



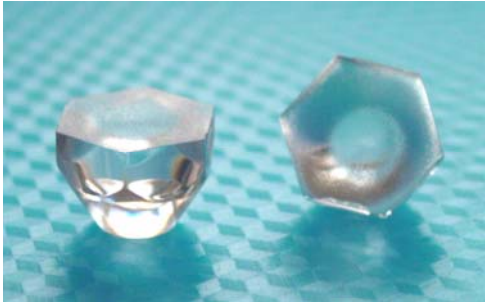
**Polymer  
Optics  
Limited**

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**Polymer Optics Ltd.**

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

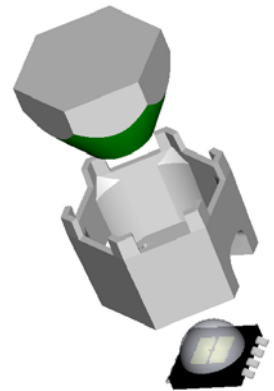
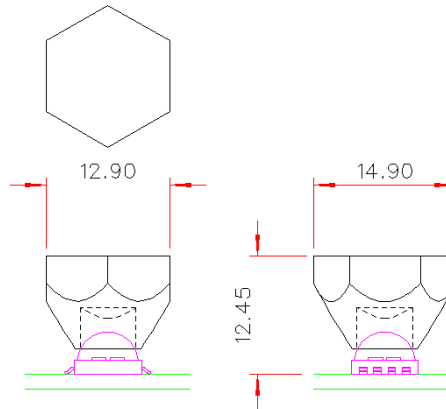
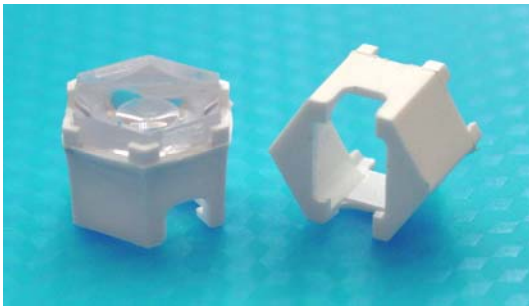
**10 Degree Diffuse Collimator Lens - Part No. 186**



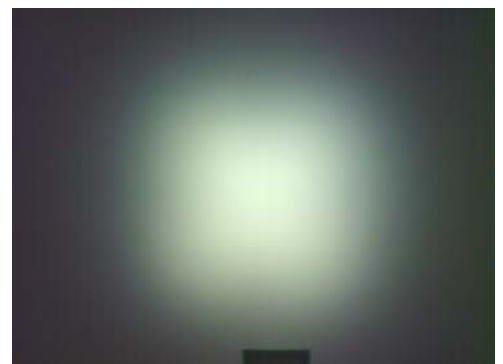
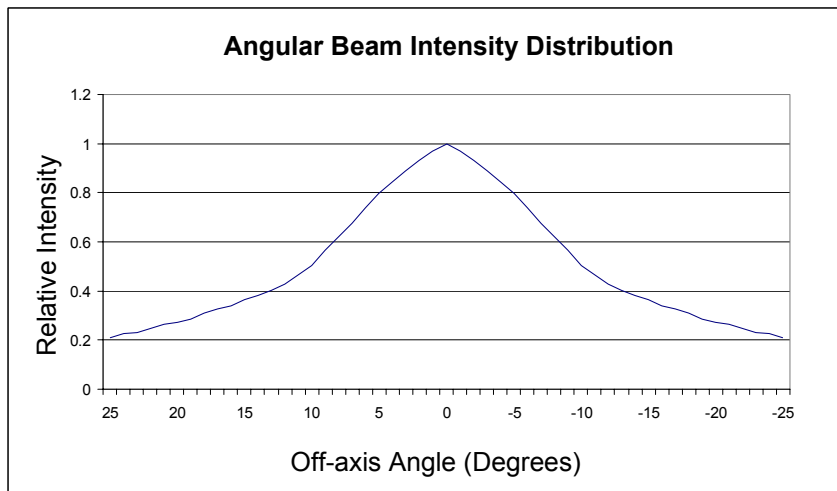
- Designed for Cree MC-E High Power LEDs
- High light collection efficiency of >85%
- Precision moulded in optical grade Polycarbonate for thermal stability and system durability
- Part of the Polymer Optics “Modular LED Optics”® range

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

Supplied with Holder (Part No. 147) to mount optics directly on to PCB. Holder locates on LED package to ensure correct alignment



