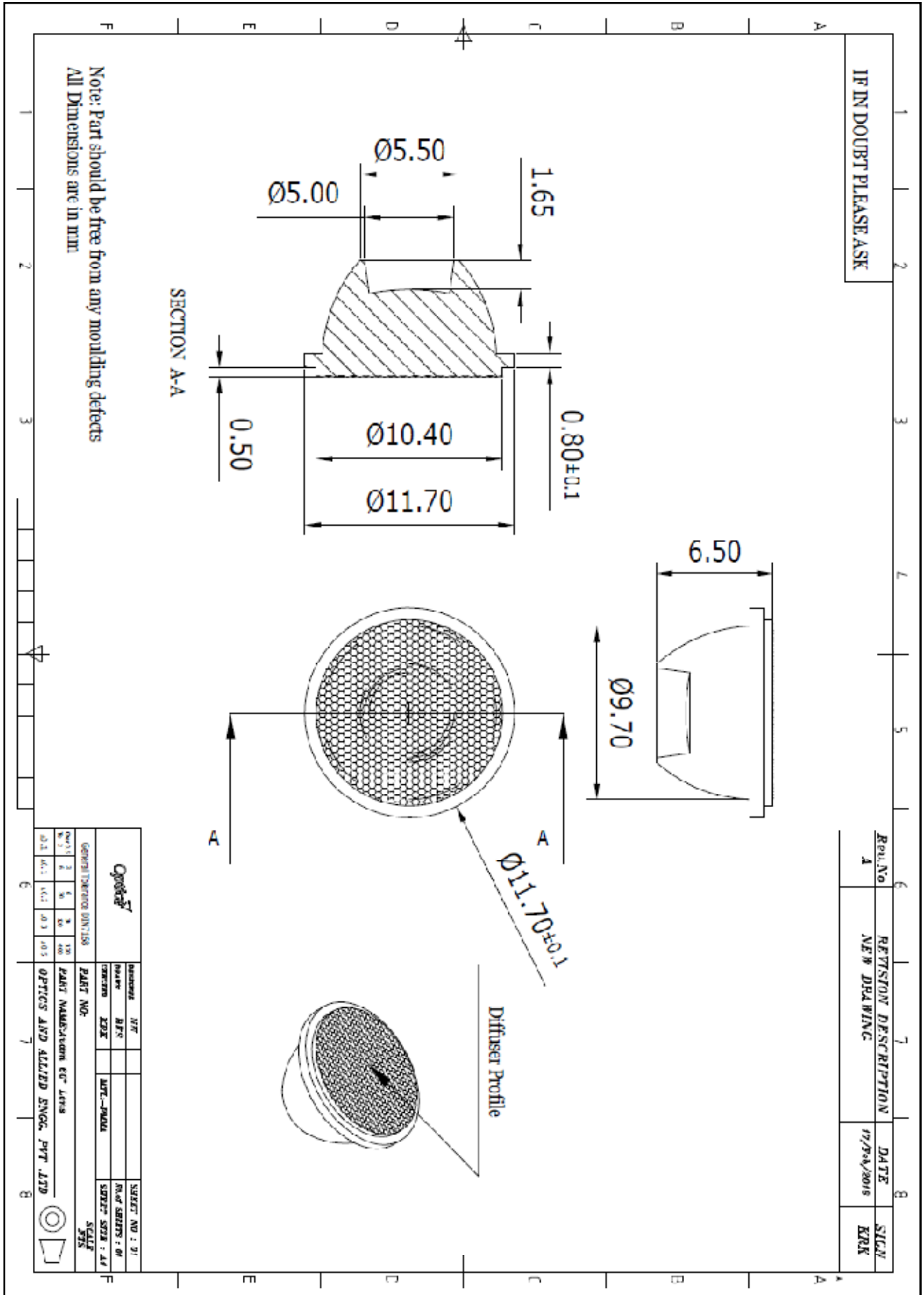
- High Efficiency
- Wide beam output
- Easy to mount

