



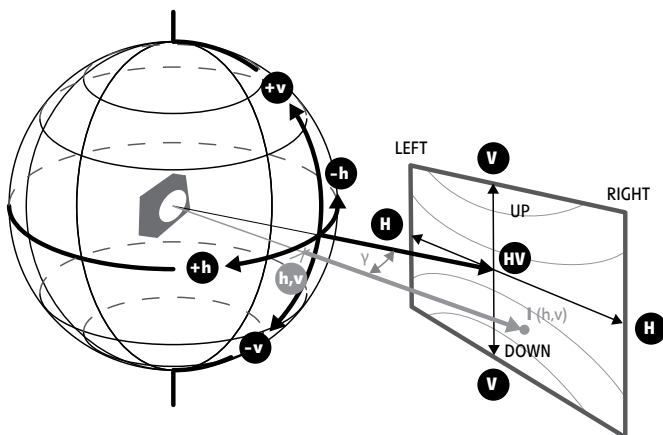
Light quality control

CLEVER SIMPLICITY

GL GONIOPHOTOMETER

GLG A 20-300

NEW



GL GONIOPHOTOMETER GLG A 20-300

is a new model of Type A goniophotometer providing photometric characterization of lamps in H, V axis coordinates.

This system is suitable for:

- Automotive lighting
- Traffic and signal lighting
- Airfield lighting

And more...



Light quality control



First get to know us better.

At GL we believe that the true quality innovation is about the best technology and not about gadget functionality. This is why we encourage all potential customers to choose quality instruments for their lighting product quality control.

There are many light meters available on the market today but we know what matters most for fast developing lighting manufacturers: engineering, precision, performance and, equally important, independence from external quality testing labs. For many manufacturers the possibility of optimizing product quality and faster prototyping are advantage factors helping them to win the market share.

Unlike mass produced devices, GL instruments are individually calibrated for the end user allowing for accurate and dependable results and helping to make the right product quality decisions.

Our instruments feature automatic dark current compensation combined with a temperature monitoring system which allows everyone to use the system whenever and wherever they need dependable data.

The unique plug-and-measure concept by GL features the RFID codes helping to automatically get the calibration files for each available accessory and allowing quick, easy and precise measurements of different lighting quantities. Changing from lux to lumen and even luminance values is as easy as changing the available accessories. Leave it to the system to take care of the rest.

“The ultimate light quality control systems available only for best lighting quality product manufacturers”

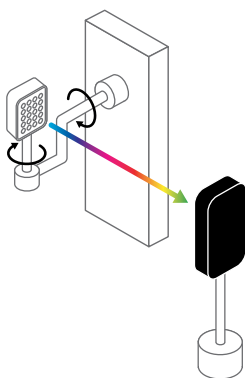
10 YEARS

Origins

2009
– 2019

GL Optic was established in 2009 to develop and bring innovative solutions in light measurement. Since its establishment GL Optic has been growing, developing products, setting industry standards and expanding sales all over the world.

Nowadays GL Optic is at the stage of developing R&D centre and expanding its services. The company is finalizing the construction of a new photometric laboratory equipped with Poland's first black body (BB) model, the first primary standard radiation source in Central Europe.



STANDARDS COMPLIANCE

The GLG A 20-300 goniophotometer systems are type A systems compliant with the CIE 121-1996 and IESNA LM-75-01 standards regulating far-field photometric and colorimetric measurement systems.

RELIABLE AND ACCURATE

The system uses tried-and-tested mechatronic components to provide fast, accurate and reliable measurements of automotive, rail and other vehicle headlamps. Additionally, it can be used for photometric characterization of traffic signal lamps and airfield lighting systems.

This goniophotometer system is designed for lamps of up to 20 kg and the x,y translation stage surface size is 300 x 300 mm.

CONTROLLABLE AND PROGRAMMABLE

Depending on the application the system can be paired with the following measuring instruments:

- **GL PHOTOMETER 3.0 LS + Flicker**
- **GL SPECTIS 1.0 LS**
- **GL SPECTIS 5.0**

A selection of peripheral devices for tests of vehicle headlamps is available.



