

NEW

Spectrally corrected RGB camera

GL OPTICAM 4.0 M SC

Sequential Imaging Luminance & Color Meter



GL Optic devices are manufactured in the EU, sold and serviced world wide.

Spectrally corrected Imaging Luminance & Color Meter (ILCM) allows for measurement of light sources of various sizes such as LCD displays or backlit electronic modules.

The system is based on modular technology which utilizes a luminance meter alongside a spectroradiometer.

APPLICATION:

- laboratory and industrial measurements
- daily quality control of LED production
- automotive interior lighting testing
- display luminance & color uniformity assessment



The project is co-financed by the European Union through the European Regional Development Fund under the Smart Growth Operational Programme.

A revolution in luminance and color measurements

GL OPTICAM 4.0 M SC offers high resolution and sensitivity measurements of luminance and color parameters. Luminance uniformity of backlit symbols, chromatic coordinates and CCT of an individual element can be quickly verified using the newest GL Optic instrument.

Thanks to the spectroradiometer integrated with the imaging luminance meter in a single enclosure, a separate device for spectral measurements is no longer needed.

GL OPTICAM 4.0 M SC offers complex, spectrally corrected color & luminance imaging measurements for applications such as:

- Photometric evaluation of illuminated symbols and characters in display and control elements
- Examination of monochromatic and color displays
- Characterization of displays in automotive applications

When lighting fixtures or electronic boards use different colors LEDs and OLEDs, **GL OPTICAM 4.0 M SC** is a great choice for precise verification during R&D stage.

More accurate sequential measurement

Unique sequential measurement method ensures higher signal levels in comparison to solutions which utilize basic optical filters or beam splitters.

Other features **GL OPTICAM 4.0 M SC** offers such as built-in depolarizer promote higher dynamic range and ensure that the system is well equipped to face the challenges associated with measurements of displays.



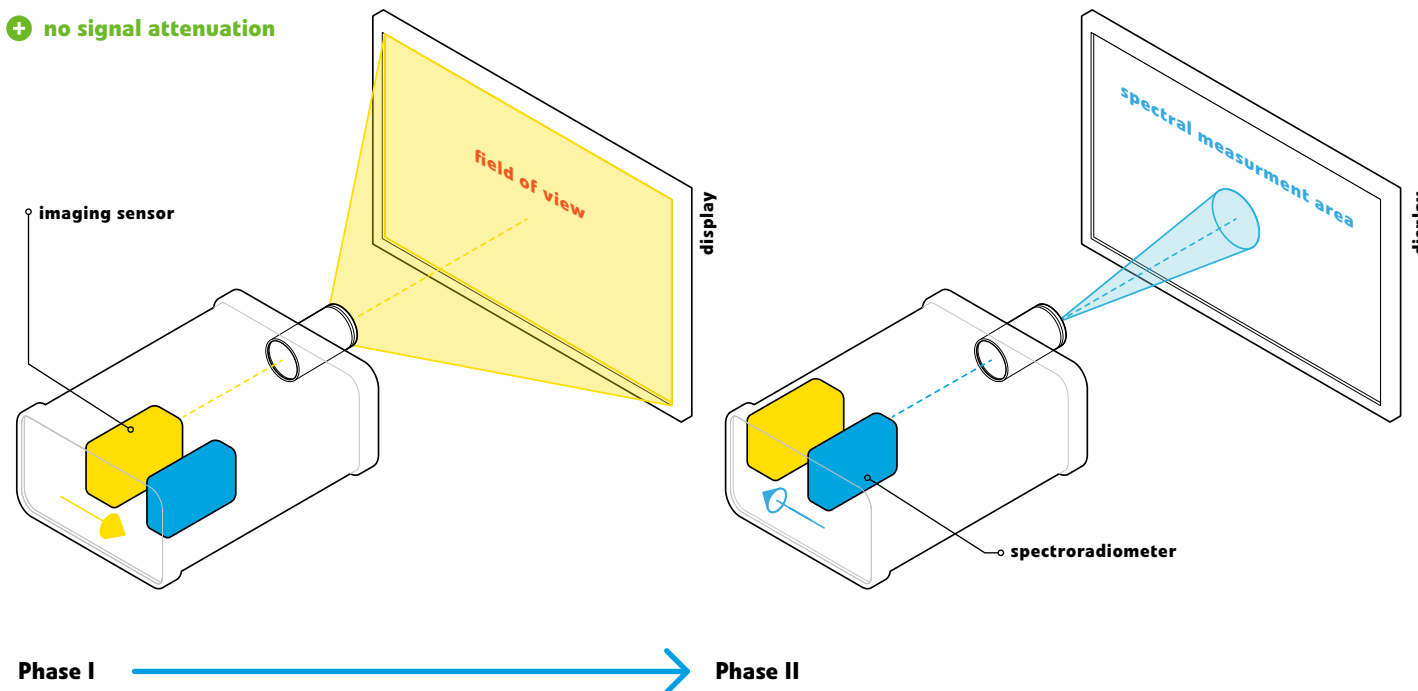
Luminance color camera and spectroradiometer finally work together in one device.