Typical dimensional tolerances to +/-0.2mm



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

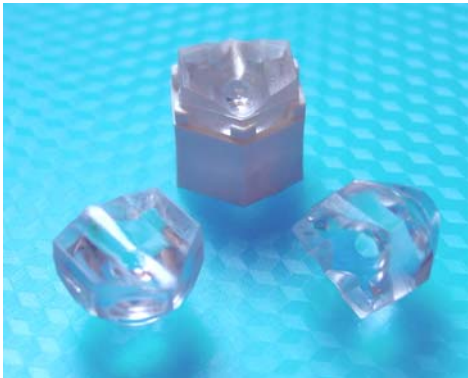


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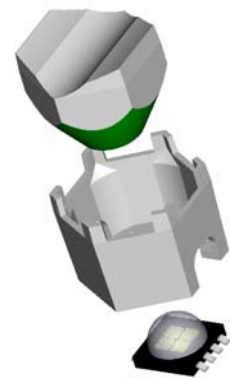
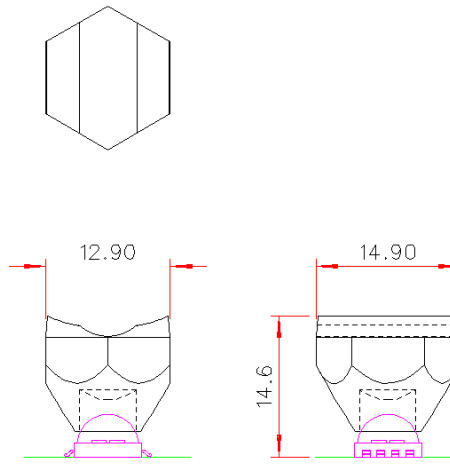
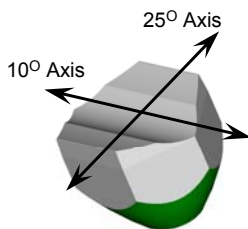
**25x10 Degree Diffuse Line Lens - Part No. 218**



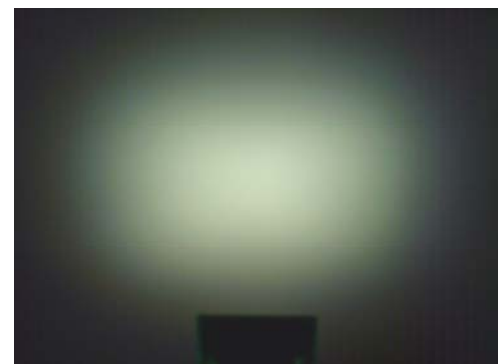
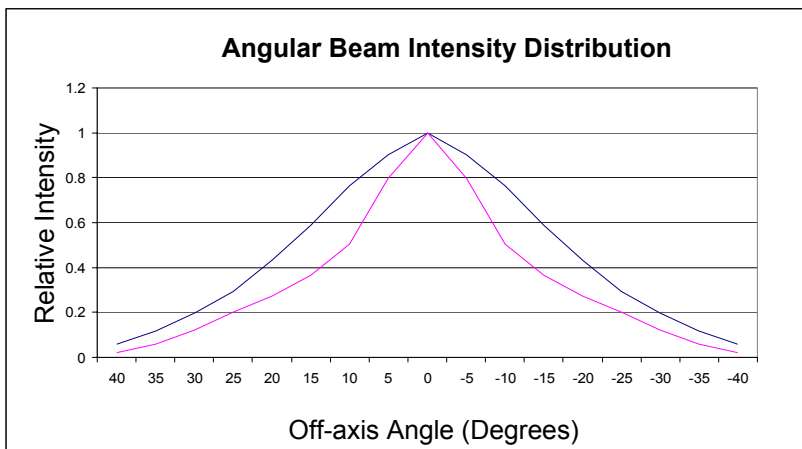
- Designed for Cree MC-E High Power LEDs
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- Part of the Polymer Optics “Modular LED Optics”<sup>®</sup> range

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

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Typical dimensional tolerances to +/-0.2mm



