



## IES LM-82-12 Test Report

For

**Maxlite Inc.**

12 YORK AVE WEST CALDWELL NJ 07006

**Light Engine**

**Model: LER7.0A2327**

**Laboratory: Leading Testing Laboratories**

**NVLAP CODE: 200960-0**

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Report No.: HZ15040022a

The laboratory that conducted the testing detailed in this report has been accredited for SSL by NVLAP.

Reviewed by:

Engineer: April Zou  
May 06, 2015

Approved by:

Manager: Jim Zhang  
May 06, 2015

Note: This report does not imply product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Test specifications:	
Date of Receipt	: Apr. 27, 2015
Date of Test	: Apr. 29, 2015
Reference Standard	: IES LM-82-12 Approved Method: Light Engine Engines and LED Lamps for Electrical and Photometric Properties as a Function of Temperature

Name: Light Engine

Model: LER7.0A2327

Rated electrical values: 120V AC, 60Hz, 23W

Product Description: Dimmable, 2700K, CRI 80

Light Source Manufacturer: Philips

Light Source Model: Luxeon 3030 2D

Manufacturer: Maxlite Inc.

Address: 12 York Ave West Caldwell NJ07006

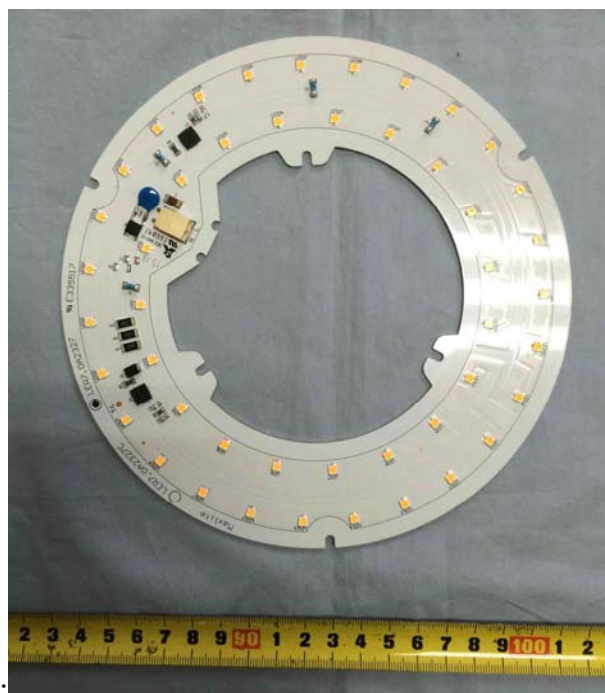
Environment conditions for the test

Place : Integrating sphere laboratory

Ambient temperature: 25.4°C

Relative Humidity: 48%RH

Sample view



Test method and physical conditions

Initial temperature calibration:

Designation and type of reference standard used	Total spectral radiant flux standard lamp:SCL-1400 Omni-directional
Photometric measurement conditions	Diameter of the sphere: 2m;
Orientation (burning position)of SSL product during test	Light down

Elevated Temperature test:

Measurement environment	Temperature control chamber
Photometric measurement	1.5m integrating sphere
Orientation(burning position)of SSL product during test	Light down

Manufacturer specified temperature monitoring point (T<sub>b</sub>):



Test Result:

Sample NO.: s15040022ag-01

	Room Temperature initial Measurement	First Elevated Temperature (initial+25°C)	Second Elevated Temperature(initial+15 °C per Test Requesters)
Measured temperature of Tb (°C)	66.5	92.1	82.0
Input voltage(V)	120.0	120.0	120
Input current (A)	0.197	0.197	0.197
Input power (W)	23.3	23.4	23.4
Off-State Power(W)	0	NA	NA
Frequency (Hz)	60	60	60
Power Factor	0.9872	0.9878	0.9875
Luminous flux(lm)	1623	1610	1618
Luminous efficacy(lm/W)	69.7	68.8	69.1
Chromaticity (x,y)	(0.4591,0.4096)	(0.4591, 0.4069)	(0.4593,0.4080)
Chromaticity (u',v')	(0.2624,0.5268)	(0.2637, 0.5259)	(0.2633, 0.5262)
Duv	0.0003	0.0013	0.0009
CCT	2704	2682	2688
CRI	82.5	82.2	82.3

The expanded uncertainty of the total luminous flux measurement :U=2.1%; k=2.

