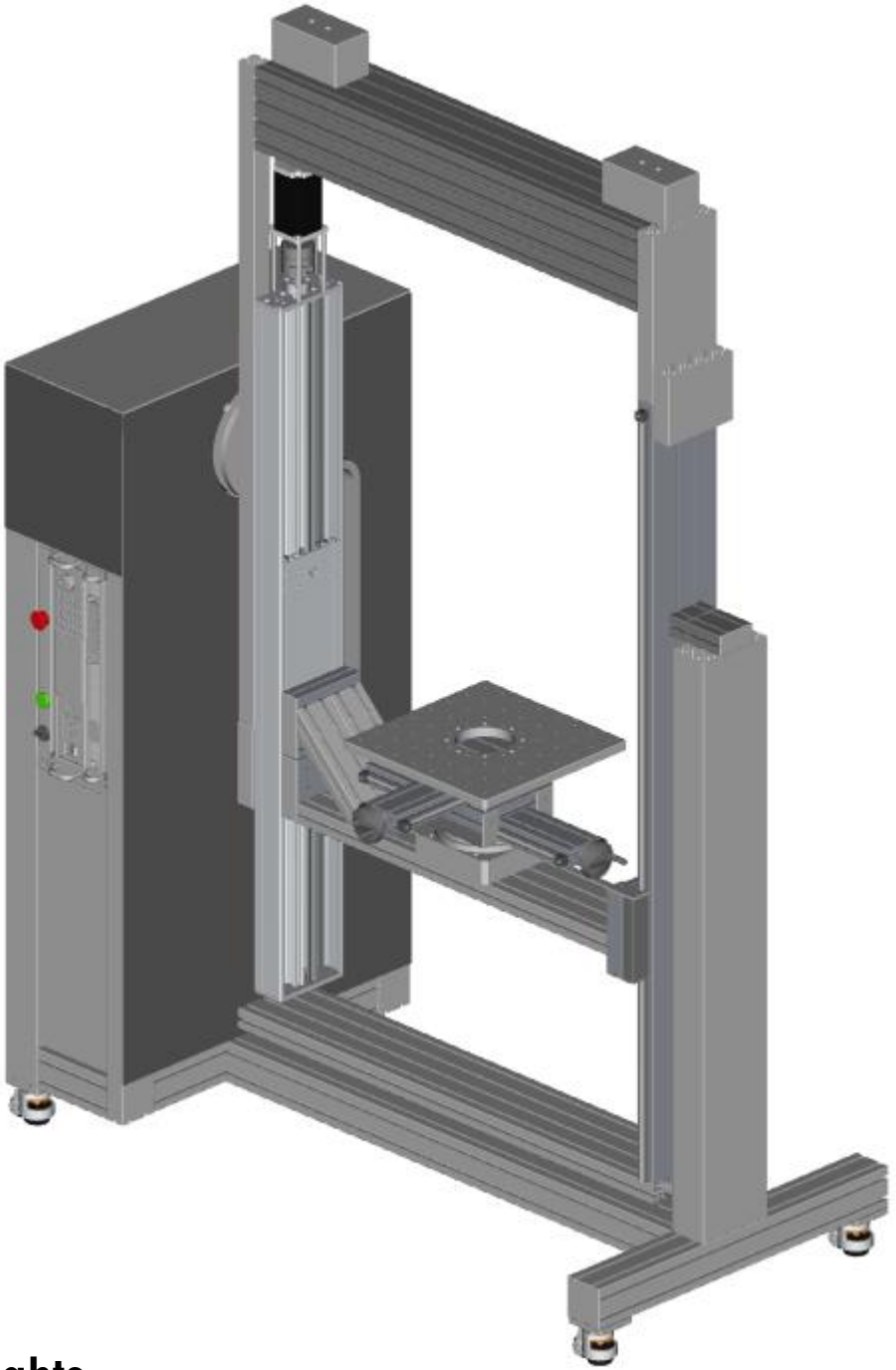
SSL RESOURCE
Photometric Testing Efficiency

