

# lucitelux<sup>®</sup> spectrum

## Spectrum – Cell Cast and Continuous Cast

Spectrum has been specifically formulated to give optimized color performance with both transmitted and reflected light using white LEDs. The excellent brightness and evenness of illumination of the Spectrum sign makers and specifiers to develop backlit solutions that are slimmer, brighter and more cost-effective in operation than more traditional designs. Of course, other light sources can also be used e.g. fluorescent tubes.

Fundamentally LEDs are light sources just as incandescent or fluorescent bulbs/tubes. The same considerations should be used when using LEDs in signage or display applications as with any other light source.

A Light Emitting Diode (LED) is a "solid state" electronic component with the features of a diode, i.e. it only allows electrical current to flow in one direction. When an electrical current is passed through an LED in the right direction, the LED emits light. The LED die is similar to a filament in a lamp as it emits the light.

**Color.** The color of the light emitted from an LED is dependent on the chemical composition of the material from which the die is made.

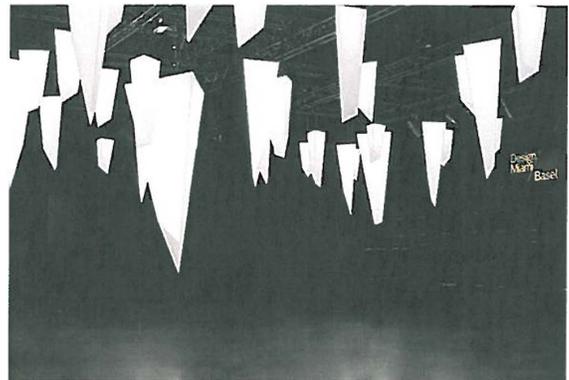
**RGB.** Light from individual LEDs can be mixed together to produce a wide range of colors. Normally red, green and blue LEDs are combined in LED modules where the overall emitted color can be controlled by blending the colors from the individual LEDs. They are sometimes referred to as RGB LEDs. These modules require an electronic control unit to blend the colors together.

**Supply.** Modules or strips

### FEATURES & BENEFITS

In service, LED White Diffusion Sheets allow the development of backlit solutions that offer many potential benefits to customers:

- Uniform brightness, even with the light source close to the back of the diffusion panel.
- ADA Compliant (less than 2" deep)
- Optimum brightness and strength of color
- The hiding power of LED White Diffusion Sheet has been maximized to conceal the LED light sources and avoid "banding" or "hot spots" associated with some backlit systems
- The development of elegant slim backlit signage solutions
- Cost savings as fewer and lower energy LED light sources can be used
- Environmental benefits due to lower energy use and lower head output
- Even illumination
- Cost savings over the life of a sign
- Long lifetime e.g. 35,000 to 50,000 hours
- Quick On/Off time
- Low heat output
- Efficiency
- Durability
- Slow failure
- Low maintenance costs
- Fewer outages



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