



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  
Fax: 86574-8783 5902

## In Situ Temperature Measurement Test Report

For

**Antec Lighting Inc**

(Brand Name: )  
Quality, Honesty, Service and Innovation

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

**Model name(s):**  
**AOK-190WiE-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.....	3
1.1 Product Information:.....	3
1.2 Rated Values: .....	3
1.3 Standards or methods .....	4
1.4 Equipment list .....	4
2 Test conducted and method.....	5
2.1 Ambient Condition.....	5
2.2 Temperature Stabilization .....	5
2.3 Thermocouples.....	5
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:.....	8
4. Product Photo.....	10



## 1 General

### 1.1 Product Information:

Model Number	AOK-190WiE-NV-XX-LV2-XX70-T302-P	
Remark	<p>The first “XX” can be “00” =no photocontrol or “PH”=photocontrol provided.</p> <p>The second “XX” could be 27/30/35/40/45/50/57 refers to CCT.</p> <p>This is multiple listed report, the Project Number of the original report is JAE190121-I1.</p>	
Representative (Tested) Model	AOK-190WiE-NV-LV2-00-2770-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-I1	
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	190W
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  $25 \pm 5$  °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 0.05mm<sup>2</sup>(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

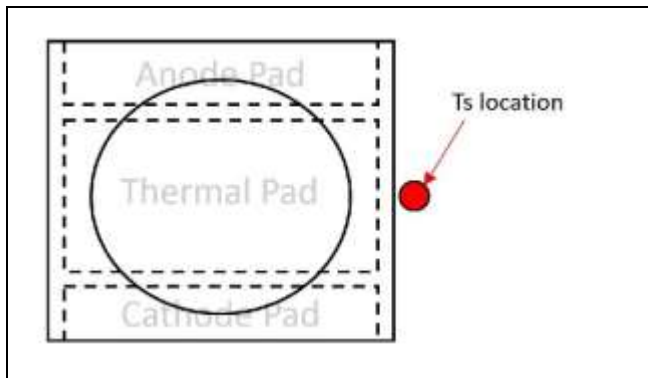
Test date	2019-03-01	Test Ambient	25.2 °C
Sample No.		LED Package Model	
JAE190121-I1		LUXEON V Family	
LED driver of Each Lamp	Output voltage V	Measured LED working current (Max.) mA	
1	71.7	826.4	

#### 3.1 Test Data:

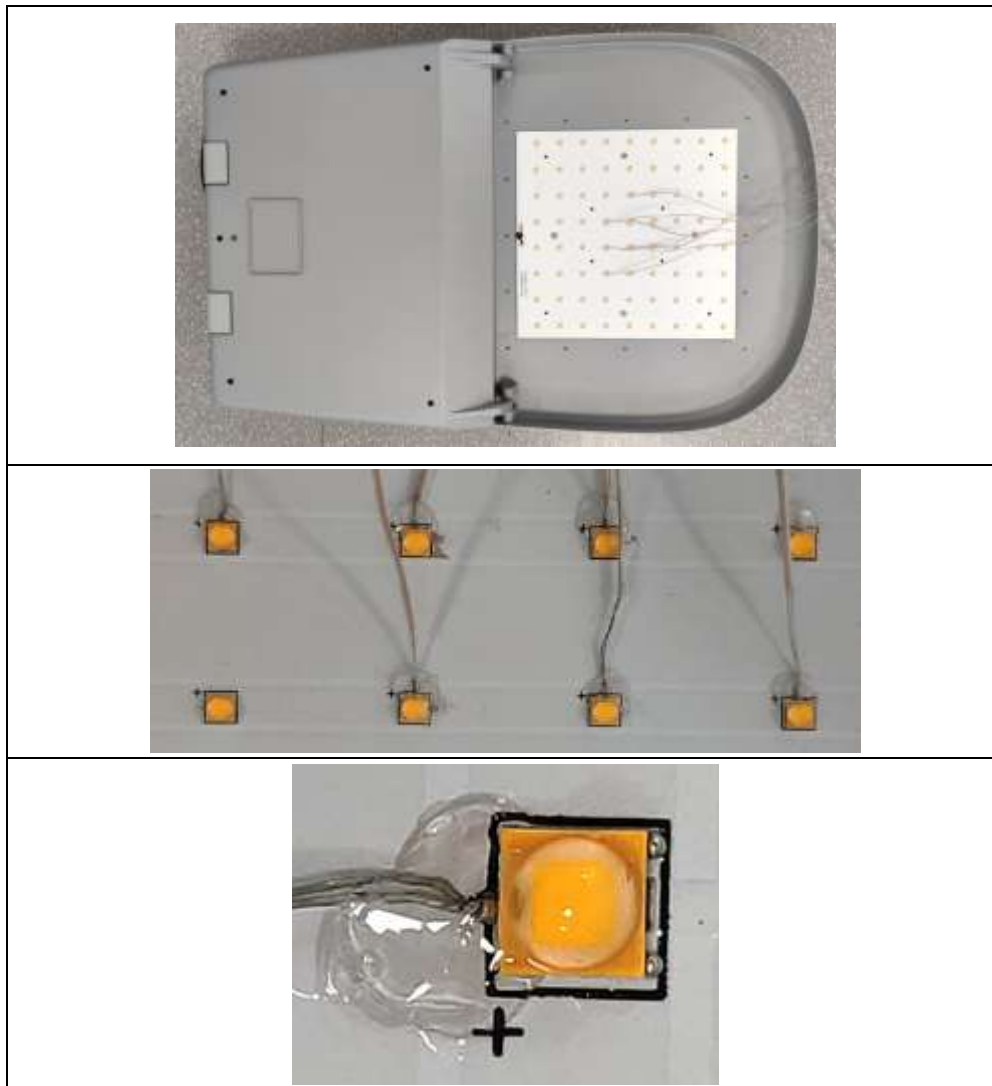
Input Vol.	120.0V	Input Current	1.560A	Input Wattage	185.7W	Temperature stabilization time:	500 min	
No.	Temperature (°C)		No.	Temperature (°C)		No.	Temperature (°C)	
	Measured	Corrected at 25°C		Measured	Corrected at 25°C		Measured	Corrected at 25°C
1	78.1	77.9	3	76.8	76.6	5	77.7	77.5
2	77.6	77.4	4	77.3	77.1	6	76.2	76.0
The highest in-situ measured temperature LED is 77.9°C								

