Test Report issued under the responsibility of:



# IEC 62560 Self-Ballasted LED-Lamp for general lighting services by voltage > 50V Safety specifications

Report Number.....: AOC240909021S-R1

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preparing the Report.....: Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial

Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China

Applicant's name.....: ALI AUAD ALSHALABIEST

Address...... JORDANN-AMMAN-NAZAL-ALSHALABI ELECTRICITY

Test specification:

**Standard.....:** IEC 62560:2011+A1:2015

Test procedure.....: Type testing

Non-standard test method.....: N/A

Test Report Form No.....: IEC62560C

Test Report Form(s) Originator.....: DEKRA Certification B.V.

Master TRF.....: Dated 2018-12-21

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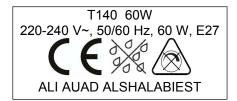
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Test item description:	Led Bu	ılb		
Trade Mark:	POLO-	-LIGHT		
Manufacturer:	ALI AL	JAD ALSHALABIEST		
	JORD	ANN-AMMAN-NAZAL-AL	SHALABI ELECTRICITY	
Model/Type reference:	A50-5W WH, A60-9W WH, A65-12W WH, A70-15W WH, A80-18W WH, T80-20W WH, T100-30W WH, T115-40W WH, T125-50W WH C40-7W WH, C40-7W WW, GU10			
Ratings	220-24	10 V∼, 50/60 Hz, 60 W, E	27	
Responsible Testing Laboratory (as a	pplicab	ole), testing procedure a	and testing location(s):	
□ Testing Laboratory:		Shenzhen AOCE Electro	onic Technology Service Co., Ltd	
Testing location/ address	:		o.12th Building of Xinhe Tongfuyu reet, Baoan District, Shenzhen,	
Tested by (name, function, signature).	·····::	ZhiCong Xian Technical Engineer	ZhiCong Xian Robin. Lin	
Approved by (name, function, signatu	re):	Robin Liu Technical Manager	Robin. Lin	
☐ Testing procedure: CTF Stage 1:		N/A		
Testing location/ address	:			
Tested by (name, function, signature).	:			
Approved by (name, function, signatu	re):			
☐ Testing procedure: CTF Stage 2:		N/A		
Testing location/ address	:			
Tested by (name + signature)	:			
Witnessed by (name, function, signatu	ure):			
Approved by (name, function, signatu	re):			
☐ Testing procedure: CTF Stage 3:		N/A		
☐ Testing procedure: CTF Stage 4:		N/A		
Testing location/ address				
Tested by (name, function, signature).				
Witnessed by (name, function, signatu				
Approved by (name, function, signatu				
Supervised by (name, function, signal				

List of Attachments (including a total number of pages in each attachment):				
Attachment No.1: Photo document.	Attachment No.1: Photo document.			
Summary of testing:				
Tests performed (name of test and test clause):	Testing location:			
	Shenzhen AOCE Electronic Technology Service Co.,			
All testing were performed on model T140 60W	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				
None				

### Copy of marking plate:



#### Remark:

- 1. The marking plate of others models are identical with models T140 60W, except with different model number, and rated power.
- 2. The above mark is the minimum requirements required by the safety standard. For the final production, the additional marks which do not give rise to misunderstanding may be added.
- 3. The height of graphical symbols shall not be less than 5 mm
- 4. The height of letters shall not be less than 2 mm.

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Test item particulars:			
Classification of installation and use:	Direct insert into lampholder		
Supply Connection:	Lamp cap		
:			
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:	2024-08-26		
Date (s) of performance of tests:	2024-08-26 to 2025-08-12		
General remarks:			
The tested sample(s) and the sample information are p	rovided by the client.		
"(See Enclosure #)" refers to additional information ap			
"(See appended table)" refers to a table appended to the Note: National Conditions, if any, are in the Appended			
Throughout this report a $\square$ comma / $\boxtimes$ 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.			
Note: clauses marked '*' not included in CNAS sco	pe.		
This report was based on the original report AOC24090 issued, the original report will be withdraw:	09021S, only following items are revised, when this report		
1. Add models			
Manufacturer's Declaration per sub-clause 4.2.5 of	IECEE 02:		
The application for obtaining a CB Test Certificate	☐ Yes		
includes more than one factory location and a declaration from the Manufacturer stating that the	Not applicable     ■		
sample(s) submitted for evaluation is (are)			
representative of the products from each factory has			
been provided			
When differences exist; they shall be identified in the	ne General product information section.		

