

WIDE-ANGLE DIFFUSER (WAD)

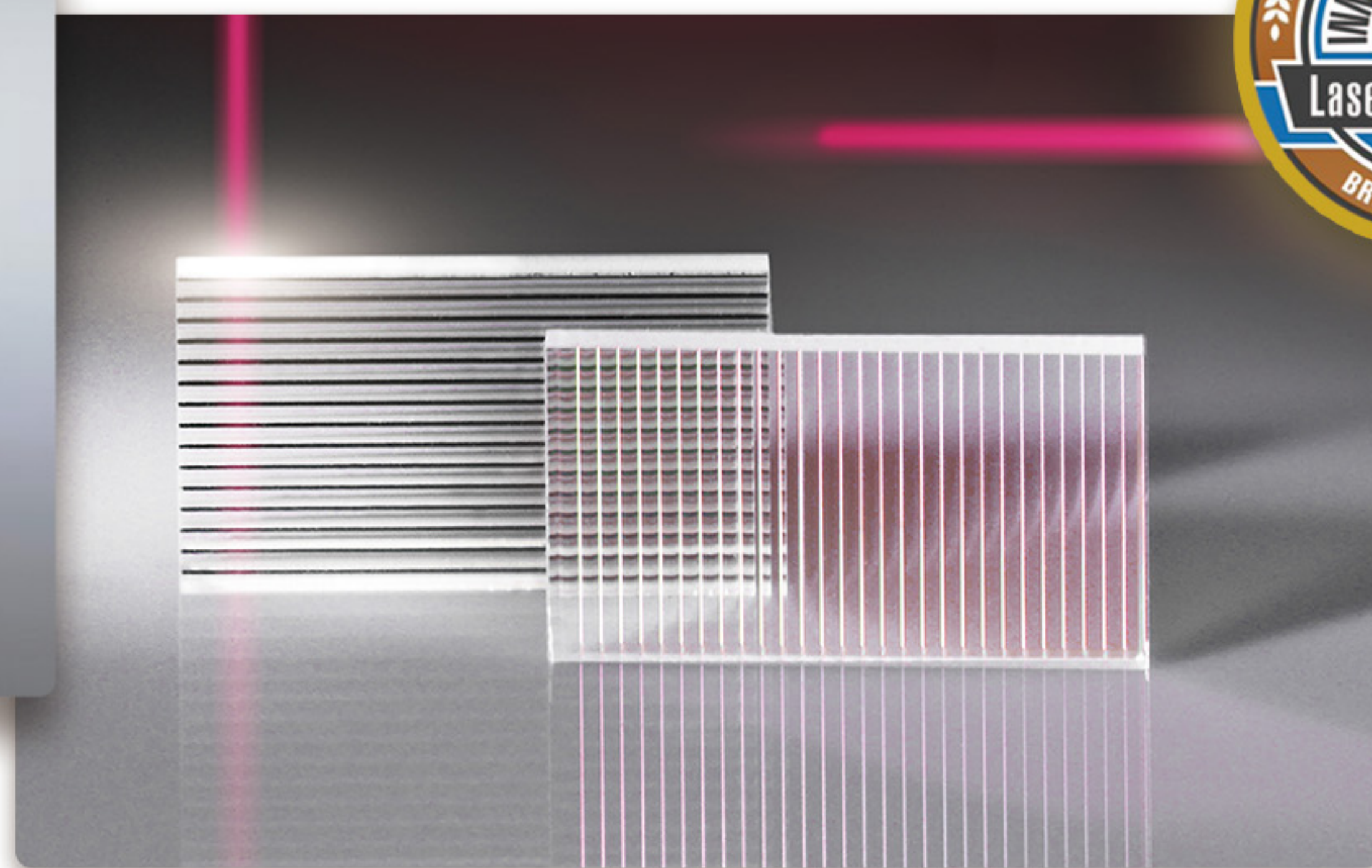
