

# LedEngin, Inc.

High Efficiency lens  
with 23° Narrow Flood Beam  
for LZP-series 90W Watt emitters  
with holder



## LLNF-3T11-H

This 23° beam lens combined with LedEngin LZP-series 90W single color emitters provides an efficient and highly uniform smooth light gradient for illumination applications. Our unique design provides you with maximum luminous output and excellent beam uniformity.

### Key Features

- Smooth light gradient eliminates hot spots and rings for superior illumination.
- Designed specifically for LZP-series 90W single color emitter series.
- Compatible with our standard MCPCB assemblies.
- Optical grade PMMA lens material allows use of high current and temperature conditions.
- Simple fastening of holder to PCB with appropriate adhesive, e.g. epoxy or polyurethane based.
- Patent pending.

### Optical Specifications – Typical Values

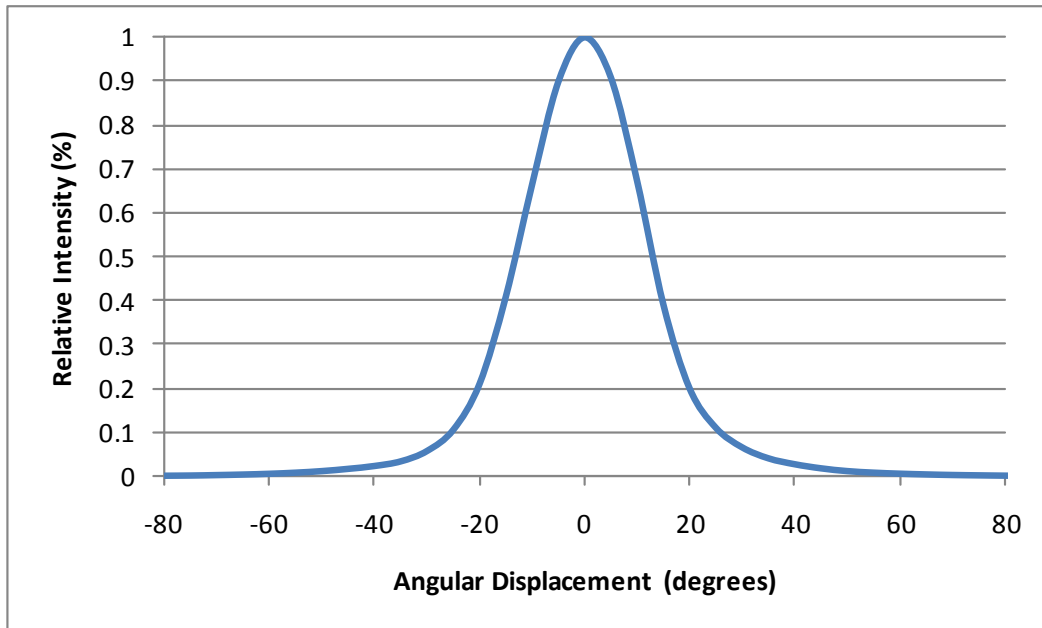
Parameter	Value
Viewing Angle (FWHM)	23°
Optical Efficiency	80%

### Mechanical Specifications

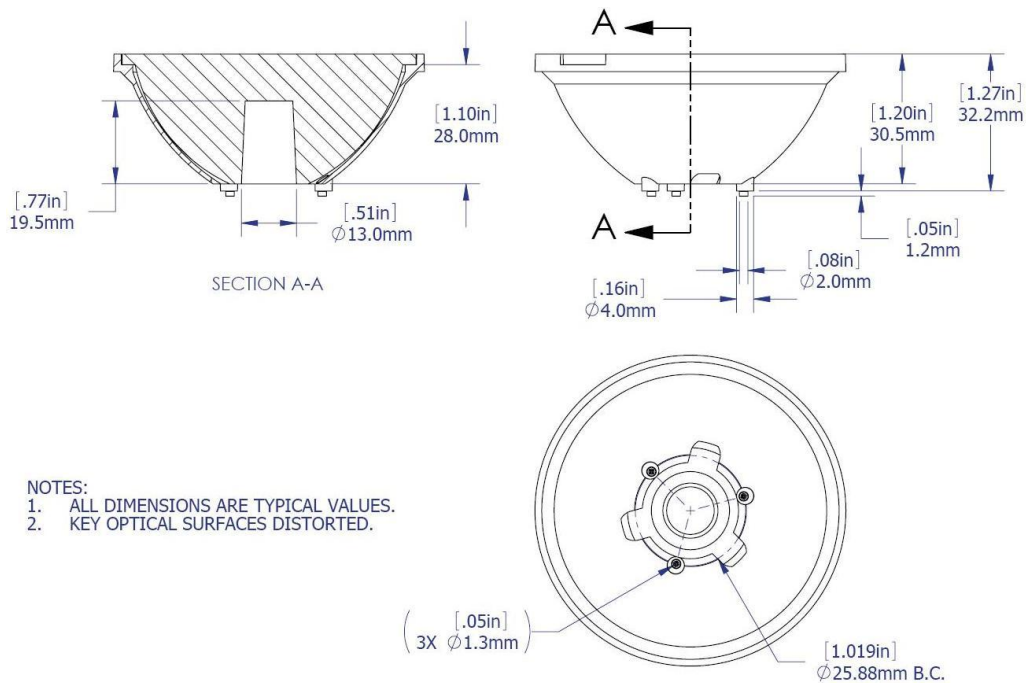
Parameter	Value
Height from Seating Plane	32.2 mm
Maximum Width	72.8 mm
Operating Temperature Range	-40°C ~ +110°C
Acceptable bonding materials*	Epoxy or polyurethane-based adhesives

\*note: do not use a cyanoacrylate (superglue) adhesive to avoid lens contamination!

## Typical Relative Intensity over Angle



## Outline Dimensions



## Contact Information

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