Type A GONIOPHOTOMETER
SSL AUTO 1000

TESTING SYSTEM FOR MEASURING ANGULAR LUMINOUS INTENSITY DISTRIBUTION in H,V AXIS COORDINATES



- ✓ **Railway lights**
- ✓ **Automotive lights**
- ✓ **Traffic lights (VMS)**
- ✓ **Maritime navigation lights**
- ✓ **Airport taxiway/runway lights**

GONIOPHOTOMETER
SSL AUTO 1000

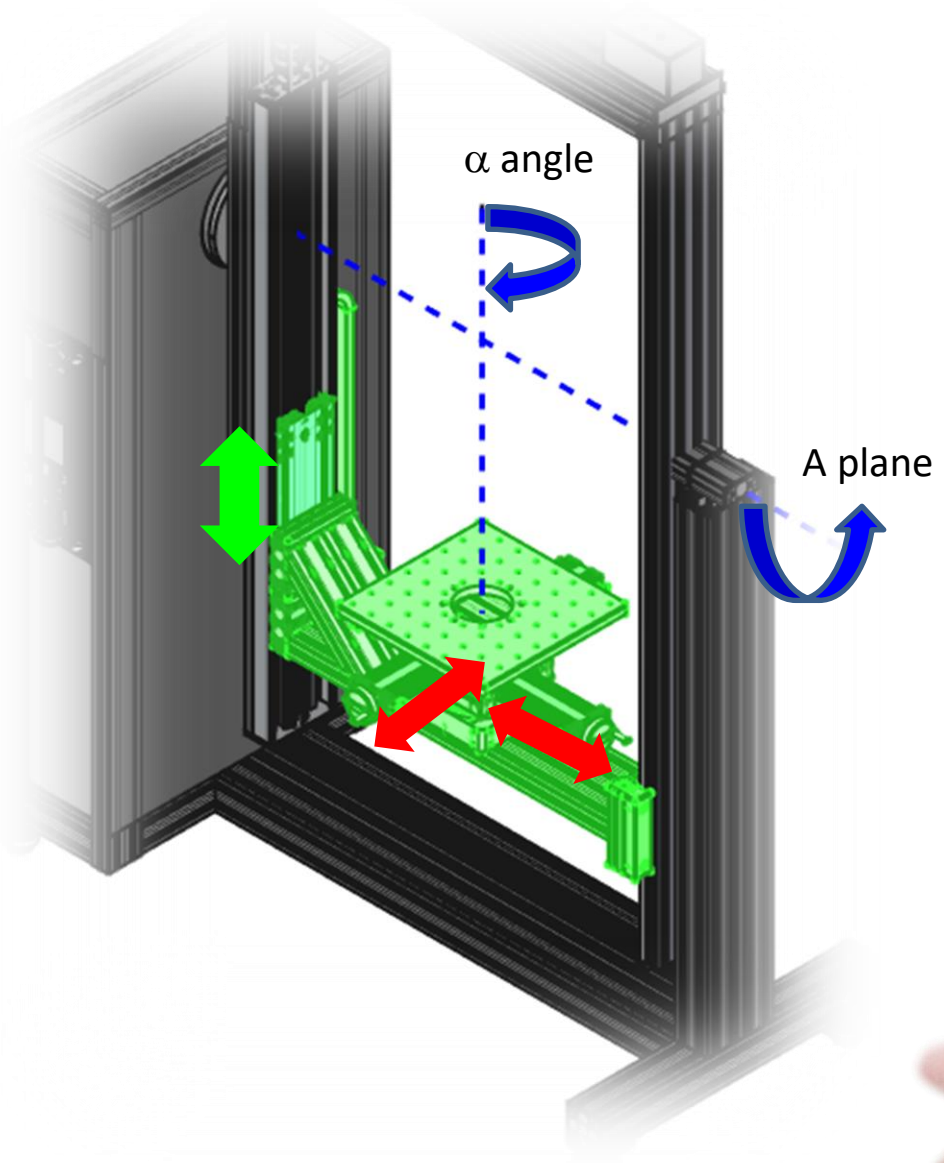


Fig. **3-axis Motorized Control:**
- **α vertical axis** for horizontal (H) angles
- **A plane horizontal axis** for vertical (V) angles
- **Z linear vertical axis** for positioning to the turning axis of A plane

