

Electrical measurements

General information

Subject : VOLTANA EVO 1 - 16 Oslon Square Giant - Osram 2DIM 50W - 1000mA - CL I

Asked by : SZÜGYI János Péter

Created on : 11/01/2021

Started on : 20/01/2021

Test number : D210035

Sample(s) : E210028

Folder : P-F21002

Test conditions

Luminaire : VOLTANA EVO 1

Operator : Philippe Léonard

Number of LED : 16

LED : Osram OSLON SQUARE GIANT

Driver : DRIVER_OSRAM_2DIM P_50W_600-1250mA_120-277V_0-10V_
_ / 00-14-565

Number of driver(s) : 1

Driver current (mA) : 1000

SPD : VS SP3/230/10K/i

Conclusion



Informative

Conclusion :

PF : 0.98

Efficiency : 86.9%

THD : 10.7%

Harmonics : OK according to IEC 61000-3-2, Class C, P > 25 W (@100% dimming)

Validated by :

GHYSENS Gilles

Duplicate to : RACANELLI Frank, SZÜGYI János Péter,

HORVÁTH Csaba, CSIKÓS Balázs, BEDŐ Péter

LAB : 16/02/2021

D210035

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Test(s) details

Test(s)

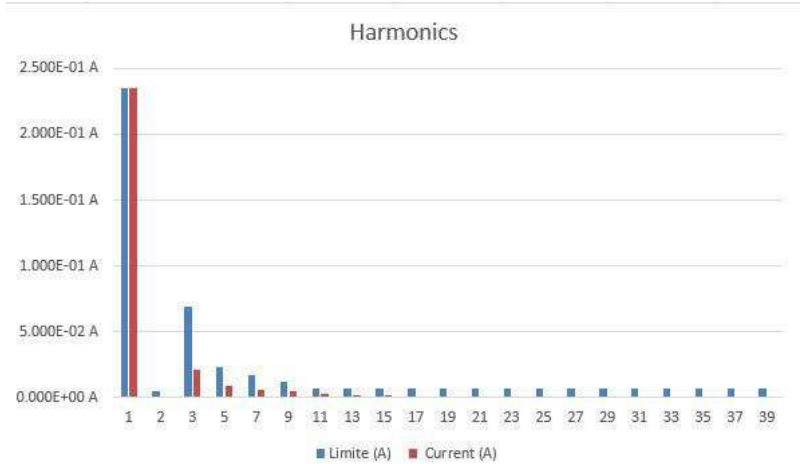
Name	Description	Result
Harmonics @ 1000mA	Measurement of the harmonic currents of the luminaire at thermal stabilization, according IEC 61000-3-2 - Class C (100% dimming).	Success
Measurements @ 1000mA	Characterization of the electrical parameters of the luminaire at thermal stabilization.	Informative

Harmonics @ 1000mA

Result(s)

Harmonic	Current (A)	Limite (A)
1	2.347E-01 A	2.347E-01 A
2	6.565E-04 A	4.693E-03 A
3	2.112E-02 A	6.876E-02 A
5	8.896E-03 A	2.347E-02 A
7	6.061E-03 A	1.643E-02 A
9	4.621E-03 A	1.173E-02 A
11	2.944E-03 A	7.040E-03 A
13	1.685E-03 A	7.040E-03 A
15	1.494E-03 A	7.040E-03 A
17	3.828E-04 A	7.040E-03 A
19	5.397E-04 A	7.040E-03 A
21	3.550E-04 A	7.040E-03 A
23	2.237E-04 A	7.040E-03 A
25	4.924E-04 A	7.040E-03 A
27	3.063E-04 A	7.040E-03 A
29	7.290E-04 A	7.040E-03 A
31	2.446E-04 A	7.040E-03 A
33	6.522E-04 A	7.040E-03 A
35	3.168E-04 A	7.040E-03 A
37	3.115E-04 A	7.040E-03 A
39	1.334E-04 A	7.040E-03 A

Annex(es)



Harmonics

Measurements @ 1000mA

Result(s)

input		output 1		
Urms	230.1 V	Urms	46.2 V	-
Irms	0.236 A	Irms	0.997 A	
Prms	53.0 W	Prms	46.0 W	
S	54.3 VA			
Q	-11.6 VAR			
PF	0.9767			
I(H01)	0.235 A	Uavg	46.2 V	
Cos j (H01)	0.9822	Iavg	0.996 A	
η rms	86.9%	Pavg	46.0 W	
η avg	86.9%			
THD	10.7%			

Test room temperature (°C) :

25.5

Measurement equipment :

Norma 4000 (E110)

APT (E102)

Quantities measured :

Qualification of the thermal limits and measurement of the electrical behavior of a luminaire according to PT-S-07

Uncertainties :

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

Temperature: 0,6 K

Voltage (AC): 0,33%

Current (AC): 0,33 %

Power (AC): 0,27%

Voltage (DC): 0,3 %

Current (DC): 0,3%

Power (DC): 0,23%

Anemometer: $\pm 0,27$ m/s

Decision rules :

No pass/fail criteria applied on electrical measurements

End of test report :
