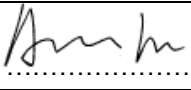
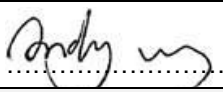




TEST REPORT IEC TR 62778 Application of IEC 62471 for the assessment of blue light hazard to light sources and luminaires	
Report Number.....	4954467.56
Date of issue.....	2026-06-23
Total number of pages	15 pages
Name of Testing Laboratory preparing the Report	DEKRA Testing and Certification (Shanghai) Ltd. Guangzhou Branch
Applicant's 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, Xinqiao Street Baoan District, 518000 Shenzhen, Guangdong, China
Test specification:	
Standard	IEC TR 62778:2014 (Second Edition)
Test procedure	Type test
Non-standard test method	N/A
Test Report Form No.	IEC62778A
Test Report Form(s) Originator	TÜV SÜD Product Service GmbH
Master TRF	Dated 2016-02
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This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.	
General disclaimer:	
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.	

Test item description	LED Luminaire	
Trade Mark		
Manufacturer	Same as applicant	
Model/Type reference	Refer to Attachment 4 for detailed model list	
Ratings	220-240 VAC, 50/60 Hz, Class I, IP66, ta: 55 °C; non-user replaceable LEDs; Other information refers to Attachment 4 for detailed model list	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☒	Testing Laboratory:	DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou Branch
Testing location/ address		Block 5, No.3, Qiyun Road, Huangpu District, Guangzhou, Guangdong, China
☐	Associated CB Testing Laboratory:	
Testing location/ address		
Tested by (name, function, signature)		Alice He (Project Handler) 
Approved by (name, function, signature) ...:		Andy Wang (Reviewer) 
☐	Testing procedure: CTF Stage 1:	
Testing location/ address		
Tested by (name, function, signature)		
Approved by (name, function, signature) ...:		
☐	Testing procedure: CTF Stage 2:	
Testing location/ address		
Tested by (name + signature)		
Witnessed by (name, function, signature) .:		
Approved by (name, function, signature) ...:		
☐	Testing procedure: CTF Stage 3:	
☐	Testing procedure: CTF Stage 4:	
Testing location/ address		
Tested by (name, function, signature)		
Witnessed by (name, function, signature) .:		
Approved by (name, function, signature) ...:		
Supervised by (name, function, signature) :		

List of Attachments (including a total number of pages in each attachment): Attachment 1: List of test equipment used (1 page) Attachment 2: Photo (3 pages) Attachment 3: LED chip specification (1 page) Attachment 4: Detailed model list (2 pages)	
Summary of testing:	
Tests performed (name of test and test clause): AOK-600WHMA-NV-A5-PH-6570-T2-A was subjected to IEC TR 62778: 2014 test. All models were subjected to construction check.	Testing location: DEKRA Testing and Certification (Shanghai) Ltd. Guangzhou Branch Block 5, No.3, Qiyun Road, Huangpu District, Guangzhou, Guangdong, China
Summary of compliance with National Differences (List of countries addressed): ☒ N/A	
Copy of marking plate: N/A	

Test item particulars: LED luminaire	
Product evaluated: ☐ LED package ☐ LED module ☐ Lamp ☒ Luminaire	
Rated voltage (V): 220-240 V	
Rated current (mA): --	
Rated CCT (K): 2700-6500 K	
Rated Luminance (Mcd/m²): --	
Component report data used: ☒ Not applicable ☐ LED package ☐ LED module ☐ Lamp Report number: ---	
Possible test case verdicts: - test case does not apply to the test object.....: N/A - test object does meet the requirement.....: P (Pass) - test object does not meet the requirement.....: F (Fail)	
Testing: Date of receipt of test item: 2025-06-26 Date (s) of performance of tests: 2025-06-26 to 2026-06-11	
General remarks:	
"(See Enclosure #)" refers to additional information 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. The measurement result is considered in conformance with the requirement if it is within the prescribed limit, it is not necessary to calculate the uncertainty associated with the measurement result. This report will not be used as social proof function in China market.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC62778A:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided:	☐ Yes ☒ Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies): Same as applicant	

General product information:

The products in this report were tested and compliant with following standard:

-IEC TR 62778: 2014

The products covered in this report are LED luminaires, equipped with non-user replaceable LEDs. All models have similar electrical and mechanical construction except the mounting bracket, LED driver, power, size, LED driver and LED modules.

