>> DE-R 218 - Standard Diffractive Optical Element

Element Number: DE-R 218

Description: Cross – 15

Material: Polymethyl Methacrylate (PMMA)

Size (Ø x Thickness): 8 x 1 mm

Optimum Wavelength: 543 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.)

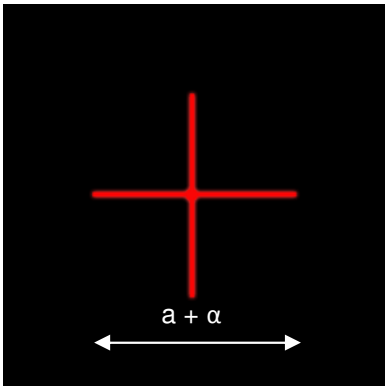
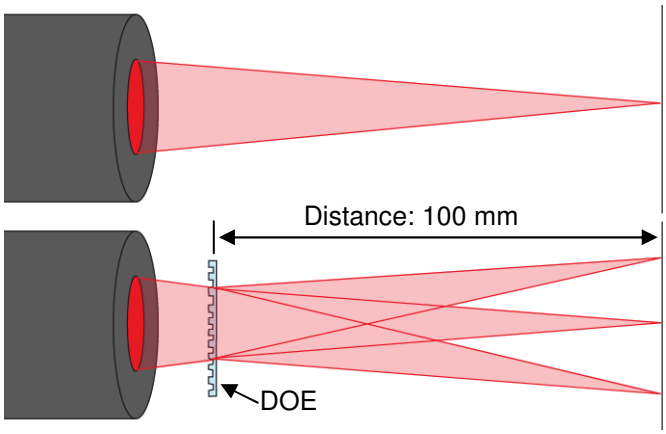


Table 1

Wavelength	Pattern Size @ 100 mm Distance	Pattern Angles
	a	α
488 nm	20 mm	11.4°
543 nm	22 mm	12.7°
594 nm	24 mm	13.9°
635 nm	26 mm	14.9°
650 nm	27 mm	15.2°
730 nm	30 mm	17.1°
780 nm	32 mm	18.3°
808 nm	33 mm	18.9°

Setup:



Diffraction Zero Order Intensity:

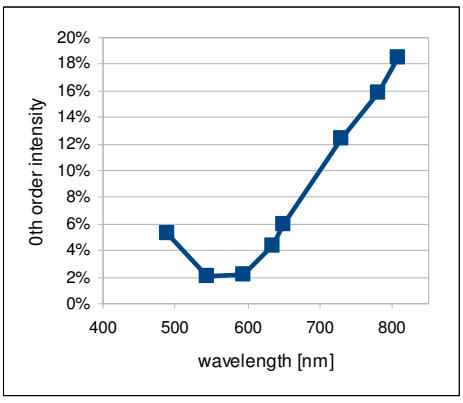


Table 2

Wavelength	0th Order Intensity
488	6%
543	2.1%
594	2.2%
635	4.4%
650	6%
730	13%
780	16%
808	19%