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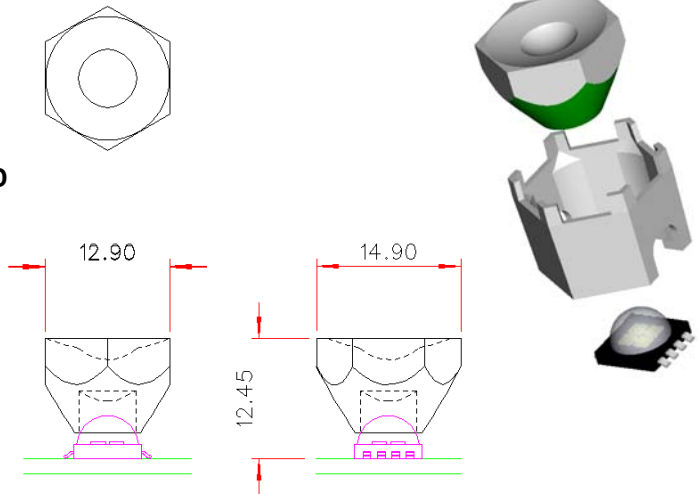
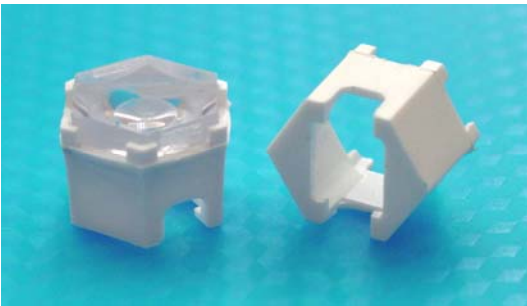
**25 Degree Diffuse Collimator Lens - Part No. 219**



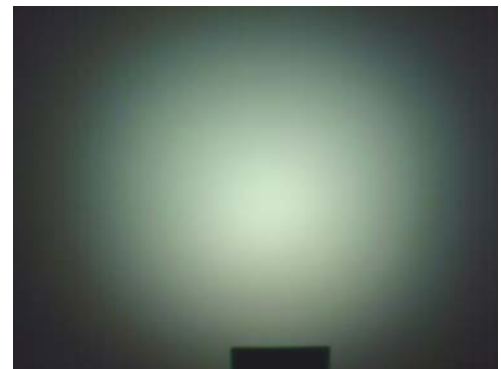
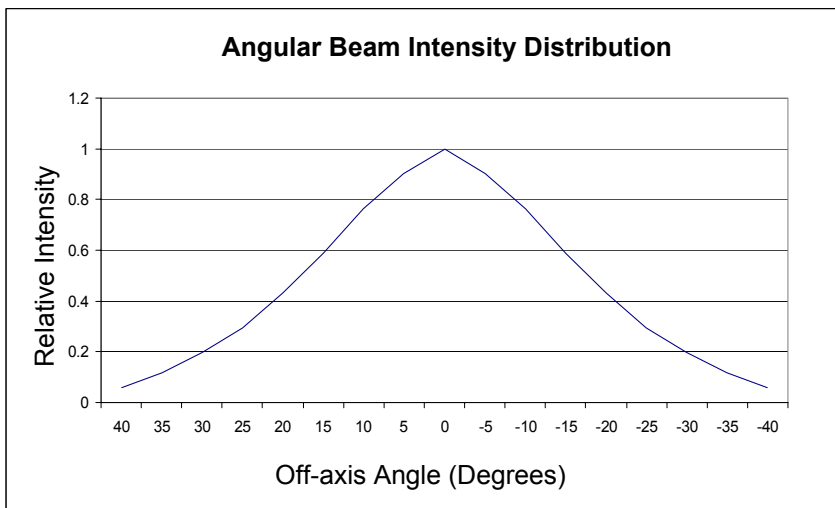
- Designed for Cree MC-E High Power LEDs
- High light collection efficiency of >85%
- Precision moulded in optical grade Polycarbonate for thermal stability and system durability
- Part of the Polymer Optics “Modular LED Optics”<sup>®</sup> range

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

Supplied with Holder (Part No. 147) to mount optics directly on to PCB’s. Holder locates on LED package to ensure correct alignment



Typical dimensional tolerances to +/-0.2mm



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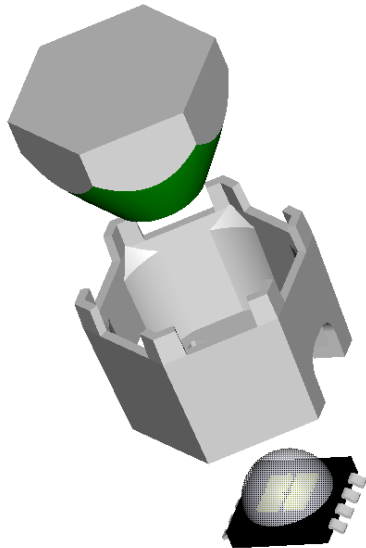


