Laboratory
Test report

R-Tech
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Member of Schréder Group

FORM L-54 Edition 01 – Revision 01 - Date: 10/09/2019

Tightness test

General information

Subject : IZYLUM 3 - 60 LH351C - Philips SR 150W - 700mA - Lumawise - CL I

Asked by : SZÜGYI János Péter

Created on : 25/10/2019

Validated on : 06/11/2019

Test number : D190994

Reference norm : IEC/EN 60598-1 Standard

Sample(s) : E190753

Folder : P-F19086

Test conditions

Luminaire : IZYLUM 3

Number of LED : 60

LED : Samsung LH351C

Driver current (mA) : 700

Protector Material : Glass Extra Clear

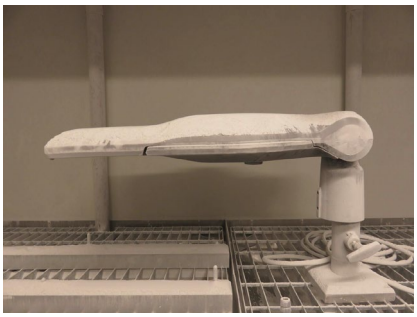
Protector Shape : Flat

External accessories :

Lumawise

Preconditionning time (minutes) : 60

Operator : Philippe Léonard



IMG_5364

Conclusion

Success

Conclusion :

IP66 granted.

Validated by :

GHYSENS Gilles

Duplicate to : SZÜGYI János Péter, HORVÁTH Csaba, BEDŐ Péter, BOS Peter

LAB : 06/11/2019

Test(s) details

Test(s)

Name	Description	Result
IP6X	- Luminaire switched ON until stable T° - Talcum in suspension (blowing ON) - After 1', luminaire OFF - Talcum for 3 hours	Success
IPX6	- 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

IP6X

Result(s)

✓ Test succeeded no dust entry in the optical and auxiliary part.

IPX6

Result(s)

✓ Test succeeded no water ingress in the optical and auxiliary part.

Test room temperature (°C) : **24**

Measurement equipment :

IP6X

Talcum chamber (A003)
Thermometer (A039/2)
Chronometer (A043/6)
Caliper (M054/M055)

IPX6

Rotating table (A001/2)
Chronometer (A043/6)
Thermometer (A039/1)
Flowmeter (A001/9)
IPx6 nozzle (A001/5)

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

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: ± 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: ± 0,6 mm
Applied force: ± 0,4 N

IP3X:
Probe dimensions: ± 0,3 mm
Applied force:± 0,13 N

IP4X:
Probe dimensions: ± 0,1 mm
Applied force: :± 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: ± 3°
Water flow: ± 4 %

IPX5/X6

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

IPX7/X8

Test depth: +10 cm / -0 cm

<u>Decision rules:</u>

Pass/fail criteria

For solid ingress test:

IP2X:

If contact possible with live parts: fail
Otherwise: pass

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: pass

IP5X/6X

By visual inspection:
If possible hazard due to presence of conductive dust: fail
If no possible hazard due to the presence of conductive dust: IP5X granted
No presence of talcum: IP6X granted

For liquid ingress test:

IPX3/X4/X5/X6:

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: pass
No presence of water: pass

IPX7/X8:

By visual inspection:
Presence of water: fail
No presence of water: pass

End of test report ----------