

Линза 40° LL01NI-GR40L06-M2

Линза 60° LL01NI-GR60L06-M2

Линза 80° LL01NI-GR80L06-M2

For Nichia Multi-Color and Single-Color LEDs



Features

- High efficiency
- Available in 6 beam Patterns
- Optimized for uniform effects
- Lens with Housing

Typical applications

- Stage Lighting
- Street Lights
- Decorative Light
- Architectural Lighting
- Down Light

General Information

Compatible Led Type:

The LL01NI -GRxxL-Mx single lens are optimized for both Multi-Color R.G.B Nichia LEDs and Single-Color Nichia LEDs (Nichia 083B White) from Nichia Opto.⁽¹⁾

Beam Angle Type:

An optimized profile integrate different front shape enable the generation of four different lens models: medium beam (40deg), biggest beam (60-80deg).⁽²⁾

The Way to Assembly:

The Lens should be assembled to the PCB board or MCPCB upon LEDs which provides the most appropriate related position, so as to achieve the best uniform results.

****Manually installation or if necessary thermal glue are recommended.***

Function:

LL01NI-GRxxL-Mx provides exceptional color mixing result with the highest efficiency through careful engineering and precision manufacturing process.

Notes:

- (1) Nichia 083B is a trademark of Nichia, Inc , for technical information on LEDs, please refer to Nichia, Inc,
 (2) Typical beam divergence will be affected by different color of LEDs.

General Specifications

Lens Material	Optical Grade PMMA PC
Operating Temperature range	-40°C ~ + 70°C (upper limit +80°C)
Storage Temperature range	-40°C ~ + 70°C (upper limit +80°C)

**Average transmittance in visible spectrum 400nm~700nm > 90%*

Optical Specifications [Typical beam Angle and intensity (cd/lm) of LL01 lenses]

Typical Cone Angle (degree) ⁽³⁾ with Nichia 083B					
Part No.	Red LEDs	Green LEDs	Blue LEDs	White LEDs	Warm White LEDs
Линза LL01NI-GR40L-M2	-	-	-	47	-
Линза LL01NI-GR60L-M2	-	-	-	67	-
Линза LL01NI-GR80L-M2	-	-	-	75	-

The typical cone angle measures where the luminous intensity is 90% of the peak value of intensity. This typical cone varies with LED color due to different chip size and chip position tolerance.

Typical on axis intensity (cd/w) ⁽⁴⁾ with Nichia 083B					
Part No.	Red LEDs	Green LEDs	Blue LEDs	White LEDs	Warm White LEDs
Линза LL01NI-GR40L-M2	-	-	-	430	-
Линза LL01NI-GR60L-M2	-	-	-	180	-
Линза LL01NI-GR80L-M2	-	-	-	145	-

Luminous intensity depends on the flux binning and tolerance of the LEDs. Please refer to the LEDs datasheet for more details on flux binning and mechanical tolerance.

Notes:

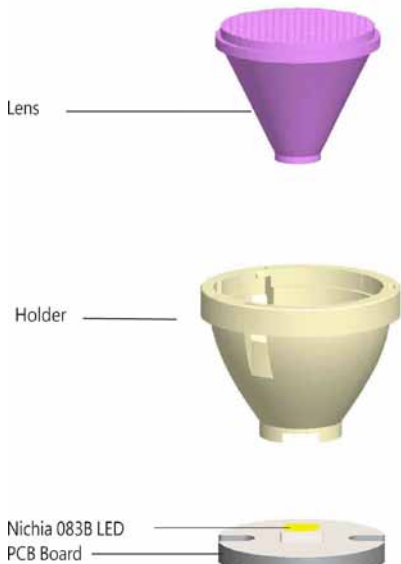
- (3) The typical divergence will be changed by different color, chip size and chip position tolerance. The typical total divergence is the full angle measured where the luminous intensity is half of the peak value.
- (4) The efficiency value listed above is the total value of the whole lens model, the value depends on the total flux of the LED used. Luminous intensity depends on the LEDs flux and its tolerances, for more details of LED flux, please check Nichia data sheet.

Mechanical Specifications

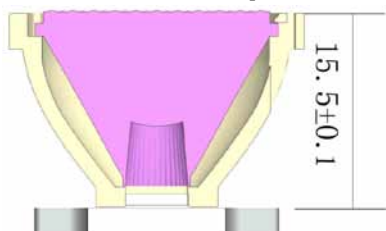
Usage and Maintenance :

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 oils may damage lens or its optical characteristic.

