APPLICATION FOR LOW VOLTAGE DIRECTIVE

On Behalf of

SHINELONG LED LIGHTING CO.,LTD

LED TUBE

Model No.	:	SL-T85X22-408-X, SL-T85X20-360-X, SL-T85X18-300-X, SL-T84X20-360-X, SL-T84X18-288-X, SL-T84X15-264-X, SL-T83X15-240-X, SL-T83X12-192-X, SL-T82X10-168-X, SL-T82X8-120-X
Prepared for	:	SHINELONG LED LIGHTING CO.,LTD 4TH&5TH FLOOR, BLDG. B, CHARBRIDGE PARK, BAOLONG6TH RD., BAOLONG COMMUNITY, LONGGANG STREET, LONGGANG DISTRICT, SHENZHEN, P.R.CHINA
Prepared By	:	Shenzhen Vilas Technology Co., Ltd. Room 406/4F, No.G5B, Shahe Industrial Park, Baishizhou Nanshan District, Shenzhen City, CHINA

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Report No.	:	SVRP1204001
Date of Test	:	April.10-12,2012
Date of Rep	:	April.13,2012

LVD Report IEC 60968 Self-ballasted lamps for general lighting services Safety requirements		
Testing laboratory	:	Shenzhen Vilas Technology Co., Ltd.
Address	:	Room 406/4F, No.G5B, Shahe Industrial Park, Baishizhou Nanshan District, Shenzhen City, CHINA
Testing location	:	Shenzhen Vilas Technology Co., Ltd.
Applicant	:	SHINELONG LED LIGHTING CO.,LTD
Address	:	4TH&5TH FLOOR, BLDG. B, CHARBRIDGE PARK, BAOLONG6TH RD., BAOLONG COMMUNITY, LONGGANG STREET, LONGGANG DISTRICT, SHENZHEN, P.R.CHINA
Standard	:	IEC 60968:1998 + A1:1991 + A2:1999, J60968（H14）
Test Result	:	Compliance with IEC 60968:1998 + A1:1991 + A2:1999, J60968（H14）
Procedure deviation	:	N.A.
Non-standard test method	:	N.A.
Type of test object	:	LED TUBE
Trademark	:	N.A
Manufacturer	:	SHINELONG LED LIGHTING CO.,LTD
Address	:	4TH&5TH FLOOR, BLDG. B, CHARBRIDGE PARK, BAOLONG6TH RD., BAOLONG COMMUNITY, LONGGANG STREET, LONGGANG DISTRICT, SHENZHEN, P.R.CHINA

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: **Shenzhen Vilas Technology Co., Ltd.**
Room 406/4F, No.G5B, Shahe Industrial Park, Baishizhou, Nanshan District, Shenzhen, Guangdong, China.

Tested by : _____ April.10-12,2012
Signature Date

Jane Yuan/ Engineer
Name and Title

Reported by : _____ April.13,2012
Signature Date

Kim Mai / Engineer
Name and Title

Reviewed by : _____ April.13,2012
Signature Date

Vigor Zou / Project Manager
Name and Title

General remarks:	
"(see remark)" refers to a remark appended to the report. "(see appended table)" refers to a table appended to the report. Throughout this report a comma is used as the decimal separator. The test results presented in this report relate only to the object tested. This report shall not be reproduced except in full without the written approval of the testing laboratory.	**Attached with:** A. Photographs of the EUT B. User Manual

General product information

Model differences:

The same circuit diagram, PCB layout, LED are applied in the models which listed bellow, but LED quantity, power and lengths of them are different.

These LED tubes are desiged to replace conventional fluorescent lamps, when replace conventional fluorescent lamps, only short-circuit conventional glow starter by qualified person, do not remove or modify conventional ballast, detail information is mentioned in instruction manual.

