Polymer Optics Limited

Our Focus is in Plastics

Polymer Optics Ltd.

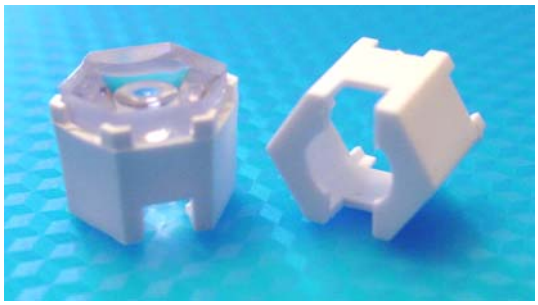
6 Kiln Ride, Wokingham, Berks.,
RG40 3JL, England
Tel/Fax: +44 (0) 1189 893341
www.polymer-optics.co.uk

6 Degree LED Collimator Lens - Part No. 120

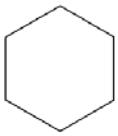
- **Designed to operate with Osram "Golden Dragon" LEDs**
- **Can also be used with the latest Dragon Plus and Platinum Dragon LED packages from Osram**
- **High light collection efficiency of >85%**
- **Precision moulded in optical grade Polycarbonate for thermal stability and system durability**
- **Part of the Polymer Optics "Modular LED Optics"® range**

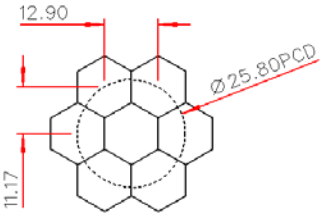
Polymer Optics "Modular LED Optics"® design, based on a hexagonal format, allows maximum packing density and assembly flexibility

Supplied with Holder (Part No. 127) to mount optics directly on to PCB's. Holder locates on LED package to ensure correct alignment

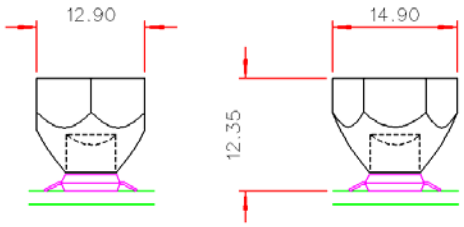


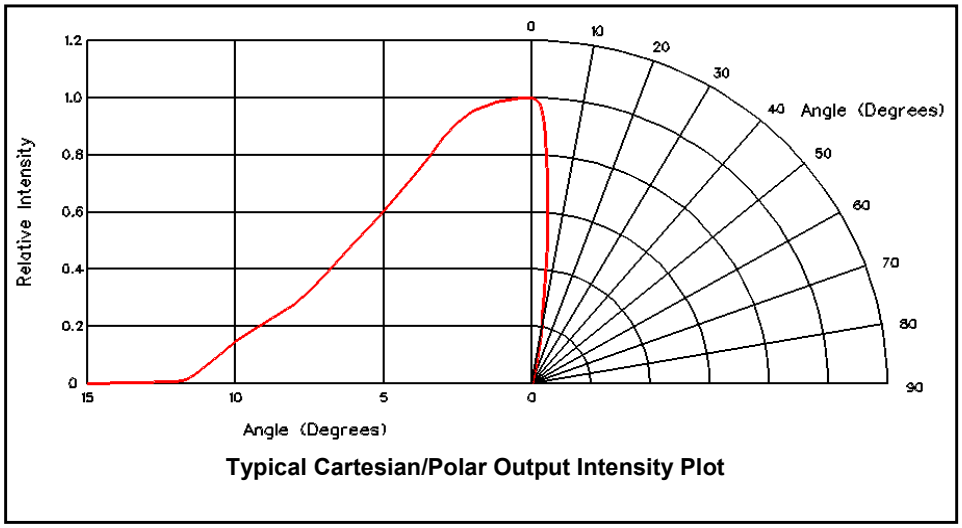
Typical dimensional tolerances to +/- 0.2mm



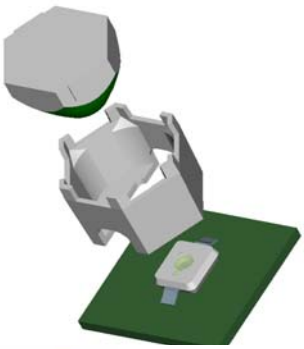


NESTED COMPONENTS ON 25,8MM PCD
(HALF SIZE)





Typical Cartesian/Polar Output Intensity Plot



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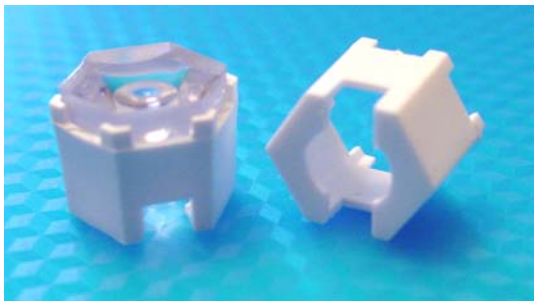
15 Degree LED Collimator Lens - Part No. 124

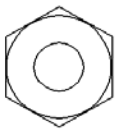
- **Designed to operate with Osram "Golden Dragon" LEDs**
- **Can also be used with the latest Dragon Plus and Platinum Dragon LED packages from Osram**
- **High light collection efficiency of >85%**
- **Precision moulded in optical grade Polycarbonate for thermal stability and system durability**
- **Part of the Polymer Optics "Modular LED Optics"® range**

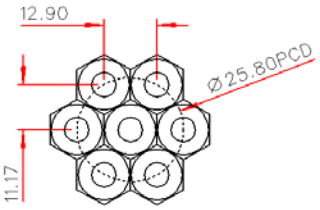
Polymer Optics "Modular LED Optics"® design, based on a hexagonal format, allows maximum packing density and assembly flexibility

Supplied with Holder (Part No. 127) to mount optics directly on to PCB's. Holder locates on LED package to ensure correct alignment

