

TEST REPORT IEC/EN 62493 Assessment of lighting equipment related to human exposure to electromagnetic fields	
Report Number	4326247.51
Date of issue	2016-02-24
Total number of pages	8 Pages
Testing Laboratory	DEKRA Testing and Certification (Shanghai) Ltd. Guangzhou Branch
Address	Building A3, No.3 Qiyun Road, Science City, Guangzhou Hi-Tech Industrial Development Zone, Guangzhou, P.R China
Applicant's name	Marvo Verlichting B.V.
Address	Stephensonstraat 21B Hoogeveen The Netherlands
Test specification:	
Standard	EN 62493: 2010
Test procedure	Type test
Non-standard test method.....	N/A
Test Report Form No.	IEC62493A
Test Report Form(s) Originator	Intertek Semko AB
Master TRF	2011-04
Test item description	LED Panel Light
Trade Mark	3700690037
Manufacturer	Same as applicant
Model/Type reference	000531, 000536, 000529, 000530, 000532, 000535
Ratings	200-240 Vac, 50/60 Hz
	000535:26W
	000536:26W
	000529:36W
	000531:36W
	000530:36W
	000532:36W

Testing procedure and testing location:	
<input checked="" type="checkbox"/> Testing Laboratory:	DEKRA Testing and Certification (Shanghai) Ltd. Guangzhou Branch
Testing location/ address	Building A3, No.3 Qiyun Road, Science City, Guangzhou Hi-Tech Industrial Development Zone, Guangzhou, P.R China
Tested by (name + signature)	Jazz Liang <i>Jazz Liang</i>
Approved by (name+ signature).....	Tim Yan <i>Tim Yan</i>

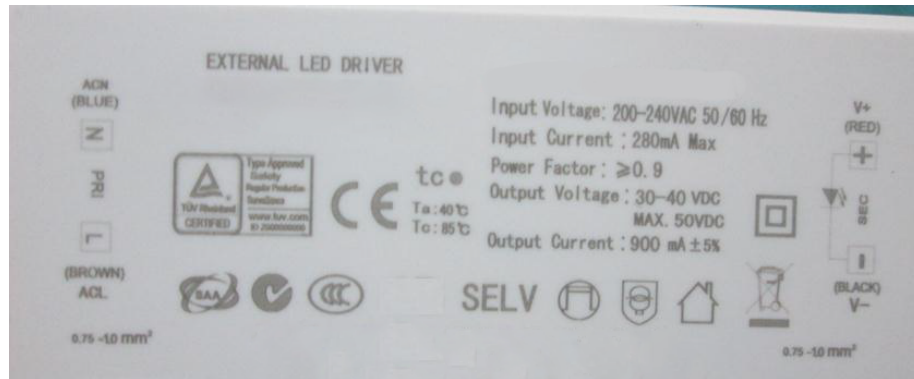
List of Attachments (including a total number of pages in each attachment):
N/A

Summary of testing: model 000531 was chosen for full test and the corresponding data is representative of the other models as well.	
Tests performed (name of test and test clause): Conducted Emission on AC (20 kHz to 30 MHz) Radiated Electromagnetic Disturbances (100 kHz to 30 MHz) Radiated Electromagnetic Disturbances (30 MHz to 300 MHz) Induced currents density (20 kHz to 10 MHz)	Testing location: DEKRA Testing and Certification (Shanghai) Ltd. Guangzhou Branch Building A3, No.3 Qiyun Road, Science City, Guangzhou Hi-Tech Industrial Development Zone, Guangzhou, P.R China
Summary of compliance with National Differences	
List of countries addressed: Not checked.	
<input checked="" type="checkbox"/> The product fulfils the requirements of <u>EN 62493: 2010</u> (insert standard number and edition and delete the text in parenthesis or delete the whole sentence if not applicable)	

