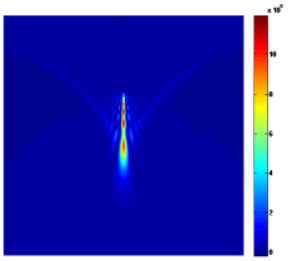
Q3-2015 Newsletter

Industry news

Next exhibition – CIOE 2015 – Aug.31-Sep.3 - Shenzhen, China:

HOLO/OR will exhibit in **Hall 9, Booth 9150** on the

What's New



New Extended-Focus (EF) product page with many examples

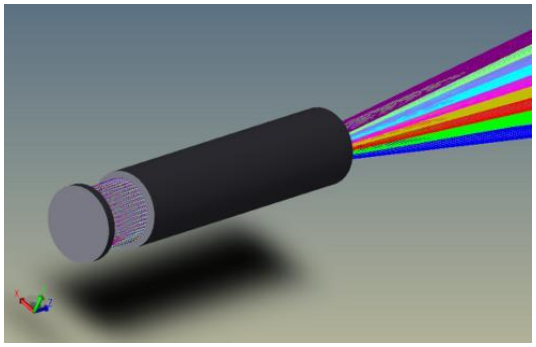
HOLO/OR's new Extended depth of focus solution achieves extended (longer) depth of focus as well as high lateral resolution (small beam waist).
Optical elements that present these two conflicting characteristics simultaneously are needed for a variety of applications.
http://www.holoor.co.il/Diffractive_Optics_Products/Diffractive_Multifocal_Lens/Elongated_Focus.php

New Multi-Focal (MF) elements with efficiencies >90%

According to customers feedback HOLO/OR have designed and fabricated several designs of multi-level multi-focal DOEs achieving efficiencies >90%. This will assist in lowering laser costs due to lower power usage.
http://www.holoor.co.il/Diffractive_Optics_Products/Diffractive_Multifocal_Lens/multifocal-lens.php

DOE Expander - Beam Expander Module

Optimized for Beam Shapers



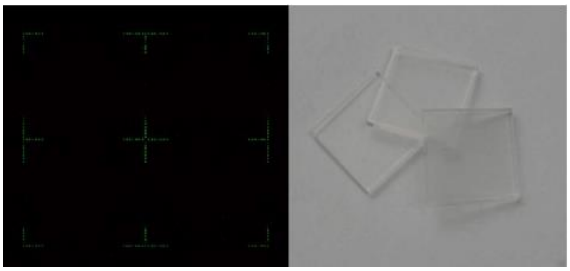
HOLO/OR introduces a new module for modifying certain output parameters of a Diffractive Optical Element (DOE). The module reduces or expands the full angle of a DOE output by a magnification factor. Unlike standard beam expander, our module takes into considerations the characteristics of our beam shaping, beam splitting and beam foci elements, thus achieving superb results with minimal aberations.
The module can be beneficial/suitable in the following cases:

- Using the module together with a DOE, to create an overall function that would be hard to manufacture by a single element
- Adding Holo/Or's module to a standard, semi-standard or in-stock DOE with specific full angle to change the full angle of the DOE thus avoiding any NRE payment, and shortening delivery time
  http://www.holoor.co.il/Diffractive_optics_Solutions/DOE_Expander.php

Phone: +972 (8)-9409687/8, Fax: +972 (8)-9409606 http://www.holoor.co.il

Plastic DOEs

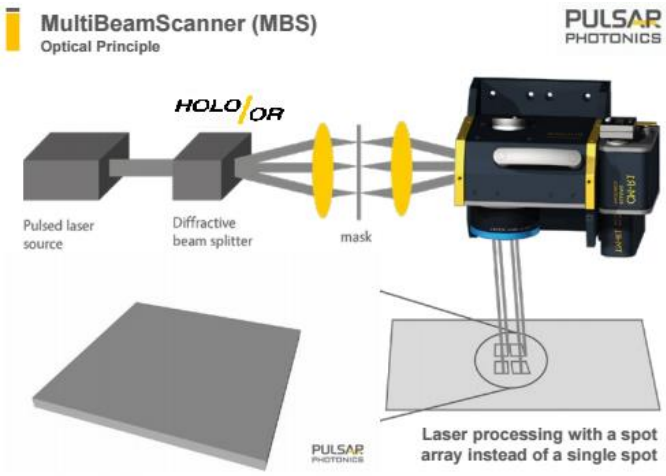
Since early 2014, HOLO/OR offers low cost, mass production of diffractive elements using an injection molding technology. The main plastic types are: Polycarbonate, PMMA, Zeonex and Zoner.
http://www.holoor.co.il/Diffractive_Optics_Products/plastic_DOEs.php

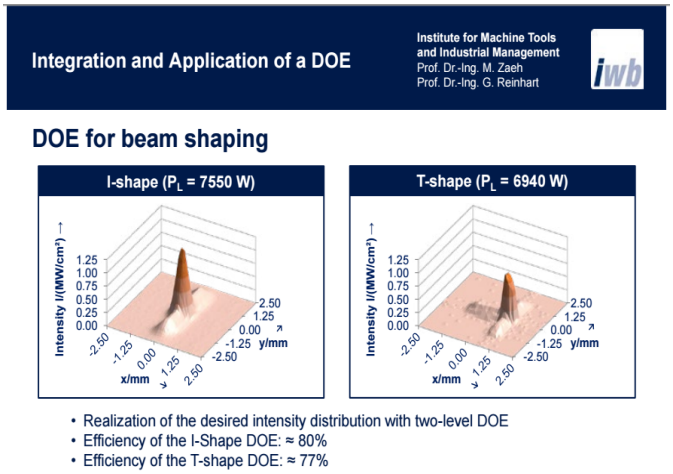


Applications

Success stories of using diffractive optics by our customers

1) Intensity-Adapted Laser Welding (IALW) of Aluminium Alloys - Technische Universität München
2) Applications of Systems for Beam Shaping in Material Processing - Pulsar Photonics GmbH





Technical tips

3D beam shapers to remove Zero-order effect

Zero-order can cause serious problems in real world applications. This issue can be addressed in a few levels: design, fabrication and operation. In the the following article we explain the issue and possible solutions.
http://holoor.co.il/Diffractive_Optics_Publications/Methods_to_reduce_zero_order.htm

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