



Ningbo TengLi Testing Co., Ltd

2nd floor, Block B, Ningbo Testing and Certification Base, No. 66
Qingyi Road, Ningbo National Hi-Tech Zone, Ningbo, Zhejiang
Tel: 86574-8783 6802
Fax: 86574-8783 5902

In Situ Temperature Measurement Test Report

For

LEDVANCE LLC

(Brand Name: LEDVANCE, SYLVANIA)

200 BALLARDVALE STREET WILMINGTON, MA 01887

Model name(s):
LEDLD2A1200ST9SC3WH

Type of Luminaire: Downlights
Report Date: 2022-02-17
Ningbo TengLi Testing Co., Ltd

Prepared By: 2nd floor, Block B, Ningbo Testing and Certification Base,
No. 66 Qingyi Road, Ningbo National Hi-Tech Zone,
Ningbo, Zhejiang

Test & Report By:

Nick Song

Engineer: Nick Song

Review By:

Garman Mo

Manager: Garman Mo

Note: 1. The results contained in this report pertain only to the tested samples
2. This report does not imply product certification, approval, or endorsement by A2LA, or any agency of the Federal Government.



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1 General

1.1 Product Information:

Model Number	LEDLD2A1200ST9SC3WH	
Remark	N/A	
Representative (Tested) Model	LEDLD2A1200ST9SC3WH	
Model Difference	N/A	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Downlights	
LED Manufacturer	Bridgelux, Inc	
LED Model	BXFN-27G-13H-98	
Dimming	Dimmable	
Integral Controls	YES	
Sample Number	STD211233NB-C1	
Date of Receipt	Jan.18,2022	
Luminaire Aperture (for downlights)	--	in.
Luminaire Length	--	mm
Luminaires Width	--	mm
Number of Units (modular products)	N/A	s

1.2 Rated Values:

Rated Voltage / Frequency	120Vac,60Hz
Nominal Power	16W
Rated Initial Lamp Lumen	--
Declared CCT	2700K/3000K/3500K/4000K/5000K



1.3 Standards or methods

The following standards are partly or totally used or referenced for test:

No.	Name
ANSI/UL 1598:2008	Luminaires

1.4 Equipment list

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
ST-R-704	Power Meter	2022-01-03	2023-01-02
ST-R-607	Temperature Tester	2022-01-03	2023-01-02



2 Test conducted and method

2.1 Ambient Condition

Test was conducted in an ambient temperature of $25 \pm 5^{\circ}\text{C}$. Ambient temperature variations above or below 25°C was subtracted from or added to temperatures recorded at points on the luminaire.

The ambient temperature was measured by a thermocouple which was immersed in 15ml of mineral oil in a glass container.

2.2 Temperature Stabilization

Temperatures were measured after they have stabilized when the test has been running for a minimum of 7.5 hours, or the test has been running for a minimum of 3 hours and three successive reading taken at 15 minutes intervals are with 1°C of another and are not rising.

2.3 Thermocouples

Type J thermocouple was used for temperature measurement. The thermocouple was 0.05mm²(30AWG), and complied with the requirements specified in ASTM MNL 12 and limits of error specified in NIST ITS 90 and ISA MC96.1.

2.4 Thermocouples contact

Thermocouples were in contact with the TMP LED location described in LM-80 test report. In order to gain the maximum temperature, if appropriate, more than one thermocouple were contact in these locations. For details information, please refer to clause 3.3 for the photo of thermocouple contact.

3 Test Results

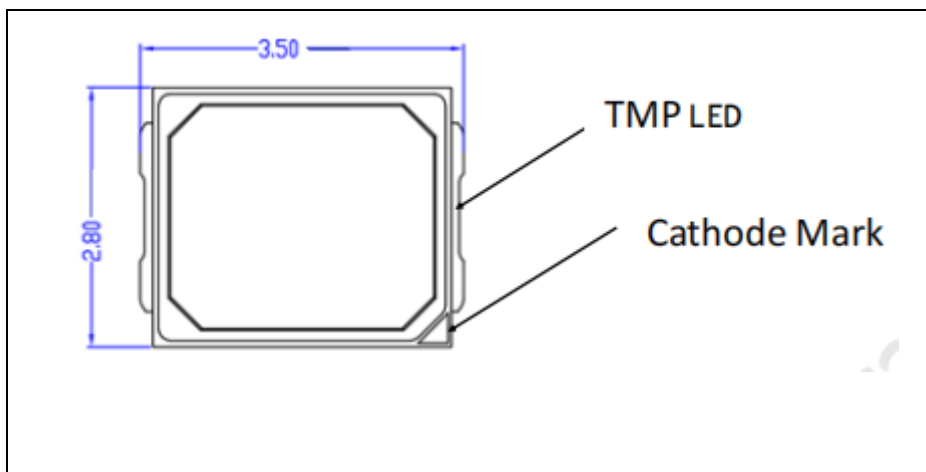
Test date	2022-01-19	Test Ambient	25.1 °C
Sample No.		LED Package Model	
STD211233NB-C1		BXFN-27G-13H-98	
LED driver of Each Lamp	Measured LED working current (Max.) mA		
1	93.0		

