

TEST REPORT

LED Street Light

Test Model: AOK-50WiLH-NV-A5-00-4080-T2-A

Report Number : LCSB02256029S

Applicant : AOK Industrial Company Limited
1/F of 1#Building, East Block of 3/F of Building 1, And 2/F of Building 4,
Address : ST George's Science and Technology Industrial Park, Northside of
Xinyu Road, Xiangshan Community, Xinqiao Street Baoan District,
518000 Shenzhen, Guangdong, CHINA

Manufacturer : AOK Industrial Company Limited
1/F of 1#Building, East Block of 3/F of Building 1, And 2/F of Building 4,
Address : ST George's Science and Technology Industrial Park, Northside of
Xinyu Road, Xiangshan Community, Xinqiao Street Baoan District,
518000 Shenzhen, Guangdong, CHINA

Prepared by : Shenzhen Southern LCS Compliance Testing Co., Ltd.
Address : 101-201, Building 39, Xialang Industrial Zone, Heshuikou Community,
Matian Street, Guangming District, Shenzhen, China

Date of receipt sample : January 26, 2026
Date of test : January 26, 2026~January 28, 2026
Date of issue : April 10, 2026

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full. without prior written permission of the company, The report would be invalid without specific stamp of test institute and the signatures of approver.



TEST REPORT

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Brand Name:	 Quality, Honesty, Service and Innovation										
Product Description:	LED Street Light										
Models:	AOK-50WiLH-NV-A5-00-4080-T2-A										
Rating:	AC120-277V, 50/60Hz, 50W										
Test item:	ISTMT+TM21 Test										
Method:	According to requirement clause 12.4.1 of IEC 60598-1:2020										
Test result*:	Pass										
<table border="0"> <tr> <td>Date of sample receipt:</td> <td>Date of Test:</td> <td>Date of Issue:</td> <td>Classification:</td> </tr> <tr> <td>2026-01-26</td> <td>2026-01-26~2026-01-28</td> <td>2026-04-10</td> <td>Commission Test</td> </tr> </table>				Date of sample receipt:	Date of Test:	Date of Issue:	Classification:	2026-01-26	2026-01-26~2026-01-28	2026-04-10	Commission Test
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Testing Laboratory: Shenzhen Southern LCS Compliance Testing Co., Ltd. 101-201, Building 39, Xialang Industrial Zone, Heshuikou Community, Matian Street, Guangming District, Shenzhen, China											
Test by:  Rose Cao/ Project Engineer	Check by:  Torres He/ Director	Approved by:  Jesse Liu/ Manager									
<i>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 applicant. A general statement concerning the quality of the products from the series manufacturer cannot be derived therefore.</i>											

General remarks:

1. The test results presented in this report relate only to the object tested.
2. This report shall not be reproduced, except in full, without the written approval of the Issuing Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the Testing Laboratory, responsible for this Test Report.
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4. No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").

Modified Information

Version	Report No.	Revision Date	Summary
V1.0	LCSB02256029S	/	Original Version

General product information:

1. Measurement was conducted at a stable ambient temperature $50^{\circ}\text{C} \pm 1^{\circ}\text{C}$.

Model List:

Model No.	Rating	CCT	LED Driver
AOK-50WiLH-NV-A5-00-4080-T2-A	AC120-277V, 50/60Hz, 50W	4000K	EUM-050S090DG

LED specification:

Model/Series	Manufacturer	VF (V)	IF (mA)
TS1-H50FL-1001	Shenzhen Tongyifang Optoelectronic Technology Co., Ltd.	27-30V	150mA

Equipment list:

Equipment No.	Equipment Name	Specification data	Cal. Date
SLCS-S-004	Digital Power Meter	YOKOGAWA/ WT210 / 91L424211	2025/4/27
SLCS-S-011	J Thermocouple	DE AO/J	2025/4/28
SLCS-S-210	Temperature rising recorder	61072A	2025/4/30
SLCS-S-102	Aging House	LA-201207002	2025/12/20

