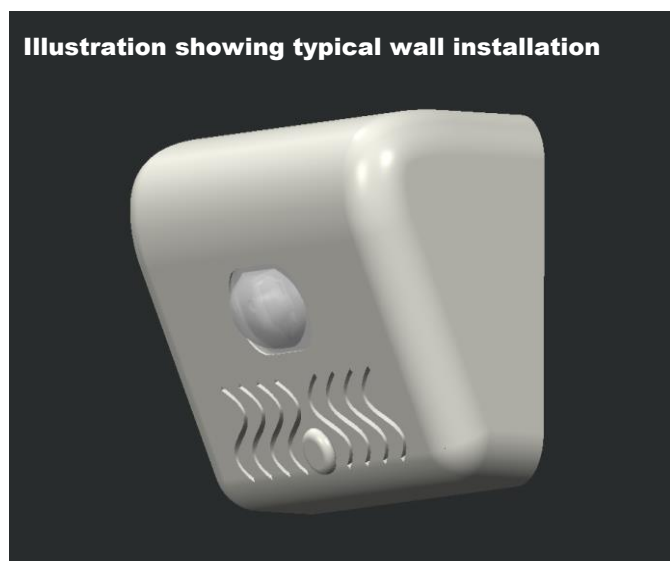


**Part No. 422**  
**Short Range EN54-23 Wall Optic Clear**

Designed for short range coverage meeting EN54 Part 23 requirements for a wall mounted signal optic positioned at a height of 2.4m. This optic can be used to efficiently illuminate areas up to 8m square. Larger areas can be illuminated with reduced efficiency.

A typical installation of the optic in an enclosure is shown below:

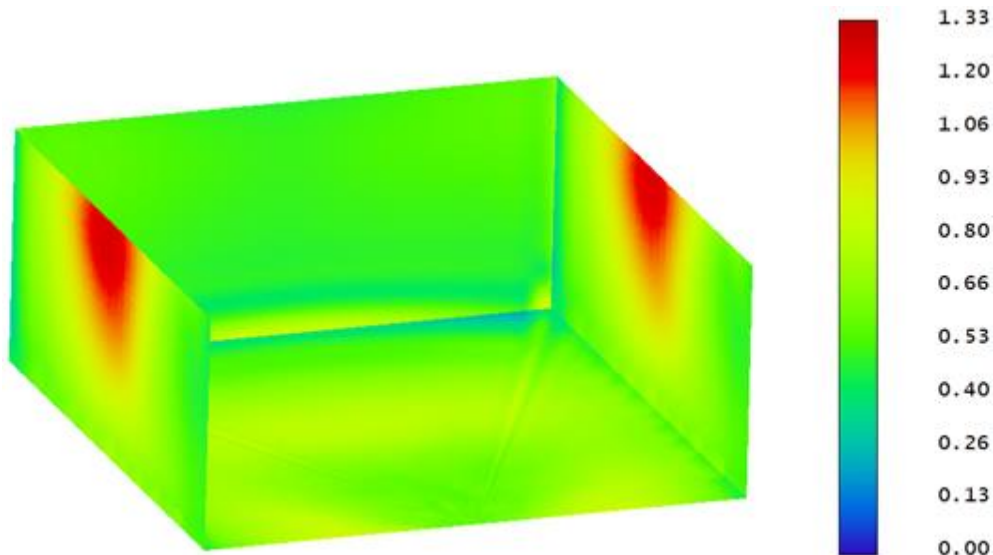


- Designed for Cree XP-E2, XP-G2, XM-L2, Luxeon Rebel, Luxeon TX and Luxeon M LEDs. (Other LEDs may be used).
- Rating vs effective LED output required:
  - W-2.4-6 55 lumens
  - W-2.4-7 70 lumens
  - W-2.4-8 90 lumens
- Light transmission efficiency of 83%
- Precision moulded in optical grade Polycarbonate meeting the V-2 flammability requirement of EN54-23.

