



CE LVD TEST REPORT

For

LED FILAMENT BULB

Model No.: VT-1984, VT-1994, VT-299, VT-299D, VT-284D

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

Issued By : Global-Standard Testing Service Co., Ltd.

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Report Number : GST1508281084S-R1

Issued Date : January 16, 2019


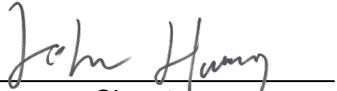

Date of Report : January 16, 2019

Note:

1. The test data and result is based on the tested sample only.
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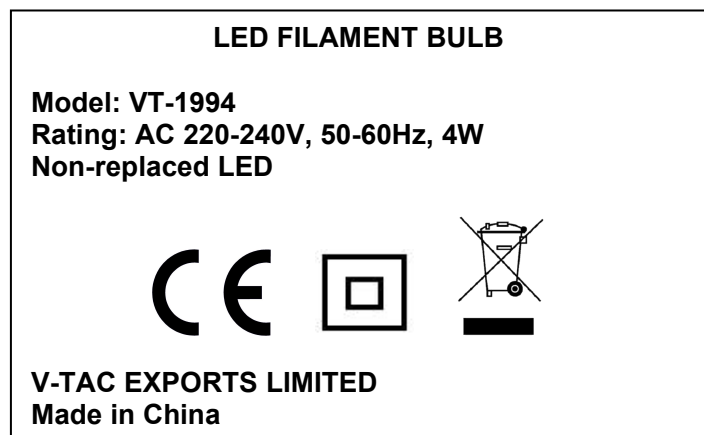
TEST REPORT EN 62560 Self-ballasted LED-lamps for general lighting services by voltage > 50 V – Safety specifications	
Report reference No.:	GST1508281084S-R1
Testing laboratory	Global-Standard Testing Service Co., Ltd.
Location.....:	Room 1911-1914, Noble Plaza, Qian Jin 1st Road, Bao An District, Shenzhen, Guangdong, 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+A1:2015 EN 60061-1:1993+A:57:2018 EN 62031:2008+A1:2013+A2:2015 EN 61347-1:2015 EN 61347-2-13:2014+A1:2017 EN 62471:2008 EN 62493:2015
Procedure deviation.....:	N/A
Non-standard test method.....:	N/A
Type of test equipment	LED FILAMENT BULB
Trade mark.....:	
Model/Type designation.....:	VT-1984, VT-1994, VT-299, VT-299D, VT-284D
Rating.....:	AC220-240V, 50-60Hz, 4W Max
Copyright blank test report:	Global-Standard Testing Service Co., Ltd.
Test item particulars:	--
Operating Condition	Continuous
Class of equipment	Class II equipment
Protection against ingress of water	IP20

General remarks:	
<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>Until otherwise specified, all tests are done under normal ambient condition $25^{\circ}\text{C} \pm 10^{\circ}\text{C}$, Max RH: 75% and air pressure of 860 mbar to 1060 mbar.</p>	<p>Attached with:</p> <p>Attachment - A. Photo Documentation</p>
<p>Brief description of the test sample:</p> <ol style="list-style-type: none"> 1 This report covers the LED FILAMENT BULB with models VT-1984, VT-1994 for indoor use; 2.All models have the same construction except for wattage; 3.The model VT-1994 was selected as representative sample to perform all testing; 4.The standard of LED modules for general lighting was evaluated with reference to EN 62031; 5. The standard of EN 62471 and EN 62493 have been considered in report. 6. This report is based on report GST1508281084S dated September 01, 2015. 	

Possible test case verdicts : test case does not apply to the test object test object does meet the requirement test object does not meet the requirement		N(/A.) P(ass) F(ail)
Name and address of the testing laboratory : Global-Standard Testing Service Co., Ltd. Room 1911-1914, Noble Plaza, Qian Jin 1st Road, Bao An District, Shenzhen, Guangdong, China.		
Tested by : <u></u> <u>August 27, 2015</u> Signature Date <u>Evan Chen / Engineer</u> Name/title		
Witnessed by: <u></u> <u>January 16, 2019</u> Signature Date <u>John Huang / project Engineer</u> Name/title		
Approved by : <u></u> <u>January 16, 2019</u> Signature Date <u>Nico Xie / Manager</u> Name/title		

Label

Representative





Note:

1. Due to similarity of the labels, only above label was listed;
2. All models have the same marking plate except the model name and input rating with wattage;
3. The height of WEEE directive mark is at least 7mm and others directive mark are at least 5mm height.

