Laboratory
Test report

226-TEST

NBN EN ISO/IEC 17025 :2017

R-Tech
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Member of Schréder Group

FORM L-54 Edition 01 - Revision 03 - Date : 20/05/2020

Tightness test

General information

Subject : VOLTANA EVO 1 - 16 Oslon Square Giant - Philips FP 75W - 1200mA - CL II (central screw modified 1Nm)

Asked by : SZÜGYI János Péter

Created on : 08/01/2021

Started on : 11/01/2021

Test number : D210026

Reference norm : IEC/EN 60598-1 Standard

Sample(s) : E210017

Folder : P-F21002

Digitally signed by Galciuc Igor
Date: 2022.09.15 09:40:04 EEST
Reason: MoldSign Signature
Location: Moldova

Test conditions

Luminaire : VOLTANA EVO 1

Number of LED : 16

LED : Osram OSLON SQUARE GIANT

Driver current (mA) : 1200

Protector Material : PC

Operator : Philippe Léonard

IMG_7592

Conclusion

Success

Conclusion :

According section 9.2 of IEC 60598-1:2014, AMD1:2017 :

IP66 passed.

Validated by :

GHYSENS Gilles

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

LAB : 15/02/2021

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)

Pre-conditioning time :

- 60minutes

Test result :

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

IPx6

Result(s)

Pre-conditioning time :

- 60 minutes

Test result :

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

Test room temperature (°C) :

23.2

Measurement equipment :

Talcum chamber (A003)
Thermometer (A039/2)
Rotating table (A001/2)
Chronometer (A043/3)
Thermometer (A039/1)
Flowmeter (A001/10)
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

Decision rules :

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 accredited report :