For the blue light hazard required by IEC TR 62778: 2014, AOK-600WHMA-NV-A5-PH-6570-T2-A had been tested and met Risk Group 1. Therefore, all models in this report need not mark d_{thr} .

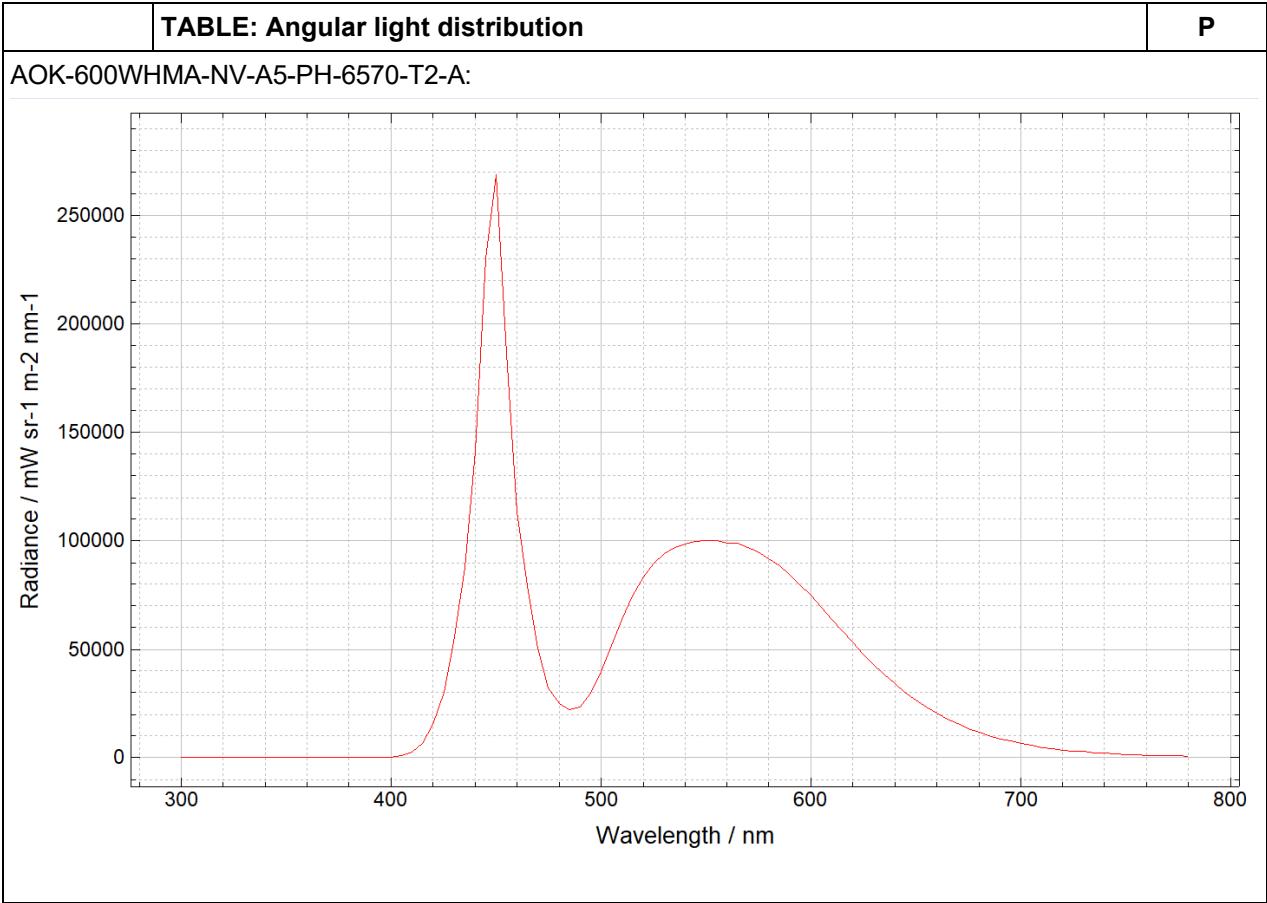
IEC TR 62778			
Clause	Requirement + Test	Result - Remark	Verdict

