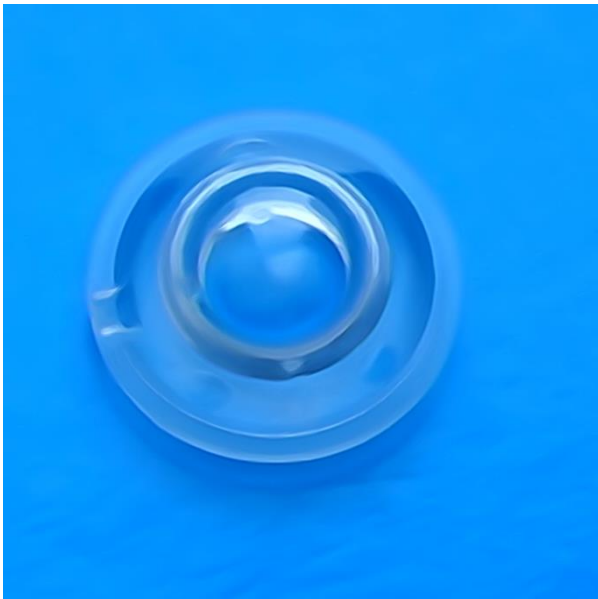


Part No. 1093
High Intensity UL1971 Ceiling Optic

Designed for high intensity ceiling mounted visual alarm devices meeting UL1971 requirements. This optic is designed to work with either large source size LEDs or 2 x 2 arrays of LEDs which are needed to produce the highest intensity distributions required by UL1971.



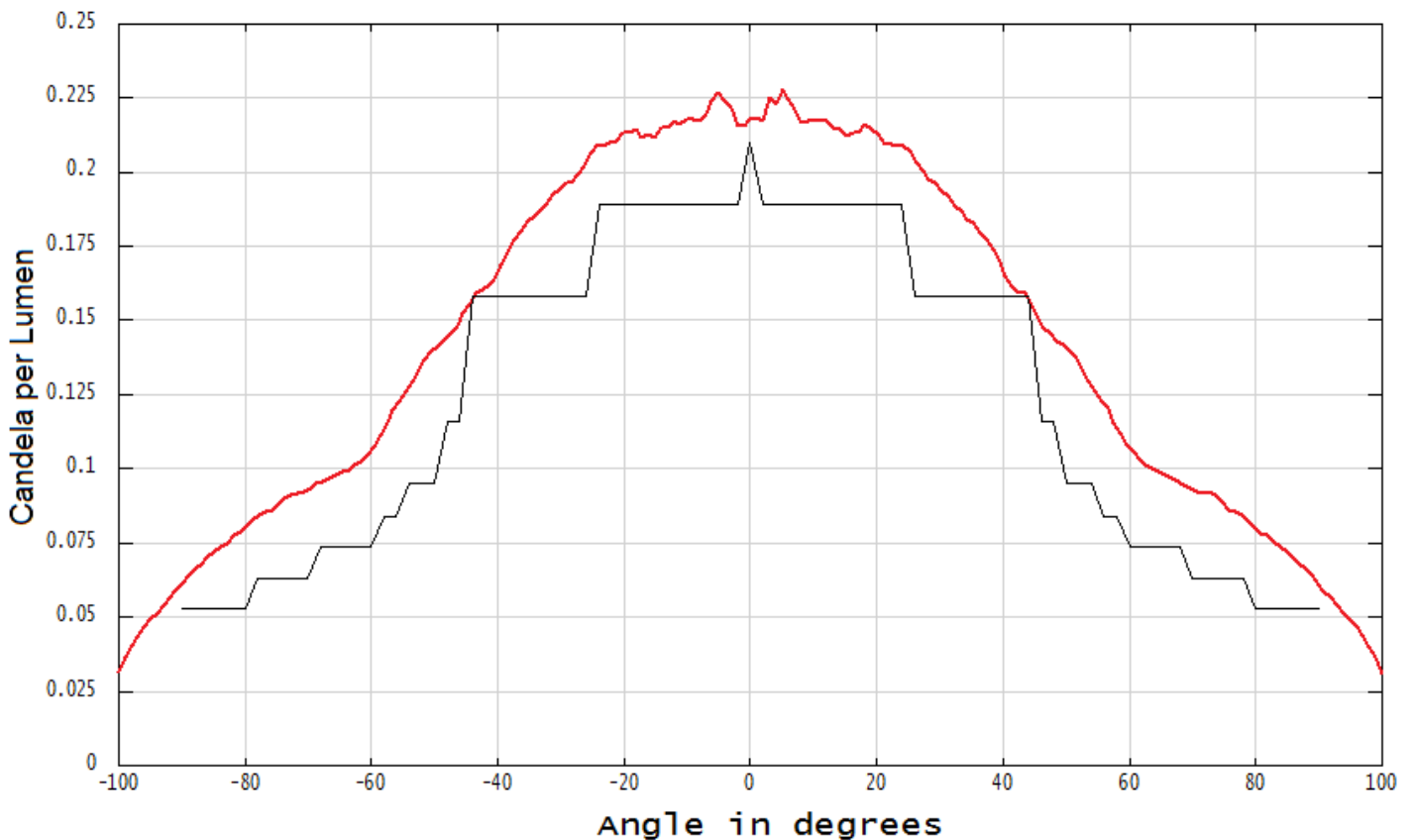
- **Designed for either a large source size LED or a 2x2 array of LEDs occupying a maximum 10.5mm x 10.5mm footprint .**
- **Ideal for use with a 2x2 array of Cree XM-L3 LEDs or similar 5mm packaged LED.**
- **Achieves a rating of up to 0.21 Candela per effective lumen of LED output, (dependent on LED used).**
- **Light transmission efficiency of 85%**
- **Precision moulded in optical grade Polycarbonate meeting the V-2 flammability rating.**