1. GENERAL INFORMATION

1.1 Product Information

Information of product:	
Product description	LED Street Light
Model Number	AOK-50WiLH-NV-A5-00-4080-T2-A
Manufacturer of LED Driver	Inventronics
LED Driver models	EUM-050S090DG
Rated Inputs	AC120-277V, 50/60Hz
Rated Power	50W
Declared CCT.	4000K
LED Package, Array or Module	3S16P, total 48pcs LED chip(s)
Date of Receipt Samples	2026-01-26
Quantity of Receipt Samples	1 unit
Information of LED chip:	
LED Chip Manufacturer	Shenzhen Tongyifang Optoelectronic Technology Co., Ltd.
LED type	LED Package
Model of the LED chip(s)	TS1-H50FL-1001
Forward voltage of the LED chip	27-30V
Forward current of the LED chip	150mA
ISTMT temperature of the LED chip	105°C
IES LM-80 Test Report	Report Number: N02A24050116L00101 Issue Date: 2024-05-15 Tested and Prepared By: Guangdong Meide Testing Technology Co., Ltd.

1.2 Reference Standards or Methods

According to requirement clause 12.4.1 of IEC 60598-1:2020

IES LM-84-14: Measuring Luminous Flux and Color Maintenance of LED Lamps, Light Engines, and Luminaires---Annex A: measurement of in-situ conditions LED case temperature.

2. Test Result of ISTMT

2.1 Electrical data

Criteria Item	Result
Input voltage	230Vac, 60Hz
Input current	0.219A
Total power	50.0W
Power factor	0.990
Current on each LED module	34.0mA
Remark: There are 3S16P, total 192pcs LED chip(s) in models AOK-50WiLH-NV-A5-00-4080-T2-A, That we are measurement the total current of a driver output was 544mA, and current on each parallel was 34.0mA (544mA/16=34.0mA), Because in each series that the forward current on each LED chip(s) was equivalent, so forward current on each LED chip(s) was 34.0mA.	

2.2 Temperature data

Ambient Temperature, °C :		50+1°C	Relative Humidity, %Rh :		45%Rh~75%Rh
Supply voltage:		230Vac, 60Hz	Type of thermocouples:		J
Test Product Model		AOK-50WiLH-NV-A5-00-4080-T2-A			
Test LED Model		TS1-H50FL-1001			
Test LED Driver Model		EUM-050S090DG			
Test Duration		≥3.5Hours			
Item	Parts	Test Result (°C)	Revise to ta. (°C)	Limit (°C)	
1	Measured maximum Temperature @ TEMLED	79.6	79.5	105	
2	tc of LED driver	72.3	72.2	90	
3	Ambient	50.1	50.0	--	

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

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

Manufactured by	Shenzhen Tongyifang Optoelectronic Technology Co., Ltd.		
LED Model	TS1-H50FL-1001		
Number of LED light source tested	25units		
Drive Current	150mA		
Case temperature	55°C	85°C	105°C
18000 hours lumen maintenance	96.98%	96.57%	96.09%
18000 hours color maintenance ($\Delta u'v'$)	0.0034	0.0039	0.0042

3.2 Lumen Maintenance Projection for luminaires

Criteria Item	Result
50000h at which to estimate lumen maintenance	91.24%
Drive current on each LED light source	34.0mA
Reported L ₇₀ lumen maintenance life	>108000 hours



TM-21 Inputs

Instructions

Yellow fields are completed by the user. Fields not used should be left blank. Cyan fields are calculated based on user entries.

First, enter a description of the LED light source tested. Then complete the fields labeled "LM-80 Testing Details". Test duration must be at least 6,000 hours. If only one case temperature data set is to be used (no interpolation), complete only "Tested case temperature 1". For only two case temperature data sets, complete 1 and 2.