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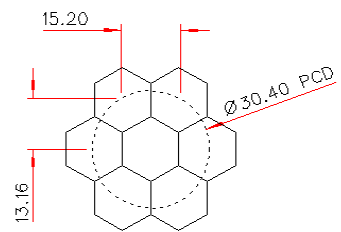
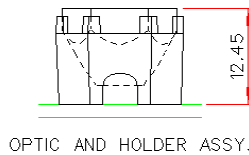
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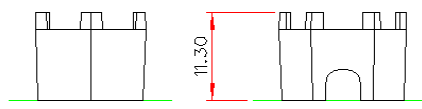
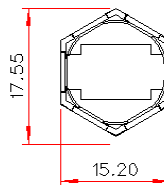
**Cree MP-E LED Lens Holder - Part No. 147**



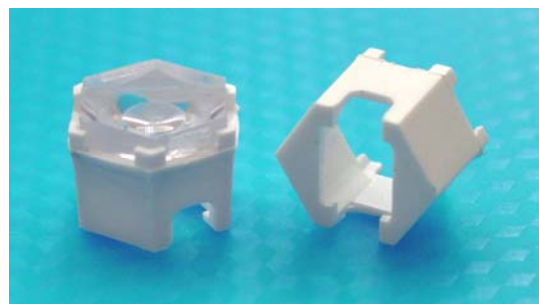
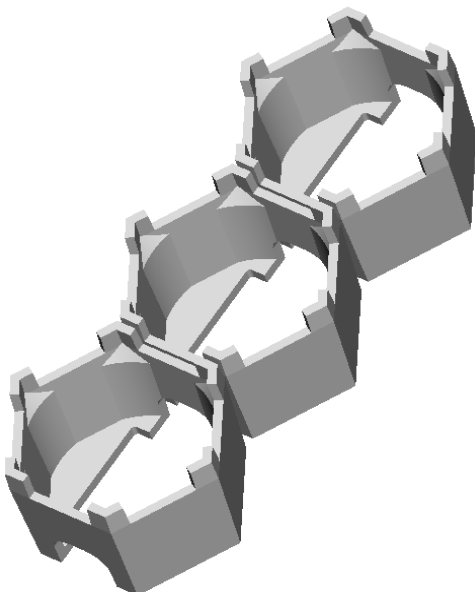
- Designed for use with Polymer Optics “Modular LED Optics”<sup>®</sup> and custom Polymer Optics designs
- Designed to operate with Cree MC-E High Power LEDs
- Simply mounts onto PCB and self-aligns to LED
- Precision moulded in optical grade Polycarbonate for thermal stability and system durability
- Part of the Polymer Optics “Modular LED Optics”<sup>®</sup> range



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



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





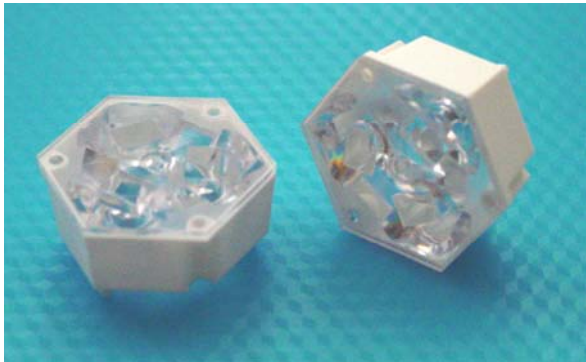
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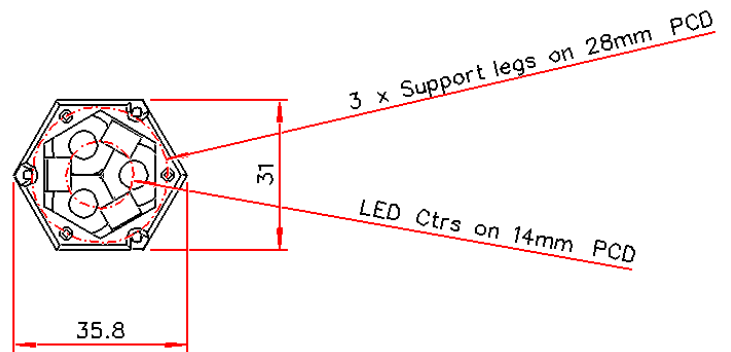
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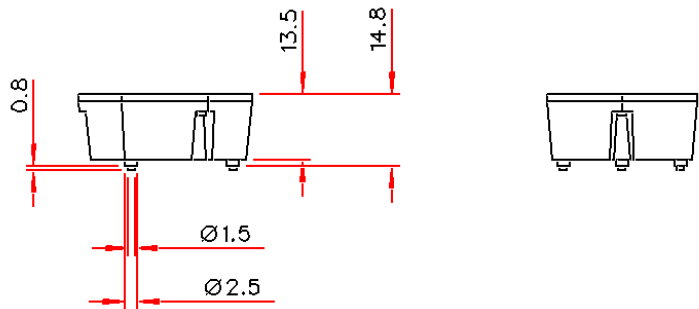
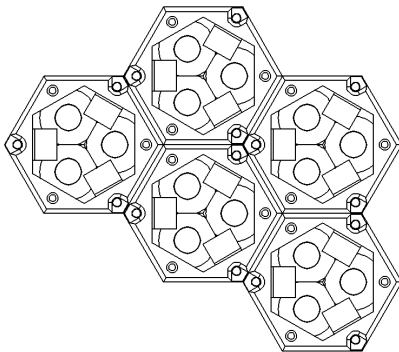
**Narrow Angle Triple LED Mixer Assembly - Part No. 158**



