In Situ Temperature Measurement Test Report

For

ASMART LIGHT CO., LTD

(Brand Name: ASMART)

506 N GARFIELD AVE SUITE#210 ALHAMBRA CA 91801

Outdoor Pole/Arm-Mounted Area and Roadway Luminaires

Architectural Flood and Spot Luminaires

Model name(s): AST-S-G12C-150WBT3DH3-abcdefW

Remark: "a" can be any two letters for lamp colors; "b" can be "3RP", "3NP", "5RP", "5NP", "7RP", "7NP" for Photocontrol type provided or blank for no Photocontrol provided; "c" can be "10SP", "20SP" for Surge-Protective Device type provided or blank for no Surge-Protective Device provided; "d" can be "DM", "DM1", "DP", "DP1" or blank for DC Motion Sensor, DC PIR Sensor provided or not; "e" can be "AM", "DM", "DM1", "YM", "A&D", "FM" for mounting bracket type; "f" can be any digits for CCT; "W" for wattage adjustable.

Representative (Tested) Model: AST-S-G12C-150WBT3DH3-abcde30W

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

Test & Report By:

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Engineer: Winny Wu

Date: 2023-05-31

Review By:

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Manager: Jason Luo

Table of Contents

1 General 3
1.1 Product Information 3
1.2 Standards or methods 4
1.3 Equipment list 4
2 Test conducted and method 4
2.1 Ambient Condition 4
2.2 Temperature Stabilization 4
2.3 Thermocouples 4
2.4 Thermocouples contact 5
3 Test Results 6
3.1 Test Data: 6
3.2 Test Photo: 6
3.3 Test Data of LED Driver: 8
3.4 Test Photo of LED Driver: 8

1 General

1.1 Product Information

Brand Name	ASMART
Model Number	AST-S-G12C-150WBT3DH3-abcdefW
Luminaire Type	Outdoor Pole/Arm-Mounted Area and Roadway Luminaires Architectural Flood and Spot Luminaires
Nominal Power	150W(Power adjustable)
Rated Initial Lamp Lumen	--
Declared CCT	3000K,4000K,5000K(Color tunable)
LED Manufacturer	Lumileds Holding B.V.
LED Model	L128-3080RC35003P1 L128-5080RC35003P1
LED Driver Manufacturer	Shenzhen Fahold Electronics CO.,LTd.
LED Driver Model	R1-V150B-260B12
Sample Receipt Date	2023-05-10
Sample Number	UTC2304058E-F 1
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	Calibration Date
BL-009B	Power Meter	2022-09-28
BL003	Hybrid Recorder	2022-10-08

2 Test conducted and method

2.1 Ambient Condition

Test was conducted in an ambient temperature of 25±5℃. Ambient temperature variations above or below 25℃ 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℃ 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	2023-05-12	Test Ambient	25.1 °C
Sample No.		LED Package Model	
UTC2304058E-F1		L128-3080RC35003P1	
LED driver of Each Lamp	Output voltage V	Measured LED working current (Max.) mA	
1	231	87.57	

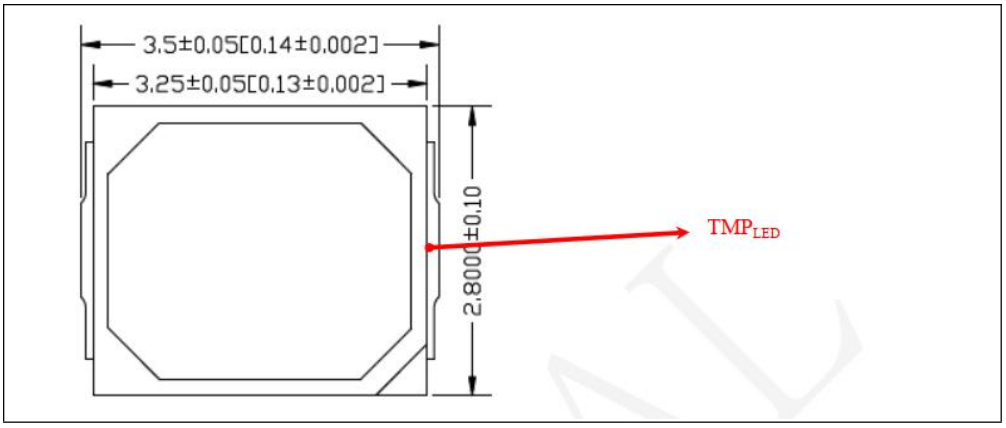
3.1 Test Data:

