



[www.focuslight.com](http://www.focuslight.com)

## 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.

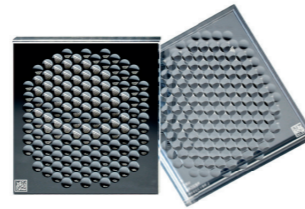
**Focuslight Technologies Inc.**

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# OPTICAL SOLUTIONS FOR AUTOMOTIVE PROJECTED LIGHTING

# Introduction

Automotive Projected Lighting projects a custom-designed, bright and easily recognizable light pattern in the cabin or on the street. To achieve such optical performance, our microlens arrays (MLAs) are imprinted on single or multiple bonded glass wafers, which typically incorporate metallic layers to shape the light according to our customer's requirement.



MLAs for Projected Lighting

EPL- exterior decorative projection



Static Semi-dynamic

IPL - interior decorative projection

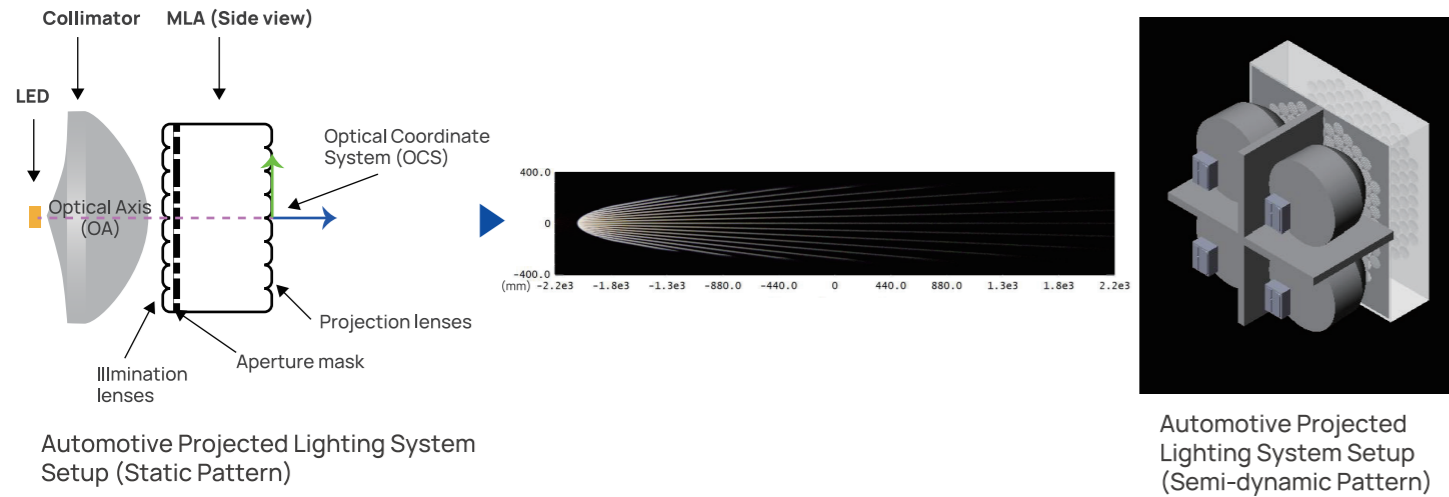


Static/Semi-dynamic

EPL-SRP for signal road projector



Semi-dynamic

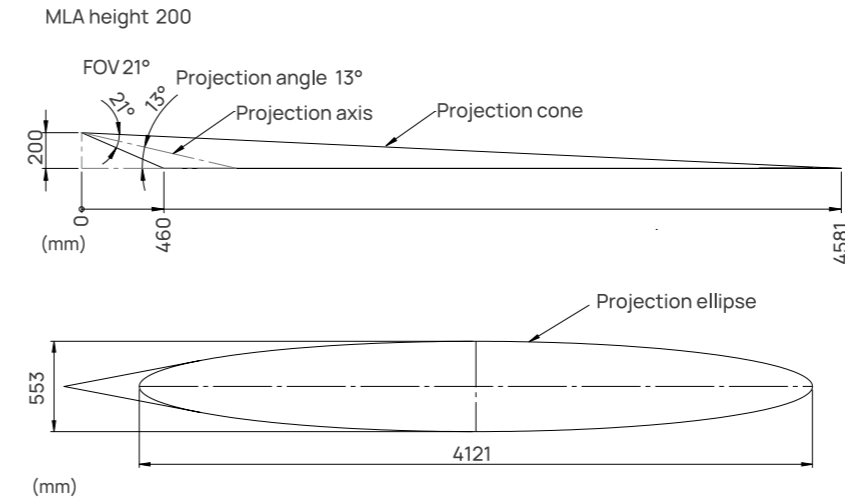


