

# G-Series G180 LED FOR LIGHT GUIDE ILLUMINATORS

## OVERVIEW

The G180 offers high brightness, tunable correlated color temperature (CCT) and adjustable intensity in a compact, flexible, and convenient package. Different colored LED chips packed into our Dense Matrix LED™ Array couple light efficiently into a light guide, illuminating your sample with selectable colors to enhance contrast, protect wavelength sensitive samples, and optimize viewing comfort. Undesirable light and sample interactions such as photobleaching in fluorescence and unintended curing in photosensitive adhesives can be avoided by selecting a color channel that does not interact with the sample. Eye fatigue, often caused by sustained viewing over long periods of time when performing visual inspection, can also be minimized by selecting the appropriate CCT.

The G180-TW (Tunable White) has six selectable CCTs from 2700K to 6500K, plus two user-programmable settings. The G180-RGB has three individual single-color channels, Red (at 635nm), Green (at 515nm) and Blue (at 475nm), in addition to three CCT whites and two user-programmable settings. The G180-5600K is not color tunable. Different color configurations can also be built to order. It can be mounted either vertically or horizontally and can be automated and synchronized with other hardware via USB or external triggering, making it a great fit for automated production lines and robotics. External trigger inputs enable <2msec shuttering times for strobe and pulse applications. The ScopeLED G180 combines power, flexibility, and usability in a compact form and is a great choice for your application. ScopeLED provides optional light guides and ring lights for a complete illumination system.

Applications include machine vision, visual inspection, forensics, biology, and microscopy.

## FEATURES

- Selectable colors:
  - G180-TW: 2700K, 3000K, 3600K, 4300K, 5600K, 6500K, plus two user-programmable settings
  - G180-RGB: 3000K, 4300K, 5600K, 635nm, 515nm, 475nm, plus two user-programmable settings
  - G180-5600K: 5600K Fixed CCT
  - G180-6500K: 6500K Fixed CCT
  - G180-635 Red: 635nm Red
  - G180-664 Red: 664nm Red
  - G180- 475 Blue: 475nm Blue
  - G180-UV: 365nm, 385nm, 400nm, All on
  - G180-365: 365nm
- External control via USB or triggered input for automation and synchronization
- Optional universal fiber mounting adapter compatible with most light guides
- Bright and efficient Dense Matrix LED™ Array optimized for light guides
- <2msec ON/OFF switching times using External triggering
- Software controllable via µManager or ScopeLED software
- Stable output at all intensities and colors
- Table top configurations
- Minimal heat and quiet operation
- Modern, space saving design
- Simple to use manual control
- 30,000 hours of LED lifetime



## OPTICAL PERFORMANCE

5600K / 6500K / 365nm	Typical CCT/ Color Settings	8mm Light Guide	
		Radiant Flux (mW)	Luminous Flux(Lm)
	5600K	1280	400
	6500K	1280	400
	365nm	800	-

Tunable White	Typical CCT/ Color Settings	8mm Light Guide	
		Radiant Flux (mW)	Luminous Flux (Lm)
	2700K	450	120
	3000K	510	135
	3600K	690	190
	4300K	930	260
	5600K	740	205
	6500K	660	185

Mixed RGB and Tunable White	Typical CCT/ Color Settings	8mm Light Guide	
		Radiant Flux (mW)	Luminous Flux (Lm)
	3000K	340	85
	4300K	410	95
	5600K	450	105
	Red@635nm	200	30
	Green@515nm	140	65
	Blue@475nm	250	30

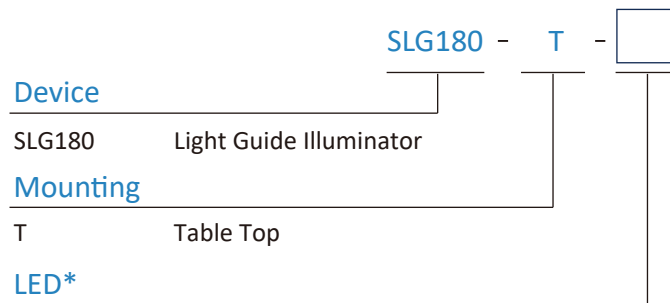
UV	Typical CCT/ Color Settings	8mm Light Guide	
		Radiant Flux (mW)	Luminous Flux (Lm)
	365nm	480	-
	385nm	450	-
	400nm	370	-
	All on	950	-

\* Results were measured at the output of a 1 meter long, 8 millimeters light guide and may vary based on a number of optical conditions.

## SPECIFICATIONS/RATINGS

Supply Voltage	10.8V to 13.2V
Input Current	3.5A max
Maximum Power Consumption	46W
Operating Temperature	0°C to 40°C
Storage Temperature	-20°C to 75°C
Humidity	10% to 90%
CCT and Color Settings	2700K, 3000K, 3600K, 4300K, 5600K, 6500K, 365nm, 385nm, 400nm, 635nm, 515nm, 475nm
Model Weight: Table Top	1.7 lbs

## ORDERING INFORMATION



### LED\*

5600K	5600K Fixed CCT
6500K	6500K Fixed CCT
635 Red	635nm
664 Red	664nm
475 Blue	475nm
WT	Tunable White Light
RGB	Red, Green, Blue
UV	365nm, 385nm, 400nm, All on
365	365nm

### Accessories (Optional)

SLAG-BASE	Lead Base for utilizing the Rigid Gooseneck Lightguides for Stability
SLAG-BIFR	20-Inch Bifurcated Gooseneck Light Guide with Focusing Lenses
SLAG-PA32	Pole Mount Adapter (40mm to 32mm)
SLAG-PACU	Pole Mount Adapter (40mm to Custom Size)
SLAG-RING	36-Inch Fiber Optic Ring Light
SLAG-SB	Stand Bracket for Mounting to the Back of Non-pole Stereo Microscope Stand
SLAG-SS	Support Stand for Rigid Gooseneck Light Guides
SLAG-EXT15	Extends Warranty on Item for One Additional Year

\* Please contact ScopeLED for customized wavelengths, spectrums, or fiber adapter dimensions.

## MECHANICAL DIMENSION Unit: mm [inch]

