

Technical Report No.: 68.140.22.0057.01

Date: 2022-02-25

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

Factory: Manufacturer's name: Same as client
Address: Same as client
Factory's name: Same as client
Address: Same as client

Product: LED Street Light
AOK-20WiL03-NV-aa-bb-zzyy-BN-A;
AOK-30WiL03-NV-aa-bb-zzyy-BN-A;
AOK-40WiL03-NV-aa-bb-zzyy-BN-A;
AOK-50WiL03-NV-aa-bb-zzyy-BN-A;
AOK-60WiL03-NV-aa-bb-zzyy-BN-A;
AOK-70WiL03-NV-aa-bb-zzyy-BN-A;
AOK-80WiL03-NV-aa-bb-zzyy-BN-A;
AOK-90WiL03-NV-aa-bb-zzyy-BN-A;
AOK-100WiL03-NV-aa-bb-zzyy-BN-A;
AOK-120WiL03-NV-aa-bb-zzyy-BN-A;
AOK-150WiL03-NV-aa-bb-zzyy-BN-A;
AOK-180WiL03-NV-aa-bb-zzyy-BN-A;
AOK-200WiL03-NV-aa-bb-zzyy-BN-A;
AOK-230WiL03-NV-aa-bb-zzyy-BN-A.
Type ["aa" represent Code of LED Type & LED Brand, can be L3 or S3 , L3=LUXEON 3030, S3=SEOUL3030;
"bb" represent Sensor Type, can be 00 or DV, 00=No sensor provided, DV=DALI;
"zz" represent CCT, can be 20-65, 27=2700K, 30=3000K, 40=4000K, 50=5000K, 57=5700K, 65=6500K;
"yy" represent CRI, can be 70 or 80 or 90;
"BN" can be T3, stands for view angle of LED lens, T3=T301]

Test object:

Trademark:  (AOK)

Test specification: IP66 test according to cl. 9.2.2 and 9.2.7 of IEC 60598-1:2014, IEC 60598-1:2014/AMD1:2017 and EN 60598-1:2015+A1:2018

Purpose of examination: • Testing and evaluation (visual / partial) according to the test specification

Test result: The test results show that the presented products are in compliance with the specific requirements.

Any use for advertising purposes must be granted in writing. This technical report may only be quoted in full. This report is the result of a single examination of the object in question. It does not imply a general statement regarding the quality of products from regular production. For further details please see testing and certification regulation, chapter A-3.4.

1. Description of the test object

1.1 Picture(s)

See Appendix 1

1.2 Function

Manufacturer's specification for intended use:
LED Street Light for outdoor use only.

Manufacturer's specification for predictive use:
No restrictions provided.

1.3 Consideration of the foreseeable use

- Not applicable
- Covered through the applied standard
- Covered by the following comment*
- Covered by attached risk analysis

*

1.4 Technical Data

Luminaires for road and street lighting (LED Street Light)

Rated Voltage : See 'model list' for detail
Rated Frequency : 50/60Hz
Rated Power : See 'model list' for detail
Protection Class : I
Degree of Protection : IP66

2. Order

2.1 Date of Purchase Order, Customer's Reference

2022-02-15

2.2 Test Samples

- Reception dates: 2021-02-17



- Location(s) of reception: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District, Shenzhen, Guangdong 518052, China
- Condition of test sample(s): Good

2.3 Date of Testing 2022-02-17 to 2022-02-25
TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch

2.4 Location of Testing Building 12 & 13, Zhiheng Wisdomland Business Park, Guankou Erlu, Nantou, Nanshan District, Shenzhen, Guangdong 518052, China

2.5 Points of Non-Compliance or Exceptions of the Test Procedure

- None

3. Test Results

- “Decision rule according to IEC Guide 115:2021, clause 4.4.3, 4.5.1 was applied.”

3.1 Positive Test Results

IP6X test (clause 9.2.2 of IEC/EN 60598-1)

Test condition:

- a) The luminaire is suspended outside the dust chamber and operated at rated supply voltage until operating temperature is achieved.
- b) The luminaire, whilst still operating, is placed with the minimum disturbance in the dust chamber.
- c) The door of the dust chamber is closed.
- d) The fan/blower causing the talcum powder to be in suspension is switched on.
- e) After 1 min, the luminaire is switched off and allowed to cool for 3 h whilst the talcum powder remains in suspension.

