

>> DE-R 257 - Standard Diffractive Optical Element

Element Number: DE-R 257

Description: Matrix 51 x 51 Dots

Number of Dots: 2601 Dots

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.)

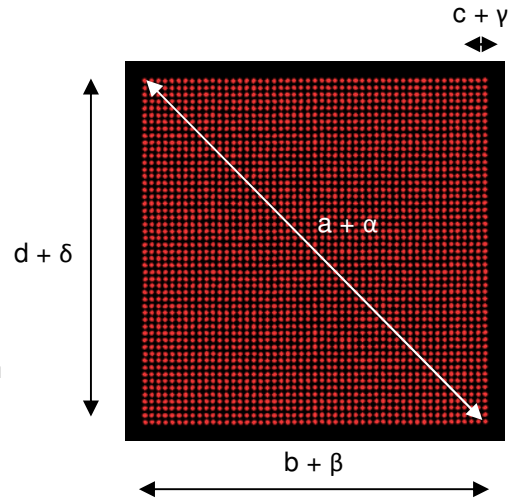
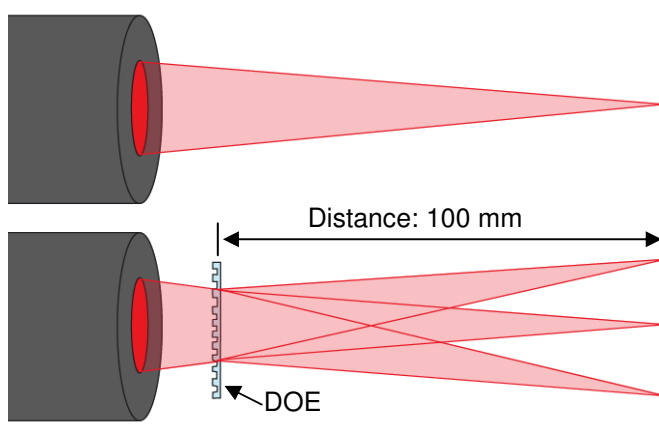


Table 1

Wavelength	Pattern Size @ 100 mm Distance				Pattern Angles			
	a	b	c	d	α	β	γ	δ
488 nm	41 mm	30 mm	0.59 mm	30 mm	23°	16.8°	0.34°	16.8°
543 nm	46 mm	33 mm	0.66 mm	33 mm	26°	18.7°	0.37°	18.7°
594 nm	51 mm	36 mm	0.72 mm	36 mm	29°	21°	0.41°	21°
635 nm	55 mm	39 mm	0.77 mm	39 mm	31°	22°	0.44°	22°
650 nm	56 mm	40 mm	0.79 mm	40 mm	31°	22°	0.45°	22°
730 nm	64 mm	45 mm	0.89 mm	45 mm	35°	25°	0.50°	25°
780 nm	68 mm	48 mm	0.96 mm	48 mm	38°	27°	0.54°	27°
808 nm	71 mm	50 mm	1.00 mm	50 mm	39°	28°	0.56°	28°

Setup:



Diffraction Zero Order Intensity:

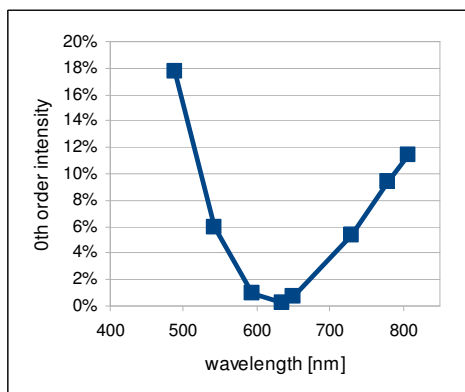


Table 2

Wavelength	0th Order Intensity
488	18%
543	6%
594	1.0%
635	0.3%
650	0.8%
730	6%
780	10%
808	12%