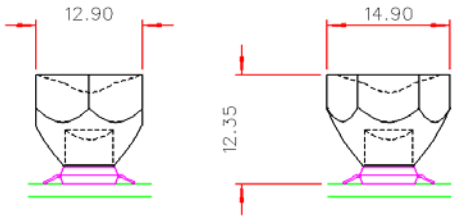


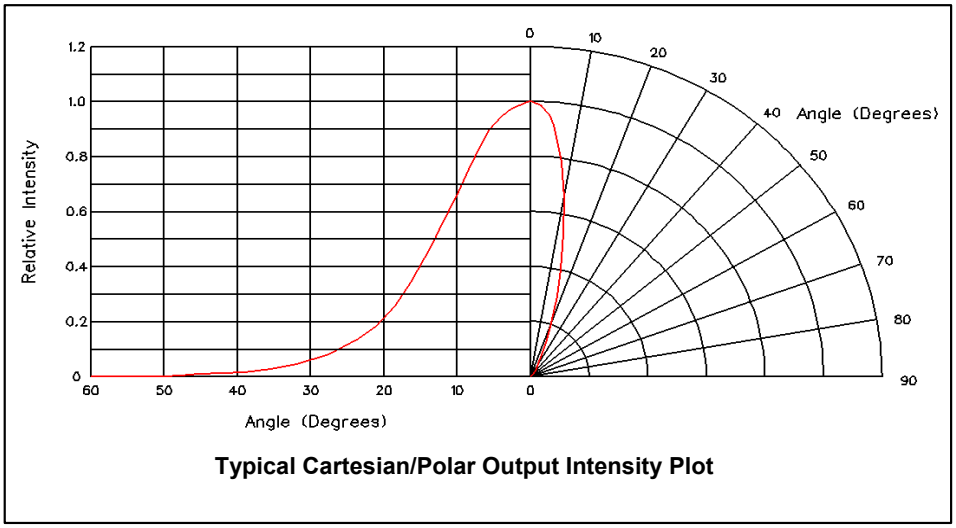
Typical dimensional tolerances to +/- 0.2mm



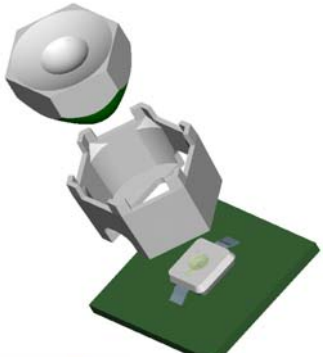


NESTED COMPONENTS ON 25,8MM PCD
(shown half size)





Typical Cartesian/Polar Output Intensity Plot



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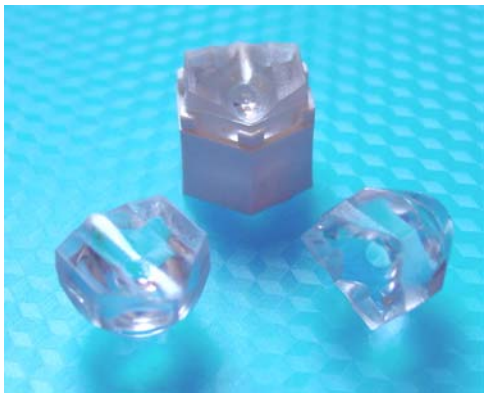
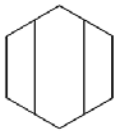
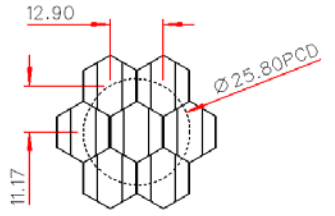
6x15 Degree LED Line Lens - Part No. 126



- **Designed to operate with Osram "Golden Dragon" LEDs**
- **Can also be used with the latest Dragon Plus and Platinum Dragon LED packages from Osram**
- **High light collection efficiency of >85%**
- **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

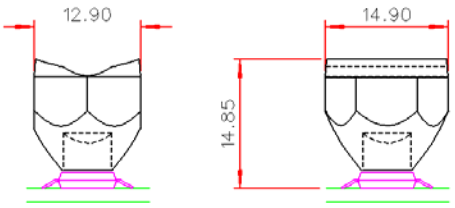


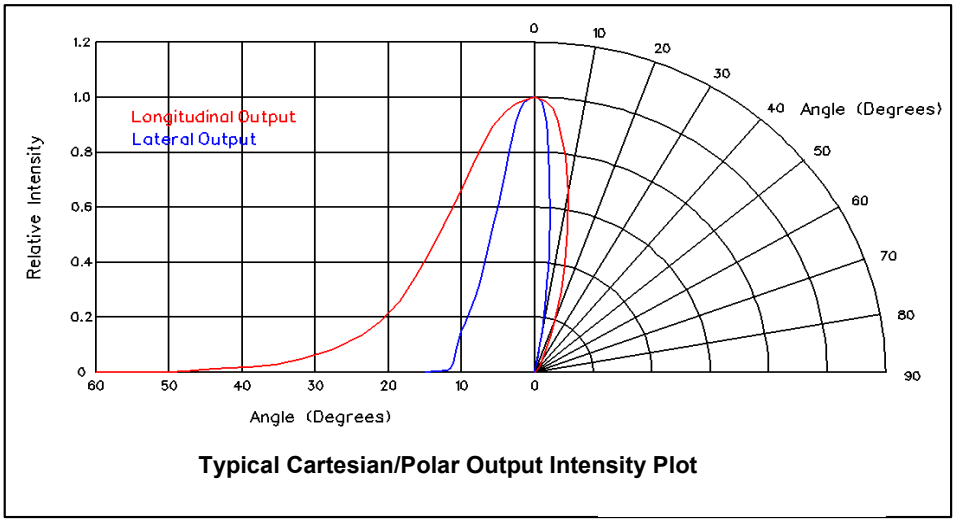


NESTED COMPONENTS ON 25,8MM PCD
(shown half size)

