



**TEST REPORT**  
**IEC 62838**  
**LEDsi lamps**  
**for general lighting services with supply voltage not exceeding**  
**50V a.c. r.m.s. or 120 V ripple free d.c. - Safety specifications**

**Report Number.....:** AOC250609003S  
**Date of issue.....:** 2025-06-09  
**Total number of pages.....:** 15 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.....:** Zhongshan Bidanli Lighting Co.,Ltd  
**Address.....:** No.215 Eastern Bank Road, Haizhou , Zhongshan, Guangdong Province, China

**Test specification:**  
**Standard..... :** IEC 62838:2015  
**Test procedure.....:** Type testing  
**Non-standard test method.....:** N/A

**Test Report Form No.....:** IEC62838A  
**Test Report Form(s) Originator.....:** Intertek Semko AB  
**Master TRF.....:** 2017-01

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<b>Test item description..... :</b>	LED Spot Light Bulb	
<b>Trade Mark..... :</b>	BIDANLI	
<b>Manufacturer..... :</b>	Zhongshan Bidanli Lighting Co.,Ltd No.215 Eastern Bank Road, Haizhou , Zhongshan, Guangdong Province, China	
<b>Model/Type reference..... :</b>	MR16-C01, MR16-C02, MR16-C03, MR16-C04, MR16-C05, MR11-C01, MR11-C02, MR11-C03, MR11-C04, MR11-C05, GU10-C01, GU10-C02, GU10-C03, GU10-C04, GU10-C05	
<b>Ratings..... :</b>	AC12V&DC12-24V, 50-60Hz, 6 W	
<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>
<b>Testing procedure: CTF Stage 1:</b>		
<input type="checkbox"/>	<b>Testing location/ address..... :</b>	N/A
	<b>Testing location/ address..... :</b>	
	<b>Tested by (name, function, signature)..... :</b>	
	<b>Approved by (name, function, signature)... :</b>	
<b>Testing procedure: CTF Stage 2:</b>		
<input type="checkbox"/>	<b>Testing location/ address..... :</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>	
<b>Testing procedure: CTF Stage 3:</b>		
<input type="checkbox"/>	<b>Testing location/ address..... :</b>	N/A
<b>Testing procedure: CTF Stage 4:</b>		
<input type="checkbox"/>	<b>Testing location/ address..... :</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>	

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IEC62838A

<b>Supervised by (name, function, signature) :</b>		
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**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):**

Full tests are carried out on MR16-C01  
- EN 62838:2016+A1:2017

**Testing location:**

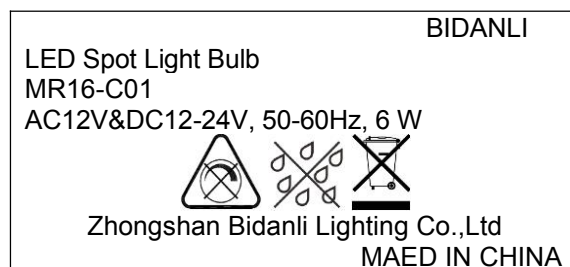
Shenzhen AOCE Electronic Technology Service Co.,  
Ltd  
Room 202, 2nd Floor, No.12th Building of Xinhe  
Tongfuyu Industrial Park, Fuhai Street, Baoan  
District, Shenzhen, Guangdong, China

**Summary of compliance with National Differences (List of countries addressed):**

N/A

**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.

**Remark:**

The mark as above is the requirements required by the safety standard. For the final production, the additional marks which do not give rise to misunderstanding may be added.

<b>Test item particulars..... :</b>	
<b>Classification of installation and use..... :</b>	Direct insert into lampholder
<b>Supply Connection..... :</b>	GU5.3 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>	2025-05-26
<b>Date (s) of performance of tests..... :</b>	2025-05-26 to 2025-06-19
<b>General remarks:</b>	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.	
<b>Throughout this report a <input type="checkbox"/> comma / <input checked="" type="checkbox"/> point is used as the decimal separator.</b>	
<b>Clause numbers between brackets refer to clauses in IEC 62560</b>	
<b>Manufacturer's Declaration per sub-clause 4.2.5 of IEC 02:</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:**

- Self-ballasted LED-lamp and dimming is allowed.

