



Report No.: BLC1804018E-M1

In Situ Temperature Measurement Test Report

For

ASMART LIGHT CO., LTD

(Brand Name: ASMART)

506 N GARFIELD AVE SUITE#210 ALHAMBRA CA 91801

Replacement Lamps for Outdoor Pole/Arm-Mounted Decorative

Luminaires (UL Type B)

Model name(s): AST-TCLW-P-80WACA1Z-aaK

Remark: "Z" refers to lamp base, "-E" is E39 lamp base, "-EX" is EX39 lamp base.
"aaK" refers to CCT, can be 30K, 35K, 40K, 45K, 50K, 57K.

Representative (Tested) Model: AST-TCLW-P-80WACA1Z-30K

Model Different: All construction and rating are the same, except CCT

Test & Report By:

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Date: 2018-05-10

Review By:

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1 General

1.1 Product Information

Brand Name	ASSMART
Model Number	AST-TCLW-P-80WACA1Z-aaK
Luminaire Type	Replacement Lamps for Outdoor Pole/Arm-Mounted Decorative Luminaires (UL Type B)
Nominal Power	80W
Rated Initial Lamp Lumen	--
Declared CCT	3000K,3500K,4000K,4500K,5000K,5700K
LED Manufacturer	Hongli Zhihui Group Co.,Ltd.
LED Model	HL-AS-PU2835DW-S1-08-PCT-HR3
Sample Receipt Date	2018-05-03
Sample Number	BLC1804018E-M1(3000K)

Photo





1.2 Standards or methods

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

No.	Name
ANSI/UL 1598:2008	Luminaires

1.3 Equipment list

Equipment ID	Equipment Name	Last Calibration Date	Next Calibration Date
BL047	Power Meter	2017-07-05	2018-07-04
BL002	Temperature Tester	2017-06-20	2018-06-19

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

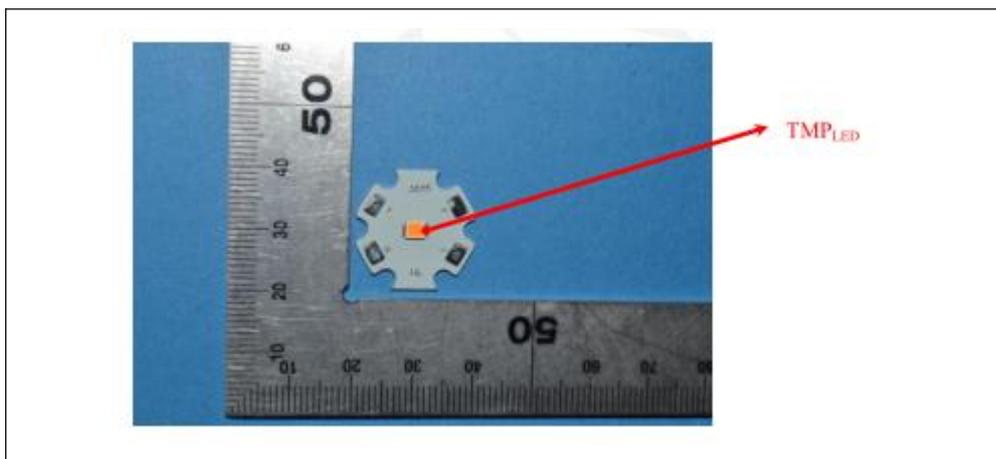
Test date	2018-05-09	Test Ambient	25.1 °C
Sample No.		LED Package Model	
BLC1804018E-M1		HL-AS-PU2835DW-S1-08-PCT-HR3	
LED driver of Each Lamp	Output voltage V	Measured LED working current (Max.) mA	
1	39	76	

3.1 Test Data in King Luminaire K400 Series (Mogul Socket Version) :

Input Vol.	120.0V	Input Current	0.6613A	Input Wattage	78.67W	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	72.9	72.8	2	71.3	71.2	--	--	--
The highest in-situ measured temperature LED is 72.8°C								

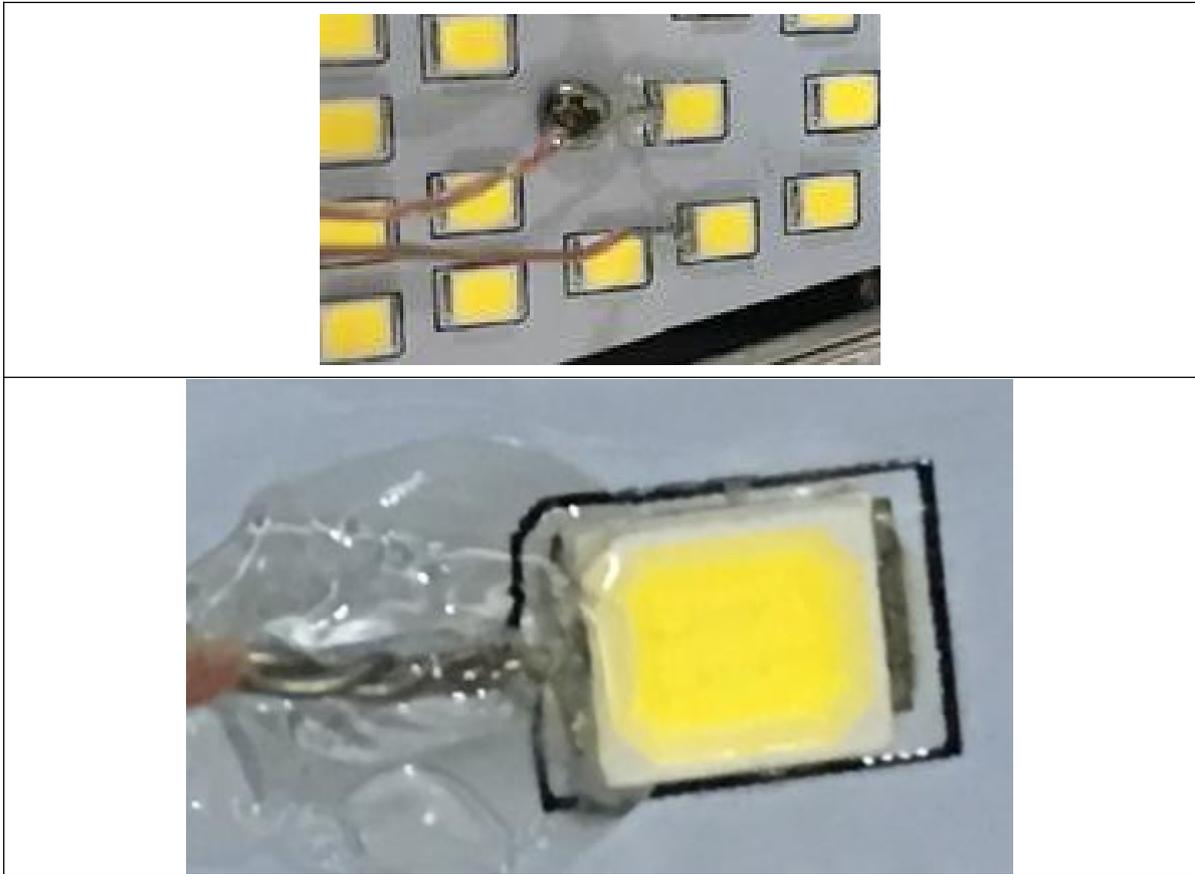
3.2 Test Photo:

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) (%):	88.14%
Reported L70 (hours):	>54000