

LL01ED-AKxxL Lens for Color Mixing

Datasheet

For Edixeon® Multi-Color and Single-Color LEDs

Features:

- High efficiency
- Available in 2 beam Patterns
- Optimized for color mixing effects
- Lens alone



Typical applications :

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



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General Information

• Compatible Led Type :

The LL01ED-AKxxL lens are optimized for both Multi-Color RGB Edixeon® LEDs (EDERTB-1LC6 and EDERTB-1EC1) and Single-Color Edixeon® LEDs from Edison Opto.⁽¹⁾

• Beam Angle Type :

An optimized profile integrate different front shape enable the generation of two different lens models:
Medium beam (25deg), wide beam (40deg).⁽²⁾

• The Way to Assembly :

Go the anastigmatic direct set into the LED ascend then(according to the View assembly lens with MCPCB)

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

• Function :

LL01ED-AKxxL provides exceptional color mixing result with the highest efficiency through careful engineering and precision manufacturing process.

Notes:

(1) Edixeon® is a trademark of Edison Opto, for technical information on LEDs, please refer to Edison Opto website at www.edison-opto.com.tw.





(2) Typical beam divergence will be affected by different color of LEDs.

General Specifications





- Lens Material Optical Grade PMMA PC
- Operating Temperature range $-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$ (upper limit $+80^{\circ}\text{C}$)
- Storage Temperature range $-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$ (upper limit $+80^{\circ}\text{C}$)
- *Average transmittance in visible spectrum 400nm~700nm > 90%

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

• EDERTB-1LC6





Part Number	Typical Cone Angle (degree) ⁽³⁾ with EDERTB-1LC6			
	Red LEDs 	Green LEDs 	Blue LEDs 	RGB 
LL01ED-AK25L	Efficiency value is under modifying, not at present.			
LL01ED-AK40L	45	42	44	43

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.





Part Number	Typical on axis intensity (cd/lm) ⁽⁴⁾ with EDERTB-1LC6			
	Red LEDs 	Green LEDs 	Blue LEDs 	RGB 
LL01ED-AK25L	Efficiency value is under modifying, not at present.			
LL01ED-AK40L	70	180	10	250

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.

• EDERTB-1EC1

Part Number	Typical Cone Angle (degree) ⁽³⁾ with EDERTB-1EC1			
	Red LEDs 	Green LEDs 	Blue LEDs 	RGB 
LL01ED-AK25L	Efficiency value is under modifying, not at present.			
LL01ED-AK40L	44	47	45	46

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

Part Number	Typical on axis intensity (cd/lm) ⁽⁴⁾ with EDERTB-1EC1			
	Red LEDs 	Green LEDs 	Blue LEDs 	RGB 
LL01ED-AK25L	Efficiency value is under modifying, not at present.			
LL01ED-AK40L	35	100	6	150

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

Notes:

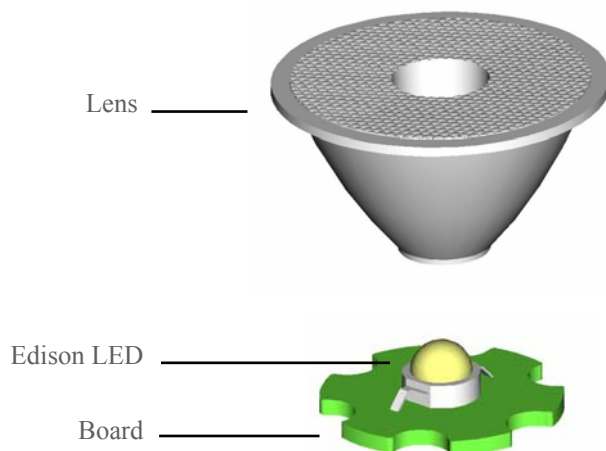
- (3) The typical divergence will be changed by different color, chip size and chip position tolerance.
The typical total divergence is the full angle measured where the luminous intensity is half of the peak value.
- (4) The efficiency value listed above is the total value of the whole Tri-lens model, 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 Edixeon® datasheet at www.edison-opto.com.tw.

Mechanical Specifications

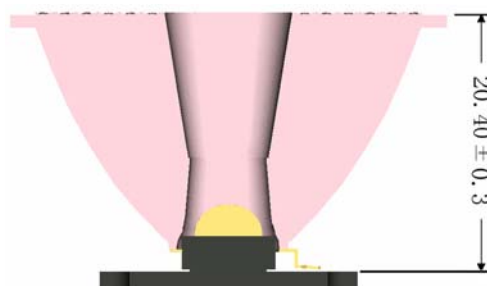
• Usage and Maintenance :

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.