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High Intensity UL1971 Ceiling Optic

The graph below shows the luminous intensity output of the optic in terms of the Candela per effective Lumen emitted by a 2 x 2 array of Cree XM-L2 LEDs. The UL1971 limits are shown in black. If for example an Effective Intensity of 177 Candela was required from the optic the total output required from the array LEDs would be 843 effective Lumens.

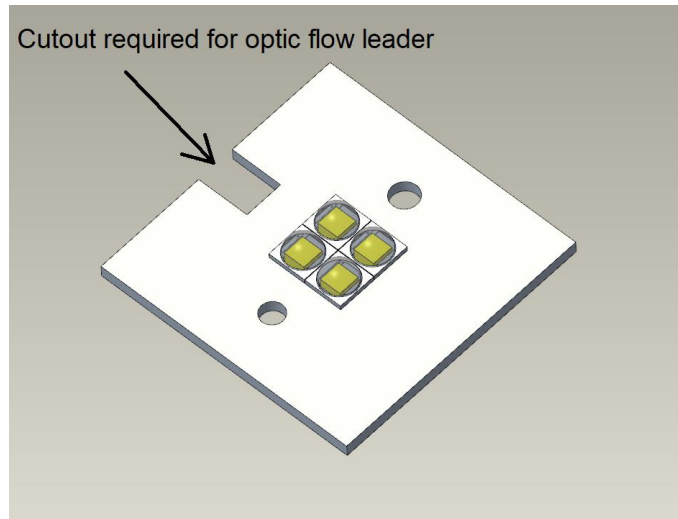
The light distribution produced by the optic will be slightly different if other LEDs are used.



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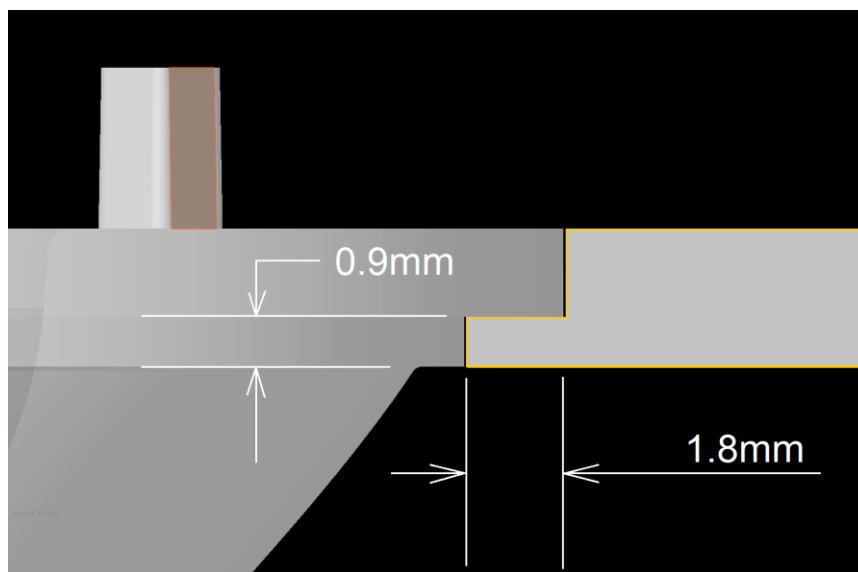
High Intensity UL1971 Ceiling Optic

A typical 2 x 2 array of LEDs mounted on a PCB is shown below. The LEDs should be mounted close together so that they fit within the maximum 10.5mm square footprint.



