

LL12ED-BGxxL Data Sheet

For EDIXEON Multi-Color and Single-Color LEDs



Features:

- High efficiency
- Available in 3 beam Patterns
- Optimized for uniform effects
- Lens without Housing

Typical applications :

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

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General Information

- **Compatible Led Type :**

The LL12ED-BGxxL 12 in 1 lenses are optimized for both Multi-Color R.G.B Edison LEDs and Single-Color Edison LEDs (Edixeon 1LA5 White) from Edison Opto. ⁽¹⁾

- **Beam Angle Type :**

An optimized profile integrate different front shape enable the generation of three different lens models : smallest beam(15deg);medium beam (25deg);biggest beam(40deg).⁽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 :**

LL12ED-BGxxL provides exceptional color mixing result with the highest efficiency through careful engineering and precision manufacturing process.

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%

Notes:

(1) Edixeon 1LA5 is a trademark of Edison,Inc , for technical information on LEDs, please refer to Edison,Inc, <http://www.edison-opto.com.tw/>

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

Optical Specifications [Typical beam Angle and intensity (cd/lm) of LL12 lenses]

• Edixeon 1LA5 LED

Typical Cone Angle (degree) ⁽³⁾ with Edixeon 1LA5			
Part Number	Red LEDs	Green LEDs	Blue LEDs
LL12ED-BG15L	18	20	21
LL12ED-BG25L	27	27	26
LL12ED-BG40L	34	32	33

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/12w) ⁽⁴⁾ with Edixeon 1LA5			
Part Number	Red LEDs	Green LEDs	Blue LEDs
LL12ED-BG15L	6840	21840	1025
LL12ED-BG25L	2160	12360	840
LL12ED-BG40L	2160	6600	420

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

• Edixeon 1LA5 LED

Typical Cone Angle (degree) ⁽³⁾ with Edixeon 1LA5			
Part Number	White LEDs	Warm white LEDs	
LL12ED-BG15L	31	25	
LL12ED-BG25L	36	35	
LL12ED-BG40L	43	39	

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.

Typical on axis intensity (cd/12w) ⁽⁴⁾ with Edixeon 1LA5			
Part Number	White LEDs	Warm white LEDs	
LL12ED-BG15L	11160	5160	
LL12ED-BG25L	7800	4320	
LL12ED-BG40L	7800	4300	

Luminous intensity depends on the flux binning and tolerance of the LEDs. Please refer to the LEDs data sheet 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.

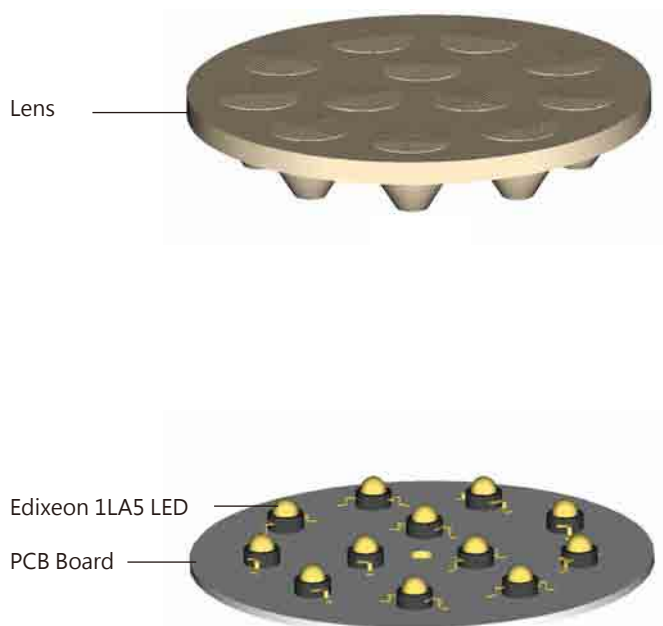
(4) The efficiency value listed above is the total value of the whole lens model, the value depends on the total flux of the LED used. Luminous intensity depends on the LEDs flux and its tolerances, for more details of LED flux, please check Edixeon data sheet at <http://www.edison-opto.com.tw/>

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.

