

Light Shaping Microoptics (LSM)

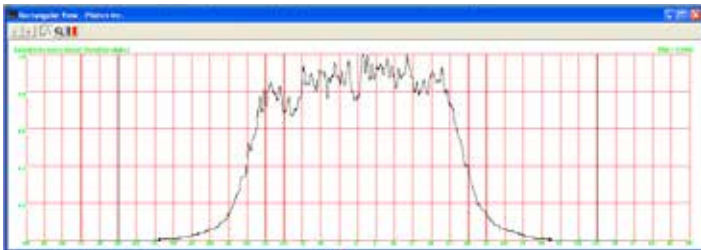
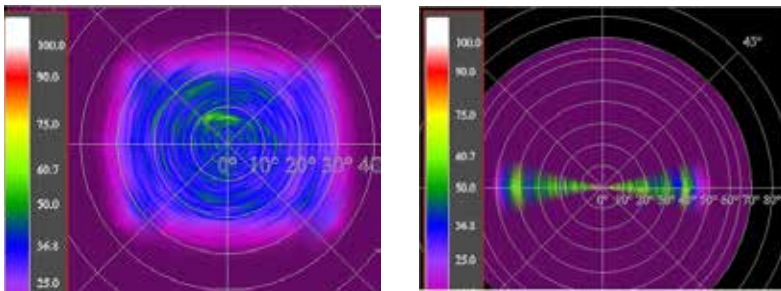
Luminit utilizes in-house direct-writing of masters to bring custom microoptics designs straight from conception to high volume production. Our greyscale photolithography and advanced microscopy tools allow the creation of refractive and diffractive optics with feature sizes down to 1 micron. With design, mastering, replicating, testing and measuring under one roof, advantages for customers include compressed design cycles and simplified supply chains. Optical outputs include flat-top intensity profiles, random dot generators, pattern generators, custom diffuser profiles, Fresnel lenses, phase plates, and custom logos or graphics. Components can be manufactured by injection molding, roll-to-roll embossed, or sheet-by-sheet embossed, depending on thickness, temperature, and volume requirements.

Capabilities

- Precision, high-volume plastic optics
- 3D surface relief creation
- Smooth or pixelated greyscale designs
- Multi-layer alignment and measurement tools
- Surface and profile measurement tools
- 3D Measurements
- Custom refractive optics design
- Custom diffraction optics design

Applications

- LiDAR
- Branding projection
- Facial recognition
- Iris recognition
- Time of Flight
- Gesture Recognition
- Beam Shaping
- Structured Lighting
- Random dot generator



Specifications

Max Area:	200 x 200mm
Minimum Feature Size, XY:	1 micron
Minimum Grid Size, XY:	0.2 micron
Number of Z levels:	>1000
Maximum Depth:	100 micron