GL **OPTI LIGHT LED 127 CLC**

The uniform, programmable multichannel LED light source available in one box featuring closed-loop calibration (CLC).

The GL OPTI LIGHT LED 127 can be used as a calibration reference for cameras and other optical instruments, especially in industrial electronic testers, in addition to being a reference light source in laboratory applications and features closed-loop calibration using a high-accuracy photodiode. The product is also a color standard which can be programmed to any color output in a specific gamut.

Features:

- Very high uniformity
- Near-perfect replication of light sources like D50, D65, D75, A, TL 84
- Free selection of light spectra out of color space bigger than sRGB*
- Stable conditions thanks to a unique calibration method
- Much longer lifetime of LEDs thanks to the active thermal stability
- Closed loop calibration using a high-accuracy photodiode

* Available only with GL OPTI LIGHT
CONTROL PROFESSIONAL software

APPLICATION	
Luminance and colometric standard	
PHOTOMETRY	
Colometric stability	± 0.002
LED Color peaks	405; 450; 470; 520; 590**; 633 nm (± 10 nm) ** white LED, 3300 K
Color temperature	free selection (larger than sRGB)
Color coordinates	free selection
Colometric stability	guaranteed with active thermal stabilization
Luminance stability	± 1 %
LED Channels	adjustable
LED Controller	analog (no flicker)
Closed Loop Calibration (CLC)	featured
Autocalibration	Photodiode steered system
Flicker / ripple effect	None – stable light emission assured by CLC
Warm-up time	< 1 sec
TECHNICAL DATA	
Spectral range	385 – 750 nm
Dynamic range	1:30
Sphere inner diameter	127 mm
Aperture (exit port) diameter	47 mm
Uniformity	± 1 %
Linearity	0.05 %
Light source replication	D50, D65, D75, A, TL 84
Uniformity	automatic choice of smooth/fast transition 30 sec, 60 sec, 120 sec intervals

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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Light quality control

GL **OPTI LIGHT LED 127 CLC**

Lifetime	10000 hours
Power supply	DC 5V/5A
Operating temperature range	10 °C to 40 °C
Dimensions [H x W x D]	221 x 216 x 131 mm
Weight	approx. 4.5 kg

INTERFACE

USB	USB 2.0 Socket B
Software Development	An SDK is available for Windows 32/64-bit

DISPLAY

Display	LCD Monochrome display

SOFTWARE

Software	GL OPTI LIGHT CONTROL PROFESSIONAL requires Windows

ORDERING INFORMATION

Product number	GL no. 173088
Case	Individual hard case
Case dimensions [H x W x D]	285 x 335 x 200 mm
Gross weight (device + case)	approx. 7 kg

SINGLE CHANNEL

Channel	Min. Luminance [cd/m2]	Max. Luminance [cd/m2]	Min. Radiance [W/m2/sr]	Max. Radiance [W/m2/sr]	Dominant wavelength [nm] +/- 10 nm	Centroid wavelength [nm] +/- 10 nm
UV	-	-	0,2	4	405	410
Blue 1	10	140	0,1	1,7	470	470
Blue 2	3	50	0,1	2	450	445
Green	100	1500	0,2	3	520	520
White 3300 K	200	3000	0,6	10	570	590
Red	40	650	0,2	3	620	630
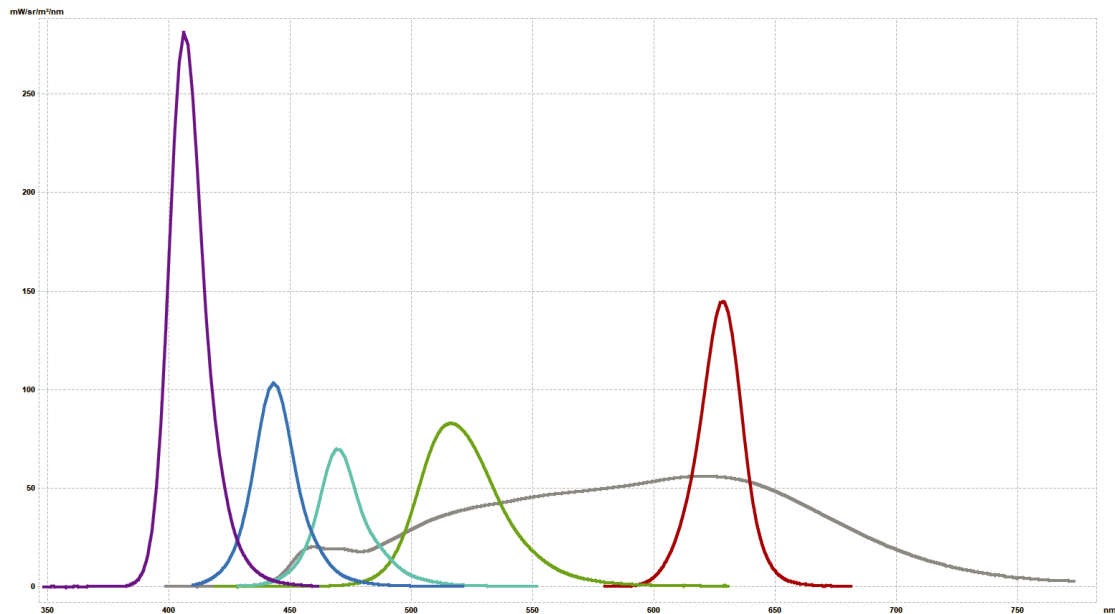
Legend:

— UV — Blue 1 — Blue 2 — Green — White 3300 K — Red

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Light quality control

Technical Sheet

GL **OPTI LIGHT LED 127 CLC**

COMBINED SPECTRA						
Channel	Min. Luminance [cd/m2]	Max. Luminance [cd/m2]	Min. Radiance [W/m2/sr]	Max. Radiance [W/m2/sr]	Dominant wavelength [nm] +/- 10 nm	Centroid wavelength [nm] +/- 10 nm
Illuminant A	100	3000	0,3	10	-	-
D50	100	3000	0,3	11	-	-
D65	100	3000	0,4	12	-	-

*** Luminance/radiance range can be customized within the limit of the 1:30 dynamic range. The lowest achieveable value is 5 cd/m2 for monochromatic channels and 10 cd/m2 for illuminants simulations.
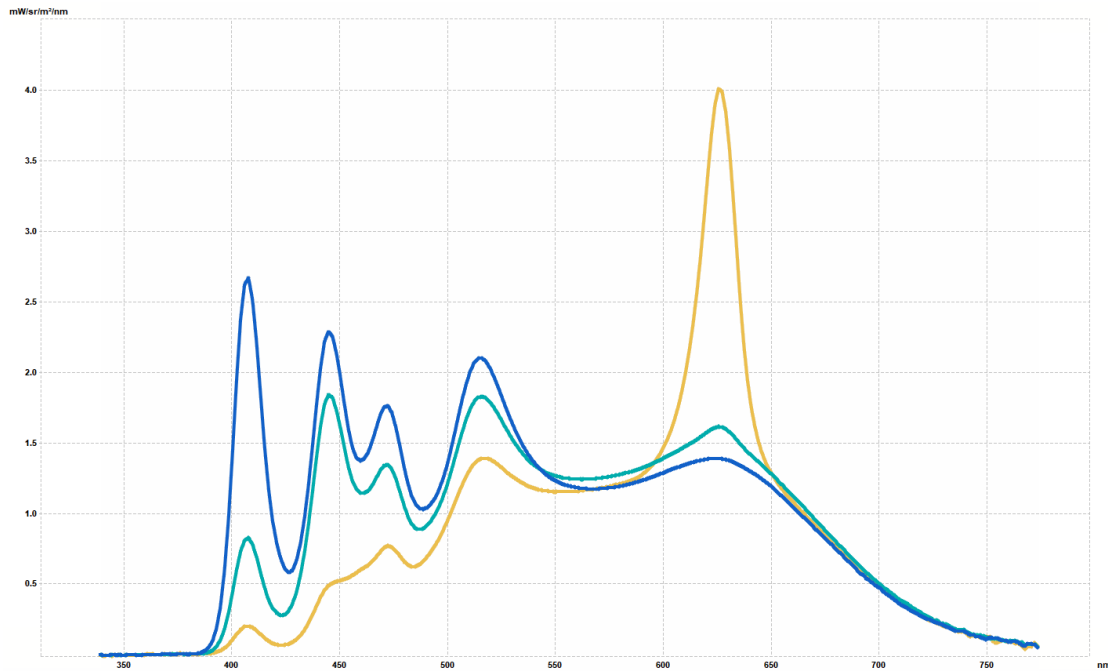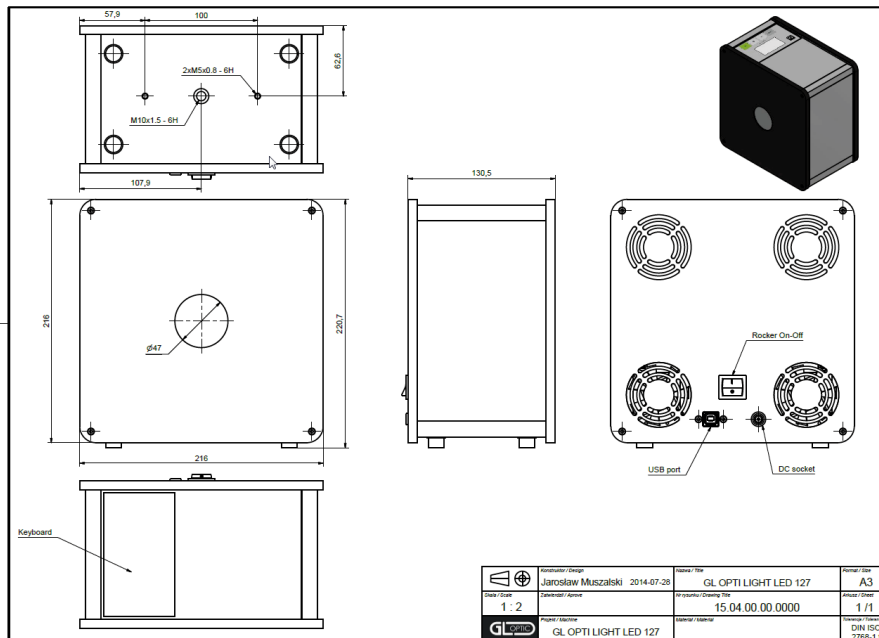