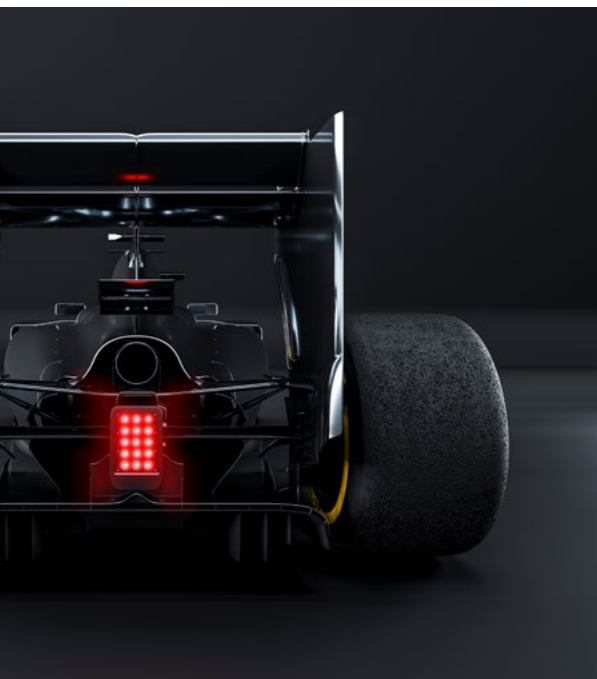


GL System

LARGE SYSTEM

This goniophotometer can be used in factory laboratories as well as in accredited laboratories and deliver fast and reliable results.

With easy to use software, precise alignment protocols and extensive automation capabilities, the system offers a new level of performance and usability.



SPEEDIER LAMP TESTING

GL PHOTOMETER 3.0 LS + Flicker has been designed for On-Fly measurements of lamps on goniophotometer.

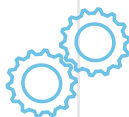
High sampling rate combined with high sensitivity HAMAMATSU sensor allows for continuous measurement of LED during smooth movement of the lamp.

Thanks to absolute encoder readings the required data can be obtained in much shorter time.

Additional light modulation characterization is available using the flicker measurement functionality.



PERIPHERALS



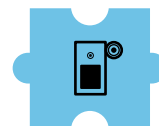
AUTOMATION



POWER SUPPLIES & METERS

Choose from available power supplies and current sources for a full electrical characterization of DUT.

Advanced power meters and fast current sources from leading suppliers available on demand.



SPECTIS 5.0

for extended spectral analysis outside the visible range from UV to NIR sources angular distribution in a variety of applications.

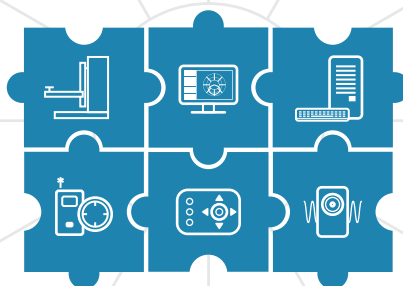
SYSTEM CORE

goniometer

Programmable, robust and accurate Type A goniometer with 3 mechanized axes.

SOFTWARE + PC

GL offers a preconfigured, turn-key system including all instruments with software and a dedicated PC which is tested prior to shipment to customer.

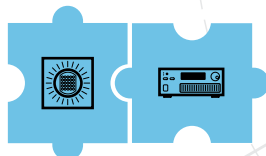


ACCESSORIES

Unique laser alignment system with mirrors and system control options helps to calibrate system vertical and horizontal alignment and also faster photometric positioning of DUT*.

FAST PHOTOMETER + FLICKER

On-fly measurements available with this new optional instrument combined with optical flicker characterization of DUT*.



TEC CONTROL

TEC controllers and mounts for LED modules thermal stabilization and measurements during goniometric tests are available.



SPECTIS 1.0 LS

High sensitivity version of our popular spectroradiometer optimized for fast photometric & colorimetric measurements.



Support & Installation

Online and On-site extensive know-how support for end-users to help them manage their complex measurements.

*DUT – Device Under Test

6 things making our GLG A 20-300 a unique solution

- 1** Manual controller supports the user to align the lamp position before measurements. User-friendly software interface shortens configuration time and allows for quick DUT description and settings.