Input Vol.	277.0V	Input Current	0.553A	Input Wattage	152.59W	Temperature stabilization time:	500 min

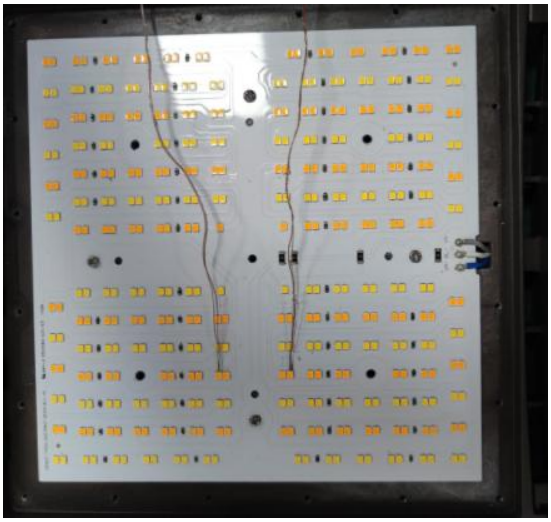
No.	Temperature (°C)		No.	Temperature (°C)		No.	Temperature (°C)	
	Measured	Corrected at 25°C		Measured	Corrected at 25°C		Measured	Corrected at 25°C
1	66.5	66.4	2	66.1	66.0	--	--	--
The highest in-situ measured temperature LED is 66.4 °C								

3.2 Test Photo:

Ts Position:



Thermocouple Location on Temperature Measurement Point (TMP):





Results

Time (t) at which to estimate lumen maintenance (hours):	36,000
Lumen maintenance at time (t) (%):	92.01%
Reported L90 (hours):	45,000

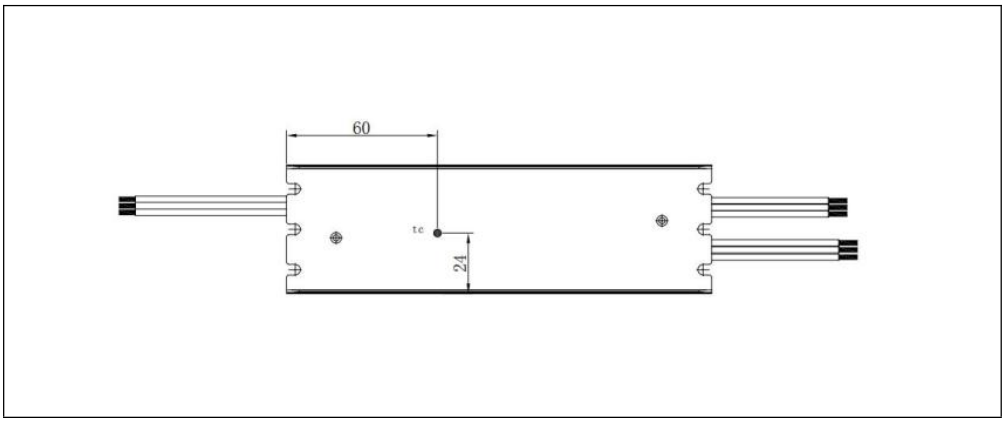
3.3 Test Data of LED Driver:

Input Vol.	277.0V	Input Current	0.553A	Input Wattage	152.59W	Temperature stabilization time:	500 min

