



IEC 60598-1, ED. 6 (2003)
TESTING AND MEASURING EQUIPMENT/ALLOWED SUBCONTRACTING
Luminaires – Part 1: General requirements and tests

R=Required by Lab

S=May be subcontracted

Clause	Measurement/testing	Testing / measuring equipment / material needed	Subcontracting
3.4	Test of marking	Piece of cloth / Water / Petroleum spirit	R
4.4.4	Lampholder pressure test	Test caps / Pressure device / Torque driver	R
4.4.5	Voltage across lampholders	High voltage probe / Oscilloscope	R
4.11.6	Electro-mechanical contact system	Low voltage variable current power supply, voltmeter, high voltage transformer	R
4.12.1/4.12.5	Screws and connections (mechanical) and glands testing	Test screwdriver or spanner / Test rods	R
4.13.1/4.13.4 4.13.6/4.21.4	Mechanical strength tests	Spring-operated impact test apparatus / Apparatus for ball impact tests / Conditioning cabinet (e.g. freezer) / Angle measuring device / Weighting device / Tumbling barrel test equipment	R
4.14.1/4.14.2 / 4.14.3	Adjusting devices testing	Glass test shelves / Weighting device / Test apparatus for adjustable devices	R
4.9.2/4.18.1	Insulating linings and sleeves tests / Resistance to corrosion	Heating cabinet, humidity cabinet, megaohmmeter, high voltage transformer	R
4.18.2 / Annex F	Stress corrosion	Closeable glass vessel / test solution / Heating cabinet / Facilities to wash samples after test	R
4.20	Rough service luminaires	Vibration test equipment	S
4.22	Attachment to lamps	Weighting device	R
4.24/Annex P	Protective measures against UV radiation	UV radiation test instruments	S
4.26	Short circuit protection test	Test chain / Weighting device	R
5.2.10.1	Pull and torque tests on cord anchorage	Cord anchorage tests apparatus (pull and torque)	R
5.3	Internal wiring dimensions	Micrometer / Equipment for insulation thickness	R
7.2.3	Earth continuity test	Earthing test equipment	R



Clause	Measurement/testing	Testing / measuring equipment / material needed	Subcontracting
8.2.5 8.2.7	Protection against electric shock tests / Capacitor discharge	Standard test finger (IEC 60529) / Unjointed test finger Voltmeter / oscilloscope	R
9.2.0	Solid object proof luminaire testing	IP 3X (2,5 mm) / IP 4X (1 mm) probes	R
9.2.1/9.2.2	Dust proof luminaire tests	Apparatus for proving protection against dust	R
9.2.3,4,5,6,7, 8,9	Water proof luminaires testing	Apparatus for protection against water tests	R
9.3.1	Humidity tests	Humidity cabinet	R
10.2.1	Insulation resistance tests	Megaohmmeter	R
10.2.2	Electric strength tests	High voltage transformer	R
10.3.1	Leakage current testing	Leakage current tester	R
11.2.1	Creepage distances and clearances measurements	Sliding caliper	R
12.3.1	Endurance tests	Thermal cabinet (35°C) / Endurance test equipment / Multimeter / Wattmeter	R
12.4.1	Thermal tests	Draught-proof enclosure (25°C) / Thermometer / Thermocouples / Voltage stabilizer / Multimeter / Wattmeter	R
12.5.1e) Annex C Fig. C3	Abnormal operation testing	Test circuit for metal halide luminaires	R
13.2.1	Resistance to heat test	Heating cabinet / Ball pressure test apparatus (see also CTL D.S. N. 391.mod)	R
13.3.1	Resistance to flame test	Needle flame test apparatus	R
13.3.2	Resistance to ignition testing	Glow-wire test apparatus	R
13.4.1	Resistance to tracking test	Proof tracking test device	R
14	Screw terminals	Torque drivers, test cables, pull device, micrometer, timer	R
15	Screwless terminals	Pull device, variable current source, voltmeter, heating cabinet, timer, test cables	R

Note: The presence of equipment alone does not indicate a satisfactory situation. Assessors must evaluate the equipment design, calibration, uncertainty and documentation to ensure compliance with the directions of the standard. The requirements of ISO Guide 25 regarding validation are applicable, as the tests of this standard are not standardised tests.