

# Specifications



Model	HX-77
Specification	Lens $\varnothing$ 74.00mm X H12.55mm
Material	Lens Optical Grade PMMA PC
Beam Angle( $\theta$ /2)	15Deg
For Led	Luxeon Edixeon Seoul Bridgelux

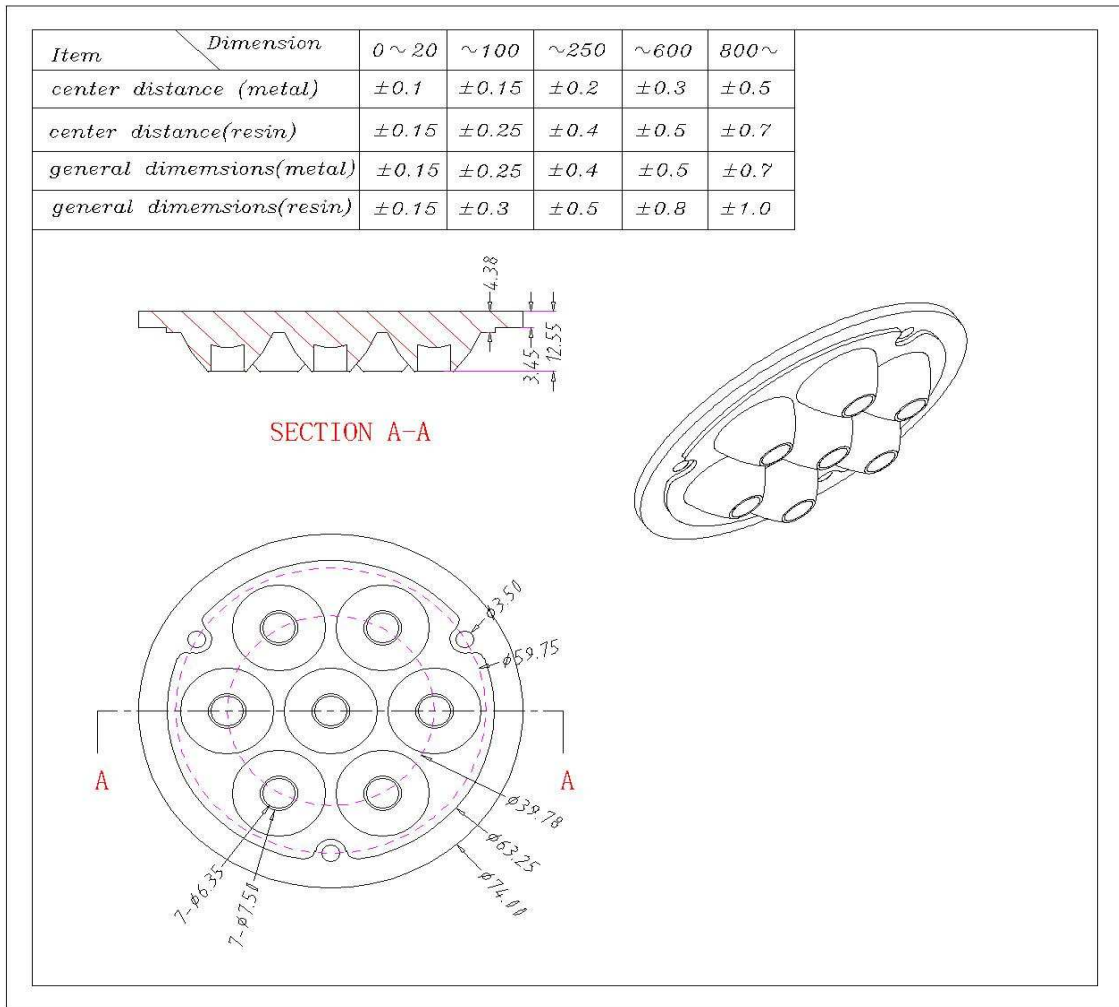
#### Features:

- High efficiency
- Available in 1 beam Patterns
- Optimized for uniform effects
- Lens with holder

