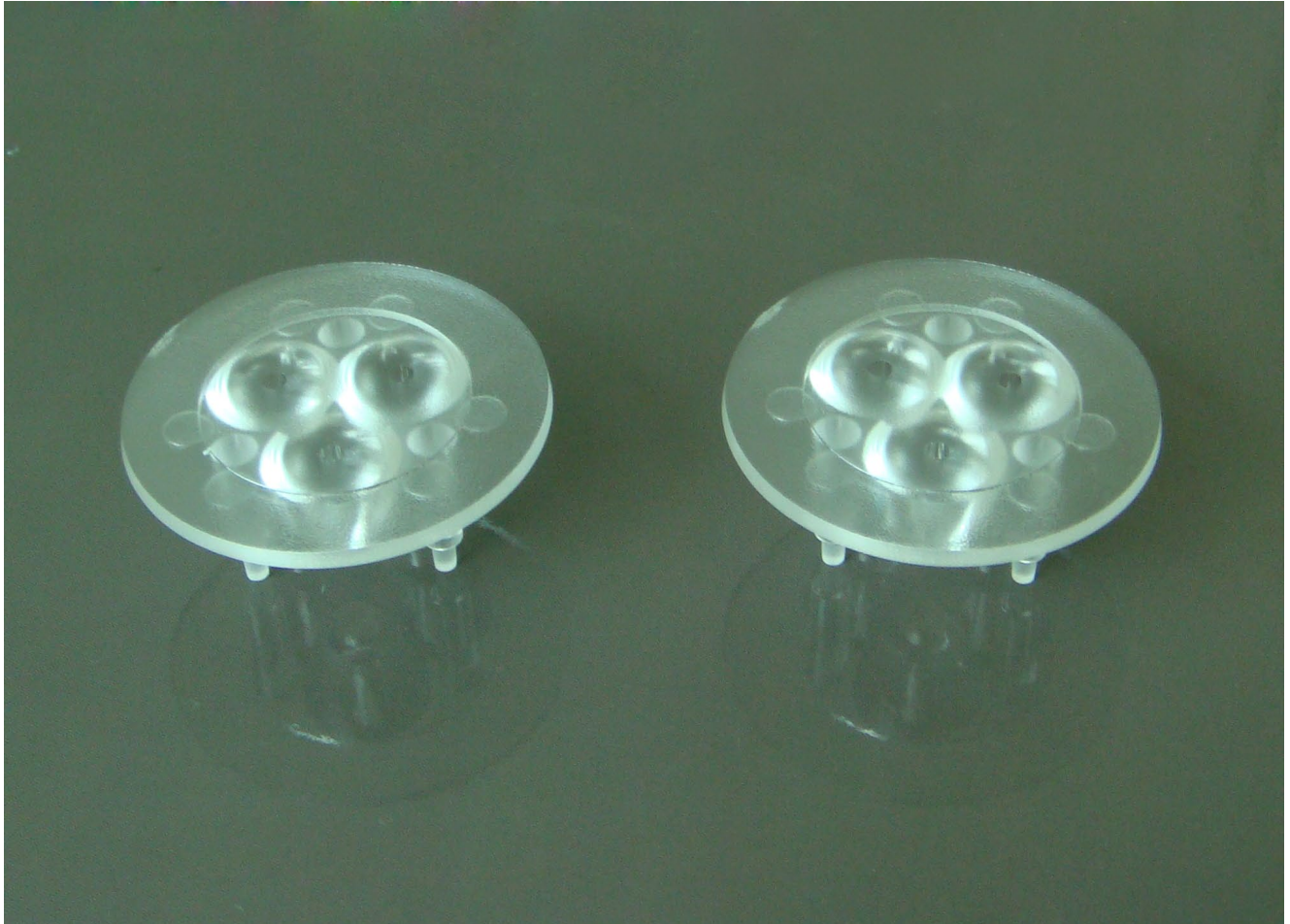


LL03LU-DOxxL Data Sheet

For Osram 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 LL03LU-DOxxL 3 in 1 lenses are optimized for both Multi-Color R.G.B Osram LEDs and Single-Color Osram LEDs (Osram OSOLON SSL 1W White) from Osram 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 :**

LL03LU-DOxxL 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) Osram OSOLON SSL 1W is a trademark of Osram, Inc., for technical information on LEDs, please refer to Osram, Inc., www.Osram.com

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

Optical Specifications [Typical beam Angle and intensity (cd/lm) of LL03 lenses]

• Osram OSOLON SSL 1W LED

Typical Cone Angle (degree) ⁽³⁾ with Osram OSOLON SSL 1W			
Part Number	Red LEDs	Green LEDs	Blue LEDs
LL03LU-DO15L	--	--	--
LL03LU-DO25L	--	--	--
LL03LU-DO40L	--	--	--

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/lm) ⁽⁴⁾ with Osram OSOLON SSL 1W			
Part Number	Red LEDs	Green LEDs	Blue LEDs
LL03LU-DO15L	--	--	--
LL03LU-DO25L	--	--	--
LL03LU-DO40L	--	--	--

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.

