



luca

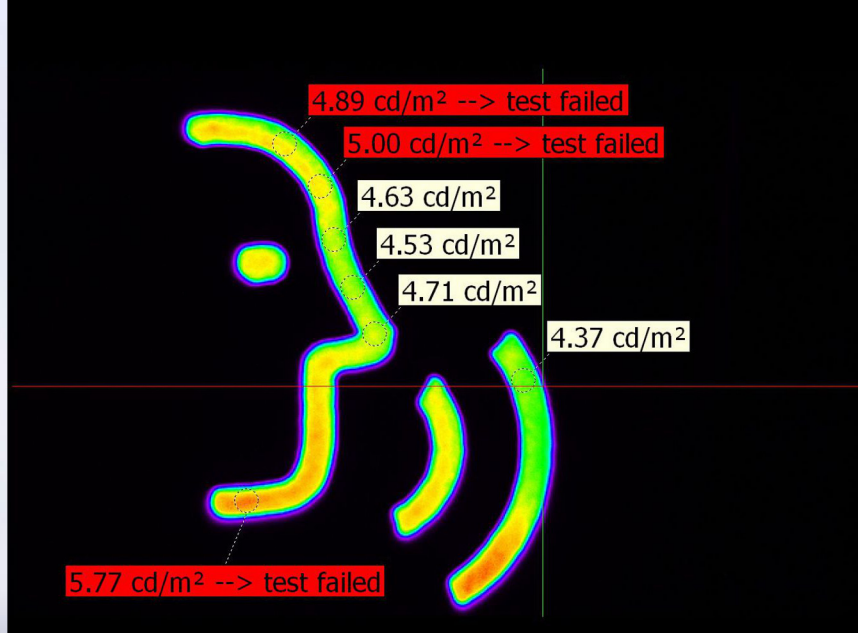
The image resolving luminance measurement system

The measuring cameras of the product family luca enable the high-resolution measurement of luminance and radiance distributions. luca analyzes the spatially resolved luminance in a fast and easy way, whether you measure displays, control elements or luminaires. The comfortable control and evaluation software offers a variety of evaluation functions. luca is based on high-quality CMOS-matrix cameras and, in HighDyn mode, provides up to 5 decades of dynamics within one measurement – at an outstanding signal-to-noise ratio.

The system add-on luca'color allows measurements of up to 10 different spectral weighting functions. Thus, besides the luminance measurement, the spatially resolved measurement of the color distribution according to CIE 1931 is possible. Furthermore, in combination with one of the opsira goniophotometers, polychromatic ray data for the use in optics simulation can be generated. Further spectral weightings can easily be realized. A great number of different measuring lenses facilitate a high flexibility in the size of the measuring lenses. luca'remote, the powerful TCP/IP interface is available for the integration of luca into automated control processes, such as end-of-line controls.

opsira

www.opsira.com/luca



Measuring quantities

Luminance distribution	$L(x,y)$ [cd/m ²]	
Color coordinates	$x, y / u', v' / L^*a^*b^*$	(luca'color)
Color temperature	T [K]	(luca'color)
Dominant wavelength	λ_d	(luca'color)

Specifications

Measuring range luminance	0,1 cd/m ² bis 1 Mcd/m ² * ¹
Measuring dynamics	12 Bit / 16 Bit in HighDyn mode by multiple exposure
Measuring time	20 μ s to 20 s possible
Spatial resolution	2464 (H) x 2056 (V) / 4112 (H) x 3008 (V) effective image points
Linearity	> 99%
Measuring error (standard type A)	luminance: \pm 4%, x,y : \pm 0,004

*¹ depending on the measuring lens, upper limit arbitrarily scalable by suitable neutral density filters

Accessories

luca'lux	Software add-on luca'remote
luca'pos	Software client (production control)
luca'color	Tripods
Drehtische / Goniometer	Integrating spheres