



TEST REPORT IEC 62612 Self-ballasted LED-lamps for general lighting services Performance requirements	
Report Number.....	AOC250919031ER-R1
Date of issue.....	2025-10-13
Total number of pages	16 pages
Name of Testing Laboratory preparing the Report	Shenzhen AOCE Electronic Technology Service Co., Ltd Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China
Applicant's name	FAIRDEAL HARDWARE PTE LTD
Address.....	300 Changi Road (s) 419778
Test specification:	
Standard	IEC 62612:2013+AMD1:2015+AMD2:2018
Test procedure	Test report
Non-standard test method	N/A
Test Report Form No.	IEC62612G
Test Report Form(s) Originator	DEKRA Certification B.V.
Master TRF	2018-11-09
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Test item description..... :	LED T8 TUBE	
Trade Mark..... :	FAIRDEAL	
Manufacturer	Zhongshan Shengshi Lighting Technology Co., Ltd No. 6 Xibi Avenue, Qilin Industrial Zone, Haizhou, Guzhen Town, Zhongshan City, Guangdong Province, China	
Model/Type reference	FD-T8-30W	
Ratings	Input: 165-265V~, 50/60Hz, 30W, 6500K, 3420 lm	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☒	Testing Laboratory:	Shenzhen AOCE Electronic Technology Service Co., Ltd
Testing location/ address..... :		Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China
Tested by (name, function, signature)		Bill Hu Technical Engineer <i>Bill Hu</i>
Approved by (name, function, signature)...		Robin Liu Technical Manager <i>Robin Liu</i>
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) :		

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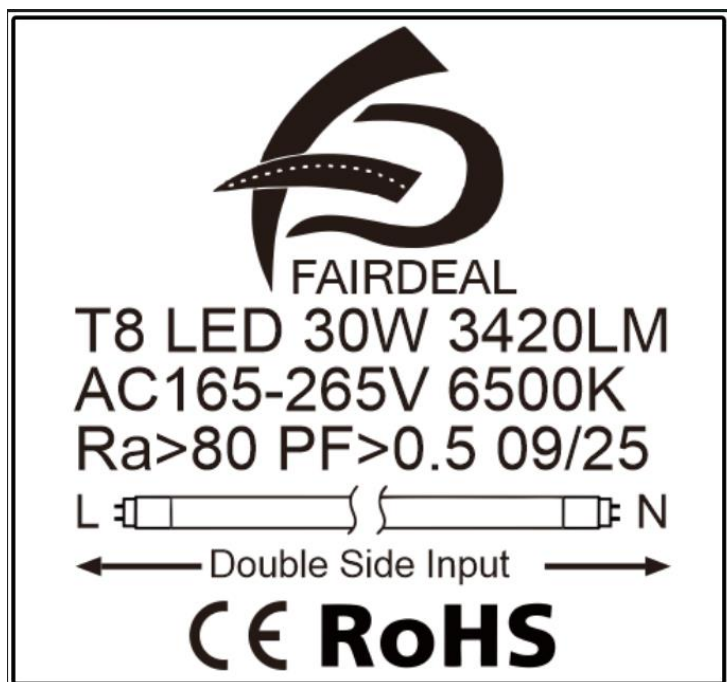
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TRF No. IEC62612G

List of Attachments (including a total number of pages in each attachment): Attachment No.1: Photo document.	
Summary of testing:	
Tests performed (name of test and test clause): IEC 62612:2013+AMD1:2015+AMD2:2018	Testing location: Shenzhen AOCE Electronic Technology Service Co., Ltd Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China
Summary of compliance with National Differences (List of countries addressed): None ☐ The product fulfils the requirements of	

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



Test item particulars.....:	
Classification of installation and use.....: N/A	
Supply Connection G13	
.....: N/A	
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 2024-11-27	
Date (s) of performance of tests 2024-11-27 to 2025-09-18	
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 test report only allows to be revised only within the report defined retention period unless standard or regulation was withdrawn or invalid. When determining for test conclusion, measurement uncertainty of tests has been considered.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC60335-2-29:	
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) : Zhongshan Shengshi Lighting Technology Co., Ltd No. 6 Xibi Avenue, Qilin Industrial Zone, Haizhou, Guzhen Town, Zhongshan City, Guangdong Province, China	
General product information and other remarks:	
1. This product is a LED T8 TUBE lamp with a lamp cap type of G13. 2. Maximum ambient temperature is 25°C. 3. All the test data are all derived from the original report AOC250919030ER. Only the trademark, applicant and model name are different. This report was based on the original report AOC250919031ER, only following items are revised, when this report issued, the original report will be withdraw: 1). Update the applicant's name and trade mark.	

