NVLAP LAB CODE:201045-0

Shenzhen Anbotek Compliance Laboratory Limited

ISTMT

(IN SITU TEMPERATURE MEASUREMENT TEST AND TEST REPORT)

Report Number:	R011606193L
Product Type:	LED High Bay Light
Date of Receipt:	2016-06-06
Date of Test:	2016-06-07 to 2016-06-23
Date of Report:	2016-06-24
Product Model:	AOK-150WiU
Product Description:	AC 90-305V 50/60Hz 150W 3000K
Prepared By:	Shenzhen Anbotek Compliance Laboratory Limited 1/F., Building 1, SEC Industrial Park, No.0409 Qianhai Road, Nanshan District, Shenzhen, Guangdong, China Tel: +86 755 2606 6495 Fax: +86 755 26014772 Web: www.anbotek.com
Tested By:	Rain Chen
Reviewed By:	Raymond Song

1 – GENERAL INFORMATION

1.1 Reference Standard

- UL 1598-2008:Standard for Safety of Luminaires
- ANSI/UL 153-2005:Portable Electric Luminaires
- ANSI/UL 1993-2009:Standard for Safety of Self-Ballasted Lamps and Lamp Adapters
- ANS/UL 8750-2009:Standard for Light Emitting Diode (LED) Equipment for Use in Lighting Products

1.2 Test Equipment

Device	Manufacture	Model No	Serial No	Test Range	Calibration date	Calibration due date
AC Power Source	ALL POWER	APW-110N	997079	0-300V, 0-1000VA	2016-04-06	2017-04-05
Temperature recorder	HP-Ali	34970A	US37021808	0~250℃	2016-03-30	2017-03-29
Digital Power Meter	YOKOGAWA	WT210	-	0-600V/0-10A/0-100Hz	2016-04-06	2017-04-05
Temperature & Humidity meter	XINIXI	CTH-608	-	0℃~50℃, 10% to 90%RH	2016-03-14	2017-03-13

Statement of Traceability:Shenzhen Anbotek Compliance Laboratory Limited attests that all calibration has been performed using suitable standards traceable to national primary standards and International System of Unit (SI).

1.3 Product Description for Equipment under Test (EUT)

Product Type	LED High Bay Light
Applicant	AOK LED Light Company Limited
Applicant Address	Building 1, St George's Science and Technology Industrial Park, Shajin Street, Shenzhen, Guangdong Province, China
Manufacturer	AOK LED Light Company Limited
Manufacturer Address	Building 1, St George's Science and Technology Industrial Park, Shajin Street, Shenzhen, Guangdong Province, China
Brand name	AOK
Product Model Number	AOK-150WiU
Rating	AC 90-305V 50/60Hz 150W 3000K
LED Type	LED Package
LED Manufacture	Philips Lumileds
LED Model Number	L130-2780003000W21

2 – Temperature Measurement Data

The samples were operated until constant temperatures were obtained. A temperature was considered constant if the sample was operating for at least three hours and upon three successive readings - taken at 15 minute intervals - were within one degree and were not rising.

Results

Ambient Relative

Temperature(℃) 25℃±5℃ Humidity(%) 53%

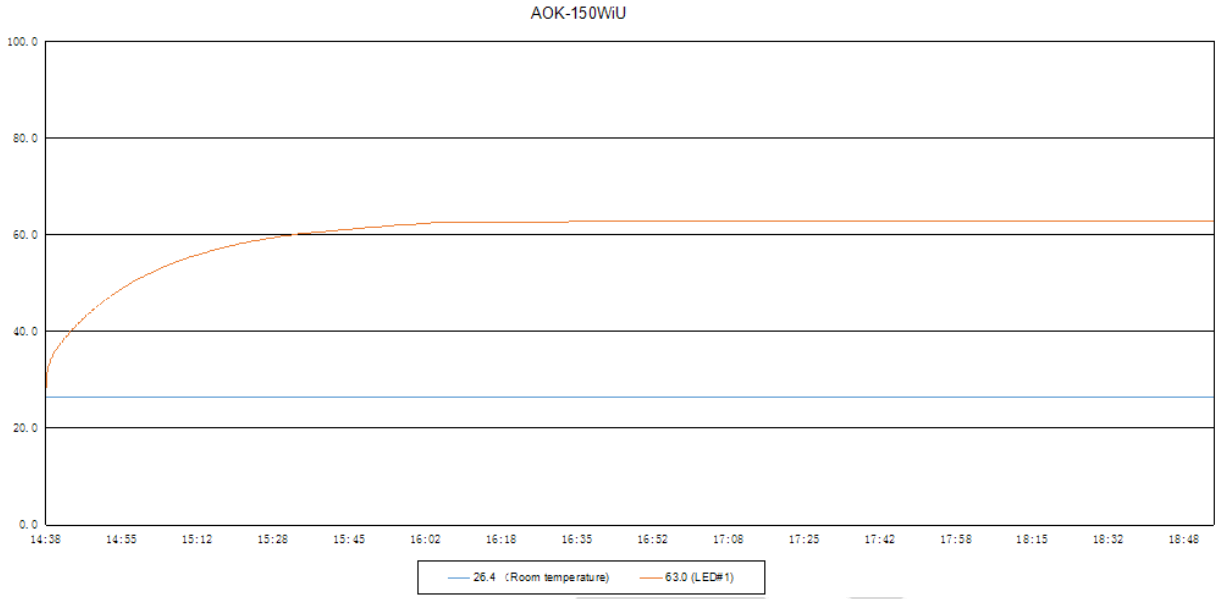
Supply voltage: 277V/60Hz Type of thermocouples： K