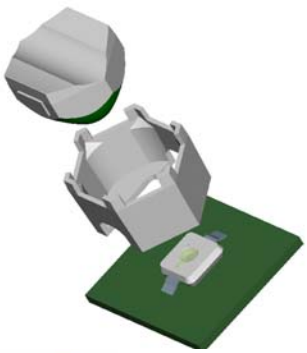
Polymer Optics "Modular LED Optics"® design, based on a hexagonal format, allows maximum packing density and assembly flexibility

Supplied with Holder (Part No. 127) to mount optics directly on to PCB's. Holder locates on LED package to ensure correct alignment





Typical Cartesian/Polar Output Intensity Plot



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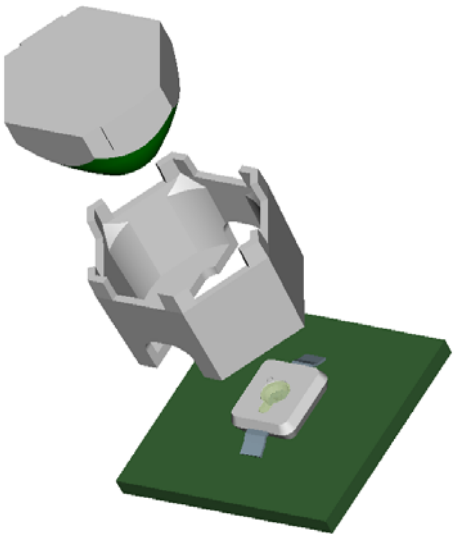
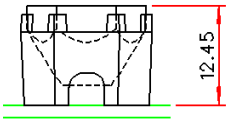
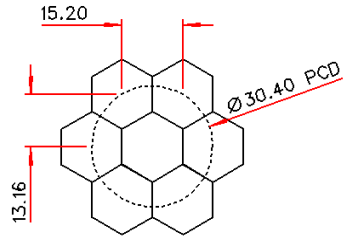
Osram Dragon LED Lens Holder - Part No. 127



- **Designed for use with Polymer Optics "Modular LED Optics" ® and custom Polymer Optics designs**
- **Designed for use with Osram "Golden Dragon" LEDs**
- **Can also be used with the latest Dragon Plus and Platinum Dragon LED packages from Osram**
- **Simply mounts onto PCB and self-aligns to Dragon emitter**
- **Precision moulded in optical grade Polycarbonate for thermal stability and system durability**
- **Part of the Polymer Optics "Modular LED Optics"® range**

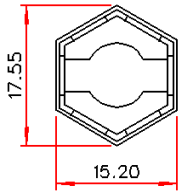


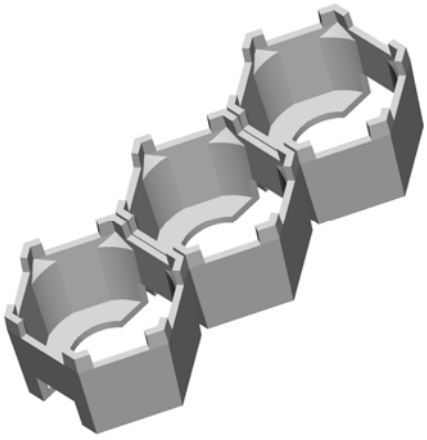
OPTIC AND HOLDER ASSY.

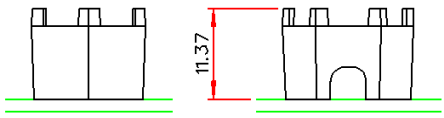


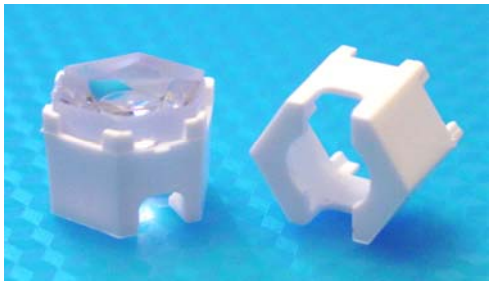
NESTED COMPONENTS ON 30.4MM PCD
Typical dimensional tolerances to +/-0.2mm

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









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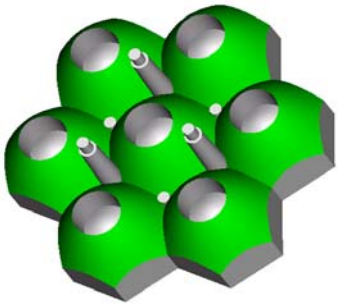
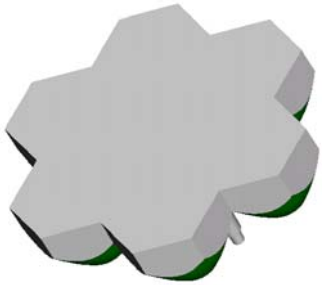
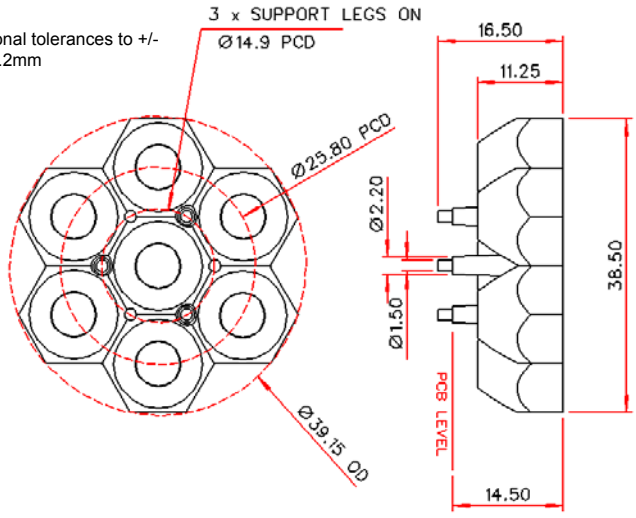
6 Degree LED Collimator 7 Cell Cluster Optic - Part No. 134





