

specbos 1211UV-2

Broadband Radiometer 230 ... 1000 nm

specbos 1211UV-2 is a broadband miniaturized spectroradiometer which can be used for spectral Radiance as well as spectral Irradiance measurements in the wavelength range of 230 ... 1000 nm.

Highlights:

- Wavelength range from UV to NIR
- High sensitivity
- Radiance as well as Irradiance measuring modes
- Action spectra can be applied
- Small and easy to use
- NIST traceable calibration
- Measurement also possible with DLLs or SCPI compatible commands

Software **JETI LiVal** (for a demo version see www.jeti.com):

- Intuitive operation
- Weighting the obtained spectrum with an action function
- Classification of samples
- Easy data export to Excel and CSV
- Automatic detection of attached accessories
- Specific calculations as PAR, circadian metrics and metamerism according to ISO 23603

Additional features:

- Pass/ fail decisions
- Ranking function (up to 16 ranks)
- Saving of reference spectra
- Spectral calculations
- Data export in csv and xls files
- Switching between Si and Imperial units



Advantages:

- USB powered
- Very fast measurement
- Internal target spot laser (luminance measurement)
- Mechanical shutter for dark signal compensation
- Easy to install
- Start of measurement with external trigger



Specifications

Optical parameters

Spectral range	230 ... 1000 nm
Optical bandwidth	4.5 nm
Wavelength resolution	1 nm
Digital electronic resolution	15 bit ADC
Viewing angle	1.8° (Luminance mode)
Measuring distance/ diameter (measured from front end of the device)	20 cm – Ø 7 mm; 100 cm – Ø 33 mm

Measuring values

Spectral Radiance/ Irradiance, Luminance/ Illuminance, total Radiance/ Irradiance, x,y, u',v', CCT, color purity, CRI, RGB, PAR, TLCl, circadian metrics and others

Measuring ranges and typical measuring uncertainties (according to CIE TN 009:2019)

Luminance measuring range	0.2 ... 150 000 cd/m ² (Illuminant A) 0.2 ... 100 000 cd/m ² (typical warm white LED) (higher values with optional filter)
Luminance uncertainty	± 4.4 % (Illuminant A @ 100 cd/m ² , k=2)
Luminance repeatability	± 1 %
Chromaticity uncertainty	± 0.002 x, y (Illuminant A, k=2)
Color repeatability	± 0.0005 x, y (Illuminant A)
Illuminance measuring range	1 ... 1 800 000 lx (Illuminant A) 1 ... 1500 000 lx (typical warm white LED)
Illuminance uncertainty	± 2.4 % (Illuminant A @ 2000 lx, k=2)
CCT repeatability	± 20 K (Illuminant A)
Max. wavelength error	± 0.5 nm (HgAr line source)
Polarization error f8	< 1 %

Other technical data

Dispersive element	Imaging grating (flat field)
Light receiving element	Backthinned CCD array 2048 pixels (binned)
Power supply	USB Hub powered
Interface	USB 2.0 fullspeed, Bluetooth (specbos 1211UV-2-BT) RS232 (specbos 1211UV-2-RS), LAN (specbos 1211UV-2-LAN)
Dimensions	180 mm x 82 mm x 53 mm
Weight	450 g
Operating conditions	Temperature 10 ... 40 °C Humidity < 85 % relative humidity at 35 °C
Accessories (included)	PC software JETI LiVal for Windows 8.1/ 10, operating instructions and software development kit on BT stick, USB cable, battery charger and trigger connector, tripod, carrying case, protection cap Calibration certificate
Accessories (optional)	Filters, side view and fiber extended diffusors, add on optics
Calibration	NIST traceable
Recommended interval	1 year