R-Tech
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Member of Schréder Group

Mechanical impact resistance test

General information

Subject : VOLTANA EVO 1 - 16 Oslon Square Giant - Philips 75W

Asked by : SZÜGYI János Péter

Created on : 12/01/2021

Started on : 13/01/2021

Test number : D210050

Reference norm : IEC/EN 60598-1 & 62696 Standards

Sample(s) : E210035, E210036, E210037

Folder : P-F21002

Test conditions

Luminaire : VOLTANA EVO 1

Quantity of sample under test : 5

Protector Material : PC

Serigraphy : None

Protector supplier : External - Gaggione

Operator : Philippe Léonard

IMG_7602

Conclusion

Success

Conclusion :

Conformity statement according to TR 62696:2011 and section 4.13 of IEC 60598-1:2014, AMD1:2017 :

IK10 passed.

Validated by :

GHYSENS Gilles

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

LAB : 15/03/2021

D210050

Digitally signed by Rotari Dmitrii
Date: 2022.09.21 20:21:29 EEST
Reason: MoldSign Signature
Location: Moldova

Test(s) details

Test(s)

Name	Description	Result
Impact points	At pendulum hammer 5 impact points distributed on protector surface One impact on each point 2 supplementary impacts on the most fragile point	Informative
IK08	Impact energy : 5 joules Hammer weight : 1.7 Kg Height of fall : 30 Cm	Informative
IK09	Impact energy: 10 joules Hammer weight: 5 kg Height of fall: 20 cm	Informative
IK10	Impact Energy: 20 joules Hammer Weight: 5 Kg Height of fall: 40 cm	Informative

Impact points

Annex(es)

IK08

Result(s)

IK 08	Impact	1			2			3			4			5		
Sample	Shot	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
1		Pass	-	-	Pass	-	-	Pass	-	-	Pass	-	-	Pass	Pass	Pass
2		Pass	-	-	Pass	-	-	Pass	-	-	Pass	-	-	Pass	Pass	Pass
3		Pass	-	-	Pass	-	-	Pass	-	-	Pass	-	-	Pass	Pass	Pass
4		Pass	-	-	Pass	-	-	Pass	-	-	Pass	-	-	Pass	Pass	Pass
5		Pass	-	-	Pass	-	-	Pass	-	-	Pass	-	-	Pass	Pass	Pass
		-	NOT TESTED													

IK09

Result(s)

IK 09	Impact	1			2			3			4			5		
Sample	Shot	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
1		Pass	-	-	Pass	-	-	Pass	-	-	Pass	-	-	Pass	Pass	Pass
2		Pass	-	-	Pass	-	-	Pass	-	-	Pass	-	-	Pass	Pass	Pass
3		Pass	-	-	Pass	-	-	Pass	-	-	Pass	-	-	Pass	Pass	Pass
4		Pass	-	-	Pass	-	-	Pass	-	-	Pass	-	-	Pass	Pass	Pass
5		Pass	-	-	Pass	-	-	Pass	-	-	Pass	-	-	Pass	Pass	Pass
		-	NOT TESTED													

IK10

Result(s)

IK 10	Impact	1			2			3			4			5		
Sample	Shot	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
1		Pass	-	-	Pass	-	-	Pass	-	-	Pass	-	-	Pass	Pass	Pass
2		Pass	-	-	Pass	-	-	Pass	-	-	Pass	-	-	Pass	Pass	Pass
3		Pass	-	-	Pass	-	-	Pass	-	-	Pass	-	-	Pass	Pass	Pass
4		Pass	-	-	Pass	-	-	Pass	-	-	Pass	-	-	Pass	Pass	Pass
5		Pass	-	-	Pass	-	-	Pass	-	-	Pass	-	-	Pass	Pass	Pass
		-	NOT TESTED													

Test room temperature (°C) :

22

Measurement equipment :

Pendulum hammer with chariot (M062)
Thermometer (A039/3)

Quantities measured :

For IK 04/05/06: Verification of the mechanical strength of a luminaire according to PT-S-13
For IK07/08/09/10/10+: Verification of the mechanical strength of a luminaire according to PT-S-05

Uncertainties :

Temperature: 0,6 °K
Mass: 0,25 %
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 IK 04/05/06, Impact energy: ± 10%
For IK07/08/09/10/10+, Impact energy: ± 1%

Decision rules :

Pass/fail criteria according to GDE-GUI-003

By visual inspection (or other means if necessary):
Luminaire shows dangerous behavior: fail
Luminaire shows no dangerous behavior: pass
When several luminaires are tested, 4 out of 5 samples need to show positive result for compliance of the batch

End of accredited report :