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Clause	Requirement + Test	Result - Remark	Verdict
<b>4</b>	<b>GENERAL REQUIREMENTS</b>		-
(4.1)	The lamp is designed and constructed that in normal use cause no danger to the user or surroundings		P
<b>5</b>	<b>MARKING</b>		-
<b>5 (5.1)</b>	<b>Mandatory marking</b>		P
	a) mark of origin		P
	b) rated supply voltage (V)..... :	AC12V&DC12-24V	P
	c) rated wattage (W)..... :	6 W	P
	d) rated frequency (Hz)..... :	50-60Hz	P
5 (-)	Only for DC .....		N/A
	Only for AC electronic .....		N/A
	Only for AC 50 Hz/60 Hz .....		N/A
	For AC electronic and AC 50 Hz/60 Hz .....		N/A
	For DC, AC electronic and AC 50 Hz/60 Hz .....		P
<b>5 (5.2)</b>	<b>Additional marking</b>		<b>P</b>
	b) rated current (A)..... :		N/A
	c) weight significantly higher		N/A
	d) special conditions or restrictions		N/A
	d) symbol if not suitable for dimming		P
	e) Symbol or written notice if not suitable for water contact		P
<b>5 (5.3)</b>	<b>Presence, legibility and durability of marking</b>		<b>P</b>
	Presence and legible		P
	Durability test		P
<b>6</b>	<b>INTERCHANGEABILITY</b>		-
<b>6.1</b>	<b>Cap interchangeability</b>		<b>P</b>
	Use of caps in accordance with IEC 60061-1 and Table 1		P
	Use of gauges in accordance with IEC 60061-3 and Table 1		P
<b>6.2</b>	<b>Bending moment and mass imparted by the lamp at the lampholder</b>		<b>P</b>

IEC 62838			
Clause	Requirement + Test	Result - Remark	Verdict
	Bending moment (Nm).....:		P
	Mass (g) .....		P

<b>7</b>	<b>PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS</b>		-
	If accessible conductive parts and voltage > 25 V r.m.s. or > 60 V d.c. the touch current does not exceed 0,7 mA (peak) or 2 mA d.c. ....:		P
	External metal parts not be or become live except the cap		P
	Compliance with touch current requirements of IEC 60598-1, Section 8 and Annex G		P

<b>8</b>	<b>INSULATION RESISTANCE AND ELECTRIC STRENGTH AFTER HUMIDITY TREATMENT</b>		-
<b>8.1</b>	<b>General</b>		<b>P</b>
	Insulation resistance and electric strength adequate between live parts and accessible parts		P
<b>8.2</b>	<b>Insulation resistance</b>		<b>P</b>
	After storage 48 h at 91-95% relative humidity and 20-30 °C measuring of insulation resistance with d.c. 500 V (MΩ):		P
	≥ 1 MΩ between live parts of the cap and accessible parts (insulating material with metal foil) .....		P
<b>8.3</b>	<b>Electric strength</b>		<b>P</b>
	Immediately after clause 8.2 voltage test for 1 min at 500 V r.m.s. if supply voltage is 25 to 50 V r.m.s. or 60 to 120 V d.c.		P
	No flashover or breakdown		P

<b>10 (10)</b>	<b>CAP TEMPERATURE RISE</b>		-
	Surface temperature of the lampholder fitted to the lamp is not higher than that of the replaced lamp		P
	Cap temperature rise $\Delta t_s$ of the lamp not exceed 120 K (°C).....:		P

<b>11 (11)</b>	<b>RESISTANCE TO HEAT</b>		-
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Clause	Requirement + Test	Result - Remark	Verdict
	Ball-pressure test of insulating material providing protection against electric shock or retaining live parts in position	(see appended table)	P

<b>12 (12)</b>	<b>RESISTANCE TO FLAME AND IGNITION</b>		-
	Glow-wire test of insulating material preventing electric shock	(see appended table)	P