IEC 62612			
Clause	Requirement + Test	Result - Remark	Verdict

5	MARKING		P
	- rated luminous flux (lm)	3420	P
	- rated colour	6500K	P
	- rated beam angle.....		N/A
	- lamp photometric code		N/A
	- colour variation category	6	P
	- rated life and the rated lumen maintenance factor(Lx)	25000h	P
	- Failure rate (F _x).....		N/A
	- peak intensity (cd).....		N/A
	- rated colour rendering index.....	80	P
	- ageing time	6000	P
	- rated efficacy (lm/W).....	114	P
	- dimensions	Ø28x1200 mm	P
	- displacement factor	0.9	P
	Location of the marking	Lamp body	P

6	DIMENSIONS		P
	Dimensions as indicated by manufacturer or responsible vendor		P
	Not exceed the outlines of the lamp to be replaced		P

8	LAMP INPUT		P
8.1	Lamp power		P
	Measured module power	29.62W	—
	The power dissipated by the LED-lamp do not exceed the rated wattage by more than 10%	-1.27%<10%	P
8.2	Displacement factor		P
	Measured displacement factor.....	0.935	—
	The measured displacement factor for each individual lamp of the sample is not less than the marked value by more than 0,05.		P

IEC 62612			
Clause	Requirement + Test	Result - Remark	Verdict
9	LIGHT OUTPUT		P
9.1	Luminous flux		P
	Measured total luminous flux (lm) :	3374.99 lm	—
	The initial luminous flux of a LED lamp measured is not less than 90% of the rated luminous flux :	99.26%>90%	P
9.2	Luminous intensity distribution, peak intensity and beam angle		—
9.2.3	Luminous intensity distribution	See clause 12	—
9.2.4	Peak intensity value		—
9.2.5	Beam angle value		—
9.3	EFFICACY		P
	The lamp efficacy is calculated from the measured luminous flux divided by the measured input power. Measured efficacy (lm/W) :	113.96 lm/W	—
	The efficacy of LED luminaire is not less than 90% of the rated efficacy :	99.96%>90%	P

10	CORRELATED COLOUR TEMPERATURE AND COLOUR RENDERING		P
10.1	Measured initial CCT :	6784K	—
	Measured CCT after an operation time of 25% of rated lamp life (max 6000 hours) :	6791K	—
	Not move beyond the CCT tolerance category		P
10.2	Measured initial CRI..... :	82.6	—
	Not have decreased by more than 3 points from the rated CRI value	2.6>-3	P

11	LAMP LIFE		P
11.2	Lumen maintenance		P
	Measured initial luminous flux :		—
	Measured luminous flux after an operation time of 25% of rated lamp life (max 1000 hours) :		—
	The measured flux value after an operation time of 25% of rated lamp life (max 1000 hours) not less than the maximum lumen maintenance related to the rated life		P

IEC 62612			
Clause	Requirement + Test	Result - Remark	Verdict
	The measured lumen maintenance corresponds with the "lumen maintenance category"		P
11.3	Endurance tests		P
11.3.2	Temperature cycling shock test		P
	At the end of the test all the LED lamps operate and have a luminous flux within the lumen maintenance code for 15 min and show no cracks or delaminating of the label.		P
11.3.3	Supply voltage switching test		P
	At the end of the test all the LED lamps operate and have a luminous flux within the lumen maintenance code for 15 min		P
11.3.4	Operational high temperature stress test		P
	After cooling down to room temperature, all the lamps have a luminous flux of at least 70% of the initial value for 15 min.		P

