luca'lux

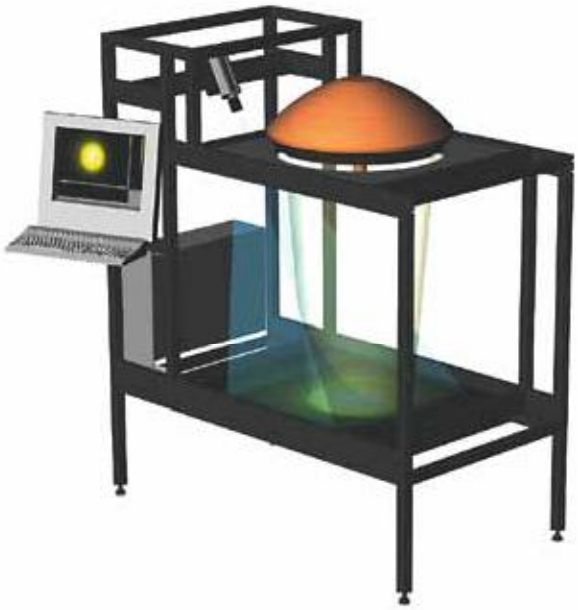
System enhancement with a broad spectrum

The software and hardware enhancement luca'lux enables the fast and easy measurement of illuminance and luminous intensity distributions respectively. The measurement is spatially taken in one shot against a reflecting or transmitting screen. The entire measurement of the illuminance distribution of a luminaire or an optical system is carried out within seconds. The software provides a comfortable assistant (calibration wizard) calibrating the system with respect to a traceable transfer standard.

Predefined evaluation masks compare the measuring results with the desired standards, such as ECE, SAE, etc. in lightning speed. The self-explanatory background coloring immediately reveals whether all test points lie within the prescribed area. Efficiency degrees are specified by integrating arbitrary areas of the measurement to define the luminous flux. The system stands out for significant evaluations and very short measuring times and is most suitable for production control of photometric data and quick development verifications.

opsira

www.opsira.com/lucalux



The measured illuminance distribution can be directly converted into the luminous intensity distribution and checked against the related standards. The measurement of the spatially taken chromaticity coordinate distribution is additionally enabled by the system enhancement. The measurement can be made from arbitrary inclined angles. The measurement algorithm provides for the geometric rectification of the measurement and directly delivers the evaluation of the luminance distribution, for instance in accordance with DIN EN 60601-2-41. Test sequences can be fully automated or remote-controlled and integrated into existing test environments via the enhancement luca'remote. Depending on the screen size different materials with specific scattering features for measurement in reflection are available. A specifically developed composite material with excellent Lambertian scattering features is used in transmission.

Measuring quantities

Illuminance and irradiance distribution	E(x,y), E(ϑ,φ) [lux]
Luminous and radiant intensity distribution	I(ϑ,φ) [cd]
Luminous flux / light flux	Φ [lm]

Specifications

Measuring range of illuminance	0,01 Lux to 1 MLux*1
Measuring range of luminous intensity	0,05 cd to 1 Mcd*1
Measuring dynamics	12 Bit / 18 Bit*2
Measuring time	< 1 s typical*3
Spatial resolution	1300 x 1000 pixel typical*4
Measuring error	< 1%*5

Accessories

• Software add-on luca'remote	• Spectrometer/Spectroradiometer
• Turntables/Goniometers	• Software client (production control)

*1 depending on measuring object, upper limit is arbitrarily scalable by means of suitable neutral density filters. *2 14, 16 or 18 Bit in the HighDyn mode by multiple exposure. *3 0,1 ms to 60 s possible. *4 further measurement resolutions possible. *5 variation from calibration transfer standard.