<b>13</b>	<b>FAULT CONDITIONS</b>		-
<b>13.1</b>	<b>General</b>		<b>P</b>
	Fault conditions according IEC 61347-1, Clause 14	(see appended table)	P
	Fault conditions according IEC 62560, Clause 13	(see appended table)	P
<b>13.2</b>	<b>Compliance</b>		<b>P</b>
	Requirements according IEC 62560, Clause 13.3 but with 500V		P
	When operated under fault conditions the lamp:		P
	- not catch fire		P
	- not produce flammable gases		P
	- live parts not become accessible		P
	After the tests the insulation resistance with d.c. 500 V complies with requirements of Clause 8.1 of IEC 62560; Insulation resistance (MΩ) .....	> 100 MΩ	P

<b>14</b>	<b>CREEPAGE DISTANCES AND CLEARANCES</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>16</b>	<b>PHOTOBIOLOGICAL SAFETY</b>		-
<b>16.1</b>	<b>UV radiation</b>		<b>N/A</b>
	The ultraviolet hazard efficacy of luminous radiation not exceed 2mW/klm .....		N/A
<b>16.2</b>	<b>Blue light hazard</b>		<b>P</b>
	Assessed according to IEC TR 62778		P

IEC 62838			
Clause	Requirement + Test	Result - Remark	Verdict
	Classified as RG0 or RG1	RG0	P
	Small light sources according to TR 62778 not exceed 10.000 W/(m <sup>2</sup> x sr)		
<b>16.3</b>	<b>Infrared radiation</b>		—
	Not require measurement		—

<b>17</b>	<b>INGRESS PROTECTION</b>		-
17.1	Marked with Figure 2 if not suitable for water contact		N/A
17.2	IPX4 test according IEC 60598-1 clause 9.2, if suitable for water contact		N/A
17.3	Sealed to exclude water		N/A

IEC 62838				
Clause	Requirement + Test		Result - Remark	Verdict
<b>11</b>	<b>TABLE: Ball Pressure Test of Thermoplastics</b>			<b>P</b>
<b>Allowed impression diameter (mm) :</b>		<b>2</b>		<b>—</b>
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
Plastic enclosure	See ANNEX 1	125	1.4	
LED cover	See ANNEX 1	103 (78+25)	1.2	
Supplementary information:				

<b>12</b>	<b>TABLE: Glow-wire test</b>				
<b>Glow wire temperature .....</b>		<b>650°C</b>			<b>—</b>
<b>Object/ Part No./ Material</b>		<b>Manufacturer/ trademark</b>	<b>Ignition of specified layer Yes/No</b>	<b>Duration of burning (tb) (s)</b>	<b>Verdict</b>
Plastic enclosure		See ANNEX 1	No	0	pass
LED cover		See ANNEX 1	No	0	pass

13	TABLE: tests of fault conditions		
Part	Simulated fault	Result	Hazard
D61	Short-circuit	fuse resistor opened	NO
D1	Short-circuit	fuse resistor opened	NO

IEC 62838			
Clause	Requirement + Test	Result - Remark	Verdict

<b>14</b>	<b>TABLE: Clearance And Creepage Distance Measurements</b>					<b>N/A</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)
-	-	-	-	-	-	-
Supplementary information: no request						