Legend:

— D65   — D50   — Illuminant A

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Technical Sheet

GL **OPTI LIGHT LED 127 CLC**

TECHNICAL DRAWING

Standard version

	Jarosław Muszalski 2014-07-28	GL OPTI LIGHT LED 127	A3
1 : 2		15.04.00.00.0000	1 /1
	GL OPTI LIGHT LED 127		DIN ISO 2768-1 f

TECHNICAL DRAWING

OEM / Industrial applications

	Jarosław Muszalski 2014-07-28	GL OPTI LIGHT LED 127 OEM	A3
1 : 2		15.04.01.00.0000	1 /1
	GL OPTI LIGHT LED 127		DIN ISO 2768-1 f

OEM/Industrial version features control capability via SDK

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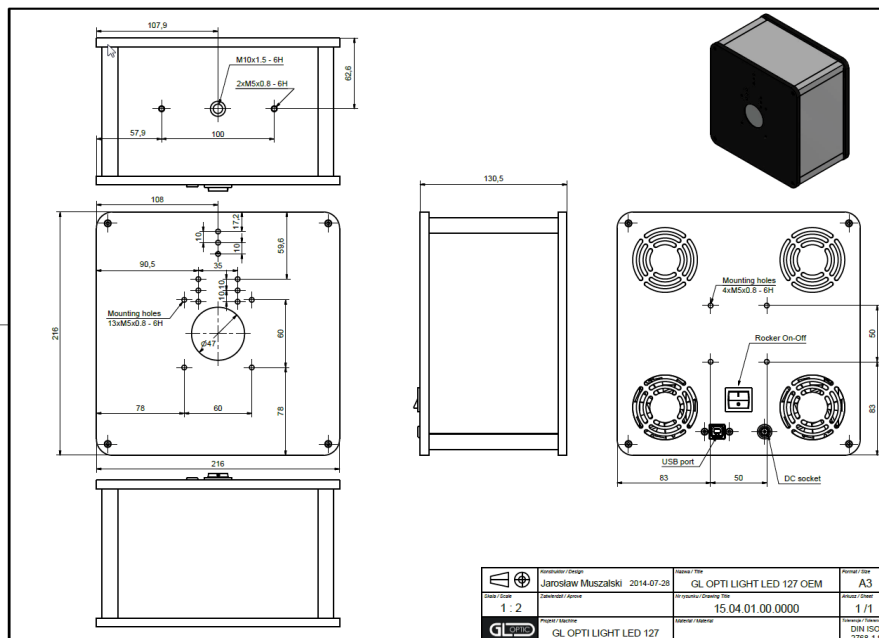
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