Test data sheet

ANNEX 1		TABLE: Initial Test Results											P
Sample No	Test Voltage (V)	Test Current (A)	lamp Wattage (W)	Displacement factor	Φ_{total} (lm)	Φ_{use} (lm)	Peak Intensity (cd)	Beam angle (°)	CRI	CCT (K)	chromaticity		Colour consistency (SDCM)
											x	y	
1	230.0	0.227	29.68	0.937	3376.60	3376.60	615.28	N/A	82.9	6772	0.3084	0.3268	5.3
2	230.0	0.227	29.74	0.939	3351.27	3351.27	612.77	N/A	82.9	6799	0.3096	0.3284	4.4
3	230.0	0.227	29.38	0.928	3320.64	3320.64	628.45	N/A	82.9	6785	0.3082	0.3272	5.0
4	230.0	0.227	29.44	0.929	3405.70	3405.70	632.84	N/A	82.6	6758	0.3108	0.3288	4.5
5	230.0	0.227	29.56	0.933	3436.32	3436.32	630.96	N/A	82.9	6799	0.3090	0.3271	5.1
6	230.0	0.227	29.80	0.941	3453.33	3453.33	621.56	N/A	82.9	6806	0.3071	0.3264	5.5
7	230.0	0.227	29.58	0.934	3371.68	3371.68	625.32	N/A	82.9	6690	0.3068	0.3281	5.0
8	230.0	0.227	29.43	0.929	3290.02	3290.02	616.54	N/A	82.5	6703	0.3094	0.3271	5.2
9	230.0	0.227	29.58	0.934	3415.91	3415.91	630.96	N/A	82.8	6737	0.3112	0.3291	4.4
10	230.0	0.227	29.66	0.936	3426.12	3426.12	635.98	N/A	82.8	6676	0.3068	0.3284	4.8
11	230.0	0.227	29.69	0.937	3446.53	3446.53	622.18	N/A	82.7	6840	0.3040	0.3262	6.6
12	230.0	0.227	29.92	0.944	3470.35	3470.35	620.30	N/A	82.5	6837	0.3087	0.3269	5.2
13	230.0	0.227	29.64	0.936	3378.48	3378.48	616.54	N/A	82.1	6806	0.3081	0.3272	5.0
14	230.0	0.227	30.01	0.947	3310.44	3310.44	628.45	N/A	82.9	6778	0.3078	0.3281	4.7
15	230.0	0.227	29.43	0.929	3344.46	3344.46	648.15	N/A	82.8	6772	0.3084	0.3288	4.3
16	230.0	0.227	29.83	0.942	3327.45	3327.45	627.83	N/A	82.1	6758	0.3099	0.3276	5.0
17	230.0	0.227	29.38	0.927	3375.08	3375.08	619.67	N/A	82.5	6840	0.3099	0.3300	3.6

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Test data sheet

18	230.0	0.227	29.39	0.928	3344.46	3344.46	618.42	N/A	82.1	6874	0.3087	0.3275	4.9
19	230.0	0.227	29.61	0.935	3286.62	3286.62	620.30	N/A	82.5	6778	0.3071	0.3273	5.1
20	230.0	0.227	29.63	0.935	3368.28	3368.28	617.16	N/A	82.4	6867	0.3087	0.3294	4.0
Average	230.0	0.227	29.62	0.935	3374.99	3374.99	624.48	N/A	82.6	6784	0.3084	0.3278	4.9

