

# Optimized FoV for Accurate Object Recognition

## Beam Shaping and Steering Using Micro Lens Arrays

Today's machine vision systems, including Object Recognition, Augmented and Virtual Reality, Motion and Gesture Tracking, rely on a strong light source such as a vertical cavity surface emitting laser (VCSEL), edge emitting laser (EEL) or LED. These sources are often coupled with a time of flight (ToF) camera to reproduce a 3D map of the surrounding environment. However, these sources cannot efficiently use their light on its own. The beam must be broadened, steered, and shaped in a highly controlled way to illuminate a specific field of view.

BrightView's micro lens array (MLA) optics are well suited to work with VCSEL, EEL and LED sources to shape and steer light to create the desired field of view.

- Efficiency of light - Fully utilize your light source
- Cost effective - Multiple functions in a single film
- Custom beam shapes and angles - Top Hat, Elliptical, Circular and more
- Controlled uniformity - Low zero order



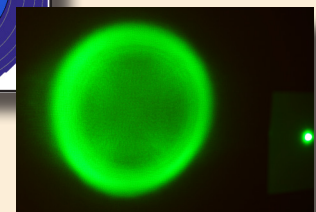
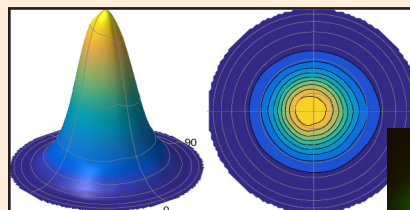
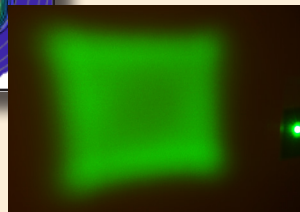
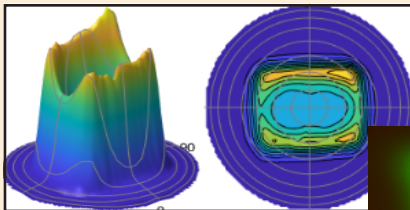
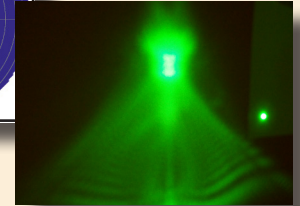
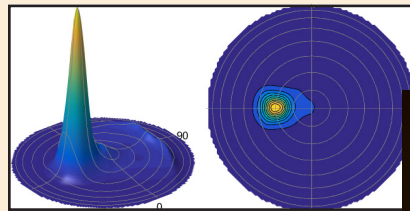
## Applications

Gesture Recognition  
Augmented Reality  
Object Recognition  
In Cabin Sensing  
Virtual Reality  
LiDAR



## Available Beam Shaping Diffusers

Top Hat	Circular	Asymmetric
90° x 65°	80°	8°
72° x 55°	100°	20°



## Take Your Product to Market Faster

BrightView's micro lens array optics create a variety of beam shapes and steering angles at high efficiency. They are specifically designed to meet the requirements of VCSEL, EEL and LED applications, including low zero order emission, compatibility with high peak laser power and uniformity. BrightView works with you to quickly optimize the design and offers custom solutions.

- Cost effective, fast iterations to narrow in on the optimal design quickly
- Standard and custom beam shapes: rectangular top hat, circular, square, and more
- PET, polycarbonate, and glass substrates

[www.brightviewtech.com](http://www.brightviewtech.com)  
[sales@brightviewtech.com](mailto:sales@brightviewtech.com)

PNOR-US-001 Rev A

