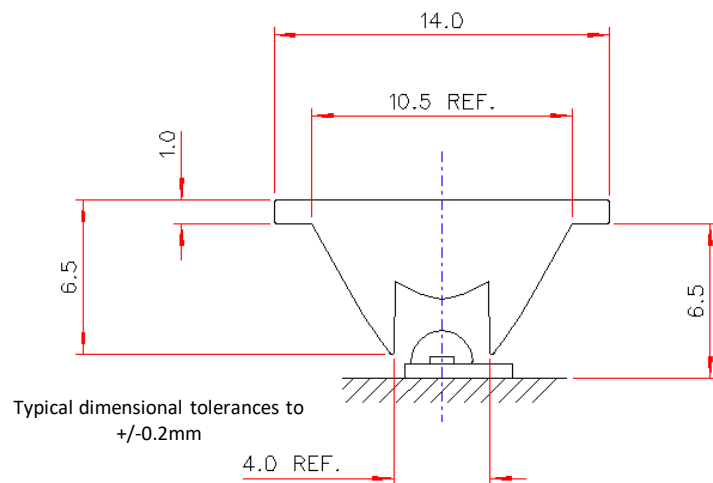
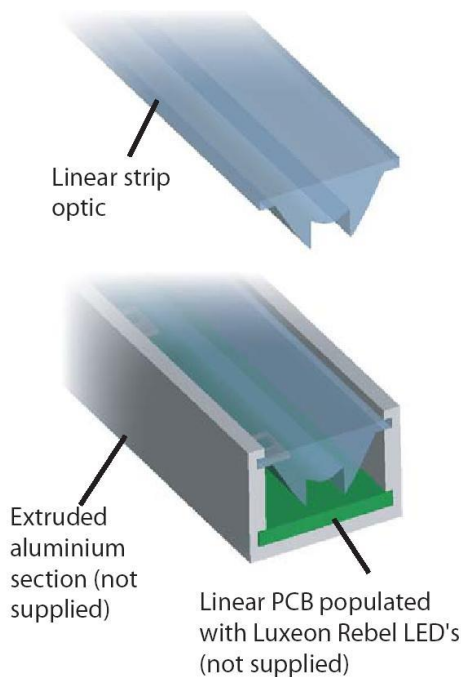


14mm Narrow Angle Linear Collimator - Part No. 210



- ∞ 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

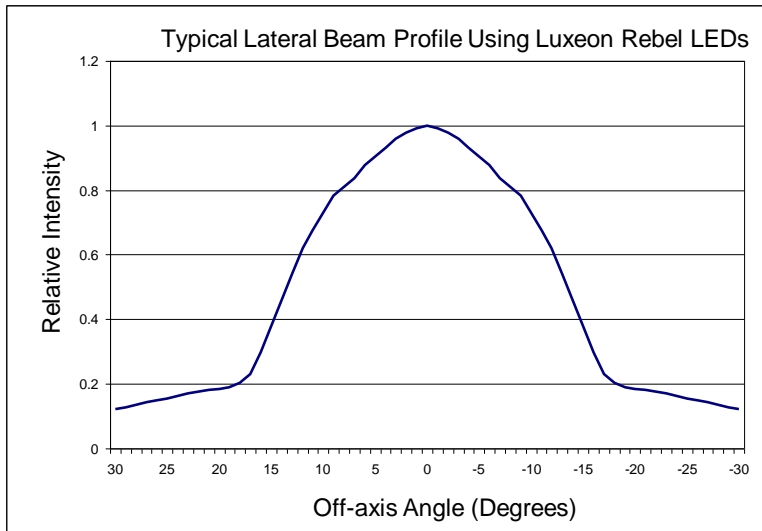


In order to determine if the particular beam properties and performance of this optic are suitable for your application with your chosen LED type, POL suggest that you obtain samples from POL or their distributors for our own product testing, as properties may vary with different LED Types.

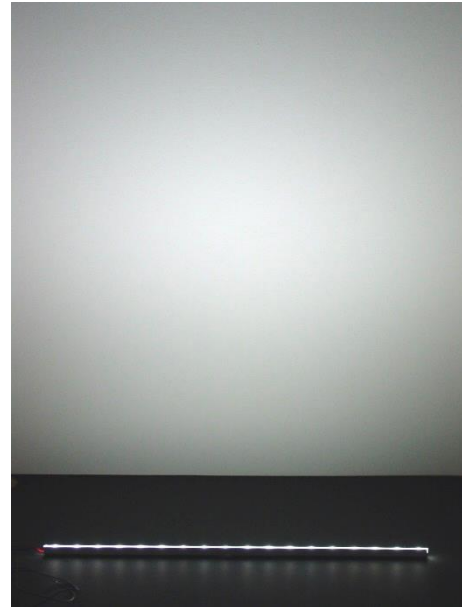
Due to continuous product improvement, POL reserve the right to change specifications without notice.

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14mm Narrow Angle Linear Collimator - Part No. 210



Beam profile in the longitudinal axis is near Lambertian



Typical illuminance values using 100 lumen, 1W type White LED = 1cd/lumen			
Range	0.5m	1m	2m
Illuminance	400 lux	100 lux	25 lux

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14mm Narrow Angle Linear Collimator - Part No. 210

Application Notes:

It should be noted that the thermal coefficient of expansion of polycarbonate ($3.75 \times 10^{-5}/^{\circ}\text{C}$) is higher than the typical thermal coefficient of expansion for an aluminum alloy extruded housing/heatsink ($23.2 \times 10^{-6}/^{\circ}\text{C}$). 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 $0.045\text{mm}/^{\circ}\text{C}$ raise in temperature, where an aluminum extruded housing of the same length will expand by $0.0278\text{mm}/^{\circ}\text{C}$. Therefore the difference in linear expansion will be $0.0172\text{mm}/^{\circ}\text{C}$.

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 aluminium 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

10off 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

100off 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