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

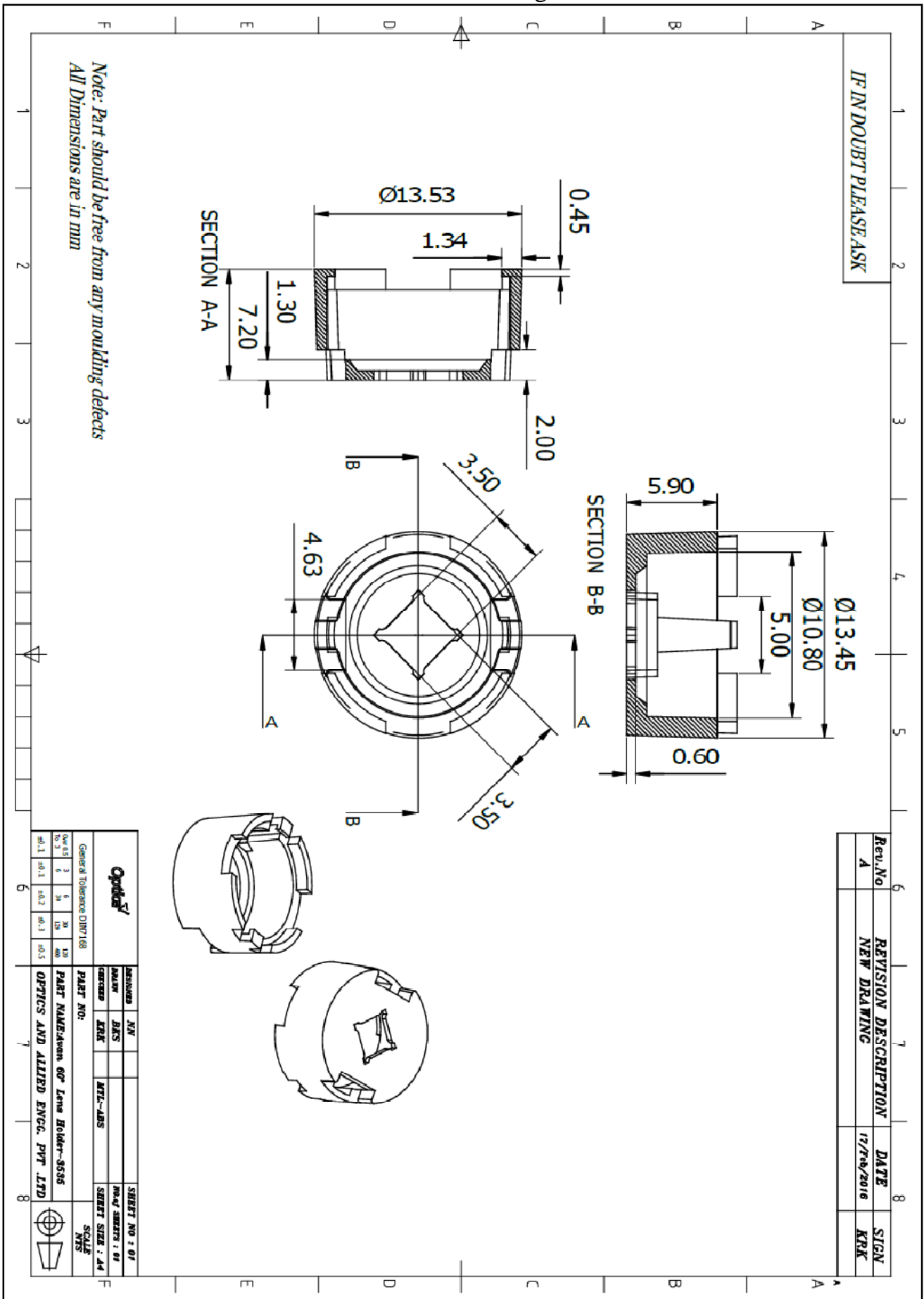
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Lens Drawing