Sample NO.: s15040022ag-02

	Room Temperature initial Measurement	First Elevated Temperature (initial+25°C)	Second Elevated Temperature(initial+15 °C per Test Requesters)
Measured temperature of Tb (°C)	65.7	91.5	81.3
Input voltage(V)	120.0	120.0	120
Input current (A)	0.197	0.197	0.196
Input power (W)	23.4	23.4	23.3
Off-State Power(W)	0	NA	NA
Frequency (Hz)	60	60	60
Power Factor	0.9878	0.9890	0.9884
Luminous flux(lm)	1626	1610	1619
Luminous efficacy(lm/W)	69.5	68.8	69.5
Chromaticity (x,y)	(0.4586,0.4121)	(0.4574, 0.4096)	(0.4577,0.4105)
Chromaticity (u',v')	(0.2610,0.5277)	(0.2614, 0.5266)	(0.2611, 0.5270)
Duv	0.0007	0.0002	0.0001
CCT	2729	2727	2730
CRI	81.0	80.9	81.4

The expanded uncertainty of the total luminous flux measurement :U=2.1%; k=2.

Sample NO.: s15040022ag-03

	Room Temperature initial Measurement	First Elevated Temperature (initial+25°C)	Second Elevated Temperature(initial+15 °C per Test Requesters)
Measured temperature of Tb (°C)	66.0	92.4	81.5
Input voltage(V)	120.0	120.0	120
Input current (A)	0.198	0.198	0.198
Input power (W)	23.5	23.5	23.5
Off-State Power(W)	0	NA	NA
Frequency (Hz)	60	60	60
Power Factor	0.9872	0.9878	0.9877
Luminous flux(lm)	1629	1616	1624
Luminous efficacy(lm/W)	69.3	68.8	69.1
Chromaticity (x,y)	(0.4595,0.4120)	(0.4578, 0.4093)	(0.4581,0.4104)
Chromaticity (u',v')	(0.2616,0.5278)	(0.2617, 0.5265)	(0.2615, 0.5270)
Duv	0.0005	0.0003	0.0001
CCT	2716	2719	2723
CRI	81.3	80.3	80.5

The expanded uncertainty of the total luminous flux measurement :U=2.1%; k=2.

## EQUIPMENT LIST

Test Equipment	Model	Equipment No.	Calibration Date	Calibration Due date
Integrate Sphere system	2M	HZTE015-01	Sep. 17, 2014	Sep. 16, 2015
Integrate Sphere system	1.5M	HZTE015-01	Sep. 17, 2014	Sep. 16, 2015
Digital Power Meter	WT210	HZTE008-01	Sep. 17, 2014	Sep. 16, 2015
AC Power Supply	APS6005	HZTE001-01	Sep. 17, 2014	Sep. 16, 2015
DC Power Supply	GPR--6030D	HZTE004-01	Sep. 17, 2014	Sep. 16, 2015
Temperature and humidity recorder	JR900	HZTE018-01	Sep. 17, 2014	Sep. 16, 2015
Standard source	SCL-1400	HZTE012-02	Sep. 17, 2014	Sep. 16, 2015
Temperature Meter	TES1310	HZTE017-01	Sep. 17, 2014	Sep. 16, 2015
Temperature control chamber	LTL100	HZTE031-01	Sep. 17, 2014	Sep. 16, 2015

\*\*\* End of Report \*\*\*

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