Model list

Model Name	Rating	Tube length (mm)	LED quantity (pcs)
SL-T85X22-408-X	100-240VAC, 50/60Hz, 22W	1500	408
SL-T85X20-360-X	100-240VAC, 50/60Hz, 20W	1500	360
SL-T85X18-300-X	100-240VAC, 50/60Hz, 18W	1500	300
SL-T84X20-360-X	100-240VAC, 50/60Hz, 20W	1200	360
SL-T84X18-288-X	100-240VAC, 50/60Hz, 18W	1200	288
SL-T84X15-264-X	100-240VAC, 50/60Hz, 15W	1200	264
SL-T83X15-240-X	100-240VAC, 50/60Hz, 15W	900	240
SL-T83X12-192-X	100-240VAC, 50/60Hz, 12W	900	192
SL-T82X10-168-X	100-240VAC, 50/60Hz, 10W	600	168
SL-T82X8-120-X	100-240VAC, 50/60Hz, 8W	600	120

The model SL-T85X22-408-X is the represent model under test.

Copy of marking plate

Model: SL-T85X22-408-X
LED TUBE
INPUT: AC100-240V,50/60Hz
POWER: 22W

CAUTION:
RISK OF ELECRIC SHOCK DRY LOCATION USE ONLY
FOR INDOOR USE OLY

SHINELONG LED LIGHTING CO.,LTD
Made in CHINA

IEC60968			
Clause	Requirement + Test	Result - Remark	Verdict
4	MARKING		P
4.1	1) Mark of origin	See copy of marking plate	P
	2) Rate voltage/voltage range (V)	AC100-240 V	P
	3) Rate wattage (W)	See copy of marking plate	P
	4) Rate frequency (Hz)	50/60Hz	P
4.2	1) Lamp current (A)	See copy of marking plate	P
	2) Burning position if restriced		N
	3) The mechnical stress caused by the weight of the lamp in the luminaire		N
	4) Special conditions or restrictions observed for lamp operation; operation in dimmer circuits		P
	Not suitable for dimming; symbol used 	Symbol used in instruction	P
4.3	1) Presence and legibility of the marking by visual inspection		P
	2) The durability of the marking is checked by rubbing lightly with water and hexane for 15s		P
	3) Availability of information by visual inspection		P
5	INTERCHANGEABILITY		P
5.1	Interchangeability shall be ensured by the use of caps in accordance with IEC 60061-1	G13 lamp cap, see annex 4	P
5.2	Compliance of the combination fo cap and bulb is checked by the use of qauqes		N
	B22d or B15d:		N
	A max. and A min. guage 7006-10/11		N
	D1 max. guage 7006-10/11		N
	N min.guage 7006-10/11		N
	Diametrical position of the pins:		N
	Insertion in lampholder guage 7006-4A		N
	Retention in lampholder guage 7006-4B		N
	E27:		N
	Max. dimension of the screw thread guage 7006-27B		N
	Min. major dimension of the screw thread guage 7006-28A		N
	Contact marking guage 7006-50		N
	E26:		N
	Max. dimension of the screw thread guage 7006-27D		N
	Min. major dimension of the screw thread guage 7006-27E		N
	E14:		N

IEC60968			
Clause	Requirement + Test	Result - Remark	Verdict
	Max. dimension of the screw thread guage 7006-27F		N
	Min. major dimension of the screw thread guage 7006-28B		N
	Contact marking 7006-54		N
5.3	Mass not exceeding 1 kg	Max.437.2 g < 500 g	P
	Bending moment not exceeding 2 Nm		N
6	PROTECTION AGAINST ELECTRIC SHOCK		P
	Lamps shall be so constructed that no internal metal parts or live parts are accesible, when the lamps is installed in a prescribed lampholder. Compliance is checked by meas of the standard test finger with force of 10 N		P
	Edison screw caps compliance with guage IEC 60061-3, sheet 7006-51A for E27 caps		N
	and sheet 7006-55 for E14 caps		N
	B22 or B15 caps compliances with normal incandescent lamps		N
	External metal parts shall be so designed that live parts are not accessible (test of Cl. 7)		P
7	INSULATION RESISTANCE AND ELECTRICS STRENGTH AFTER HUMIDITY TREATMENT		P
7.1	After storage 48 h at 91…95 % relative humidity and 20…30 ℃	93% R.H.,25℃	P
	Insulation resistance with 500 V d.c.,required ≥ 4 MΩ	Min. 100 MΩ	P
7.2	Immediately after the insulation resistance test,electric strength test for 1 min.		P
	Type HV (220 … 250 V):4000 V rms	Between pins and accessible enclosure (covered with metal foil): 4000 V, 1 min	P
	Type BV (100 … 120V):2xU + 1000V		N
	No flashover or breakdown		P
8	MECHANICAL STRENGTH		P
8.1	Torsion resistance	1 Nm torque is applied to the pins, Max. 1° angular displacement (refer to EN 61195)	P
	The cap is remain firmly attached when subjected to torque levels		P

