In Situ Temperature Measurement Test Report

For

AOK Industrial Company Limited

(Brand Name: AOK)

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

High-bay Luminaires for Commercial and Industrial Buildings

Model name(s): AOK-460WiNS-HV-L5-DV-5070-30-B

Representative (Tested) Model: AOK-460WiNS-HV-L5-DV-5070-30-B

Model Different: N/A

Test & Report By:

Leo Wang

Engineer: Leo Wang

Date: Dec.04,2019

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.

Table of Contents

1 General

1.1 Product Information

Brand Name	AOK
Model Number	AOK-460WiNS-HV-L5-DV-5070-30-B
Luminaire Type	High-bay Luminaires for Commercial and Industrial Buildings
Nominal Power	460W
Rated Initial Lamp Lumen	--
Declared CCT	
LED Manufacturer	LUMILEDS
LED Model	LUXEON 3030 2D
Sample Receipt Date	Nov.28,2019
Sample Number	JAE191144-C1
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	2019-06-27	2020-06-26
ST-R-401	Temperature Tester	2019-01-24	2020-01-23

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	2019-11-29	Test Ambient	25.1 ℃
Sample No.		LED Package Model	
JAE191144-C1		LUXEON 3030 2D	
LED driver of Each Lamp	Output voltage V	Measured LED working current (Max.) mA	
1	132.5	41.78	

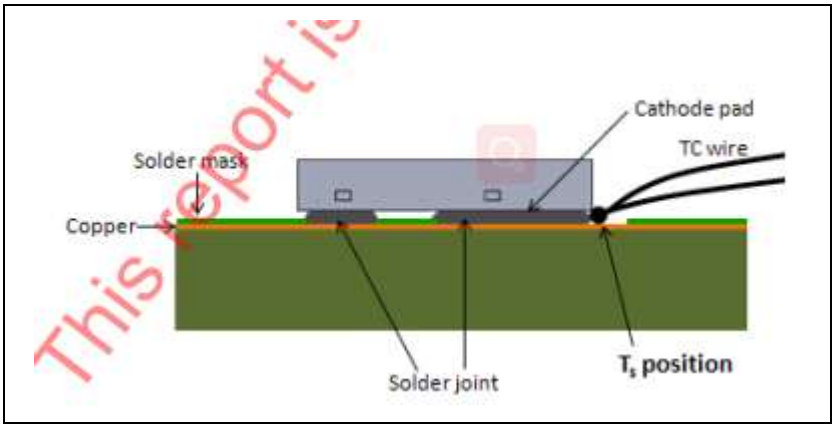
3.1 Test Data:

Input Vol.	277.0V	Input Current	1.697A	Input Wattage	461.2W	Temperature stabilization time:	500 min

No.	Temperature (°C)		No.	Temperature (°C)		No.	Temperature (°C)	
	Measured	Corrected at 50°C		Measured	Corrected at 50°C		Measured	Corrected at 50°C
1	54.4	79.3	3	54.9	79.8	5	53.8	78.7
2	54.6	79.5	4	54.0	78.9	6	53.6	78.5
The highest in-situ measured temperature LED is79.8°C								

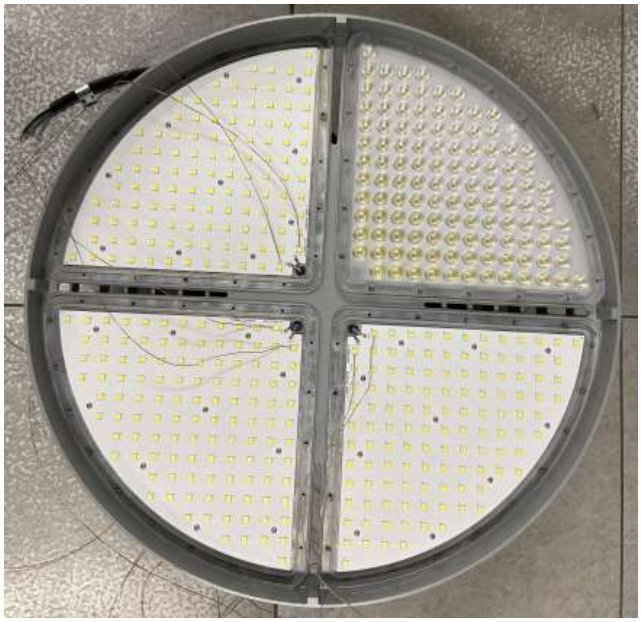
3.2 Test Photo:

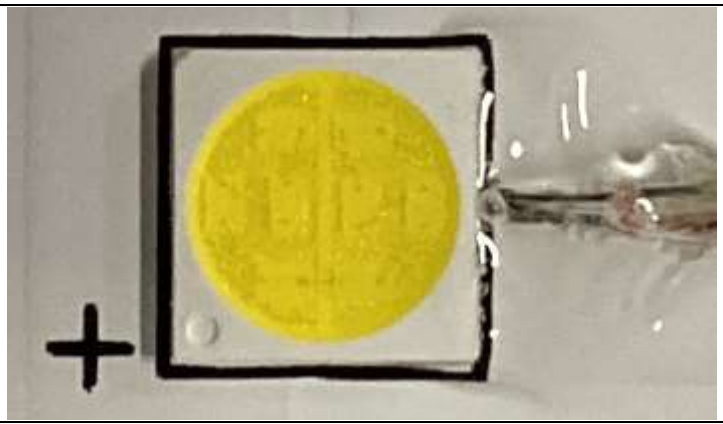
Ts Position:



This report is

Thermocouple Location on Temperature Measurement Point (TMP):





Results

Time (t) at which to estimate lumen maintenance (hours):	50,000
Lumen maintenance at time (t) (%):	90.35%
Reported L70 (hours):	>90000

Time (t) at which to estimate lumen maintenance (hours):	36,000
Lumen maintenance at time (t) (%):	93.20%
Reported L90 (hours):	52,000

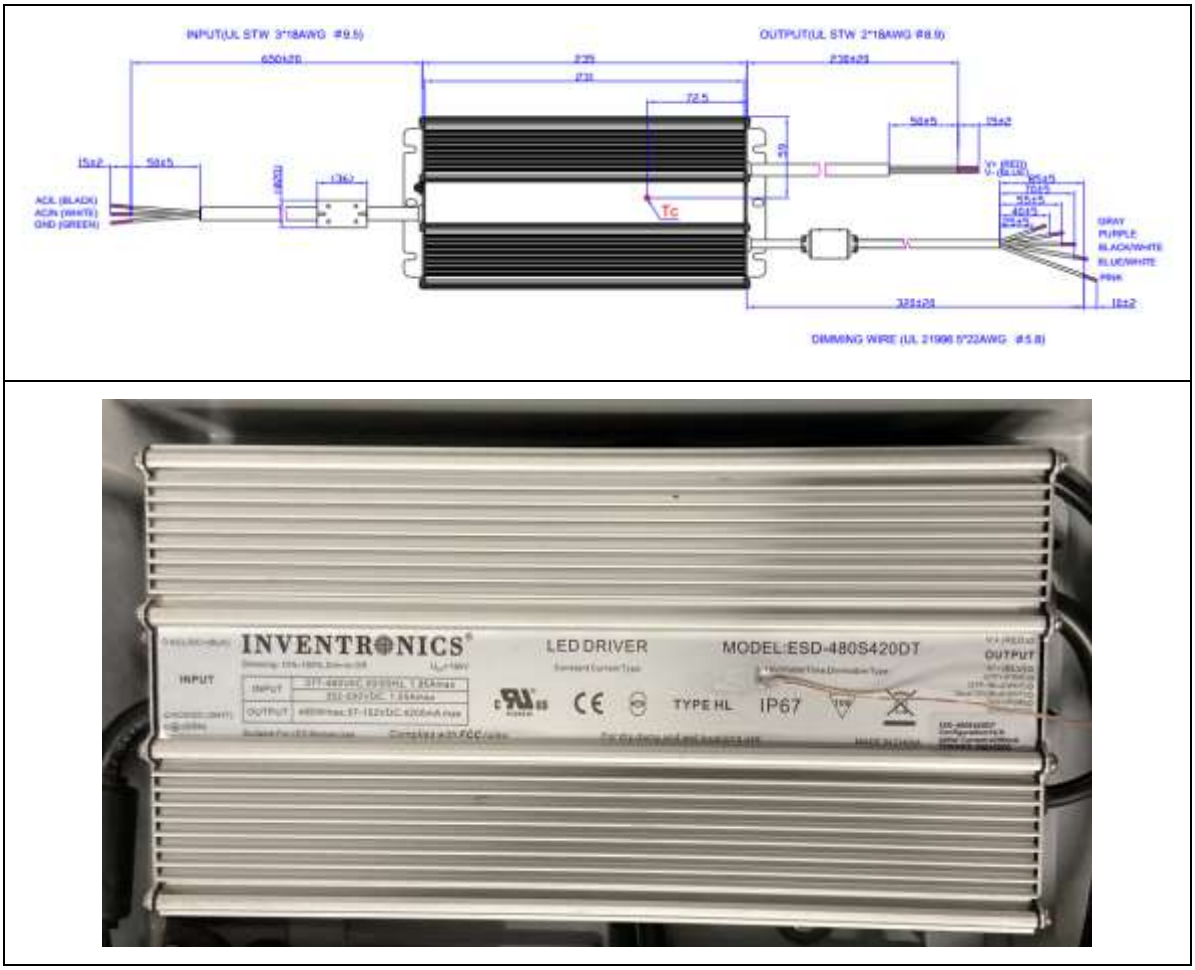
3.3 Test Data of LED Driver:

Input Vol.	277.0V	Input Current	1.697A	Input Wattage	461.2W	Temperature stabilization time:	500 min

No	Measured TC Temperature (°C)		Temperature Limited of Life ≥ 50000 hours
	Measured	Corrected at 50°C	
1	55.8	80.7	--

3.4 Test Photo:

Thermocouple Location on Temperature Measurement Point (TMP):



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