

>> DE-R 233 - Standard Diffractive Optical Element

Element Number: DE-R 233

Description: 7 Lines (Square)

Number of Lines: 7 Lines

Material: Polycarbonate (PC)

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

Optimum Wavelength: **635 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 same intensity in the central spot as in the off-axis spots.)

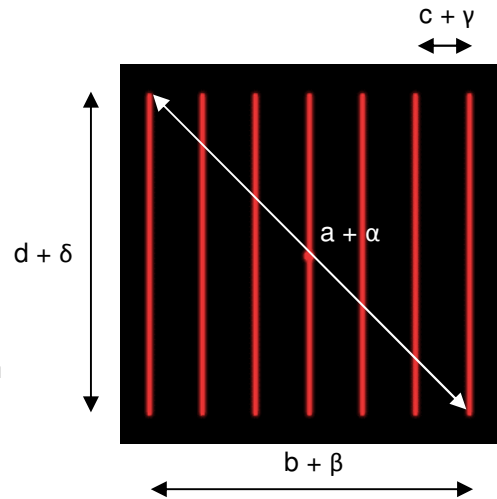
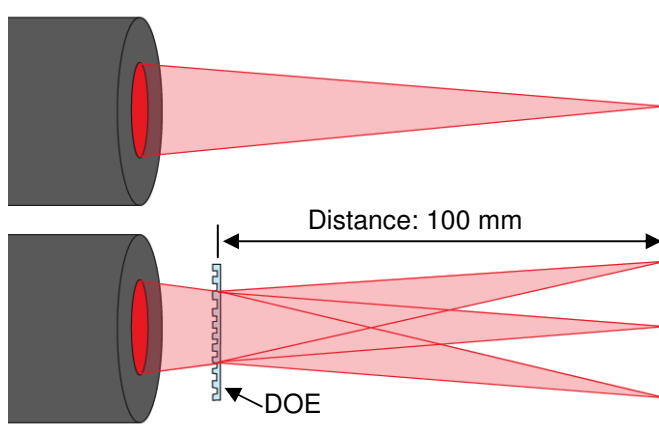


Table 1

Wavelength	Pattern Size @ 100 mm Distance				Pattern Angles			
	a	b	c	d	α	β	γ	δ
488 nm	41 mm	29 mm	4.9 mm	29 mm	23°	16.6°	2.8°	16.6°
543 nm	46 mm	33 mm	5.4 mm	33 mm	26°	18.4°	3.1°	18.4°
594 nm	50 mm	36 mm	5.9 mm	36 mm	28°	20°	3.4°	20°
635 nm	54 mm	38.2 mm	6.4 mm	38 mm	30°	22°	3.6°	22°
650 nm	55 mm	39 mm	6.5 mm	39 mm	31°	22°	3.7°	22°
730 nm	63 mm	44 mm	7.4 mm	44 mm	35°	25°	4.1°	25°
780 nm	68 mm	47 mm	7.9 mm	47 mm	37°	27°	4.4°	27°
808 nm	70 mm	49 mm	8.2 mm	49 mm	39°	28°	4.6°	28°

Setup:



Diffraction Zero Order Intensity:

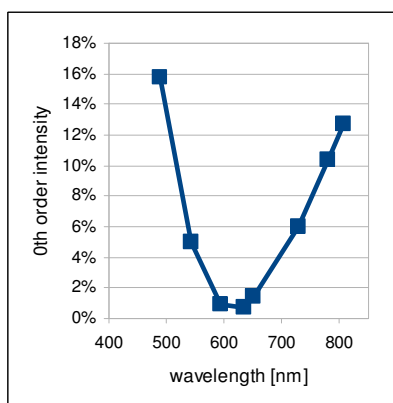


Table 2

Wavelength	0th Order Intensity
488	16%
543	5%
594	1.0%
635	0.7%
650	1.5%
730	6%
780	11%
808	13%