



# CE LVD TEST REPORT

For  
LED FILAMENT BULB

**Model No.:** VT-1996, VT-1986, VT-1997, VT-1985, VT-1995, VT-1961, VT-1976, VT-1986D, VT-1997D, VT-1985D, VT-1995D, VT-1996D, VT-1886, VT-1896, VT-1897, VT-1936, VT-1937, VT-1835, VT-1953, VT-1924, VT-1927, VT-1928, VT-1923, VT-1955, VT-1949, VT-1948, VT-1947, VT-2044, VT-2054, VT-2056, VT-2104, VT-2134D, VT-2174, VT-2184, VT-254, VT-254D, VT-274, VT-264, VT-2127, VT-2152, VT-2204

**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.  
Room 1911-1914, Noble Plaza, Qian Jin 1st Road, Bao An  
District, Shenzhen, Guangdong, China.

**Tel :** +86 755 33863599

**Email :** [market@gstslab.com](mailto:market@gstslab.com)


**Report Number :** J02.06.0183S-R3

**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.
2. Please verify information in the report on GST web: [www.gstslab.com](http://www.gstslab.com) through report number.
3. All rights reserve, the pirate edition investigates necessarily! This report shall not be reproduced unless under the authority of Global-Standard Testing Service Co., Ltd.

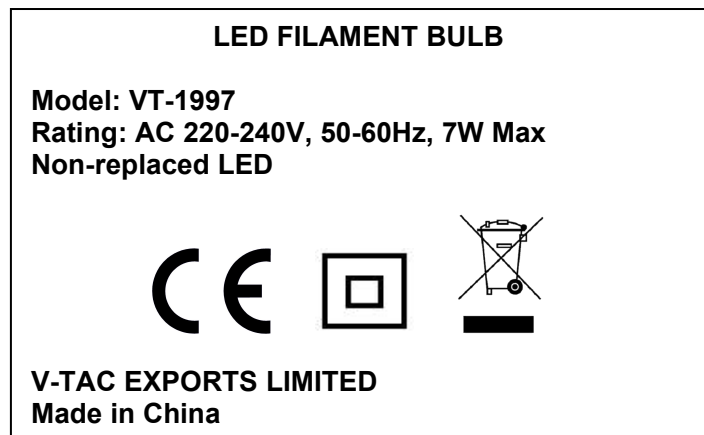
<b>TEST REPORT</b> <b>EN 62560:2012</b> <b>Self-ballasted LED-lamps for general lighting services by voltage &gt; 50 V</b> <b>– Safety specifications</b>	
Report reference No. ....:	J02.06.0183S-R3
Testing laboratory .....	Global-Standard Testing Service Co., Ltd.
Location.....:	Room 1911-1914, Noble 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-1996, VT-1986, VT-1997, VT-1985, VT-1995, VT-1961, VT-1976, VT-1986D, VT-1997D, VT-1985D, VT-1995D, VT-1996D, VT-1886, VT-1896, VT-1897, VT-1936, VT-1937, VT-1835, VT-1953, VT-1924, VT-1927, VT-1928, VT-1923, VT-1955, VT-1949, VT-1948, VT-1947, VT-2044, VT-2054, VT-2056, VT-2104, VT-2134D, VT-2174, VT-2184, VT-254, VT-254D, VT-274, VT-264, VT-2127, VT-2152, VT-2204
Rating.....:	AC220-240V, 50-60Hz, 7W 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

<p><b>General remarks:</b></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>Until otherwise specified, all tests are done under normal ambient condition <math>25^{\circ}\text{C} \pm 10^{\circ}\text{C}</math>, 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> <p>1 This report covers the LED FILAMENT BULB with models VT-1996, VT-1986, VT-1997, VT-1985, VT-1995, VT-1961, VT-1976, VT-1986D, VT-1997D, VT-1985D, VT-1995D, VT-1996D, VT-1886, VT-1896, VT-1897, VT-1936, VT-1937, VT-1835, VT-1953, VT-1924, VT-1927, VT-1928, VT-1923, VT-1955, VT-1949, VT-1948, VT-1947, VT-2044, VT-2054, VT-2056, VT-2104, VT-2134D, VT-2174, VT-2184, VT-254, VT-254D, VT-274, VT-264, VT-2127, VT-2152, VT-2204 for indoor use;</p> <p>2.All models have the same construction except for wattage;</p> <p>3.The model VT-1997 was selected as representative sample to perform all testing;</p> <p>4.The standard of LED modules for general lighting was evaluated with reference to EN 62031;</p> <p>5. The standard of EN 62471 and EN 62493 have been considered in report.</p> <p>6. This report is based on report J02.06.0183S-R2 dated April 24, 2018.</p>	

