

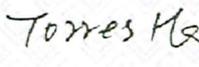


# TEST REPORT

<b>Kunde:</b> <i>Client:</i>	AOK Industrial Company Limited
<b>Adresse:</b> <i>Address:</i>	Building 1, Shengzuozhi Technology Industrial Park, Shajing Street, Shenzhen City, Guangdong Province, China
<b>Hersteller:</b> <i>Manufacturer:</i>	AOK Industrial Company Limited
<b>Adresse:</b> <i>Address:</i>	Building 1, Shengzuozhi Technology Industrial Park, Shajing Street, Shenzhen City, Guangdong Province, China
<b>Name der Marke:</b> <i>Brand Name:</i>	 Quality, Honesty, Service and Innovation
<b>Beschreibung des Produkts:</b> <i>Product Description:</i>	LED Street Light
<b>Modelle:</b> <i>Models:</i>	AOK-95WoT-NVY-L3-00-3080-T301-A
<b>Bewertung:</b> <i>Rating:</i>	100-240V~, 50/60Hz, 95W
<b>Verfahren:</b> <i>Method:</i>	According to requirement clause 12.4.1 of IEC 60598.1: 2014+A1:2017; IEC 60598.2.3:2002+A1:2011 (also reference EN 60598-1 or AS/NZS 60598-1)
<b>Prüfergebnis*:</b> <i>Test result*:</i>	Pass

<b>Datum der Prüfung:</b> <i>Date of Test:</i>	<b>Datum der Emission:</b> <i>Date of Issue:</i>	<b>Klassifizierung:</b> <i>Classification:</i>	<b>Gegenstand der Prüfung:</b> <i>Test item:</i>
2020-06-19~2020-06-30	2021-01-07	Commission Test	ISTMT Test and TM21 Test

**Prüflabor (Testlabor) / Testing Laboratory:**  
Shenzhen Southern LCS Compliance Testing Laboratory Ltd.

<b>Test von/Test by:</b>   Lydia Luo/ Project Engineer	<b>Check von/Check by:</b>   Torres He/ Director	<b>Genehmigt von/Approved by:</b>   Jesse Liu/ Manager
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**Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.**

*Remark: The duplication of this report or parts of it and its use for advertising purposes is only allowed with permission of the testing laboratory. This report contains the result of examination of the product sample submitted by the appliance. A general statement concerning the quality of the products from the series manufacturer cannot be derived therefore.*



## 1. GENERAL INFORMATION

### 1.1 Product Information

Information of product:	
Product description	LED Street Light
Model Number	AOK-95WoT-NVY-L3-00-3080-T301-A
Manufacturer of LED Driver	INVENTRONICS
LED Driver models	EUK-150S350DV
Rated Inputs	100-240V~, 50/60Hz
Rated Power	95W
Declared CCT.	3000K
LED Package, Array or Module	6S30P; 180pcs LED chip(s)
Date of Receipt Samples	2020-06-19
Quantity of Receipt Samples	1 unit
Information of LED chip:	
LED Chip Manufacturer	Lumileds
LED type	LUXEON 3030 2D
Model of the LED chip(s)	L130-3080003000W2C
Forward voltage of the LED chip	5.8-6.6V
Forward current of the LED chip	120mA
ISTMT temperature of the LED chip	105°C
IES LM-80 Test Report	Report No.: S3703 Issue Date: 2018-05-25 Tested and Prepared by: Lumileds

**General remarks:**

“(See attachment#)” refers to additional information appended to the report.

“(See remark#)” refers to a remark appended to the report.

“(See appended table)” refers to a table appended to the report.

Throughout this report a comma (point) is used as the decimal separator.

Remark:

1. Measurement was conducted at a stable ambient temperature  $25^{\circ}\text{C} \pm 1^{\circ}\text{C}$ .
2. ISTMT was test under normal operation condition in Australia at 230V (+10%/-6%), 50Hz.

Detail information for models covered in this report as below.

Model No.	Rating	LED driver	CCT	Reported $L_{90}B_{10}$ lumen maintenance life
AOK-95W $\phi$ T-NVY-L 3-00-3080-T301-A	100-240V~, 50/60Hz, 95W	EUK-150S350DV	3000K	$\geq 100000$ hours

**Equipment list**

Equipment No.	Equipment Name	Specification data	Cal. Date	Due Date
SLCS-S-004	Digital Power Meter	0-600Vac, 0-10kW, 0-20A	2020/05/15	2021/05/14
SLCS-S-011	J Thermocouple	0~300 $^{\circ}\text{C}$	2020/05/15	2021/05/14
SLCS-S-029	Temperature recorder	34970A	2020/05/15	2021/05/14



## 1.2 Reference Standards or Methods

The following standards are partly or totally used or referenced for test

Standard No.	Name
IES TM-21-11	The Estimation of Lumen Maintenance Life of LED
IES LM-80-08	Measuring Lumen Maintenance of LED Light Sources
Annex A of IES LM-84-14	Measuring Lumen Flux and Color Maintenance of LED lamps, Lighting Engines, and Luminaires

## 2. Test Result of ISTMT

### 2.1 Electrical data

Criteria Item	Result
Input voltage	230.0V
Input current	0.416A
Total power	93.9W
Power factor	0.978
Current on each LED module	80mA

Remark: There are 180pcs LED chip(s) (6S30P) in models AOK-95WoT-NVY-L3-00-3080-T301-A, That we are measurement the total current of driver output was 2400mA, and current on each parallel was 80mA (2400mA/30=80mA), Because in each series that the forward current on each LED chip(s) was equivalent, so forward current on each LED chip(s) was 80mA.