- Designed for Cree MC-E LED devices
- High collection efficiency and narrow angle beam output
- Mixes light from the three white LEDs to give a high intensity uniform beam
- Precision moulded in optical grade Polycarbonate for thermal stability and system durability
- Part of the Polymer Optics “Modular LED Optics”® range



- POL's novel hexagonal design allows the optics to be clustered together to make larger narrow angle colour mixing arrays



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

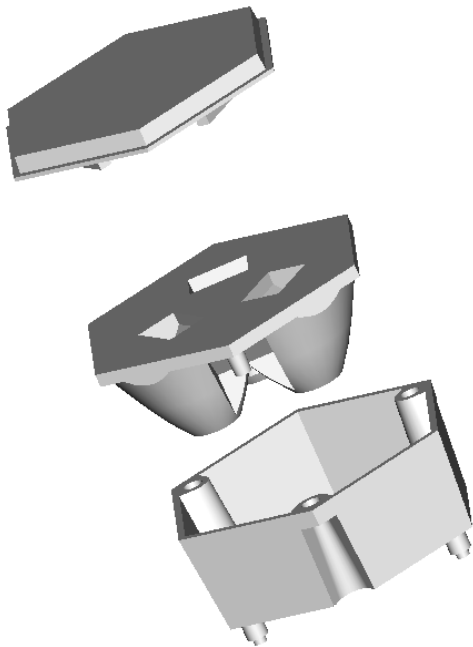


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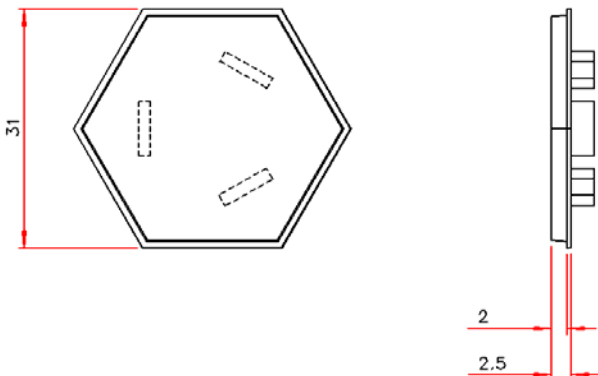
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## Converter Optics for Narrow Angle Triple LED Mixer Assembly



- Beam Converter Optics simply interference push fit onto the front of the 158 - Colour Mixer Optic.
- Precision moulded in optical grade PMMA acrylic for improved scratch resistance on the outside of the assembly.
- The Beam Converter Optics fit within the area of the 158- Colour Mixer Optic so the assemblies can still be arranged in close packed arrays.
- Flanged edge of the Beam Converter Optics allows bezels and cover plates to be located to the optical assembly for aesthetic product finishing.
- Part of the Polymer Optics “Modular LED Optics”<sup>®</sup> range



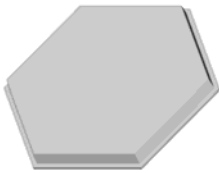


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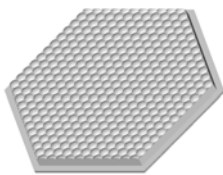
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## Converter Optics for Narrow Angle Triple LED Mixer Assembly

