NEW

Luminance Measurement Solutions

GL **OPTICAM 1.0**

Imaging Luminance Measurement Device (ILMD)
Optical digital camera system for luminance measurements of LED modules, lamps, luminaires, displays, street luminance and other sources in a broad range of applications.

WHAT IS AN IMAGING LUMINANCE MEASUREMENT DEVICE (ILMD)?

- Calibrated and optimized digital camera and optics using a CMOS image sensor
- A luminance meter with a matrix of millions of detector points
- Captures an entire scene, simultaneously measuring luminance of each point
- Rapidly measures many point in a single operation

SYSTEM FEATURES

- High resolution and high sensitivity CMOS sensor
- High class V-lambda filter
- Mathematical models implemented for stray light and dark current compensation
- Flare reducing optics
- User friendly software

MADE IN EUROPE

GL Optic products are made in Europe, sold and serviced on all continents.

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GL **OPTICAM 1.0**

Imaging Luminance Measurement Device (ILMD) application examples.

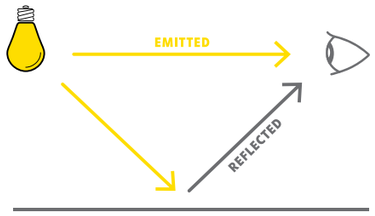
GL Optic, a leader in light and color measurement systems, simplifies making high quality luminance measurements for a broad range of applications. The GL OPTICAM 1.0 optical digital image camera system is a comprehensive solution for the quality control of indoor and outdoor lighting products, illuminated symbols, automotive, aerospace and street luminance. The imaging luminance meter from GL Optic is based on a calibrated and optimized digital camera, equipped with an optical system that includes a V-Lambda correction filter and photo sensitive CMOS image sensor.

The GL OPTICAM 1.0 captures an entire scene, quickly outputting luminance data for each image point, all in a single frame measurement. This innovative instrument also allows combining an imaging camera system for luminance testing with the advantages of spectro-radiometric measurements, achieving unmatched precision and performance. The accompanying analytical software delivers a user friendly, intuitive interface that supports data downloads and the preparation of comprehensive reports.

The new GL Optic solution is ideal for a wide range of common general lighting applications, including: LED lamps and luminaires, LED chips and modules, indoor and outdoor lighting audits, road lighting luminance audits, etc. The GL OPTICAM 1.0 simplifies and accelerates component testing in applications ranging from vehicle displays, embedded LCD and OLED displays, instrument clusters, controls, indicators and illuminated symbols.

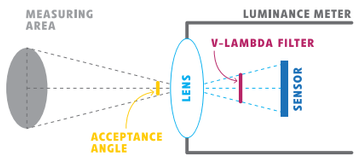
WHAT IS LUMINANCE?

- Luminance is a photometric measure of luminous intensity of light that is emitted or diffused by a particular area



- Luminance units are candela per square meter (cd/m²) Luminance emitted and reflected

HOW DOES A LUMINANCE METER WORK?



The measured luminance intensity „image" is captured at the acceptance angle, and projected onto the 2D CMOS sensor using the optical system (lens) and V-lambda filter, correcting the response to human visual sensitivity.

APPLICATIONS

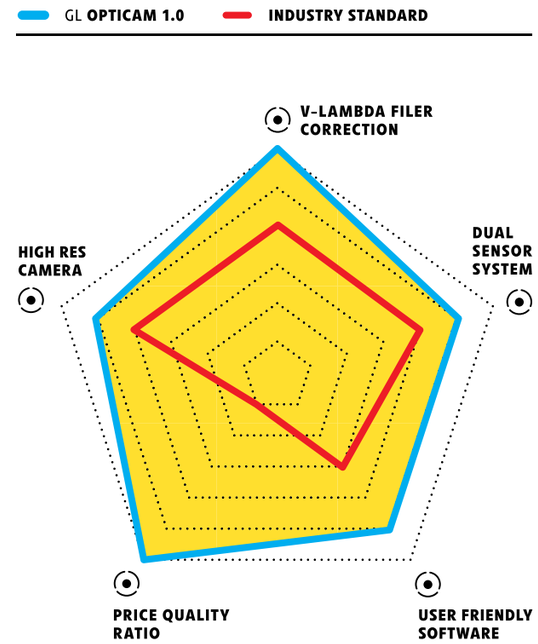
MOST COMMON GENERAL LIGHTING APPLICATIONS:

- LED lamps and luminaires
- LED chips and modules
- Indoor and outdoor lighting audits
- Road lighting luminance audits

TECHNICAL COMPONENT TESTING:

- In-Vehicle Displays
- Embedded LCD and OLED Displays
- Instrument Clusters, Controls & Indicators
- Illuminated Symbol Testing

UNCOMPARABLY THE BEST SOLUTION



TECHNICAL DATA SHEET	
Imaging resolution	1920x1200 (Full HD, 2.3 MPix)
A/D conversion	12 bit
Measurement range	0.01 cd/m² to 10000 cd/m² (ND filter for higher range available on request)
Resolution	0.01 cd/m²
Dynamic range	1:1000000
Focus distance	440 mm to infinity
Minimum working area	86 mm x55 mm (at 440 mm distance)
Uncertainty of spectral response	Class A (f1') < 3 %
Integration time	50µs to 30s
Measuring sensor type	CMOS monochromatic matrix with spectral response filter
Optical system	50 mm f/2.8 lens. (different available on request)
Dimensions [H x W x D]	60 mm x 111 mm x 58 mm
Weight	570 g
PC Connectivity	USB 3.0
Power source	Powered by USB connection
Tripod adapter	BSW ¼"

ACHIEVE UNPARALLELED ACCURACY

IMAGING LUMINANCE METER + SPECTRORADIOMETER

A synergistic solution combining luminance testing of our imaging camera system with spectroradiometric measurements of our spectrometer.
High precision and unmatched performance.

GL **OPTICAM** 1.0

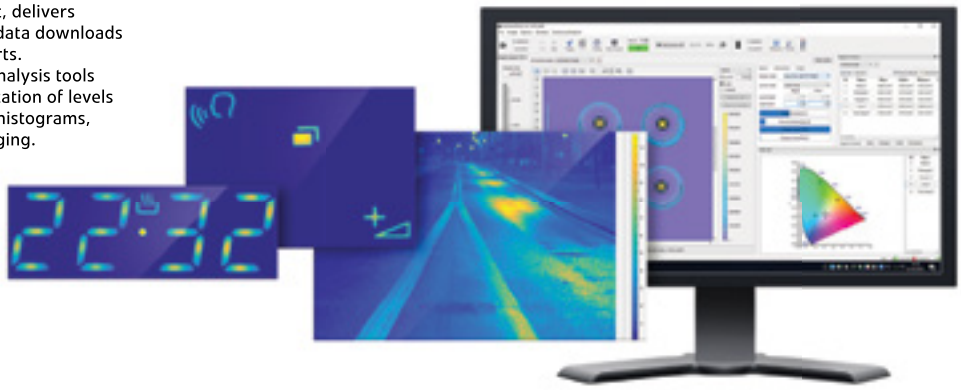
Connect the GL Opticam 1.0 to your PC to monitor the image, set parameters, and record luminance measurements of the scene or device under test. The instrument achieves the absolute luminance accuracy of typical laboratory devices.

GL **SPECTIS 1.0** TOUCH

Combine measurements from the luminance camera with spectro-radiometric measurements from the GL Spectis 1.0 Touch. This boosts accuracy, providing all colorimetric and spectral data for the scene or device under test, particularly useful for LED based sources.

GL **SPECTROSOFT**

Available analytical software, GL Spectrosoft, delivers user friendly, intuitive interface supporting data downloads and the preparation of comprehensive reports.
GL Spectrosoft contains multiple universal analysis tools including: marking spots of interest, presentation of levels in false-color scales, statistical parameters, histograms, linear cross-sections, and 3D luminance imaging.



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