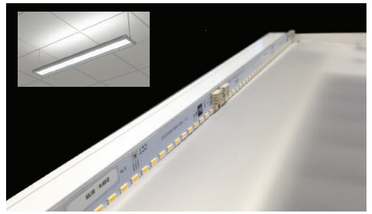
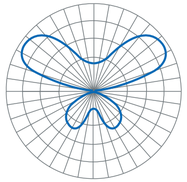
MicroTEK™ With SpekLED™

MicroTEK™ with SpekLED™ combines our advanced optical components with LED engines to provide high levels of beam control with high efficiency and good color mixing. Products can be customized to fit almost any board layout.

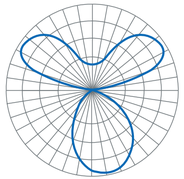
EDGE LIT LUMINAIRE



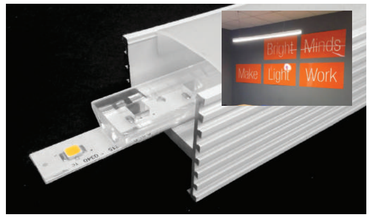


Direct/indirect luminaires using edge lighting have a wide fill factor.

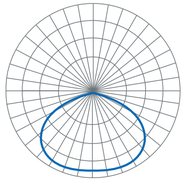
SUSPENDED PENDANT



Luminaires using SpekLED™ Integrated can create a variety of beam distributions



CONTINUOUS RUN



Recessed lighting allows fixture to be curved and run continuous lengths.

Fusion optix®

Bright Minds™

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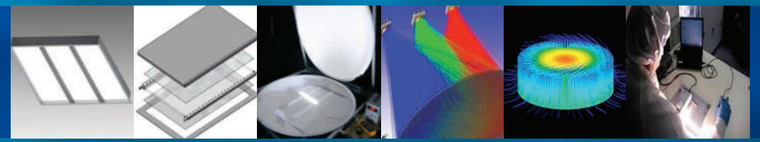
OEM SUPPORT



Product Design | BOM Development | Product Testing | Optical Modeling | Thermal Modeling | Quality Control

MicroTEK™

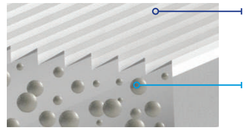
Integrated multifunctional optical component platform for LED lighting

Fusion optix™

Bright Minds

MicroTEK™ Light Control on a Micron Scale

MicroTEK™ products utilize a unique collection of micron scale (smaller than a human hair) optical elements to diffuse, shape, reflect and manipulate color in a broad range of LED lighting systems.



EXTERNAL
Optical elements on the outside.

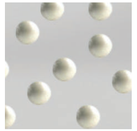
INTERNAL
Optical elements on the inside.

INTERNAL

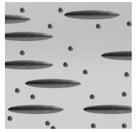
Spherical Lenses
Spherical lenses are typically used to efficiently diffuse light into symmetrical or circular beam distributions. They also improve LED hiding power.

Elliptical Lenses
Elliptical lenses are used in a similar way to spherical lenses but can offer greater diffusion or LED hiding power in a certain direction.

Phosphors/QDs
Phosphors and quantum dots (QDs), when added, provide new levels of color control and spectral customization. Suited to either UV/Blue or White LED pump sources.

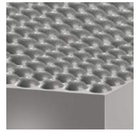


Reflectors
Efficient reflection in a wide range of base materials is made possible using controlled micro voids or highly reflective micron scale particles.

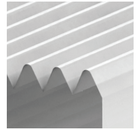


Material Enhancers
Material enhancers improve the base material properties including: UV stability, improved impact strength, elevated temperatures, and higher flammability ratings.

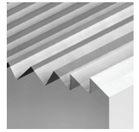
EXTERNAL



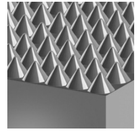
Textures
Textured shapes can be used to control glare and deliver a unique look and feel for high end lighting applications.



Prisms/ Lenticulars
Linear prism and lenticular features deliver glare reduction and beam collimation; or beam splitting when inverted towards the light source.



Linear Fresnels
Linear Fresnel structures can collimate and shape light beams in linear LED systems in addition to off axis (asymmetric) beam tilting.



