Reflexite®
Display Optics

Signal Lighting

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, diffractive optics, motheye microstructures and other optical components for the lighting industry.

Signal lights use microstructured optical components in both traditional incandescent based and LED based systems to meet specifications for traffic, pedestrian and railway signaling.

Incandescent Signals

Fresnel lenses are commonly used in traffic signal lights and railway signal lights to improve visibility and viewing distances. Microstructured components can be used to restrict the viewing cone of light for lane specific traffic signals or for adding a secondary side lobe of light for rail engineers.

LED Signals

LEDs are now replacing incandescent lighting systems in many signaling applications. LEDs have a much longer life and require significantly less power than the traditional incandescent lamps. Lens arrays and microlens arrays are now being designed and used in conjunction with the new LED based signals to collimate and direct the light output. Microstructured components can also aid in the reduction of the number of LEDs required and still meet the required output specifications. Fewer LEDs equates to lower costs and reduced power consumption.

Technical Publication RLO-182, Pub. 2003, Rev. 2

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