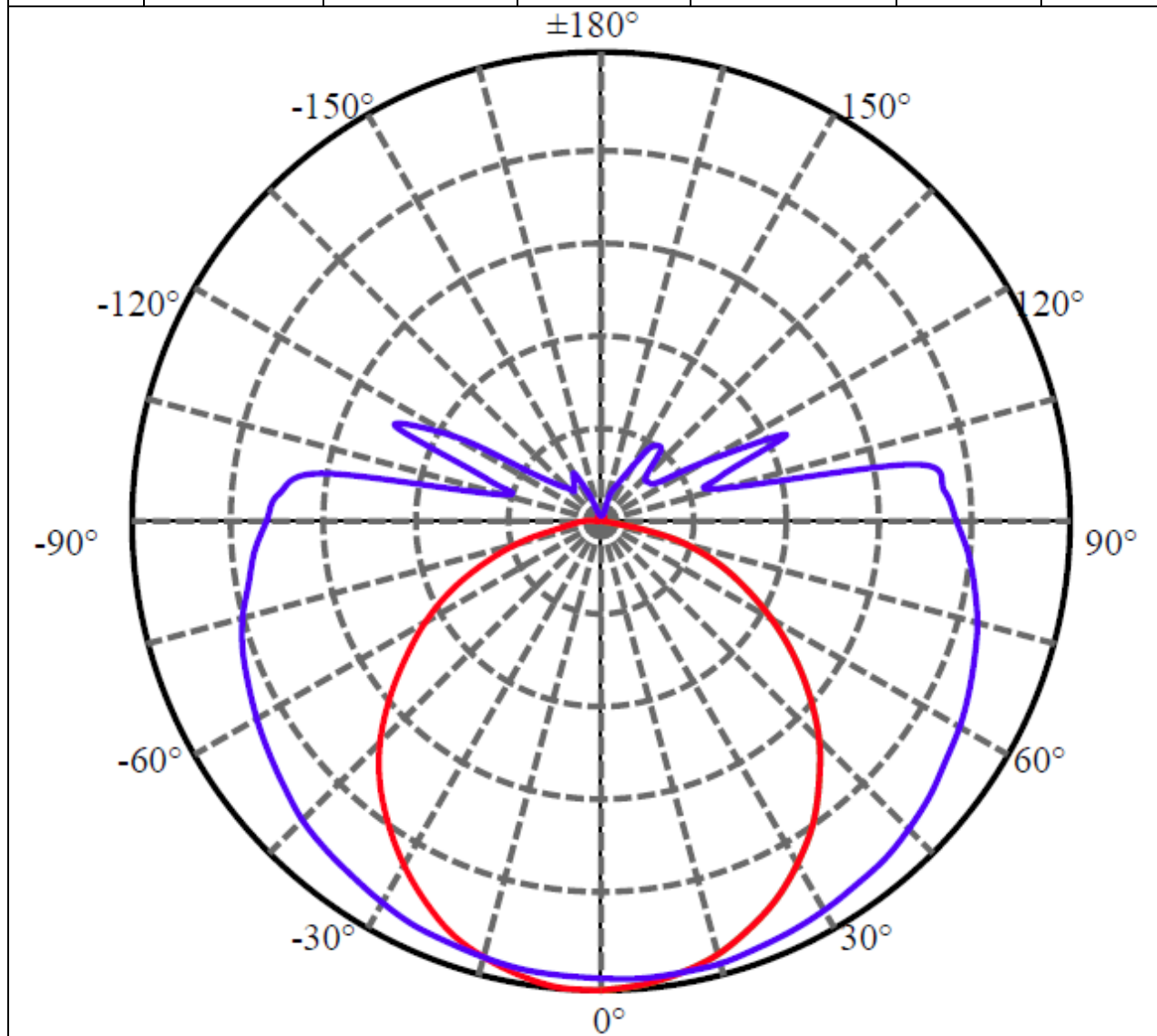
Test data sheet

ANNEX 2	TABLE: Test Result of Lumen Maintenance and Survival factor				P
Sample No	Test Voltage (V)	Initial Φ_{total} (lm)	6000H Φ_{total} (lm)	Lumen Maintenance(6000H)	Lamp survival factor
1	230.0	3376.60	3153.35	93.39%	100%
2	230.0	3351.27	3135.04	93.55%	100%
3	230.0	3320.64	3120.10	93.96%	100%
4	230.0	3405.70	3172.86	93.16%	100%
5	230.0	3436.32	3191.40	92.87%	100%
6	230.0	3453.33	3194.56	92.51%	100%
7	230.0	3371.68	3106.37	92.13%	100%
8	230.0	3290.02	3054.60	92.84%	100%
9	230.0	3415.91	3177.57	93.02%	100%
10	230.0	3426.12	3193.49	93.21%	100%
11	230.0	3446.53	3238.51	93.96%	100%
12	230.0	3470.35	3234.26	93.20%	100%
13	230.0	3378.48	3174.57	93.96%	100%
14	230.0	3310.44	3043.43	91.93%	100%
15	230.0	3344.46	3110.98	93.02%	100%
16	230.0	3327.45	3079.98	92.56%	100%
17	230.0	3375.08	3161.75	93.68%	100%
18	230.0	3344.46	3086.31	92.28%	100%
19	230.0	3286.62	3036.64	92.39%	100%
20	230.0	3368.28	3127.25	92.84%	100%
Average	230.0	3374.99	3139.65	93.02%	100%

