

Diffuser microstructures precisely shape, control, and homogenise light sources, are a highly-efficient method of eliminating LED hotspots and uneven light distribution, and provide uniform illumination for critical applications. Remarkably efficient (90%), pseudo-random, non-periodic structures manipulate light by changing the direction of its energy. The microstructures can distribute light into specific cone angles within a degree of accuracy and can shape light in both circular and elliptical formats.



A new and innovative recording and transfer technique allows these highly efficient microstructures to be used on a free-form 3D surface, which is ideal for automotive rear light lens design and manufacturing. The final form factor of a monolithic large format three-dimensional free-form lens is compatible with rear light lens assembly design and conforms to all automotive standards. In addition, lidar, time of flight, facial recognition and similar advanced technologies are growth areas in the automotive market and Luminit continues to develop high-performance optics to meet this market demand.

Luminit Automotive Technologies offers: Light Shaping Diffusers, prismatic and other microstructures, Computer Generated Holograms (CGHs), and Light Shaping Microoptics (LSM). Applications for Luminit Automotive Technologies include signal lights, displays, lidar and driver assistance, and general interior and exterior lighting