### 2.2 Temperature data

Ambient Temperature, °C :	25±1°C	Relative Humidity, % :	65%	
Supply voltage:	230 Vac/50Hz	Type of thermocouples:	J	
Test Product Model	AOK-95WoT-NVY-L3-00-3080-T301-A			
Test LED Model	L130-3080003000W2C			
Test LED Driver Model	EUK-150S350DV			
Number of Driver / Product	One Lamp with a power supply			
Test Duration	≥3.5Hours			
Item	Parts	Test Result (°C)	Revise to ta. (°C)	Limit (°C)
1	Measured maximum Temperature @ TEM <sub>LED</sub>	57.5	57.4	105
2	tc. of LED driver	50.5	50.4	90
3	Ambient	25.1	25.0	--



### 3. Lumen Maintenance Projection (IESNA TM-21-11 Method)

#### 3.1 LM-80 report summary for LED chip(s)

Manufactured by	Lumileds	
LED Model	L130-3080003000W2C	
Number of LED light source tested	20 units	
Drive Current	120mA	
Case temperature	--	105°C
10000 hours lumen maintenance	--	97.86°C
10000 hours color maintenance ( $\Delta u'v'$ )	--	0.0019

#### 3.2 Temperature Interpolation

Test data from LM-80 report #S3703 was referenced to calculate the lumen maintenance life according to IES TM-21-11

