In Situ Temperature Measurement Test Report

For

Antec Lighting Inc

(Brand Name: AOK)

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

Parking Garage Luminaires

Model name(s): AOK-40WiDB-NV-L3-XX-XX80-150-P

Remark: The first "XX" can be "00" for without sensor or "SN" for with sensorfunction, The last "XX" represents different CCT as below: 30=3000K, 35=3500K, 40=4000K, 45=4500K, 50=5000K, 57=5700K.

Representative (Tested) Model: AOK-40WiDB-NV-L3-00-3080-150-P

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

Test & Report By:

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Review By:

Engineer: Clint Chen

Manager: John Li

Date: Jul.06,2018

Note: 1. The results contained in this report pertain only to the rested samples.

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

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1 General

1.1 Product Information

Brand Name	AOK
Model Number	AOK-40WiDB-NV-L3-XX-XX80-150-P
Luminaire Type	Parking Garage Luminaires
Nominal Power	40W
Rated Initial Lamp Lumen	--
Declared CCT	3000K, 3500K, 4000K, 5000K, 5700K.
LED Manufacturer	Osram Opto Semiconductors(Malaysia) Sdn. Bhd.
LED Model	3000K：GW JTLRS1.EM-K2K5-XX57-1 5700K：GW JTLRS1.EM-K3LV-XX52-1
Sample Receipt Date	Jul.01,2018
Sample Number	JAE180410-B1(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
ST-R-049	Power Meter	2018-07-07	2019-07-06
ST-R-401	Temperature Tester	2018-01-29	2019-01-28

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	2018-07-03	Test Ambient	25.1 ℃
Sample No.		LED Package Model	
JAE180410-B1		DURIS E 2835 GW JTLRS1 .EM	
LED driver of Each Lamp	Output voltage V	Measured LED working current (Max.) mA	
1	34.3	44.47	

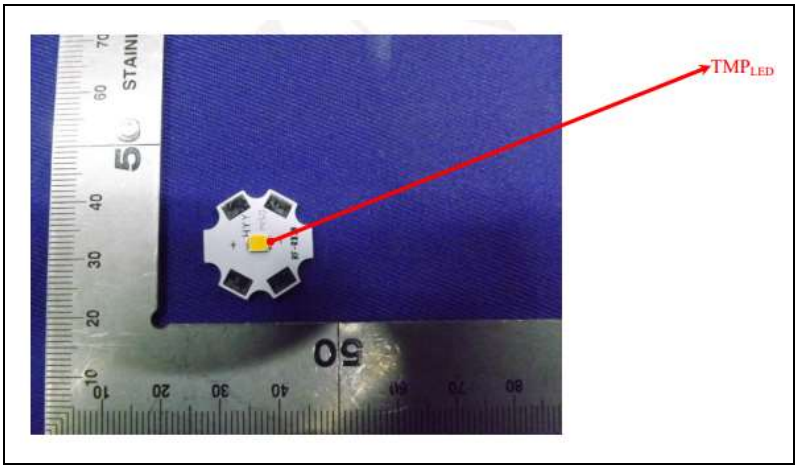
3.1 Test Data:

Input Vol.	120.0V	Input Current	0.2702A	Input Wattage	32.22W	Temperature stabilization time:	500 min

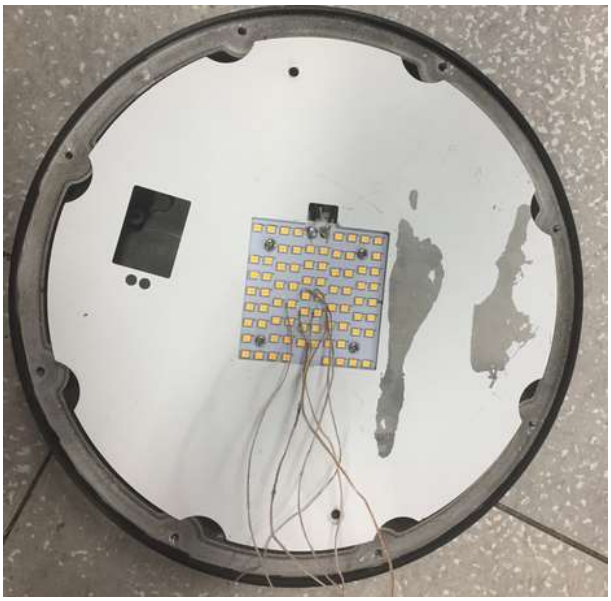
No.	Temperature (°C)		No.	Temperature (°C)		No.	Temperature (°C)	
	Measured	Corrected at 25°C		Measured	Corrected at 25°C		Measured	Corrected at 25°C
1	71.0	70.9	3	70.2	70.1	5	70.5	70.4
2	71.5	71.4	4	71.2	71.1	6	70.8	70.7
The highest in-situ measured temperature LED is 71.4°C								

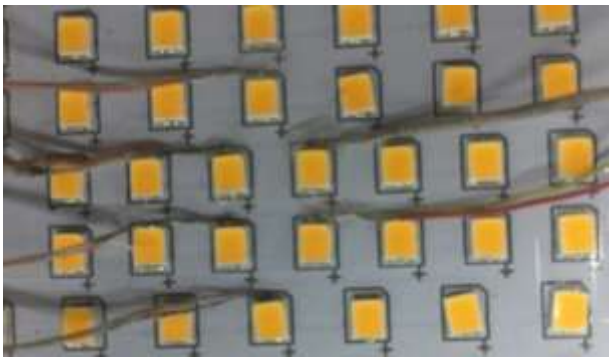
3.2 Test Photo:

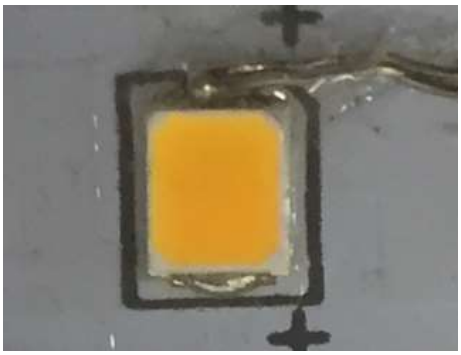
Ts Position:



Thermocouple Location on Temperature Measurement Point (TMP):







Results

Time (t) at which to estimate lumen maintenance (hours):	50,000
Lumen maintenance at time (t) (%):	80.25%
Reported L70 (hours):	>60000

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