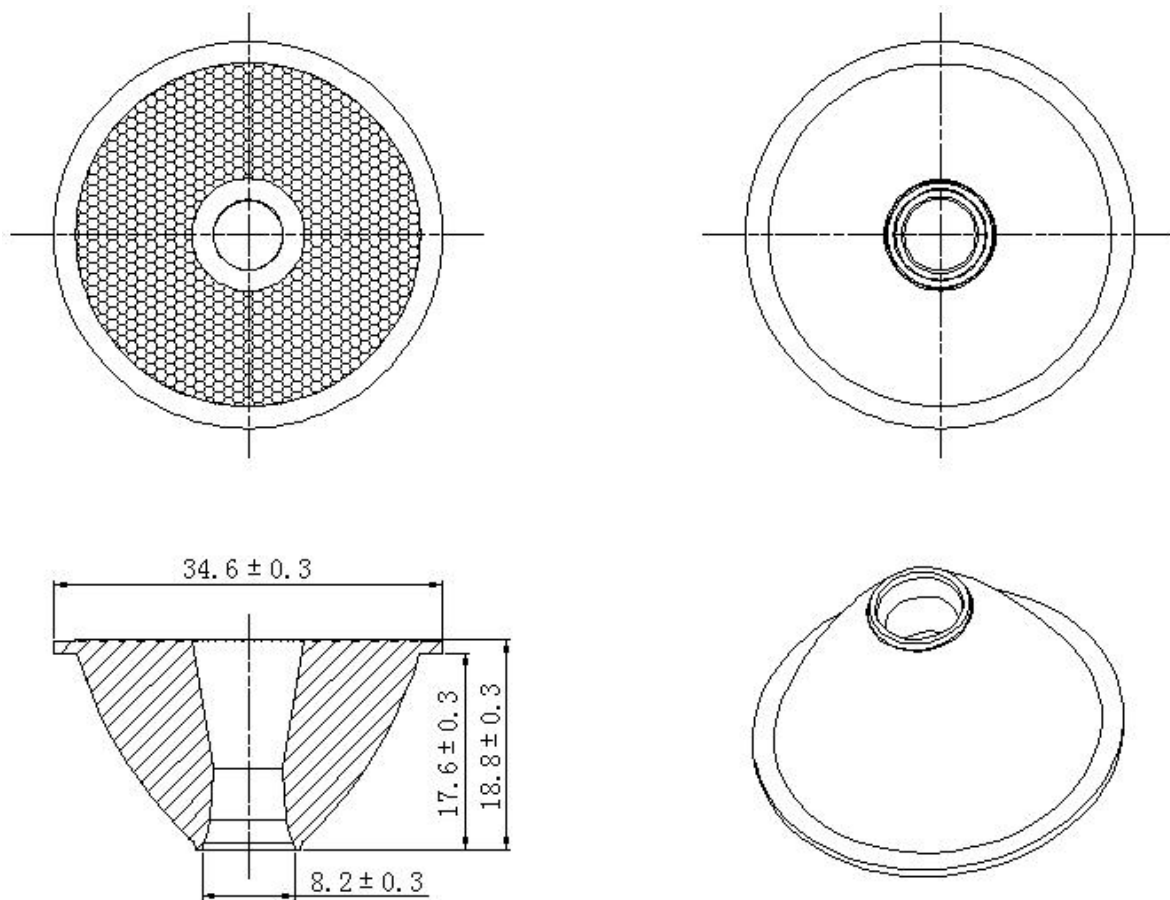
1. Lens + Leds+MCPCB assembly instruction:



2. View assembly lens with MCPCB:



3. Lens assembly dimensions and Top Views :



Notes:

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



www.ledlink-optics.com

Illumination charts

1、Edixeon® Multi-Color RGB LED:EDERTB-1EC1

LL01ED-AK25L

1. Beam Pattern

Efficiency value is under modifying,not at present.

2. Angular Intensity Distribution

3. Shine on one degree diagram

2、Edixeon® Multi-Color RGB LED: EDERTB-1LC6

LL01ED-AK25L

1. Beam Pattern

Efficiency value is under modifying,not at present.

