

5.8" (151.6mm) White LED Illuminator



Parameter	Characteristics (dimensions in mm)
Aperture Size ($\pm.25$)	129.5 x 78.7
Aperture (Diagonal)	151.6
Body Dimensions	140.0 x 89.0
Height	7.6
Weight (grams)	105
Angular Radiation	$\pm 23^\circ$ FWHM
Operating Temperature	-40° to +85°C

The ALPHALIGHT™ LED Illuminators provide exceptional high performance uniform light, ideal for non-emissive displays. Bright, highly uniform light is achieved through a unique solid state design using Teledyne's patented and proprietary technology. High optical efficiencies significantly optimize LCD and Spatial Light Modulator (SLM) display performance with lower power consumption.

Products are available in custom IR and NVIS. The ALPHALIGHT™ is capable of operating in wide temperature ranges and is immune to most vibration and mechanical shock, making it an ideal choice for today's portable products.

The ALPHALIGHT™ LED Illuminators are offered in the Teledyne standard catalog, with custom options available.

Parameters (Steady State DC) Ta = 25°C	Characteristics
Luminance (fL) ($\pm 10\%$)	800
Color (± 0.02)	x = .31-.35, y = .31-.35
Uniformity (Full Aperture)	1.4:1
Power (mW) ($\pm 50\text{mW}$)*	2940
Drive (VDC) ($\pm 0.5\text{V}$)	3.5
Current (mA)	840
Projected Life (Hours)**	$\geq 20\text{K}$

Design Implementation Advantages

- Compact, rugged, lightweight
- Fast response < 100 ns on/off address
- Long life span
- Low voltage; power efficient operation
- 15,000:1 dynamic full range dimming
- High optical efficiency
- Eliminates DC-AC inverter/power supply
- No warm-up and no over voltage start
- High reliability

*Thermal coupling backside of Illuminator required for operating power levels above 7.5 W
 **Additional derating required for elevated temperatures

Teledyne's ALPHALIGHT™ product is fully patent protected (U.S. Patents #5,440,197, #5,684,354, #5,892,325, #6,043,591 domestically as well as foreign additional patents pending) for this specific application.

For more information, please visit our website at www.teledynelighting.com