

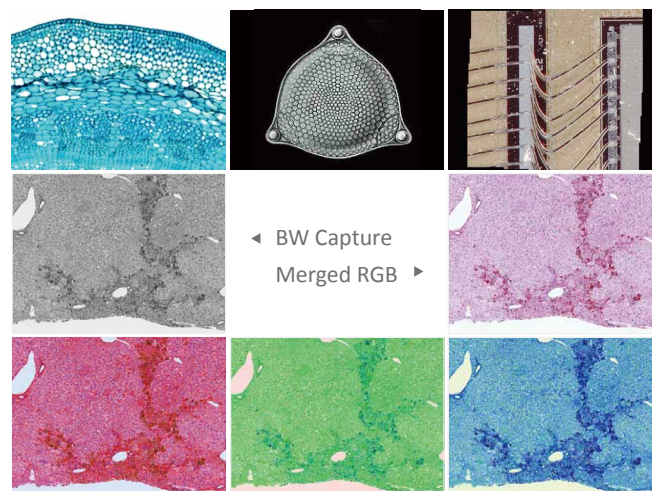
## B-Series BRIGHT-FIELD MICROSCOPE ILLUMINATORS

*"The B200-RGB LED light source by ScopeLED has multiple advantages over a standard halogen or white light source. Illumination is completely flat, there is no unevenness across the entire image field, and each color can be controlled individually through software and TTL allowing rapid sequential collection of color corrected images. Finally it is far less expensive than a standard light source (less than half the price) and has no parts that need to be replaced for the entire lifetime of the unit."*

- Dr. Simon Watkins, Distinguished Professor and Vice Chair, Cell Biology, University of Pittsburgh.

### OVERVIEW

ScopeLED's B-Series microscopy illuminators replace conventional halogen light sources used for a variety of transmitted and reflected light applications, such as bright-field, dark-field, phase contrast, polarized light and DIC. The heart of the B-Series illuminators is DiCon's high performance Dense Matrix LED™ Array. Using advanced thermal design, it offers vibration-free fan-less cooling with a high intensity optically stable light output. The RGB model allows any quantitative black and white camera to function as a high speed monochrome or color imaging system by utilizing separate controls for Red, Green and Blue light. Adjusting the intensity of each color with respective analog voltage and switching between each color with respective



TTL triggers eliminates the need for a color camera. Our non-phosphor RGB version is inert to laser excitation allowing it to be used as a self shuttering light source within any confocal or widefield fluorescence microscopy system. This high-powered LED is easily able to illuminate multi-headed microscope configurations of over 10 viewing stations using objectives from 1X all the way up to and including 100X oil immersion. With over 30,000 hours of LED lifetime and low power consumption, the ScopeLED B-Series illuminators are the smart, reliable and economic alternative to halogen bright-field illuminators.

### FEATURES

- Individual Channel Control for Sequential R,G,B Imaging in Merged Color Acquisition Applications
- Non-phosphor RGB LED Array that is safe for use with laser based fluorescence microscopes
- USB, 0-5V analog and TTL connections for remote control and automation
- High Efficiency Dense Matrix LED™ Array Light Engine
- Small Form Factor, Fan-less Cooling, Vibration Free
- No Hazardous Material in the Laboratory
- Ergonomic Manual Control Interface
- Optional Foot Switch for Shuttering
- 30,000 Hours of LED Lifetime
- Highly Stable Light Intensities
- No UV or IR Radiation



# BRIGHT-FIELD MICROSCOPE ILLUMINATORS

PCB180B

## OPTICAL PERFORMANCE

Phosphor White 5600K for B180\*

Typical CCT/Color Settings	Total Output	
	Radiant Flux (mW)	Luminous Flux(Lm)
5600K	2880	975

Non-Phosphor RGB with color control for B180\*

Typical CCT/Color Settings	Total Output	
	Radiant Flux (mW)	Luminous Flux (Lm)
3000K	2045	516
4300K	2120	517
5600K	2156	514
Red @ 635nm	1196	213
Green @ 521nm	856	351
Blue @ 465nm	1146	86

\* B200 illuminator includes a diffusing rod and collector lens with adjustable focus.