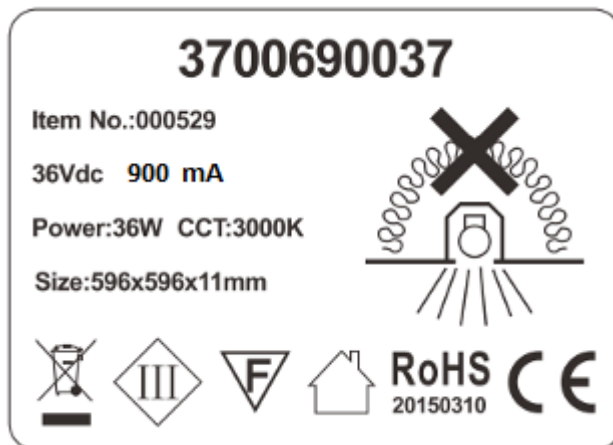
Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

Representative



Location: Attached on the enclosure of driver



Location: Attached on the enclosure and visible during installation and normal use

Test item particulars.....:	
Classification of installation and use	LED Panel Light
Supply Connection	Supply cable
.....:	
Possible test case verdicts:	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement.....:	F (Fail)
Testing.....:	
Date of receipt of test item	2015-12-04
Date (s) of performance of tests.....:	2015-12-04 to 2015-12-29
General remarks:	
<p>The test results presented in this report relate only to the object tested.</p> <p>This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.</p> <p>"(see Enclosure #)" refers to additional information appended to the report.</p> <p>"(see appended table)" refers to a table appended to the report.</p> <p>Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.</p>	
Manufacturer's Declaration per sub-clause 6.2.5 of IEC60900:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies)	Marvo Verlichting B.V. Stephensonstraat 21B Hoogeveen The Netherlands

General product information:

The apparatus as supplied for the test is LED Panel Light, all models intended for residential use and the products contain electronic control circuitry and without earth connection but no component susceptible to magnetic fields.

Base on client's declaration, the differences between the models are only the power, CCT and numbers of LED, detail refer below table:

Model	Rated power	Power source	CCT	Numbers of LED
000535	26W		3000K	192PCS
000536	26W		4000K	192PCS
000529	36W		3000K	108PCS
000531	36W		4000K	108PCS
000530	36W		3000K	216PCS
000532	36W		4000K	216PCS

Table 1

After technical evaluation, model 000531 was chosen for full test for compliance verification and the corresponding data is representative of the other models as well.

IEC/EN 62493			
Clause	Requirement + Test	Result - Remark	Verdict
4.2	APPLICATION OF LIMITS (Test summary)		
	Specific absorption rate (SAR)		
a)	CISPR 15 clause 4.3.1 Disturbance voltage mains terminals 20 kHz – 30 MHz	*)	P
b)	CISPR 15 clause 4.4 Radiated electromagnetic disturbances 100 kHz – 30 MHz	*)	P
c)	CISPR 15 clause 4.4.2 Radiated electromagnetic disturbances 30 MHz – 300 MHz	*)	P
*)	<input checked="" type="checkbox"/> See separate Test Report for measurements of a), b) and c) above Test Report with Ref. No.: <u>4326247.50</u> <input checked="" type="checkbox"/> Only measurement of d) below. See measurement results below. In this case this test report does not show compliance with IEC 62493.		—
	Induced current density		
d)	Induced current density 20 kHz – 10 MHz	See measurement results below	P

IEC/EN 62493			
Clause	Requirement + Test	Result - Remark	Verdict
4.2.d	INDUCED CURRENT DENSITY		
	Power supply system utilised:		—
	Voltage	220-240 Vac	—
	Frequency.....	50 Hz	—
	Environmental conditions:		—
	Temperature	23 °C	—
	Humidity.....	54 %	—
	EuT operation mode:		—
	<input checked="" type="checkbox"/> Normal operation	On mode	—
	<input type="checkbox"/> Other operation:		—
			—

4.2.d	MEASUREMENT RESULTS			
	Measuring with “Van der Hoofden” test head			
Results				
Location of EUT	Measuring distance	Result (F)	Limit (F)	Verdict
above the equipment	50 cm	0,036658404 (worst case)	0,85	P

4.2.d EQUIPMENT USED DURING TEST			
Equipment	Manufacturer	Type	Id. No.
“Van der Hoofden” test head	SCHWARZBECK	VDHH9502	9502-019
Measurement receiver	ROHDE&SCHWARZ	ESCI	101205

Photos:

Test representative set-up, photos



Induced Current Density Test Setup

--END--

TRF No. IEC62493A