

In Situ Temperature Measurement Test Report

For

AOK LED Light Company Limited

(Brand Name: AOK)

East Suite (2/F, Plant 4, St George's Science and Technology Industrial Park) 3/F, Building 1, St
George's Science and Technology Industrial Park North Side of Xinyu Road, Xinqiao
Street, Shenzhen, Guangdong 518125 China

Outdoor Pole/Arm-Mounted Area and Roadway Luminaires

Model name(s):

AOK-150WPLA-NVS-L2-[00;PH;PIR]-5070-T3-[A;B;C;D;E;F;G]

Remark: The [00;PH;PIR] represents type of Sensor, can be 00=Without Sensor;
PH=Photocell; PIR=PIR sensor. The [A;B;C;D;E;F;G] represents mounting option
which can be as following: A=Slip Fitter; B=Adjustable table; C=Yoke; D=Slide &
Lock; E=Square Pole; F= Round Pole; G=Trunnion.

Representative (Tested) Model: AOK-150WPLA-NVS-L2-00-5070-T3-E

Model Different: N/A

Test & Report By:

Ferrum Li

Engineer: Ferrum Li

Date: Feb,17,2023

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.

Laboratory: STANDARD-TECH TESTING SERVICES

Report Format Number STD-QP019-418-B/0

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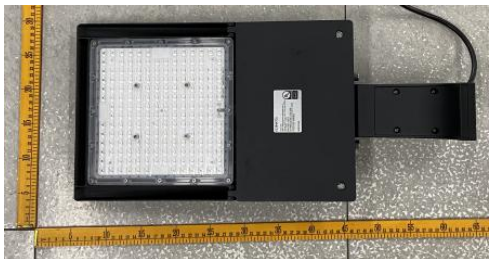

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1 General

1.1 Product Information

Brand Name	AOK
Model Number	AOK-150WPLA-NVS-L2-[00;PH;PIR]-5070-T3-[A;B;C;D;E;F;G]
Luminaire Type	Outdoor Pole/Arm-Mounted Area and Roadway Luminaires
Nominal Power	150W
Rated Initial Lamp Lumen	--
Declared CCT	5000K
LED Manufacturer	Lumileds Holding B.V.
LED Model	L128-5070RB35000G1
Driver Model	SS-150VH-E56B
Sample Receipt Date	Feb.14,2023
Sample Number	JAE230102-B1
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
ST-R-411	Power Meter	2022-07-11	2023-07-10
ST-R-401	Temperature Tester	2023-01-18	2024-01-17

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 K 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

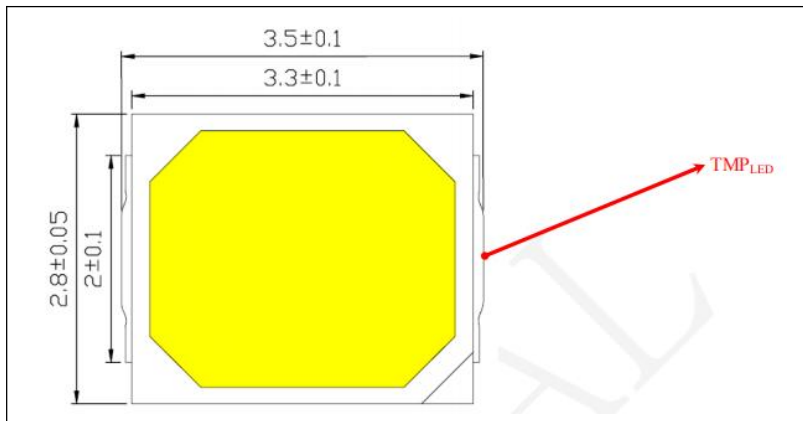
Test date	2023-02-16	Test Ambient	25.1 °C
Sample No.		LED Package Model	
JAE230102-B1		L128-5070RB35000G1	
LED driver of Each Lamp	Output voltage V	Measured LED working current (Max.) mA	
1	42.7	121.2	

