PHOTONICS

Technical Sheet

GL **SPECTIS 1.x** series

Precise light measurement technology in a handy size.

GL **SPECTIS 1.x** is a high quality, easy to operate measuring device that gives you all you need for reliable light measurement. It is the perfect instrument for the measurement of LEDs, as well as for the final assessment of lamps or testing of complete lighting installations.

Features:

- High sensitivity and precise calibration
- Low noise and stable measurements
- One device can work with multiple optical probes
- Ready to work when connected to PC
- Small size and low energy consumption
- Powered via USB connection
- Available in options for different spectral and sensitivity ranges

APPLICATION		
Natural light, LEDs, halogen light, etc.		
LED MEASUREMENT		
Illuminance (lux)*	10 lx … 100 000 lx 10 lx … 100 000 lx – 5 lx … 50 000 lx	Spectis 1.0 Spectis 1.1 Spectis 1.2 Spectis 1.3
Luminance [cd/m²]	Available with optional GL Opti Probe	
Luminous flux [lm]	Available with optional GL Opti Sphere	
Luminous intensity [cd]	Calculated in GL Spectrosoft	
Illuminance class	Class B – DIN 5032-7 Class AA – JIS C 1609-1:2006	
Tolerance – cosine response (f2')	< 3 % (1.9 %)	
Spectral range**	340 – 780 nm (UVa – VIS) 340 – 780 nm (UVa – VIS) 640 – 1050 nm (VIS – NIR) 340 – 750 nm (UVa – VIS)	Spectis 1.0 Spectis 1.1 Spectis 1.2 Spectis 1.3

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GL OPTIC
Light quality control

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PHOTOMETRY / RADIOMETRY	
Sensor	CMOS image sensor
Number of pixels	256
Physical resolution / datapoint interval	~ 1.7 nm
Wavelength reproducibility	0.5 nm
Integration time	5 ms – 10 s
A/D converter	16 bit
Signal-to-noise ratio	1000:1
Stray light	2*10 E-3
Optical resolution / FWHM	10nm
Radiometric accuracy ***/****	5 % within range 340 – 500 nm 4 % within range 500 – 1050nm
Flicker compensation	✓
Temperature sensor and dark current compensation	✓
Uncertainty of color coordinates ***	0.0015
Automatic accessory detection	✓
GENERAL PROPERTIES	
Power supply via USB connector	< 640 mA
Operating temperature	5 – 35 °C
Dimensions [H x W x D]	62 mm x 115 mm x 28,3 mm (with standard diffuser)
Weight	125 g
Tripod adapter	✓
INTERFACE & MEMORY	
USB	USB 2.0
Measurement result storage	by GL Spectrosoft
Trigger	Available with GL SPECTIS 1.1 Open collector, minijack 3.5mm, 3-pin
Data format	XML
SOFTWARE	
Software	Optional GL SPECTROSOFT Basic / Pro / Lab
ORDERING INFORMATION	
Case	✓
USB cable	✓
Part number: Spectis 1.0 VIS	GLX10 no. 67827
Spectis 1.1 VIS	GLX11 no. 106294
Spectis 1.2 VIS-NIR	GLX12 no. 106302
Spectis 1.3 LS	GLX13 no. 202031

* Dynamic range is spectrum related and should be calculated separately for any light source. Estimated dynamic range for typical 4000 K white LED.
Range estimated for optical system made to default specification. Alterations of that are often possible. Please consult technical support if you are looking for specific parameters.

** Spectral range of the sensor. Actual spectral range of system may be reduced due to limitations of used optical accessory.

*** Absolute measurement uncertainty immediately after calibration. The expanded uncertainty corresponds to a coverage probability of 95 % and the coverage factor k = 2.
Parameters valid in laboratory conditions 25deg C, relative humidity 45%.

**** Applies only within the spectral range of the given model.

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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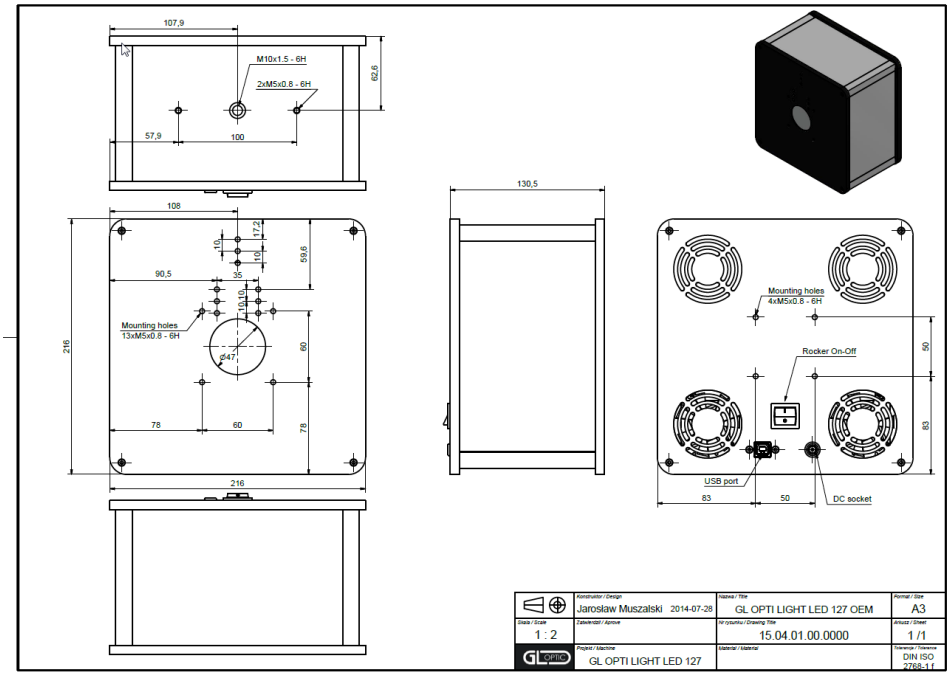
GL **OPTI LIGHT LED 127 CLC**

TECHNICAL DRAWING

OEM / Industrial applications



OEM/Industrial version features control capability via SDK

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