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Holder Drawing



Lens Datasheet

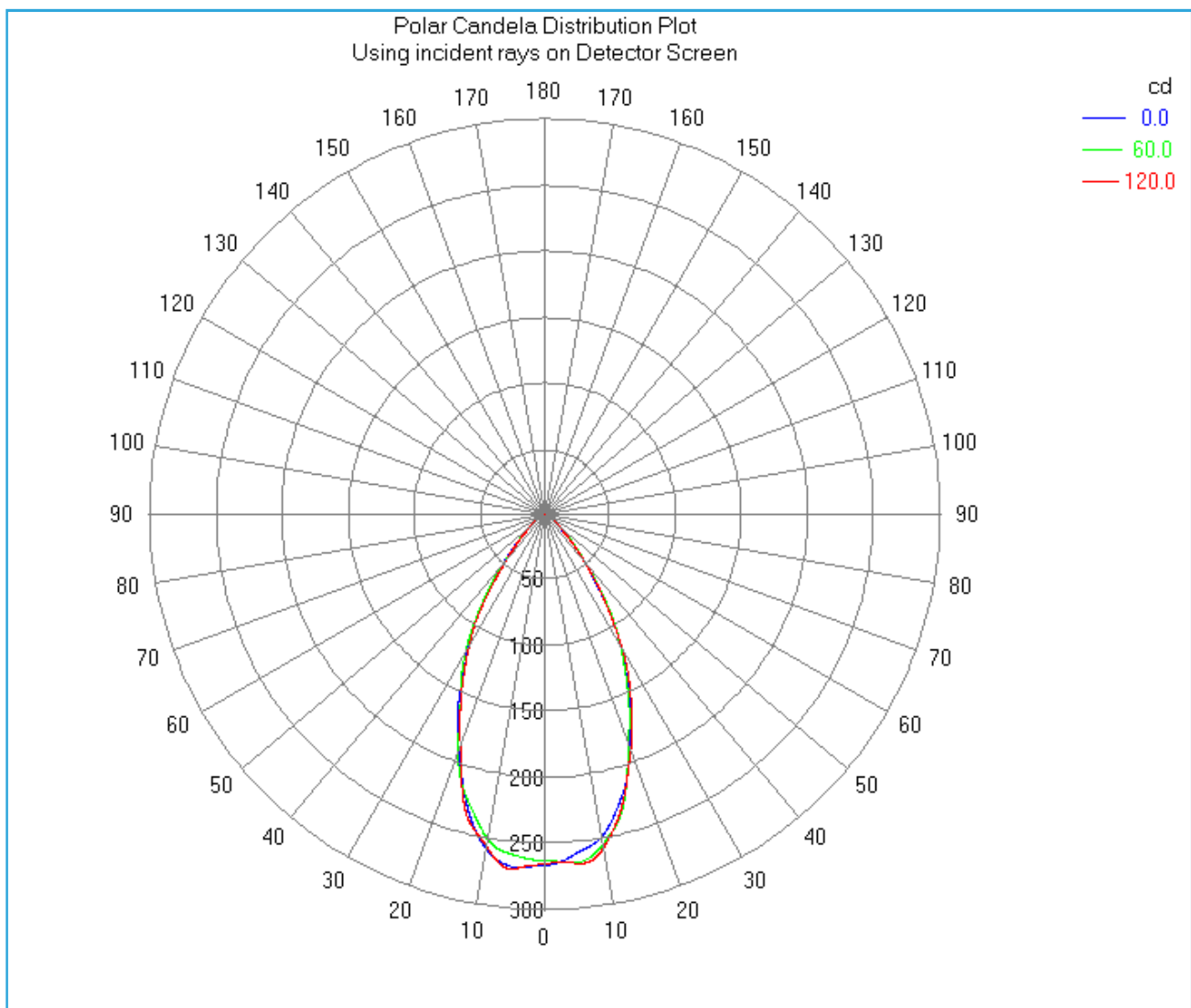
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LED Source details:

S.No.	Parameter	Specification
1.	LED Source	NVSW219B
2.	LED Manufacturer	NICHIA
3.	LED Operating Current	700mA
4.	Forward Voltage	2.98V
5.	Average luminous flux	265lm
6.	LED viewing angle	120°
7.	Detector distance	2.5 Meter
8.	Simulation Tool	TracePro

