TEST REPORT

Kunde: *Client:*	AOK Industrial Company Limited
Adresse: *Address:*	Building 1,Shengzuozhi Technology Industrial Park, Shajing Street, Shenzhen City, Guangdong Province, China
Hersteller: *Manufacturer:*	AOK Industrial Company Limited
Adresse: *Address:*	Building 1,Shengzuozhi Technology Industrial Park, Shajing Street, Shenzhen City, Guangdong Province, China
Name der Marke: *Brand Name:*	AOK Quality, Honesty, Service and Innovation
Beschreibungdes Produkts: *Product Description:*	LED Street Light
Modelle: *Models:*	AOK-25WiP-NVM-L3-00-3080-T4-A
Bewertung: *Rating:*	100-277V~, 50/60Hz, 25W
Verfahren: *Method:*	According to requirement clause 12.4.1 of IEC 60598.1: 2014+A1:2017; IEC 60598.2.3:2002+A1:2011 (also reference EN 60598-1or AS/NZS 60598-1)
Prüfergebnis*: *Test result*:*	Pass

Datum der Prüfung: *Date of Test:*	**Datum der Emission:** *Date of Issue:*	**Klassifizierung:** *Classification:*	**Gegenstand der Prüfung:** *Test item:*
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.

Test von/Test by:	**Check von**/Check by:	**Genehmigt von**/Approved by:
Lydia Luo	Torres He	Jesse
Lydia Luo/ Project Engineer	Torres He/ Director	Jesse Liu/ Manager

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-25WiP-NVM-L3-00-3080-T4-A
Manufacturer of LED Driver	MEAN WELL ENTERRISES CO .,LTD
LED Driver models	XLG-50-AB
Rated Inputs	100-277V~, 50/60Hz
Rated Power	25W
Declared CCT.	3000K
LED Package, Array or Module	2*(7S10P); 140pcs 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℃
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℃±1℃.
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-25WiP-NVM-L 3-00-3080-T4-A	100-277V~, 50/60Hz, 25W	XLG-50-AB	3000K	≥100000hours

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℃	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	0.12A
Total power	24.7W
Power factor	0.902
Current on each LED module	28mA
Remark: There are 140pcs LED chip(s) (2*(7S10P)) in models AOK-25WiP-NVM-L3-00-3080-T4-A, That we are measurement the total current of driver output was 560mA, and current on each parallel was 28mA (560mA/20=28mA), Because in each series that the forward current on each LED chip(s) was equivalent, so forward current on each LED chip(s) was 28 mA.	

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-25WiP-NVM-L3-00-3080-T4-A
Test LED Model	L130-3080003000W2C
Test LED Driver Model	XLG-50-AB
Number of Driver / Product	One Lamp with a power supply
Test Duration	≥3.5Hours

Item	Parts	Test Result (℃)	Revise to ta. (℃)	Limit (℃)
1	Measured maximum Temperature @ TEM_{LED}	34.6	34.5	105
2	tc. of LED driver	39.6	39.5	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℃
10000 hours lumen maintenance	--	97.86℃
10000 hours color maintenance (△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 $L_{90}B_{10}$: $L_{90}B_{10}$>60000hours