2. Angular Intensity Distribution

3. Shine on one degree diagram

Illumination charts

1、Edixeon® Multi-Color RGB LED:EDERTB-1EC1

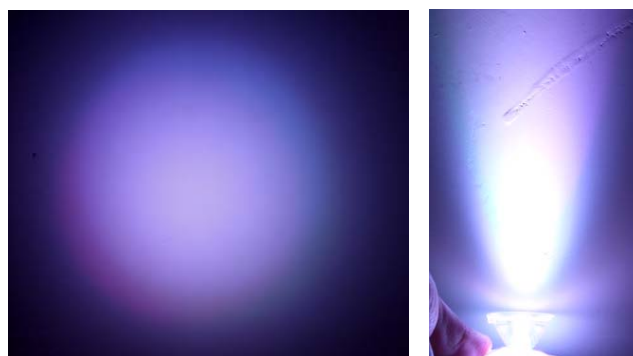
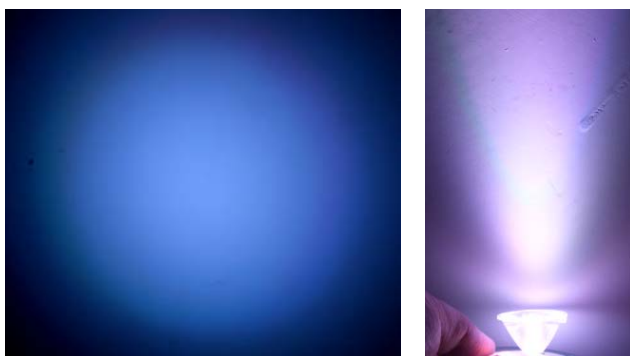
2、Edixeon® Multi-Color RGB LED: EDERTB-1LC6

LL01ED-AK40L

LL01ED-AK40L

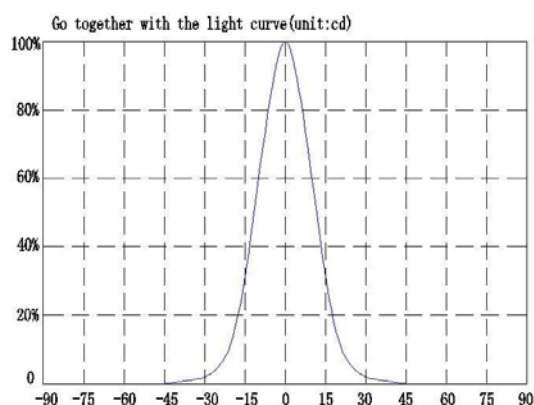
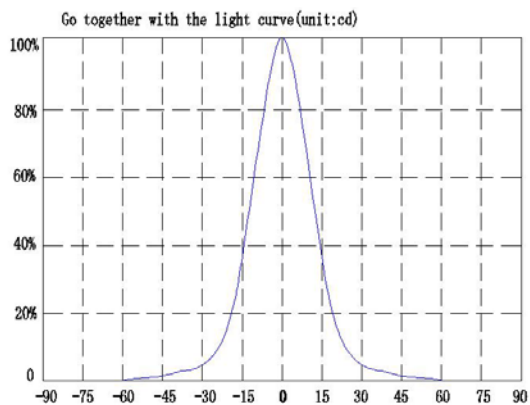
1. Beam Pattern

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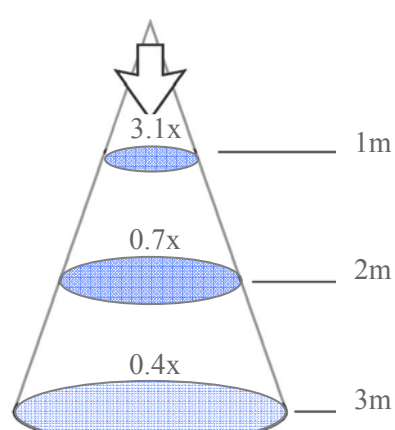
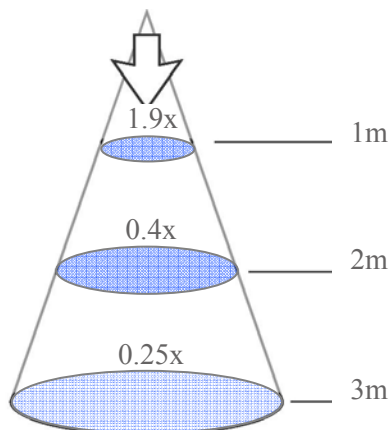
2. Angular Intensity Distribution