	MEASUREMENT INFORMATION FLOW		
7.1	Basic flow		P
	'Law of conservation of luminance' applied		N/A
	Use of only true luminance/radiance values		P
	In case of luminaire: The light source is operated in the luminaire under similar conditions as when tested as a component		N/A
	In case E_{thr} value for RG2 was established the peak value was derived from angular light distribution		N/A
7.2	Conditions for the radiance measurement		P
	Standard condition applied (200mm distance, 0,011rad field of view)		P
	Non-standard condition applied		N/A
7.3	Special cases (I): Replacement by a lamp or LED module of another type		N/A
	Light source is a white light source		N/A
	Evaluation done based on highest luminance		N/A
	Evaluation done based on CCT value		N/A
7.4	Special cases (II): Arrays and clusters of primary light sources		N/A
	LED package is evaluated as : ☐ RG0 unlimited ☐ RG1 unlimited		N/A
	E_{thr} of LED package applies to array		N/A
8	RISK GROUP CLASSIFICATION		
	Risk group achieved:		P
	- ..Risk Group 0 unlimited		N/A
	- ..Risk Group 1 unlimited		P
	- E_{thr} (lx) : Distance to reach RG1 (m) :		N/A

IEC TR 62778			
Clause	Requirement + Test	Result - Remark	Verdict

TABLE: Spectroradiometric measurement					P
	Measurement performed on:		☐ LED package ☐ LED module ☐ Lamp ☒ Luminaire		
	Model number.....		AOK-600WHMA-NV-A5-PH-6570-T2-A		
	Test voltage (V)		240 V		—
	Test current (mA)		---		—
	Test frequency (Hz).....		50		—
	Ambient, t (°C)		25		—
	Measurement distance		☒ 20 cm ☐ ... cm		—
	Source size		☒ Non-small ☐ Small : mm		—
	Field of view		☐ 100 mrad ☒ 11 mrad ☐ 1,7 mrad (for small sources)		—
Item		Symbol	Units	Result	Remark
Correlated colour temperature		CCT	K	---	
x/y colour coordinates				---	
Blue light hazard radiance		L _B	W/(m ² •sr ¹)	6163,765	RG1
Blue light hazard irradiance		E _B	W/m ²	--	
Luminance		L	cd/m ²	5935921,2	
Illuminance		E	lx	249989	
Supplementary information: --					

IEC TR 62778			
Clause	Requirement + Test	Result - Remark	Verdict



Attachment 1: List of test equipment used

Clause	Measurement/ testing	Registration Number	Testing/measuring equipment/material used	Range used
5	Irradiance measurements Radiance measurements	G/L655	Spectroradiometer	200-3000nm

Attachment 2: Photos



Overall view of AOK-600WHMA-NV-A5-PH-6570-T2-A with plug-in photo control cap



Side view of AOK-600WHMA-NV-A5-PH-6570-T2-A



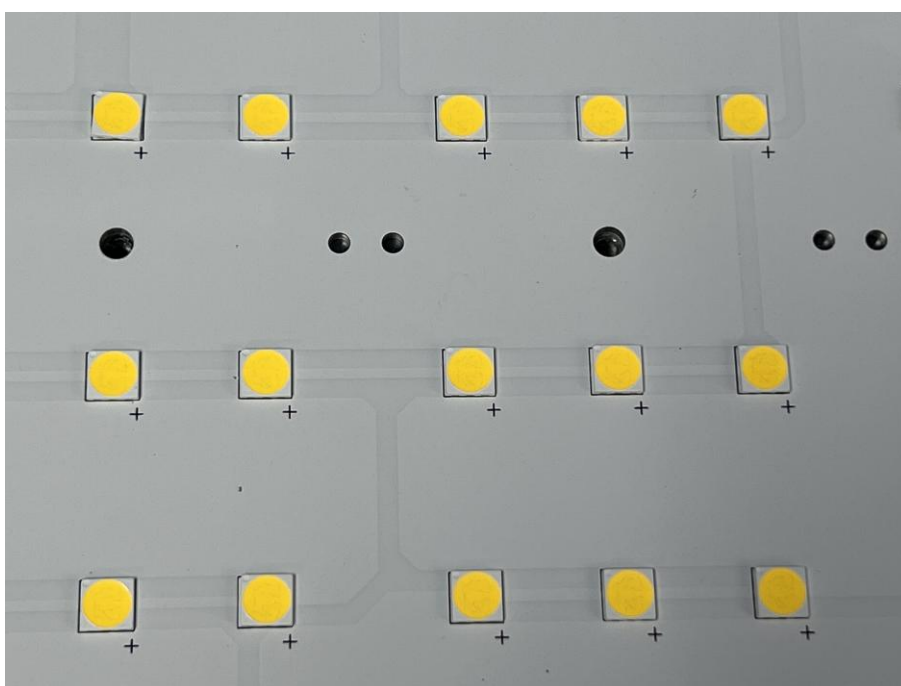
Front panel view of AOK-600WHMA-NV-A5-PH-6570-T2-A