Projected from calculated  $L_{90B_{10}}$ :  $L_{90B_{10}} > 60000$  hours

### 4.1 Thermocouple contact photo of @TEM<sub>LED</sub>

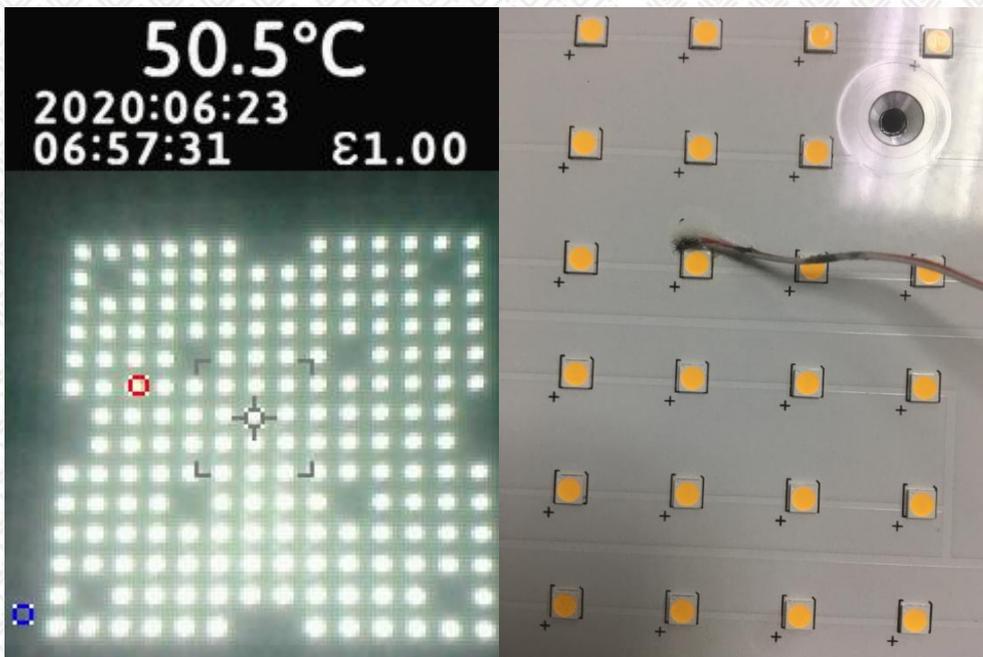


Figure 1

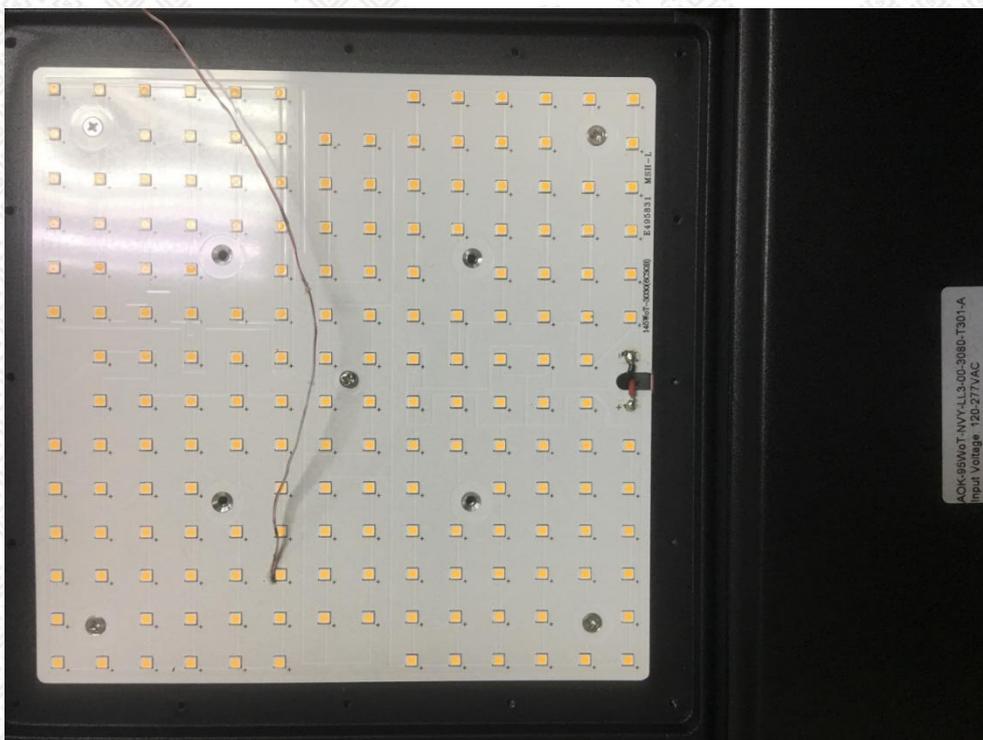


Figure 2

### 4.2 Thermocouple contact photo (.tc point of LED driver)



Figure 3

### 4.3 Product Photos



Figure 4 (General view)

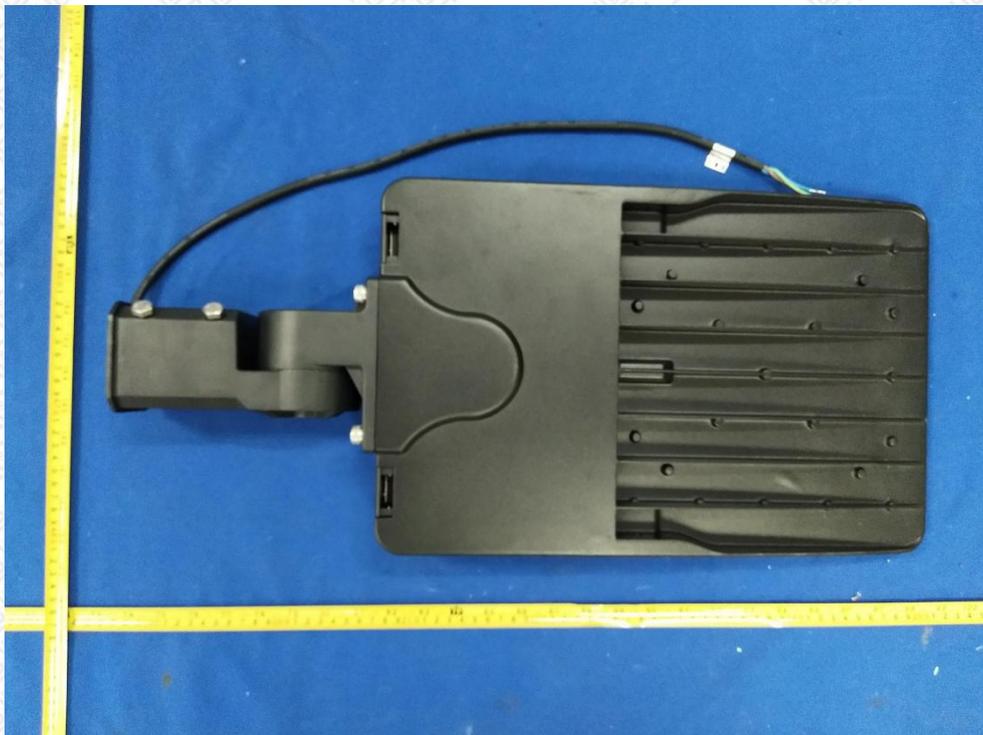


Figure 5 (General view)



Figure 6 (Label of the LED driver)

  
Quality, Honesty, Service and Innovation

**LED Street Light**  
**Model:AOK-95WoT-NVY-L3-00-3080-T301-A**  
**Rating:100-240V~, 50/60Hz, 95W**  
**CCT: 3000K**



**AOK Industrial Company Limited**

**MADE IN CHINA**

Figure 7 (Label of the light)

----- End of test report -----