

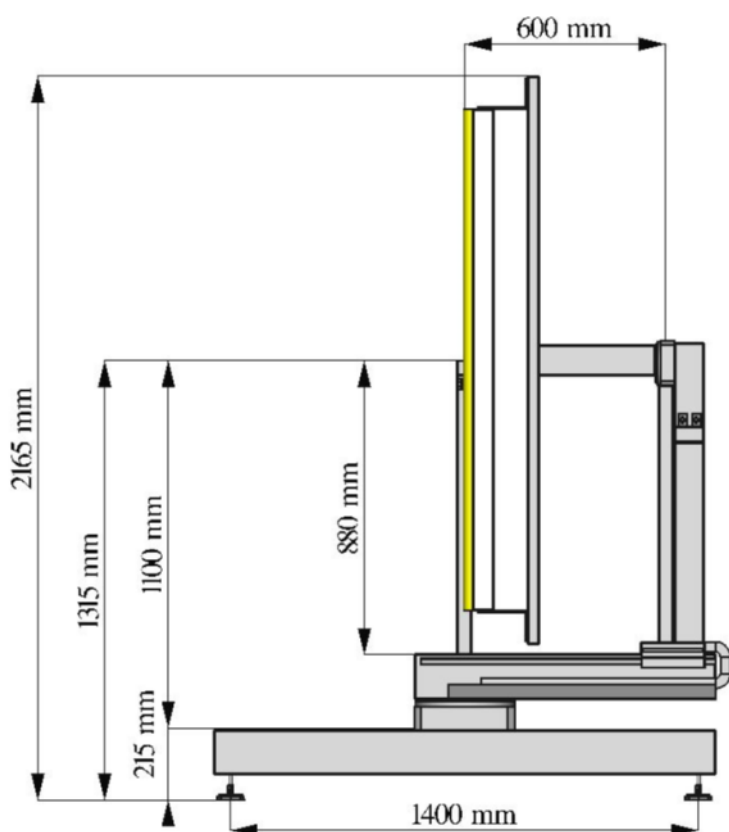
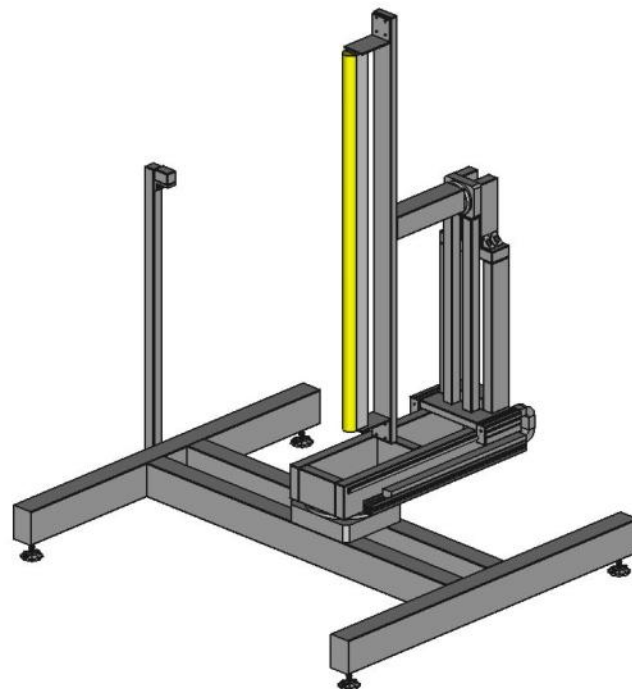
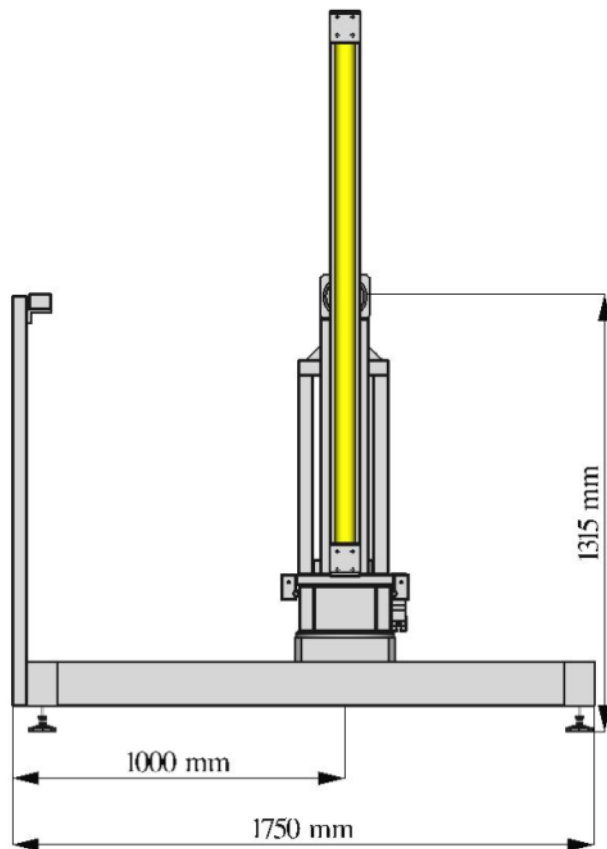
TURNING LUMINAIRE GONIOMETER FAMILY SSL C-1

