



# Spectroradiometer specbos 1301

**specbos 1301** is a VIS spectroradiometer for the measurement 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
  - LED
  - Miniature lamps
  - Fiber optic output

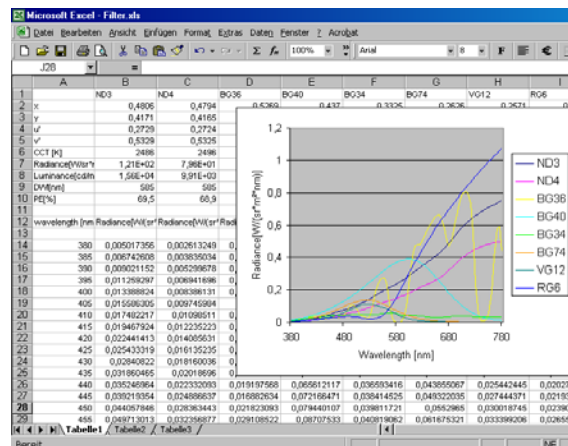
## Advantages:

- USB powered – mobile! – no extra power supply
- Automatic determination of measuring time
- Excel spread sheets

## 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 50 ... 500mm diameter are available. A baffle avoids the inclusion of the first reflex to the measurement. Other sphere sizes and designs are possible.



**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

<b>Optical parameters</b>	
Spectral range	380 nm ... 780 nm
Optical bandwidth	5 nm
Wavelength resolution	1 nm
Digital electronic resolution	15 bit ADC
Dispersive element	Diffraction grating
Light receiving element	Photodiode array 1024 pixel (binned)
<b>Measuring values</b>	
	Spectral Radiant Flux Total Radiant Flux/ Luminous Flux Chromaticity coordinates x,y; u',v' Correlated Color Temperature Dominant wavelength, color purity Color Rendering Index
<b>Measuring ranges and accuracies</b>	
Measuring range Luminous Flux	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
<b>Other technical data</b>	
Integrating sphere diameter	50, 100, 150, 250, 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 2000/XP DLL, LabVIEW VI's Operation instructions Calibration certificate USB cable
NIST traceable calibration	Recommended interval: one year

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