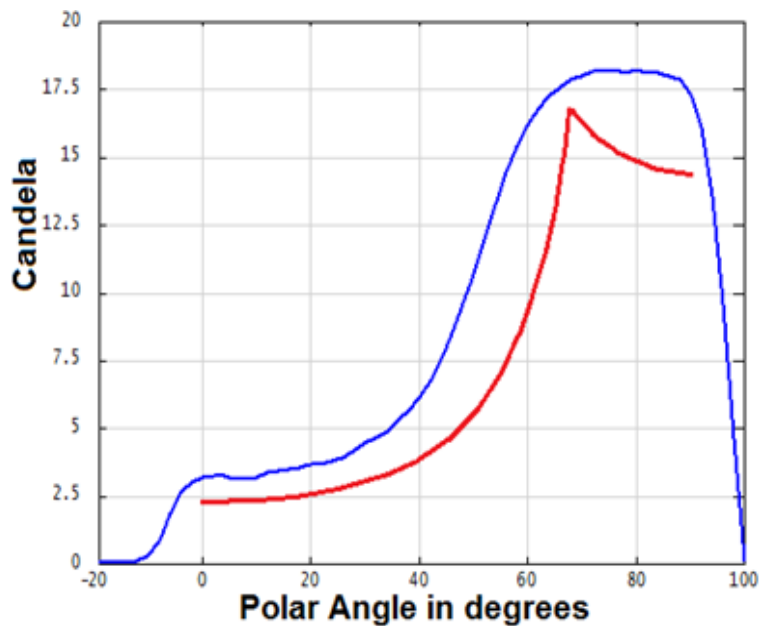
## Part No. 422

### Short Range EN54-23 Wall Optic Clear

The plot below shows the variation in flux level at the boundary of a 2.4m high, 6m square area as specified by EN54-23 when illuminated using a Cree XP-E2 LED emitting 55 effective lumens. (Note: EN54-23 specifies that the flux values are to be measured on a surface facing the source at the boundary.)



The graph below shows the optic output, (shown in blue) compared with the minimum 0.4 Lux level for W-2.4-6 compliance converted to candela values, (shown in red) from a Cree XP-E2 LED with an effective output of 55 lumens. (Note: To determine the peak lumens required to generate 55 effective lumens refer to Appendix A of EN54-23.)

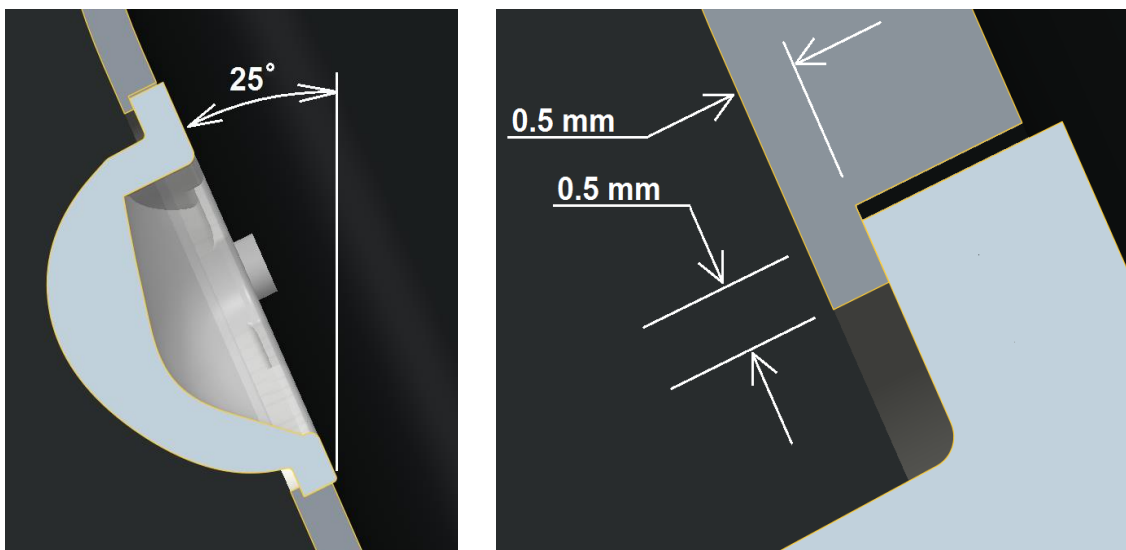


**Part No. 422**  
**Short Range EN54-23 Wall Optic Clear**

The picture below is a 3D interactive model of the part. Click to activate.

The optic is located on the PCB using a diamond dowel inserted in to a 2.5mm 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).

