

**Part No. 955**  
**Short Range Vertical Mounting EN54-23 Wall Optic Clear**

This optic has been designed for short 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 of up to 9m square. For applications requiring 10m or more coverage the long range #953 optic will be more efficient.

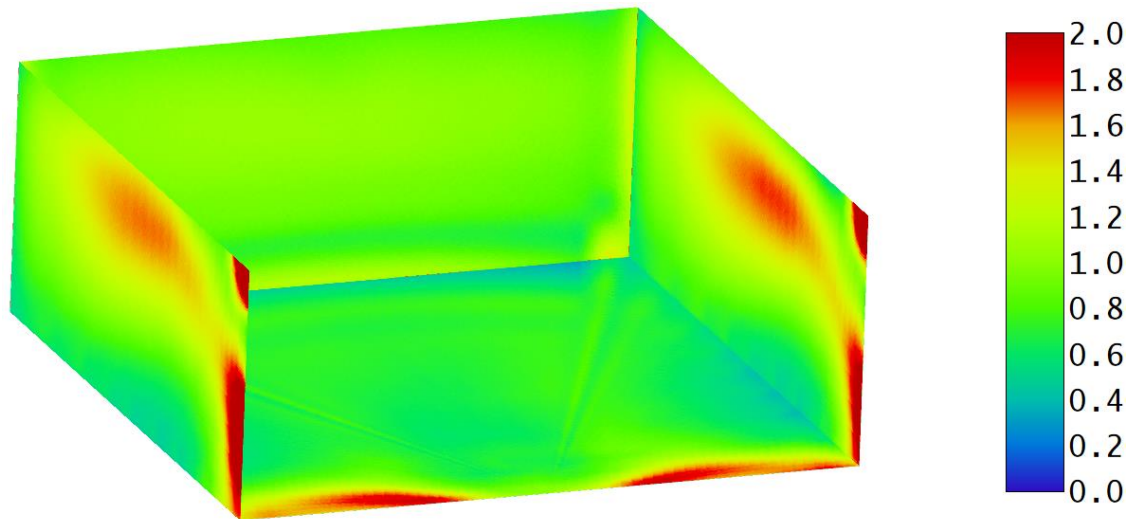


- Designed for Cree XP-E2, XP-G2, XM-L2, Luxeon Rebel, Luxeon TX and Luxeon M LEDs. Other Lambertian output LEDs may be used.
- Rating vs effective LED output required using Cree XP-G2:

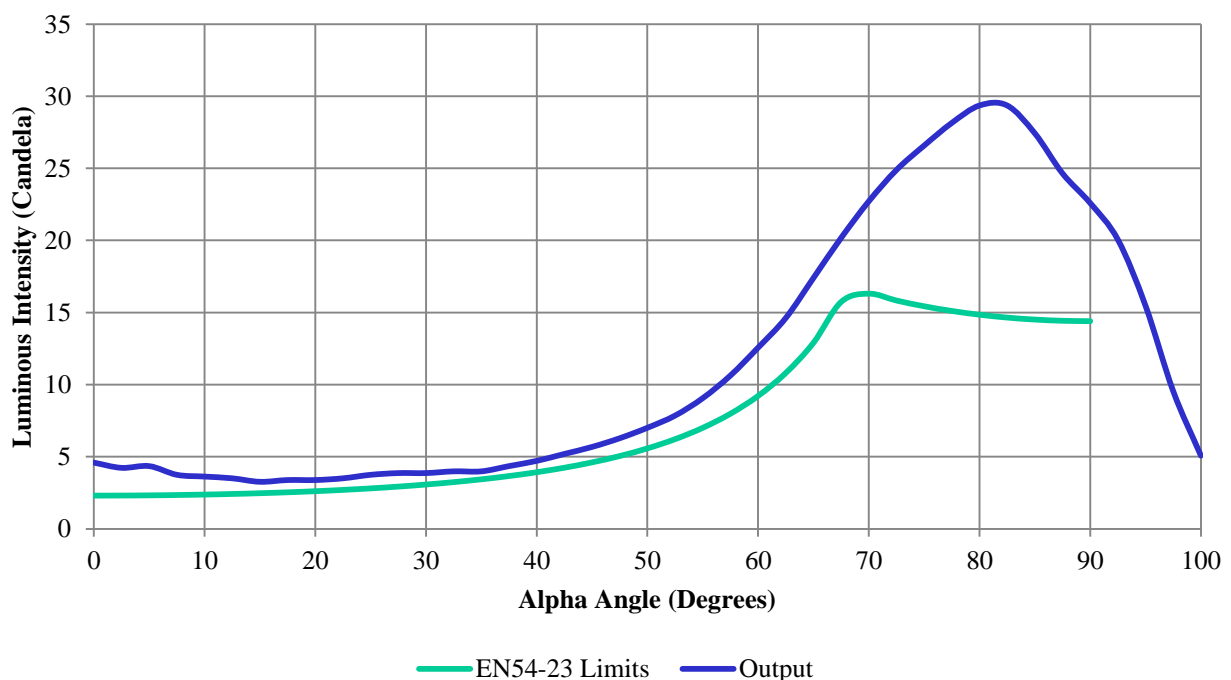
W-2.4-3	50 lumens
W-2.4-4	50 lumens
W-2.4-5	50 lumens
W-2.4-6	60 lumens
W-2.4-7	80 lumens
W-2.4-8	90 lumens
W-2.4-9	110 lumens
- Light transmission efficiency of 85%
- Precision moulded in optical grade Polycarbonate meeting the V-2 flammability requirement of EN54-23.

