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
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In Situ Temperature Measurement Test Report

For

Antec Lighting Inc

(Brand Name: AOK)

Uniy C, 3979 E Guasti Road, Ontario, CA 91761

Model name(s): AOK-72WiE-NV-LV2-XX-XX70-T302-P

Type of Luminaire:	Outdoor Pole/Arm-Mounted Area and Roadway Luminaires
Report Date:	2019-03-20 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:

Xeon Ren

Engineer: Xeon Ren

Review By:

Johnson Sun

Manager: Johnson Sun

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.

Table of Contents

1 General

1.1 Product Information:

Model Number	AOK-72WiE-NV-XX-LV2-XX70-T302-P	
Remark	The first "XX" can be "00" =no photocontrol or "PH"=photocontrol provided. The second "XX" could be 27/30/35/40/45/50/57 refers to CCT. This is multiple listed report, the Project Number of the original report is JAE190121-F1.	
Representative (Tested) Model	AOK-72WiE-NV-00-LV2-2770-T302-P	
Model Difference	All construction and rating are the same, except CCT and optical function	
SKU (if available)	N/A	
Type of Luminaire (for integral lamps, list base type and lamp type)	Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	
LED Manufacturer	Lumileds	
LED Model	LUXEON V Family	
Dimming	Dimmable	
Sample Number	JAE190121-F1	
Date of Receipt	Feb.23, 2019	
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	100-277Vac, 50/60Hz
Nominal Power	72W
Rated Initial Lamp Lumen	--
Declared CCT	2700K,3000K,3500K,4000K,4500K,5000K, 5700K

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	2019-01-06	2020-01-05
ST-R-607	Temperature Tester	2019-01-06	2020-01-05

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	2019-03-01	Test Ambient	25.2 ℃
Sample No.		LED Package Model	
JAE190121-F1		LUXEON V Family	
LED driver of Each Lamp	Output voltage V	Measured LED working current (Max.) mA	
1	69.2	478.2	

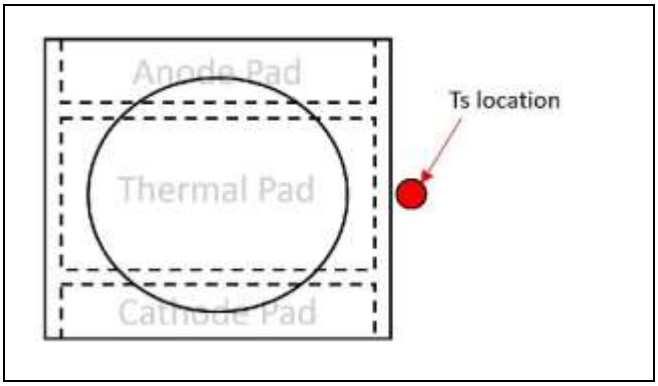
3.1 Test Data:

Input Vol.	120.0V	Input Current	0.5768A	Input Wattage	69.03W	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	52.9	52.7	3	52.6	52.4	5	53.2	53.0
2	51.9	51.7	4	53.3	53.1	6	53.6	53.4
The highest in-situ measured temperature LED is 53.4°C								

3.2 Test Photo:

Ts Position:



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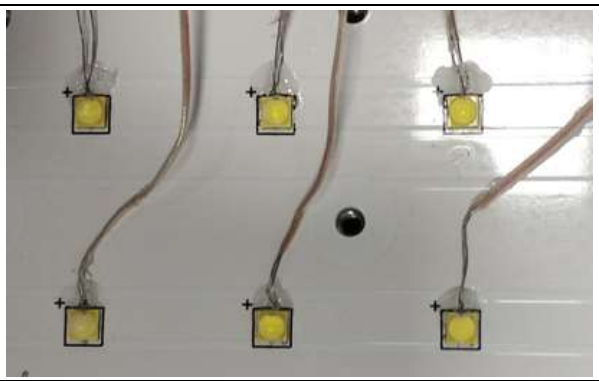
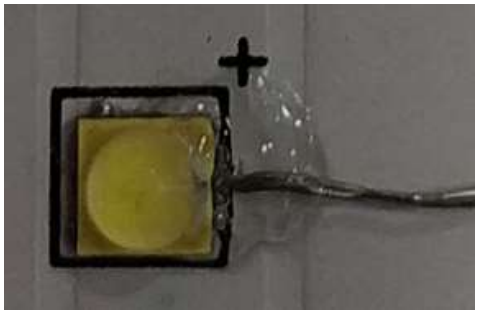
Thermocouple Location on Temperature Measurement Point (TMP):





Time (t) at which to estimate lumen maintenance (hours):	36,000
Lumen maintenance at time (t) (%):	100.78%
Reported L90 (hours):	>54000

Time (t) at which to estimate lumen maintenance (hours):	50,000
Lumen maintenance at time (t) (%):	100.75%
Reported L70 (hours):	>54000

