



Global-Standard Testing

# CE LVD TEST REPORT

For  
LED SPOT LIGHT

**Model No.:** VT-203, VT-204, VT-205, VT-227D, VT-247D, VT-275, VT-292, VT-291, VT-227, VT-249, VT-257, VT-267, VT-201, VT-234, VT-2244, VT-2225, VT-2095, VT-1975, VT-205, VT-2333, VT-2215, VT-11033, VT-2175D, VT-271, VT-232, VT-247, VT-277, VT-239

**Applicant :** V-TAC EXPORTS LIMITED  
ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD  
CENTRAL, CENTRAL, HONGKONG

**Manufacturer :** V-TAC EXPORTS LIMITED  
ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD  
CENTRAL, CENTRAL, HONGKONG

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**Report Number :** GST.220509.M404S-R1

**Issued Date :** July 26, 2023

**Date of Report :** July 26, 2023

**Note:**

1. The test data and result is based on the tested sample only.
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<b>TEST REPORT</b> <b>EN 62560</b> <b>LED SPOT LIGHT</b> <b>for general lighting services by voltage &gt; 50V Safety specifications</b>	
Report reference No. ....:	GST.220509.M404S-R1
Testing laboratory .....	Global-Standard Testing Service Co., Ltd.
Location.....:	Room 1505, Building B, Chuangxin Plaza, Pingshan Avenue, Pingshan District, Shenzhen, China
Applicant.....:	V-TAC EXPORTS LIMITED
Address:.....:	ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL, CENTRAL, HONGKONG
Manufacturer :.....:	V-TAC EXPORTS LIMITED
Address:.....:	ROOM NO.301, KAM ON BUILDING 176A QUEENS ROAD CENTRAL, CENTRAL, HONGKONG
Standards.....:	EN 62560:2012/A11:2019
Procedure deviation.....:	N/A
Non-standard test method.....:	N/A
Type of test equipment .....	LED SPOT LIGHT
Trade mark.....:	 Meaningful Innovation.
Model/Type designation.....:	VT-203, VT-204, VT-205, VT-227D, VT-247D, VT-275, VT-292, VT-291, VT-227, VT-249, VT-257, VT-267, VT-201, VT-234, VT-2244, VT-2225, VT-2095, VT-1975, VT-205, VT-2333, VT-2215, VT-11033, VT-2175D, VT-271, VT-232, VT-247, VT-277, VT-239
Rating.....:	AC220-240V, 50/60Hz, Max. 7.5W.
TRF originator.....:	Global-Standard Testing Service Co., Ltd.
Copyright blank test report:	Global-Standard Testing Service Co., Ltd.
Test item particulars:	--
Operating Condition	Continuous
Tested for IT power systems	N/A
IT testing, phase-phase voltage (V)	N/A

**Possible test case verdicts :**

test case does not apply to the test object	N(/A.)
test object does meet the requirement	P(ass)
test object does not meet the requirement	F(ail)

Name and address of the testing laboratory :

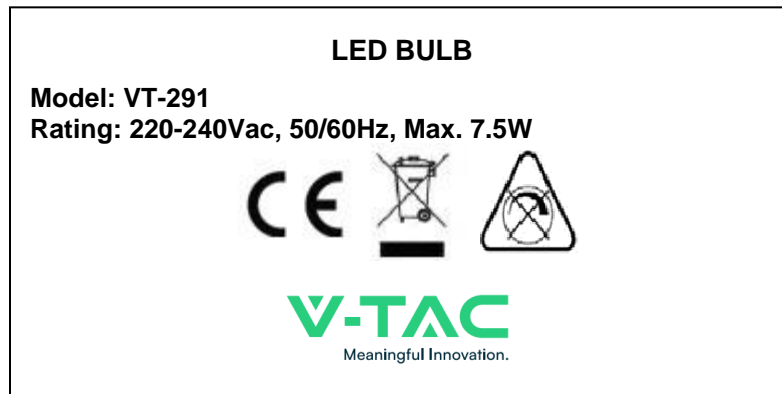
Global-Standard Testing Service Co., Ltd.  
Room 1505, Building B, Chuangxin Plaza, Pingshan Avenue,  
Pingshan District, Shenzhen, China

