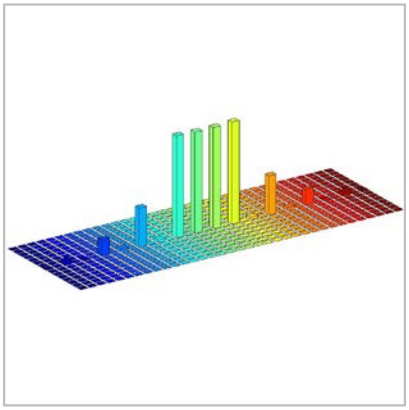
Optics

HOLO/OR

LASER COMPONENTS

Low Cost DOEs Fabrication in Plastic

HoloOr produces since 2014 plastic DOEs. Low to medium power applications do not necessarily require a glassy material for the DOE. HoloOr offers low cost, mass production of diffractive elements using an injection molding technology. The main plastic types are: Polycarbonate PMMA, Zeonex and Zoner.



For Custom Specific DOEs

If you are interested in custom specific plastic DOEs for measuring or vision application, we need from you following data:

- Description on application
- Wavelength
- Beam definition (diameter, input mode, divergency)
- DOE dimension – if some specific values are needed
- Working distance
- Requested output shape at working distance
- Special needs (high efficiency, high homogeneity, AR coating)
- Quantity for samples and serial production

Standard Plastic DOEs

The standard list is a permanently growing list of DOEs available in plastic for mass production, please ask us if there are any new parts available. All standard DOEs are without antireflective coating.

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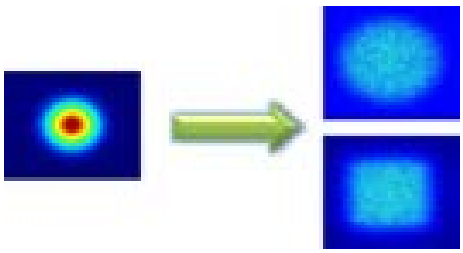
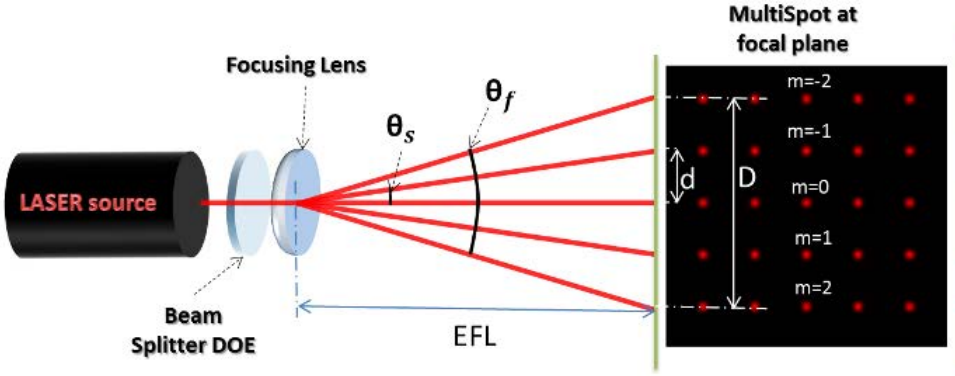
Homogenizer



Type	Wavelength [nm]	Dimension [mm]	Material	Diffusion Angle [°]	Output Shape	Efficiency [%]
RD-217-850-N-A	850	10 x 10 x 0.6	Polycarbonate	25.56	Round	ca. 67.7
HM-293-Q-N-A	532	10 x10 x 0.6	Polycarbonate	5 x 5	Square	ca. 67

Multispot DOE



EFL	Effective focal length
m	Orders (spot) of the MultiSpot
θ_s	Separation angle between 2 focal spots
d	Distance between 2 focal spots
θ_f	Full angle
D	Length of the spots array

Type	Wavelength [nm]	Dimension [mm]	Material	Separation Angle [°]	Number of Spots	Efficiency [%]
MS-447-Q-N-X	532	6 x 8 x 0.6	Polycarbonate	0.49 x 0.49	164 x 164 target	ca. 64.3
MS-466-Q-N-X	532	6 x 8 x 0.6	Polycarbonate	0.49 x 0.49	92 x 92 target	ca. 63.4
MS-467-Q-N-X	532	10 x 10 x 0.6	Polycarbonate	0.17 x 0.17	181 x 181 random	ca. 67.0
MS-468-850-N-X	850	10 x 10 x 0.6	Polycarbonate	0.27 x 0.27	181 x 181	ca. 69.5
MS-469-850-N-X	850	10 x 10 x 0.6	Polycarbonate	0.32 x 0.32	101 x 101 random	ca. 66.8
MS-470-850-N-A	850	20 x 20 x 0.6	Polycarbonate	0.26 x 0.26	128 x 128	ca. 69.5

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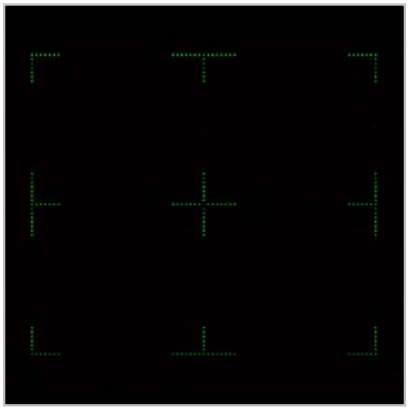
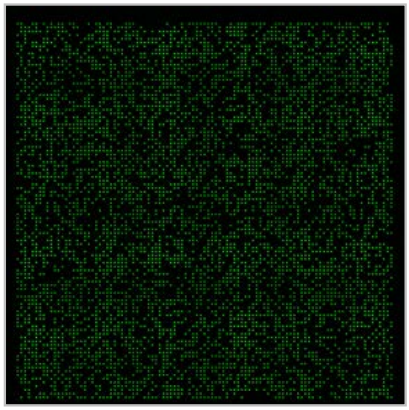
Target DOEs

Multispot DOEs with the remark „target" is an element that produces a number of spots building a typical target, refer also to below image.



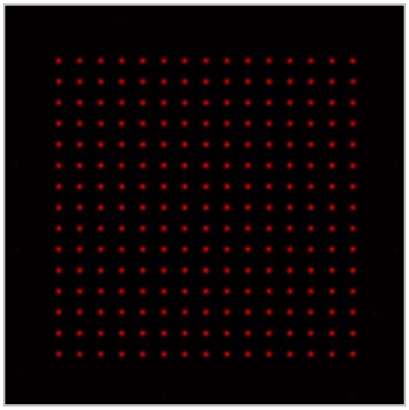
Random DOEs

Multispot DOEs with the remark "random" have a random pattern of spot, with 50% of the dot matrix are potential spots and will be lit, and this will be determined by a randomizing algorithm.



Standard Multispot DOEs

Multispot DOEs with out any additional remark, show a homogenous distribution of the spots, as shown in below image:



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