



NVLAP LAB CODE:201045-0



Shenzhen Anbotek Compliance Laboratory Limited

ISTMT

(IN SITU TEMPERATURE MEASUREMENT TEST AND TEST REPORT)

Report Number: R011606194L
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-200WiU
Product Description: AC 90-305V 50/60Hz 200W 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 *Rain Chen*

Reviewed By: Raymond Song *Raymond Song*



Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or use in part without prior written consent from Shenzhen Anbotek Compliance Laboratory Limited. This report must not be used by the customer to claim product certification, approval, or endorsement By NVLAP, NIST, or any agency of the Federal Government.

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°C | 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°C~50°C, 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 |  |
| Product Model Number | AOK-200WiU |
| Rating | AC 90-305V 50/60Hz 200W 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 Temperature(°C) 25°C±5°C Relative Humidity(%) 53%

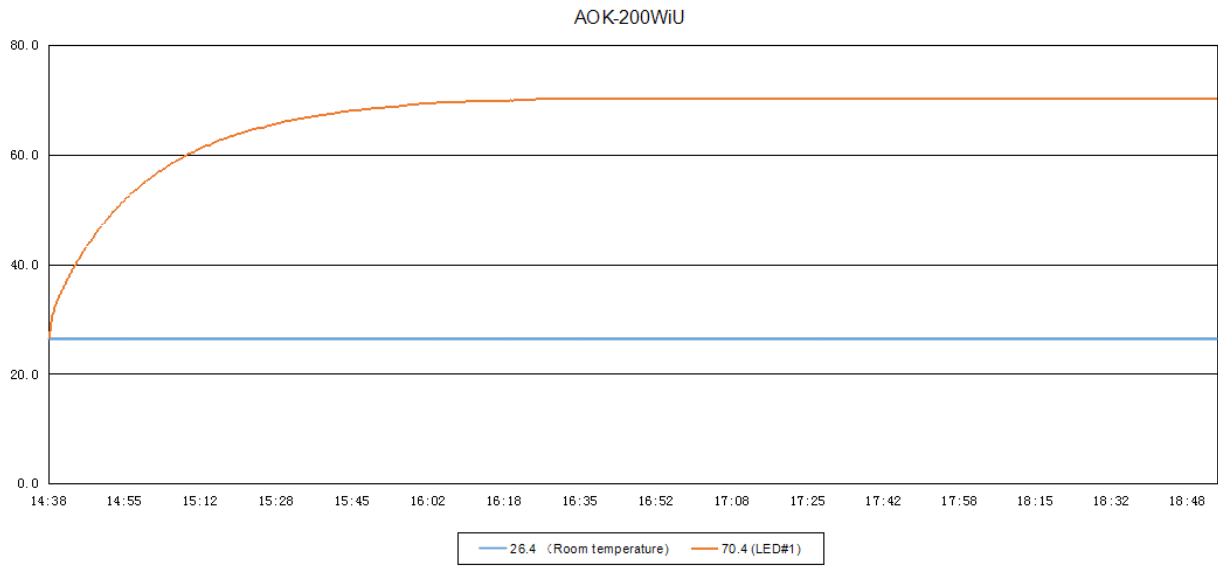
Supply voltage: 277V/60Hz Type of thermocouples: K

| | | |
|---------------------------------|-----------------------------|--------------------|
| Test Product Model. | AOK-200WiU | |
| Test LED Model. | L130-2780003000W21 | |
| Number of Driver/Product | 1 | |
| Test Duration | >4.0Hours | |
| Test Location | Location Description | Test Result |
| Ts₁ | Temperature for LED #1 | 69°C |

3 – Drive Current Measurement Data

| Test Location | Location Description | Test Result |
|---------------------------|--------------------------|-------------|
| I_{F1}(mA) | Forwad current of LED #1 | 140.6mA |

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

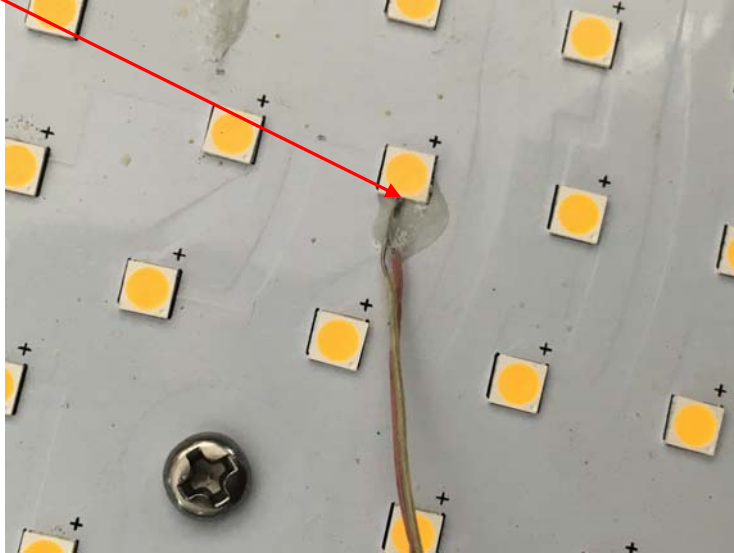


Attachment A – EUT PHOTO

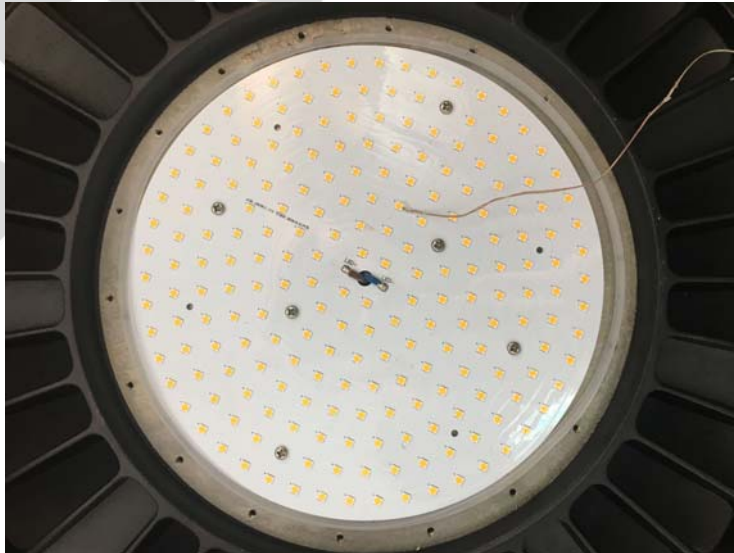
Temperature Measurement Point

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 hours) | 3,000 - 8,000 | Test duration used for projection (hour to hours) | 3,000 - 8,000 | Test duration used for projection (hour to hours) | 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 <i>in-situ</i> 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 |
| $T_{s,i}$ (° C) | 69.00 |
| $T_{s,j}$ (K) | 342.15 |
| α_i | 5.834E-06 |
| Projected L70(8k) at 69° C | 62,000 |
| Reported L70(8k) at 69° C | >48000 |

AMB

****END OF REPORT****