3.1 Test Data:

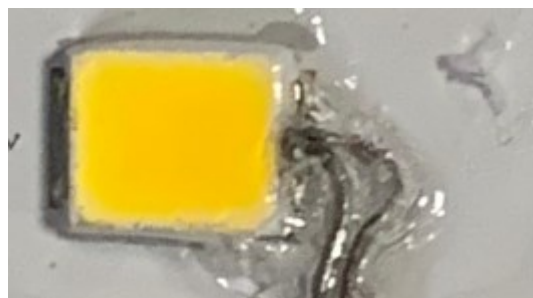
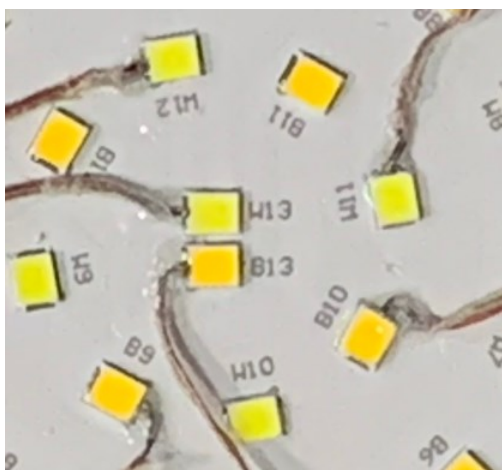
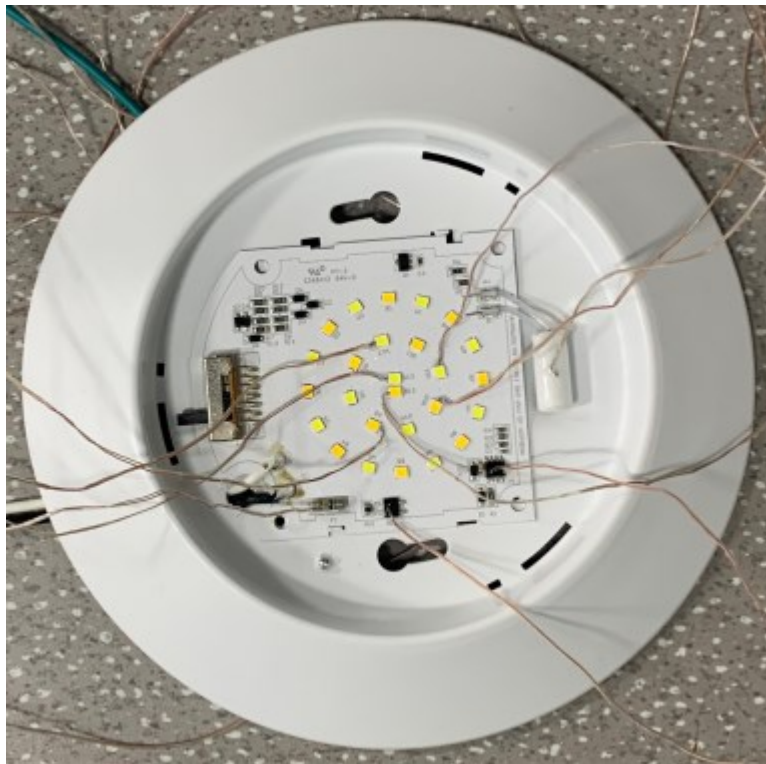
Input Vol.	120.0V	Input Current	0.1427A	Input Wattage	15.45W	Temperature stabilization time:	500 min	
No.	Temperature (°C)		No.	Temperature (°C)		No.	Temperature (°C)	
	Measured	Corrected at 25°C		Measured	Corrected at 25°C		Measured	Corrected at 25°C
1	72.4	72.3	2	72.0	71.9	3	70.9	70.8
4	71.4	71.3	5	71.6	71.5	6	71.1	71.0
The highest in-situ measured temperature LED is 72.3°C								

3.2 Test Photo:

Ts Position:



Thermocouple Location on Temperature Measurement Point (TMP):



Results

Time (t) at which to estimate lumen maintenance (hours):	50,000
Lumen maintenance at time (t) (%):	86.39%
Reported L70 (hours):	>72000

4. Product Photo



***** END OF THE TEST REPORT*****