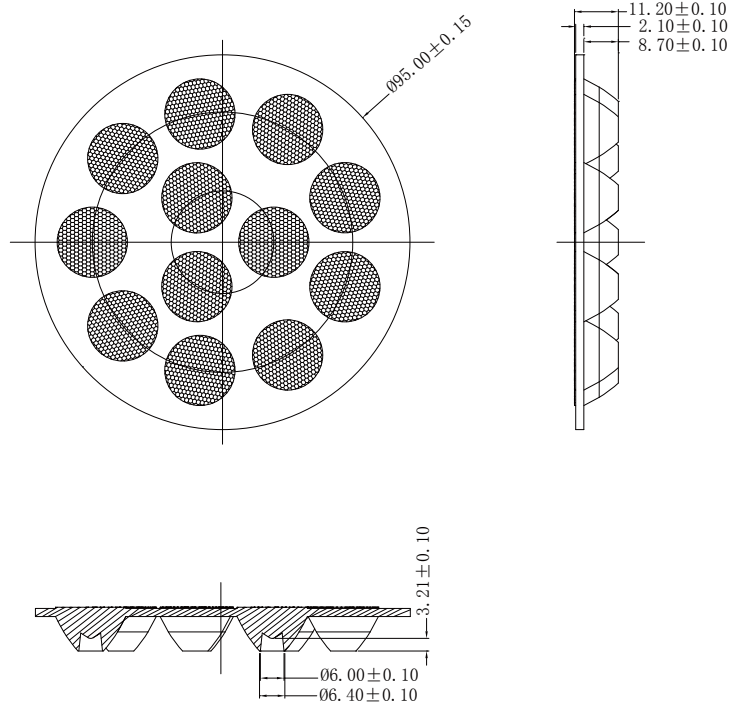
1. Lens + Leds+MCPCB assembly instruction



2. View assembly lens with MCPCB:



3. Lens dimensions and Top Views:

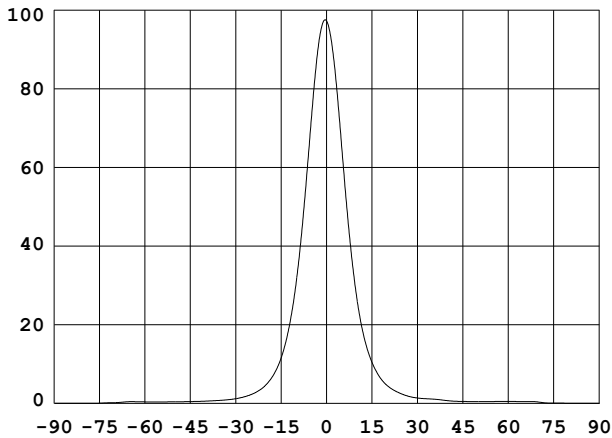
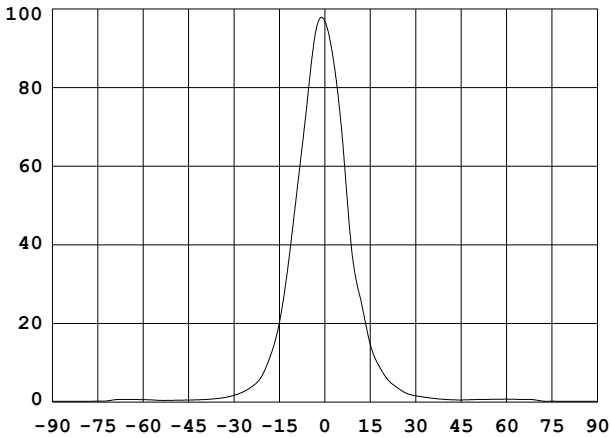
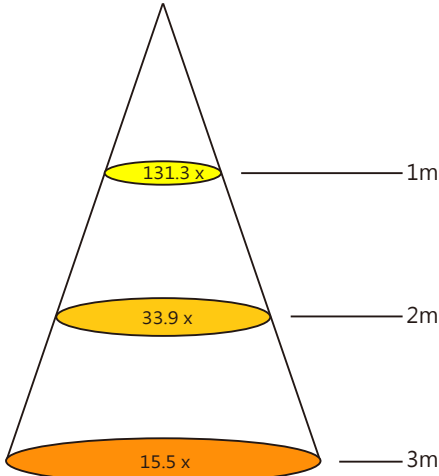
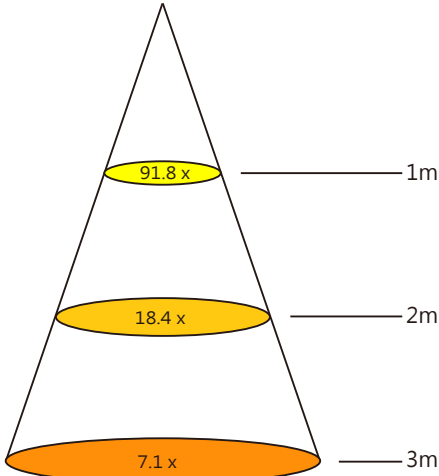


Notes:

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

Illumination charts

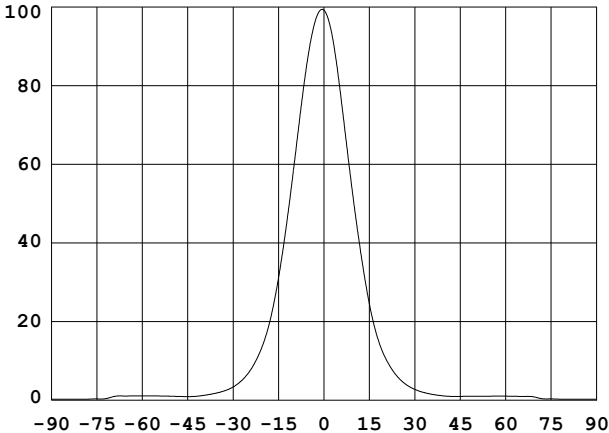
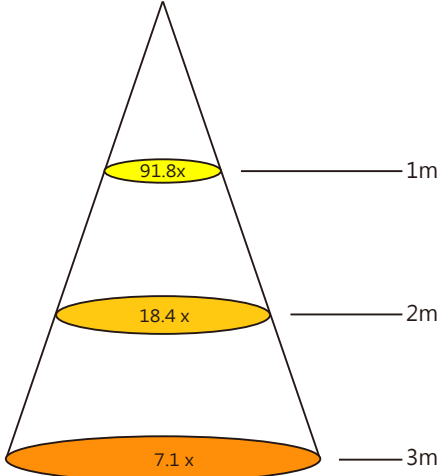
*Edixeon 12 in 1 white LED: Edixeon 1LA5

LL12ED-BG15L	LL12ED-BG25L
1. Beam Pattern	1. Beam Pattern
	
2. Light Distribution Curve	2. Light Distribution Curve
	
3. Illuminance	3. Illuminance
	

Notes: The Flux of Edixeon 1LA5 LED is 85 lm

Illumination charts

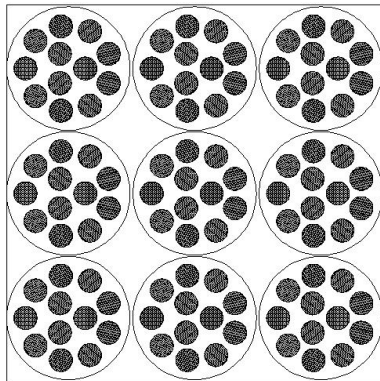
*Edixeon 12 in 1 white LED: Edixeon 1LA5

LL12ED-BG40L	
1. Beam Pattern	
	
2. Light Distribution Curve	
	
3. Illuminance	
	

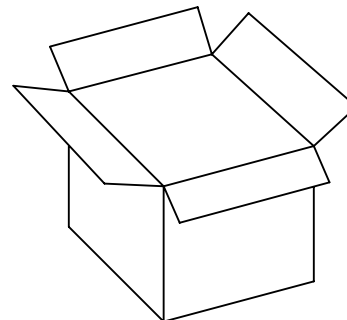
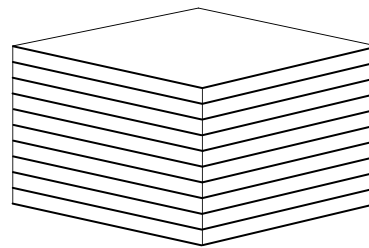
Notes: The Flux of Edixeon 1LA5 LED is 85 lm

Package

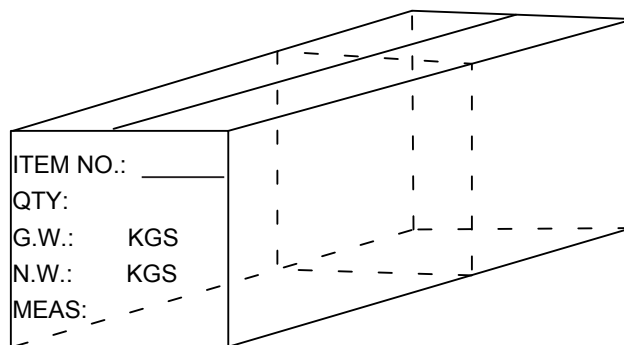
Item	Quantity	Total	Size (long*width* high)
Tray	9	9pcs	34*30*3.5 cm
Inner box	19tray/box	171pcs	35*31*21 cm
Outer box	2 Inner box/outer box	342pcs	64.7*36.5*24 cm



9pcs/tray



171pcs/inner box



342pcs/outer box

Product Nomenclature