**Static Projection:** Projected light pattern remains fixed and unchanging over time.  
**Semi-Dynamic Projection:** Involves light patterns that can change over time and these changes are limited or predefined (specifically 4-quadrants in our concrete case). The overall pattern often remains consistent or transitions between a set of predefined states.

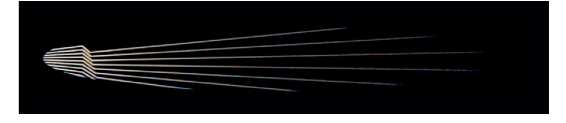
# MLA Advantages for Projected Lighting Application

- Slim:** Miniaturization (short focal distance) and multiplication
- High efficiency:** Etendue conservation through multichannel
- Sharpness:** High depth of field compatible with 3D surface
- Freedom of design:**
  - Modular construction
  - Less weight compared to conventional systems

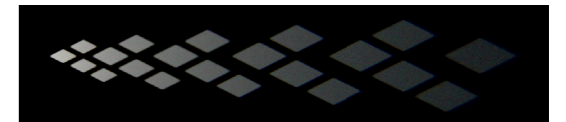
# Projection Pattern Examples



TS-00030 Open

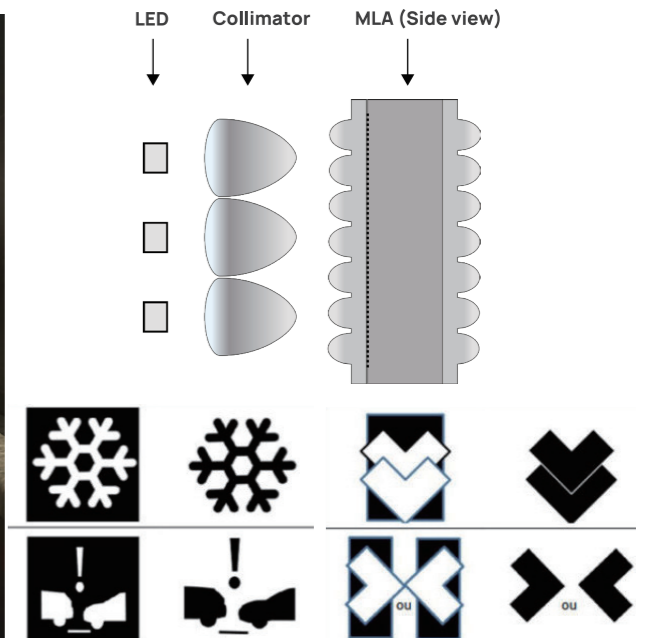


TS-00032 Comet



TS-00027 Confetti

# Application Example: Safety Projection



# Services Offered by Focuslight

If you have a custom pattern that you want to project, Focuslight can support you in various details:

BASIC	INTERMEDIATE	ADVANCED
✓ Aperture Mask Design	✓ MLA Optimized Design	✓ Ghost Image Estimation
✓ MLA Functional Design	✓ Pattern Optimization	✓ System Tolerancing