## DTC- REGD03 Diffractive Optical Element



## Pattern Specifications



- Element Number: DTC- REGD03
- Description: Regular 3,000 dots
- Substrate material: PET/PMMA/GLASS
- DOE active area: $5 \times 5 \mathrm{~mm}$
- Design wavelength: 515 nm
- Minimum recommended beam diameter (FWHM): 2 mm

A DOE functions with a laser light source that emits a diffractive pattern. Each DOE pattern is characterized by a specific laser wavelength, focal length and transverse mode. Each laser wavelength will result in a different zero order intensity. The focal length is dependent on the DOE and the object distance which can be adjusted using a collimating lens (CL). The transverse mode will affect the dot shape.

| Field of View (FOV) | $56^{\circ} \times 46^{\circ}(\mathrm{HxV})$ |
| :--- | :--- |
| Contrast $^{1}$ (calculated by gray level) | $\geqq 8$ |
| Uniformity $^{2}$ (calculated by gray level) | $\geqq 50 \%$ |
| Zero order | $\leqq 0.65 \%$ |

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[^0]:    ${ }^{1}$ Contrast: in the defined area, the ratio of the $95^{\text {th }}$ percentile of the grayscale value over the midian grayscale value of the background, $\mathrm{C}=\mathrm{I}_{95 \%} / \mathrm{I}_{\text {midian }}$
    ${ }^{2}$ Uniformity: the ratio of the grayscale value of the area at a given location to the grayscale value of the area in the center of the pattern, $\mathrm{U}=\mathrm{I}_{\text {each area }} / \mathrm{I}_{\text {max }}$ of each area

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