



*Our Focus is in Plastics*

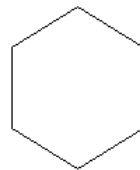
## Polymer Optics Ltd.

6 Kiln Ride, Wokingham,  
Berks., RG40 3JL, England  
Tel/Fax: +44 (0) 1189 893341  
[www.polymer-optics.co.uk](http://www.polymer-optics.co.uk)

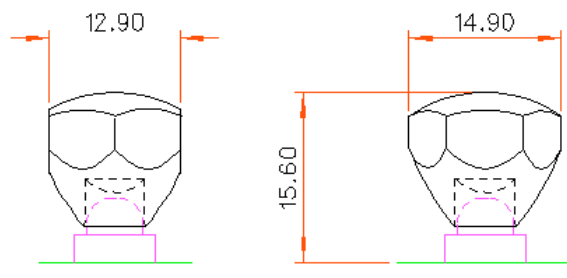
### Single Cell LED Concentrator Lens - Part No. 141



- Designed for 1W and 3W Lumileds “Luxeon” LED’s
- High light collection efficiency of >85%
- Suitable for both “Lambertian” and “Bat-wing” LED designs
- Precision moulded in optical grade Polycarbonate for thermal stability and system durability
- Part of the Polymer Optics “Modular LED Optics”® range



Typical dimensional tolerances  
to +/-0.2mm



Polymer Optics “Modular LED Optics”® design, based on a hexagonal format, allows maximum packing density and assembly flexibility

Holder (Part No. 121) available for mounting optics onto 1W Luxeon “Star” or custom made PCB’s

Star Holder (Part No. 128) available for 3W Luxeon “Star” formats only.

Please refer to POL’s “Luxeon LED Optic Selection Table” to determine your optimum product configuration.



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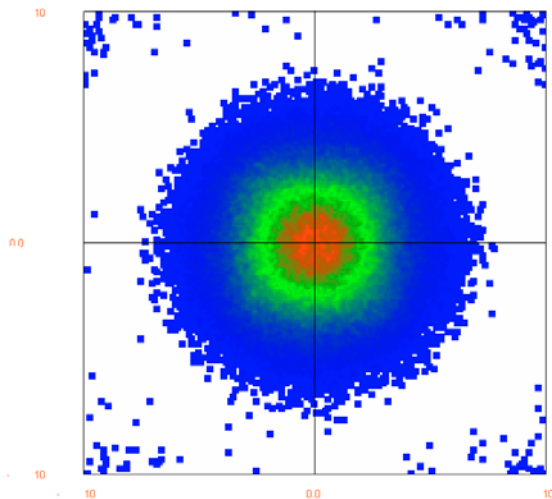
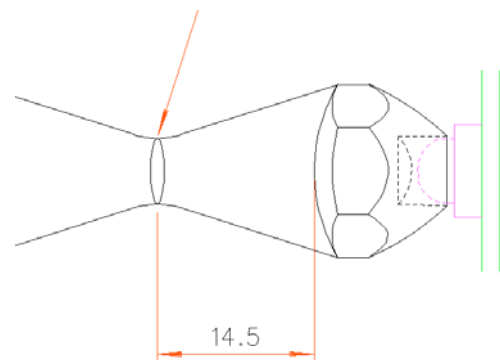
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### Single Cell LED Concentrator Lens - Part No. 141



Beam waist Ø6mm



Raytrace Simulation of Typical Beam at 14.5mm on a 20mm x 20mm target with 1W 25lumen White LED

#### Typical Applications:

- Beam insertion into optical fibre bundles
- Beam insertion into edge of lightguides
- High intensity illumination of small objects for inspection and microscopy

Typical focused beam intensity at the 6mm aperture is  
>850,000 lux

Performance values given are typical values and will vary dependant on LED binning, colour and drive profile

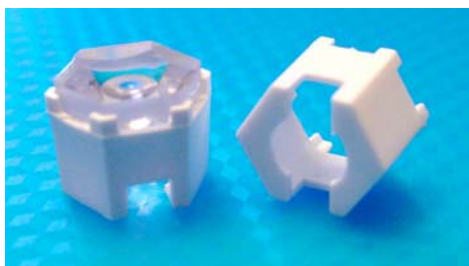


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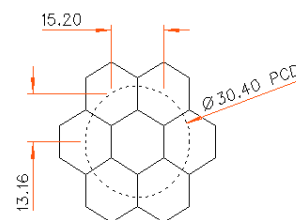
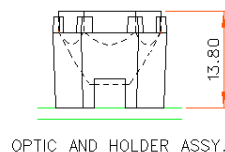
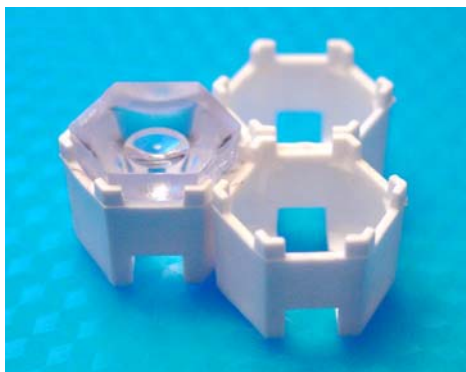
### Standard Lens Holder - Part No. 121