Next, further to the right, in the corresponding box(es) for each tested case temperature, enter the test data along with the time (in hours) at which each measurement was taken. Data entered must be normalized then averaged measured data (per TM-21 sections 5.2.1 and 5.2.2). If case temperatures have different test durations, enter data up to the lowest of the test durations for all of the case temperatures.

Enter drive current, *in-situ* temperature data and the percentage of initial lumens to project to in the fields labeled "In-Situ Inputs".

Results can be tailored to estimate lumen maintenance at a specific time by entering a value (t) in the yellow field. A complete TM-21 report will appear on the next tab labeled "Report".

Description of LED Light Source Tested
(manufacturer, model, catalog number)

Shenzhen Tongyifang Optoelectronic Technology Co., Ltd.
TS1-H50FL-1001

LM-80 Testing Details

Total number of units tested per case temperature:	25
Number of failures:	0
Number of units measured:	25
Test duration (hours):	18000
Tested drive current (mA):	150
Tested case temperature 1 (T _C , °C):	55
Tested case temperature 2 (T _C , °C):	85
Tested case temperature 3 (T _C , °C):	105

In-Situ Inputs

Drive current for each LED package/array/module (mA):	34
In-situ case temperature (T _C , °C):	79.5
Percentage of initial lumens to project to (e.g. for L ₇₀ , enter 70):	70

Results

Time (t) at which to estimate lumen maintenance (hours):	50,000
Lumen maintenance at time (t) (%):	91.24%
Reported L70 (hours):	>108000

LM-80 Test Inputs

Test Data for 55°C Case Temperature		Test Data for 85°C Case Temperature		Test Data for 105°C Case Temperature	
Time (hours)	Lumen Maintenance (%)	Time (hours)	Lumen Maintenance (%)	Time (hours)	Lumen Maintenance (%)
1000	100.20%	1000	100.07%	1000	99.96%
2000	100.01%	2000	99.88%	2000	99.89%
3000	99.83%	3000	99.64%	3000	99.42%
4000	99.61%	4000	99.41%	4000	99.15%
5000	99.41%	5000	99.18%	5000	98.89%
6000	99.20%	6000	98.95%	6000	98.63%
7000	98.96%	7000	98.69%	7000	98.36%
8000	98.72%	8000	98.43%	8000	98.08%
9000	98.49%	9000	98.17%	9000	97.82%
10000	98.29%	10000	97.95%	10000	97.58%
11000	98.09%	11000	97.73%	11000	97.35%
12000	97.89%	12000	97.52%	12000	97.12%
13000	97.73%	13000	97.33%	13000	96.95%
14000	97.56%	14000	97.16%	14000	96.78%
15000	97.40%	15000	96.99%	15000	96.60%
16000	97.26%	16000	96.86%	16000	96.42%
17000	97.12%	17000	96.70%	17000	96.25%
18000	96.98%	18000	96.57%	18000	96.09%



TM-21 Report

Table 1: Report at each LM-80 Test Condition					
Description of LED Light Source Tested (manufacturer, model, catalog number)		Shenzhen Tongyifang Optoelectronic Technology Co., Ltd. TS1-H50FL-1001			
		Test Condition 1 - 55°C Case Temp		Test Condition 2 - 85°C Case Temp	
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)	18,000	Test duration (hours)	18,000	Test duration (hours)	18,000
Test duration used for projection (hour to hour)	9,000 - 18,000	Test duration used for projection (hour to hour)	9,000 - 18,000	Test duration used for projection (hour to hour)	9,000 - 18,000
Tested case temperature (°C)	55	Tested case temperature (°C)	85	Tested case temperature (°C)	105
α	1.710E-06	α	1.822E-06	α	1.955E-06
B	1.000	B	0.997	B	0.995
Reported L70(18k) (hours)	>108000	Reported L70(18k) (hours)	>108000	Reported L70(18k) (hours)	>108000