Test Product Model.	AOK-150WiU	
Test LED Model.	L130-2780003000W21	
Number of Driver/Product	1	
Test Duration	＞4.0Hours	
Test Location	**Location Description**	**Test Result**
Ts_1	Temperature for LED #1	61.6℃

3 – Drive Current Measurement Data

Test Location	**Location Description**	**Test Result**
$I_{F1(mA)}$	Forwad current of LED #1	112.5mA

*The test data was only valid for the test sample(s).

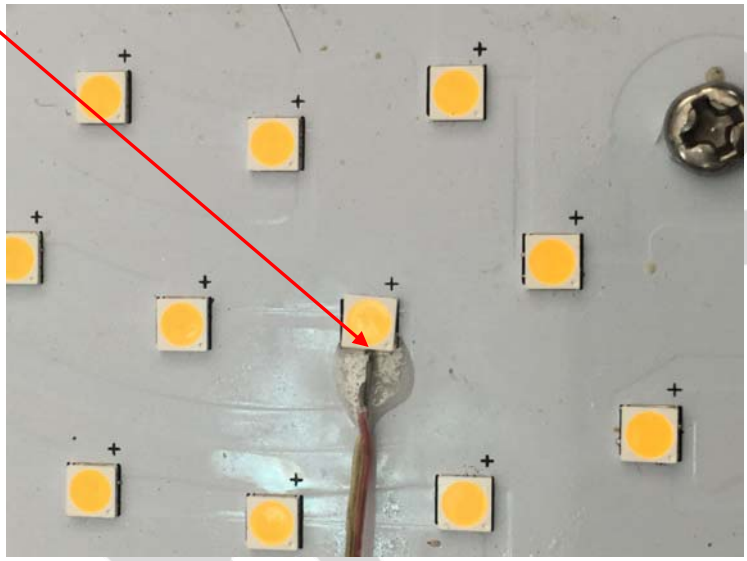

AOK-150WiU
100.0
80.0
60.0
40.0
20.0
0.0
14:38
14:55
15:12
15:28
15:45
16:02
16:18
16:35
16:52
17:08
17:25
17:42
17:58
18:15
18:32
18:48
26.4 (Room temperature)
63.0 (LED#1)

Attachment A – EUT PHOTO

Temperature Measurement Point

Temperature Measurement Point on $TMP_{LED\#1}$

$TMP_{LED\#1}$



EUT PHOTO

photo

Attachment B – TM-21 Report

TM-21 Report

Table 1: Report at each LM-80 Test Condition					
Description of LED Light Source Tested (manufacturer, model, catalog number)		Philips LumiledsL130-2780003000W21			
Test Condition 1 - 55° C Case Temp		Test Condition 2 - 85° C Case Temp		Test Condition 3 - 105° C Case	
Sample size	25	Sample size	25	Sample size	25
Number of failures	0	Number of failures	0	Number of failures	0
DUT drive current used in the test (mA)	150	DUT drive current used in the test (mA)	150	DUT drive current used in the test (mA)	150
Test duration (hours)	8,000	Test duration (hours)	8,000	Test duration (hours)	8,000
Test duration used for projection (hour to hour)	3,000 - 8,000	Test duration used for projection (hour to hour)	3,000 - 8,000	Test duration used for projection (hour to hour)	3,000 - 8,000
Tested case temperature (° C)	55	Tested case temperature (° C)	85	Tested case temperature (° C)	105
α	5.227E-06	α	6.545E-06	α	7.521E-06
B	1.004	B	1.006	B	1.005
Calculated L70(8k) (hours)	69,000	Calculated L70(8k) (hours)	55,000	Calculated L70(8k) (hours)	48,000
Reported L70(8k) (hours)	>48000	Reported L70(8k) (hours)	>48000	Reported L70(8k) (hours)	>48000

Table 2: Interpolation Report (projection based on *in-situ* temperature entered)	
$T_{s,1}$ (° C)	55.00
$T_{s,1}$ (K)	328.15
α_1	5.227E-06
B_1	1.004
$T_{s,2}$ (° C)	85.00
$T_{s,2}$ (K)	358.15
α_2	6.545E-06
B_2	1.006
E_a/k_b	8.81E+02
A	7.662E-05
B_0	1.005
$T_{s,J}$ (° C)	61.60
$T_{s,J}$ (K)	334.75
α_i	5.511E-06
Projected L70(8k) at	66,000
Reported L70(8k) at	>48000

****END OF REPORT****