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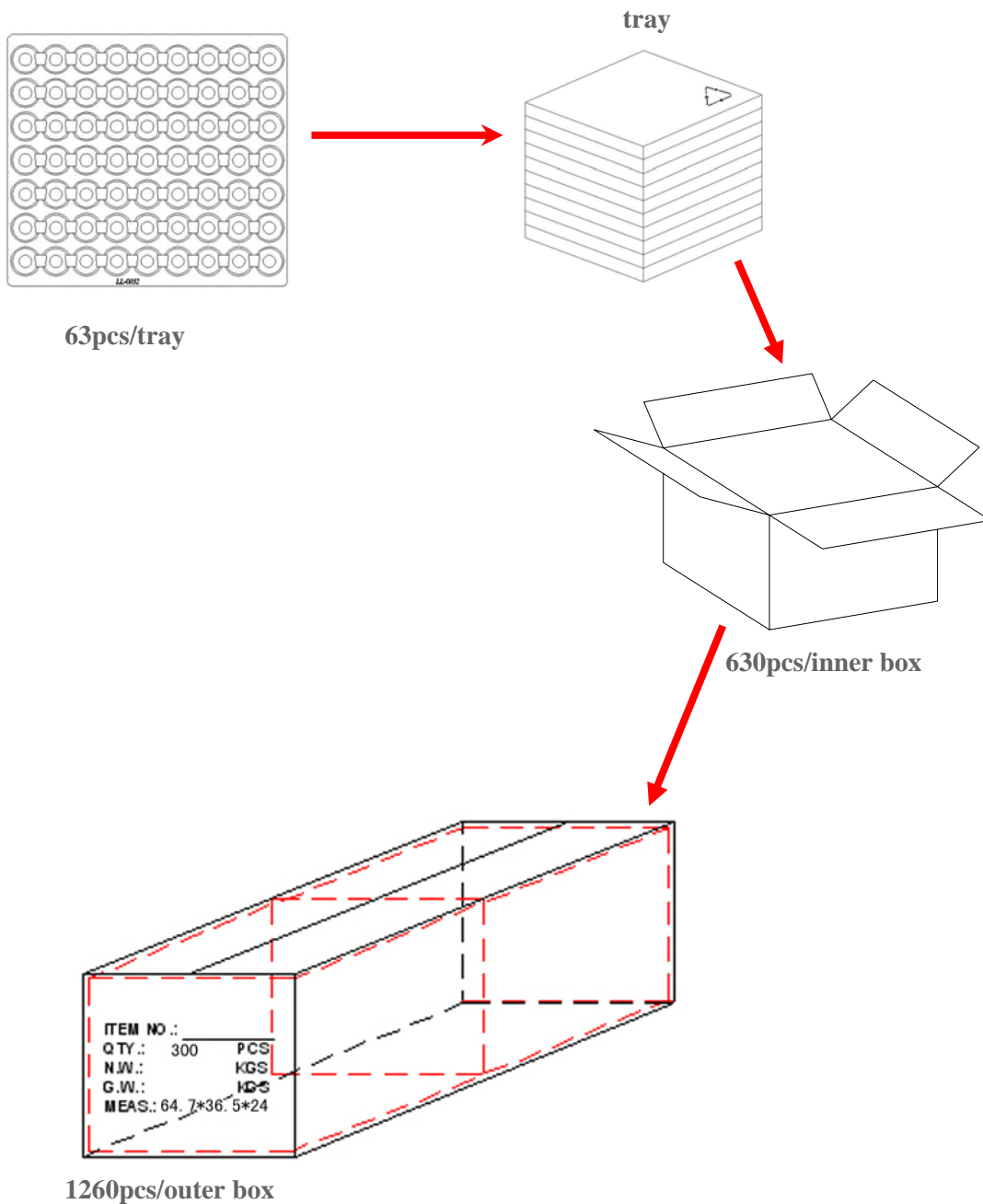
3. Shine on one degree diagram

3. Shine on one degree diagram



Package

Item	Quantity	Total	Size (long * width * high)
Tray		63 pcs	34*30*3.5 cm
Inner box	10tray/box	630pcs	35*31*21 cm
Outer box	2 inner box/outer box	1260pcs	64.7*36.5*24 cm



Product Nomenclature

