



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

**Report Number.....:** AOC250520005S

**Date of issue.....:** 2025-05-27

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**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.....:** JORDAN ZARA FOR ELECTRICAL TOOLS & MANUFACTURING CO., LTD.

**Address.....:** JABAL AL-HUSSEIN-AS'AD KALIL ST., AMMAN, JORDAN.

**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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<b>Test item description..... :</b>	LED BULB	
<b>Trade Mark..... :</b>	Riovance, Lava, Golden Zara, Jordan Zara, Trm, Rioled	
<b>Manufacturer..... :</b>	JORDAN ZARA FOR ELECTRICAL TOOLS & MANUFACTURING CO., LTD. JABAL AL-HUSSEIN-AS'AD KALIL ST., AMMAN, JORDAN.	
<b>Model/Type reference..... :</b>	See Model List	
<b>Ratings..... :</b>	220-240 V~, 50/60 Hz, 65 W, E27	
<b>Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):</b>		
<input checked="" type="checkbox"/>	<b>Testing Laboratory:</b>	Shenzhen AOCE Electronic Technology Service Co., Ltd
<b>Testing location/ address..... :</b>		Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China
<b>Tested by (name, function, signature)..... :</b>		ZhiCong Xian Technical Engineer <i>ZhiCong Xian</i>
<b>Approved by (name, function, signature)... :</b>		Robin Liu Technical Manager <i>Robin Liu</i>
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 1:</b>	N/A
<b>Testing location/ address..... :</b>		
<b>Tested by (name, function, signature)..... :</b>		
<b>Approved by (name, function, signature)... :</b>		
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 2:</b>	N/A
<b>Testing location/ address..... :</b>		
<b>Tested by (name + signature)..... :</b>		
<b>Witnessed by (name, function, signature).. :</b>		
<b>Approved by (name, function, signature)... :</b>		
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 3:</b>	N/A
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 4:</b>	N/A
<b>Testing location/ address..... :</b>		
<b>Tested by (name, function, signature)..... :</b>		
<b>Witnessed by (name, function, signature).. :</b>		
<b>Approved by (name, function, signature)... :</b>		
<b>Supervised by (name, function, signature) :</b>		

**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):**

All testing were performed on model BBT-65

**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**

**Copy of marking plate:****Remark:**

1. The marking plate of others models are identical with models BBT-65, 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.

<b>Test item particulars..... :</b>	
<b>Classification of installation and use.....:</b> Direct insert into lampholder	
<b>Supply Connection.....:</b> Lamp cap	
.....:	
<b>Possible test case verdicts:</b>	
- 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)	
<b>Testing..... :</b>	
<b>Date of receipt of test item..... :</b> 2025-05-06	
<b>Date (s) of performance of tests..... :</b> 2025-05-06 to 2025-05-27	
<b>General remarks:</b>	
<p>The tested sample(s) and the sample information are provided by the client.</p> <p>"(See Enclosure #)" refers to additional information appended to the report.</p> <p>"(See appended table)" refers to a table appended to the report.</p> <p><b>Note: National Conditions, if any, are in the Appendix to the main body of this TRF.</b></p> <p><b>Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.</b></p> <p>The test report only allows to be revised only within the report defined retention period unless standard or regulation was withdrawn or invalid.</p> <p>When determining for test conclusion, measurement uncertainty of tests has been considered.</p> <p><b>Note: clauses marked “*” not included in CNAS scope.</b></p>	
<b>Manufacturer's Declaration per sub-clause 4.2.5 of IEC60335-1:</b>	
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.....:	<input type="checkbox"/> <b>Yes</b> <input checked="" type="checkbox"/> <b>Not applicable</b>
<b>When differences exist; they shall be identified in the General product information section.</b>	
<b>Name and address of factory (ies)..... :</b> Same as manufacturer	

**General product information and other remarks:**

- Self-ballasted LED-lamp and non-repairable.


**Models description:**

- The construction and circuit diagrams are identical on BBT-65, all models have the same electrical and mechanical structure. All tests were performed to model BBT-65.

Model No.	Power(W)
BBA-5	5W
BBA-7	7W
BBA-9	9W
BBA-10	10W
BBA-11.5	11.5W
BBA-12	12W
BBA-14	14W
BBA-16	16W
BBA-18	18W
BBA-20	20W
BBA-24	24W
BBT-29	29W
BBT-38	38W
BBT-40	40W
BBT-45	45W
BBT-58	58W
BBT-60	60W
BBT-62	62W
<b>BBT-65</b>	65W

IEC 62560			
Clause	Requirement + Test	Result - Remark	Verdict

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

<b>5</b>	<b>MARKING</b>		<b>P</b>
5.1	Mandatory marking		P
	- mark of origin		P
	- rated supply voltage (V)..... :	220-240 V	P
	- rated wattage (W)..... :	65 W	P
	- rated frequency (Hz)..... :	50/60 Hz	P
5.2	Addition marking		P
	- rated current (A)..... :		N/A
	- weight significantly higher		N/A
	- special conditions or restrictions		N/A
	Not suitable for dimming; used	 symbol	P
	- not suitable for water contact		P
5.3	Marking durable and legible		P
	rubbing 15 s water, 15 s petroleum; marking legible		P

<b>6</b>	<b>INTERCHANGEABILITY</b>		<b>P</b>
<b>6.1</b>	<b>Cap interchangeability in accordance with IEC 60061-1</b>		<b>P</b>
	Gauge in accordance with IEC 60061-3		P
<b>6.2</b>	<b>Bending moment and mass imparted by the lamp at the lampholder</b>		<b>P</b>
	Bending moment imparted by the lamp at the lampholder (Nm)..... :	E27, 2 Nm	P
	Mass not exceeding value table 2 or as specified in IEC 60061-1 (kg)..... :		P

