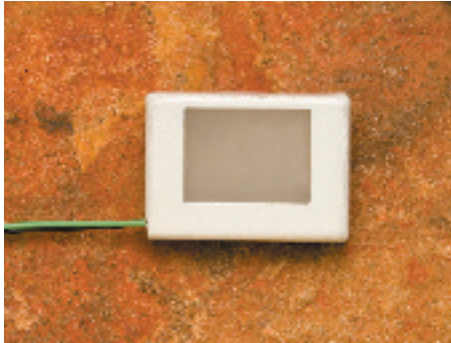


# .7" (19.41mm) Monochrome & RGB Illuminators



Parameter	Characteristics (dimensions in mm)	
	AL0707M	SB0707C
Aperture Size (±.25)	15.49 x 11.68	15.49 x 11.68
Aperture (Diagonal)	19.41	19.41
Body Dimensions	25.15 x 18.03	25.15 x 18.03
Height	6.73	6.73
Weight with 12" Wire (grams)	6 ± 2 grams	7 ± 2 grams
Angular Radiation	±23° FWHM	±23° 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.

ALPHALIGHT™ RGB (Full color) LED Illuminators are ideal for color field sequential lighting (CFSL) of non-emissive displays.

The ALPHALIGHT™ is capable of operating in wide temperature ranges and is immune to most vibration and mechanical shock.

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

## 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

Parameters (Steady State DC) Ta = 25°C	AL0707M				AL0707C	SB0707C
	-R	-G	-B	-W		
Minimum Luminance (fL)	6000	5000	1000	3800	6500 (EEW: x = .33, y = .33)	8300 (EEW: x = .33, y = .33)
Hue (λ nm) (± 5nm)	625	525	470	Color (±0.02) x = .31-.35 y = .31-.35	Color (±0.02) RED: x = .67-.43, y = .27-.33 GREEN: x = .14-.28, y = .64-.73 BLUE: x = .11-.15, y = .04-.10	
Uniformity (Full Aperture)	≤ 1.3:1					
Maximum Power (mW)	600		630		1140	2280
Drive (VDC) (± .5V)	2.5		3.5		RED = 2.5, GREEN = 3.5, BLUE = 3.5	
Maximum Current (mA)	240		180		R: 120, G: 150, B: 90	R: 240, G: 300, B: 180
Projected Life (Hours)* <small>*Additional derating required for elevated temperatures</small>	≥ 40K		≥ 20K		≥ 20K	≥ 20K

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](http://www.teledynelighting.com)