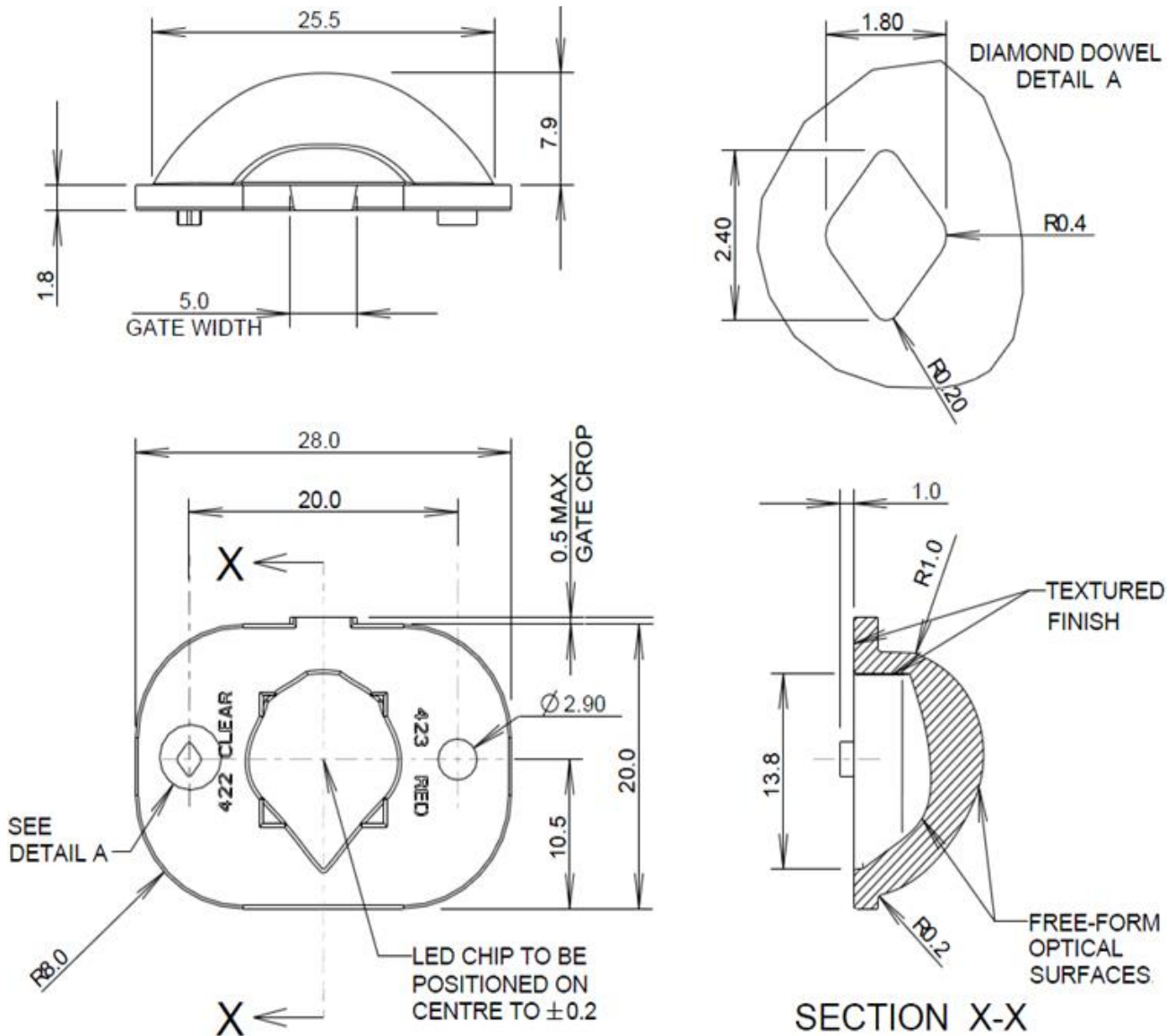
The optic is designed to be mounted at an angle of 25° to the vertical with the gate vestige facing upwards. The maximum size of the lip of a retaining cover placed over the optic is shown below:





## Part No. 422 Short Range EN54-23 Wall Optic Clear

Typical dimensional tolerances to  
 $\pm 0.2\text{mm}$



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.