## LedEngin, Inc.

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High Efficiency lens <br> <br> <br> with $35^{\circ}$ Flood Beam <br> <br> <br> with $35^{\circ}$ Flood Beam <br> <br> <br> for LZP-series 90W Watt emitters <br> <br> <br> for LZP-series 90W Watt emitters with holder
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## LLFL-3T11-H

This $35^{\circ}$ beam lens combined with LedEngin LZP-series 90 W 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) | $35^{\circ}$ |
| Optical Efficiency | $90 \%$ |

Mechanical Specifications

| Parameter | Value |
| :--- | :---: |
| Height from Seating Plane | 32.2 mm |
| Maximum Width | 72.8 mm |
| Operating Temperature Range | $-40^{\circ} \mathrm{C} \sim+110^{\circ} \mathrm{C}$ |
| Acceptable bonding materials* | Epoxy or polyurethane-based <br> adhesives |

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## Typical Relative Intensity over Angle



Outline Dimensions


## Contact Information

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[^0]:    *note: do not use a cyanoacrylate (superglue) adhesive to avoid lens contamination!