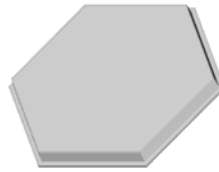


Plain Filter Holder - 160

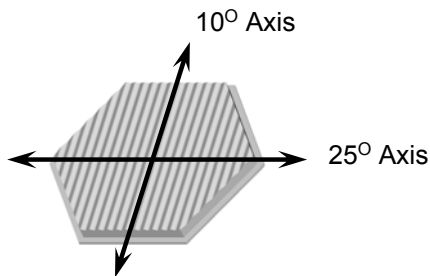
- 160 - Plain Filter Holder can be used with Luminix Light Shaping Diffuser films to produce a wide range of beam profiles, available from POL or direct from [www.luminixco.com](http://www.luminixco.com).
- Other custom beam angles can be produced cost effectively from POL's modular production tooling. Please enquire for details



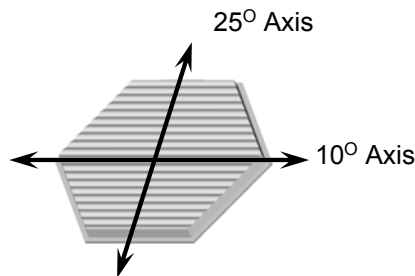
25 Deg Diffuser - 161



Soft Beam Diffuser - 163



10 x 25 Deg Line Diffusers – 162



10 x 25 Deg Line Diffusers – 162B

The 10 x 25 Deg Line Diffusers is available in two versions, the 162 and the 162B. These diffusers have the same optical function, but allow the beam to be spread in either orthogonal direction.

The 162 version can be used where multiple rows of optics are used and a close packed narrow array is required, along the axis of the linear beam output.

The 162B version can be used where single row linear fittings are required with the optics close packed together with the hexagonal flats placed side by side.

These 6 x 25 Deg Line Diffusers can also be mixed in optical arrays to produce other overall beam effects.


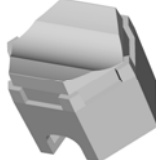



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**Cree MC-E Optics Product Summary and Price List**

Product Image	Description	Usage	100-1K Batches	1K-5K Batches	5K-10K Batches	10K+ Batches
 186/147	10° Collimator + Std Holder	Cree MC-E High Power LED	£1.25	£0.98	£0.77	£0.72
 218/147	Diffuse 25°x10° Collimator + Std Holder	Cree MC-E High Power LED	£1.25	£0.98	£0.77	£0.72
 219/147	Diffuse 25° Line + Std Holder	Cree MC-E High Power LED	£1.25	£0.98	£0.77	£0.72

**A minimum order value applies of £50+shipping - All prices “ex-works”**

**Please contact POL for quotations on higher volumes and custom variants**

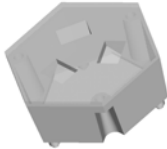
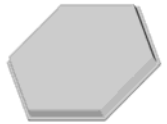
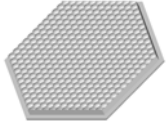
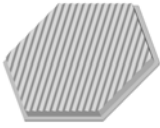
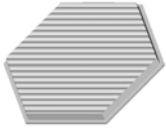
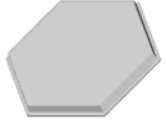


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**Cree MC-E Optics Product Summary and Price List**

Product Image	Description	Usage	100-1K Batches	1K-5K Batches	5K-10K Batches	10K+ Batches
 158	10° Colour Mixer Collimator Assembly	Cree MC-E LEDs	£3.80	£3.60	£3.20	£3.00
 160	Filter Holder	Fits to 158 Optic	£0.32	£0.30	£0.27	£0.25
 161	25° Beam Converter Optic	Fits to 158 Optic	£0.32	£0.30	£0.27	£0.25
 162	10°x25° Beam Converter Optic	Fits to 158 Optic	£0.32	£0.30	£0.27	£0.25
 162B	10°x25° Beam Converter Optic	Fits to 158 Optic	£0.32	£0.30	£0.27	£0.25
 163	Beam Diffuser Filter	Fits to 158 Optic	£0.32	£0.30	£0.27	£0.25

\* A minimum order value applies of £50+shipping - All prices “ex-works”

Please contact POL for quotations on higher volumes and custom variants