Optional 2-axis Manual control:
- **X and Y linear horizontal axes** for positioning to the turning axis of α axis

Fig. **Remote control of motorized axes through the Android app using Bluetooth**

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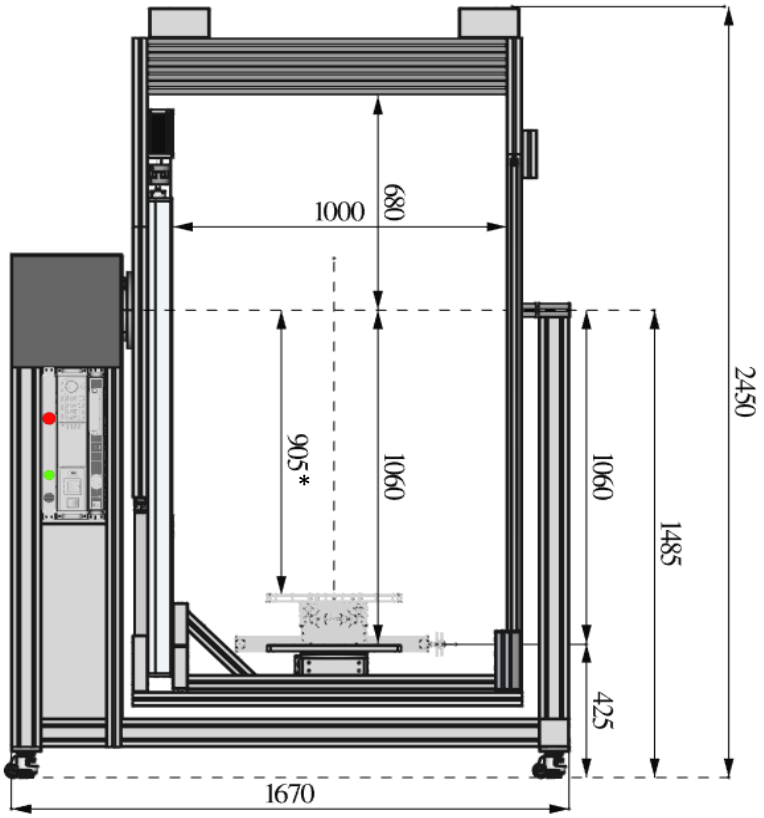

* *In case of manual XY translator stages*

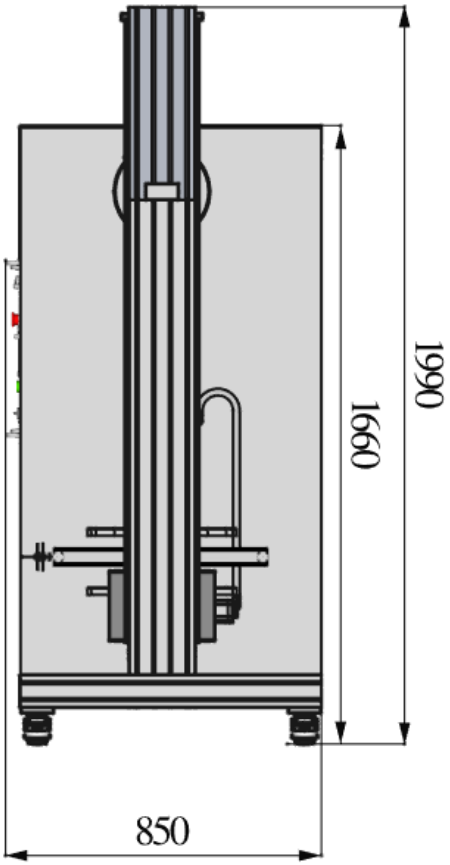

Fig. ***Transportation dimensions.***

Fig. **SSL Stand-2. Al-profile tripod.**

– height and tilt angle adjustable photometer stray light tube.

– FOV 4.5°

– Photometer electronics holder.

