RETROREFLECTOMETER

peo PHOTONICS

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GL RETROREFLECTOMETER 4.0 SRS 4

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Partner **GL Optic**

Product offering

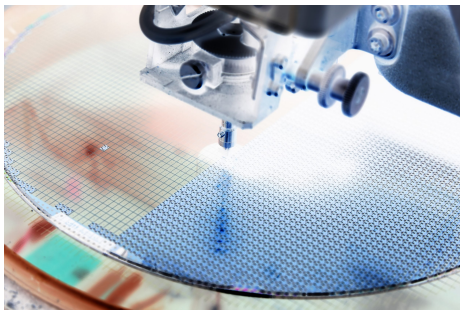
GL RETROREFLECTOMETER 4.0 SRS

GL RETROREFLECTOMETER 4.0 SRS

In accordance with the requirements of the CIE 54.2, manufacturers of retroreflective devices face the challenge of testing the reflection values and determine the color coordinates of the light reflected from the illuminated surface.

GL RETROREFLECTOMETER 4.0 SRS projects light onto the reflecting surface and measures the parameters of the reflected beam, thus imitating situations when car lights illuminate e.g. road signs, and the reflected light returns to the driver’s eye.

Thanks to the use of a fast scanning monochromator, unparalleled accuracy is achieved while maintaining measurement times that rival those of an array spectrometer.



GL RETROREFLECTOMETER 4.0 SRS has been designed in accordance with the requirements of CIE 54.2, which describes possible methods of retroreflection measurement. The GL Optic rertoreflectometer allows you to perform tests according to the ECE R150, ECE R3, ECE R27, ECE R48 and FMVSS 108 standards, as well as in accordance with EN 12899 regarding the measurement of road signs.

The realization of standard Illuminant A (2856 K) based on an LED light source* guarantees high luminous output. With a fast monochromator acting as a measuring instrument, spectral measurements improve accuracy of monochromatic radiation measurements, provide access to colorimetric data and allow for recalculation of results to simulate using other types of illuminant. Halogen light source available as an option.

The conventional approach to retroreflectance measurements includes the use of photometers or colorimeters. This limits the amount of information about the assessed radiation in comparison with the output of the GL RETROREFLECTOMETER 4.0 SRS, which allows for complete spectral analysis. Besides the metrics related to the quantity and chromaticity, a large number of quality metrics becomes available.

GL RETROREFLECTOMETER 4.0 SRS is dedicated to work with the GLG A 50-1800 goniometer. The integration of these two devices creates a complete measurement system for automotive retroreflective devices, warning triangles, road signs and other types of retroreflective samples.

The basic use of a retroreflectometer is to determine the coefficient of luminous intensity (CIL) and the x and y chromaticity coordinates.

The GL Optic device stands out from competing solutions thanks to the use of a fast monochromator unit. This solution does not utilize photopic filter, thus eliminating the errors derived from spectral mismatch scenarios. Owing to the absolute, spectral domain in which measurements are performed, recalculation of photometric and colorimetric parameters for various illuminants is possible.

The use of a fast scanning monochromator brings the benefits of spectral measurements without the sacrifices associated with array spectrometers. The device can be trusted to deliver unparalleled sensitivity while each single spectral measurements takes mere seconds.

Key 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

Applications include measurements of retroreflective devices.

For more information, simply complete the contact form, and a member of our team will be in touch shortly.