

>> DE-R 216 - Standard Diffractive Optical Element

Element Number: DE-R 216

Description: Viewfinder

Material: Polymethyl Methacrylate (PMMA)

Size (\varnothing x Thickness): 8 x 1.2 mm

Optimum Wavelength: **405 nm**

(The element is usable with a range of wavelengths, but the following parameters will vary most with the wavelength: pattern size (see table 1) and intensity in the undiffracted central spot ('zero order', see table 2). At the optimum wavelength given on this datasheet, the element shows the lowest intensity in the central spot.)

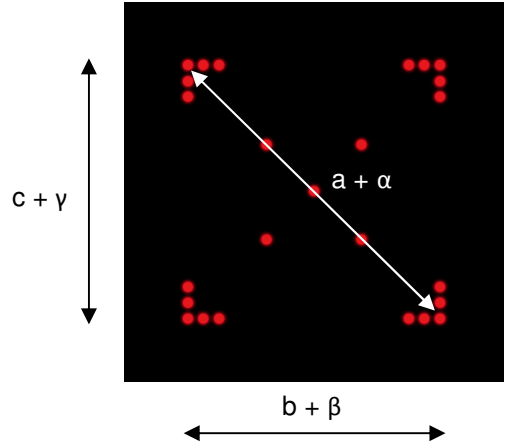
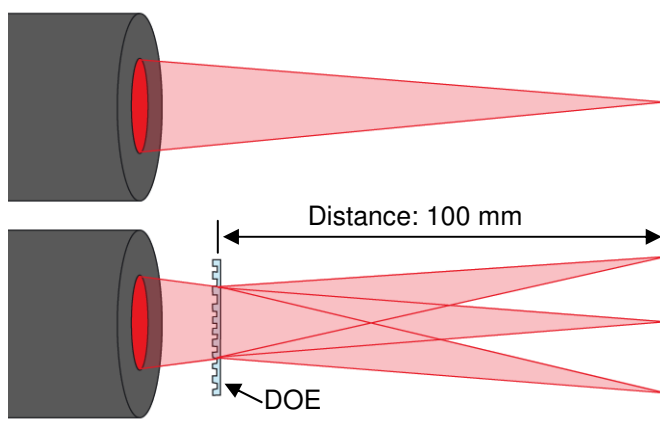


Table 1

Wavelength	Pattern Size @ 100 mm Distance			Pattern Angles		
	a	b	c	α	β	γ
405 nm	11.3 mm	8 mm	8 mm	6.4°	4.6°	4.6°
488 nm	13.6 mm	9.6 mm	9.6 mm	7.8°	5.5°	5.5°
543 nm	15.1 mm	10.7 mm	10.7 mm	8.6°	6.1°	6.1°
594 nm	16.6 mm	11.7 mm	11.7 mm	9.5°	6.7°	6.7°
635 nm	17.7 mm	12.5 mm	12.5 mm	10.1°	7.1°	7.1°
650 nm	18.1 mm	12.8 mm	12.8 mm	10.4°	7.3°	7.3°
730 nm	20.4 mm	14.4 mm	14.4 mm	11.6°	8.2°	8.2°
780 nm	21.8 mm	15.4 mm	15.4 mm	12.4°	8.8°	8.8°
808 nm	22.6 mm	15.9 mm	15.9 mm	12.9°	9.1°	9.1°

Setup:



Diffraction Zero Order Intensity:

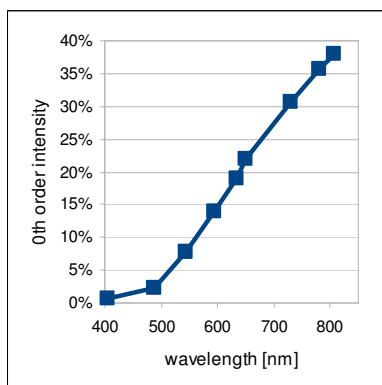


Table 2

Wavelength	0th Order Intensity
405	0.62%
488	2.4%
543	7.9%
594	13.9%
635	19.0%
650	22%
730	31%
780	36%
808	38%