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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-G2 LED emitting 60 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 green) from a Cree XP-G2 LED with an effective output of 60 lumens. (Note: To determine the peak lumens required to generate 60 effective lumens refer to Appendix A of EN54-23.)

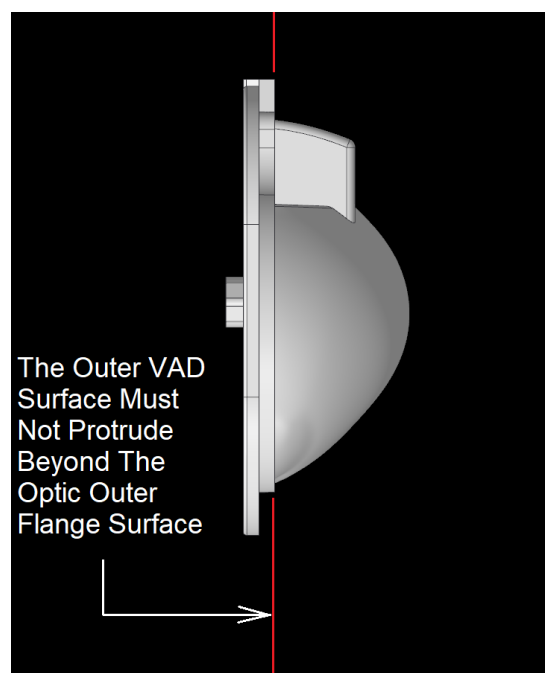


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The picture below is a 3D interactive model of the part. Click to activate.

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).

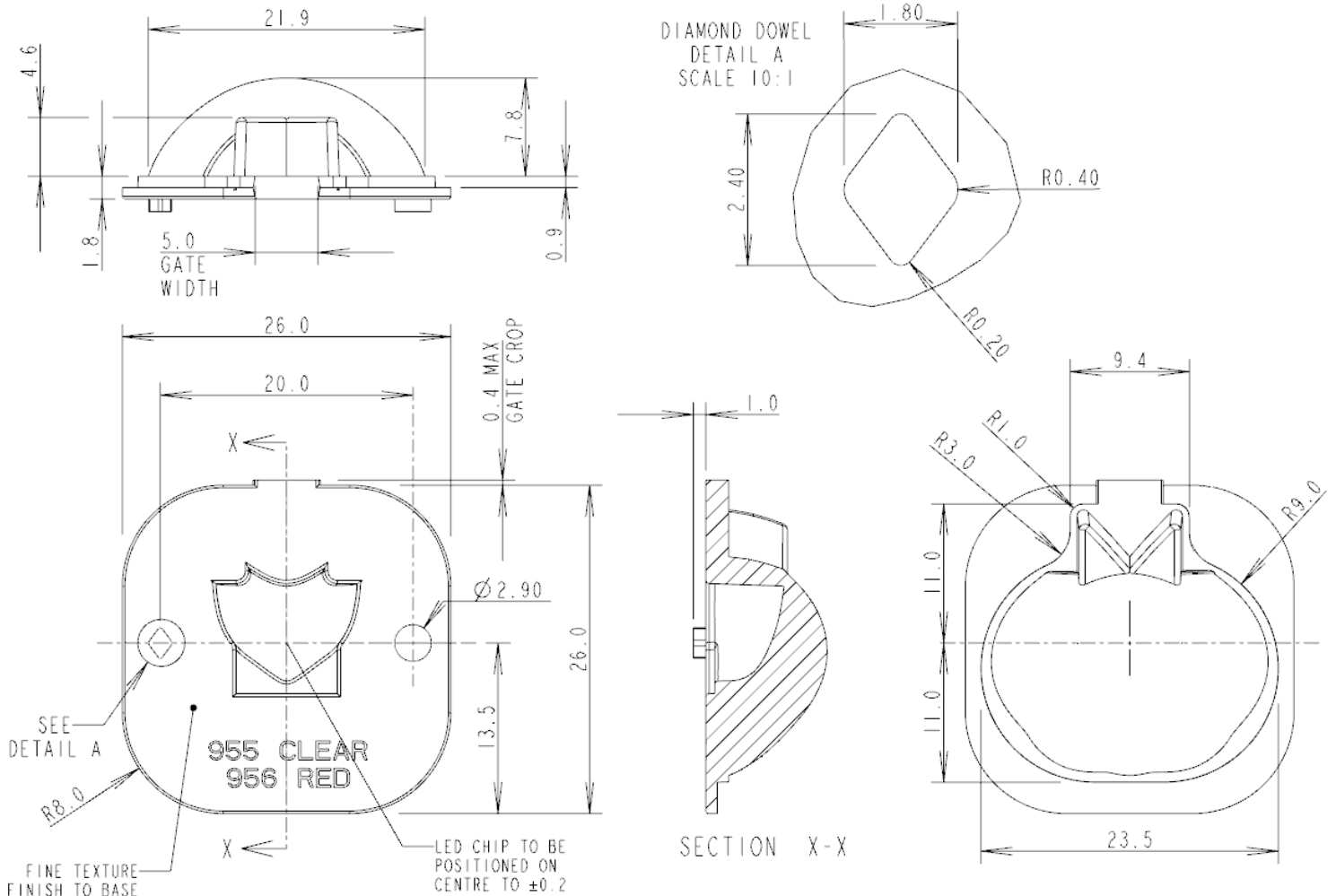
The optic is designed to be mounted vertically with the gate vestige and prisms facing upwards. There is a 0.9mm step in the optic flange which the VAD outer casing should overlap. To prevent the light output from the optic being obscured outer surface of the VAD should not protrude beyond the top surface of the optic flange.



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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.