



robogonio

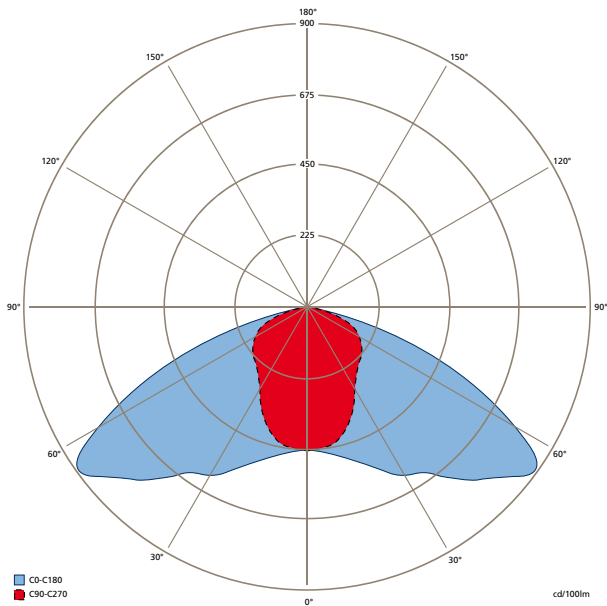
The multifunctional goniophotometer machine

The robogonio enables flexible measurements of a number of angle-dependent photo- and radiometric parameters, combining various advantages of different conventional goniometer types into one device. The solid 6-axis construction of the goniometer supports the positioning of the samples (light sources and luminaires) as well as the manipulation of their angles with high precision and reliability. The high number of mechanical variances allows measurements in the traditional A, B or C planes by using one single measurement system that combines the goniometer types 1.1, 1.2 and 1.3 according to DIN EN 13032-1 (CIE 70-1987) in one device. Depending on the configuration, the goniometer types 2.x, 3 and 4 can be realized also. The robogonio is able

to concretely measure luminous intensity and radiant intensity distributions (EULUMDAT, IES etc.), color distributions as well as luminance distributions (glare). Near-field goniophotometric measurements to generate ray data for example are also possible. Furthermore, by means of the robogonio the user is able to scan any geometry. Due to the robot's high flexibility, several applications can be realized by only one device. In addition, the system can easily be upgraded at a later date. All configurations can be run by the goniometer software. Setup routines and cross laser modules facilitate and speed-up a precise setup and adjustment of the sample.

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Specifications

The robogonio is available in a variety of nominal payloads of 6 kg up to 1300 kg. Examples:

	mrg-f-6	mrg-f-60
Nominal payload	6 kg	60 kg
Number of axes	6	6
Weight	51 kg	665 kg
Work envelope volume	2,84 m ³	27,2 m ³
Max. work envelope radius	983 mm	2114 mm
Position repeatability	< ± 0,02 mm	< ± 0,06 mm
Angle repeatability	< ± 0,005 °	< ± 0,01 °
Detectors	frc'3 – radiometer / photometer spec'3 – spectrometer spr'3 – spectroradiometer luca – luminance camera system (monochrome) luca'color – luminance camera system (color version)	
Detector mounting	wall-, floor-, ceiling- or rail system mounting	
Measurement data	configuration dependent: luminous intensity distribution (LID), luminous flux, colorimetric data, luminance, ray data, etc.	

Configurations

Depending on the configuration several applications can be realized by one single device. Options:

- f:	goniophotometer (far field)
- spr:	goniospectroradiometer (far field)
- l:	luminance goniometer
- lc:	luminance goniometer (color version)
- si:	ray data goniometer (near field)
- sic:	ray data goniometer (near field, polychromatic)
- rr:	goniometer system for measurement of retro-reflection
Example:	mrg-sic-spr-30

A vertically movable installation of the robogonio as well as of the detectors is possible by our rail system accessory.