

Focusing Screen Technology

Focusing Screens, the Next Generation

In the past 30 years, camera technology has advanced at an extraordinary pace. From its humble beginnings, the camera has seen the development of autofocus lenses, matrix metering and even eye-guided focus control. While most components of the camera have been greatly improved, the focusing screen has gone relatively unchanged. The simple combination of a randomly ground or matte surface and a low quality Fresnel lens is still the most common form of focusing screen found. The result, highly advanced, state of the art cameras equipped with low-tech focusing screens that provide a dim view through the camera viewfinder.

Improved Molding Results in Better Structure Replication

Reflexite Display Optics utilizes a unique molding process to manufacture the highest quality microstructured optics. This proprietary process results in the sharpest fidelity of replication of both fresnel facets and any other microstructure surfaces, leading to improved light transmission and improved overall optical performance.



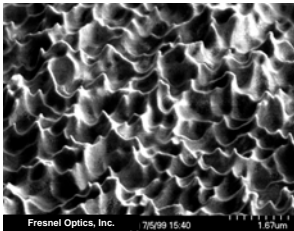
A cross section view of an injection molded Fresnel lens shows poor microstructure replication



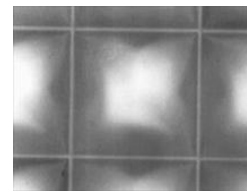
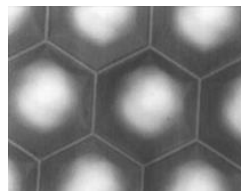
The same view of a Fresnel lens molded by Reflexite shows sharp facets and greatly improved replication

Optically Designed Diffusion

While most focusing screens continue to use diffusion surfaces made with "low tech", random processes. Reflexite uses a precision holographic lithography process to produce our master tooling. Symmetric and asymmetric surface relief diffusers, and microlens arrays, are all possible. Our optical engineering expertise and unique processes allow us to create a focusing screen that exactly meets the needs and specifications of our customers.



Random Symmetric Holographic Surface Relief Diffuser



Hexagonal and square microlens Arrays with high fill factor

Brightness Enhancing Coatings

In addition to improved manufacturing processes, Reflexite also has a patented brightness enhancing coating that can be applied to screens manufactured by Reflexite Display Optics or those supplied by the customer.

