

# Technical Sheet

## GL SPECTIS 8.0

USB controlled spectroradiometer includes Peltier cooled CCD Back-Thinned sensor and silica transmission grating delivering high resolution and increased sensitivity of the system. Cooling of the sensor allows to set longer integration times to support low signal level measurements. The perfect solution for scientific and laboratory applications.

### Features:

- CCD Back-Thinned sensor, 16 bit A/D conversion
- PID controlled Peltier cooling of the sensor for stable dark current and increased dynamic range
- USB 2.0 connection for PC connection with universal user friendly software
- Single instrument can be used with multiple optical accessories
- Automatic accessory detection



### APPLICATION

Application High precision scientific and laboratory measurements

### PHOTOMETRY / RADIOMETRY

Sensor	Back-thinned type CCD image sensor with cooling (5°C)
Illuminance (lux)*	3 lx – 150 000 lx
Spectral range**	250 – 1050 nm
Number of pixels	2048
FWHM	~ 2.0 nm
Wavelength reproducibility	± 0.2 nm
Integration time	10 ms – 10 s
A/D converter	16 bit
Signal-to-noise ratio	2000:1
Stray light	2*10 E-4
Radiometric accuracy**/**	± 2 %
Uncertainty of color coordinates	± 0.001

### GENERAL PROPERTIES

Automatic accessory detection	✓
External power supply	Input: AC 100...240 V (50/60 Hz) 1.5 A Output: DC 12V 10A
Operating temperature	5 – 30 °C
Dimensions [H x W x D]	272 mm x 180 mm x 327 mm (± 3mm)
Weight	6.4 kg

### GL OPTIC POLSKA Sp. z o.o.

ul. Poznańska 70, 62-040 Puszczykowo, Poland  
Phone: +48 61 819 40 03 | E-mail: office@gloptic.com  
[www.gloptic.com](http://www.gloptic.com)



Light quality control

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### INTERFACE & MEMORY

USB	USB 2.0
Data format	XML
Fiber optic connector	Optional SMA905D

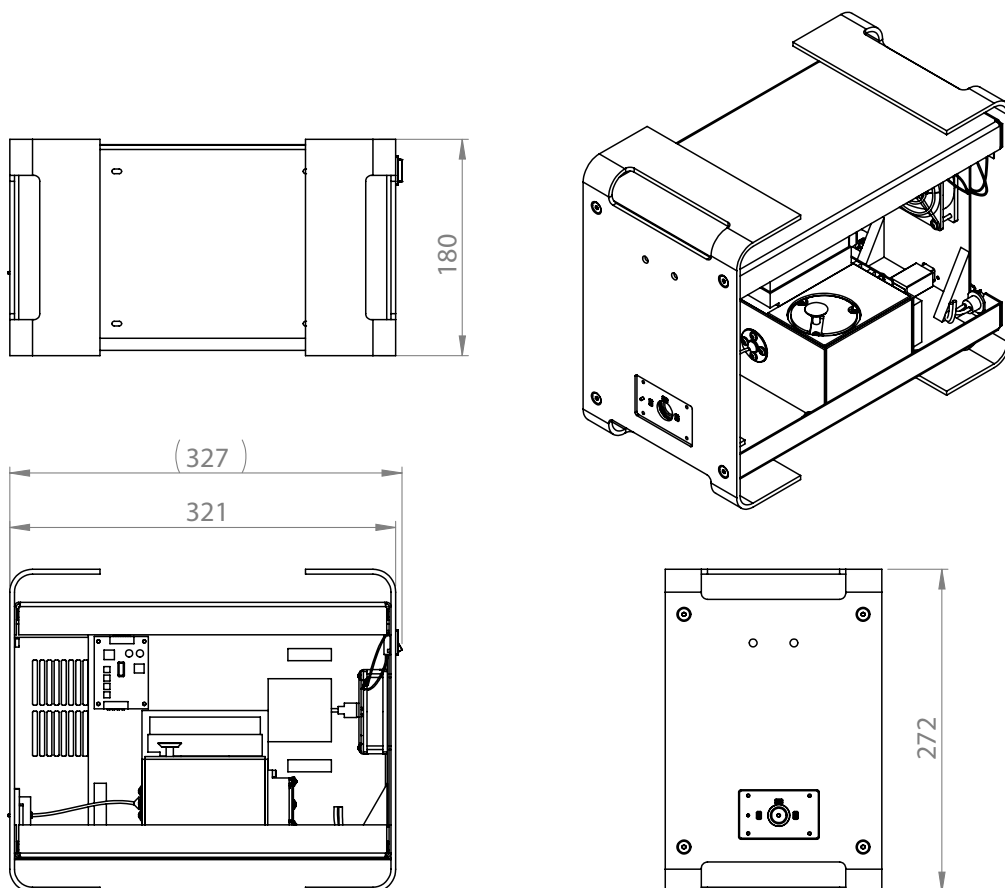
### PHOTOMETRY / RADIOMETRY

Operation	Dedicated PC software
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### ORDERING INFORMATION

Case	✓
USB Cable	✓
Power supply	✓

- \* 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%.



**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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