EN 62560			
Clause	Requirement	Result - Remark	Verd.

4	GENERAL REQUIREMENTS		P
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

5.	MARKING		P
5.1	Mandatory marking		P
	- mark of origin	Made in China	P
	- rated supply voltage (V).....	220-240VAC	P
	- rated wattage (W).....	See label	P
	- rated frequency (Hz).....	50-60Hz	P
5.2	Addition marking	See label	P
	- burning position		N
	- rated current (A).....	36mA	P
	- weight significantly higher	Warning:increased weight of lamp may reduce the mechanical stability of certain luminaires and lampholders and may impair contact making and lamp retention (inthe instruction manual)	P
	- special conditions or restrictions		N/A
	Not suitable for dimming;symbol used 		P
	- eye protection	The products are classified as exempt group according to IEC 62471:2008.	P
5.3	Marking durable and legible		P
	rubbing 15 s water, 15 s petroleum; marking legible		P
Addition:	Position of the marking	On the body	P
	Language of instructions	English	P
	Suitability for use indoors		P

EN 62560			
Clause	Requirement – Test	Result - Remark	Verdict

	Wireways smooth and free from sharp edges		P
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6	INTERCHANGEABILITY		P
6.1	Cap interchangeability in accordance with IEC 60061-1		P
	Gauge in accordance with IEC 60061-3		N/A
6.2	Bending moment, axial pull and mass		P
	Bending moment imparted by the lamp at the lampholder		P
	Lamp construction withstands axial pull (N)	40N	P
	Mass not exceeding value tabel 2 (kg) :	0.016kg	P

7.	PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS		P
	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		N/A
Addition:	Live parts not accessible		P
	Protection in any position		P
	Insulation lacquer not reliable		P
	Class II luminaire:		P
	- insulation-encased, reinforced insulation		P
	- glass protective shields not used as supplementary insulation		N/A
	Covers have adequate strength		N/A
	Covers reliably secured		N/A
	Portable plug connected luminaire with capacitor		N/A

8.	INSULATION RESISTANCE AND ELECTRIC STRENGTH AFTER HUMIDITY TREATMENT		P
8.1	Insulation resistance and electric strength shall be adequate between live parts of the lamp and accessible parts of the lamp.		P
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

EN 62560			
Clause	Requirement – Test	Result - Remark	Verdict
8.3	Immediately after clause 8.2 electric strength test for 1 min		N/A
	Double or reinforced insulation, 4U + 2000 V		N/A
	No flashover or breakdown		N/A

9.	MECHANICAL STRENGTH		P
	Torsion resistance of unused lamps		
9.1	Torque test		P
	B 15 d Cap..... 1,15 Nm	under consideration	P
	B 22 d Cap..... 3,0 Nm		N/A
	E 11 Cap..... 0,8 Nm		N/A
	E 12 Cap..... 0,8 Nm		N/A
	GU10 Cap 1.15Nm		N/A
	E 14 Cap..... 1,15 Nm		N/A
	E 27 Cap..... 1,5 Nm		N/A
	GX 53 Cap..... 3,0 Nm		N/A
	GU13 Cap..... 1.15 Nm		N/A
9.2	Torsion resistance of lamps after a defined time of usage		P
	Torsion resistance of used lamp		P
9.3	Repetition of clause 8		P
	Clause 8 shall comply after the mechanical strength test.		P
Addition:	Lampholders		P
	Mounting brackets for Edison screw or bayonet-capped lampholders are subjected to testing for 1min, to the following bending moments:		P
	Locked connections:		P
	- fixed arms; torque (Nm).....:		N/A
	- lampholder; torque (Nm).....:	1.15Nm	P
	- push-button switches; torque (Nm).....:		N/A
	No sharp point or edges		P
	Impact tests:		P
	- fragile parts; energy (Nm).....:	0.2Nm	P

EN 62560			
Clause	Requirement – Test	Result - Remark	Verdict

	- other parts; energy (Nm).....:		N/A
	1) live parts		P
	2) linings		P
	3) protection		P
	4) covers		N/A
	Straight test finger		N/A

10	CAP TEMPERATURE RISE		P
	The cap temperature rise Δt_s of the lamp shall not exceed 120 K.		P
	- B22d..... 125K		N/A
	- B15d..... 120K	20.9K	P
	- E27..... 120K		N/A
	- E14..... 125K		N/A
	- GU10..... 100K		N/A
	- GU13..... 100K		N/A