<b>Possible test case verdicts :</b>	
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)
<b>Name and address of the testing laboratory :</b>	
Global-Standard Testing Service Co., Ltd. Room 1911-1914, Noble Plaza, Qian Jin 1st Road, Bao An District, Shenzhen, Guangdong, China.	
<b>Tested by :</b>	<u>Evan Chen</u> Signature
	<u>January 13, 2019</u> Date
	<u>Evan Chen/ Engineer</u> Name/title
<b>Witnessed by:</b>	<u>Gloria Wang</u> Signature
	<u>January 16, 2019</u> Date
	<u>Gloria Wang / project Engineer</u> Name/title
<b>Approved by :</b>	<u>Nico Xie</u> Signature
	<u>January 16, 2019</u> 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.

<b>4</b>	<b>GENERAL REQUIREMENTS</b>		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

<b>5.</b>	<b>MARKING</b>		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 lanp 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

<b>6</b>	<b>INTERCHANGEABILITY</b>		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) .....	0.013kg	P

<b>7.</b>	<b>PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS</b>		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

<b>8.</b>	<b>INSULATION RESISTANCE AND ELECTRIC STRENGTH AFTER HUMIDITY TREATMENT</b>		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.	<b>MECHANICAL STRENGTH</b>		P
	Torsion resistance of unused lamps		
9.1	Torque test		P
	B 15 d Cap.....	1,15 Nm	N/A
	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	under consideration
	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

<b>10</b>	<b>CAP TEMPERATURE RISE</b>		P
	The cap temperature rise $\Delta t_s$ of the lamp shall not exceed 120 K.		P
	- B22d..... 125K		N/A
	- B15d..... 120K		N/A
	- E27..... 120K		N/A
	- E14..... 125K	23.9K	P
	- GU10..... 100K		N/A
	- GU13..... 100K		N/A

<b>11</b>	<b>RESISTANCE TO HEAT</b>		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 ( $\leq 2$ mm):		N/A
	Part tested; temperature (°C); diameter of impression ( $\leq 2$ mm):		N/A
	Part tested; temperature (°C); diameter of impression ( $\leq 2$ mm):		N/A

<b>12.</b>	<b>RESISTANCE TO FLAME AND IGNITION</b>		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

<b>13</b>	<b>FAULT CONDITIONS</b>		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

<b>14 (16)</b>	<b>CREEPAGE DISTANCES AND CLEARANCES</b>		<b>P</b>
	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

<b>TABLE</b>		<b>List of critical components and materials</b>		
Component	manufacturers / trademark	Type / model	Value / rating	Approval/ Reference
E14 lamp base	Various	Various	Copper 60%	Ref
PCB	Shikibo Electronics Co Ltd	E4	V-0, 130°C	UL
Internal wire	various	1007	VW-1, 105°C, 24AWG	UL

### Test Data table

<b>11</b>	<b>TABLE: ball pressure test of thermoplastics</b>				N/A	
Part	Test temperature (°C)	Impression diameter (mm)	Required impression diameter (mm)			
<b>13</b>	<b>TABLE: tests of fault conditions</b>				N/A	
Part	Simulated fault	Result			Hazard	
<b>14(16)</b>	<b>TABLE: Clearance And Creep age Distance Measurements</b>					<b>P</b>
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	--
<b>Supplementary information:</b>						
	Temperature measurements,					P

Type reference..... :	VT-1997	—				
Lamp used..... :	LED	—				
Ballast used..... :	—	—				
Mounting position of luminaire..... :	As in normal use	—				
Supply wattage (W)..... :	7.31W	—				
Supply current (A)..... :	0.022A	—				
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
E 27 lamp base		48.9		Ref		
Glass surface		43.1		Ref		
<b>Supplementary information:</b>						

Attachment –A  
Photo Documentation

Photo 1

View:

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



--END.--