**Prepared by :** John Huang July 23, 2023  
Signature Date  
John Huang / Senior Project Engineer  
Name/title

**Approved by :**  July 26, 2023  
Signature Date  
Ni Ce Xie / Manager  
Name/title

<p><b>General remarks:</b></p> <p>Clause number between brackets refer to clauses in IEC 62560.</p> <p>"(see remark #)" refers to a remark appended to the report.</p> <p>"(see appended table)" refers to a table appended to the report.</p> <p>Throughout this report a comma is used as the decimal separator.</p> <p>The test results presented in this report relate only to the object tested.</p> <p>This report shall not be reproduced except in full without the written approval of the testing laboratory.</p>	<p>Attachment with:</p> <p>1) Photo documentation</p>
<p><b>Summary of testing:</b></p> <p>The submitted samples are also fulfilled the requirements of specified standard of:</p> <ol style="list-style-type: none"><li>1. EMF requirement has been considered according to EN 62493: 2015;</li><li>2. All models are similar in electrical and mechanical construction, differences among them are number of LEDs and total wattage.</li><li>3. All models tests were performed by model VT-291 to represent the other identical models.</li></ol> <p>Modification 1: This report is based on report GST.220509.M404S. It added new models and upgraded standard, new models have similar electrical and mechanical structure with original report models, no test for this revision.</p>	

**Label**






Location: on the enclosure of lamp

**Note:**

- Due to similarity of the labels, only above label was listed.
- The above copy of marking plate as an example, All the other models will have the same marking plate except the model name and input rating only and other parameter
- The above markings are the minimum requirements required by the safety standard. For the final productions samples, the additional markings which do not give rise to misunderstanding may be added.

**Remark on above marking:**

- 1, The height of letters and numerals shall be not less than 2 mm.
- 2, The height of graphical symbols except “” shall not be less than 5 mm;
- 3, The height of graphical symbols “” shall not be less than 7 mm.

EN 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-rectifying bulb 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) .....		P
	- rated wattage (W) .....		P
	- rated frequency (Hz) .....		P
5.2	Addition marking		P
	- rated current (A) .....		P
	- weight significantly higher		N/A
	- special conditions or restrictions		N/A
	Not suitable for dimming; symbol used		P
	- not suitable for water contact		N/A
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) .....		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
	Tested with a test finger with a force of 10 N		P
	Compliance checked with appropriate gauges		P

<b>EN 62560</b>			
Clause	Requirement + Test	Result - Remark	Verdict
<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.....:		P
8.3	Immediately after clause 8.2 electric strength test for 1 min		P
	Double or reinforced insulation, 4U + 2000 V		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		N/A
	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>
	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>

EN 62560			
Clause	Requirement + Test	Result - Remark	Verdict
	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
<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>N/A</b>
<b>17.1</b>	<b>UV radiation</b>		<b>N/A</b>



EN 62560			
Clause	Requirement + Test	Result - Remark	Verdict
	The LED lamp doesn't exceed 2mW/klm		N/A
<b>17.2</b>	<b>Blue light hazard</b>		N/A
	Assessed according to IEC TR 62778		N/A
	LED lamps shall be RG0 or RG1		N/A
<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		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

EN 62560			
Clause	Requirement + Test	Result - Remark	Verdict

11	TABLE: Ball Pressure Test of Thermoplastics			P
Allowed impression diameter (mm) .....		Max. 2,0 mm		—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
Plastic for Lamp cap	—	125	1.5	
—				
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	
Diffuser	—	0	0	P
—				
Supplementary information:—				

13	TABLE: tests of fault conditions			P
Part	Simulated fault	Result		Hazard
LED module input	Short circuited	fuse operated; non-recovered		NO
One LED	Short circuited	One LED can't work; recoverable		NO

14	TABLE: Clearance And Creepage Distance Measurements					P
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 live parts of different polarity on PCB	—	250	1,5	2,7	2,5	2,7



Report Reference No.: GST.220509.M404S-R1

**EN 62560**

Clause	Requirement + Test	Result - Remark	Verdict
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In primary circuit, Between the live parts and accessible parts	—	250	3,0	>6,0	5,0	>6,0
In secondary circuit, Between the live parts and accessible parts	—	250	3,0	>6,0	5,0	>6,0