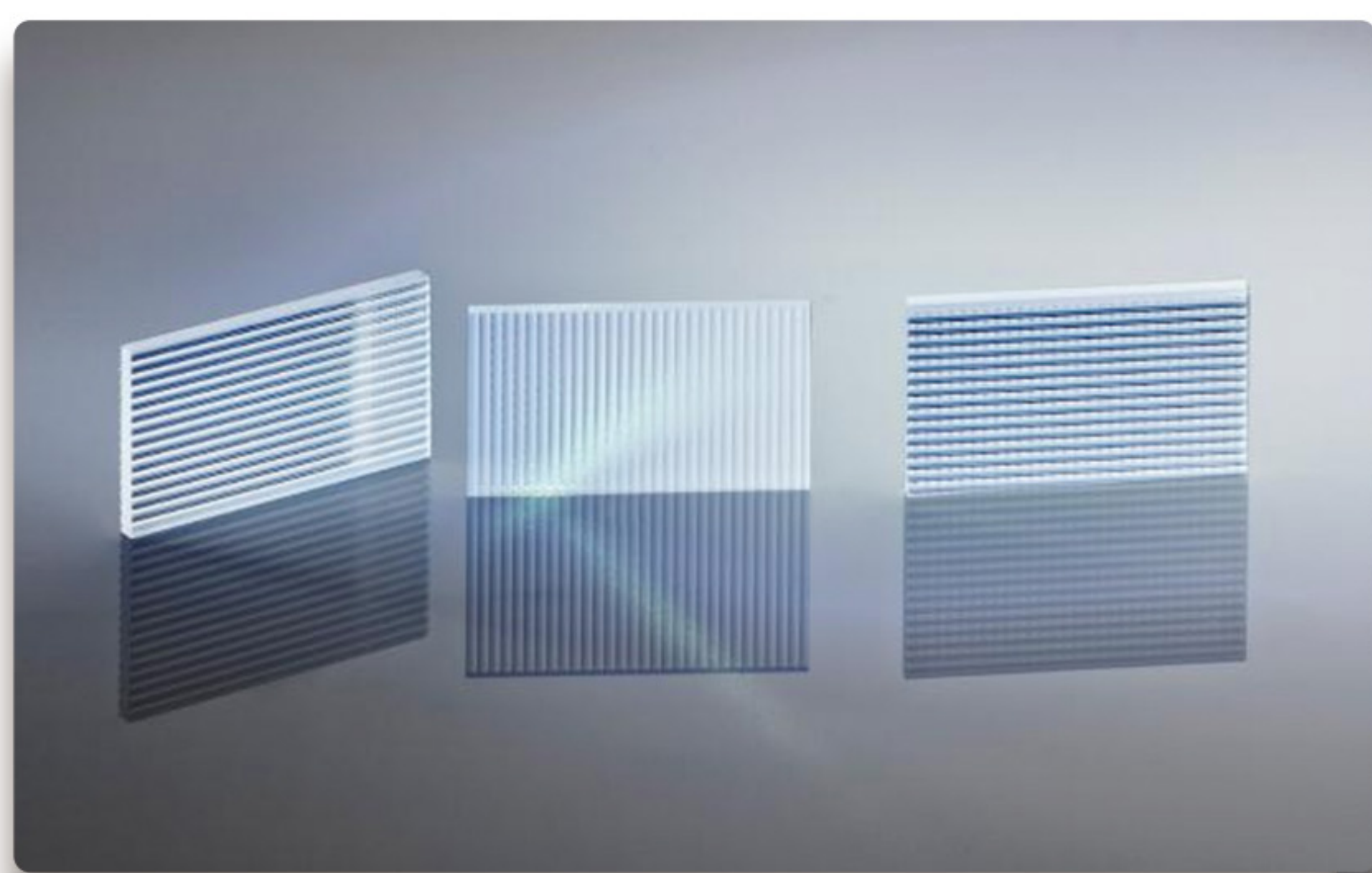
3D SENSING



