spec'3

OTS

Speedy and comfortable measurement of spectral distributions and colorimetric characteristics

The spectral measurement system spec'3 allows a speedy measurement of spectral distributions from UV to NIR. Within the visible spectral region the colorimetric values are displayed directly according to CIE. A continuous live mode display is possible whereby timely changes can easily be observed or adjustments facilitated sensibly. In the evaluation software colour tolerance areas can be defined to carry out quick tests with respect to the test specifications.

The colour rendering values according to CIE are updated permanently in the live mode. The colour rendering diagram gives an overview of all values from R_1 to R_{14} in a fast and easy way.

For a sensible evaluation of the measuring values, the chromaticity coordinates ΔC to the Planck's curve as well as the corresponding correlated colour temperature are delivered as well.

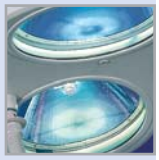
By means of the automated adjustment of the integration time and of the integrated automatic shutter for the dark correction, the system is being stabilized in an ideal working point and thus assures a complete usage of the digitalization depth.

Measurements of emission, reflection or transmission characteristics round off the functions of the measurement system.

Furthermore, the operation of several spectrometers simultaneously with the same or even different wavelength bands is possible.

By means of the TCP/IP add-on spec'remote the integration of the spectrometer into any test environment can be realized.

Alternatively, the compact spectroradiometer SPR'3 is available for the measurement of spectral distributions.



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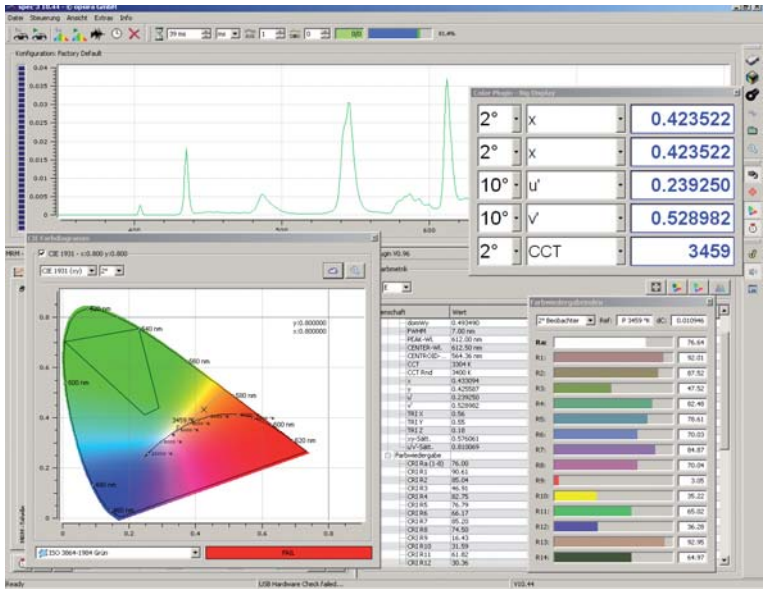
spec'3 – V10
Software



Accessories

- Reflection standard
- Integrating spheres
- Shutter
- Diffusors (COS-weighting)
- various measurement fibres
- light sources
- absolute sensors

Measuring quantities

Spectral distribution:	S(λ)
Chromaticity coordinates:	x, y / u', v' / L*a*b*
Correlated colour temperature:	T, T_n [K]
Colour rendering indices:	R_1 - R_8, R_a, R_9 - R_{14}
Colour saturation:	S [%]
Hue angle:	h° [°]
Dominant wavelength:	λ_d
Transmission rate:	T(λ) [%] (specular, diffuse)
Reflection rate:	R(λ) [%] (specular, diffuse)

Specifications

Wavelength band:	any region from 180 nm to 2500 nm possible
Number of detector pixels:	approx. 2048
AD converter:	16 Bit / 1 MHz
Wavelength resolution:	0.03 nm to 10 nm FWHM
Measuring dynamics:	2 x 10^8 (system), 1300:1 (single measurement)
Linearity:	>99,8%
Stray light elimination:	0.05%@600 nm / 0.10%@435 nm
Integration times:	1 ms to 65 s

Typical values of a standard configuration. Changes are possible depending on the system configuration.
Variations to the technical data may occur due to the permanent improvement and development of our measurement systems.
We do not assume any juristic responsibility or liability whatsoever for such variations or misprints.
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opsira GmbH
Leibnizstr. 20
D-88250 Weingarten

Tel.: +49 751 561 890
Fax: +49 751 561 899

info@opsira.de
www.opsira.com