

Laboratory Test report



226-TEST

NBN EN ISO/IEC 17025 :2017



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FORM L-54 Edition 01 – Revision 04 – Date : 21/04/2021

Tightness test

General information

Subject : IZYLUM LT 2 - 48 SEOUL 5050 - 1050mA - Zhaga socket - Before endurance

Asked by : CSIKÓS Balázs

Created on : 10/11/2022

Started on : 10/11/2022

Test number : D220996

Reference norm : IEC/EN 60598-1 Ed9 (2021) +A11 (2022)

Sample(s) : E220631

Folder : P-F22049

Test conditions

Luminaire : IZYLUM LT 2

Number of LED : 48

LED : Seoul 5050

Driver current (mA) : 1050

Protector Material : Glass Extra Clear wide serigraphy

Protector Shape : Flat

Additional info :

Test realized before endurance D220998.

Sample no toolless.

Testing Facility : BER - R-Tech

Operator : KOY Fiston



IMG_3947

Conclusion



Success

Conclusion :

Statement of conformity according to section 9.2 of IEC/EN 60598-1 Ed9 (2021) + A11 (2022):

IPx6 passed.

Validated by :

LERHO Xavier

Duplicate to : SZÜGYI János Péter, CSIKÓS Balázs, BEDŐ Péter

LAB : 21/11/2022

D220996

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Test(s) details

Test(s)

Name	Description	Verdict
IPx6	<ul style="list-style-type: none">- Luminaire switched ON until stable T*- Luminaire switched OFF and immediately sprayed with water jet- Hose diam. 12,5 mm- Water flow: 100 l/min- Spraying distance: 3 m- Duration of test: 3 minutes	Success

IPx6

Verdict(s)

Pre-conditioning time :

- 68 minutes

Test result :

- Passed : No water entry in the enclosure of the luminaire



IMG_3962



IMG_3953



IMG_3950

Test room temperature (°C) :

23.2

Measurement equipment :

Rotating table (A001/2)
Chronometer (A043/4)
Thermometer (A039/1)
Flowmeter (A001/10)
Lance (A001/12/1)
IPx6 nozzle (A001/12/3)

Quantities measured :

Verification of water/dust ingress within a luminaire enclosure according to

For IP2X: PT-S-14
For IP3X/4X: PT-S-15
For IP5X/6X: PT-S-06
For IPX3/X4: PT-S-01
For IPX5/X6: PT-S-08
For IPX7/X8: PT-S-09
For IPX9(15°C)/X9(80°C) : PT-S-10

Uncertainties :

Statement of uncertainties (K=2, 95% of confidence level):

Time: 0,35 seconds per 10 minutes
Temperature: 0,6 K
Calipers: 0,005 mm
Measuring tape: $\pm 1,13$ mm
Dynamometric key :
From 0.5 to 2.5 Nm : 0,15 Nm
From 2.5 to 5 Nm : 0,22 Nm
From 5 to 25 Nm : 0,83 Nm
From 25 to 60 Nm : 2,73 Nm
From 60 to 100 Nm : 3,55 Nm

For solid ingress test:

IP2X:

Probe dimensions: $\pm 0,6$ mm
Applied force: $\pm 0,4$ N

IP3X:

Probe dimensions: $\pm 0,3$ mm
Applied force: $\pm 0,13$ N

IP4X:

Probe dimensions: $\pm 0,1$ mm
Applied force: $\pm 0,11$ N

IP5X/6X

Test duration (talcum suspension time): ± 3 seconds
Talcum mass: 0,02 %

For liquid ingress test:

IPX3/X4

Table rotation: ± 6 sec/rotation
Arms Rotation angle: $\pm 3^\circ$
Water flow: $\pm 4,5$ %

IPX5/X6

Table rotation: ± 6 sec/rotation
Water flow: ± 4 %
Test Distance: +0 / -50 cm

IPX7/X8

Test depth: +10 cm / -0 cm

IPX9

Water temperature: 1.25 K

Test distance: 1.59 mm (for 175mm)

Test duration: 2.49 s (for 3min)

Water pressure: 0.37 N

Decision rules :

Pass/fail criteria for individual test statement of conformity (Verdict):

For solid ingress test:

IP2X:

If contact possible with live parts: fail

Otherwise: success

IP3X/4X:

For luminaires without draining holes, nor ventilation slots for forced cooling, penetration of the test probe in the enclosure: fail

For luminaires with draining holes, or ventilation slots for forced cooling, if contact possible with live part: fail

Otherwise: success

IP5X/6X

By visual inspection:

If possible hazard due to presence of conductive dust: fail

For IP5X: If no possible hazard due to the presence of conductive dust: success

For IP6X: No presence of talcum: success

For liquid ingress test:

IPX3/X4/X5/X6/IPX9(15°C)/X9(80°C):

By visual inspection:

If possible hazard due to presence of water: fail

If no possible hazard due to the presence of water and no efficient way to evacuate the water: fail

If no possible hazard due to the presence of water and an efficient way to evacuate the water: success

No presence of water: success

IPX7/X8:

By visual inspection:

Presence of water: fail

No presence of water: success

Pass/fail criteria for the test report statement of conformity (Conclusion):

At least one of the individual test statements of conformity (Verdict) is failed: failed

Otherwise: success

End of accredited report :
