



# CE LVD TEST REPORT

For  
LED FILAMENT BULB

Model No.: VT-2085, VT-2075, VT-2065, VT-2063, VT-2066

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 : A01.06.0302S  
Issued Date : August 31, 2016  
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**Note:**

1. The test data and result is based on the tested sample only.
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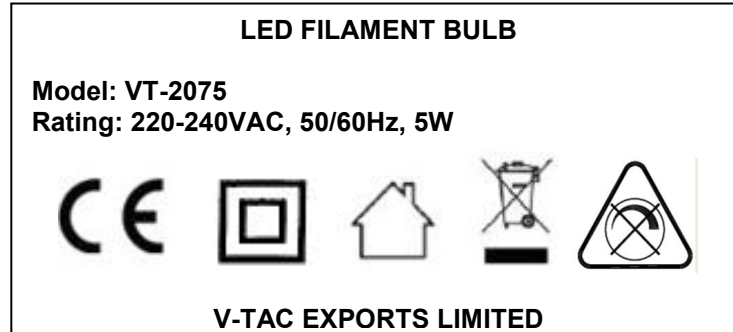
**TEST REPORT**  
**EN 62560:2012**  
**Self-ballasted LED-lamps for general lighting services by voltage > 50 V**  
**– Safety specifications**

Report reference No. ....:	A01.06.0302S
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+A53:2015 EN 61347-1: 2015 EN 61347-2-13: 2014 EN 62031: 2008+A2:2015 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-2085, VT-2075, VT-2065, VT-2063, VT-2066
Rating.....:	220-240VAC, 50/60Hz, 5W
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>Brief description of the test sample:</p> <ol style="list-style-type: none"> <li>1. The equipment with model VT-2085, VT-2075, VT-2065, VT-2063, VT-2066 are class II LED FILAMENT BULB used for Self-ballasted lamps for general lighting services;</li> <li>2. The European standard EN 62471 for LED laser product requirement has considered;</li> <li>3. Clauses 8,10, 11, 12, 14, 16, 17, 18, 19 and 20 of the European standard test EN61347-2-13 used in conjunction with EN 61347-1 for lamp control gear inside VT-2075 have been consideration;</li> <li>4. The Safety specifications of LED modules for general lighting was evaluated with reference to EN 62031;</li> <li>5. The European standard EN 62493 for requirement has considered.</li> </ol>	



**Copy of marking plate**



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.

- the height of WEEE directive mark is at least 7mm 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	V-TAC EXPORTS LIMITED	P
	- mark of origin		P
	- rated supply voltage (V).....	See label	P
	- rated wattage (W).....	See label	P
	- rated frequency (Hz).....	See label	P
5.2	Addition marking	See label	P
	- burning position		N
	- rated current (A).....	See label	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
	Not suitable for dimming;symbol used  		P
	- eye protection	The products are classified as exempt group according to IEC 62471:2006.	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
	Wireways smooth and free from sharp edges		P

EN 62560			
Clause	Requirement – Test	Result - Remark	Verdict

<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		P
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) .....	:	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		P
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
	Covers have adequate strength		P
	Covers reliably secured		P
	Portable plug connected luminaire with capacitor		N

<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 :	>100MΩ.	P
8.3	Immediately after clause 8.2 electric strength test for 1 min		P
	Double or reinforced insulation, 4U + 2000 V	2960	P

EN 62560			
Clause	Requirement – Test	Result - Remark	Verdict
	No flashover or breakdown		P
9.	<b>MECHANICAL STRENGTH</b>		P
	Torsion resistance of unused lamps		
9.1	Torque test		P
	B 15 d Cap..... 1,15 Nm		N
	B 22 d Cap..... 3,0 Nm		N
	E 11 Cap..... 0,8 Nm		N
	E 12 Cap..... 0,8 Nm		N
	GU10 Cap 1.15Nn		N
	E 14 Cap..... 1,15 Nm		N
	E 27 Cap..... 1,5 Nm		P
	Cap..... 3,0 Nm		N
	GX 53 Cap..... 3,0 Nm		N
9.2	Torsion resistance of lamps after a defined time of usage		N
	Torsion resistance of used lamp		N
9.3	Repetition of clause 8		P
	Clause 8 shall comply after the mechanical strength test.		P
Addition:	Lampholders		N
	Mounting brackets for Edison screw or bayonet-capped lampholders are subjected to testing for 1min, to the following bending moments:		N
	Locked connections:		N
	- fixed arms; torque (Nm).....:		N
	- lampholder; torque (Nm).....:		N
	- push-button switches; torque (Nm).....:		N
	No sharp point or edges		N
	Impact tests:		N
	- fragile parts; energy (Nm).....:		N
	- other parts; energy (Nm).....:		N
	1) live parts		N
	2) linings		N
	3) protection		N



EN 62560			
Clause	Requirement – Test	Result - Remark	Verdict

	4) covers		N
	Straight test finger		N

<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
	- B22d..... 125K :		N
	- B15d..... 120K :		N
	- E27..... 120K :	ANNEX 1	P
	- Cap..... 125 K :		N
	- E14..... 125 K :		N
	-GU10..... 100 K		N