1. Lens+Leds+MCPCB assembly instruction:



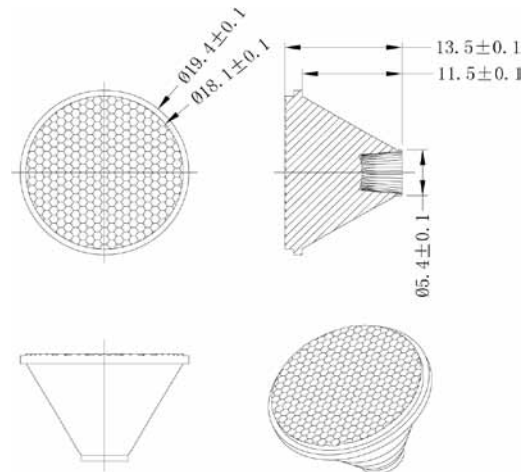
2. View assembly lens with MCPCB:



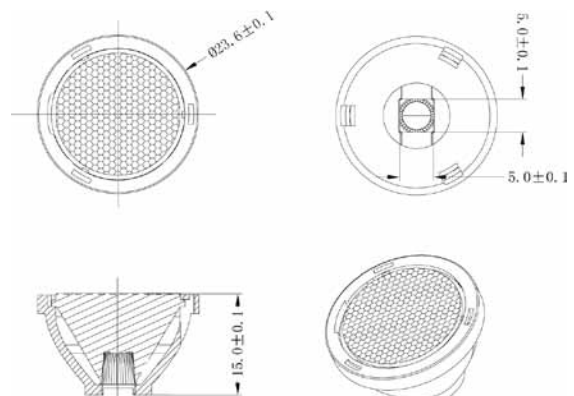
Notes:

- (1) All dimensions are in mm.
- (2) Drawing not to scale.
- (3) Collimator material is PMMA.