IEC60968			
Clause	Requirement + Test	Result - Remark	Verdict
	- B22d ……....3Nm: - B15d ……...1,15Nm: - E26 and E27 ……3Nm: - E14 ……1,15Nm:		N
	Torque increased continuously from zero to specified value		P
	Uncemented caps; relative movement between cap and bulb does not exceed 10°		N
	After mechanical strength test sample complies requirements of accessibility		P
9	CAP TEMPERATURE RISE (G13, Measured max.temperature rise: 1K, limit: 95K)		P
	Cap temperature rise △Ts not exceeding the condition specified in IEC 60360:		P
	- B22d ……....125K:		N
	- B15d ……....120K:		N
	- E27 ……....120K:		N
	- E14 ……....120K:		N
	- E27 ……under consideration		N
10	RESISTANCE TO HEAT		P
	External parts of insulating materials providing protection against electric shock,and parts of insulating material retaining live parts in position,ball pressure test:		P
	Parts tested: temperature (℃); diameter of impression (≤ 2 mm) ……:	Bobbin of L1, L2, transformer T1: 125 ℃:0,2 mm Lamp cap: 125 ℃:0,5 mm Translucent enclosure 125 ℃:0,7 mm White enclosure: 125 ℃:0,7 mm	P
11	RESISTANCE TO FLAME AND IGNITION		P
	Parts of insulatiing material retaining live parts in position and external parts of insulating material providing protection against electric shock,glow wire test 650 ℃		P
	Parts tested: temperature (℃) ……:	Lamp cap, bobbin of L1 or L2 or transformer T1, Lamp cap, translucent enclosure, white enclosure, PCB	P
	No visible flame and no sustained glowing		P

IEC60968			
Clause	Requirement + Test	Result - Remark	Verdict
	Flame and glowing,extinguish within 30 s ……:	Extinguish with 2 s	P
	No igniton of the tissue paper	No drop	P
12	FAULT CONDITION		P
	a) In a switch-start circuit,the starter is short circuited		N
	b) Short-circuit across capacitors		P
	c) The lamp does not start,because one of the cathodes is broken		N
	d) The lamp does not start,although the cathode circuits are intact (de-actived lamp)		N
	e) The lamp operates,but one of the cathodes is de-actived or broken (rectifying effect)		N
	f) Operating or bridging other points in the circuit where the diagram indicates that such a fault condition may impair safety		P
	COMMON MODIFICATIONS (EN 60968:1990)		P
5,6,8 and 9	Delete all references to E26 lamp caps		P

Annex 1	Cap temperature rise and heating test		P
	Type reference ……:	SL-T85X22-408-X	—
	Test voltage ……:	240V	—
	Supply wattage (W) ……:	22.1	—
	Supply current (A) ……:	0.099	—
	Mounting position ……:	Put LED lamp on black testing board, horizontal position	
	Used ballast ……:		—
	Frequency (Hz) ……	50/60Hz	—
	Table: measured temperature corrected for ta = 25 ℃		