Internal view of AOK-600WHMA-NV-A5-PH-6570-T2-A



Internal view of AOK-600WHMA-NV-A5-PH-6570-T2-A



Detailed view of LED module used for AOK-600WHMA-NV-A5-PH-6570-T2-A

Attachment 3: LED chip specification

Manufacturer	LED type no.	Technical Data	Remark
Shenzhen Tongyifang Optoelectronic Technology Co., Ltd.	TS1-H50YL-0801 (TYF 5050)	Vf: 24 V, If: 125 mA, CCT: 2700-6500 K	---

Attachment 4: Detailed Model List

No.	Model	Power (W)	LED Type
1	AOK-250WHMA-NV-ZZ-DD-XXYY-BN-P	250	TYF 5050
2	AOK-260WHMA-NV-ZZ-DD-XXYY-BN-P	260	
3	AOK-270WHMA-NV-ZZ-DD-XXYY-BN-P	270	
4	AOK-280WHMA-NV-ZZ-DD-XXYY-BN-P	280	
5	AOK-290WHMA-NV-ZZ-DD-XXYY-BN-P	290	
6	AOK-300WHMA-NV-ZZ-DD-XXYY-BN-P	300	
7	AOK-310WHMA-NV-ZZ-DD-XXYY-BN-P	310	
8	AOK-320WHMA-NV-ZZ-DD-XXYY-BN-P	320	
9	AOK-330WHMA-NV-ZZ-DD-XXYY-BN-P	330	
10	AOK-340WHMA-NV-ZZ-DD-XXYY-BN-P	340	
11	AOK-350WHMA-NV-ZZ-DD-XXYY-BN-P	350	
12	AOK-360WHMA-NV-ZZ-DD-XXYY-BN-P	360	
13	AOK-370WHMA-NV-ZZ-DD-XXYY-BN-P	370	
14	AOK-380WHMA-NV-ZZ-DD-XXYY-BN-P	380	
15	AOK-390WHMA-NV-ZZ-DD-XXYY-BN-P	390	
16	AOK-400WHMA-NV-ZZ-DD-XXYY-BN-P	400	
17	AOK-410WHMA-NV-ZZ-DD-XXYY-BN-P	410	
18	AOK-420WHMA-NV-ZZ-DD-XXYY-BN-P	420	
19	AOK-430WHMA-NV-ZZ-DD-XXYY-BN-P	430	
20	AOK-440WHMA-NV-ZZ-DD-XXYY-BN-P	440	
21	AOK-450WHMA-NV-ZZ-DD-XXYY-BN-P	450	
22	AOK-460WHMA-NV-ZZ-DD-XXYY-BN-P	460	
23	AOK-470WHMA-NV-ZZ-DD-XXYY-BN-P	470	
24	AOK-480WHMA-NV-ZZ-DD-XXYY-BN-P	480	
25	AOK-490WHMA-NV-ZZ-DD-XXYY-BN-P	490	
26	AOK-500WHMA-NV-ZZ-DD-XXYY-BN-P	500	
27	AOK-510WHMA-NV-ZZ-DD-XXYY-BN-P	510	
28	AOK-520WHMA-NV-ZZ-DD-XXYY-BN-P	520	
29	AOK-530WHMA-NV-ZZ-DD-XXYY-BN-P	530	
30	AOK-540WHMA-NV-ZZ-DD-XXYY-BN-P	540	
31	AOK-550WHMA-NV-ZZ-DD-XXYY-BN-P	550	
32	AOK-560WHMA-NV-ZZ-DD-XXYY-BN-P	560	
33	AOK-570WHMA-NV-ZZ-DD-XXYY-BN-P	570	
34	AOK-580WHMA-NV-ZZ-DD-XXYY-BN-P	580	
35	AOK-590WHMA-NV-ZZ-DD-XXYY-BN-P	590	
36	AOK-600WHMA-NV-ZZ-DD-XXYY-BN-P	600	
37	AOK-330WHMA-NV-ZZ-DD-XXYY-BN-B	330	
38	AOK-340WHMA-NV-ZZ-DD-XXYY-BN-B	340	
39	AOK-350WHMA-NV-ZZ-DD-XXYY-BN-B	350	
40	AOK-360WHMA-NV-ZZ-DD-XXYY-BN-B	360	
41	AOK-370WHMA-NV-ZZ-DD-XXYY-BN-B	370	
42	AOK-380WHMA-NV-ZZ-DD-XXYY-BN-B	380	
43	AOK-390WHMA-NV-ZZ-DD-XXYY-BN-B	390	
44	AOK-400WHMA-NV-ZZ-DD-XXYY-BN-B	400	
45	AOK-410WHMA-NV-ZZ-DD-XXYY-BN-B	410	
46	AOK-420WHMA-NV-ZZ-DD-XXYY-BN-B	420	
47	AOK-430WHMA-NV-ZZ-DD-XXYY-BN-B	430	