- **Designed to operate with Osram "Golden Dragon" LEDs**
- **Can also be used with the latest Dragon Plus and Platinum Dragon LED packages from Osram**
- **High light collection efficiency of >85%**
- **Precision moulded in optical grade Polycarbonate for thermal stability and system durability**
- **Part of the Polymer Optics "Modular LED Optics"® range**

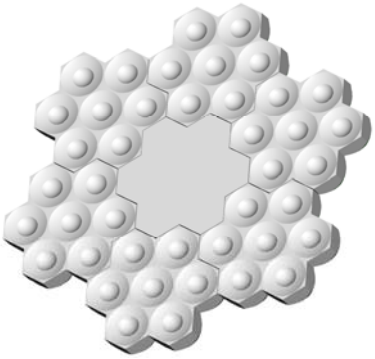
Typical dimensional tolerances to +/- 0.2mm



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

Polymer Optics "Cluster Optic"® arrays can be assembled together in a number of ways to meet the needs of a range of illumination applications

The 134 and 135 type "Cluster Optics"® can be mixed in the assembly to optimise the systems illumination distribution, and combined with other Polymer Optics custom cluster designs.



Output beam is rendered homogeneous within only 100mm from front of optic

This gives excellent colour mixing with RGB LED mixes

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

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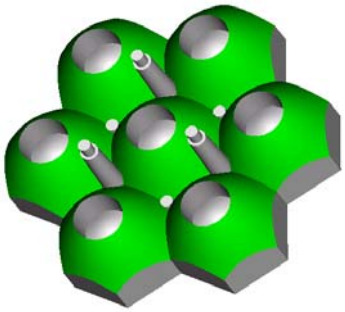
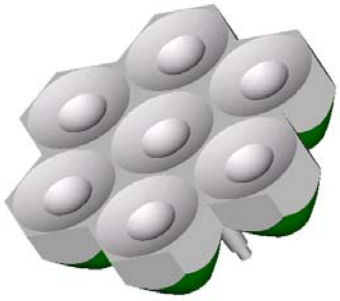
15 Degree LED Collimator 7 Cell Cluster Optic - Part No. 135





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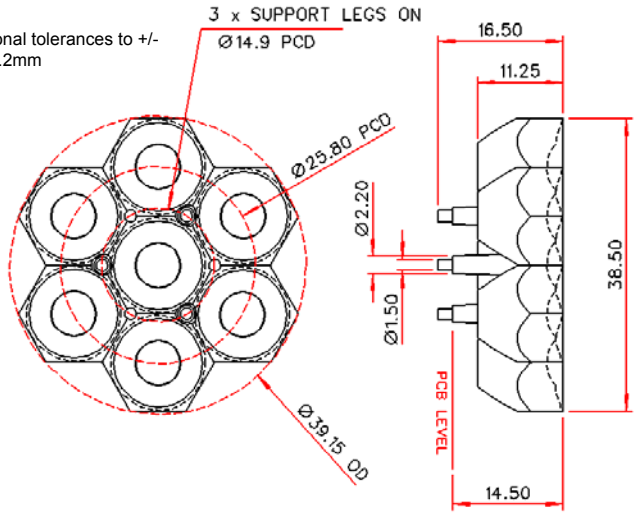
- **High light collection efficiency of >85%**
- **Precision moulded in optical grade Polycarbonate for thermal stability and system durability**
- **Part of the Polymer Optics "Modular LED Optics"® range**

Typical dimensional tolerances to +/- 0.2mm



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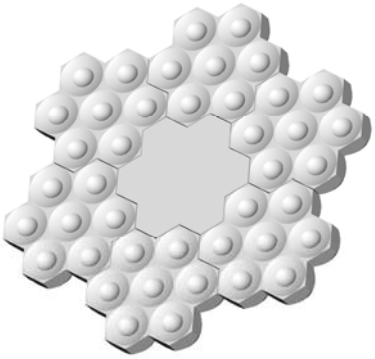

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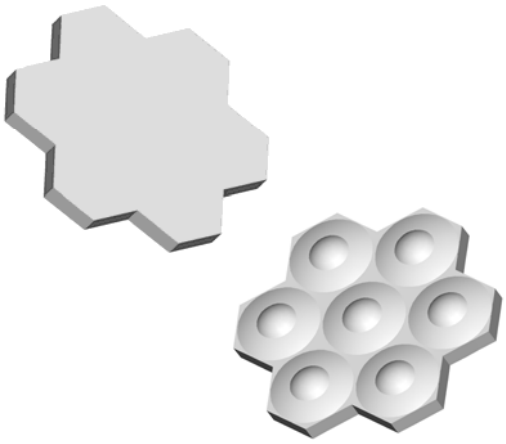
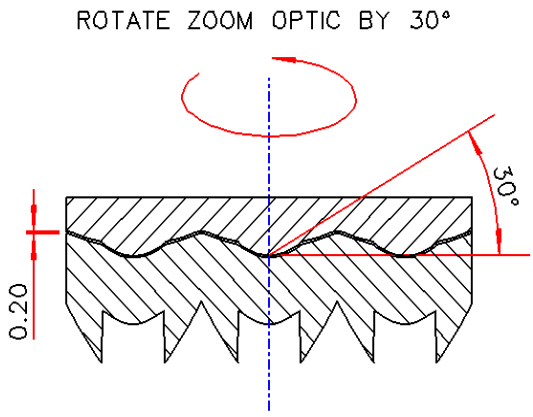
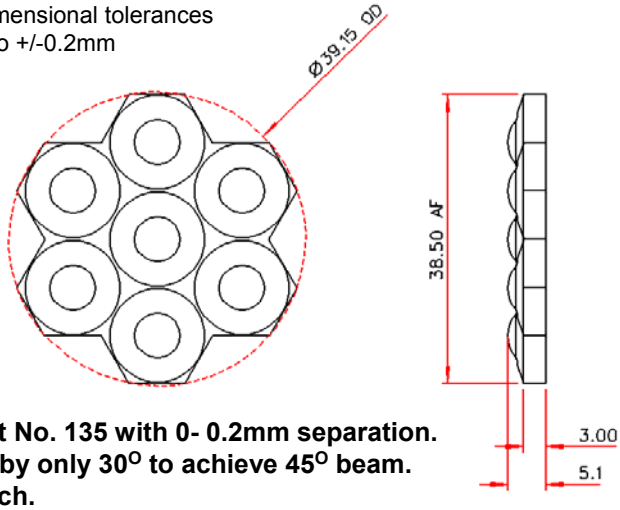
7 Cell Cluster Zoom Optic - Part No. 130



