14mm Narrow Angle Linear Collimator - Part No. 210

- Designed for most small package, High power LED’s and most mid and low power LED’s
- High light collection efficiency of >80%
- Linear design allows complete design flexibility of LED number, groupings and spacing’s
- Can be used with white, single colour, RGB, RGBA or any other combination of LEDs populated in linear strings
- Subtle diffuse surface finish applied to the Linear Optic provides improved tolerance to LED placement accuracy and improved colour mixing
- Precision manufactured in optical grade Polycarbonate for thermal stability and system durability
- Part of the Polymer Optics Limited LED Optics™ range

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 suggest that you obtain samples from POL or their distributors for our 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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Application Notes:

It should be noted that the thermal coefficient of expansion of polycarbonate (3.75 x 10^-5/°C) is higher than the typical thermal coefficient of expansion for an aluminum alloy extruded housing/heatsink (23.2 x 10^-6/°C). Therefore, should be taken into consideration in any extended, linear fitting design.

As a guide, a 1200mm long section of the polycarbonate extrusion will expand by 0.045mm/°C raise in temperature, where an aluminum extruded housing of the same length will expand by 0.0278mm/°C. Therefore the difference in linear expansion will be 0.0172mm/°C.

So, if the 1200mm fitting experiences a temperature rise of 40°C, the polycarbonate Linear Optic will expand by around 0.7mm more than its aluminum housing. It is therefore recommended that some expansion clearance is allowed on the overall length of the Linear Optic in its housing.

Expansion gaps left at the ends of the Linear Optic, or gaps between lengths assembled end to end, can be filled with a silicone based elastomer material or similar flexible sealant/adhesive to allow for the expected expansion movement.

Product Packaging Quantities:

Part No. 210-10Pkt
10 off 1200mm standard lengths of Part No. 210 - 14mm Linear 15° LED Collimator Optic
Heat sealed in heavy gauge polyethylene flat tube bag
Approximate total weight 675grms

Part No. 210-100Pkt
100 off 1200mm standard lengths of Part No. 210 - 14mm Linear 15° LED Collimator Optic
Layer packed in heavy gauge cardboard box with approximate overall size of 1300mm x 175mm x 105mm
Approximate total weight 6.6kg