



BluLoop Multi-LED Light Source

Installation and Operation Manual

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WARNING

Protective Eye Wear Must Be Worn When
Using This Instrument -
Intense Ultraviolet Radiation Present
See Important Safety Notices inside.

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Important Safety Notices

1. Read this manual before you attempt to use this instrument.
2. Do not remove or modify any installed safety device on this equipment. Doing so will void your warranty and create an unsafe operating environment.
3. Dangerous voltages are present in this device. There are NO user serviceable parts inside.
4. Only allow qualified personnel to service this unit.
5. Before using the optical tool for the first time check for transport damage. Do not use the unit if it is damaged in any way. Contact your dealer for repair or replacement information.
6. Always screw in the fiber optic cables before starting the instrument.
- 7.



WARNING

Protective eyewear must be worn when using this equipment - Intense ultraviolet radiation present.

Never look directly into the light beam, as this can cause eye damage.

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About This Manual

Document Purpose and Intended Audience

This document provides you with an installation section to get your light source up and running.

Document Summary

Chapter	Description
Chapter 1: Setup	Contains a list of package contents and unpacking instructions.
Chapter 2: BluLoop Light Source Specifications	Contains a spectral output graph as well as product specifications.

Product-Related Documentation

You can access documentation for Ocean Optics products by visiting our website at <http://www.oceanoptics.com>. Select *Technical* → *Operating Instructions*, then choose the appropriate document from the available drop-down lists. Or, use the **Search by Model Number** field at the bottom of the web page.

You can also access operating instructions for Ocean Optics products on the *Software and Technical Resources* CD included with the system.

Engineering-level documentation is located on our website at *Technical* → *Engineering Docs*.

Upgrades

Occasionally, you may find that you need Ocean Optics to make a change or an upgrade to your system. To facilitate these changes, you must first contact Customer Support and obtain a Return Merchandise Authorization (RMA) number. Please contact an Ocean Optics Application Scientist for specific instructions when returning a product.

Chapter 1

Setup

Overview

The BluLoop BluLoop Multi-LED Light Source offers four LEDs combined into a single light source to improve spectral shaping relative to tungsten-halogen light sources. BluLoop offers good, balanced spectral output in the VIS range and is great for color measurements.



Unpacking the BluLoop

The following sections provide instructions on unpacking and setting up your BluLoop Multi-LED Light Source.

Before using the BluLoop light source for the first time, check for transport damage. Be sure to adhere to all warnings on the unit and in this manual.

► **Procedure**

1. Unpack your lamp assembly carefully. Although the lamp is rigidly mounted, dropping this instrument can cause permanent damage.

1: Setup

2. Inspect the outside of the instrument and make sure that there is no damage. Do not use the instrument if damage is present.
3. Switch on the unit and check if the light source including the fan is working.

WARNINGS

Do not stare into the source of the light beam.

Handle the product with care. Do not let any objects or liquids enter into the device or in the optical path of the light source.

4. Use this instrument in a clean laboratory environment.

Package Contents

Your BluLoop light source package should contain the following:

- ❑ BluLoop light source
- ❑ Power Supply 6 Vdc upto 3000 mA with different plug adaptors
- ❑ Hexagonal socket screw key SW 1.3
- ❑ This manual

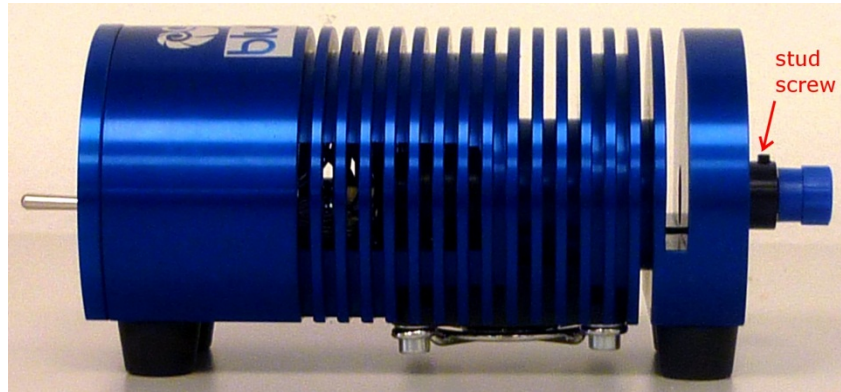
Varying the Optical Output Intensity

You can vary the intensity of the optical output by sliding the SMA holder parallel to the light beam.