3.1 Test Data:

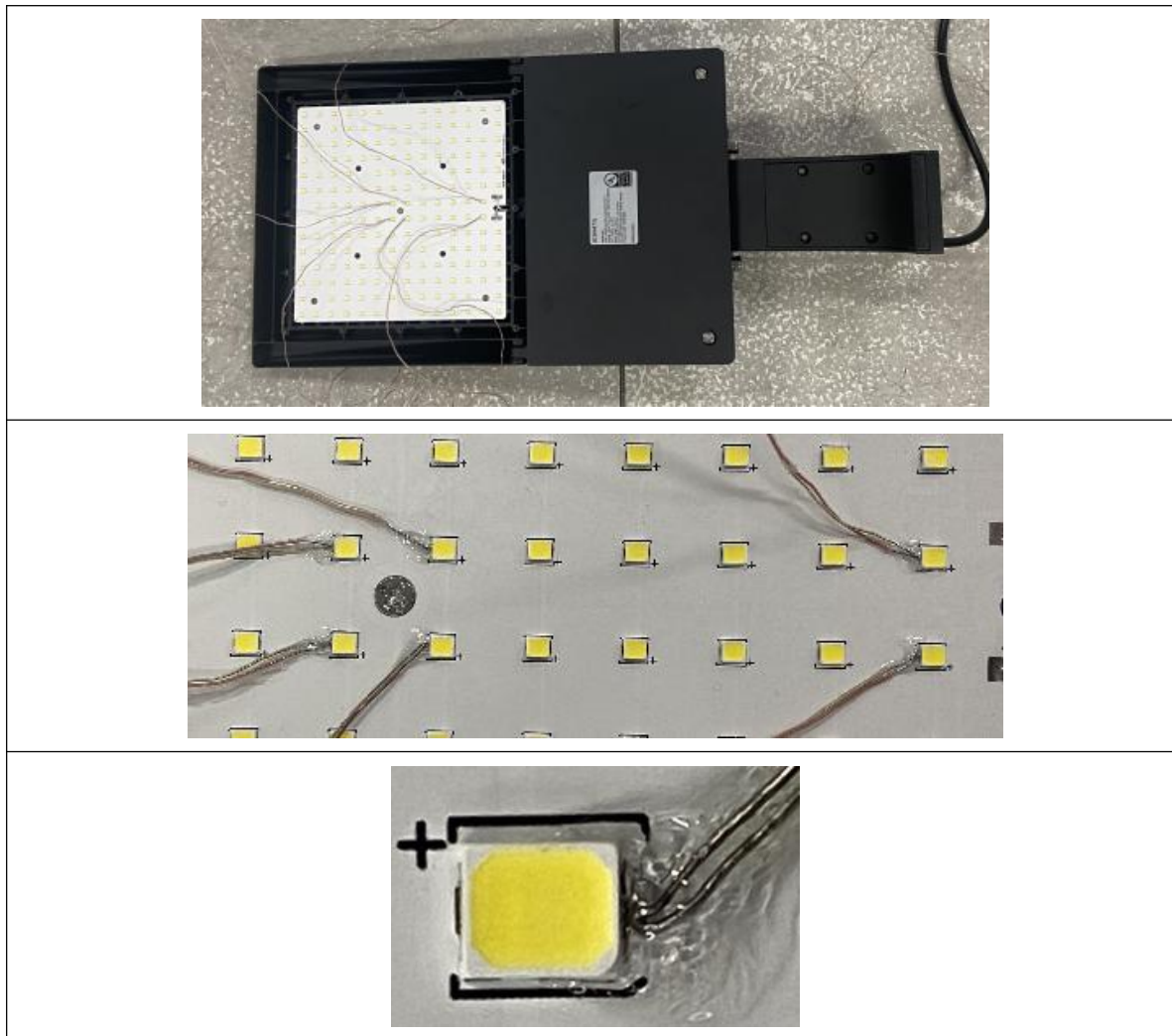
Input Vol.	120.0V	Input Current	1.253A	Input Wattage	149.5W	Temperature stabilization time:	500 min	
No.	Temperature (°C)		No.	Temperature (°C)		No.	Temperature (°C)	
	Measured	Corrected at 25°C		Measured	Corrected at 25°C		Measured	Corrected at 25°C
1	70.5	70.4	2	71.3	71.2	3	71.4	71.3
4	71.7	71.6	5	70.7	70.6	6	71.0	70.9
The highest in-situ measured temperature LED is 71.6°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) (%):	88.59%
Reported L70 (hours):	>54000

Time (t) at which to estimate lumen maintenance (hours):	36,000
Lumen maintenance at time (t) (%):	91.76%
Reported L90 (hours):	44,000