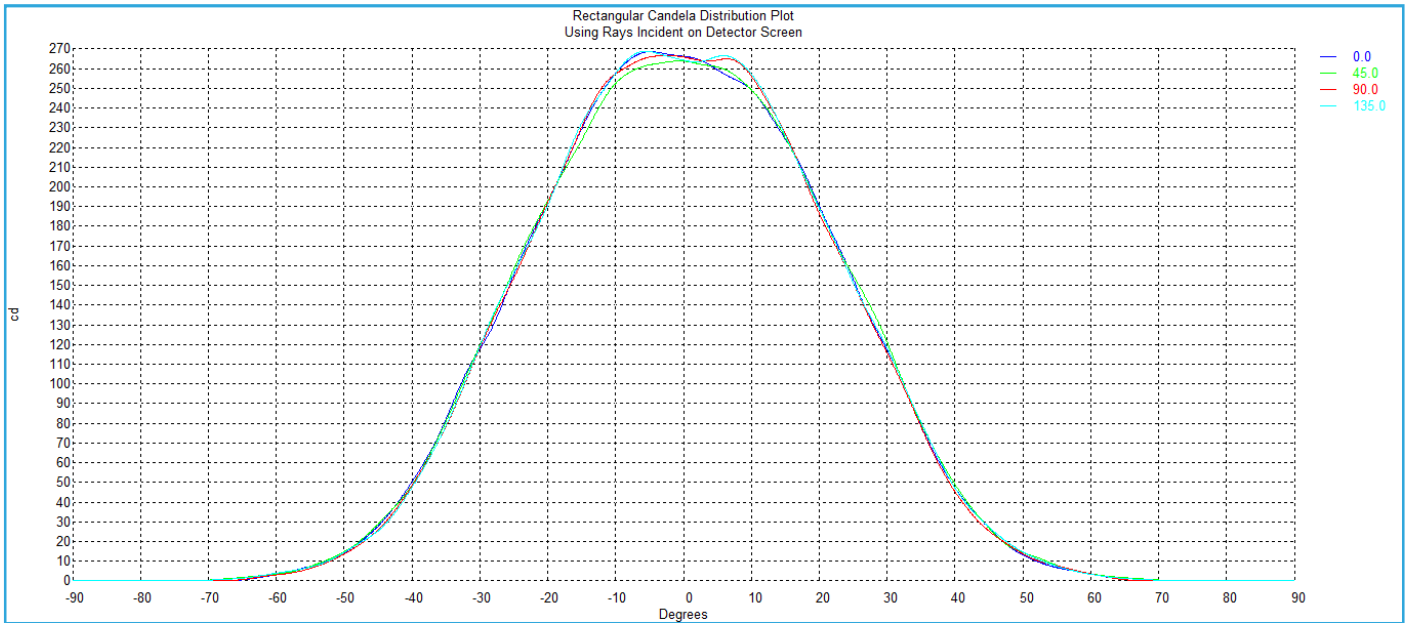
Note: Simulation carried out by coupling OPLLC0053 lens with NICHIA NVSW219B LED