Test apparatus:

- a) Dust chamber similar to that shown in Figure 6 of IEC 60598-1.
- b) The chamber shall contain 2 kg of powder for every cubic metre of its volume. The talcum powder used shall be able to pass through a square-meshed sieve whose nominawire diameter is 50µm and whose nominal free distance between wires is 75µm.
- c) The talcum powder shall not have been used for more than 20 tests.
- d) Talcum powder is maintained in suspension by an air current.

Test Result: Pass.

After test, the luminaires can withstand the electric strength test and there was no deposit of talcum powder inside enclosures of luminaires.

IPX6 test (clause 9.2.7 of IEC/EN 60598-1)

Test condition:

- a) The luminaires are mounted in normal use and placed in the most unfavourable position, the water for the test is at a temperature of 15°C ±10°C.
- b) The luminaire complete with lamp is switched on and brought to stable operating temperature at rated voltage.
- c) The luminaire is switched off and immediately subjected to a water jet for 3min from all directions by means of a hose having a nozzle with the shape and dimensions shown in Figure 8 of IEC/EN 60598-1, the nozzle is held 3m away from the sample.
- d) The water pressure at the nozzle is adjusted to achieve a water flow rate of 100l/min ± 5% (approximately 100kN/m²).

Test Result: Pass.

After test, the luminaire can withstand the electric strength test and there is no water entry into the luminaire.

3.2 Points of Non-Compliance according to the test specification

- None



4. Remarks

4.1 Appendix 1: photo documentation

4.2 Model list

Model	Rated voltage (VAC)	Rated Power (W)	LED CCT	LED type
AOK-20WiL03-NV-aa-bb-zzyy-BN-A	220-240	20	2700-6500K	3030
AOK-30WiL03-NV-aa-bb-zzyy-BN-A	220-240	30	2700-6500K	3030
AOK-40WiL03-NV-aa-bb-zzyy-BN-A	220-240	40	2700-6500K	3030
AOK-50WiL03-NV-aa-bb-zzyy-BN-A	220-240	50	2700-6500K	3030
AOK-60WiL03-NV-aa-bb-zzyy-BN-A	220-240	60	2700-6500K	3030
AOK-70WiL03-NV-aa-bb-zzyy-BN-A	220-240	70	2700-6500K	3030
AOK-80WiL03-NV-aa-bb-zzyy-BN-A	220-240	80	2700-6500K	3030
AOK-90WiL03-NV-aa-bb-zzyy-BN-A	220-240	90	2700-6500K	3030
AOK-100WiL03-NV-aa-bb-zzyy-BN-A	220-240	100	2700-6500K	3030
AOK-120WiL03-NV-aa-bb-zzyy-BN-A	220-240	120	2700-6500K	3030

AOK-150WiL03-NV-aa-bb-zzyy-BN-A	220-240	150	2700-6500K	3030
AOK-180WiL03-NV-aa-bb-zzyy-BN-A	220-240	180	2700-6500K	3030
AOK-200WiL03-NV-aa-bb-zzyy-BN-A	220-240	200	2700-6500K	3030
AOK-230WiL03-NV-aa-bb-zzyy-BN-A	220-240	230	2700-6500K	3030

All models have identical appearance construction for IP66, only different size and weight; Unless otherwise specified, model AOK-230WiL03-NV-L3-DV-6590-BN-A was chosen as representative model to perform the tests.

5. Documentation

Nil.

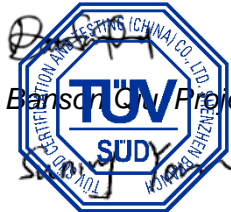
6. Summary

The test specifications are met



TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch
TÜV SÜD Group

Tested by:



Banshi Chen, Project Handler

Approved by:

Sunny Yan, Designated Reviewer

Appendix 1 Photo document

Details of: Front view for AOK-230WiL03-NV-L3-DV-6590-BN-A

Remark:



Details of: Back view for AOK-230WiL03-NV-L3-DV-6590-BN-A

Remark:



--- End of Report ---