- 2** Smart cable management system will help keep the cables neat to avoid problems with tangled cables during tests and faster connections.



- 3** Unique laser alignment system with mirrors and system control options helps to calibrate system vertical and horizontal alignment and also faster photometric positioning of DUT.

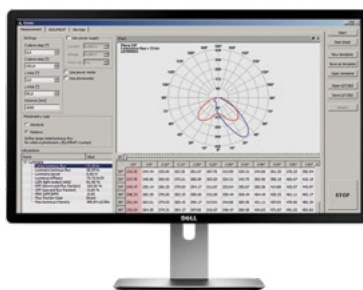


- 4** Robust CNC machined body of the device is durable and stable enough to hold large lamps and guarantees long lasting performance. Great lamp size capacity 20kg and 1800mm x 700mm. Tried and tested industrial gears paired with high accuracy absolute encoders to provide the best angular accuracy and repeatability.



- 5** **GL SPECTROSOFT**
intuitive, clear and easy

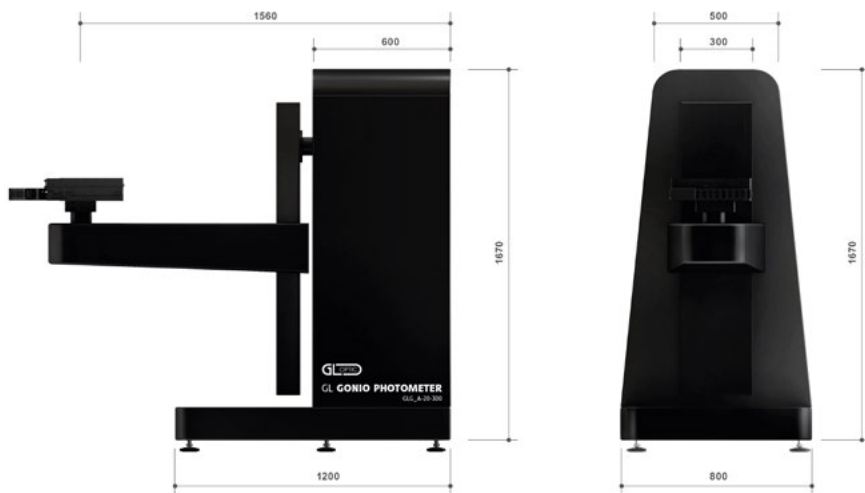
One software interface to program, monitor and manage a complete measurement system. Starting from power supply through the stabilization process up to the final results and reporting.





6 Reasonably Priced
high performance professional instrumentation now available for quality lighting product manufacturers.

technical data



GL GONIOPHOTOMETER GLG A 20-300

APPLICATION

Large LED modules and large luminaires.
Compliance with the following: CIE121-1996, IESNA LM-75-01

TECHNICAL DATA SHEET

CIE Goniometer type	<ul style="list-style-type: none"> Far Field Type A with H and V optical axis DUT moving x,y mechanical table 3 axis stepper motors with worm drive gear boxes with absolute encoders
Angular range H and V axis	$\pm 90^\circ$
Angular range axis	$\pm 180^\circ$ theoretical (usable depending on geometry due to shadowing)
Angular positioning precision	0.1°
Reproducibility H axis	0.50°
Reproducibility V axis	0.50°
Angular speed H axis	up to $4.5^\circ/\text{s}$
Angular speed V axis	up to $4.5^\circ/\text{s}$
Z axis travelling range	<700 mm; stepper motor operated
Photometric distance	10 – 25 m
DUT mounting plate (bread board)	Round $d=180$ mm with x,y 300x300mm mechanical stage Fixing: multiple mounting holes: M3, M4, M5, M6; chuck with sliding blocks
Goniometer dimensions	1560 x 1670 x 800 mm (W x H x D)
Maximum operating footprint diameter	2400 mm
Maximum load	20 kg
Goniometer weight	~ 320 kg
Power supply and max. Consumption	PC connection by USB A-B 110–230V 1200W
Sensor type	<ul style="list-style-type: none"> GL PHOTOMETER 3.0 LS + Flicker GL SPECTIS 1.0 LS GL SPECTIS 5.0

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 is carefully prepared and 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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- - Resellers
- - Clients

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