<b>11</b>	<b>RESISTANCE TO HEAT</b>		<b>P</b>
	External parts of insulating material providing protection against electric shock, and parts of insulating material retaining live parts in position, ball pressure test:		P
	Part tested; temperature (°C); diameter of impression ( $\leq 2$ mm):	See appended table	P
	Part tested; temperature (°C); diameter of impression ( $\leq 2$ mm):		N
	Part tested; temperature (°C); diameter of impression ( $\leq 2$ mm):		N

<b>12.</b>	<b>RESISTANCE TO FLAME AND IGNITION</b>		<b>P</b>
	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		P
	- no flaming drops igniting tissue paper		P
	- flame extinguished within 30 s		P
	Part tested; temperature (°C).....:	See table 11	P
	No visible flame and no sustained glowing		P

<b>13</b>	<b>FAULT CONDITIONS</b>		<b>P</b>
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EN 62560			
Clause	Requirement – Test	Result - Remark	Verdict
13.2	Extreme electrical conditions (dimmbable lamps)		P
	Lamp withstands overpower condition >15 min.		N
	Lamp fails safe after 15 min overpower condition		P
	Lamp with automatic protective device or power limiter, test performed 15 min. At limit.		P
13.3	Extreme electrical conditions (non-dimmbable lamps)		P
	Tested according 13.2 (as far as possible)		P
13.4	Short-circuit across capacitors	(see appended table)	P
13.5	Fault conditions: where diagram indicates fault condition impairs safety, electronic components have been short-circuited or disconnected	(see appended table)	P
13.6	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>
	Creep age 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

TABLE	List of critical components and materials			
Component	manufacturers / trademark	Type / model	Value / rating	Approval/ Reference
LED PCB	Shikibo Electronics Co Ltd	E4	V-0, 130°C	Appliance of test and UL
Lamp base	Zhongshan guzhen China thousand lamp factory	E27	Medium (E26) base, made of aluminium alloy. Min.thickness 0.24mm.	Appliance of test
PCB of LED driver	Hunan Foundersoonest Electronic Technology Co., Ltd.	FZD02	Min.thickness 0.2mm, HWI 4, HAI 3, RTI 3V-0, 130°C	Appliance of test and UL
LED driver	Hangzhou Baoshan Electronic Co., Ltd.	KALI-BL	220-240VAC, 50/60Hz, 0.06A, 9W	Appliance of test
Internal wire	Dongguan Wenchang Electronic Co., Ltd.	1007	VW-1, 300V, 105°C, 22AWG	Appliance of test and UL

## Test Data table

<b>13</b>	<b>TABLE: tests of fault conditions</b>						
Part	Simulated fault		Result			Hazard	
C1	Short circuit		Fuse open			NO	
BD1	Short circuit		Fuse open			NO	
Output + and _	Short circuit		Unit shut down, recoverable			NO	
<b>11</b>	<b>TABLE: ball pressure test of thermoplastics</b>					<b>P</b>	
Part	Test temperature (°C)		Impression diameter (mm)		Required impression diameter (mm)		
PCB	125		0.86		≤2.0		
<b>14(16)</b>	<b>TABLE: Clearance And Creep age Distance Measurements</b>					<b>P</b>	
<b>clearance cl and creep age distance decry at/of:</b>	<b>Up (V)</b>	<b>U rams. (V)</b>	<b>Required Cl (mm)</b>	<b>Cl (mm)</b>	<b>required Cr (mm)</b>	<b>Cr (mm)</b>	
L and N on PCB	--	240	3.0	>3.0	5.0	>5.0	
Live parts on driver PCB and accessible part	--	240	3.0	>3.0	5.0	>5.0	
Primary circuit and secondary circuit of LED driver PCB	--	240	3.0	>3.0	5.0	>5.0	
<b>Supplementary information:</b>							
<b>ANNEX 1</b>	<b>TABLE: temperature measurements, thermal tests of Section 12</b>					<b>P</b>	
	Lamp used.....:		<b>VT-2075</b>			--	
	Ballast used.....:		Built-in LED Driver			--	
	Mounting position of luminaire.....:		As in normal use			--	
	Supply wattage (W).....:		5W			--	
	Supply current (A).....:		0.02A			--	
	Table: measured temperatures corrected for Ta = 25°C:					<b>P</b>	
	- abnormal operating mode.....:		—			--	
	- test 1: rated voltage.....:		—			--	
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage.....:		1.06 *240			--	
	- 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
LED	---	109.3	---	Ref.	---	---
Input wire of LED	---	75.3	---	105	---	---
LED driver PCB	---	68.3	---	130	---	---
Lamp enclosure	---	54.5	---	90	---	---
Lamp base screws	---	66.6	---	Ref.	---	---
Ambient	---	25.0	---	---	---	---

Attachment –A  
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>	 <p>The image shows two incandescent light bulbs side-by-side on a blue background. The bulb on the left is a standard A19 shape, and the bulb on the right is a smaller, more compact shape. Both bulbs have visible filaments. Below the bulbs is a white ruler with black markings, showing centimeters and millimeters. The ruler is positioned horizontally, with the bulbs resting on it.</p>
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--END.--