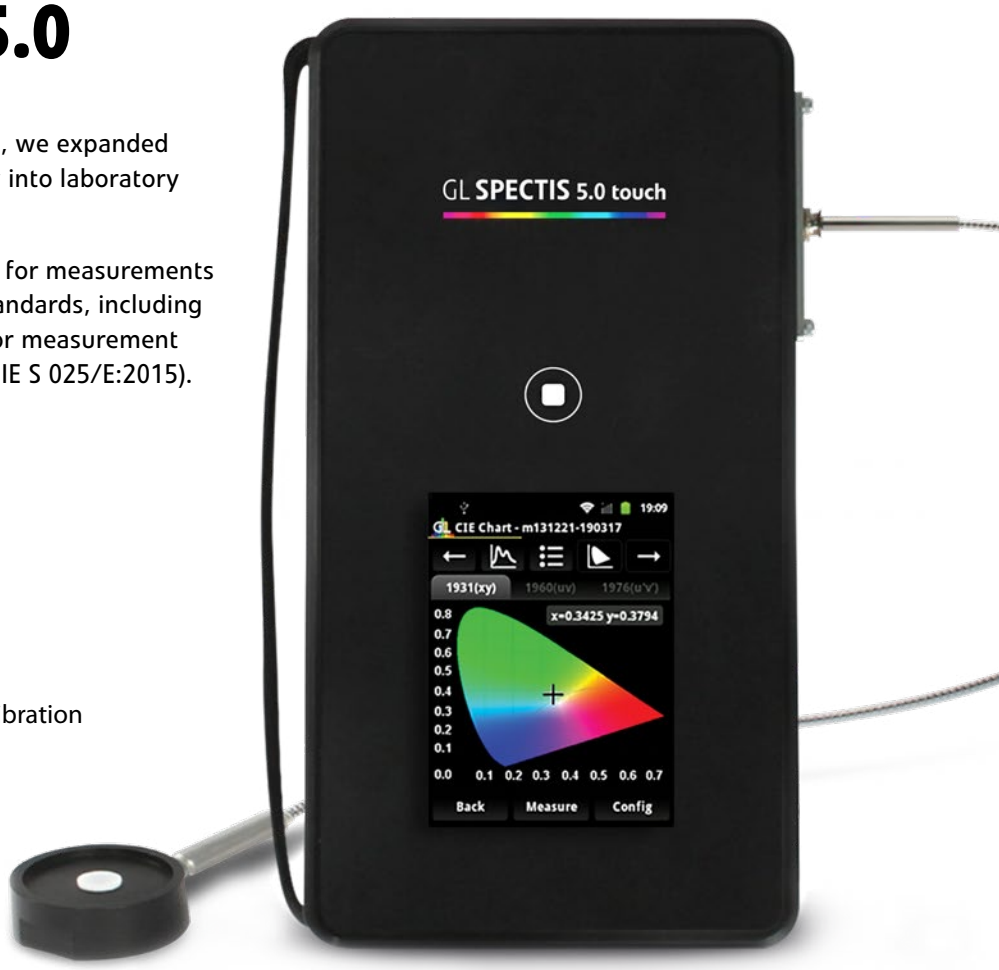
Technical Sheet

GL **SPECTIS 5.0**

With the new GL SPECTIS 5.0 Touch, we expanded our smart touch screen technology into laboratory grade equipment.

The wide wavelength range allows for measurements in accordance with a number of standards, including Photobiological Safety (EN 62471) or measurement of SSL products (IESNA LM-79-08, CIE S 025/E:2015).



Features:

- Touch screen display
- Automatic accessory detecion
- Dark current compensation
- Trigger socket
- Universal mount
- Photometric and radiometric calibration

APPLICATION		
Application	Special applications in the measurement of light sources and optical components, laboratory grade	Compliance with the following: IESNA LM-79-08 CIE S 025 / E:2015
LED MEASUREMENT		
Illuminance (lux)*	5 lx – 150 000 lx	Standard diffusor
Luminance [cd/m²]	Available with optional GL OPTI PROBE	
Luminous flux [lm]	Available with optional GL OPTI SPHERE	
Luminous intensity [cd]	Calculated in SPECTROSOFT	
Illuminance class	Class B – DIN 5032-7; Class A on demand Class AA – JIS C 1609-1:2006	
Tolerance – cosine response (f2')	< 3 % (1,9 %)	
Spectral range**	340 – 850 nm (VIS) 200 – 800 nm (UV-VIS) 380 – 1050 nm (VIS-NIR) 200 – 1050 nm (UV-VIS-NIR)	Spectis 5.0 Touch VIS Spectis 5.0 Touch UV-VIS Spectis 5.0 Touch VIS-NIR Spectis 5.0 Touch UV-VIS-NIR

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Light quality control

Technical Sheet

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CALCULATED VALUES	
CRI – Color rendering index according to CIE	Ra, R1-R14
CRI according to TM-30-15	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	✓
Color coordinate error	optional with GL SPECTROSOFT
Metameric index	optional with GL SPECTROSOFT
Binning	optional with GL SPECTROSOFT
Assessment in accordance with ISO 3664	✓
PHOTOMETRY / RADIOMETRY	
Sensor	Back-thinned type CCD image
Number of pixels	2048
Physical resolution / datapoint interval	~ 0.5 nm
Wavelength reproducibility	+ – 0.5 nm
Integration time	10 ms – 10 s
A/D converter	16 bit
Signal-to-noise ratio	1000:1
Stray light	2*10 E-4
Optical resolution / FWHM	2.5 nm
Radiometric accuracy**/***/****	6 % within range 200 – 220 nm 5 % within range 220 – 500 nm 4 % within range 500 – 1050 nm
Flicker compensation	✓
Temperature sensor and dark current compensation	✓
Uncertainty of color coordinates***	+ – 0.0015
Automatic accessory detection	✓
Operating System	Android
IPower supply	via USB connector < 640 mA

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PHOTOMETRY / RADIOMETRY		
Power adapter	Power supply unit 100… 240 V (50/60 Hz) 0.15 A	
Signal-to-noise ratio	1000:1	
Battery / Power pack	Li-ion battery 3500 mAh	
Automatic shut-off	✓	
Battery life	up to 5 h*****	
Operating temperature	5 – 35 °C	
Dimensions [H x W x D]	111 mm x 210 mm x 58 mm	
Weight	1556 g	
Tripod adapter	✓	
INTERFACE & MEMORY		
USB	USB 2.0	
Trigger	Open collector, minijack 3.5 mm, 3-pin	
SD Card slot	microSD	
Measurement result storage	Auto / 4 GB microSD	
Data format	XML	
Fiber optic connector	Optional SMA905D	
DISPLAY & OPERATION		
Display	3.5" color LCD 240 x 320	
Operation	Touch Screen, PC / Notebook	
SOFTWARE		
Software	Optional GL SPECTROSOFT Basic / Pro / Lab	
ORDERING INFORMATION		
Case	✓	
Battery	✓	
USB cable	✓	
Power supply	✓	
Leash	✓	
Display protection foil	✓	
4GB microSD card	✓	
Part number:	GLX 5.0t no. 106989	SPECTIS 5.0 Touch VIS
	GLX 5.0t no. 173690	SPECTIS 5.0 Touch UV-VIS
	GLX 5.0t no. 173708	SPECTIS 5.0 Touch VIS-NIR
	GLX 5.0t no. 173716	SPECTIS 5.0 Touch UV-VIS-NIR

* 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.

***** In moderate use – continuous measurements and WiFi significantly increase energy consumption.

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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