





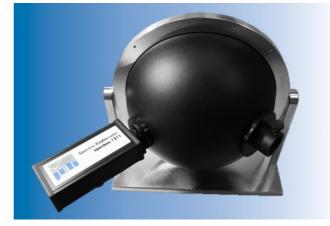
Broadband Spectroradiometer

specbos 1311

specbos 1311 is a spectroradiometer to measure the radiometric, photometric and colorimetric data of light sources in radiant flux mode, using an integrating sphere. The included easy-to-use software has the full complement of radiometric and colorimetric functions requisite for quality control applications and selection of samples.

Applications:

- Radiometric and colorimetric characterization of
 - LEDs and IREDs
 - Miniature lamps
 - Fiber optic output



Advantages:

- USB powered, no extra power supply
- Automatic determination of measuring time
- Data export into Excel and CSV files
- Binning function in the software (see demo version of JETI LiVal in http://www.jeti.com/cms/index.php /demo-software)

Measuring values:

- · Radiant flux, luminous flux,
- Spectral radiant flux
- xy and u'v' coordinates
- · Dominate wavelength
- Color purity
- Correlated Color Temperature
- Color Rendering Index

Integrating spheres of 150, 300 and 500 mm diameter are available. A baffle avoids the inclusion of the first reflex to the measurement. Other sphere sizes and designs are possible. The 500 mm system can be obtained in hinged version incl. auxiliary lamp.

Input port design will be adapted to user demands. Customer specific sample holders can be offered.

The basic measuring unit can also be used for radiance and irradiance measurements.

Specifications

Optical parameters

Spectral range 350 nm ... 1 000 nm

Optical bandwidth 4.5 nm Wavelength resolution 1 nm

Digital electronic resolution 15 bit ADC

Dispersive element Diffraction grating

Light receiving element Photodiode array 1024 pixel (binned)

Measuring values Spectral radiant flux

Total radiant flux/ luminous flux Chromaticity coordinates x,y; u',v' Correlated Color Temperature Dominant wavelength, color purity

Color Rendering Index

Measuring ranges and accuracies

Measuring range luminous flux 0.1 lm ... 4000 lm (depending from sphere size)

Luminous flux accuracy depending from integrating sphere Luminous flux reproducibility depending from integrating sphere

Chromaticity accuracy $\pm 0.002 \text{ x, y } (@ 2856 \text{ K})$

Color reproducibility $\pm 0.0005 x, y$

CCT reproducibility \pm 20 K (@ 2856 K)

Wavelength accuracy $\pm 0.5 \text{ nm}$

Other technical data

Integrating sphere diameter 150, 300 and 500 mm (others on request)

Interface USB 2.0 fullspeed

Operating conditions Temperature 10 ... 40 °C

Humidity < 85 % relative humidity at 35 ℃

Power supply Hub powered
Accessories (included) Integrating sphere

Cosine diffusor (for irradiance measurement)
PC software JETI LiVal for Windows 7/8/XP/ Vista

DLL, LabVIEW VI's Operation instructions Calibration certificate

USB cable

NIST traceable calibration Recommended interval: one year