ANNEX 3	TABLE: Luminous Intensity Distribution	—
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Test data sheet

I_0 (cd)	I_{max} (cd)	Beam angle(°)	$\Phi_{90^\circ} / \Phi_{total}$	$\Phi_{120^\circ} / \Phi_{total}$	$\Phi_{useful}(lm)$	$\Phi_{total}(lm)$
620.30	620.30	111.5*203.9	23.13%	36.60%	3286.62	3286.62

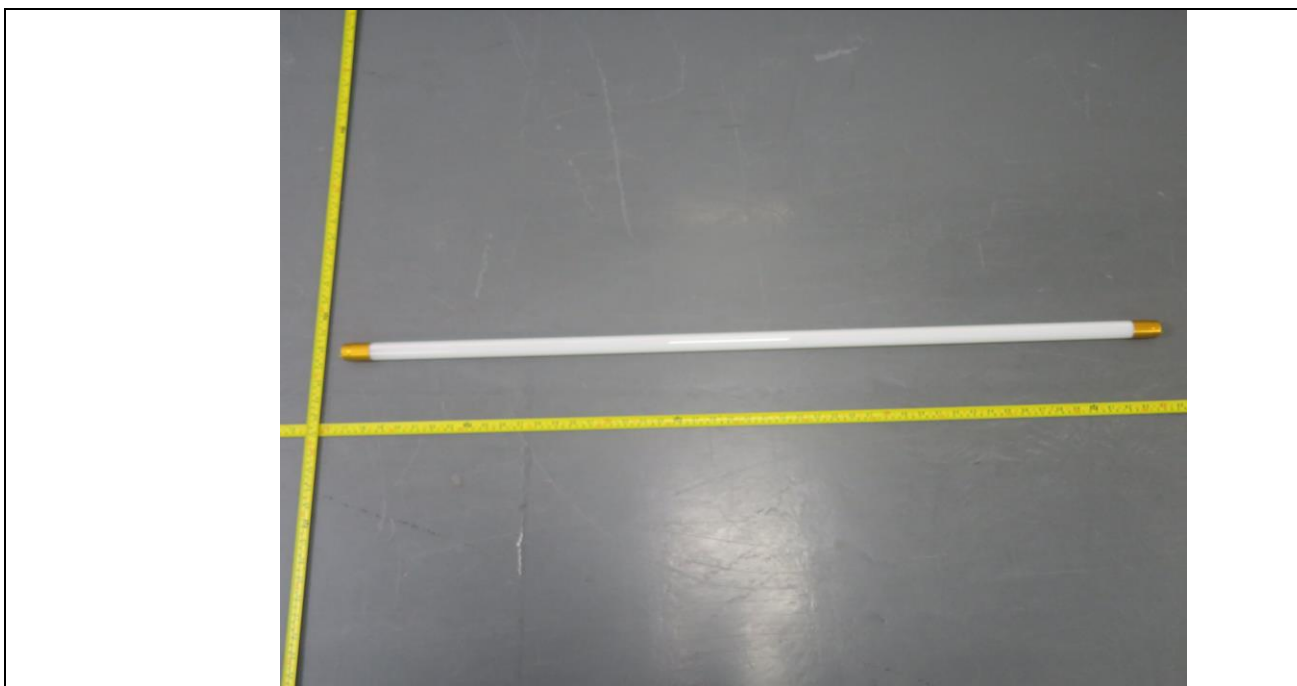
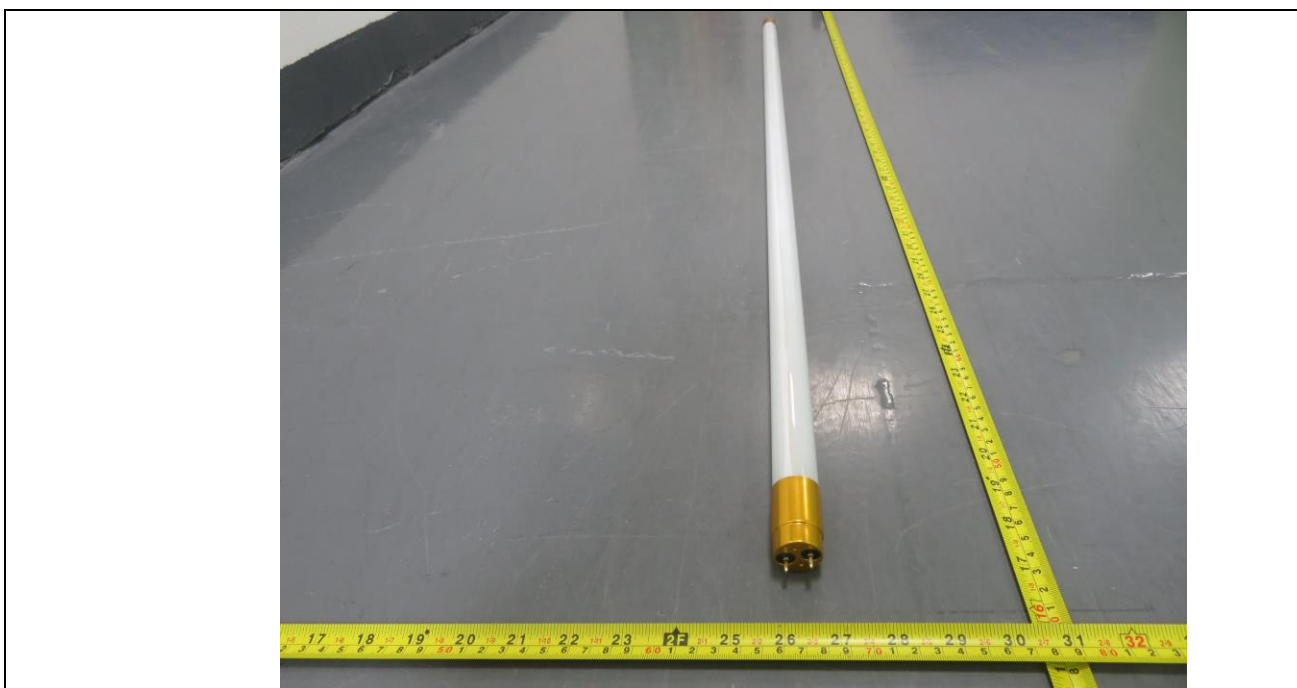


