

Electrical measurements

General information

Subject : VOLTANA EVO 1 - 16 Oslon Square Giant - Philips FP 75W - 1200mA - CL I

Asked by : SZÜGYI János Péter

Created on : 08/01/2021

Started on : 19/01/2021

Test number : D210033

Sample(s) : E210030

Folder : P-F21002

Test conditions

Luminaire : VOLTANA EVO 1

Operator : Philippe Léonard

Number of LED : 16

LED : Osram OSLON SQUARE GIANT

Driver : DRIVER_SIGNIFY_FP_75W_500-1500mA_220-240V_DALI_C133_
/ 01-50-749

Number of driver(s) : 1

Driver current (mA) : 1200

SPD : VS SP3/230/10K/i

Conclusion



Informative

Conclusion :

PF : 0.99

Efficiency : 90.2%

THD : 7.6%

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

D210033

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Test(s) details

Test(s)

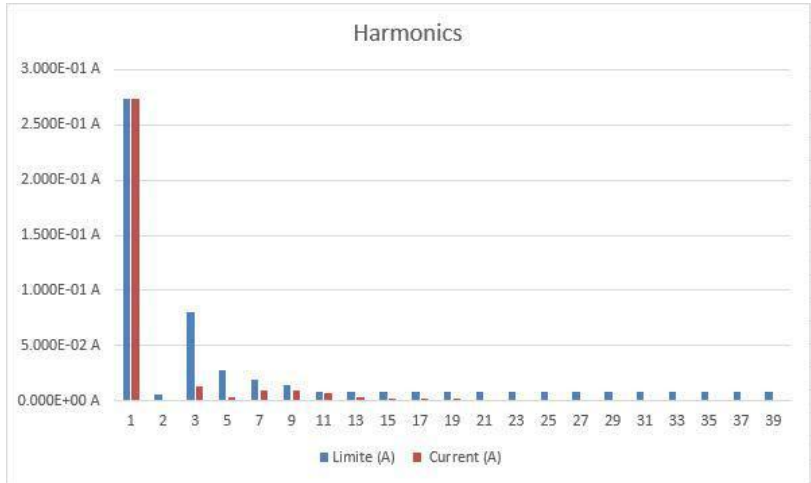
Name	Description	Result
Harmonics @ 1200mA	Measurement of the harmonic currents of the luminaire at thermal stabilization, according IEC 61000-3-2 - Class C (100% dimming).	Success
Measurements @ 1200mA	Characterization of the electrical parameters of the luminaire at thermal stabilization.	Informative

Harmonics @ 1200mA

Result(s)

Harmonic	Current (A)	Limite (A)
1	2.732E-01 A	2.732E-01 A
2	5.961E-04 A	5.464E-03 A
3	1.252E-02 A	8.084E-02 A
5	2.674E-03 A	2.732E-02 A
7	9.190E-03 A	1.912E-02 A
9	9.689E-03 A	1.366E-02 A
11	6.447E-03 A	8.196E-03 A
13	3.378E-03 A	8.196E-03 A
15	2.213E-03 A	8.196E-03 A
17	2.458E-03 A	8.196E-03 A
19	2.355E-03 A	8.196E-03 A
21	9.062E-04 A	8.196E-03 A
23	3.354E-04 A	8.196E-03 A
25	4.861E-04 A	8.196E-03 A
27	2.587E-04 A	8.196E-03 A
29	4.195E-04 A	8.196E-03 A
31	6.745E-04 A	8.196E-03 A
33	6.244E-04 A	8.196E-03 A
35	4.716E-04 A	8.196E-03 A
37	5.700E-04 A	8.196E-03 A
39	3.956E-04 A	8.196E-03 A

Annex(es)



Measurements @ 1200mA

Result(s)

input			output 1		
Urms	230.0 V		Urms	46.6 V	-
Irms	0.274 A		Irms	1.203 A	
Prms	62.2 W		Prms	56.1 W	
S	63.0 VA				
Q	-10.4 VAR				
PF	0.9863				
I(H01)	0.273 A		Uavg	46.6 V	
Cos ϕ (H01)	0.9893		Iavg	1.203 A	
η rms	90.2%		Pavg	56.1 W	
η avg	90.2%				
THD	7.6%				

Test room temperature (°C) :

26.3

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 :