Supplementary information: —

EN 62560			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1		TABLE: Critical components information					P
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>	
LED	C	Shenzhen MTC Lighting Co., Ltd	MC3808-3201E22-MM4-0-P	V <sub>f</sub> =70-85V @IF=00 mA	IEC/ EN 62560; IEC/ EN 62471	Tested with appliance	
LED PCB	C	KUNSHAN YIFUDA ELECTRON CO LTD	2PE-N	V-0; 130 °C	IEC/ EN 62560	Tested with appliance and UL	
Fuse	C	Shenzhen Lanbao Anke Electronics CO LTD	RXF21	250 VAC; 0,5 W	IEC/ EN 62560	Tested with appliance and UL	
Diffuser	C	TEIJIN LIMITED RESIN AND PLASTIC	LN-1250P(#)(f1)	PC; 115 °C; Thickness: Min. 1,5 mm	IEC/ EN 62560	Tested with appliance and UL	
Plastic enclosure	C	TEIJIN LIMITED RESIN AND PLASTIC	LN-1250P(#)(f1)	PC; 115 °C; Thickness: Min. 1,5 mm	IEC/ EN 62560	Tested with appliance and UL	

Supplementary information:

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

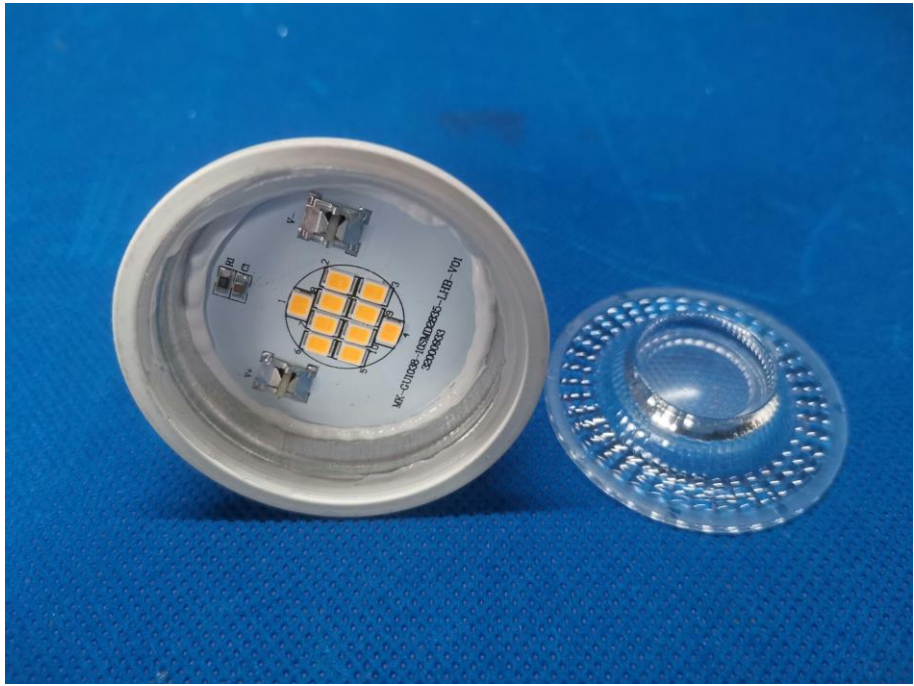
The codes above have the following meaning:

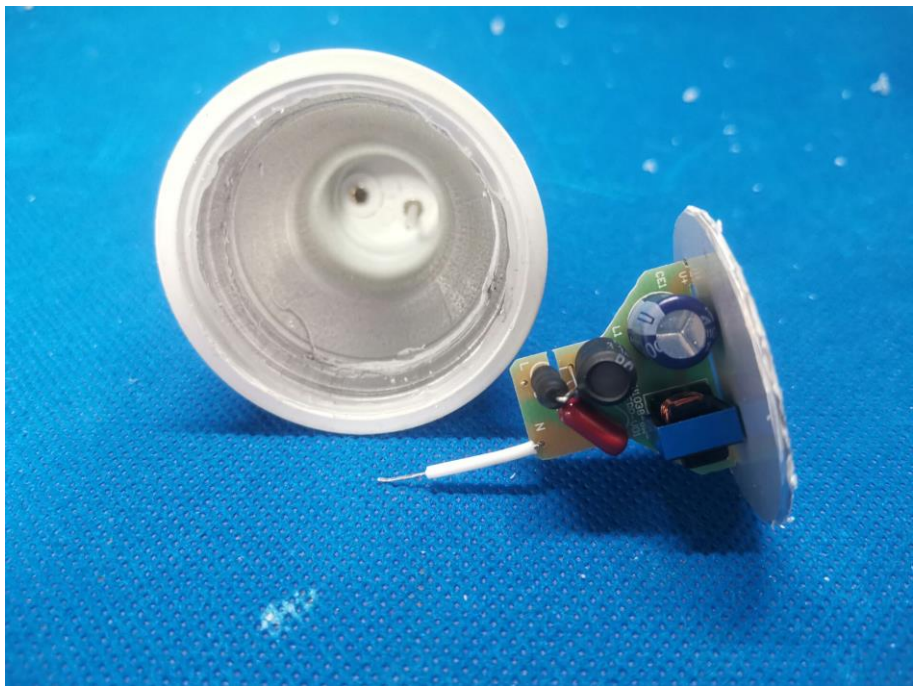
- A - The component is replaceable with another one, also certified, with equivalent characteristics
- B - The component is replaceable if authorised by the test house
- C - Integrated component tested together with the appliance
- D - Alternative component