Table 2: Interpolation Report (projection based on <i>in-situ</i> temperature entered)	
T _{s1} (°C)	55.00
T _{s1} (K)	328.15
α ₁	1.710E-06
B ₁	1.000
T _{s2} (°C)	85.00
T _{s2} (K)	358.15
α ₂	1.822E-06
B ₂	0.997
E ₉ /k ₀	2.48E+02
A	3.642E-06
B ₀	0.998
T _{s1} (°C)	79.50
T _{s1} (K)	352.65
α ₁	1.802E-06
Reported L70(18k) at 79.5°C (hours)	>108000

(TM-21 Output of L70)

4. Photos

4.1 Thermocouple contact photo of @TEM_{LED}



Photo 1

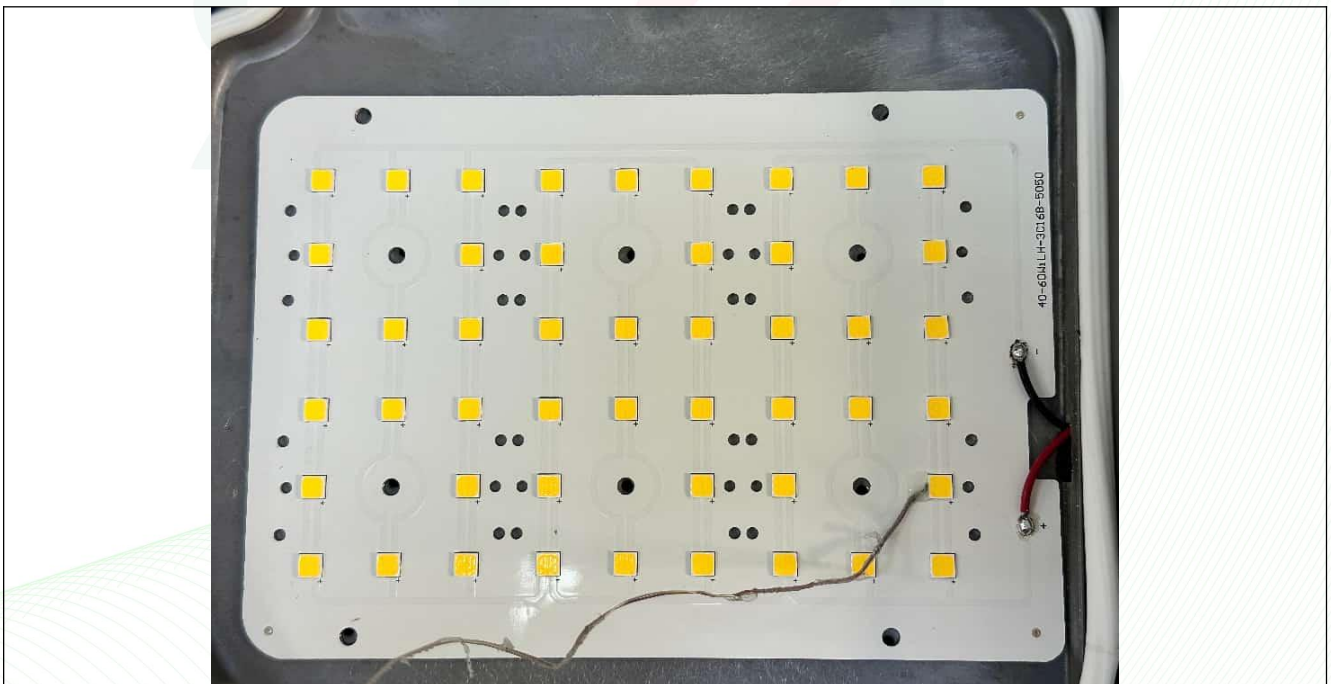


Photo 2