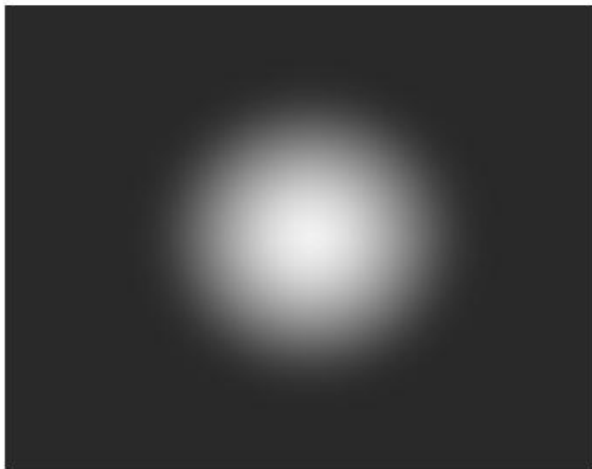
#### Typical applications:

- Stage lighting
- Street lights
- Decorative light
- Architectural lighting
- Down light
- Flashlight

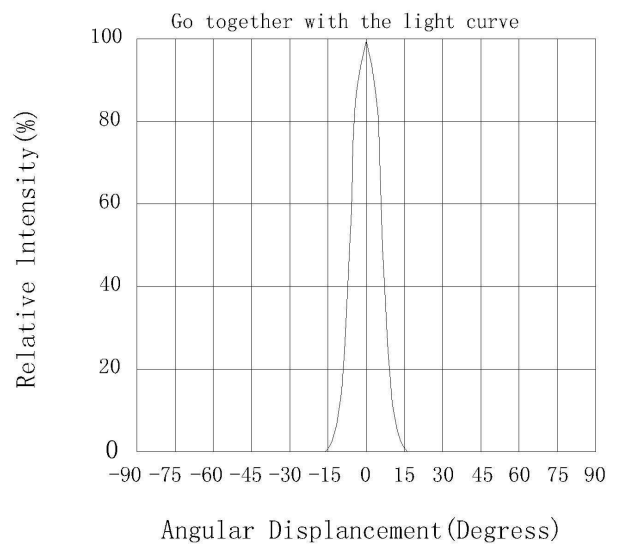
## 1. Lens dimensions of the 2D Views



## 2. Beam Pattern



## 3. Angular Intensity Distribution



**LED LENS MATERIALS FEATURES TABLE**

	FEATURES	EXPERIMENTAL METHODS	UNITS	PMMA
PHYSICAL PROPERTIES	DENSITY	ASTM D792	g/cm	1.19
	ABSORPTION	ASTM D570	%	2
OPTICAL PROPERTIES	REFRACTION INDEX	ASTM D542		1.49
	TRANSMITTANCE	ASTM D1003	%	95
	ABBE	ASTM D542		58
	BIREFRINGENCE		nm	<20
THERMODYNAMICAL PROPERTIES	GLASS TRANSITION POINT	DSC	°C	150
	HEAT DISTORTION	ASTM D648 (1.85kg/cm)	°C	120
MECHANICAL PROPERTIES	TENSILE STRENGTH	ASTM D638	MPA	730
	TENSILE ELONGATION	ASTM D638	%	10
	FLEXURAL MODULUS	ASTM D790	10MPA	3

Notes:

- 1.Engineering drawings and all dimensions are in millimeters,holder and lens tolerance, respectively  $\pm 0.10$  and  $\pm 0.05$ .
- 2.Product operating temperature range  $-40\text{ }^{\circ}\text{C} \sim +70\text{ }^{\circ}\text{C}$  (upper limit  $+80\text{ }^{\circ}\text{C}$  ).
- 3.Product storage temperature range  $-40\text{ }^{\circ}\text{C} \sim +70\text{ }^{\circ}\text{C}$  (upper limit  $+80\text{ }^{\circ}\text{C}$  ).
- 4.Average transmittance in visible specturm  $400\text{nm} \sim 700\text{nm} > 92\%$ .
- 5.If necessary,clean lenses with mild soap water and soft cloth.
- 6.Never use any commercial cleaning solvents on lenses,like alcohol.
- 7.Please handle and install lenses with wearing gloves,skin oils may damage lens or its optical characteristic.