



spectraval 1511

Stand alone VIS Spectroradiometer

spectraval 1511 is a compact spectroradiometer for the visible wavelength range. It has a display and can be used for spectral Radiance measurement with a measuring angle of 2° . The actual measuring area is marked by a red circle.

spectraval 1511 can be operated in stand alone mode (using the display program) or in connection with a computer (using the included software JETI LiVal or special programs for monitor calibration as CalMAN, LightSpace CMS, ChromaPure).

Advantages:

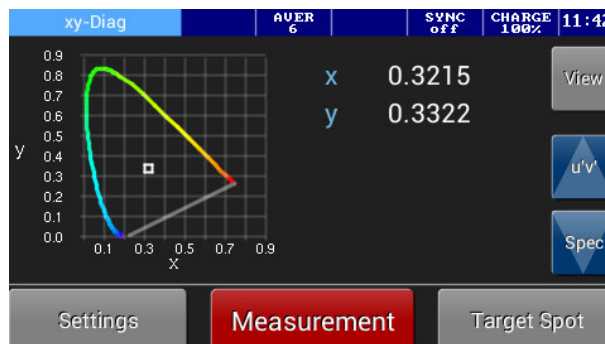
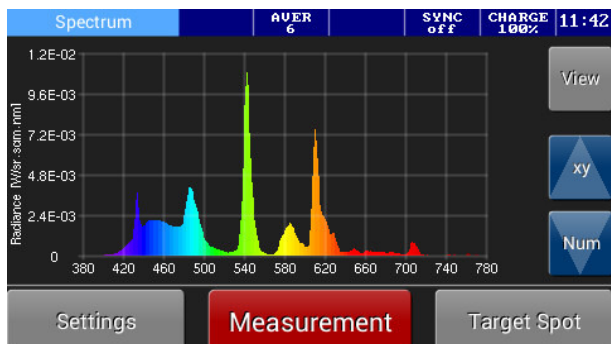
- ◆ Compact solutions
- ◆ Fast measurement
- ◆ Precise results due to high quality spectrograph and NIST traceable calibration
- ◆ Comfortable handling due to Bluetooth connection

Examples for applications:

- ◆ Calibration of broadcast monitors
- ◆ Color adjustment of digital projectors
- ◆ **spectraval 1511 HiRes** for RGB Laser projectors
- ◆ Measurement of LED displays

spectraval 1511 displays the following values:

- ◆ Luminance, Radiance
- ◆ xy and $u'v'$ coordinates, RGB values
- ◆ Dominate wavelength, color purity
- ◆ Correlated Color Temperature
- ◆ Color Rendering Index
- ◆ Radiometric spectrum



More quantities as CQS can be obtained using the PC software JETI LiVal (demo version see: www.jeti.com).



Specifications

Optical parameters

Spectral range	380 ... 780 nm
Optical bandwidth	4.5 nm
	2 nm (version: spectraval 1511 HiRes) ¹
Wavelength resolution	1 nm
Digital electronic resolution	16 bit ADC
Viewing angle	1.8°
Measuring distance/ diameter	20 cm - Ø 6 mm; 100 cm - Ø 31 mm

Measuring values

Spectral Radiance total Luminance / total Radiance
Chromaticity coordinates x,y; u',v'
Correlated Color Temperature, color purity
Color Rendering Index, RGB and others
Spectral Irradiance/ Integral Irradiance/ Illuminance

With optional diffusor

Measuring ranges and accuracies

Measuring range Luminance	0.2 ... 180 000 cd/m ² (III. A)
	0.2 ... 140 000 cd/ m ² (typical warm white LED)
Luminance accuracy	± 2 % (@ 100 cd/m ² and III. A)
Luminance repeatability	± 1 %
Chromaticity accuracy	± 0.002 x, y (III.A)
Color repeatability	± 0.0005 x, y (III.A)
CCT repeatability	± 20 K (III.A)
Wavelength accuracy	± 0.5 nm
Polarization error	< 2 % (f8)
Measuring range Illuminance	2 ... 1 250 000 lx (III. A)
(with optional diffusor)	1 ... 1 000 000 lx (typical warm white LED)

Other technical data

Dispersive element	Imaging grating (flat field)
Light receiving element	CCD line array 2048 pixels (binned)
Power supply	Battery and USB powered
Interfaces	USB 2.0 fullspeed Bluetooth
Dimensions	140 mm x115 mm x 70 mm
Weight	500g
Operating conditions	Temperature 10 ... 40 °C Humidity < 85 % relative humidity at 35 °C
Accessories (included)	PC software <i>JETI LiVal</i> for Windows 7/ 8/ 10 operating instructions and software development kit on Bluetooth stick USB cable, battery charger and trigger connector Calibration certificate Tripod, transport box Operating instructions
Calibration	NIST traceable
Recommended interval	1 year

¹ About 6 time higher measuring time