• Osram OSOLON SSL 1W LED

Typical Cone Angle (degree) ⁽³⁾ with Osram OSOLON SSL 1W			
Part Number	White LEDs	Warm white LEDs	
LL03LU-DO15L	16	--	
LL03LU-DO25L	22	--	
LL03LU-DO40L	40	--	

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/lm) ⁽⁴⁾ with Osram OSOLON SSL 1W			
Part Number	White LEDs	Warm white LEDs	
LL03LU-DO15L	1125	--	
LL03LU-DO25L	810	--	
LL03LU-DO40L	510	--	

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.

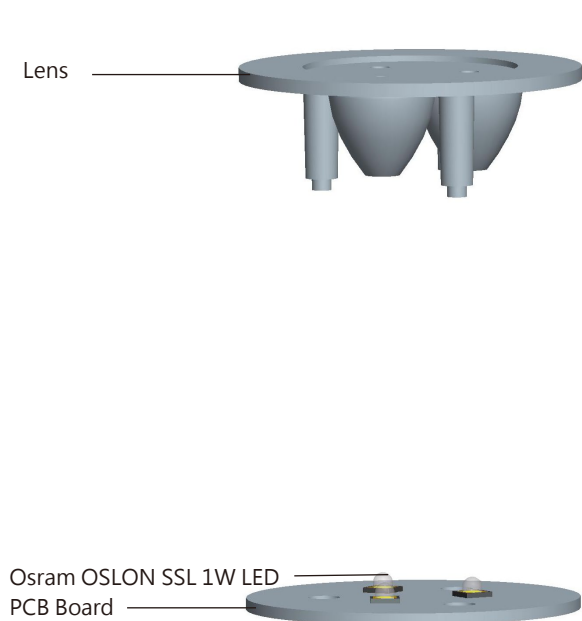
(4) The efficiency value listed above is the total value of the whole lens model, the value depends on the total flux of the LED used. Luminous intensity depends on the LEDs flux and its tolerances, for more details of LED flux, please check Osram data sheet at www.osram.com.

Mechanical Specifications

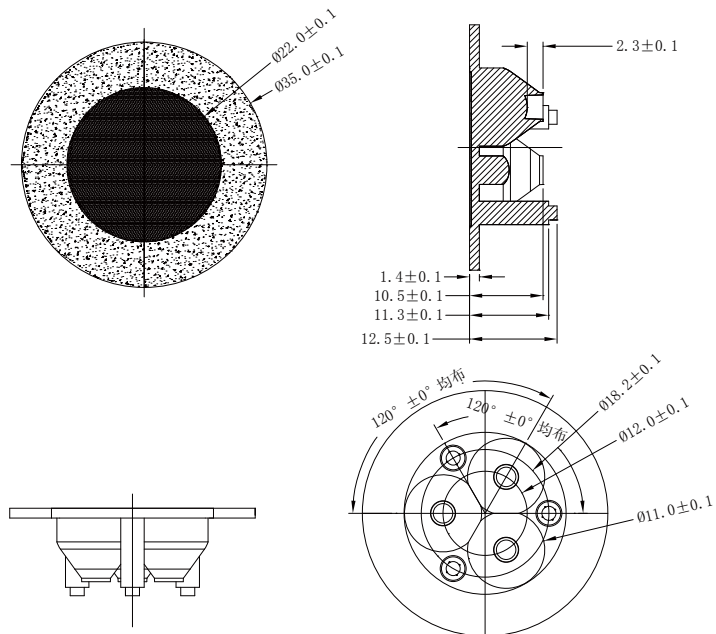
• Usage and Maintenance :

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.