- **Designed to operate with Osram "Golden Dragon" LEDs**
- **Can also be used with the latest Dragon Plus and Platinum Dragon LED packages from Osram**
- **Variable zoom capability from 6 degrees to 45 degree half angles (Patent applied for design and concept)**
- **Used with Part No. 135. Zoom optic simply requires to be moved forward and rotated on a course thread action.**
- **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



Initial 6^{O} beam is achieved with Zoom Optic nested on Part No. 135 with 0- 0.2mm separation.
Rotate Zoom Optic about its axis on a thread angle of 30^{O} by only 30^{O} to achieve 45^{O} beam.
Thread pitch equates to 45mm per turn, or 0.6 turns per inch.

6^{O} Position

Mid Position

Wide Angle Position

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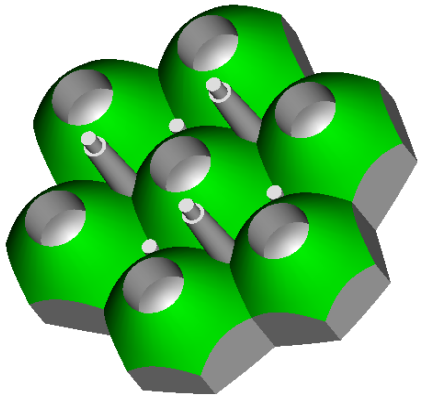
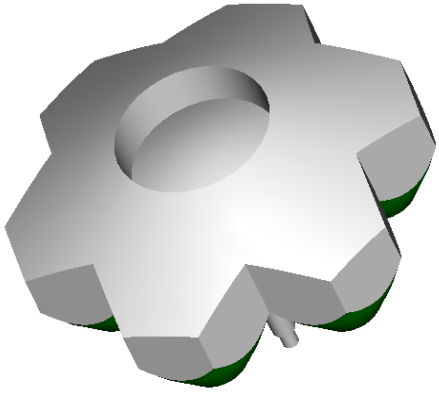
7 Cell Cluster Concentrator Optic - Part No. 145





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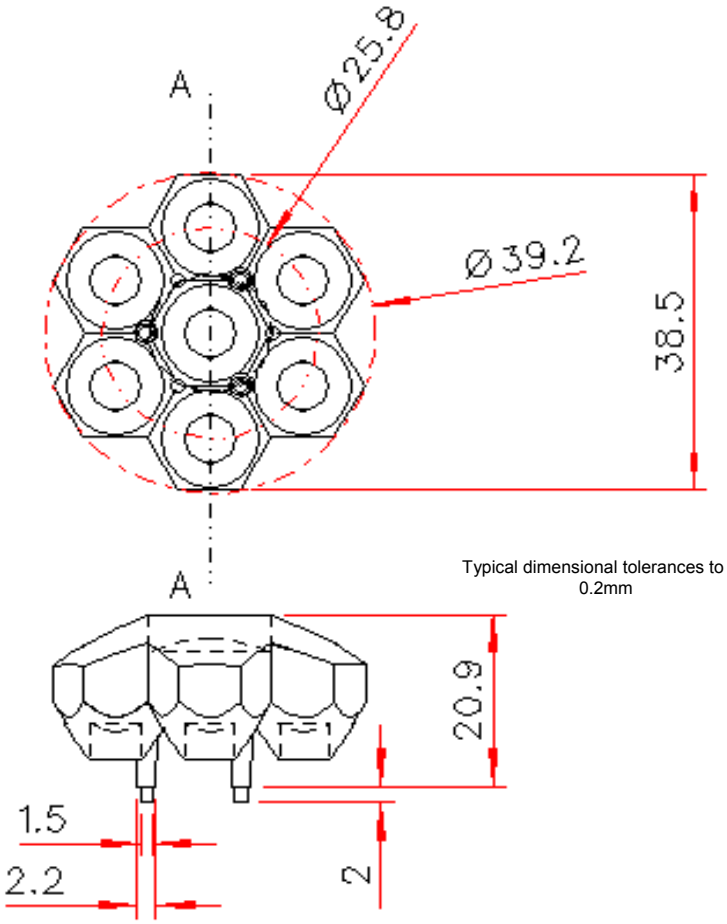
- **Part of the Polymer Optics "Modular LED Optics"® range**



