

>> DE-R 259 - Standard Diffractive Optical Element

Element Number: DE-R 259

Description: 5 Rings

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 lowest intensity in the central spot.)

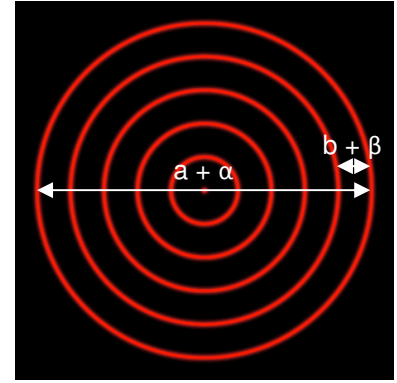
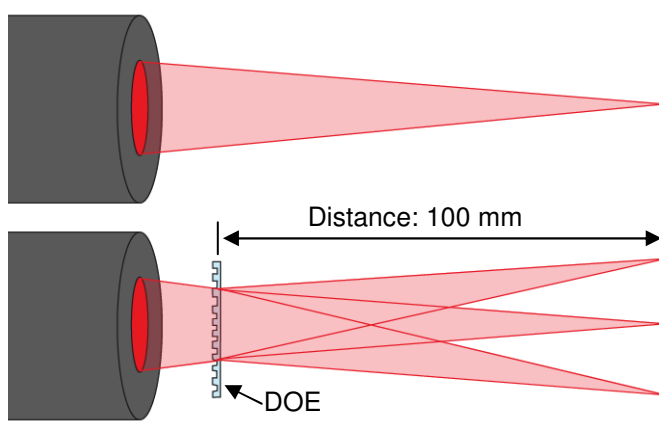


Table 1

Wavelength	Pattern Size @ 100 mm Distance		Pattern Angles	
	a	b	α	β
488 nm	39 mm	3.8 mm	22°	2.2°
543 nm	43 mm	4.3 mm	24°	2.4°
594 nm	47 mm	4.7 mm	27°	2.7°
635 nm	51 mm	5.1 mm	29°	2.8°
650 nm	52 mm	5.2 mm	29°	2.9°
730 nm	59 mm	5.9 mm	33°	3.3°
780 nm	63 mm	6.3 mm	35°	3.5°
808 nm	66 mm	6.6 mm	37°	3.6°

Setup:



Diffraction Zero Order Intensity:

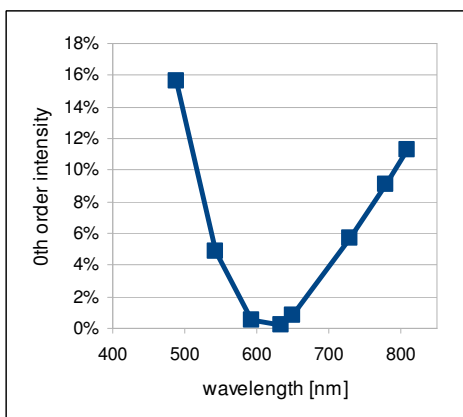


Table 2

Wavelength	0th Order Intensity
488	16%
543	4.9%
594	0.6%
635	0.2%
650	0.9%
730	6%
780	10%
808	12%