



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 LiMeS 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	± 0.002 x, y (@ 2856 K)
Color reproducibility	± 0.0005 x, y
CCT reproducibility	± 20 K (@ 2856 K)
Wavelength accuracy	± 0.5 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 °C
Power supply	Hub powered
Accessories (included)	Integrating sphere
	Cosine diffusor (for irradiance measurement)
	PC software JETI LiMeS for Windows 7/ XP/ Vista
	DLL, LabVIEW VI's
	Operation instructions
	Calibration certificate
	USB cable
NIST traceable calibration	Recommended interval: one year

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