

Microstructured Optical Elements for LED Applications

For nearly 40 years, Reflexite has been a world leader in the manufacture of microstructured polymer optics. Reflexite is an integrated supplier providing system solutions from optical design to master tool fabrication to polymer replication and through to a finished optical component or subassembly.

Reflexite Display Optics manufactures microstructured optical components and assembles subsystems for a diverse array of lighting applications. We have the capability to manufacture prism sheets, light guides, collimating diffusers, collimating Fresnel lenses, lens arrays, microlens arrays, moth-eye microstructures and other optical components for the lighting industry.

Applications

LED systems use microstructured optical components to optimize light direction, homogenize light from multiple LEDs and to improve system efficiencies.

LEDs are being incorporated into numerous applications including the following.

- Signal Lighting Traffic Lights, Railway Signals and Pedestrian Lights
- Outdoor Signs
- Room Lighting Direct and Indirect Lighting
- Backlighting Backlights and Waveguides
- Machine Vision



The addition of Reflexite microstructured optical components enables the utilization of LEDs into these applications.

- Flash Units for Digital Cameras and Cell Phone Digital Cameras
- Flashlights
- Scanning Devices
- Toys

