Part No. 953
Long Range Vertical Mounting EN54-23 Wall Optic Clear

This optic has been designed for long range coverage meeting EN54 Part 23 requirements for a vertical wall mounted signal optic positioned at a height of 2.4m. This optic can be used to efficiently illuminate areas between 10m and 17m square. For applications requiring less than 10m coverage the short range #955 optic will be more efficient.

- Designed for Cree XP-E2, XP-G2, XM-L2, Luxeon Rebel, Luxeon TX and Luxeon M LEDs. Other Lambertian output LEDs may be used.

- Rating vs effective LED output required using Cree XM-L2:
  
  W-2.4-10 115 lumens  
  W-2.4-11 115 lumens  
  W-2.4-12 125 lumens  
  W-2.4-13 150 lumens  
  W-2.4-14 175 lumens  
  W-2.4-15 200 lumens  
  W-2.4-16 225 lumens  
  W-2.4-17 270 lumens  

- Light transmission efficiency of 85%

- Precision moulded in optical grade Polycarbonate meeting the V-2 flammability requirement of EN54-23.
Part No. 953  
Long Range Vertical Mounting EN54-23 Wall Optic Clear

The plot below shows the variation in flux level at the boundary of a 2.4m high, 12m square area as specified by EN54-23 when illuminated using a Cree XM-L2 LED emitting 125 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-2.4-12 compliance converted to candela values, (shown in green) from a Cree XM-L2 LED with an effective output of 125 lumens. (Note: To determine the peak lumens required to generate 125 effective lumens refer to Appendix A of EN54-23.)
Part No. 953
Long Range Vertical Mounting 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 vertically with the gate vestige and prisms facing upwards. To prevent the light output from the optic being obscured any surrounding casing of the VAD should not protrude beyond the top surface of the optic flange.
Part No. 953
Long Range Vertical Mounting EN54-23 Wall Optic Clear

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.