Polar Intensity Distribution



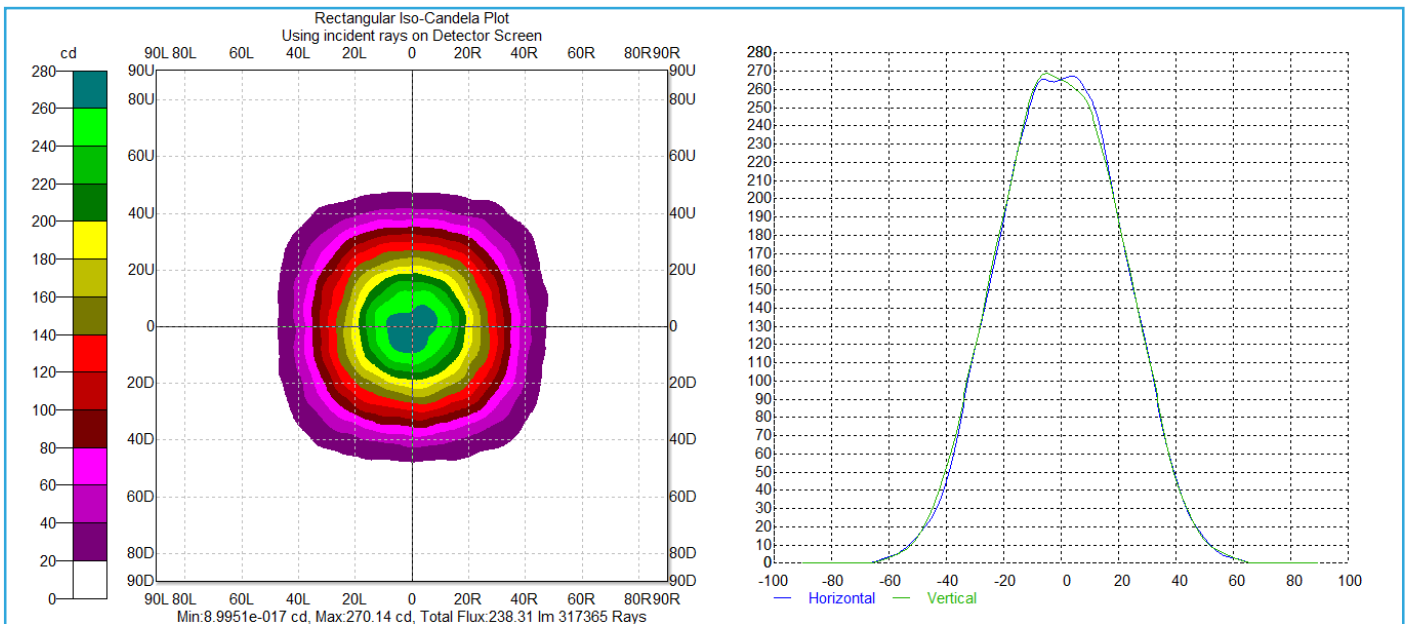
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Rectangular Intensity Distribution



FWHM Angle of the beam is 56.0°
 FWTM Angle of the beam is 91.0°

Rectangular Iso-Candela Plot



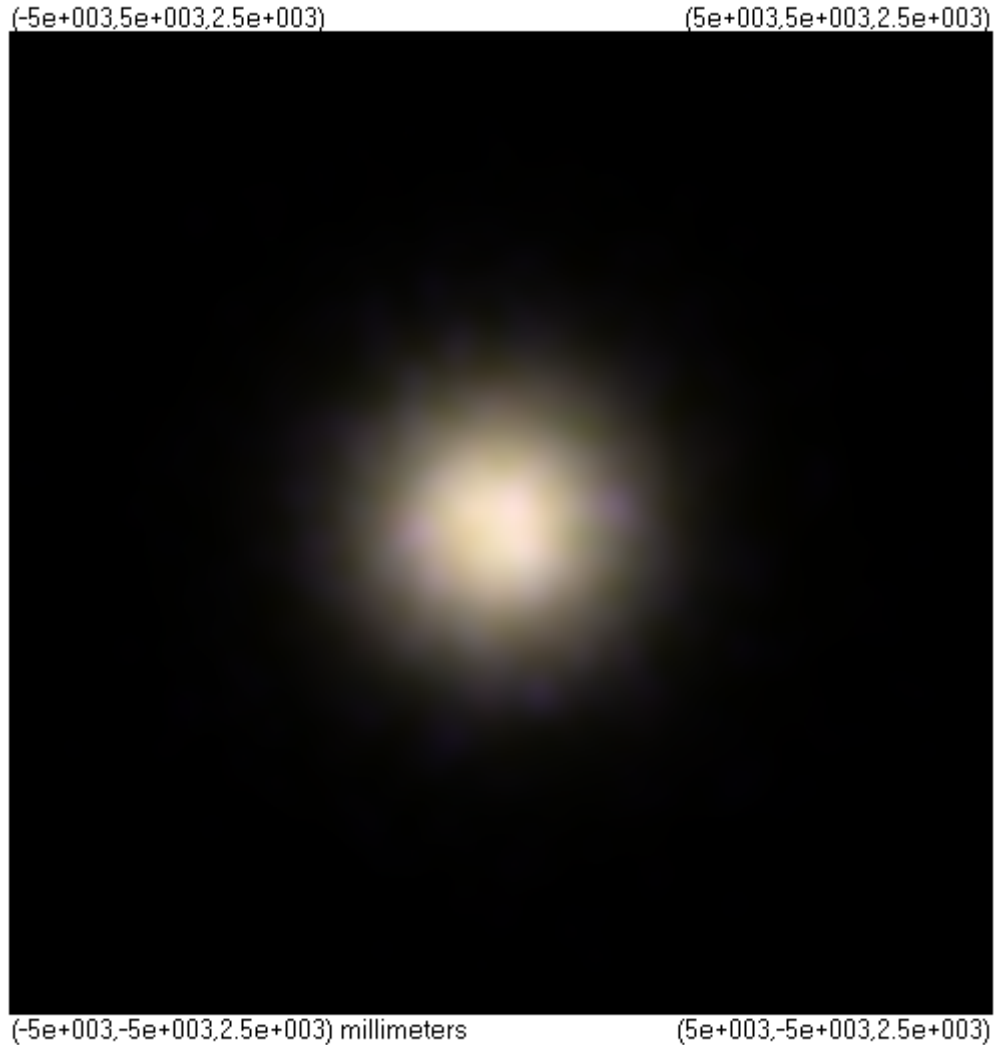
Rectangular Iso-candela plot of the lens with average input flux 265 Lumen