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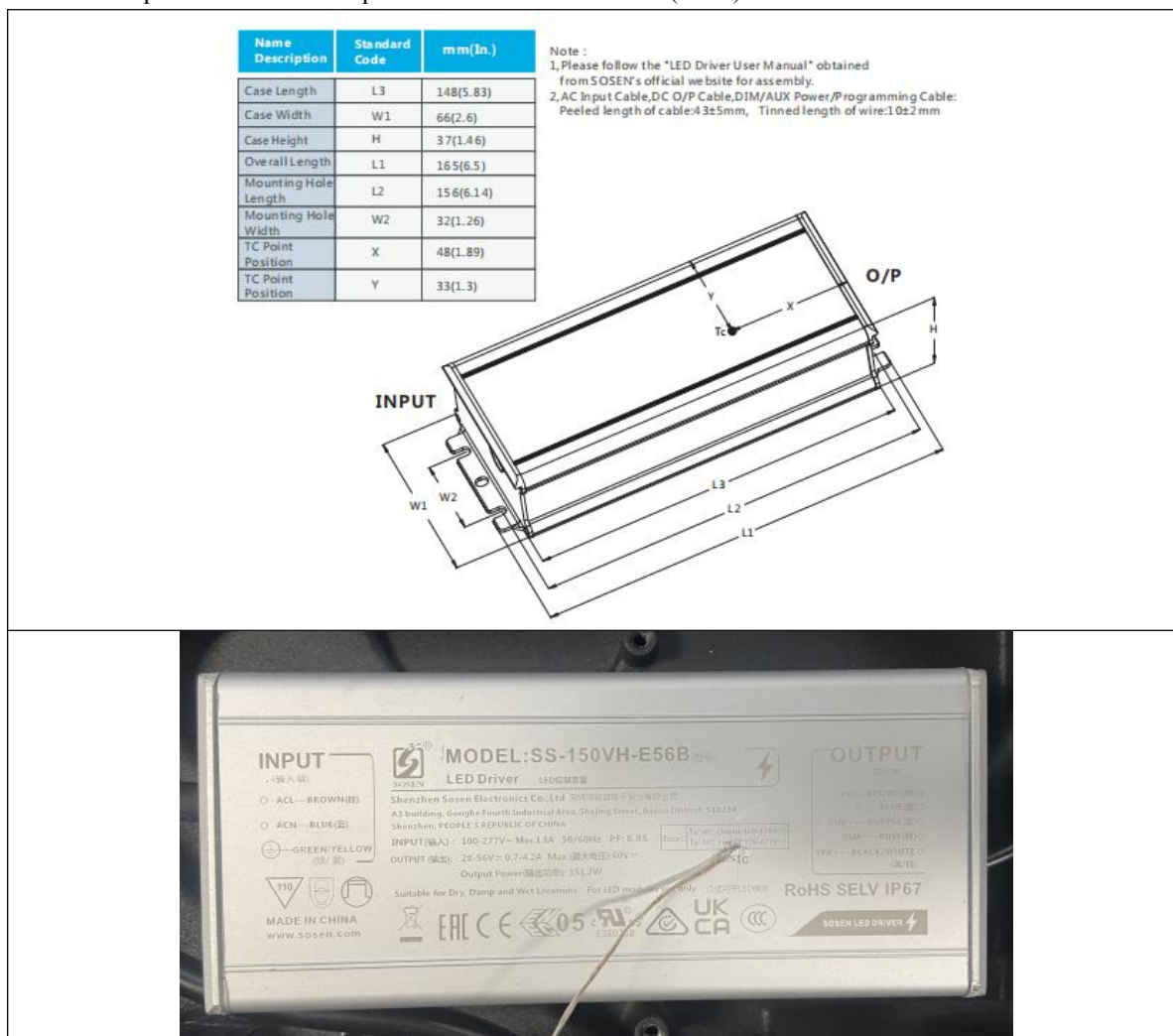
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3.3 Test Data of LED Driver:

Input Vol.	120.0V	Input Current	1.253A	Input Wattage	149.5W	Temperature stabilization time:	500 min
No	Measured TC Temperature (°C)			Temperature Limited of Life \geq 50000 hours			
	Measured		Corrected at 25°C				
1	54.4		54.3	80			

3.4 Test Photo:

Thermocouple Location on Temperature Measurement Point (TMP):



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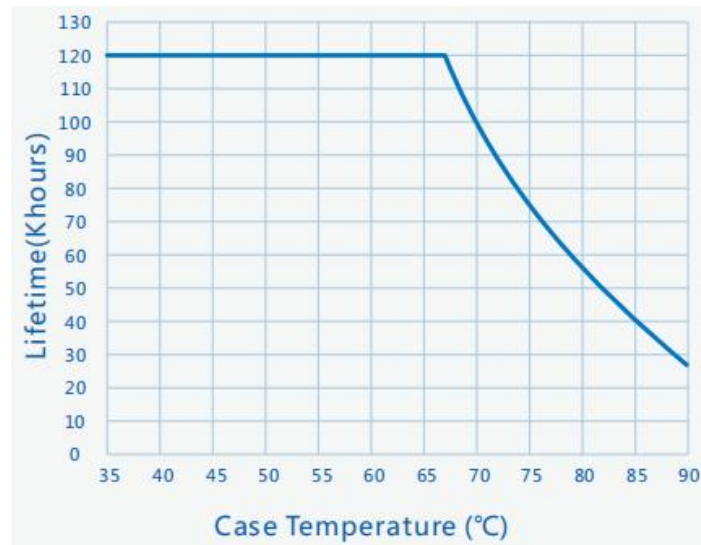
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***** END OF THE TEST REPORT*****

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