ALL INCLUSIVE MEASUREMENT SYSTEM

- ✓ Accurate characterization of spatial photometric, colorimetric and spectrometric features of luminaires
- ✓ Luminous flux and efficacy
- ✓ Input power and power factor
- ✓ Spatial color uniformity (SDCM)
- ✓ Total correlated color temperature (CCT), color rendering index (CRI) and spectral radiant flux distribution
- ✓ No need for integrating spheres



TURNING LUMINAIRE GONIOMETER PRODUCT SSL C-1.170



**Optimal for testing luminaires
<1700 mm and <30kg.**

SAVE TIME, SPACE AND MONEY

- ✓ Reliable LDT/IES measurements in standard height rooms
- ✓ User-friendly and versatile test software
- ✓ Easy-to-use Sample holders, installation and training service, etc.
- ✓ Fast colorimetric measurements

TURNING LUMINAIRE GONIOMETER PRODUCT SSL C-1.170



EQUIPMENT HOLDER

SSL C-1.170 is equipped by a separate small device rack having a 8U space for all devices including gonio controller and DC / AC power sources.



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.

SPECIFICATION

Goniometer		SSL C-1.170			
Application area	Up to large and heavy luminaires				
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. The rack holder is of size 19" rack integration (unoccupied 8U for AC/DC power supply / meter)				
Alignment laser	Red cross-line laser (1mW, 635 nm), portable laser distance meter (measurement range 0.5-25m)				
Height, Width, and Length	2.2 m, 1.8 m, 1.5 m				
Height of optical axis	Approximately 1.3 m				
Max total length, depth and mass of DUT ²	1700 mm, 600 mm, 30kg				
Resolution	<0.01° (C and γ axis)				
Reproducibility / Accuracy	<0.1° (C and γ axis)				
Minimum room space (WxHxL)	2.5 m x 2.5 m x 10 m				
Photometer		SSL L-200			
Photometer measuring head	SSL LH210, Silicon photodiode with $V(\lambda)$ filter. The spectral match to CIE photopic sensitivity curve $f_1' < 3\%$ (class A)				
Luminous intensity range (measurement distance)	0.06 – 6 000 000 cd (8 m) 0.10 – 10 000 000 cd (10 m) 0.23 – 23 000 000 cd (15 m) 0.40 – 40 000 000 cd (20 m) 2.50 – 250 000 000 cd (50 m)				
Luminous flux range (measurement distance)	Measurement distance / 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 [$\cos^n(\theta)$ type beam], γ range $\pm 90^\circ$	
	8 m	0.8 – 80 000 000 lm	2.0 – 20 000 000 lm	0.4 – 3 200 000 lm	
	10 m	1.2 – 120 000 000 lm	3.1 – 30 000 000 lm	0.6 – 5 100 000 lm	
	15 m	2.8 – 270 000 000 lm	7.1 – 70 000 000 lm	1.2 – 11 000 000 lm	
	20 m	5.0 – 490 000 000 lm	13 – 120 000 000 lm	2.0 – 20 000 000 lm	
	50 m	31 – 3 000 000 000 lm	79 – 780 000 000 lm	13 – 120 000 000 lm	
Viewing angle of stray light tube	$\pm 8^\circ$				

OPTIONS

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

ORDERING INFORMATION

Goniometers

SSL C-1.170 2-axis Goniometer station (C, γ), Photometer SSL L-200, GPM-sw-full, Stray light tube and stand, Alignment laser, laser distance meter

Sample holders

SSL-SH-170 Sample holder of linear LUT (170cm long x 60cm wide):
two alternatives attaching mechanisms: (1) by squeezing the LUT with four angle brackets (2) by screwing the LUT using square nuts (M4/M6/M8) in the grooves (angle brackets are removed)

SSL-SH-park Sample holder of park lights :
Mounting by squeezing a park light from its edges, max. \varnothing 70 cm, a top of the park light can be located into center hole diameter 12 cm

SSL-SH-panel Sample holder of panel lights and down lights :
Mounting by squeezing a LED panel from its edges, compatible for different sizes LED panels with thicknesses of >7.5 mm

SSL-SH-street Sample holder of street luminaires with pole mounting system :
60mm tube, fixation by two screws in radial orientation, max. distance between mounting hole and the roof of the LUT 13cm

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 380-760nm) with Tripod and mechanics adapters, GSM sw measures all the total and angular dependent spectral and colorimetric quantities

SSL C-400 Tristimulus Colorimeter with USB 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-AC-3 Chroma 61601 500W: a stable programmable AC power & automatic powering through the GPM software, 19" 2U

SSL-DC sw DC power control software: Automatic control and measurement of input power together with the light output

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-SMCF Includes the spectral calibration of the photometer

SSL-BPC Setup for burning position corrector including a related software tool

SSL-service Goniometer system first installation and basic training including example measurements on customer site (2-3 days)