Typical dimensional tolerances to +/- 0.2mm

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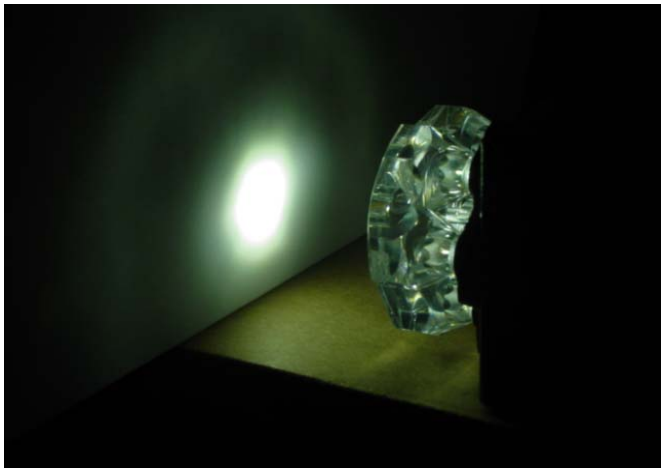
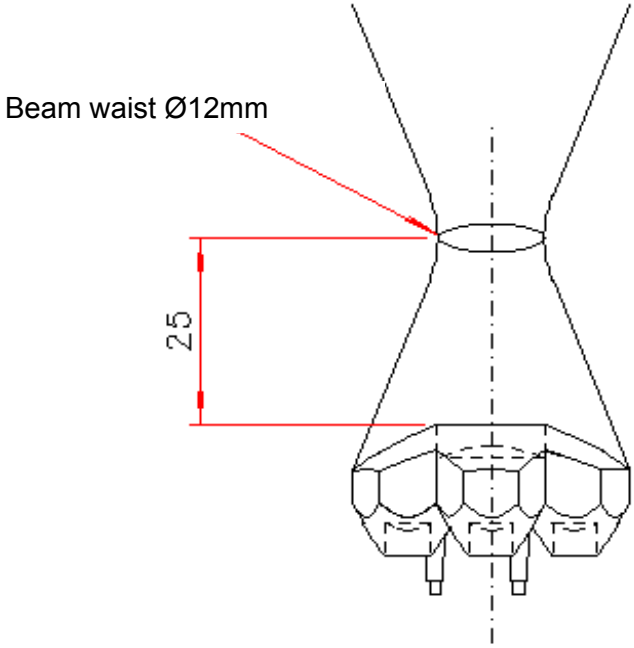
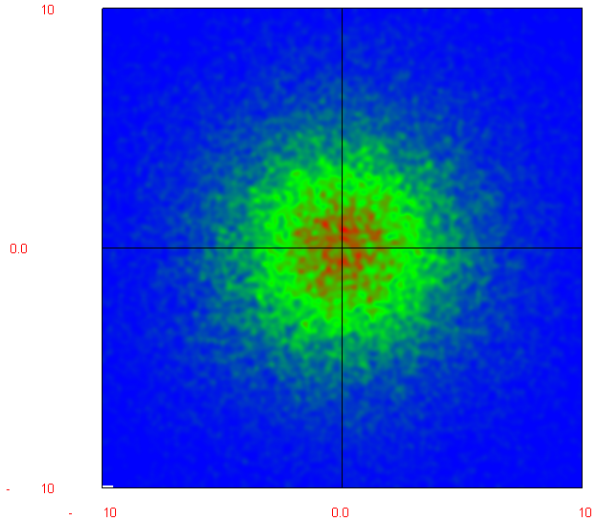
7 Cell Cluster Concentrator Optic - Part No. 145







Raytrace Simulation of Typical Beam at 25mm on a 20mm x 20mm target with 7 White Dragon LED's

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 12mm aperture is >3,000,000 lux

LED Light for you
powered by OSRAM
CERTIFIED PARTNER

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

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

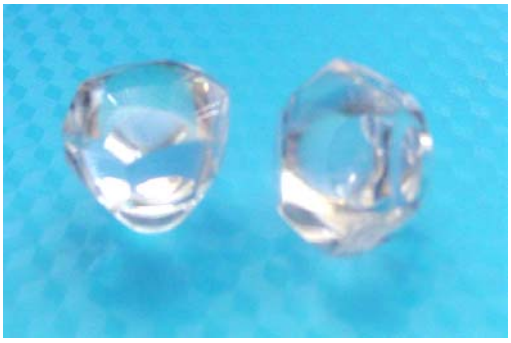
Polymer Optics Limited

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

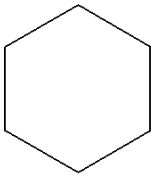
Single Cell LED Concentrator Lens - Part No. 141



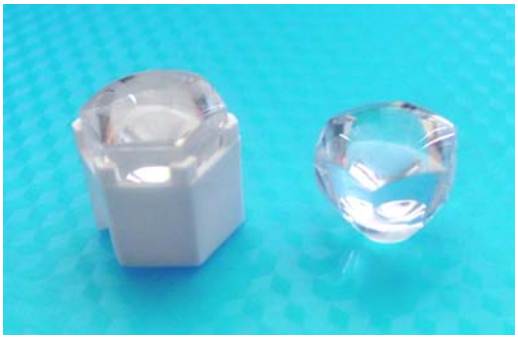
- **Designed to operate with Osram "Golden Dragon" LEDs**
- **Can also be used with the latest Dragon Plus and Platinum Dragon LED packages from Osram**
- **High light collection efficiency of >85%**
- **Precision moulded in optical grade Polycarbonate for thermal stability and system durability**
- **Part of the Polymer Optics "Modular LED Optics"® range**

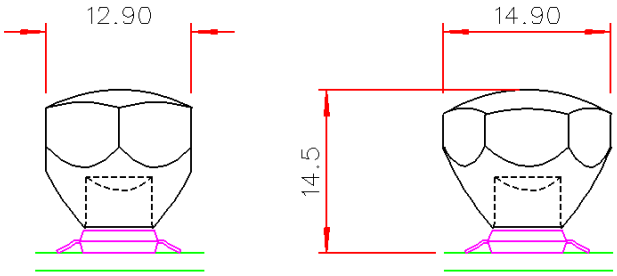
Polymer Optics "Modular LED Optics"® design, based on a hexagonal format, allows maximum packing density and assembly flexibility

Supplied with Holder (Part No. 127) to mount optics directly on to PCB's. Holder locates on LED package to ensure correct alignment



Typical dimensional tolerances to +/-0.2mm





Typical Applications:

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

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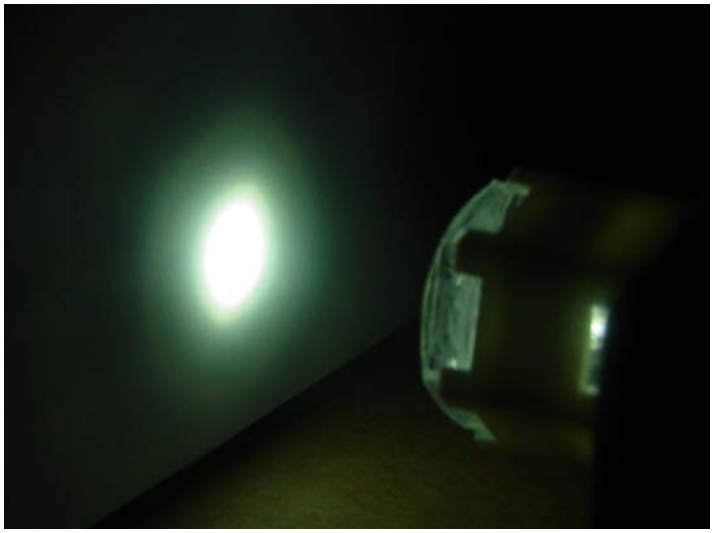
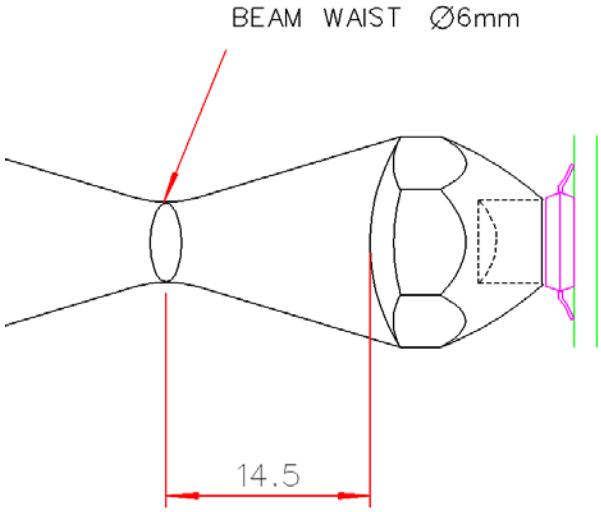
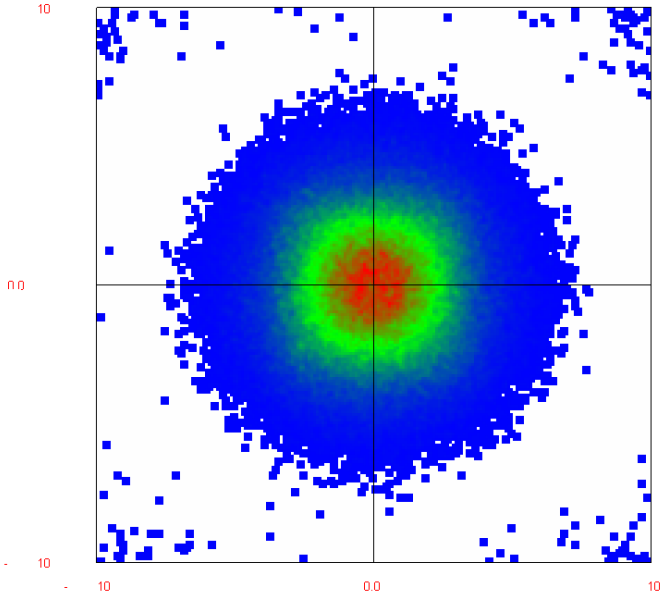
Single Cell LED Concentrator Lens - Part No. 141







Raytrace Simulation of Typical Beam at 14.5mm on a 20mm x 20mm target with White Dragon LED

Typical focused beam peak intensity at the 6mm aperture is >850K lux

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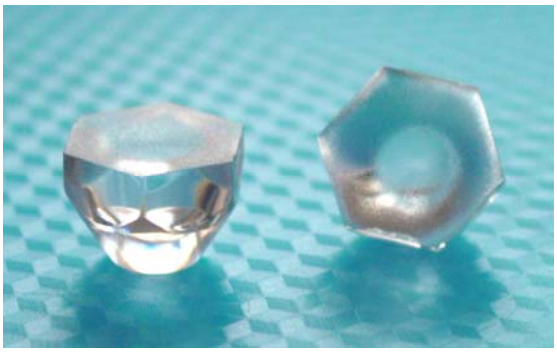
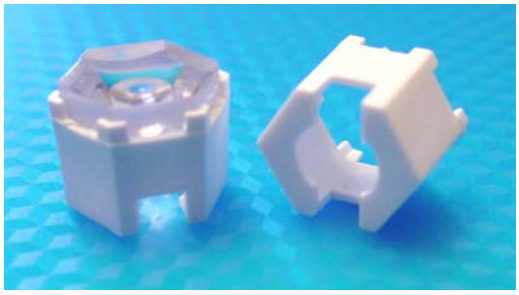
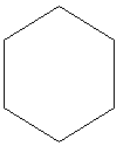
6 Degree Diffuse LED Collimator Lens - Part No. 185

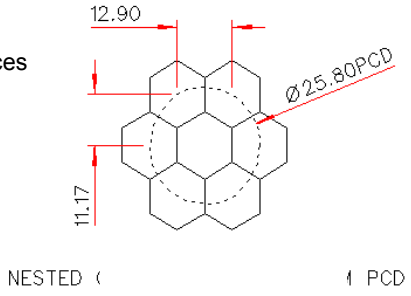


- **Designed to operate with Osram "Golden Dragon" LEDs**
- **Can also be used with the latest Dragon Plus and Platinum Dragon LED packages from Osram**
- **High light collection efficiency of >85%**
- **Precision moulded in optical grade Polycarbonate for thermal stability and system durability**
- **Part of the Polymer Optics "Modular LED Optics"® range**