#### 3.2 Test Photo:

Ts Position:



Thermocouple Location on Temperature Measurement Point (TMP):



Time (t) at which to estimate lumen maintenance (hours):	36,000
Lumen maintenance at time (t) (%):	97.03%
Reported L90 (hours):	>54000

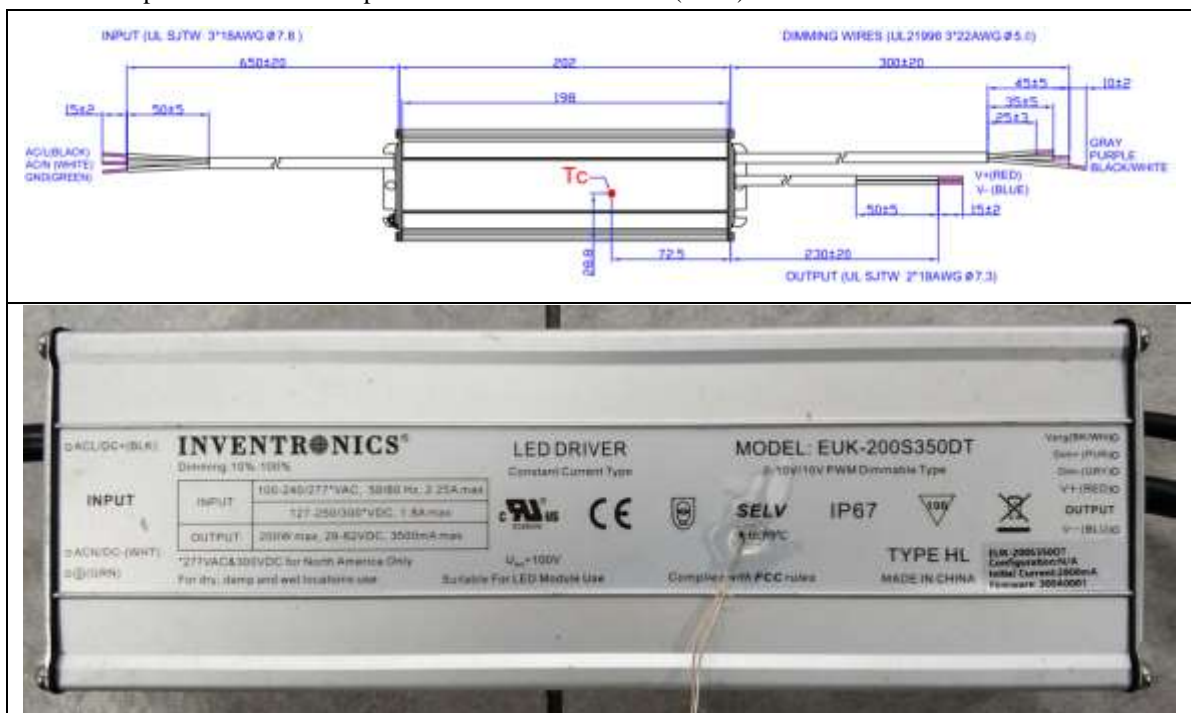
Time (t) at which to estimate lumen maintenance (hours):	50,000
Lumen maintenance at time (t) (%):	96.69%
Reported L70 (hours):	>54000

