

Radiometric Calibration Standards: VIS-NIR



Calibrated with Fiber & Cosine Corrector

The LS-1-CAL is designed for calibrating the absolute spectral response of a complete system consisting of a spectrometer and an optical fiber and/or a CC-3-UV Cosine Corrector (page 104). The HL-2000-CAL is also designed for calibrating a system consisting of a spectrometer and a cosine corrector. The calibration data for both the LS-1-CAL and the HL-2000-CAL includes absolute intensities for wavelengths between 300-1050 nm.



The LS-1-CAL is calibrated for use with a fiber and/or a CC-3-UV Cosine Corrector (not included).

Calibrated for Use with Integrating Sphere

The LS-1-CAL-INT is designed for calibrating the absolute spectral response of a system that uses the FOIS-1 Fiber Optic Integrating Sphere (page 105) as the sampling optic. The LS-1-CAL-INT comes with a diffuser plug that fits into the sample port of the FOIS-1 to measure absolute spectral intensities of LEDs and other emission sources. The HL-2000-CAL-ISP is designed for calibrating the absolute spectral response of your system when using the ISP-50-8-I Integrating Sphere (page 105) as your sampling optic.



The LS-1-CAL-INT is calibrated specifically for use with the FOIS-1 Integrating Sphere. Notice the PTFE diffuser plug that's seated where an SMA 905 Connector is usually installed. This plug fits snugly into the sample port of the FOIS-1.

What's Included

Each of these radiometric sources comes with a regulated 12 VDC power supply. Also included is a calibration certificate and electronic files for use with our irradiance functions in SpectraSuite Spectroscopy Operating Software. Neither the LS-1-CAL nor the HL-2000-CAL lamps comes with a CC-3-UV Cosine Corrector.

Recalibrating Your Source

These calibrated sources provide 50 hours of operation before an in-house recalibration (called the LS-1-RECAL and the HL-2000-RECAL) is necessary.

In-house Calibration

If you do not want to purchase one of these calibration sources, we offer in-house radiometric calibration services that calibrate the absolute spectral response of your system. The SPEC-CAL service is for 300-1050 nm and the SPEC-CAL-NIR service is for 900-2400 nm.



The HL-2000-CAL is used for calibrating most radiometric systems, while the HL-2000-CAL-ISP is used with ISP Integrating Spheres.

Specifications

Power consumption:	600 mA @ 12 VDC
Wavelength range:	300-1050 nm (calibrated)
Output:	6.5 watts
Recalibration:	Required after 50 hours of operation
Time to stable output:	~20 minutes
Bulb color temperature:	3100 K for LS-1-CALs, 2800 K for HL-2000-CALs
Connector:	SMA 905 for fiber; 6.35-mm barrel for cosine corrector; PTFE plug for integrating sphere