48	AOK-440WHMA-NV-ZZ-DD-XXYY-BN-B	440	TYF 5050
49	AOK-450WHMA-NV-ZZ-DD-XXYY-BN-B	450	
50	AOK-460WHMA-NV-ZZ-DD-XXYY-BN-B	460	
51	AOK-470WHMA-NV-ZZ-DD-XXYY-BN-B	470	
52	AOK-480WHMA-NV-ZZ-DD-XXYY-BN-B	480	
53	AOK-490WHMA-NV-ZZ-DD-XXYY-BN-B	490	
54	AOK-500WHMA-NV-ZZ-DD-XXYY-BN-B	500	
55	AOK-510WHMA-NV-ZZ-DD-XXYY-BN-B	510	
56	AOK-520WHMA-NV-ZZ-DD-XXYY-BN-B	520	
57	AOK-530WHMA-NV-ZZ-DD-XXYY-BN-B	530	
58	AOK-540WHMA-NV-ZZ-DD-XXYY-BN-B	540	
59	AOK-550WHMA-NV-ZZ-DD-XXYY-BN-B	550	
60	AOK-560WHMA-NV-ZZ-DD-XXYY-BN-B	560	
61	AOK-570WHMA-NV-ZZ-DD-XXYY-BN-B	570	
62	AOK-580WHMA-NV-ZZ-DD-XXYY-BN-B	580	
63	AOK-590WHMA-NV-ZZ-DD-XXYY-BN-B	590	
64	AOK-600WHMA-NV-ZZ-DD-XXYY-BN-B	600	

Description:

ZZ = can be any letter to denote manufacturer of LED; and may be replaced by C5 to represent TYF 5050 LED;

DD = denotes dimming control, which can be as followings: 00=No sensor provided, PH=Plug-in photocontrol or NEMA short-circuit cap provided, DV=Dimming function & without NEMA socket;

XX = can be 27, 30, 35, 40, 50, 57, 60, 65 to denote Color Temperature of LED; e.g. 27=2700 K, 30=3000 K, 35=3500 K, 40=4000 K, 50=5000 K, 57=5700 K, 60=6000 K, 65=6500 K;

YY = can be 70, 80, 90 to denote Color Rendering Index of LED, e.g. 70=CRI 70, 80=CRI 80, 90=CRI 90;

BN = can be any letter or number to denote Beam Angle;

P= can A or B to denote mounting type, e.g. A=Side Entry, B=Bracket Type

---END---