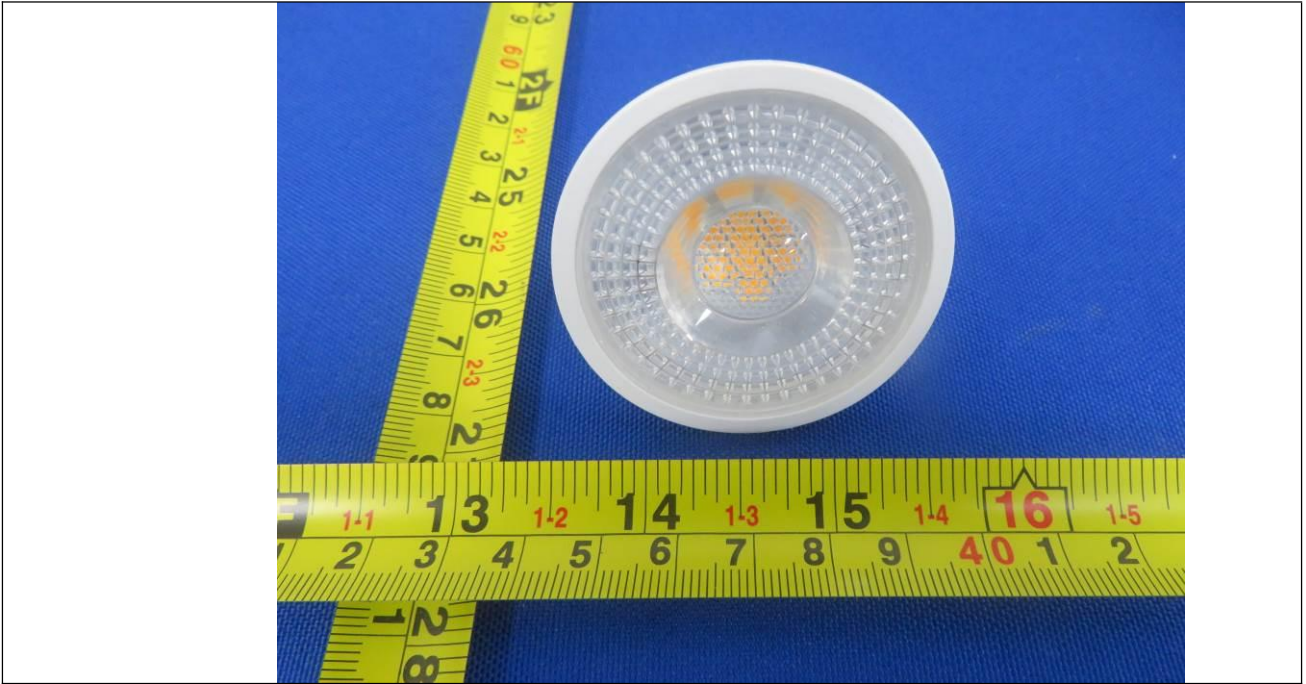
TABLE: Critical components information						P
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>
Lamp cap	C	Foshan Nanhai Rijing Metal Products Co., Ltd.		Cu: 58.6%	IEC 62838	Tested with appliance
LED cover	C	Fujian Huasu Innovative Plastics Material Co Ltd	HS109	PC , V-0	IEC 62560	Tested with appliance UL E477366
Internal wire	A	Foshan City Zheng Guan Fluoroplastics Wire Factory	ZG-FEP-01	300/500 V, 180 °C	DIN 57250	VDE 40023039
Fusible resistor	B	Anhui Changsheng, Electronics Co., Ltd	RXF21-1W	0.5 W, 10 Ω	IEC 62368	VDE 40024768
Heat shrinkable tube	C	SHENZHEN WOER HEAT-SHRINKABLE MATERIAL CO LTD	RSFR	600 V, 125 °C	IEC 62560	Tested with appliance UL E203950
LED module	C	Hangzhou Tiger Electron & Electric CO., LTD	A65-15W-LEDs	15 W, CCT: 2700-6400 K	IEC 62031 IEC/TR 62778	Tested with appliance
LED package	C	MLS	2835	Vf: 8.8-9.7 V, If: 120 mA, CCT: 2700-6400 K	IEC 62031 IEC/TR 62778	Tested with appliance

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Clause	Requirement + Test			Result - Remark		Verdict
-LED PCB	C	JIANGXI HONGYU CIRCUIT TECHNOLOGY CO LTD	HY series	130 °C, V-0	IEC 62560	Tested with appliance UL E309772
-Magnet wire	C	HUZHOU NANXUN SHANGFU CABLE CO LTD	QA/155	155 °C	IEC 62560	Tested with appliance UL E330288
Supplementary information: A - The component is replaceable with another one, also certified, with equivalent characteristics B - The component is replaceable if authorised by the test house C - Integrated component tested together with the appliance D - Alternative component						

**Attachment No.1**

**Product Photos**

Details of: Fig.1.



Details of: Fig.2.



**Attachment No.1**

**Product Photos**

Details of: Fig.3.



Details of: Fig.4.



--- End of test report ---