

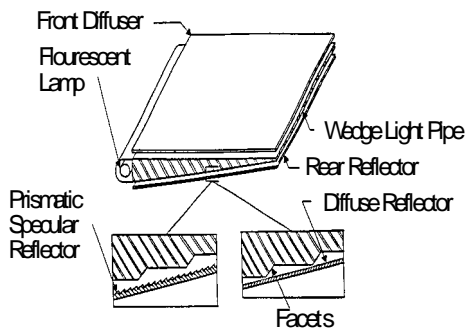
Backlighting Components

Reflexite Display Optics manufactures microstructured optical components and assembles subsystems for a diverse array of backlighting applications. Current applications include LCD based systems such as desktop, laptop, automotive, and avionics; LED based systems; and microdisplays.



Car Navigation System

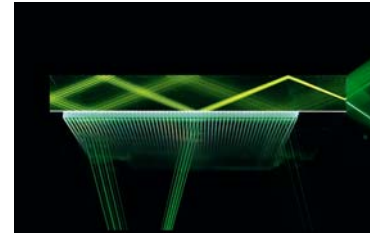
We have the capability to mold prism components, light guides, surface relief diffusers and other optical components for these applications. Microstructures can be incorporated onto one or both sides of these components.



Backlight system for laptop displays

LCD Backlights

Light guides used for LCD backlights can be slab or wedge shaped. Microstructures are used to couple light out of the light guide and to evenly illuminate the LCD. Reflective, diffusing and collimating films can also be integrated into a backlight system. Reflexite Display Optics can manufacture all of these components as well as integrate the entire module subassembly.



Path of single coherent light ray illustrating principle of operation

LED Frontlights/Backlights

Reflexite Display Optics has produced components and integrated systems for LED backlit (transmissive) and frontlit (reflective LCOS) displays. The system pictured below is an XGA display in a cell phone. This system uses a front light powered by red, green and blue LED's, which are sequentially switched to create a white light source.



Microdisplays

Light guides are also used for reflective and transmissive microdisplays. Microdisplays use both LED and CCFT light sources. We can design and manufacture custom light guides to efficiently couple the light from the source through the display.



Camcorder using microdisplay for viewfinder