GE Hungary Kft.
Technology Photometry Laboratory
1044 Budapest Váci str. 77
Tel: (36-1) 399-2359
E-Mail: Istvan.Rovnai@ge.com

NVLAP LAB CODE 200651-0

Test Report

1. Test Requested by: GE Appliances & Lighting

Test request number: BFLED14E01428

2. Product Description Under Test

Manufacturer:	GE Hungary Kft.
Luminaire Description:	Roadway LED luminaire
Luminaire Type:	SP L/1/F/E/91/40/N/SP/C1/N/P60/R7035
Number(s) of unit(s) tested:	10
Rated Values:	230 V, 50 Hz / 91 W / 4000 K

3. Description of Samples

The samples submitted by the test requestor were in undamaged conditions, and suitable for testing.

4. Test Methods

- IES LM-16: 1993 Practical Guide to Colorimetry of Light Sources
- IESNA LM-58: 1994 Spectroradiometric Measurements
- IES LM-79: 2008 Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products
- IES LM-82: 2012 Characterizations of LED Light Engines and LED Lamps for Electrical and Photometric Properties as a Function of Temperature.
- CIE Publication No. 13.3-1995: Method of Measuring and Specifying Color Rendering of Light Sources

5. Date of Tests

The tests in this report were performed from September 3, 2014 to September 4, 2014.

Created by:

/Juhász, József – Quality Leader/

Approved by:

/Rovnai, István – Laboratory Manager/

Note: The test report is limited to use of the test requester and the product model, and may not be duplicated without prior written consent of the GE HUNGARY Kft. Technology Photometry Laboratory. This report **must not** be used to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the federal government.

GE Hungary Kft.
Technology Photometry Laboratory
1044 Budapest Váci str. 77
Tel: (36-1) 399-2359
E-Mail: Istvan.Rovnai@ge.com

NVLAP LAB CODE 200651-0

6. Test Conditions and Procedures

6.1. Test conditions

Stabilization time:	¾ hour
Total burning time:	1 hour
Ambient temperature:	25 °C ± 1 °C
Correction factors applied:	No corrections were applied

6.2. Electrical Measurement

Electrical conditions and physical orientation were set as required by the lamp manufacturer or the customer. Ambient temperature was measured at the approximate height of the sample mounted on the goniometer equipment. Lamp stability was indicated using LSI 6440T High Speed Moving Mirror goniophotometer's head. All electrical measurements were made using a Yokogawa WT310 Digital Power Analyzer.

7. Statement of traceability

GE HUNGARY Kft. Technology Photometry Laboratory certifies that all calibrations have been performed traceable to MKEH (Hungarian Trade Licensing Office), NPL or NIST.

Instrument calibration records are current and on file at laboratory.

7.1. Gonio Spectroradiometer Equipment List and Details

TEST EQUIPMENT LIST AND DETAILS:
LSI 6440T

Description	Manufacturer	Type	Serial Number	GECP ident.	Cal. Valid	Date of Cal.
Mirror goniometer	LSI	6440T	6440PN2061	8A014LT	08/31/15	08/11/14
DC Power Supply	Heinzinger	TN300-6000	109031869			
AC Power Supply	Kikusui	PCR2000LA	JK003766			
Power Meter	Yokogawa	WT310	C2PE14009V	2W017LT	10/31/14	10/12/13
Digital Multimeter	Agilent	34401A	US36130796	2D025LT	08/31/15	08/26/14
Digital Multimeter + Shunt	Agilent	34401A	US36137631	2D026LT	05/31/15	05/20/14
Spectroradiometer	Gooch & Housego	OL 770VIS/NIR	12415214	8D006LT	10/31/14	10/11/13
Spectral Irradiance Standard	Osram	STS EHD 120V 500W	13C093	8A115LT	04/30/16	04/18/13
Intensity Standard	Osram	STD EHD 120V 500W	13C083	8E112LT	04/30/16	04/04/13
Intensity Standard	Osram	STD EHD 120V 500W	13C084	8E113LT	04/30/16	04/04/13
Intensity Standard	Osram	STD EHD 120V 500W	13C085	8E114LT	04/30/16	04/04/13
Thermometer	Escort	EJ-1E-D-8-L	9944-160	6G007LT	07/31/15	07/10/13

Note: The test report is limited to use of the test requester and the product model, and may not be duplicated without prior written consent of the GE HUNGARY Kft. Technology Photometry Laboratory. This report **must not** be used to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the federal government.

GE Hungary Kft.
Technology Photometry Laboratory
1044 Budapest Váci str. 77
Tel: (36-1) 399-2359
E-Mail: Istvan.Rovnai@ge.com

NVLAP LAB CODE 200651-0

Lamp/Luminaire performance summary*

8. 0 hr Test Data, 250 V / 50 Hz

Lamp	Voltage [V]	Frequency [Hz]	Current [A]	Power [W]	Power Factor [ ]
1	250	50	0.373	89.9	0.96
2	250	50	0.377	91.0	0.96
3	250	50	0.378	91.2	0.97
4	250	50	0.382	92.3	0.97
5	250	50	0.381	91.9	0.96
6	250	50	0.378	91.3	0.97
7	250	50	0.378	91.0	0.96
8	250	50	0.382	92.3	0.97
9	250	50	0.374	90.2	0.96
10	250	50	0.381	91.8	0.96
Avg.	250	50	0.378	91.3	0.97

* The test data represents only the test sample performance during the test.

Note: The test report is limited to use of the test requester and the product model, and may not be duplicated without prior written consent of the GE HUNGARY Kft. Technology Photometry Laboratory. This report **must not** be used to claim product certification, approval or endorsement by NVLAP, NIST, or any agency of the federal government.