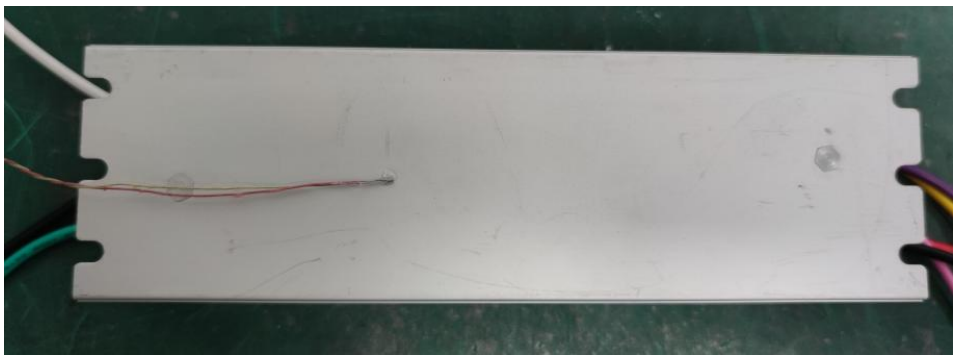
No	Measured TC Temperature (°C)		Temperature Limited of Life ⩾ 50000 hours
	Measured	Corrected at 25°C	
1	58.2	58.1	75

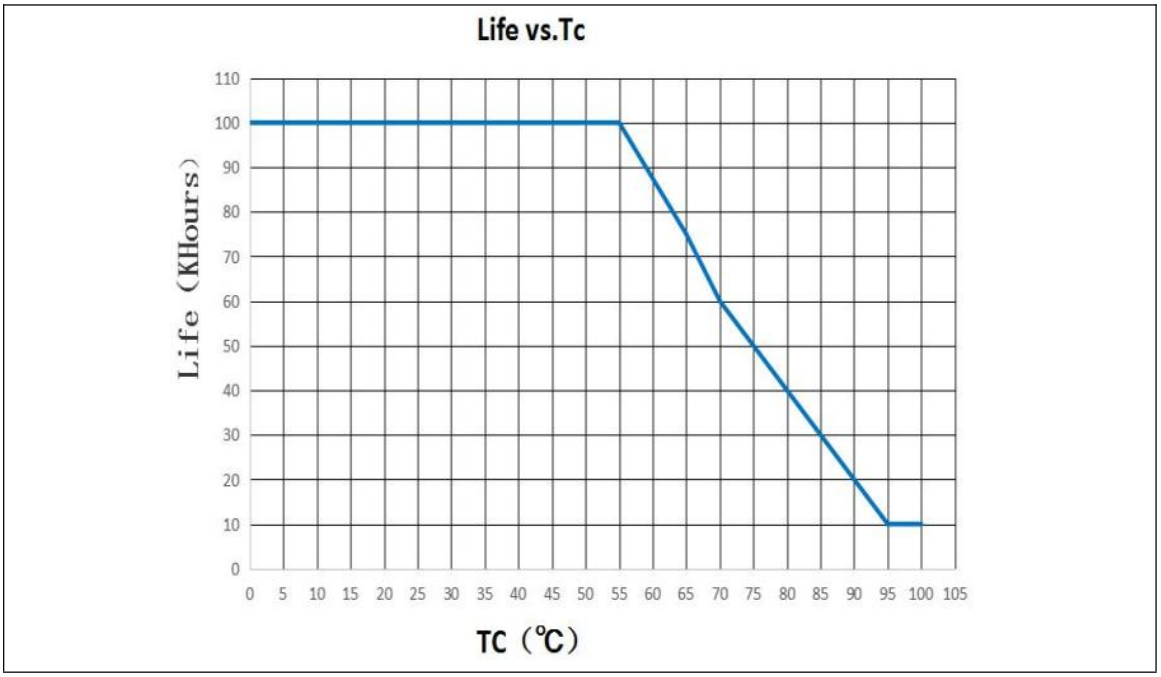
3.4 Test Photo of LED Driver:

Ts Position:



Thermocouple Location on Temperature Measurement Point (TMP):





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