11	RESISTANCE TO HEAT		N/A
	External parts of insulating material providing protection against electric shock, and parts of insulating material retaining live parts in position, ball pressure test:		N/A
	Part tested; temperature (°C); diameter of impression (≤ 2 mm):		N/A
	Part tested; temperature (°C); diameter of impression (≤ 2 mm):		N/A
	Part tested; temperature (°C); diameter of impression (≤ 2 mm):		N/A

12.	RESISTANCE TO FLAME AND IGNITION		N/A
	Parts of insulating material retaining live parts in position and external parts of insulating material providing protection against electric shock, glow-wire test 650 °C		N/A
	- no flaming drops igniting tissue paper		N/A

EN 62560			
Clause	Requirement – Test	Result - Remark	Verdict
	- flame extinguished within 30 s		N/A
	Part tested; temperature (°C).....:		N/A
	No visible flame and no sustained glowing		N/A

13	FAULT CONDITIONS		N/A
13.2	Extreme electrical conditions (dimmable lamps)		N/A
	Lamp withstands overpower condition >15 min.		N/A
	Lamp fails safe after 15 min overpower condition		N/A
	Lamp with automatic protective device or power limiter, test performed 15 min. at limit.		N/A
13.3	Extreme electrical conditions (non-dimmable lamps)		N/A
	Tested according 13.2 (as far as possible)		N/A
13.4	Short-circuit across capacitors	(see appended table)	N/A
13.5	Fault conditions: where diagram indicates fault condition impairs safety, electronic components have been short-circuited or disconnected	(see appended table)	N/A
13.6	When operated under fault conditions the lamp		N/A
	- does not emit flames or molten material		N/A
	- does not produce flammable gases or smoke		N/A
	- live parts not accessible		N/A
	After the tests the insulation resistance with d.c. 1000 V complies with requirements of Cl. 8.1.....		N/A

14 (16)	CREEPAGE DISTANCES AND CLEARANCES		P
	Creepage distances and clearances according to Table 3 and 4 of IEC 61347-1, as appropriate		P
	Printed boards see clause 14 of IEC 61347-1		P
	Insulating lining of metallic enclosures		N/A

TABLE	List of critical components and materials			
Component	manufacturers / trademark	Type / model	Value / rating	Approval/ Reference
B15d lamp base	Various	Various	Copper 60%	Ref
PCB	Shikibo Electronics Co Ltd	E4	V-0, 130℃	UL
Internal wire	various	1007	VW-1, 105℃, 24AWG	UL

Test Data table

11	TABLE: ball pressure test of thermoplastics				N/A	
Part		Test temperature (°C)	Impression diameter (mm)		Required impression diameter (mm)	
13	TABLE: tests of fault conditions					N/A
Part	Simulated fault			Result		Hazard
14(16)	TABLE: Clearance And Creep age Distance Measurements					P
clearance cl and creep age distance decry at/of:	Up (V)	U rams. (V)	Required cl (mm)	cl (mm)	required decry (mm)	decry (mm)
L and N on PCB	--	240	1.5	2.68	2.5	2.68
Different polarity of fuse	--	--	1.5	--	2.5	--
Live parts of driver PCB and accessible part	--	--	3.0	--	5.0	--
Primary circuit and secondary circuit of LED driver PCB	--	--	3.0	--	5.0	--
Primary winding of transformer and secondary circuit of LED driver	--	--	3.0	--	5.0	--
Supplementary information:						

Attachment –A

	Temperature measurements,				P	
	Type reference..... :		VT-1994		—	
	Lamp used.....:		LED		—	
	Ballast used.....:		—		—	
	Mounting position of luminaire..... :		As in normal use		—	
	Supply wattage (W)..... :		4.19W		—	
	Supply current (A)..... :		0.017A		—	
	Table: measured temperatures corrected for Ta = 25°C:				P	
	- abnormal operating mode..... :		—		—	
	- test 1: rated voltage.....:		—		—	
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage..... :		1.06×240V		—	
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage.....:		—		—	
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage..... :		—		—	
temperature (C) of part		clause 12.4 - normal			clause 12.5 - abnormal	
		test 1	test 2	test 3	limits	test 4
						limit
B15d lamp base			45.9		Ref	
Glass surface			39.8		Ref	
Supplementary information:						

Photo Documentation

Photo 1

View:

- ☒ Front
- ☐ Rear
- ☐ Right side
- ☐ Left side
- ☐ Top
- ☐ Bottom
- ☐ Internal



--END.--