The optic is located on the PCB using a diamond dowel inserted in to a 3.5mm diameter hole and a peg in to a 3mm diameter hole. The distance between the two hole centres required is 20mm. (See dimensional drawing overleaf).

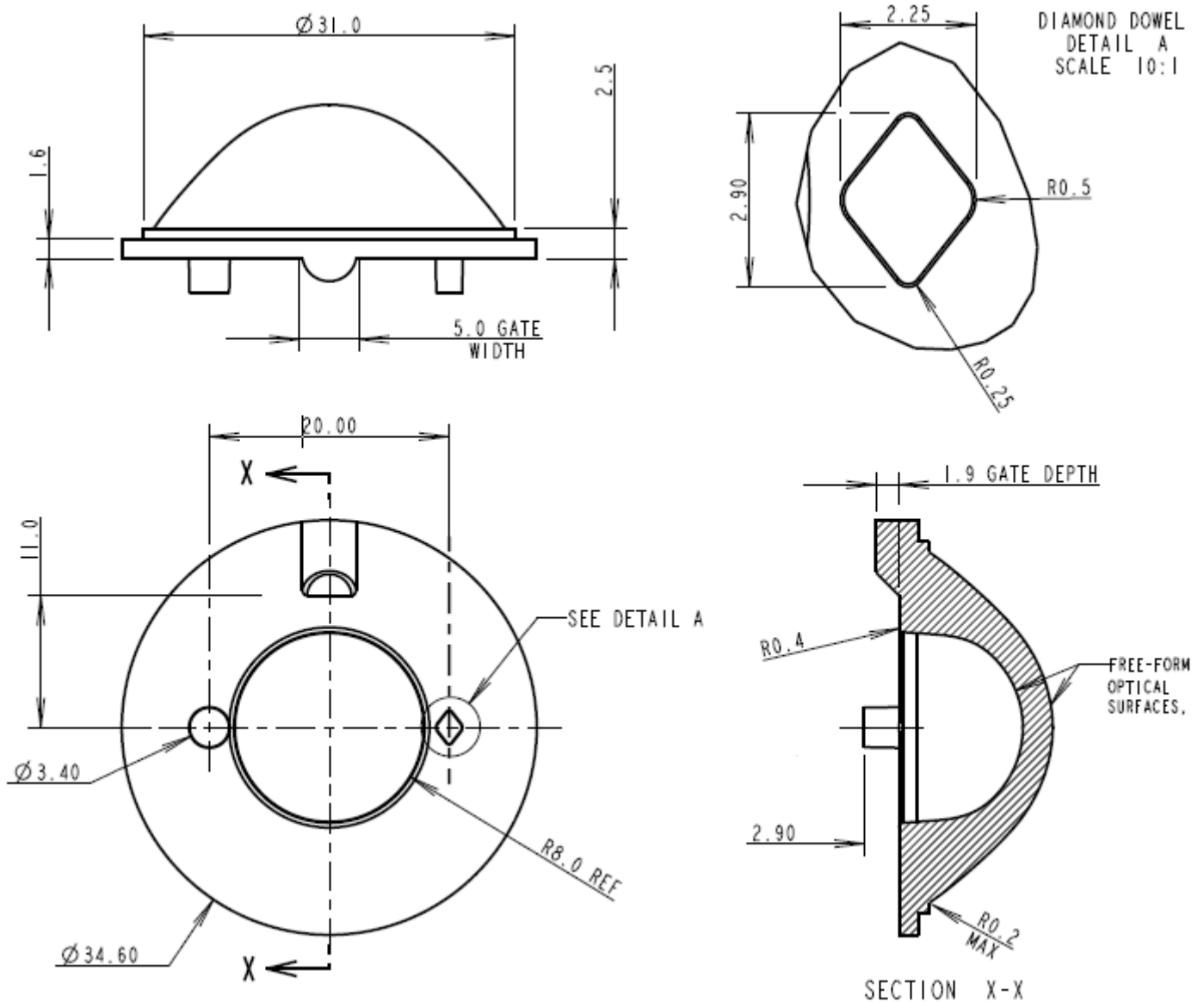
The maximum size of the lip of a retaining cover placed over the optic is shown below:



Part No. 1093

High Intensity UL1971 Ceiling Optic

Typical dimensional tolerances to
+/-0.2mm



In order to determine if the particular beam properties and performance of this optic are suitable for your application POL suggests that you obtain samples from POL or their distributors for your own product testing.

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