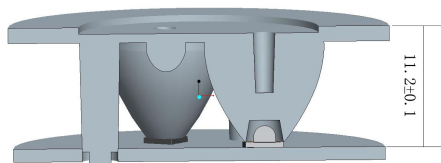
1. Lens + Leds+MCPCB assembly instruction



3. Lens dimensions and Top Views:



2. View assembly lens with MCPCB:


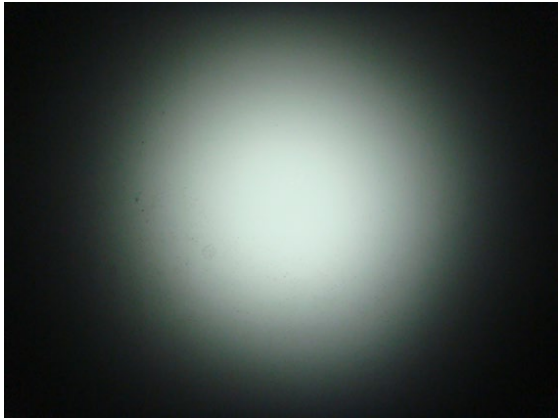
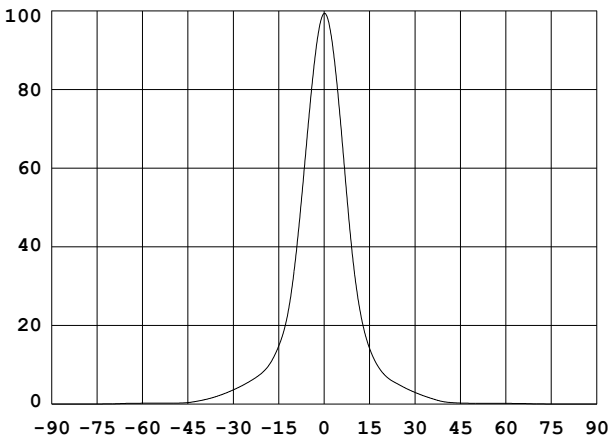
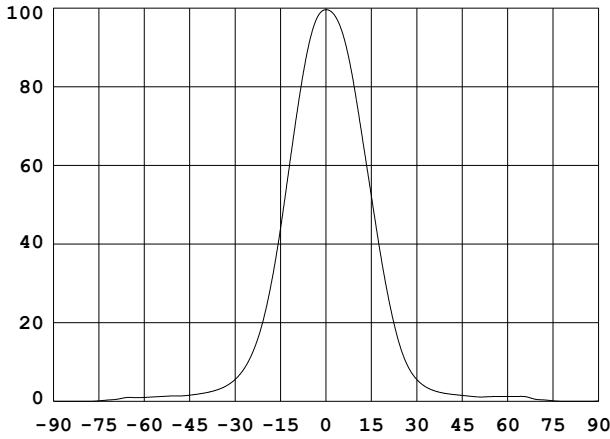
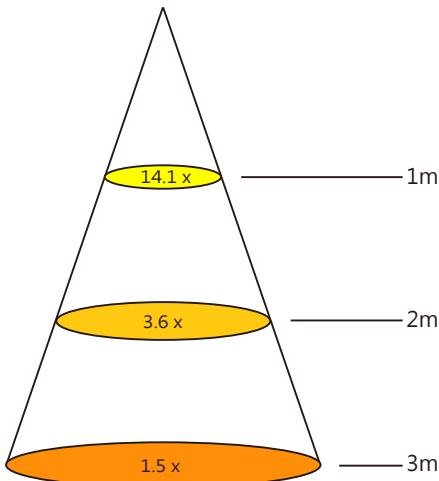
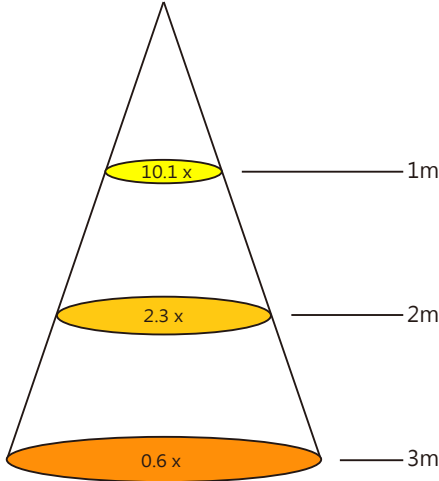


Notes:

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

Illumination charts


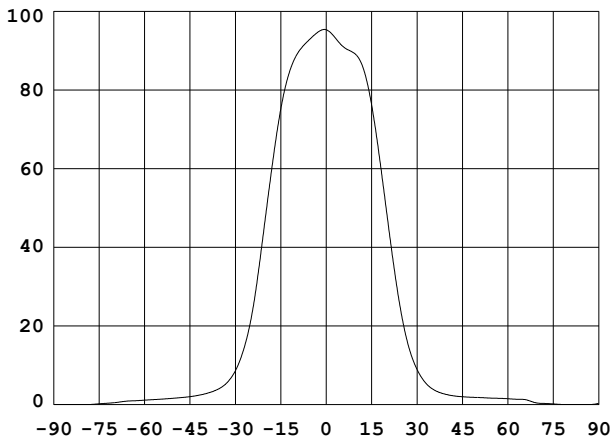
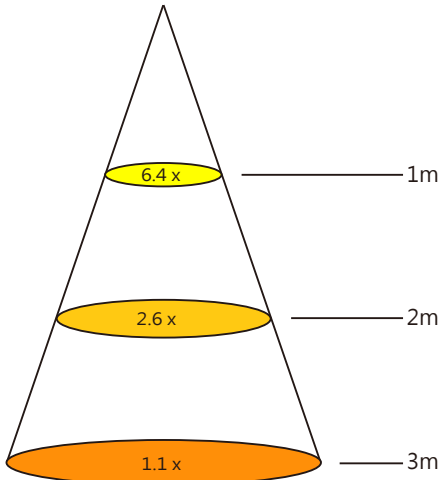
*Osram 3 in1 white LED: Osram OSLOM SSL 1W

LL03LU-DO15L	LL03LU-DO25L
1. Beam Pattern	1. Beam Pattern
	
2. Light Distribution Curve	2. Light Distribution Curve
	
3. Illuminance	3. Illuminance
	

Notes: The Flux of Osram OSLOM SSL 1W LED is 80 lm

Illumination charts

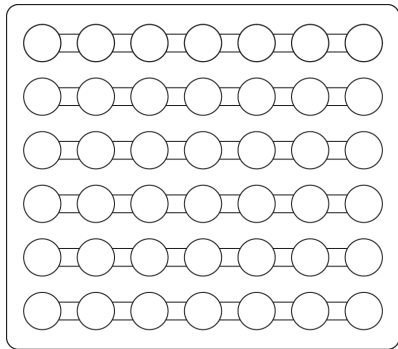
*Osram 3 in 1 white LED: Osram OSOLON SSL 1W

LL03LU-DO40L	
1. Beam Pattern	
	
2. Light Distribution Curve	
	
3. Illuminance	
	

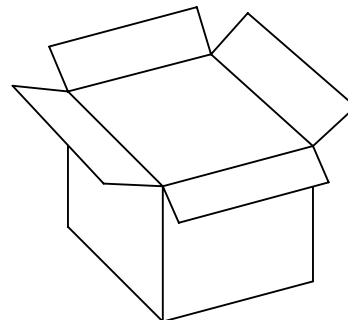
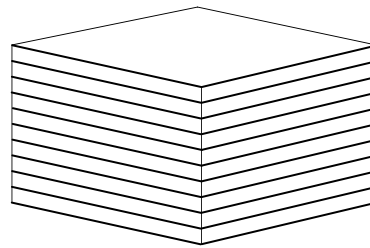
Notes: The Flux of Osram OSOLON SSL 1W LED is 80 lm

Package

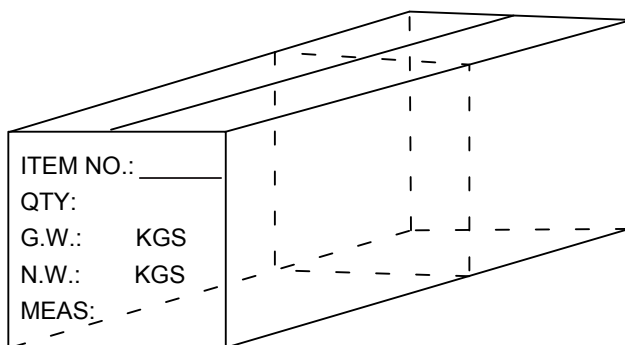
Item	Quantity	Total	Size (long*width* high)
Tray	42	42pcs	34*30*3.5 cm
Inner box	10tray/box	420pcs	35*31*21 cm
Outer box	2 Inner box/outer box	840pcs	64.7*36.5*24 cm



42pcs/tray



420pcs/inner box



840pcs/outer box

Product Nomenclature