IEC 62612			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 4	TABLE: Critical components information					N/A
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾	
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Supplementary information:						
¹⁾ Provided evidence ensures the agreed level of compliance. See OD-CB2039.						

Test Equipment List

Equipment Name	Manufacturer	Model No.	Reference No.	Calibration Due Date
2m Integrating Sphere	SENSING	SL-300	AOC-S-126	2026-04-13
Horizontal Distribution Photometer	SENSING	GMS1800D	AOC-S-124	2026-04-13
Standard Lamp	SENSING	220V/150W	AOC-S-156	2026-06-05
Digital power meter	HENGHE	WT310E	AOC-S-012	2026-04-13
Digital power meter	SENSING	UI2008	AOC-S-123	2026-04-13
Digital power meter	SENSING	UI2021	AOC-S-123	2026-04-13
DC source	OYHS	OYHS-Z120V-50A	AOC-S-062	2026-04-13
Variable frequency power supply	WOSEN	BP6005	AOC-S-129	2026-04-13
Variable frequency power supply	AIPUSI	KDF-500	AOC-S-130	2026-04-13
Oscilloscope	TEKTRONIX	MDO3012	AOC-S-028	2026-04-13

Attachment No.1**Product Photos**Details of: Overview for model FD-T8-30WDetails of: Overview for model FD-T8-30W

Attachment No.1

Product Photos

Details of: Overview for model FD-T8-30W



- End of report -