30mm Colour Mixer Reflector for Rebel LEDs - Part No. 230

- Designed for colour mixing with up to four LUXEON® Rebel LEDs in any mix of colours and white colour temperatures
- Colour mixing chamber design provides uniform beam colour, which with the output reflector optic, provides a narrow colour mixed beam
- Narrow beam angle of 5 degrees half angle, 10 degrees FWHM (full width half maximum intensity)
- Optical efficiency of >60%

Precision moulded using POL’s patent applied for metallised optical insert moulding technique with a polycarbonate frame construction for superior mechanical and thermal stability.

Polymer Optics “Modular LED Optics® design, based on a hexagonal format, allows maximum packing density and assembly flexibility. Arrays of Colour Mixer Reflector optics can be easily constructed to produce high power luminaire designs.

In order to determine if the particular beam properties and performance of this optic are suitable for your application with your chosen LED type, POL suggests that you obtain samples from POL or their distributors for your own product testing, as properties may vary with different LED types.

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

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30mm Colour Mixer Reflector for Rebel LEDs - Part No. 230

The perfect colour mixing achieved with the POL 230 optic allows an infinite range of illumination colours to be produced with a constant and stable beam geometry.

An additional advantage is that the appearance of the emitted light from the POL 230 optic is a uniform mixed colour too, removing the usual visible spots of RGB seen in other colour mixing products.

The POL 230 optic’s narrow, high intensity beam is ideal for demanding applications, such as:

- Architectural spot lights
- Theatrical lights and follow-spots
- Forensic torches
- Medical lighting applications

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The example system shown here was constructed with Red, Green, Amber and Cool White LUXEON® Rebel LEDs. With this simple mix of colours, a vast range of mixed colours and controlled correlated colour temperature (CCT) whites can be mixed. Some examples of the mixed colours are shown below.

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The LUXEON® Rebel LEDs should be populated on the PCB, as shown in the above diagram, in order to fit the recess in the bottom of the 230 optic, which locates over the populated LEDs and is simply adhered to the PCB using a small amount of Loctite 460 cyano-acrylate adhesive.

The LEDs can be populated in any number, up to four emitters and in any combination of colours to achieve the desired system range of colours (colour gamut) and tune ability to suit the target application.

A MCPCB is available for the POL 230 Colour Mixer Reflector with the correct layout of Rebel LEDs from Components Co. Ltd. in the UK:

Components Co.Ltd.
Unit 30, Wem Business Park
Wem
Shrewsbury
Shropshire
SY4 5JX
UK
http://www.components-company.com/

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30mm Reflector Beam Converters in the Polymer Optics range:

265 – Medium Beam Converter

266 – Wide Beam Converter

267 – Elliptical Beam Converter

365 – Diffuse Beam Converter

Product Numbering:

The Reflector Converter optics are simply ordered with the required 30mm Reflector optic product, chosen from the POL range, to suit the target LED device.

The required Reflector Converter part number is simply prefixed to the base 30mm Reflector variant. So, for example, if ordering the basic POL 230 - 30mm Reflector with the 267 – Elliptical Beam Converter, the product part number will be 267/230.

Please see the entire range of POL 30mm Reflector Optic products for options, or enquire to POL for further information.

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