LiDAR



DMS



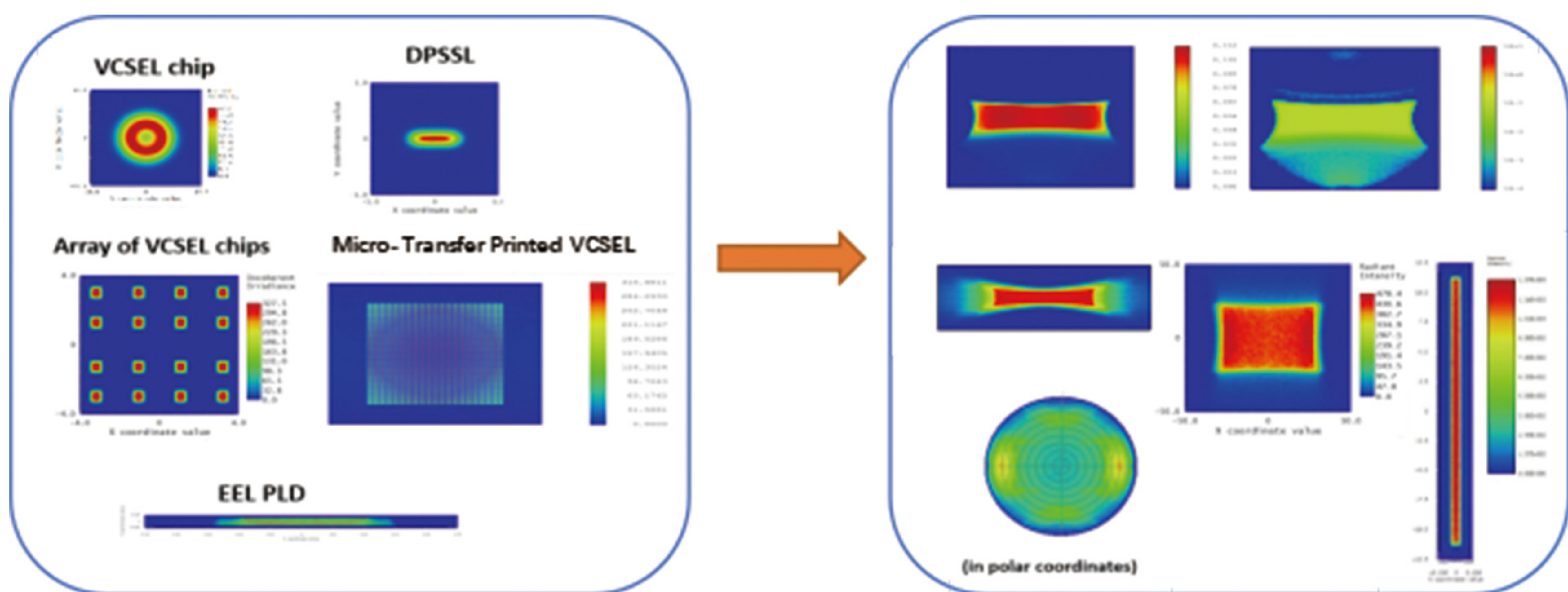
Focuslight designs and produces wide angle diffusers (WAD) with 1D/2D FOV up to 160° FW, which can provide a wide selection of profiles from flat-top, batwing, stepped profile, offset to customized homogeneous intensity distribution. With two diffusers, 2D field distributions are created, to enable one-shot illumination of the surrounding, optimized for LiDAR or machine vision. These wide angles are possible by using high refractive index glasses in combination with our unique wafer processing technology with complementary polishing, delivering smallest scattering, highest performance stability and maximum transmission.

Refractive optical element (ROE) 1D micro lens array (MLA) diffusers

- Freedom on combinations of 1D diffusers for an 2D FOV: H x V angles (e.g. 60° x 45°, 120° x 20°, 150° x 150°, 120° x 100°)
- High transmission efficiency up to 99.8% (AR coated)
- NO zero-order, NO 'hot spot', eye safety
- Large FOV angles (e.g., 160°)
- High uniformity > 90%
- Automotive-grade glass material

Applicable to various light source: collimated, less collimated, diverging, such as DPSSL, EEL, VCSEL, etc.

Laser source + Diffusers = 2D FOV profile of radiant intensity



COMPANY INTRODUCTION

Founded in 2007 and headquartered in Xi'an, China, Focuslight Technologies Inc. is a fast-growing public company (Shanghai: 688167) that specializes in developing and manufacturing high-power diode laser components and materials, laser optics, as well as photonics module and system solutions focusing on optical communication, automotive, pan-semiconductor, and medical and health applications. Focuslight has expanded its global footprint through strategic acquisitions including LIMO GmbH in 2017 and SUSS MicroOptics SA in 2024 (now as Focuslight Switzerland SA). With the acquisition of assets from ams OSRAM in 2024, Focuslight extends its business to be a global photonics foundry by providing global photonics industry process development and manufacturing service under the brand of Heptagon.