– Mount angle for floor installation

SPECIFICATION

Goniometer	**SSL AUTO 1000** (Prodcut code SSL **A.1000)**
Goniometer type	A type
Gonio driver and controller	3 axis Stepper motor controller with RS-232 / USB interface, Worm gear drive system with deep groove ball and crossed roller bearings. Emergency stop switch.
Goniometer arrangement	Electrical devices are integrated into Goniometer station. It has 8U spaces for 19" rack devices.
Alignment laser	Red cross-line laser
Height, diameter of rotation	2.5 m, D=1.2 m
Height of optical axis	Approximately 1.5 m
Max total length, height and mass of DUT[2]	1 m, 1 m (0.85m with XY linear axis), 50kg
Resolution	<0.01° (A and α axis)
Reproducibility / Accuracy	<0.1° (A and α axis)
Turning range, A plane[1)]	±30° at maximum load, ±100° at adjusted load with counterweight
Turning range, α angle[2)]	±180°
Movement range	Z-direction (Motorized axis): 1 m, Optional X and Y axis: 0.3 m.
Minimum room space (WxHxL)	2 m x 2.5 m x (12 – 37) m
Photometer	**SSL L-200**
Photometer measuring head	SSL LH-1010-f3, Silicon photodiode with V(λ) filter. The spectral match to CIE photopic sensitivity curve f_1'<3% (class A)
Luminous intensity range (measurement distance)	0.01 – 5 000 000 cd (3.16 m), 0.1 – 50 000 000 cd (10 m), 0.3 – 170 000 000 cd (18.3 m), 0.6 – 310 000 000 cd (25 m) 0.9 – 470 000 000 cd (30.5 m)
Viewing angle	±4.5° (SSL tube-270-32)

[1)] A plane = Vertical plane / Horizontal measurement axis
[2)] α angle = Horizontal plane / Vertical measurement axis

ORDERING INFORMATION

Goniometers		
SSL A.1000		3-axis Goniometer station (A, α, Z), GPM-sw-AB, Stray light tube and Al-profile stand, Alignment laser, MC-200-BT gonio controller
Options		
SSL L-200	LH1010-f3	Photometer SSL L-200 and measuring head LH1010-f3 ($f_1' < 3\%$), alternative photopic measuring heads available for different illuminance ranges.
SSL SecPhm		Secondary photometer for measuring low luminous intensity levels / flicker in a short distance (SSL L-40 photometer + additional stray light tube and Al-profile stand)
SSL C-600	CH66-4	Tristimulus colorimeter equipped with 4-channel measuring head CH66-4 having the $f_1' < 3\%$ for X,Y and $< 3.5\%$ for Z. Dynamic range 1e8. (SSL L-200 can be replaced by C-600 to become the primary photometer.) Alternative colorimetric measuring heads available for other illuminance ranges and for f_1'.
SSL GSM_VIS		Spectrometer, bandwidth <5nm, WL range 380-780nm. Includes an additional stray light tube and stand + Goniospectrometer sw + Irradiance calibration
SSL BPC-B		Burning position corrector setup of B type gonio including a L-10 photometer (Bluetooth communication) and a related software tool

OPTIONS

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

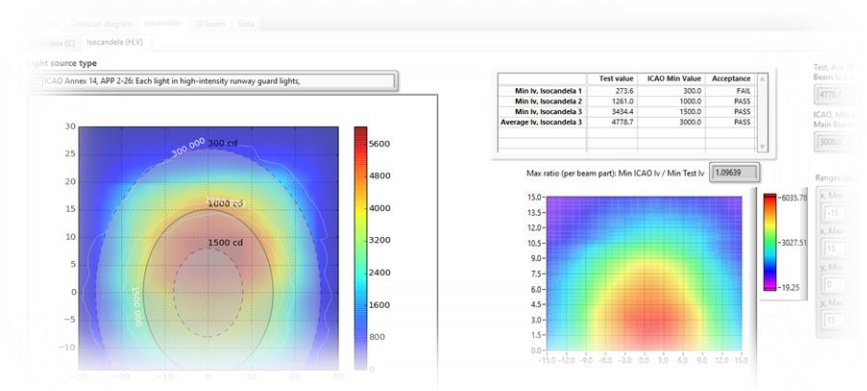

Fig. **Pass-fail results of luminous intensity in specified H,V angles stated in test standards of e.g. FVMSS108, ECE, ICAO, FAA.**

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