

TURNING LAMP GONIOMETER SSL LAMP 30

LIGHT MEASUREMENT SYSTEM FOR LED LAMPS and MODULES

- ✓ Accurate characterization of spatial photometric, colorimetric and spectrometric features of LED lamps, flash lights and small LED modules
- ✓ Luminous flux and efficacy, Input power and power factor
- ✓ Angle-dependent color parameters (Spatial color uniformity)
- ✓ B type measurement for custom 2D intensity qualification measurements



SAVE TIME, SPACE AND MONEY

- ✓ Luminous intensity measurements in any Horizontal / vertical angles
- ✓ LDT and IES measurements
- ✓ User-friendly and versatile test software
- ✓ Fast colorimetric measurements

TURNING LAMP GONIOMETER SSL LAMP 30

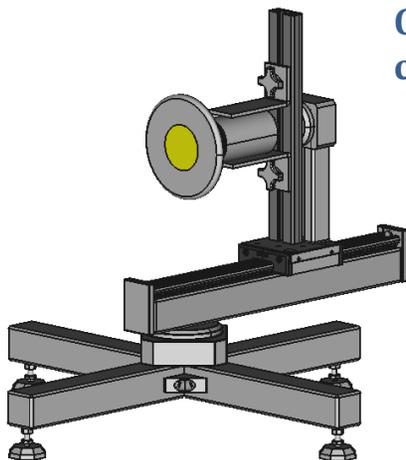


STRAY LIGHT TUBE

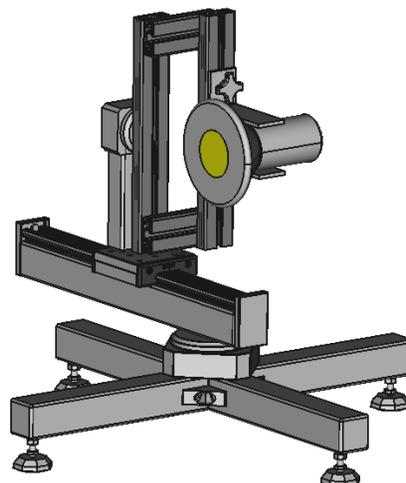
With the attaching the photodetector to a stray light tube, the laboratory preparation is much easier. The stray light from the side wall, ceiling and floor is eliminated by a stray light tube having a couple of apertures with a knife edge land. The photometer can see reflections only from the back-wall behind the goniometer station, so only it needs to be covered by a special black surface. The stray light tube also allows use of roof lighting in the photometer end of the gonio lab making more more comfortable working area in the lab. The stray light tube is assembled at a fixed photometric distance according to the largest possible test sample. This reduces the risk of erroneous distance setting.

LABORATORY SETUP

The goniometer station is installed on the table. The photometer and spectrometer (option) is installed on their own stray light tube and stand. The software has feature to setup the angles and distances of each sensor, then the measurements are made automatically with both sensors.



