

>> DE-R 219 - Standard Diffractive Optical Element

Element Number: DE-R 219

Description: Solid Line Circle

Material: Polymethyl Methacrylate (PMMA)

Size (\varnothing 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 lowest intensity in the central spot.)

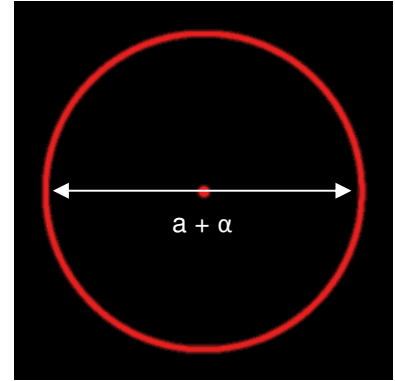
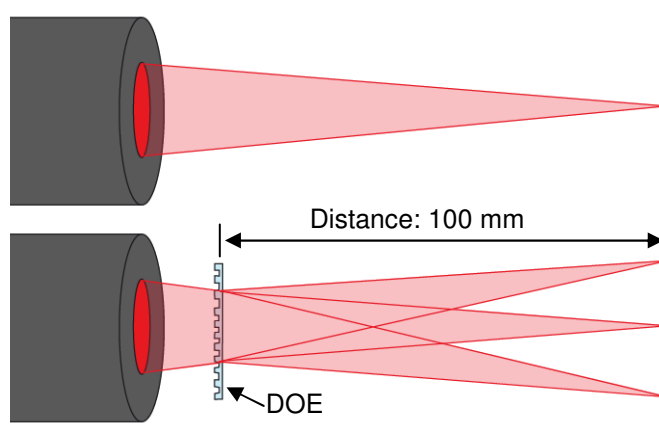


Table 1

Wavelength	Pattern Size @ 100 mm Distance	Pattern Angles
	a	α
488 nm	46 mm	26°
543 nm	51 mm	29°
594 nm	56 mm	31°
635 nm	60 mm	34°
650 nm	62 mm	34°
730 nm	70 mm	39°
780 nm	76 mm	42°
808 nm	79 mm	43°

Setup:



Diffraction Zero Order Intensity:

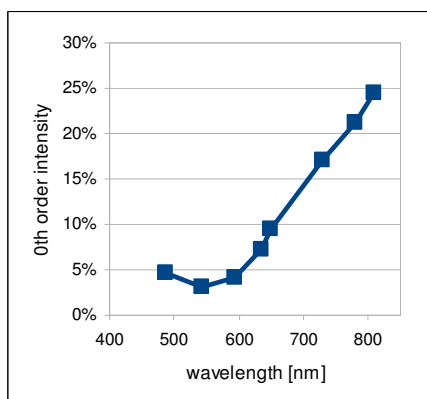


Table 2

Wavelength	0th Order Intensity
488	4.6%
543	3.1%
594	4.1%
635	8%
650	10%
730	18%
780	22%
808	25%