SL1-LED-UV Light Source

Multi-Wavelength UV LED Illumination System

The Stellar-Elite **SL1-LED-UV** is a high-output ultraviolet light source designed for spectroscopy, fluorescence excitation, UV curing, and material testing applications. Featuring four independently controlled UV LED channels, the system combines precise manual adjustment with USB-C software control, delivering stable, repeatable illumination for laboratory, analytical, and industrial environments. Its rugged aluminum enclosure, active cooling system, and plug-and-play operation make it easy to integrate into new or existing optical setups.



Key Platform Features

- Four independently adjustable UV LED channels
- User-selectable wavelengths from **255–405 nm**
- Manual intensity adjustment with dedicated front-panel controls
- USB-C interface for software control and automation
- Compatible Python driver for custom software integration
- Active fan cooling for stable output and extended LED lifetime
- Rugged aluminum housing for laboratory and industrial environments
- Standard SMA fiber optic output for easy system integration
- Plug-and-play operation with no calibration required

Upcoming Features

- External TTL modulation input
- Analog control input (0–5 V) for power and intensity adjustment



System Specifications

Wavelength	Drive Current	Typical Radiant Output	FWHM
255 nm	500 mA	51 mW	13 nm
295 nm	700 mA	95 mW	12.3 nm
340 nm	350 mA	170 mW	12 nm
365 nm	700 mA	775 mW	12 nm

Optical Tolerances

- Peak wavelength: ±5 nm
- Radiant flux: ±5%

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