- ✓ System spectral range from 380 nm to 780 nm
- ✓ Measurement uncertainties of only ± 0.0015 for standard chromaticity coordinates
- ✓ Blue light hazard measurements possible
- ✓ Capable of measuring monochromatic light sources (IP pending) as well as precise x; y coordinates next to L for each pixel of the image based on spectral correction
- ✓ Measurement of luminance and color uniformity, chromaticity coordinates
- ✓ Results of measurement in less than 3 seconds
- ✓ Super fast **GL OPTICAM SOFT 4.0 M** software for luminance and color analysis
- ✓ Lens detection
- ✓ 9 MPix resolution CMOS sensor

GL OPTIC SOLUTION

Sequential spectrum measurement

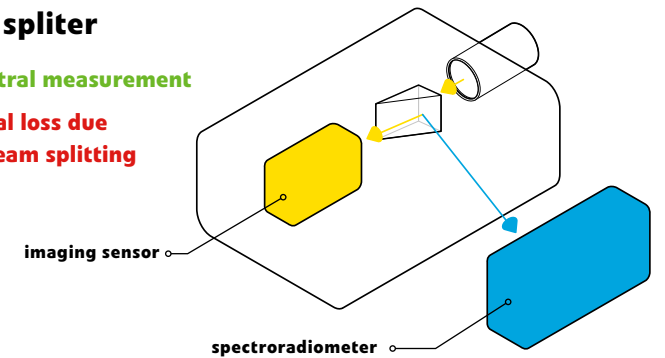
- + spectral measurement
- + no signal attenuation



OTHER SOLUTIONS

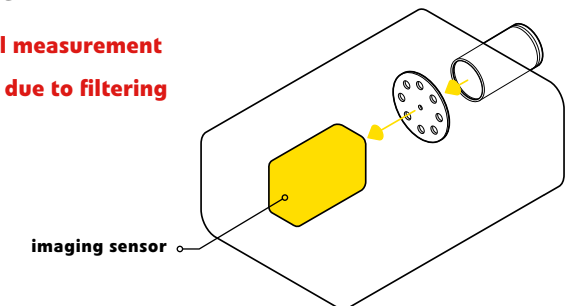
Beam splitter

- + spectral measurement
- signal loss due to beam splitting



Filter wheel

- no spectral measurement
- signal loss due to filtering



GL OPTICAM 4.0 M SC

TECHNICAL SHEET

SPECIFICATIONS	
Imaging resolution	4096x2168 (4K, 9MPix)
A/D conversion	12 bit
Sensor size	1"
Pixel size	3.45 μm x 3.45 μm
Measuring sensor type	CMOS RGB matrix
Optical system	50 mm f/1.8 lens (different available on request)
Field of view	28,3 cm x 15 cm at 1 m distance *
Angle of view	16,12° x 8,6° *
Focusing distance	300 mm to ∞ *
Minimum working area	85 mm x 45 mm at 300 mm *
Measurement range (Illuminant A)	0.01 cd/m ² – 40 kcd/m ² (ND filter for higher range available on request)*
Resolution (Illuminant A)	0.01 cd/m ²
Dynamic range	1:80000000
Chromaticity accuracy	± 0.030
Polarization sensitivity	2%
Integration time	50 μs – 10 s
GENERAL PROPERTIES	
Dimensions [H x W x D]	120 x 220 x 250 mm
Weight	4.5 kg
Ambient temperature range	5 – 35°C
Tripod mount thread	BSW 1/4" – 20
GENERAL PROPERTIES	
PC connection	Ethernet
Power supply	24 V / 2 A DC
OPERATION	
Software	Dedicated PC software (Windows 7/10 64 bit)

* Parameters for 50 mm f/1.8 lens, may change with different lenses

Note: Instrument, firmware and software specification are subject to change without prior notice. All information included in GL OPTIC datasheets and product information available in any form are carefully prepared and included information believed to be true. Please note that discrepancies may occur due to text and/or other errors or changes in the available technology. We advise to contact GL Optic before the use of the product to obtain the latest product specification.

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