### 3.3 Test Data of LED Driver:

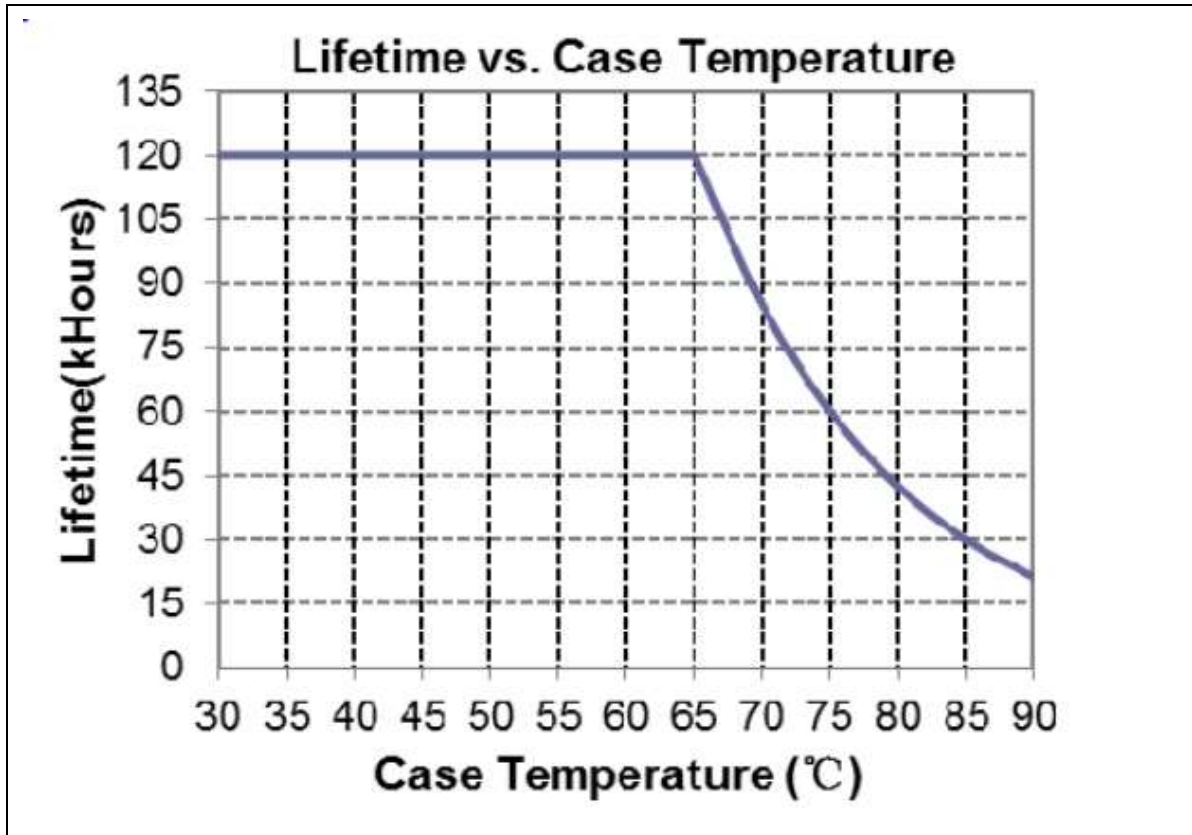
Input Vol.	120.0V	Input Current	1.560A	Input Wattage	185.7W	Temperature stabilization time:	500 min
No	Measured TC Temperature (°C)		Temperature Limited of Life $\geq$ 50000 hours				
	Measured	Corrected at 25°C					
1	73.0	72.8	75				

### 3.4 Test Photo:

Thermocouple Location on Temperature Measurement Point (TMP):







#### 4. Product Photo



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