Output flux is 238.31 Lumen

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True Color Map

Total - True Color Map for Incident Flux
Detector Screen



True Color Total Flux:238.31 lm 317365 Incident Rays

Note:

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

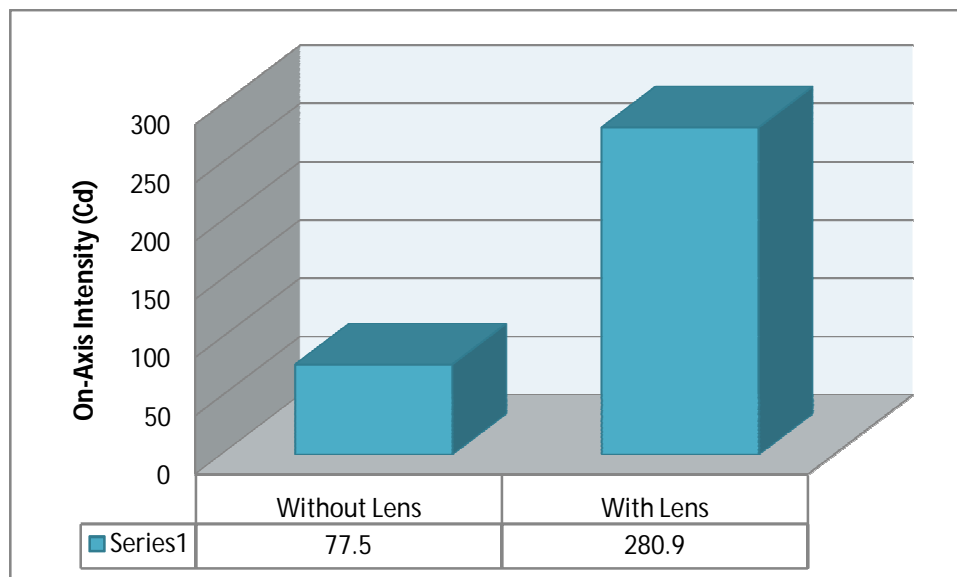
FWTM Angle - Full width tenth maximum (Beam angle at 10% of the maximum Intensity)

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Lens Characteristics

S.No.	Parameter	Value	Units
1.	FWHM Angle of the beam	56.0	Degrees
2.	FWTM Angle of the beam	91.0	Degrees
3.	Average Input Flux	265	Lumen
4.	Output Flux	238.31	Lumen
5.	On-axis Intensity of the LED without lens	77.5	Candela (Cd)
6.	On-axis Intensity of the LED with lens	280.9	Candela (Cd)
7.	Efficiency of the lens	90	%
8.	Candela per lumen	1.06	Cd/lm



Comparison of On-Axis Intensity of the LED with average emitted flux 265 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