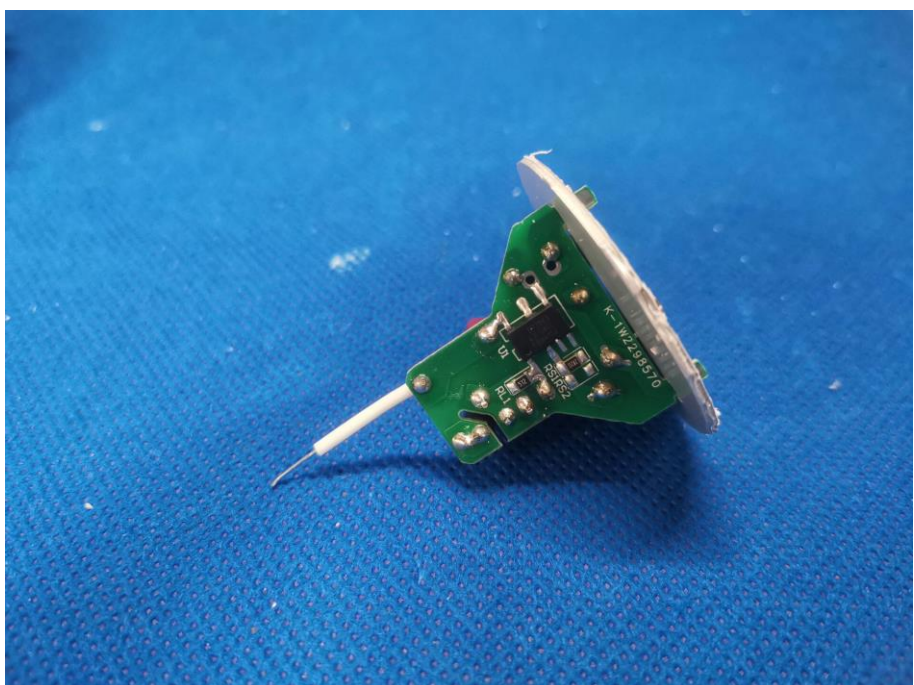
**Appendix 1**

Photo documentation

<p>Photo 1</p> <p>View:</p> <p><input checked="" type="checkbox"/> Front</p> <p><input type="checkbox"/> Rear</p> <p><input type="checkbox"/> Right side</p> <p><input type="checkbox"/> Left side</p> <p><input type="checkbox"/> Top</p> <p><input type="checkbox"/> Bottom</p> <p><input type="checkbox"/> Internal</p>	
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<p>Photo 2</p> <p>View:</p> <p><input type="checkbox"/> Front</p> <p><input type="checkbox"/> Rear</p> <p><input type="checkbox"/> Right side</p> <p><input type="checkbox"/> Left side</p> <p><input type="checkbox"/> Top</p> <p><input type="checkbox"/> Bottom</p> <p><input checked="" type="checkbox"/> Internal</p>	
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<p>Photo 3</p> <p>View:</p> <p><input type="checkbox"/> Front</p> <p><input type="checkbox"/> Rear</p> <p><input type="checkbox"/> Right side</p> <p><input type="checkbox"/> Left side</p> <p><input type="checkbox"/> Top</p> <p><input type="checkbox"/> Bottom</p> <p><input checked="" type="checkbox"/> Internal</p>	
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<p>Photo 4</p> <p>View:</p> <p><input type="checkbox"/> Front</p> <p><input type="checkbox"/> Rear</p> <p><input type="checkbox"/> Right side</p> <p><input type="checkbox"/> Left side</p> <p><input type="checkbox"/> Top</p> <p><input type="checkbox"/> Bottom</p> <p><input checked="" type="checkbox"/> Internal</p>	
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