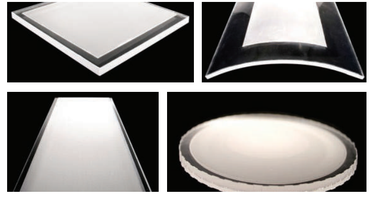
Cones/ Microlenses
Symmetrical cone and microlens features offer light control in a 360 degree space. Ideal for reducing glare and for focusing light.

Pyramids
Pyramid structures provide sharper cut off and glare control and can be used to collimate light.

MicroTEK™ Products

MicroTEK™ delivers all the primary optical functions required by the lighting product design engineer in all the most commonly used form factors for LED lighting applications; including lenses for linear lighting, light guides for edge lit systems and 3-dimensional thermoformed parts.

MicroTEK™ Linear
MicroTEK™ Linear products are designed for linear or continuous LED lighting applications. Typically these applications are less than 6" wide and up to 12ft or longer in length. MicroTEK™ functionality is available in standard slide-in or snap-in lens form and products can be customized at relatively low cost.



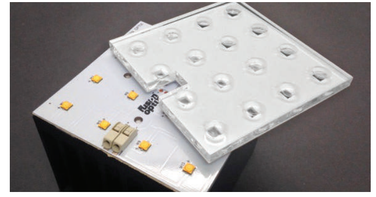
MicroTEK™ Light Guides
MicroTEK™ Light Guides take edge-lit systems into an entirely new dimension. The full scope of LED lighting products can now be converted to edge-lit, from continuous linear through to precision downlights. MicroTEK™ offers innovative approaches to uniformly and efficiently extract light in a wide range of 2D and 3D form factors with various surface finishes.

MicroTEK™ 3D
MicroTEK™ 3D parts and low cost tooling enable endless form factors and superior mechanical fit. Diffusers, reflectors, beam shapers and color tuners are all available in standard and customized parts. In-house rapid prototyping techniques provide fast turnaround with easy path to scale in large volume.

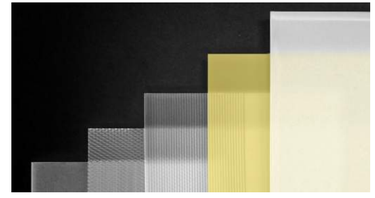
MicroTEK™ Lenses
MicroTEK™ Lenses provide precise control of light and color properties in plastic or glass materials. Ideal for applications where high levels of heat, UV or optical power densities may impact material performance and reliability. Standard or customized parts are available in a variety of sizes and thickness to fit most LED lighting systems.

MicroTEK™ Products

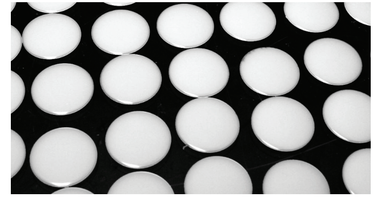
MicroTEK™ products have been designed specifically for LED lighting applications and provide the ultimate solution for beam control with the highest possible efficiency. The MicroTEK™ offering is constantly expanding to enable OEMs with the most cutting edge components in light management.



MicroTEK™ On-Board
MicroTEK™ On-Board is a range of secondary optics designed to offer major improvements over traditional injection molded parts. Used in close proximity to linear modules or arrays, the components provide the most efficient method for beam and color control whilst being easy to attach. Products can be customized to fit almost any commercial LED and module configuration.



MicroTEK™ Sheet
MicroTEK™ Sheet offering diffusion, reflection, beam shaping and color tuning functionality. MicroTEK™ Sheet is available in standard acrylic and polycarbonate materials. MicroTEK™ Sheet can easily be cut down to size using CNC routers or laser cutters (acrylic only). In most cases sheet is also suitable for thermoforming.



MicroTEK™ Coatings
MicroTEK™ Coatings provide the ultimate in flexibility for a wide range of LED lighting applications. Enhanced optical properties can be applied to a wide range of optical substrates such as acrylic, polycarbonate and glass. Coating materials include high efficiency acrylic and silicone based formulations designed for color consistency and long life.

MicroTEK™ Roll Stock
MicroTEK™ Roll Stock comprises of a series of optical films in roll format offering diffusion, reflection, beam shaping and color tuning functionality. Trademark MicroTEK™ performance is now delivered in a form suitable for a wide range of secondary conversion processes such as die-cutting, laser engraving, lamination and thermoforming.