FOCUSLIGHT
Never stop exploring

OPTICAL SOLUTIONS
FOR LIFE SCIENCE APPLICATIONS

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www.focuslight.com

COMPANY INTRODUCTION

Founded in 2007 and headquartered in Xi'an, China, Focuslight Technologies Inc. is a fast-growing public company (SSE Star Market: 688167) that develops and manufactures high power diode lasers (photon generation), laser optics (photon control), and photonics modules and systems (application solutions) with a focus on automotive, pan-semiconductor, and medical & health application solutions. In 2017, Focuslight successfully acquired LIMO GmbH, and completed the brand unification in January 2022. In January 2024, Focuslight acquired SUSS MicroOptics (now as Focuslight Switzerland). Focuslight owns over 400 patents worldwide and is ISO 14001, ISO 45001, ISO 9001, and IATF 16949 certified. Additional information can be found at www.focuslight.com.

Focuslight Technologies Inc. **Email:** sales@focuslight.com

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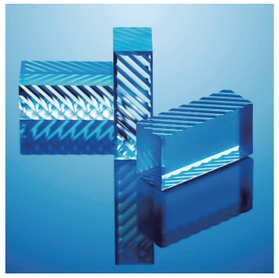
Microlens Arrays

Refractive microlenses cover a range of 10 µm to 2 mm diameters. Refractive microlenses are an alternative for all applications where miniaturization, reduction of alignment and packaging costs are necessary.

Features

- Angular spectrum: Typ. < 1 - 20 degrees
- Material: Fused silica (various grades), silicon
- Area of illumination: Linear, circular, rectangular, square
- AR coating: UV, VIS, NIR – front side, back side, to air, to glue
- Lens array dimensions: According to customer requirement



Applications

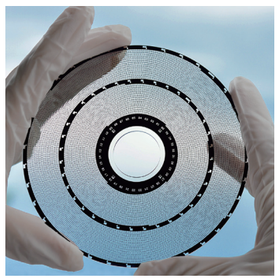
- 3D Scanning
- Sensing
- Metabolic Screening
- PoC
- DNA Sequencing

Nipkow Discs

Focuslight manufactures high quality lens and pinhole discs, which are the integral components of confocal microscopes. Our discs support the generation of high contrast, sharply focused images and 3D reconstructions of biological and other miniature difficult-to-image structures.

Features

- Disc diameter: ≤ 160 mm
- Material: Fused silica
- Pinhole/lens pattern: Custom
- AR coating: UV, VIS, NIR – front side, back side, to air, to glue
- Cr coating: Custom



Applications

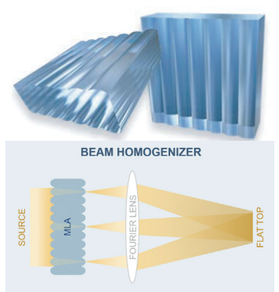
- Confocal microscopy

Beam Homogenizer

Most laser applications such as dermatological applications, laser materials processing and semiconductor industry require a uniform light distribution in order to achieve the best possible results. With Focuslight's homogenization components, you will have an easy solution even for very demanding applications that are suitable for homogenizing of a wide variety of modern light emitters from line-narrowed Excimer Lasers to high-power LEDs.

Features

- Perfect uniformity in working plane(flat-top profile)
- High-power laser applications, High efficiency
- Flat-top shapes: Square, rectangular, circular, line, laser sheet
- Spectral wavelength 193 nm -5 µm
- Compact design, Easy to use
- Anti-reflection coating optional
- Various working distances and flat-top sizes



Applications

- Skin treatment
- Ophthalmology
- Fluorescence microscopy

Shack-Hartmann Arrays

Shack-Hartmann wave front sensors are used to measure the intensity distribution and phase distortion accurately and in real time. They are widely used in measurement and diagnostic instruments.

Features

- 2D Microlens arrays
- Highest quality and precision
- Material: Fused silica, silicon
- Wavelength range: DUV (193nm) to IR (5µm)
- Lens profile: plano-convex, bi-convex, aspheres, spheres
- Additional features: alignment marks, pinholes, apertures
- Circular and square lens shape

Applications

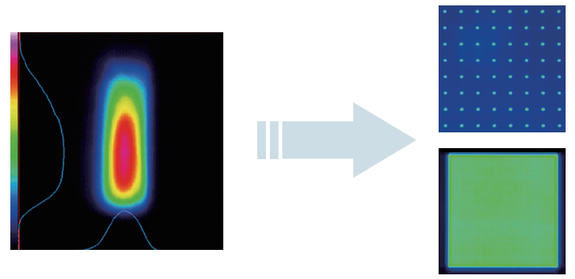
- Ophthalmology
- Microscopy Inspection

Diffractive Optical Elements

Our premium high-end Diffractive Optical Elements (DOE) are suitable for very demanding applications like metrology, medical laser treatments, diagnostic instruments and others. DOE are used to pattern light in work areas for a custom illumination.

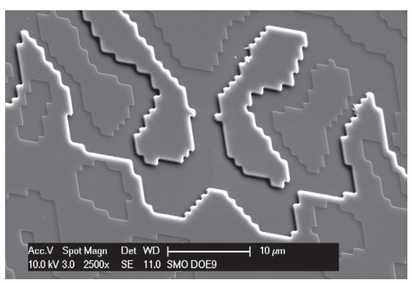
Features

- Materials: Fused silica (various grades) and silicon
- 2(binary) to 16 levels
- Typ. overlay error < 70nm
- Wavelength range: 190nm to 5µm
- Minimum feature size: 500nm to 1µm depending on step height and/or etch depths
- Efficiency: up to 96%



Applications

- 3D Scanning
- Ophthalmology
- Sensing



Diffractive Optical Elements (DOEs) can be used instead of microlenses where size in an application is a concern.

They are also excellent beam homogenizers and shapers and – unlike their microlens counterparts – have no shape constraint for the illumination they produce.