

FORM L-54 Edition 01 – Revision 04 – Date : 21/04/2021

## Electrical measurements

### General information

Subject : VOLTANA EVO 1 - 8 Oslon Square Giant - Meanwell 40W - 1400mA

Asked by : BEDŐ Péter

Created on : 19/04/2021

Started on : 20/04/2021

Test number : D210386

Sample(s) : E210200

Folder : P-F21002

### Test conditions

Luminaire : VOLTANA EVO 1

Number of LED : 8

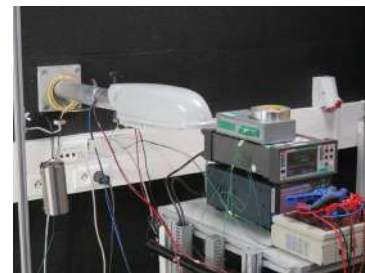
LED : Osram OSOLON SQUARE GIANT

Driver : DRIVER\_MEANWELL\_PLD\_40W\_1400mA\_220-277V\_NONE\_.\_. /  
00-73-737

Number of driver(s) : 1

Driver current (mA) : 1400

Operator : CLOSET Frédéric



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### Conclusion



Informative

Conclusion :

PF : 0.97

Efficiency : 86.7%

THD : 15.8%

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 : 23/04/2021

**D210386**

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# Test(s) details

## Test(s)

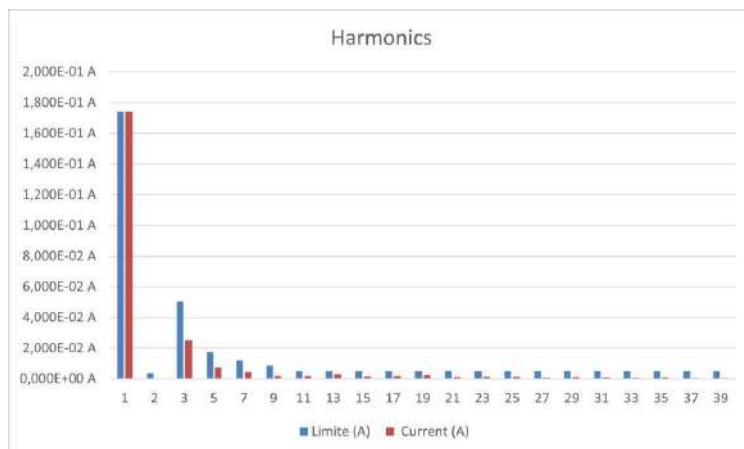
Name	Description	Verdict
Harmonics @ 1400mA	Measurement of the harmonic currents of the luminaire at thermal stabilization, according IEC 61000-3-2 - Class C (100% dimming).	Informative
Measurements @ 1400mA	Characterization of the electrical parameters of the luminaire at thermal stabilization.	Success

## Harmonics @ 1400mA

### Verdict(s)

Harmonic	Current (A)	Limite (A)
1	1,742E-01 A	1,742E-01 A
2	3,227E-04 A	3,483E-03 A
3	2,521E-02 A	5,054E-02 A
5	7,408E-03 A	1,742E-02 A
7	4,510E-03 A	1,219E-02 A
9	1,945E-03 A	8,709E-03 A
11	1,863E-03 A	5,225E-03 A
13	2,882E-03 A	5,225E-03 A
15	1,757E-03 A	5,225E-03 A
17	2,016E-03 A	5,225E-03 A
19	2,383E-03 A	5,225E-03 A
21	1,174E-03 A	5,225E-03 A
23	1,379E-03 A	5,225E-03 A
25	1,441E-03 A	5,225E-03 A
27	7,736E-04 A	5,225E-03 A
29	1,141E-03 A	5,225E-03 A
31	9,174E-04 A	5,225E-03 A
33	6,352E-04 A	5,225E-03 A
35	1,013E-03 A	5,225E-03 A
37	4,268E-04 A	5,225E-03 A
39	5,224E-04 A	5,225E-03 A

## Annex(es)



Harmonics-D210386

## Measurements @ 1400mA

### Verdict(s)

input		output 1		
Urms	230,0 V	Urms	24,2 V	-
Irms	0,176 A	Irms	1,418 A	
Prms	39,2 W	Prms	34,0 W	
S	40,6 VA			
Q	-10,3 VAR			
PF	0,9672			
I(H01)	0,174 A	Uavg	24,2 V	
Cos j (H01)	0,9791	Iavg	1,406 A	
$\eta$ rms	86,7%	Pavg	34,0 W	
$\eta$ avg	86,5%			
THD	15,8%			

**Test room temperature (°C) :**

23.7

**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 :**

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