

>> DE-R 253 - Standard Diffractive Optical Element

Element Number: DE-R 253

Description: 11 Lines (Square – Thin Lines)

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.)

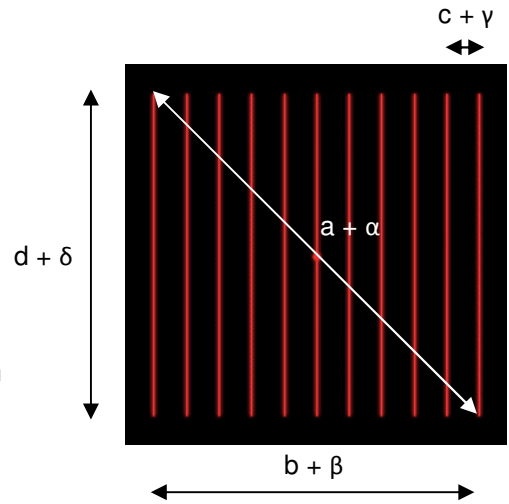
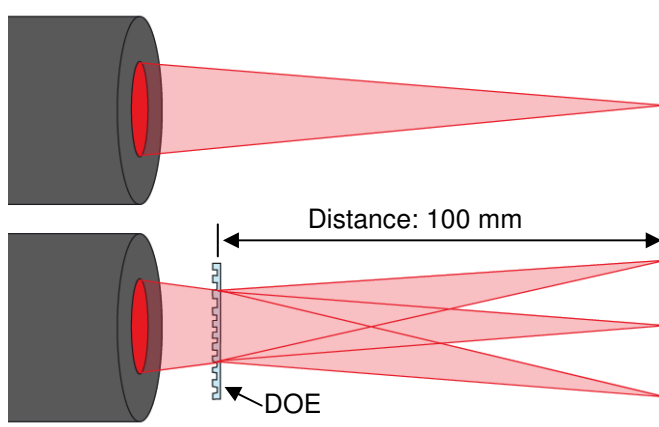


Table 1

Wavelength	Pattern Size @ 100 mm Distance				Pattern Angles			
	a	b	c	d	α	β	γ	δ
488 nm	57 mm	41 mm	4.1 mm	41 mm	32°	23°	2.3°	23°
543 nm	64 mm	46 mm	4.6 mm	46 mm	36°	26°	2.6°	26°
594 nm	71 mm	50 mm	5.0 mm	50 mm	39°	28°	2.8°	28°
635 nm	76 mm	54 mm	5.4 mm	54 mm	42°	30°	3.0°	30°
650 nm	79 mm	55 mm	5.5 mm	55 mm	43°	31°	3.1°	31°
730 nm	90 mm	63 mm	6.3 mm	63 mm	48°	35°	3.5°	35°
780 nm	98 mm	68 mm	6.8 mm	68 mm	52°	37°	3.7°	37°
808 nm	101 mm	70 mm	7.0 mm	70 mm	54°	39°	3.9°	39°

Setup:



Diffraction Zero Order Intensity:

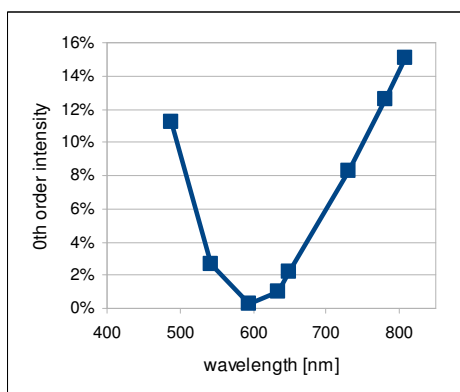


Table 2

Wavelength	0th Order Intensity
488	12%
543	2.7%
594	0.3%
635	1.1%
650	2.3%
730	9%
780	13%
808	16%