3. Lens dimensions and Top Views:



4. Lens assembly dimensions and Top Views:



Illumination charts

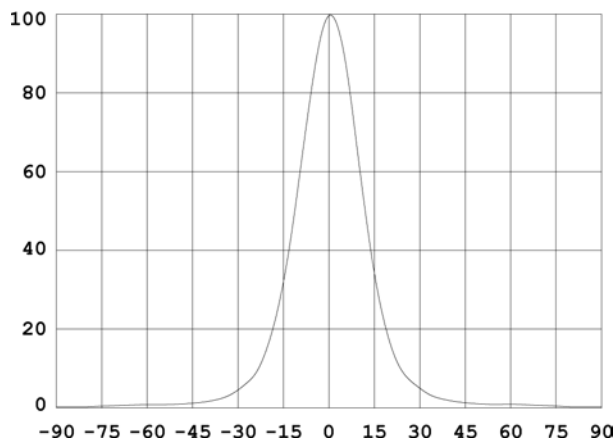
*Nichia single white LED: Nichia 083B

LL01NI-GR40L-M2

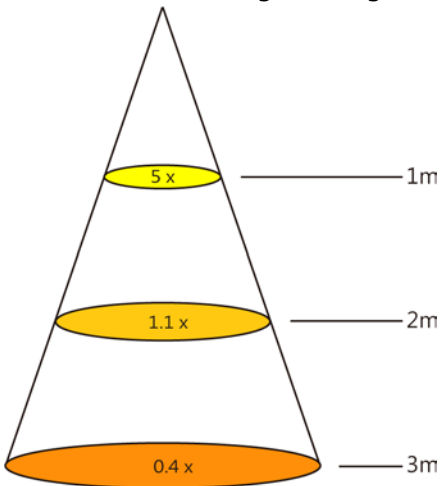
1. Beam Pattern



2. Angular Intensity Distribution



3. Shine on one degree diagram

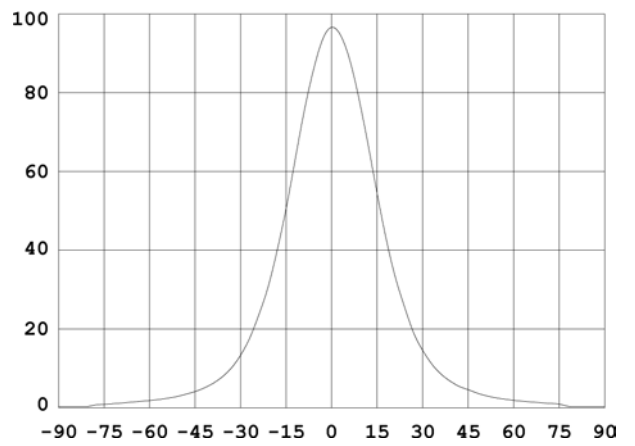


LL01NI-GR60L-M2

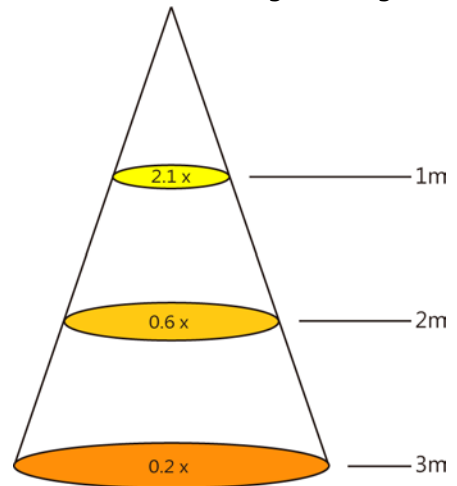
1. Beam Pattern



2. Angular Intensity Distribution



3. Shine on one degree diagram



Illumination charts

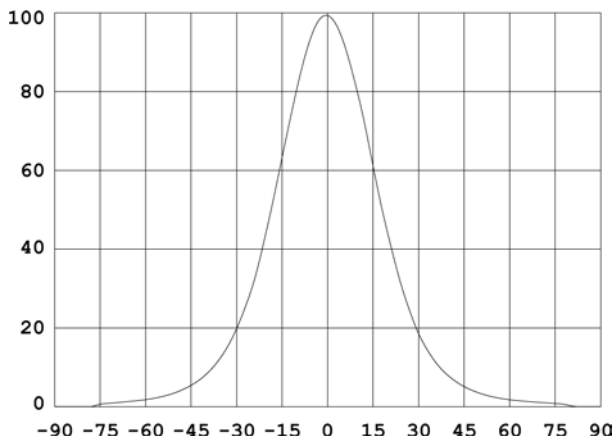
*Nichia single white LED: Nichia 083B

LL01NI-GR80L-M2

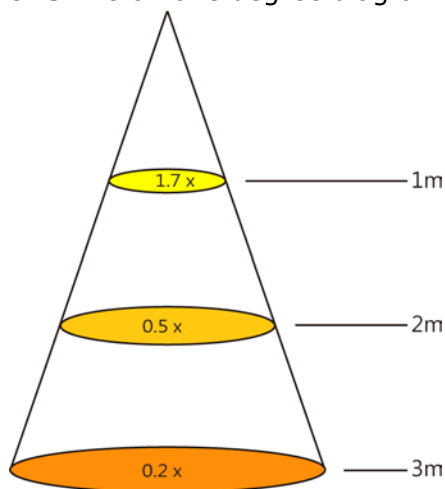
1. Beam Pattern



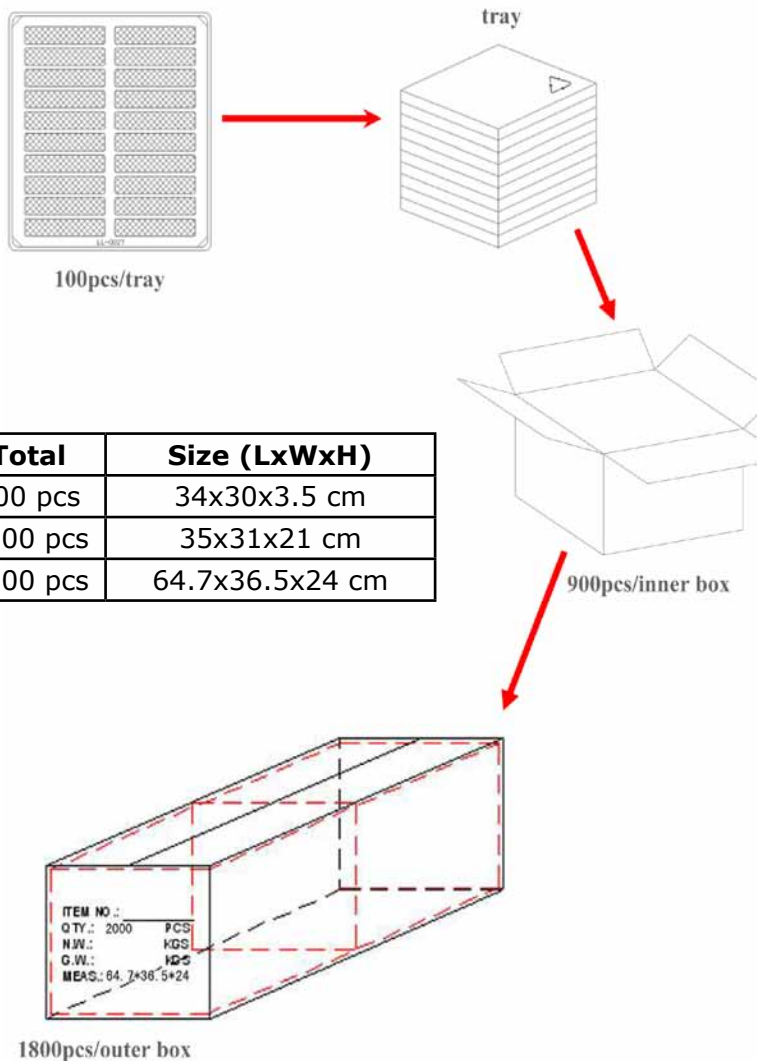
2. Angular Intensity Distribution



3. Shine on one degree diagram



Package



Item	Quantity	Total	Size (LxWxH)
Tray	100	100 pcs	34x30x3.5 cm
Inner box	10 tray/box	1000 pcs	35x31x21 cm
Outer box	2 inner box/outer box	2000 pcs	64.7x36.5x24 cm

Product Nomenclature

