GL **SPECTROLUX**

An affordable solution to the majority of measuring requirements in lighting industry. Based on the heritage of succesfull GL Spectis series, spares little compromise on quality, while still economy friendly. Measurement head of class B available as standard puts this handy spectrometer in a class of it's own. If you need to easily and quickly evaluate light qualities such as: lux, CRI, CCT, color and much more, our SPECTROLUX is your best choice.

Features:

- Unmatched by any mass produced spectrometer Class B measurement head
- Completely portable device
- Color LCD screen
- Intuitive button operation
- USB connectivity
- Android based operating system
- Internal storage of more than 20.000 measurements
- Approx. 6 hours on battery

APPLICATION	
Application	Natural light, LEDs, halogen light, etc.

LED MEASUREMENT	
Illuminance (lux)*	10 – 100 000 lx (for white LED)
Irradiance [W/m²]	0.03 – 600 W/m² (for white LED)
Illuminance class	Class B – DIN 5032-7
Tolerance – cosine response (f2')	< 3 %
Luminous intensity [cd]	Calculated in SPECTROSOFT
Spectral range	340 – 780 nm (UVa – VIS)

CALCULATED VALUES	
CRI – Color rendering index according to CIE	Ra, R1 – R15
CCT – Correlated color temperature according to CIE 13.3	✓
Color peak	✓
Color dominant	optional with GL SPECTROSOFT
Color position coordinates [x,y] according to CIE 1931	✓
Color position coordinates [u',v'] according to CIE 1976	✓
Color position coordinates [u, v] according to CIE 1960	✓
PAR/PPFD	✓
Color coordinate error	optional with GL SPECTROSOFT
Metameric index	optional with GL SPECTROSOFT
Binning	optional with GL SPECTROSOFT
Assessment in accordance with ISO 3664	optional with GL SPECTROSOFT

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Light quality control

Technical Sheet

GL **SPECTROLUX**

PHOTOMETRY / RADIOMETRY	
Sensor CMOS image sensor	Back-thinned type CCD
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	10 nm
Radiometric accuracy**	5 % within range 340 – 500 nm 4 % within range 500 – 780 nm
Flicker compensation	✓
Temperature sensor and dark current compensation	✓
Uncertainty of color coordinates**	0.0015

GENERAL PROPERTIES	
Operating System	Linux
Power supply via USB connector	< 640 mA
Power adapter	Power supply unit 100…240 V (50/60 Hz) 0.15 A
Battery / Power pack	Li-ion battery 1350 mAh
Automatic shut-off	✓
Battery life	< 6 h
Operating temperature	5 – 35 °C
Dimensions [H x W x D]	155 mm x 72 mm x 25.3 mm (with standard diffusor)
Weight	221 g
Tripod adapter	✓

INTERFACE & MEMORY	
USB	USB 2.0
Measurement result storage	Auto / Internal memory
Data format XML	XML

DISPLAY & OPERATION	
Display	2.8" color LCD (240 x 320px)
Operation	Membrane buttons, PC / Notebook

SOFTWARE	
Software	Optional GL SPECTROSOFT Basic / Pro / Lab
USB cable	✓

ORDERING INFORMATION	
Battery	✓
USB cable	✓
Power supply	✓
Display protection foil	✓
Part number	201338

* 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.

** 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%.

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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