Q2- 2017 Newsletter

Holo/Or thanks all customers that came to meet us at the Photonics West in San Francisco and at the Laser World of Photonics in Shanghai. For those who did not make it, we will be participating in the Laser World of Photonics expo in Munich for the first time in our own Booth! You are most welcome to visit us.

Industry News

Next Exhibition – Laser World of Photonics Munich – 26-29 June, Messe Munich, Germany.

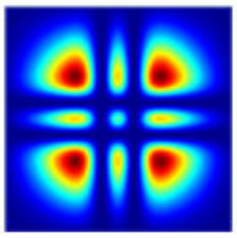
Holo/Or will be participating in Laser World of Photonics Munich, bringing new products to answer our customers evolving beam shaping needs. Come and visit us at **Hall B3**, **Booth 108**, Messe Munich Germany.

LASER World of PHOTONICS
JUNE 26–29, 2017 | MESSE MÜNCHEN

What's New

New product releases in Q1-Q2 2017

In the first half of 2017, Holo/Or has added 193 new designs, including large angle line Top-Hat designs (up to 10 degrees at 1064nm), M-shaped homogenizers for applications involving sintering and heating on highly heat conducting surfaces, a 1X4 beam splitter with reduced undesired orders for sensitive parallel processing and a new product category- mode converting phase plates. Check our product release page for the latest new designs that are available with no NRE cost.



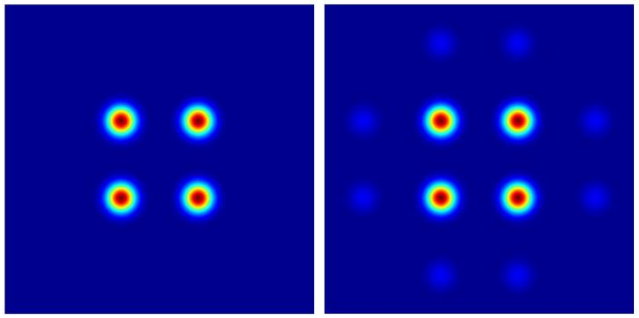
Resizing of existing designs is now offered at reduced cost and short lead time

By investing in new production technologies, Holo/Or now offers our customers the ability to resize existing designs to different element size at reduced cost. If you find an existing design that fits your needs in our extensive products page, but the element size does not meet your requirements, do not hesitate to contact us to resize the element. Resizing is available at significantly lower cost compared to a new custom design, and will only add 1 week lead time to the order. You are welcome to contact us for more details regarding specific products.

Applications

High Efficiency 2X2 beam splitter

Following the success of our high efficiency double spot design (HEDS), Holo/Or has developed a High Efficiency Quattro Spot (HEQS) 2X2 beam splitter. This new product offers splitting efficiencies of >98%, compared to 64-79% efficiency of regular 2X2 beam splitters. HEQS 2X2 splitters work best with multi-mode lasers, and enables an independent tuning of the spot intensities to achieve desired uniformity or correct system induced non-uniformity. This design is highly useful in material processing application, to reduce undesired orders and improve throughput. Read more about it here

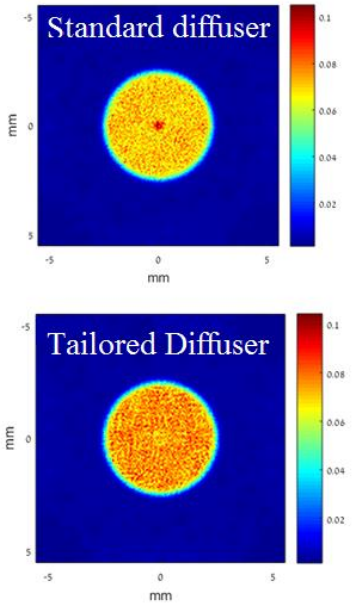


HEQS 2X2 Standard 2X2 beamsplitter

Tailored Diffusers – Custom diffusers with reduced zero order and sharper edges

Holo/Or has recently developed new algorithms for the design of custom diffusers for aesthetics and heat treatment applications. In these applications, it is often required that the illumination profile be very smooth, without a rise in center caused by zero order. Also, sharp edges (short transition length) are often required of the diffused spot, to give accurate energy doses without overlap when moving the spot on a surface.

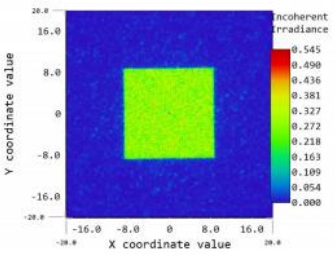
Using our new methods, it is possible to design high angle diffusers that have almost now zero-order effects, while maintaining sharp edges. Contact us to inquire about designing your own application-tailored diffuser.

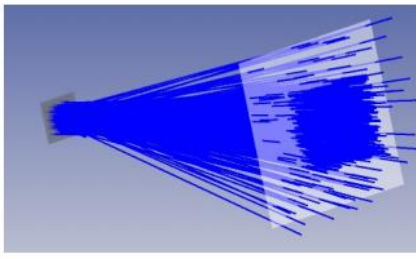


Technical Tips

Integrating Homoginzers in Zemax™ Using our BSDF files

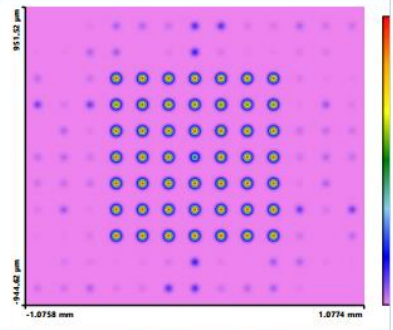
Holo/Or continually strives to offer value to our customers and potential customers by providing them with free modelling to enable integration of our DOE into common optical simulation setups. Recently, we have added a method of simulating our Homogenizer elements (Flat top diffusers) in Zemax™ by using BSDF scattering files.
These BSDF files are offered free to download for most of our existing Homogenizer designs – click the "tools" column for the desired product in our product page to download. You can read more about BSDF files in our Manual





Modeling beam splitter DOE in Lighttrans™ using Blackboxes

Holo/Or has recently added Black Box models of our Diffractive Beams Splitters in VirtualLab Fusion™ - a Physical Optics Software. These Black Boxes allow our customers to utilize the full range of simulations analysis and systems optimization. Each Black Box is supplied as a basic optical setup including a Gaussian source, a Black Box of a Diffractive Beam Splitter, an ideal focusing lens, and a screen.
The Black Box includes the complex data of the diffractive design and will work nominally for any wavelength defined by the Light Source element. Read more about it in this page.



Intensity result of Beam Splitter 7x7 binary type

Modeling beam splitter DOE in Lighttrans™ using Blackboxes