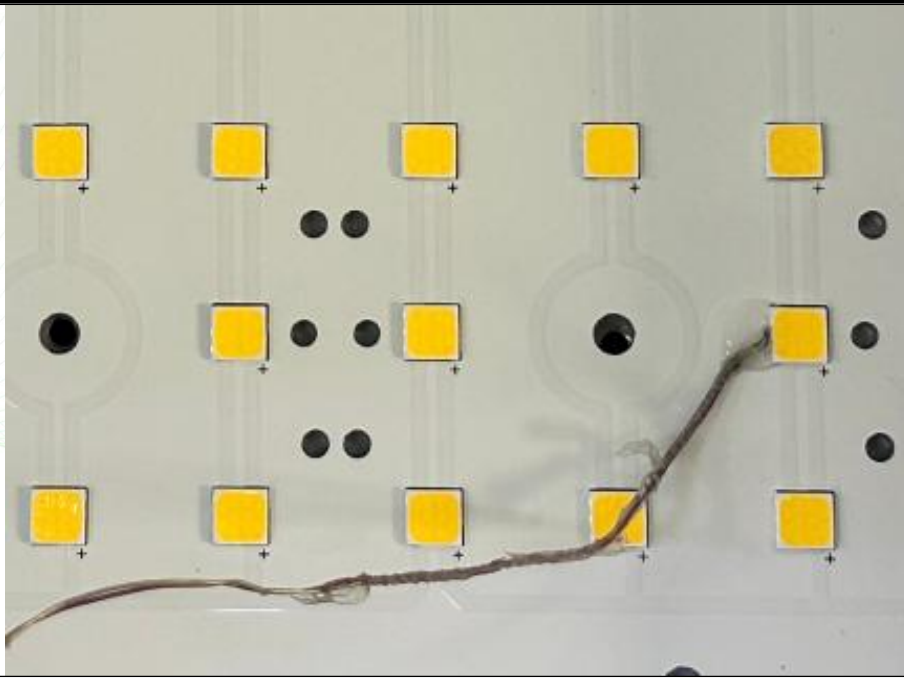


Photo 3

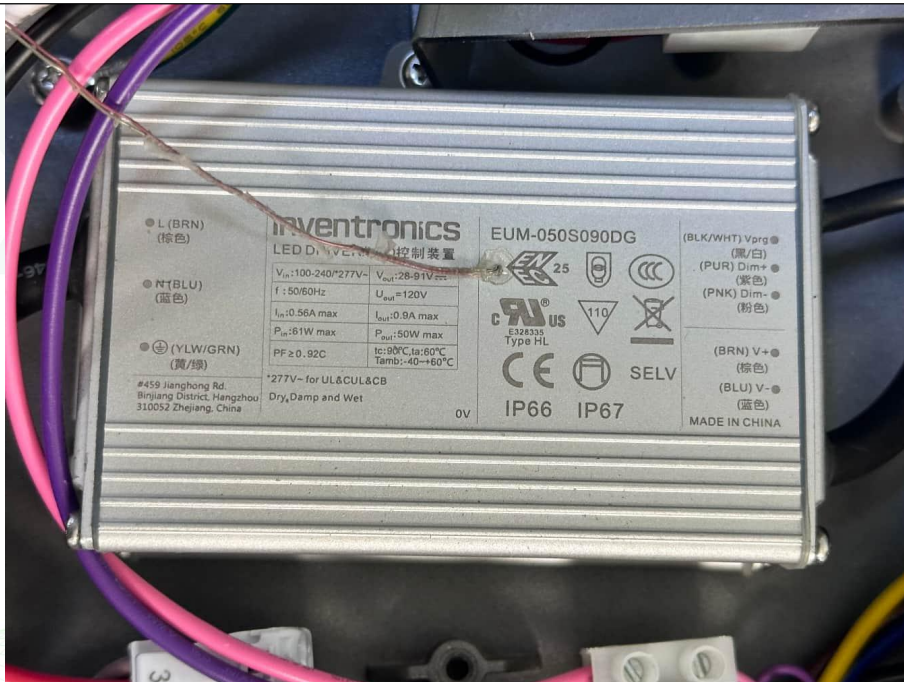


Photo 4

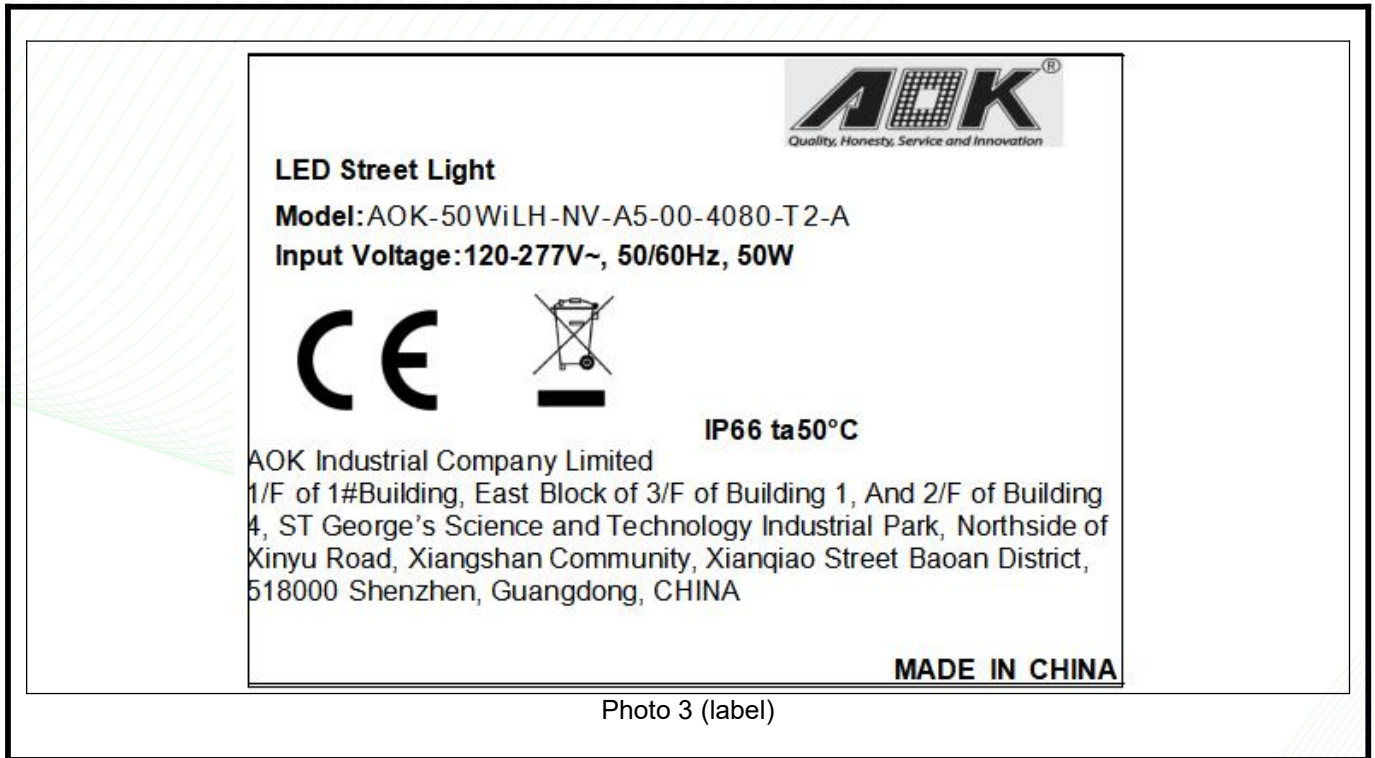
4.2 Product Photos



Photo 1



Photo 2



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

SLS