2197652-PHO 16-214

Photometric measurements on one LED luminaire.

Arnhem, 11 November 2016
Author A.W.J.G.M. Noij
DEKRA Certification B.V. - Photometry

By order of VEKO Lightsystems International B, 1740 AD Schagen, Nederland

author : A.W.J.G.M. Noij 11-11-2016 Reviewed: G.C. Muda 11-11-2016
B 7 pages 1 annex

DEKRA Certification B.V. Meander 1051, 6825 MJ Arnhem P.O. Box 5185, 6802 ED Arnhem, The Netherlands
T +31 88 96 83000 F +31 88 96 83100 www.dekra-certification.com Company registration 09085396

CONTENTS

SUMMARY

The luminous flux, luminous efficacy and power of one Product, marked Veko, type Magnus, Justin, Roland is measured in a goniophotometer according to the LM79-08 standard ‘Electrical and photometric measurements of solid-state lighting products’. In addition the power factor was measured. It appeared to be not possible to stabilize the tested sample according to LM79-08 that requires a variation in luminous intensity and electrical power of less than 0.5% measured over a time interval of 30 minutes. The measured variation in luminous intensity and electrical power over a time inverval of 30 minutes was 0.8%.

1 APPLICATION FOR TESTING

On 11 November 2016, VEKO Lightsystems International B, 1740 AD Schagen, Nederland, submitted one sample, marked Veko, type Magnus, Justin, Roland.

The applicant desired a determination of the luminous flux, luminous efficacy and power at an AC voltage of 240V in accordance to the IES LM79-08 standard.

All tests have been performed at Dekra test location Leuven (also known as KU Leuven), Technologiecampus Gent, Gebroeders De Smetstraat 1, B-9000 Gent in Belgium.

Also see the pictures in Annex 1 of this report.

2 EXAMINATION

An AC voltage of 240V with a frequency of 50Hz was applied to the luminaire. It appeared to be not possible to stabilize the tested sample according to LM79-08 that requires a variation in luminous intensity and electrical power of less than 0.5% measured over a time interval of 30 minutes. The measured variation in luminous intensity and electrical power over a time inverval of 30 minutes was 0.8%.
The luminous flux is calculated by means of an integration of the luminous intensity distribution measured with a calibrated Goniophotometer Rigo-801-2000, location KU Leuven in Gent, Belgium. The measurements were performed in a theta-angle ranging from 50° till 310° and phi-angle from 0° to 180° (both with steps of 2°), in a top down position. The electrical quantities were measured by means of a calibrated (Yokogawa WT3000) power meter.

The ambient temperature during measurements was 25±1°C.

3 RESULTS OF EXAMINATION

The photometric results of the measured Product are shown in the tables below. The measurements were performed at an AC voltage of 240V with a frequency of 50Hz.

	Veko, type Magnus, Justin, Roland

Luminous Flux and Efficacy

	Value	
Total luminous flux	**9099**	**lm**
Total consumed power	**50.3**	**Watt**
Luminous Efficacy	**180.9**	**lm/Watt**
Stabilisation time	**76**	**minutes**
Preburn time	**7**	**minutes**

Electric parameters

	Value	
Applied voltage	**240.09**	**V**
Consumed Power	**50.3**	**Watt**
Power Factor	**0.97**	**-**

Pictures of tested sample

Figure 1: Testobject