

ONELIGHT SPECTRA PRODUCT SPECIFICATIONS

PRODUCT DESCRIPTION

OneLight™ Spectra is a color programmable light source for research, health care and life science applications. It can provide any desired mix of color and illumination, with the ability to respond faster than most image capture devices. OneLight Spectra can improve the performance of microscopy and spectroscopy imaging systems by replacing conventional light sources, shutters, filter wheels and optical filters. Using thousands of built-in and user-defined spectral profiles, OneLight Spectra eliminates the need for many costly light sources and filters; reducing the cost of components, eliminating repeated calibrations, improving time to market and time to publication for test results.

EVOLUTION OF CONTROL

The OneLight Spectra provides high speed software control of output spectrum, intensity, exposure time and timing sequences. Output to existing equipment is highly configurable via fiber bundle, liquid light guide or free space optics. The application software allows users to control the instrument functions via a computer equipped with a standard USB 2.0 interface. A software Application Programming Interface (API) can be used to program custom applications.

- Instantaneous dynamic control of color, exposure and intensity
- Increased dynamic range of measurement
- Increased measurement sensitivity
- Elimination of filters and shutters
- Elimination of repeated calibrations
- Sequential loading of multiple spectra
- Easy connectivity to existing equipment

PREREQUISITES

Windows 2000 or XP-based computer with 2 available USB2.0 ports.
A supported feedback spectrometer for system calibration – see options, below.

COMPONENTS

Standard Hardware

OneLight Spectra Light Engine, power cord and USB cable, 2m liquid light guide

Standard Software

Control software version 1.0.

Documentation Included

OneLight Spectra Installation and User Guide.



Profile view of the OneLight Spectra Spectrally Programmable Light Engine (SPLE).

OPTIONS

Optional Hardware

Feedback spectrometer (see website for supported spectrometers).

Optional Software

Software Developers Kit
LabVIEW Drivers

Light Guide Adapters

Check website for availability for various models of microscope and other instrument adapters.

PERFORMANCE

Output Intensity

250 mW full spectrum (at output of 5mm liquid light guide, 15 nm resolution)

Spectral Resolution

to 10 nm

Spectral Range

400 - 700 nm

Spectral Accuracy

1 nm

Intensity control levels

greater than 10,000

Spectrum Rate

Up to 7000 spectra per second

Exposure Time

Programmable to 140 μ s

Modulation Frequency

Up to 3.5 kHz

Operating conditions

Temperature 5-35° C

Relative humidity 20%-90%

Electrical Requirements

100-240 VAC, 50/60Hz, 600W

Equipment Dimensions

38 x 20 x 33 cm / 14.75 x 8 x 13 " (H x W x L)

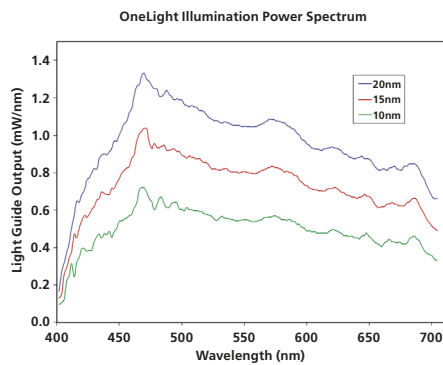
Equipment Weight

12 kg / 26 lb

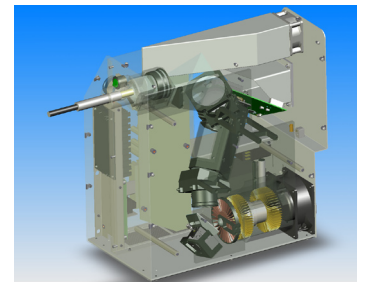
Regulatory Compliance

CSA C22.2 No. 950, UL 1950, EN609050, FCC Class A, EN55022 Class A

All specifications subject to change.



OneLight can create any illumination spectrum that is a subset of the above output. Spectral detail can be created up to the FWHM limits of the Lamp/Slit Cartridge installed at the time. Wider slit widths provide higher power, whereas narrower slits provide better spectral control and resolution.



Under the hood, OneLight Spectra marks the complete integration of light source and spectral tuning optics – providing unprecedented functionality via a single, compact device under software control.