Proton Optics

LED Light Source – Single Wavelength
User Manual

1. Product Description

The LED Light Source – Single Wavelength is a compact, high-performance LED module integrating a high-power LED chip, precision constant-current driver, and versatile mechanical mounting interfaces.

It provides stable, adjustable current output with real-time current monitoring, making it ideal for scientific, industrial, and optical system integration applications.

2. Key Features

Adjustable Constant Current Output
• Maximum output current up to 1.5 A
• Simple and reliable current adjustment for stable LED operation

Real-Time Current Display
• Built-in current monitoring and display
• Accurate real-time feedback for precise control

Available Wavelengths
UV (375 nm), Royal Blue (430 nm), Blue (470 nm), Cyan (490 nm), Green (530 nm), Amber (590 nm), Red (625 nm), Far Red (720 nm), Infrared (850 nm / 940 nm), White (6500 K)

High Reliability
• Low ripple and low noise output (<1%)
• Robust electrical protection for long-term operation

Versatile Mount Compatibility
• 30 mm cage systems
• SM1 lens tubes
• BJB lens holders for 20 mm Carclo optics

3. Typical Applications

• LED light source systems
• Laboratory and scientific instruments
• Industrial inspection and machine vision
• Custom lighting and research platforms

4. Product Overview

This device is a high-stability, constant-current LED driver optimized for high-power LED light sources.

It combines precise current control with real-time current monitoring to deliver safe, reliable, and adjustable output across a wide range of LED wavelengths.

5. Operating Instructions

Ultra-Easy Setup — 5 Simple Steps:

1. Turn on the power
2. Set the current limit
3. Adjust the operating current
4. Monitor operation
5. Zero operating current and turn off the power

6. Safety Information

• Do not exceed the maximum rated current of the LED.

• Ensure adequate heat sinking and thermal management during operation.

• Avoid direct eye exposure to high-intensity, UV, or IR light.

• Use the device only within specified electrical ratings.

7. Regulatory Compliance

FCC Compliance Statement
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

8. Notes

Product specifications are subject to change without notice.

Modifications not expressly approved by the manufacturer may void the user’s authority to operate this equipment.