>> DE-R 213 - Standard Diffractive Optical Element

Element Number: DE-R 213

Description: 11 Lines (Square)

Number of Lines: 11 Lines

Material: Polycarbonate (PC)

Size (Ø x Thickness): 8 x 1.2 mm

Optimum Wavelength: 594 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.)

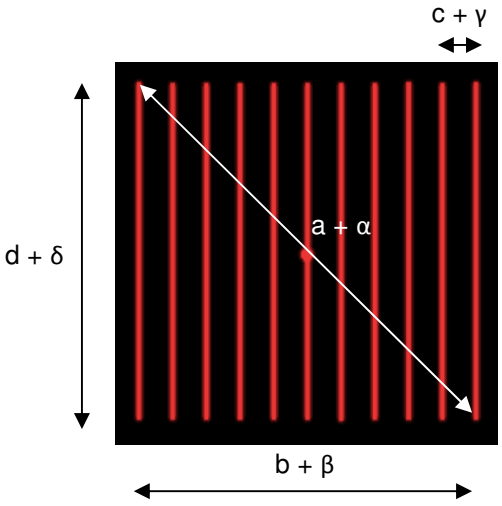
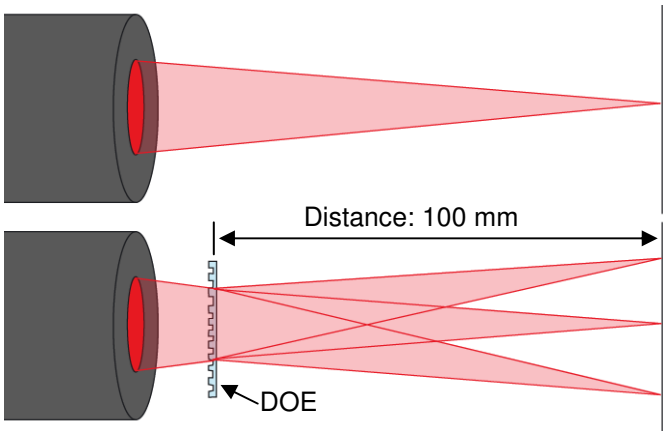


Table 1

Wavelength	Pattern Size @ 100 mm Distance				Pattern Angles			
	a	b	c	d	α	β	γ	δ
488 nm	57.0 mm	40.9 mm	4.0 mm	40.9 mm	31.8°	23.1°	2.3°	23.1°
543 nm	64.0 mm	45.8 mm	4.6 mm	45.8 mm	35.5°	25.8°	2.6°	25.8°
594 nm	70.7 mm	50.3 mm	5.0 mm	50.3 mm	38.9°	28.3°	2.8°	28.3°
635 nm	76.3 mm	54.1 mm	5.4 mm	54.1 mm	41.8°	30.3°	3.0°	30.3°
650 nm	79.8 mm	56.4 mm	5.6 mm	56.4 mm	43.5°	31.5°	3.1°	31.5°
730 nm	89.8 mm	62.9 mm	6.3 mm	62.9 mm	48.4°	34.9°	3.5°	34.9°
780 nm	97.4 mm	67.7 mm	6.8 mm	67.7 mm	51.9°	37.4°	3.7°	37.4°
808 nm	101.8 mm	70.4 mm	7.0 mm	70.4 mm	53.9°	38.8°	3.9°	38.8°

Setup:



Diffraction Zero Order Intensity:

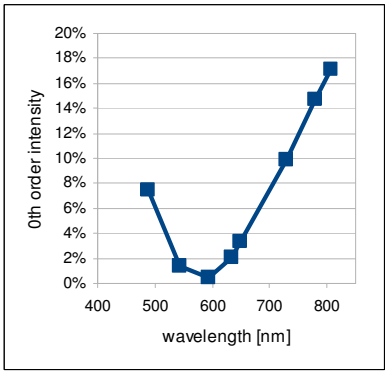


Table 2

Wavelength	0th Order Intensity
488	8%
543	1.5%
594	0.4%
635	2.5%
650	3.5%
730	10%
780	15%
808	17%