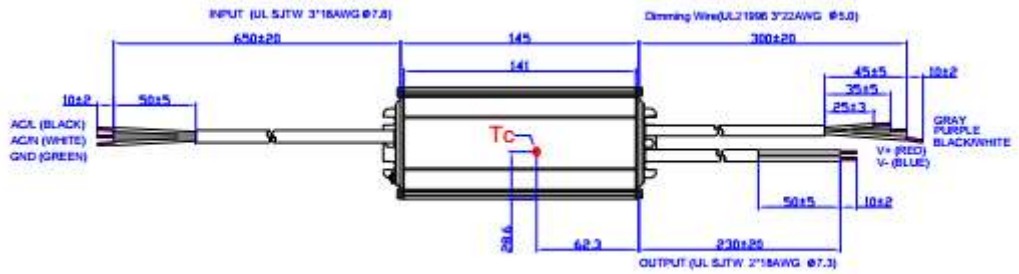
3.3 Test Data of LED Driver:

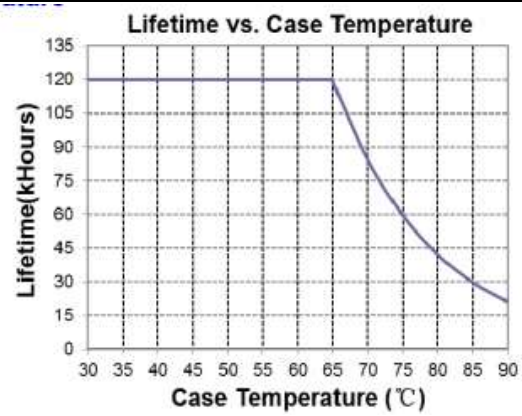
Input Vol.	120.0V	Input Current	0.5768A	Input Wattage	69.03W	Temperature stabilization time:	500 min

No	Measured TC Temperature (°C)		Temperature Limited of Life ⩾ 50000 hours
	Measured	Corrected at 25°C	
1	49.1	48.9	80

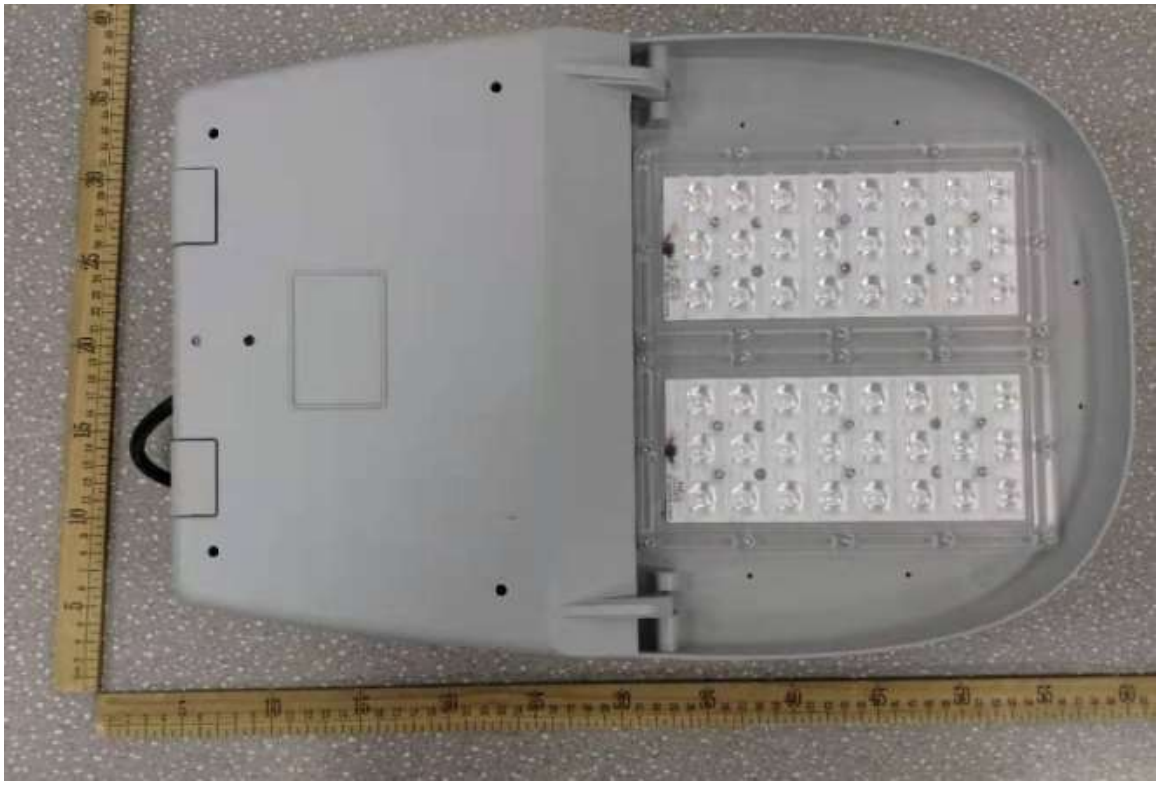
3.4 Test Photo:

Thermocouple Location on Temperature Measurement Point (TMP):





4. Product Photo



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