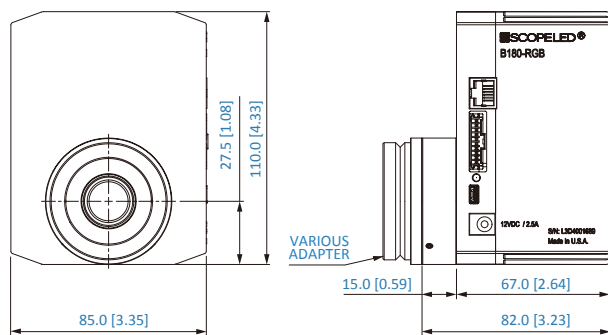
## SPECIFICATIONS/RATINGS

Supply Voltage	12VDC
Input Current	2A max
Maximum Power Consumption	24W
Operating Temperature	0°C to 40°C
Storage Temperature	-40°C to 70°C
Humidity	10% to 90%
Model Weight: B180	1.10 lbs
Model Weight: B200	1.84 lbs

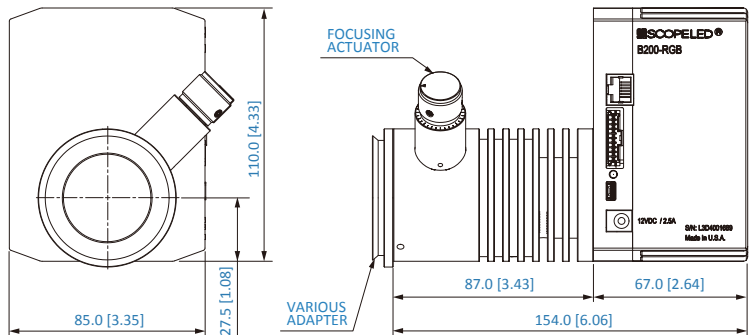
## MECHANICAL DIMENSIONS

Unit: mm [inch]

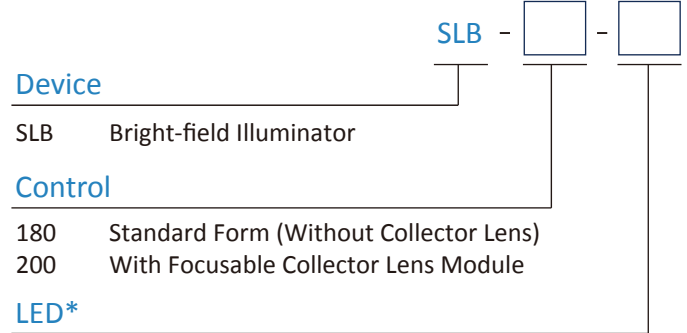
### B180



### B200



## ORDERING INFORMATION



### Device

SLB Bright-field Illuminator

### Control

180 Standard Form (Without Collector Lens)  
200 With Focusable Collector Lens Module

### LED\*

5600K Fixed Phosphor White 5600K  
RGB Non-phosphor RGB with Color Control

## Accessories (Optional)

- SLAB-FOOT Foot Switch Shutter Control
- SLAB-2BNC Analog to Digital Communication Cable: 10-Pin to 2-BNC Male Cable (for single color type)
- SLAB-8BNC Analog to Digital Communication Cable: 10-Pin to 8-BNC Male Cable (for RGB type)
- SLAB-EXT15 Extends Warranty on Item for One Additional Year

Adapters available for most brands of microscope models - please specify your microscope model for the appropriate adapter.

\* Please contact ScopeLED for customized wavelengths or spectrums.

*"Triggering of the individual LEDs on the ScopeLED RGB illuminator is an easy way to rapidly acquire RGB images using a grayscale camera. We have been able to acquire RGB images at up to 30 fps in this manner."*

- Dr. Kurt Thorn, Director, Nikon Imaging Center, UC San Francisco.