<b>7</b>	<b>PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS</b>		<b>P</b>
	Internal, basic insulated or live metal parts not accessible		P

IEC 62560			
Clause	Requirement + Test	Result - Remark	Verdict
	Tested with a test finger with a force of 10 N		P
	Compliance checked with appropriate gauges		P
<b>8</b>	<b>INSULATION RESISTANCE AND ELECTRIC STRENGTH</b>		<b>P</b>
8.2	After storage 48 h at 91-95% relative humidity and 20-30 °C measuring of insulation resistance with d.c. 500 V (MΩ):		P
	≥ 4 MΩ for double or reinforced insulation.....:	>100 MΩ	P
8.3	Immediately after clause 8.2 electric strength test for 1 min		P
	Double or reinforced insulation, 4U + 2000 V	2960V	P
	No flashover or breakdown		P

<b>9</b>	<b>MECHANICAL STRENGTH</b>		<b>P</b>
9.2.1	Torsion resistance of unused lamps		P
	B15d or E14 Cap..... 1,15 Nm		N/A
	B22d, E26, E26d or E27 Cap..... 3,0 Nm		P
	E11 or E12 Cap..... 0,8 Nm		N/A
	E17 Cap..... 1,5 Nm		N/A
	E39 or E40 Cap..... 5,0 Nm		N/A
	GX53 Cap..... 3,0 Nm		N/A
<b>9.3</b>	<b>Compliance criteria</b>		<b>P</b>
	Clause 8 shall comply after the mechanical strength test.		P
<b>9.4</b>	<b>Axial strength of Edison caps</b>		<b>P</b>
	After full insertion into the gauge an axial force of Table 4 is applied to the central contact (N).....:		P
	The insulation around the central contact shall remain intact		P

<b>10</b>	<b>CAP TEMPERATURE RISE</b>		<b>P</b>
	The cap temperature rise $\Delta t_s$ of the lamp shall not exceed 120 K.		P

<b>11</b>	<b>RESISTANCE TO HEAT</b>		<b>P</b>
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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)	P

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

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

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

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

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

<b>18</b>	<b>INGRESS PROTECTION</b>		<b>N/A</b>
18.1	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			P
Allowed impression diameter (mm) .....:		2		—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
LED cover	See ANNEX 1	75	1.1	
Plastic enclosure	See ANNEX 1	93 (67.5+25)	1.2	
Plastic material support the lampholder	See ANNEX 1	125	1.1	
Supplementary information:				

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

<b>13</b>	<b>TABLE: tests of fault conditions</b>			<b>P</b>
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	

<b>14</b>	<b>TABLE: Clearance And Creepage Distance Measurements</b>					<b>P</b>
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 and N	-	240	1.5	>1.5	2.5	>2.5

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

IEC 62560						
Clause	Requirement + Test			Result - Remark		Verdict
ANNEX 1	TABLE: Critical components information					P
Object/part No.	Code	Manufacturer/ Trademarks	Type/ model	Technical data	Standard	Mark(s) of conformity
Plastic cover	C	IDEMITSU KOSAN CO LTD	(u)Y2200(+) (f1) (No marking)	PC; V-0	EN 62560	Tested with appliance and UL(E4826 8)
Enclosure plastic	C	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	C	IDEMITSU KOSAN CO LTD	(u)Y2200(+) (f1) (No marking)	PC; V-0	EN 62560	Tested with appliance and UL(E4826 8)
Plastic connector	C	IDEMITSU KOSAN CO LTD	(u)Y2200(+) (f2) (No marking)	PC	EN 62560	Test with appliance UL/E4826 8
Fuse resistor	C	SHENZHEN GREAT ELECTRONICS CO., LTD.	RXF-1W Series (No marking)	22 Ohm, 1W	EN 62560	Tested with appliance and UL(E3015 41)
Input wire	C	DONGGUAN YIAO ELECTRONICS CO LTD	3239	24AWG/26AW G, 3000Vdc,200° C	EN 62560	Tested with appliance and UL(E3489 33)
LED	C	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:						
1) Provided evidence ensures the agreed level of compliance. See OD-CB2039.						
The codes above have the following meaning:						
A - The component is replaceable with another one, also certified, with equivalent characteristics						

IEC 62560			
Clause	Requirement + Test	Result - Remark	Verdict
B	- The component is replaceable if authorised by the test house		
C	- Integrated component tested together with the appliance		
D	- Alternative component		

IEC 62560			
Clause	Requirement + Test	Result - Remark	Verdict
	<b>ANNEX 2: temperature measurements, thermal tests of Section 10</b>		P
	Type referencet.....:	BBT-65	—
	Used ballast.....:	/	—
	Mounting position of luminaire.....:	Cap Up and Cap down	—
	Supply wattage (W).....:	65 W	
	Supply current (A).....:	--	
	Calculated power factor.....:	--	
	Table: measured temperatures corrected for ta = 25°C:		—
	Test: rated voltage.....:	240 V	—
Temperature (°C) of part	Test value	Result	
	Normal (°C)	Abnormal(°C)	Limit(°C)
internal wire	79.4	-	200
E-cap.	75.3	-	180
U2	89.2	-	130
LED PCB	91.1	-	cl.11
LED cover	47.2	-	cl.11
Plastic enclosure	67.5	-	cl.11
plastic material support the lampholder	35.9	-	cl.11

**Attachment No.1****Product Photos**

Details of: Fig. 1



Details of: Fig. 2





**Attachment No.1**

**Product Photos**

Details of: Fig. 3



-- End of Report --