

>> DE-R 250 - Standard Diffractive Optical Element

Element Number: DE-R 250

Description: 5 Lines (Rectangular)

Number of Lines: 11 Lines

Material: Polycarbonate (PC)

Size (Ø 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.)

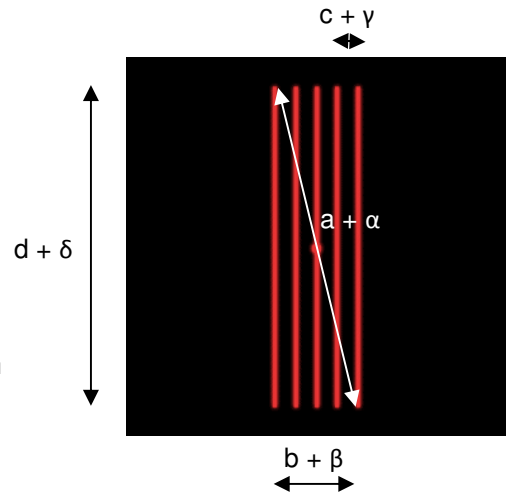
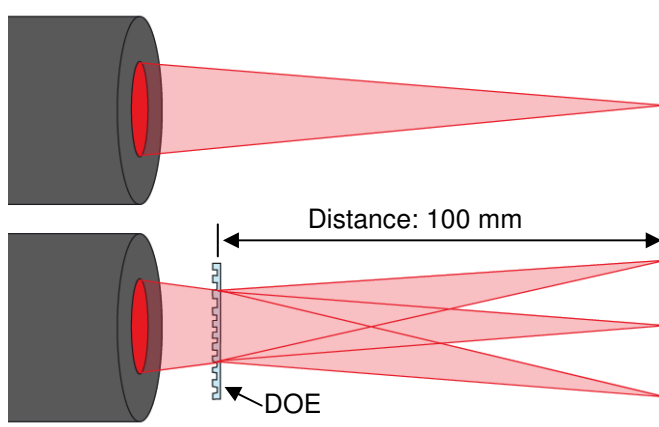


Table 1

Wavelength	Pattern Size @ 100 mm Distance				Pattern Angles			
	a	b	c	d	α	β	γ	δ
488 nm	40 mm	8.0 mm	2.0 mm	39 mm	23°	4.6°	1.15°	22°
543 nm	45 mm	9.0 mm	2.2 mm	44 mm	25°	5.1°	1.28°	25°
594 nm	49 mm	9.8 mm	2.4 mm	48 mm	28°	5.6°	1.40°	27°
635 nm	53 mm	10.5 mm	2.6 mm	52 mm	30°	6.0°	1.50°	29°
650 nm	54 mm	10.7 mm	2.7 mm	53 mm	30°	6.1°	1.53°	30°
730 nm	61 mm	12.0 mm	3.0 mm	60 mm	34°	6.9°	1.72°	34°
780 nm	66 mm	12.9 mm	3.2 mm	65 mm	37°	7.4°	1.84°	36°
808 nm	69 mm	13.3 mm	3.3 mm	67 mm	38°	7.6°	1.91°	37°

Setup:



Diffraction Zero Order Intensity:

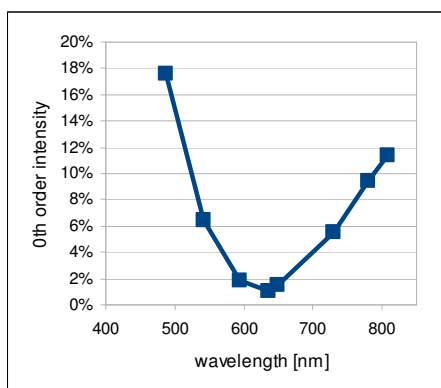


Table 2

Wavelength	0th Order Intensity
488	18%
543	7%
594	2.0%
635	1.1%
650	1.5%
730	6%
780	10%
808	12%