Name and address of factory (ies):	Same as manufacturer
General product information and other remarks:	
General product information and other remarks.	
- Self-ballasted LED-lamp and non-repairable.	
Models description:	
	I on T140 60W, all models have the same electrical
and mechanical structure. All tests were performed	<u> 1 to moder 60w.</u>

	IEC 62560	)	
Clause	Requirement + Test	Result - Remark	Verdict

4	GENERAL REQUIREMENTS		Р
4.1	The lamp shall be so designed and constructed that in normal use cause no danger to the user.		Р
4.2	Self-ballasted LED-Lamp are non-repairable.		Р

5	MARKING		Р
5.1	Mandatory marking		Р
	- mark of origin		Р
	- rated supply voltage (V)	220 V	Р
	- rated wattage (W)	60 W	Р
	- rated frequency (Hz)	50/60 Hz	Р
5.2	Addition marking		N/A
	- rated current (A)		N/A
	- weight significantly higher		N/A
	- special conditions or restrictions		N/A
	Not suitable for dimming; symbol used		Р
	- not suitable for water contact		Р
5.3	Marking durable and legible		Р
	rubbing 15 s water, 15 s petroleum; marking legible		Р

6	INTERCHANGEABILITY	
6.1	Cap interchangeability in accordance with IEC 60061-1	
	Gauge in accordance with IEC 60061-3	Р
6.2	Bending moment and mass imparted by the lamp at the lampholder	
	Bending moment imparted by the lamp at the lampholder (Nm)	Р
	Mass not exceeding value table 2 or as specified in IEC 60061-1 (kg)	Р

7	PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS		Р
	Internal, basic insulated or live metal parts not accessible		Р

IEC 62560				
Clause	Requirement + Test Result - Remark			
	Tested with a test finger with a force of 10 N		Р	
	Compliance checked with appropriate gauges		Р	
8	INSULATION RESISTANCE AND ELECTRIC STRENGTH		Р	
8.2	After storage 48 h at 91-95% relative humidity and 20-30 °C measuring of insulation resistance with d.c. 500 V (M $\Omega$ ):		Р	
	$\geq$ 4 M $\Omega$ for double or reinforced insulation		Р	
8.3	Immediately after clause 8.2 electric strength test for 1 min		Р	
	Double or reinforced insulation, 4U + 2000 V	3000 V	Р	
	No flashover or breakdown		Р	

9	MECHANICAL STRENGTH	Р
9.2.1	Torsion resistance of unused lamps	Р
	B15d or E14 Cap 1,15 Nm	Р
	B22d, E26, E26d or E27 Cap3,0 Nm	N/A
	E11 or E12 Cap	N/A
	E17 Cap1,5 Nm	N/A
	E39 or E40 Cap5,0 Nm	N/A
	GX53 Cap3,0 Nm	N/A
9.3	Compliance criteria	Р
	Clause 8 shall comply after the mechanical strength test.	Р
9.4	Axial strength of Edison caps	Р
	After full insertion into the gauge an axial force of Table 4 is applied to the central contact (N):	Р
	The insulation around the central contact shall remain intact	Р

10	CAP TEMPERATURE RISE		Р
	The cap temperature rise $\Delta t_s$ of the lamp shall not exceed 120 K.		Р

- 1	11	RESISTANCE TO HEAT	Р	
		REGIOTANOE TO TIEAT	•	

	IEC 62560				
Clause	Requirement + Test	Result - Remark	Verdict		
	Parts of insulating material providing protection against electric shock, retaining live parts in position, ball-pressure test:	(see appended table)	Р		

12	RESISTANCE TO FLAME AND IGNITION		
	External parts of insulating material preventing electric shock glow-wire test 650 °C	(see appended table)	Р

13	FAULT CONDITIONS		Р
13.2	Fault conditions: where diagram indicates fault condition impairs safety, electronic components have been short-circuited or disconnected	(see appended table)	Р
13.3	When operated under fault conditions the lamp		Р
	- does not emit flames or molten material		Р
	- does not produce flammable gases or smoke		Р
	- live parts not accessible		Р
	After the tests the insulation resistance with d.c. 1000 V complies with requirements of Cl. 8.1		Р
14 (16)	CREEPAGE DISTANCES AND CLEARANCES		Р
	Creepage distances and clearances according to IEC 61347-1	(see appended table)	Р
	Conductive accessible parts according to IEC 60598-1	(see appended table)	Р

15	ABNORMAL OPERATION	Р
	Non-dimmable self-ballasted lamps are tested on a dimmer or an electronic switch according the test circuit shown in Figure 8	Р
	Operate the lamp for 8 h at most onerous dimming level	Р
	When operated under abnormal operation the lamp	Р
	- does not catch fire	Р
	- does not produce flammable gases	Р
	- live parts not accessible	Р

	IEC 62560				
Clause	Clause Requirement + Test Result - Remark				
16	TEST CONDITIONS FOR DIMMABLE LAMPS				
	Test are carried out at maximum power setting for Clause 10 and Clause 17		N/A		

17	PHOTOBIOLOGICAL SAFETY			Р
17.1	UV radiation			Р
	The LED lamp doesn't exceed 2mW/klm			
17.2	.2 Blue light hazard			Р
	Assessed according to IEC TR 62778			
	LED lamps shall be RG0 or RG1 RG0			

18	INGRESS PROTECTION		
18.1	1 Lamps shall be suitable for water contact unless marked with Figure 6 marked with Figure 6		N/A
18.2	The lamp is subjected to an IPX4 test according to IEC 60598-1		N/A
	The lamp complies with the compliance provisions of 9.2 of IEC 60598-1		N/A
	Lamps constructed so that it is sealed to exclude water need not to be tested		N/A