► **Procedure**

To change the light intensity,

1. Loosen the stud screw with the hexagonal socket screw key SW 1.3 that you received with your light source.



2. Slide the SMA holder to the desired position.
3. After setting the right intensity, tighten the stud screw.

The system is set to maximum intensity at factory measured with a 1000 μm fiber.

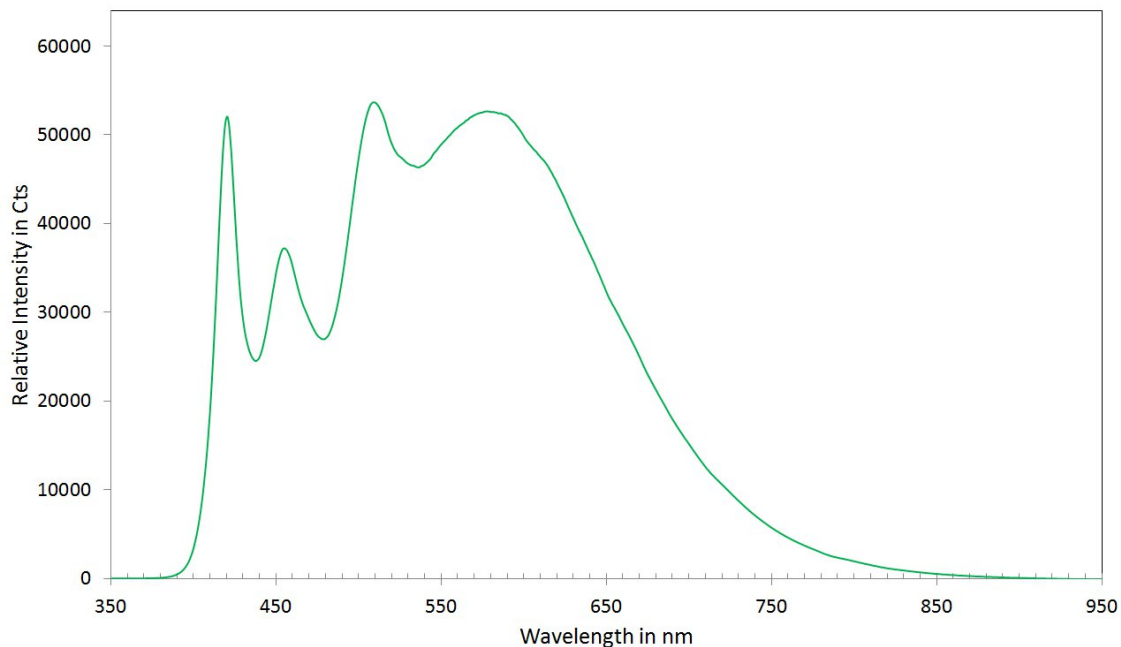
BluLoop Light Source Specifications

Overview

This section provides information on the spectral output and the operating environment of the BluLoop light source.

Spectral Output

The following graph shows a spectral output of a BluLoop measured with a QE65000 spectrometer. Because the output is a combination of four LEDs the output can be manipulated by driving the single LEDs at different currents. The spectral distribution is set at the factory and should be similar to the spectrum shown below.



Specifications

Specification	Value
Wavelength Range	395 – 750 nm
Stability	0.25 %
Drift	< 0.3 % per hour
Time to stabilize	15 min
Output to bulb:	
Blue LED	500 mA
Cyan LED	700 mA
White 4500 K LED	700 mA
White 6500 K LED	700 mA
Bulb lifetime	> 10,000 h
Characteristic	focused
Room Temperature	5 -- 35 °C
Humidity	5 -- 95 % at 40 °C
Lamp Power	up to 12 W
Weight	0.5 kg
Size (HxLxD)	62 mm x 60 mm x 150 mm

Spare Parts

There are no spare parts available. Contact Ocean Optics for a replacement.

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