C type configuration



B type configuration

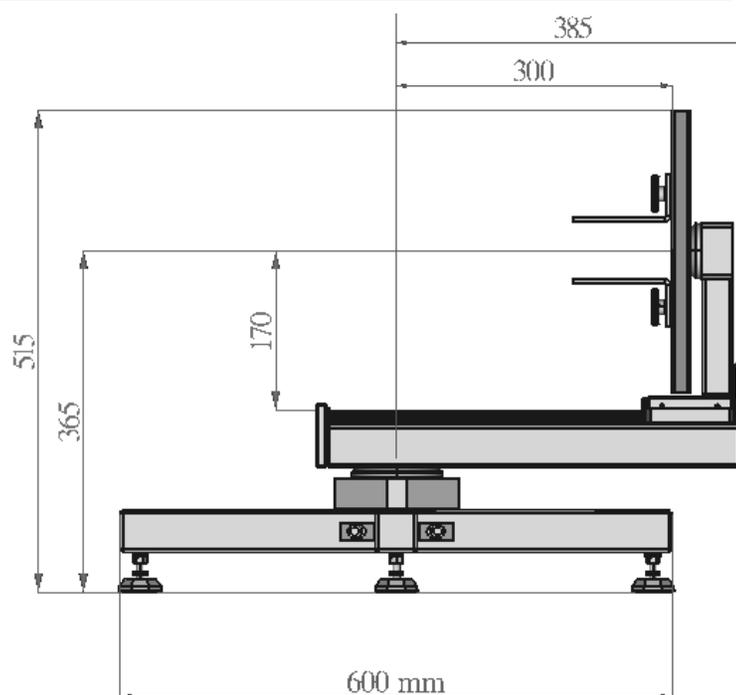
SPECIFICATION

Goniometer		SSL LAMP 30	
Item	SSL C-1.3-34-30		
Goniometer type	C type with horizontal optical axis.		
Gonio driver and controller	2 axis Stepper motor controller with RS-232 / USB interface, Worm gear drive system with deep groove ball bearings. Emergency stop switch.		
Goniometer arrangement	Goniometer station and the electrical device rack holder are in separate units.		
Alignment laser	Red cross-line laser (1 mW, 635 nm) laser distance meter (range 0.5-25m)		
Height, Width, and Length	52 cm, 75 cm, 60 cm		
Height of optical axis	Approximately 36 cm		
Max length, depth and mass of DUT	340 mm, 300 mm, 3kg		
Resolution	<0.01° (C and γ axis)		
Reproducibility / Accuracy	<0.1° (C and γ axis)		
Minimum room space	0.8 m (width) x 1.5 m (height) x 6 m (length)		
Photometer			
Sensor type	C-400 tristimulus colorimeter: USB interface, self color corrected $f_1' < 3\%$ for white LED light sources, illuminance range: 0.1 – 10klx, CCT range 2200- 7000 K		
Min. luminous intensity accuracy	$> \pm 2.5\%$ (k=2), depends on the angular beam shape of DUT		
Luminous flux accuracy	$\pm 3\%$ (k=2)		
Radiation type of the sample	Isotropic radiation (uniform over the γ range $\pm 180^\circ$)	Lambertian radiation, γ range $\pm 90^\circ$	Narrow beam radiation with 40° beam angle
Luminous flux range	31 – 3 000 000 lm	79 – 780 000 lm	13 – 120 000 lm
Viewing angle of stray light tube	$\pm 8^\circ$		

OPTIONS

- ✓ Computer controllable DC / AC Power supply
- ✓ Spectrometer / colorimeter

Optimal for testing LED modules <300 mm.



ORDERING INFORMATION

Goniometers

SSL C-1.30	2-axis Goniometer station (C, γ), Photometer SSL L-200, GPM-sw-full, Stray light tube and stand, Alignment laser, laser distance meter, GPM full sw
SSL C-1.30.B	2-axis Goniometer station (C, γ) with B-type goniometer, Photometer SSL L-200, GPM-sw-full, Stray light tube and stand, Alignment laser, laser distance meter, GPM full sw with B-type options and Candela sw

Options

SSL-black	Special low reflectance black material for a back wall and floor of gonio laboratory room
SSL-computer	Measurement computer with needed communication cards and installation work (drivers and software)
SSL-GSM	Goniospectrometer measurement system: Spectrometer (6nm bandwidth, in 380-780nm) with stray light tube (55mm) and stand, GSM sw measures all the total and angular dependent spectral and colorimetric quantities
SSL L-200	High-accuracy photometer with RS-232 interface

Power meter and power sources

SSL-pow-2	Automatic input power measurement in GPM software, Chroma 66201, AC plug adapter, 19" 2U
SSL-AC-2	APS-7050, 500W: a stable programmable AC power & automatic powering through the GPM software, 19" 2U
SSL-DC-750	TDK GEN 750W, programmable DC power supply, 19" 1U

Standard lamps

SSL CAL-LED-3	Set of calibration lamps for luminous flux and luminous intensity (3 pcs, GU10 LED 2700K, 4000K, 6500K)
SSL CAL-HAL-2	Set of calibration lamps for spectral irradiance (2 pcs, G4 halogen)

Others

SSL-service	Goniometer system first installation and basic training including example measurements on customer site (1-3 days)
-------------	--