4.1 Thermocouple contact photo of @ TEM_{LED}

Figure 1

Figure 2

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

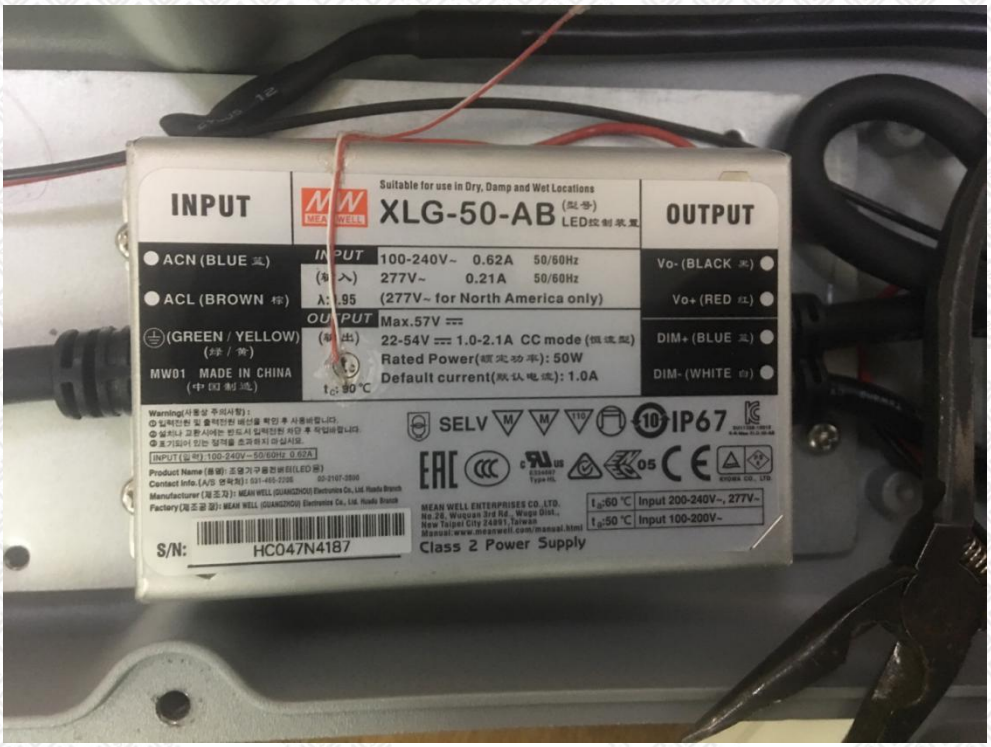

Figure 3

4.3 Product Photos

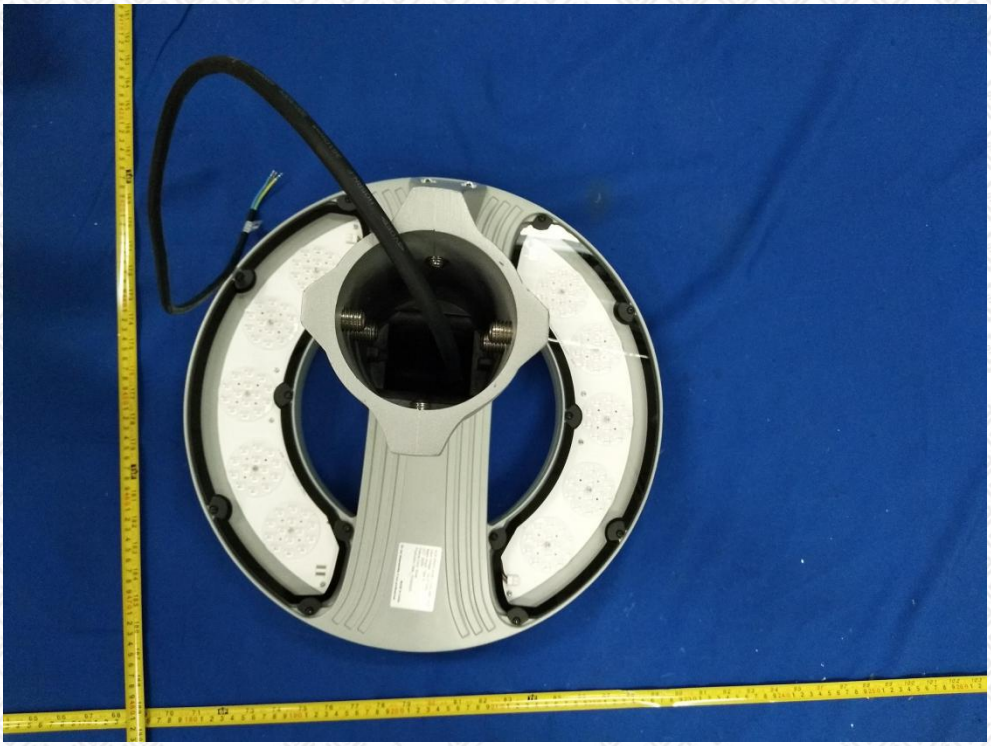

Figure 4 (General view)

Figure 5 (General view)

Figure 6 (Label of the LED driver)

AOK
Quality, Honesty, Service and Innovation

LED Street Light

Model:AOK-25WiP-NVM-L3-00-3080-T4-A

Rating:100-277V~, 50/60Hz, 25W

CCT: 3000K

AOK Industrial Company Limited

MADE IN CHINA

Figure 7 (Label of the light)

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