Technical Sheet

GL RETROREFLECTOMETER 4.0 SRS

The GL RETROREFLECTOMETER 4.0 SRS is a CIE 54.2 compliant, complete solution for testing of automotive retro-reflective devices for conformity with ECE R150 and FMVSS 108. The system is capable of CIL (Coefficient of luminous intensity) measurement as well as spectral analysis of reflected light. Wide range of angle of divergence and illuminated area size adjustment allows to cover all required test scenarios in variety of conditions. Fully automated control in conjunction with GL GONIOMETER GLG A 50-1800 ensures easy use and short testing times.

Features:

- High precision linear motor for angle of divergence adjustment
- Motorised iris diaphragm for illuminated area diameter adjustment
- Fast scanning monochromator for full spectral analysis
- Integration with automotive goniometric system for complete automation of product testing
- Designed for speed, safety and convenience of operation



APPLICATION	
Measurements of retroreflective devices	
PROJECTOR UNIT	
Light source type	White LED (optionally: quartz halogen)
ССТ	2856 K (CCT of Illuminant A)
Projector aperture	ø 50 mm
Uniformity of illuminance	< 2%
Illuminated area	Circular with diameter adjustable through motorized iris diaphragm ø from 20 cm to 70 cm (available at all working distances)
MEASURING UNIT	
Туре	Fast scanning monochromator
Measurement time	< 10 s
Entrance aperture	ø 5 mm
Spectral range	380 - 780 nm
Optical resolution FWHM	14 nm (5 nm option available w/ reduced sensitivity)
Data point interval	1 nm
GENERAL	
Angle of divergence a	from 20' to 1°30' (0,33° to 1,5°) at distances fr om 10 m to 15 m from 12' to 1°30' (0,2° to 1,5°) at distances fr om 15 m to 30,5 m (100 ft)
Working distance	10 m - 30.5 m (100 ft)
CIL measurement range	1 mcd/lx – 100 000 mcd/lx
Uncertainty of colour coordinates (x,y)	± 0.002
GENERAL PROPERTIES	
Dimmensions [H x W x D]	2490 mm x 478 mm x 554 mm
Weight	~ 70 kg

Note: This technical sheet is dated November 25th, 2024. 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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* Dimensions relevant for a version of the device compatible with a GLG A 50-1800 goniometer. These dimensions are subject to change should the device be coupled with a goniometer unit of a different type.

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