- Designed for use with Polymer Optics “Modular LED Optics”<sup>®</sup> and other custom Polymer Optics designs
- Designed for 1W Luxeon “Star” and 1W, 3W and 5W emitter populated custom PCB’s
- Simply mounts onto PCB and self-aligns to Luxeon Emitter
- Precision moulded in optical grade Polycarbonate for thermal stability and system durability
- Part of the Polymer Optics “Modular LED Optics”<sup>®</sup> range

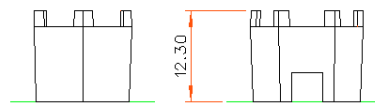
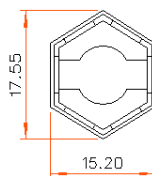
Polymer Optics “Modular LED Optics”<sup>®</sup> design, based on a hexagonal format, allows maximum packing density and assembly flexibility

Alternative Star Holder (Part No. 128) now available for 3W and 5W Luxeon “Star” formats which have different mounting heights

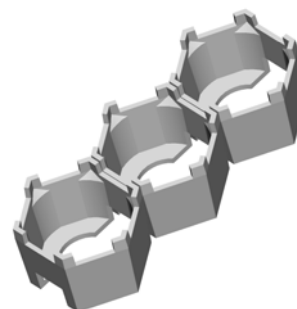
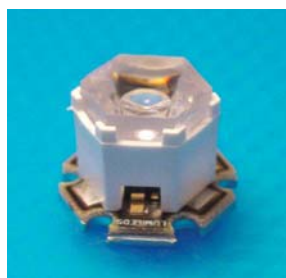


NESTED COMPONENTS ON 30.4MM PCD

Typical dimensional tolerances to +/-0.2mm



121 Holder and 120 Optic mounted on 1W Luxeon Star PCB



Due to continuous product improvement, POL reserve the right to change specifications without notice.

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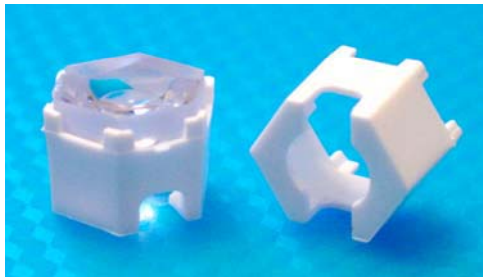


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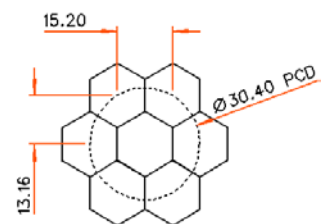
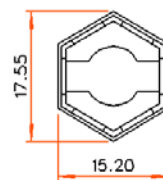
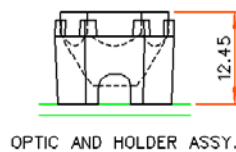
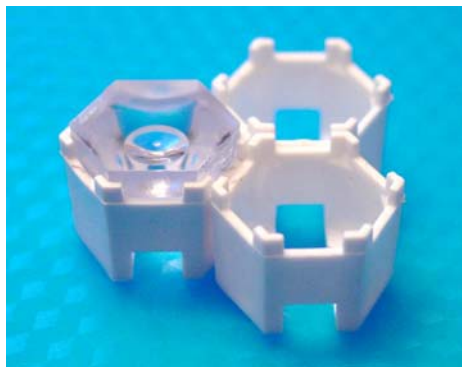
### Star PCB Lens Holder - Part No. 128



- Designed for use with Polymer Optics "Modular LED Optics"® and other custom Polymer Optics designs
- Designed for the 3W and 5W Luxeon "Star" PCB's which have the emitter recessed into the PCB
- Simply mounts onto PCB and self-aligns to Luxeon Emitter
- Precision moulded in optical grade Polycarbonate for thermal stability and system durability
- Part of the Polymer Optics "Modular LED Optics"® range

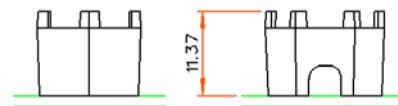
Polymer Optics "Modular LED Optics"® design, based on a hexagonal format, allows maximum packing density and assembly flexibility

For 1W Star and all standard Luxeon emitters on custom PCB's use standard Holder (Part No. 121)

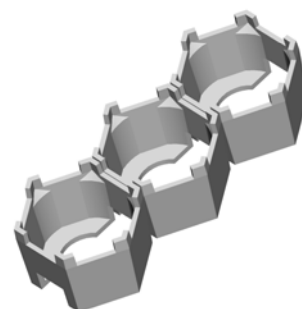


NESTED COMPONENTS ON 30.4MM PCD  
(shown half size)

Typical dimensional tolerances  
to +/-0.2mm



**128 Holder and 120 Optic  
mounted on 3W Luxeon Star PCB**



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