Typical dimensional tolerances
to +/-0.2mm





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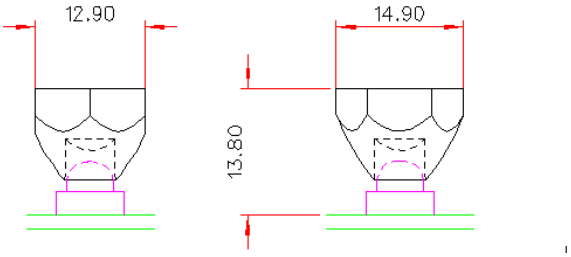

Polymer Optics "Modular LED Optics"® design, based on a hexagonal format, allows maximum packing density and assembly flexibility

Holder (Part No. 155) available for mounting optics onto the P3 and P4 High Power LED package.

Please refer to POL's "Seoul Semiconductor LED Optic Product Range" brochure to determine the best optical function for your product application.

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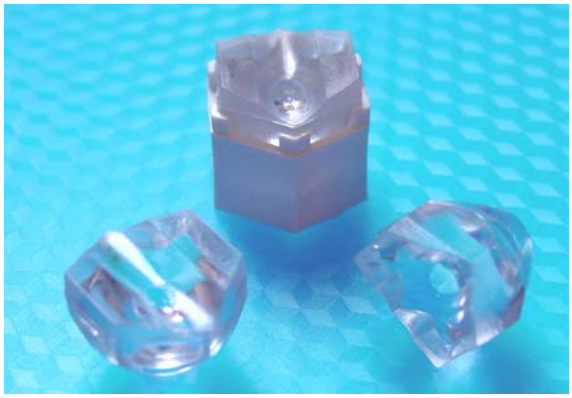
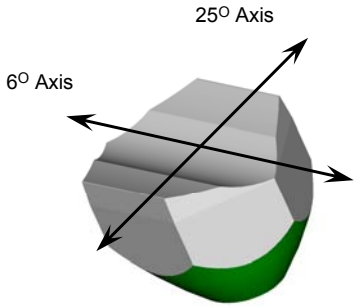
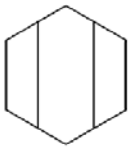
Diffuse 6x15 Degree LED Collimator Lens - Part No. 216

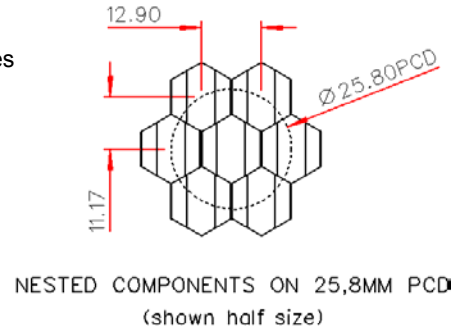


- **Designed to operate with Osram "Golden Dragon" LEDs**
- **Can also be used with the latest Dragon Plus and Platinum Dragon LED packages from Osram**
- **High light collection efficiency of >85%**
- **Precision moulded in optical grade Polycarbonate for thermal stability and system durability**
- **Part of the Polymer Optics "Modular LED Optics"® range**



Typical dimensional tolerances
to +/-0.2mm





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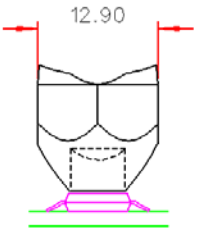

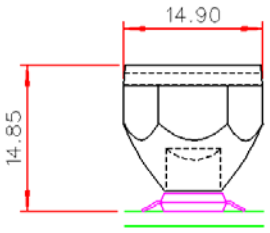

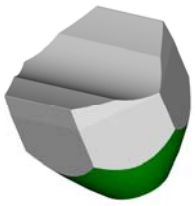

Polymer Optics "Modular LED Optics"® design, based on a hexagonal format, allows maximum packing density and assembly flexibility

Holder (Part No. 155) available for mounting optics onto the P3 and P4 High Power LED package.

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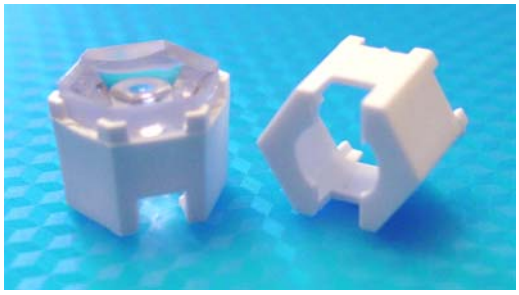
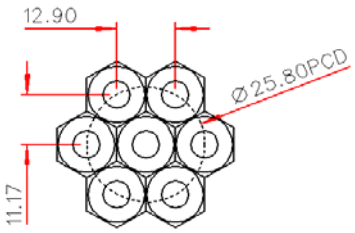
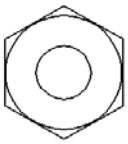
Diffuse 15 Degree LED Collimator Lens - Part No. 217

- **Designed to operate with Osram "Golden Dragon" LEDs**
- **Can also be used with the latest Dragon Plus and Platinum Dragon LED packages from Osram**
- **High light collection efficiency of >85%**
- **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





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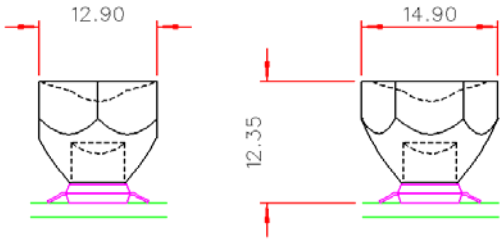

Polymer Optics "Modular LED Optics"® design, based on a hexagonal format, allows maximum packing density and assembly flexibility

Holder (Part No. 155) available for mounting optics onto the P3 and P4 High Power LED package.

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