IEC 62560				
Clause	Requirement + Test	Result - Remark	Verdict	

11	TABLE: Ball Pressure Test of Thermoplastics				
Allowed impression diameter (mm):		2		_	
Object/ Part	No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diame	ter (mm)
LED cover		See ANNEX 1	75	1.1	
Plastic encl	osure	See ANNEX 1	93 (67.5+25)	1.2	
Plastic mate lampholder	erial support the	See ANNEX 1	125	1.1	
Supplementary information:					

12 TABLE: Resistance to heat and fire - Glow wire tests					Р
Object/ Part No./ Material			Glow wire to	Glow wire test (GWT); (°C)	
		Manufacturer/ trademark	650		
			te	ti	
LED cover		See ANNEX 1	0	0	pass
Plastic enclosure		See ANNEX 1	0	0	pass
Plastic mater lampholder	rial support the	See ANNEX 1	0	0	pass

13	TABLE: tests of fault conditions		Р
Part	Simulated fault Result		Hazard
BD1	Short-circuit	Fusible resistor (F1) was opened	NO
C1	Short-circuit	Fusible resistor (F1) was opened	NO
C4	Short-circuit	LED packages no working	NO
D1	Short-circuit	LED packages no working	NO

14	TABLE: Clearance And Creepage Distance Measurements						Р
clearance cl and creepage distance dcr at/of:		Up (V)	U r.m.s. (V)	Required cl (mm)	cl (mm)	required dcr (mm)	dcr (mm)
Between L a	and N	-	250	1.5	>1.5	2.5	>2.5

# Page 12 of 18

Report No. AOC240909021S-R1

IEC 62560							
Clause	Requirement + Test				Result - Remark	Verdict	
Between live parts and accessible surface		-	240	3.0	>3.0	5	>5.0
Supplementary information:							

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IEC 62560				
Clause	Requirement + Test	Result - Remark	Verdict	

ANNEX 1	TABLE: Critical components information					Р
Object/part No.	Code	Manufacturer/ Trademarks	Type/ model	Technical data	Standard	Mark(s) of conformity
Plastic cover	С	IDEMITSU KOSAN CO LTD	(u)Y2200(+) (f1) (No marking)	PC; V-0	EN 62560	Tested with appliance and UL(E4826 8)
Enclosure plastic	С	BASF SE	B4406 G2(a), B4406 G2 (o) Q717(a) (No marking)	PBT; V-0	EN 62560	Tested with appliance and UL(E4187 1)
LED PCB	С	IDEMITSU KOSAN CO LTD	(u)Y2200(+) (f1) (No marking)	PC; V-0	EN 62560	Tested with appliance and UL(E4826 8)
Plastic connector	С	IDEMITSU KOSAN CO LTD	(u)Y2200(+) (f2) (No marking)	PC	EN 62560	Test with appliance UL/E4826
Fuse resistor	С	SHENZHEN GREAT ELECTRONICS CO., LTD.	RXF-1W Series (No marking)	22 Ohm, 1W	EN 62560	Tested with appliance and UL(E3015 41)
Input wire	С	DONGGUAN YIAO ELECTRONICS CO LTD	3239	24AWG/26AW G, 3000Vdc,200° C	EN 62560	Tested with appliance and UL(E3489 33)
LED	С	NINGBO SUNPULED CO., LTD	ST- 283565WTH- 36V30	VF= 17V~20V, IF=30mA; CCT: Max. 7000K	EN 62471 IEC TR 62778	Test with appliance

Supplementary information:

The codes above have the following meaning:

A - The component is replaceable with another one, also certified, with equivalent characteristics

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<sup>&</sup>lt;sup>1)</sup> Provided evidence ensures the agreed level of compliance. See OD-CB2039.

IEC 62560						
Clause	Clause Requirement + Test Resu		Verdict			
C - Integr	omponent is replaceable if authorised by the ated component tested together with the appartive component					

		IEC 62560				
Clause	Requirement + Test		Verdict			
	ANNEX 2: temperature measurements, thermal tests of Section 10					
	Type referencet	T140 60W				
	Used ballast	Used ballast			_	
	Mounting position of lumina	aire:	Cap Up and Cap down		_	
	Supply wattage (W)					
	Supply current (A)					
	Calculated power factor					
	<u> </u>	cures corrected for ta = 25°0	 C:		_	
	Test: rated voltage				_	
	-	Test value	Result			
Temperat	ture (°C) of part	Normal (°C)	Abnormal(°C)	Limit(°C)		
	internal wire	79.5	-	200	)	
	E-cap.	75.3	-	180	)	
	U2	89.4	-	130	)	
LED PCB		91.2	-	cl.11		
LED cover		47.5	-	cl.1	1	
Plastic enclosure		67.6	-	cl.1	1	
plastic material support the lampholder		35.6	-	cl.1	1	

#### **Attachment No.1**

### **Product Photos**



Details of: Fig. 2



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#### **Attachment No.1**

### **Product Photos**

Details of: Fig. 3



Details of: Fig. 4



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#### **Attachment No.1**

## **Product Photos**

Details of: Fig. 5



-- End of Report --

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