temperature(℃/K) of part	Test value		Result
	(℃/K)		limit
Lamp cap (central position between pins)	2,2K	--	95K
Inside cap	25,3 ℃	--	Ref.
Internal supply wire	41,7℃	--	80℃
Internal output wire	44,8℃	--	80℃
PCB of LED driver	72.6℃	--	130℃
PCB for LED	39,8℃	--	130℃
Winding of L1	43,0℃	--	100℃
Winding of L2	46,3℃	--	100℃
Primary winding of T1	68,4℃	--	100℃
Secondary winding of T1	68,1℃	--	100℃
CX1	44,2℃	--	110℃
CX2	47,5℃	--	110℃
C2A	52,5℃	--	105℃
C2	48,2℃	--	105℃
CY1	56,7℃	--	125℃
MOV1	42,3℃	--	85℃
Note: “Ref.” meas reference to balll pressure test			

ANNEX 2	LED modules for general lighting — Safety specifications IEC 62031:2008		P
Clause	Requirement + Test	Result - Remark	Verdict
7	**Marking**		**N**
8	**Terminals**		**N**
	For screw terminals, the requirements of IEC 60598-1, Section 14,shall be used, if applicable.		N
	For screw terminals, the requirements of IEC 60598-1,Section 15, shall be used, if applicable.		N
	For connectors, the requirements of IEC 60838-3-2 shall be used, if applicable.		N
9	**Provisions for protective earthing**		**N**
	The requirements of IEC 61347-1, Clause 9, apply.		N
10(10)	**PROTECTION AGAINST ACCIDENTAL CONTACT WITH PARTS**		**P**
- (10.1)	Controlgear protected against accidental contact with live parts		P
- (A2)	The current flowing between the part concerned and earth is measured and does not exceed 0,7 mA (peak) or 2 mA d.c. ……..:	Max.0,13mA < 0,7mA	P
- (A2)	For frequencies above 1 Khz, the current does not exceed 0,7 mA (peak) multiplied by the value of the frequency in kiloherz or 70 mA (peak) ……..:		N
- (A3)	The voltage between the part concerned and any accessible part is measured and does not exceed 34V (peak) ……..:		N
- (10.1)	Lacquer or enamel not used for protection or insulation		P
	Adequate mechanical strength on parts providing protection		P
- (10.2)	Capacitor > 0,5 µF: voltage after 1 min (V): < 50 V	0 V < 50 V	P
11	**MOISTURE RESISTANCE AND INSULATION**		**P**
	The requirements of IEC 61347-1,Clause 11,apply.	Tested as a part of lamp	P
12	**ELECTRIC STRENGTH**		**P**
	The requirements of IEC 61347-1,Clause 12,apply.	Tested as a part of lamp	P
13	**FAULT CONDITIONS**		**P**
13.1	General The module shall not impair safety when operated under fault conditions that may occur during the intended use.The requirements of IEC 61347-1, Clause 14,apply.Additionally,the following test shall be carried out.		P

ANNEX 2	LED modules for general lighting — Safety specifications IEC 62031:2008		P
Clause	Requirement + Test	Result - Remark	Verdict

(14)	TABLE:tests of fault conditions	P
For SL-T85X22-408-X		
Part	Simulated fault	Hazard
BD1	Short circuit:90-264V; test result: Fuse open, no flame, no flammable gas, no molten parts;	No
MOV1	Short circuit:90-264V; test result: Fuse open, no flame, no flammable gas, no molten parts;	No
D2	Short circuit:90-264V; test result: Work normally;	No
C2	Short circuit:90-264V; test result: Shut down, can work normally when remove short circuit, no flame, no flammable gas, no molten parts;	No
Q1(G-D)	Short circuit:90-264V; test result: Fuse open, no flame, no flammable gas, no molten parts;	No
Q1(D-S)	Short circuit:90-264V; test result: Fuse open, no flame, no flammable gas, no molten parts;	No
R18	Short circuit:90-264V; test result: Shut down, can work normally when remove short circuit, no flame, no flammable gas, no molten parts;	No
D3	Short circuit:90-264V; test result: Fuse open, no flame, no flammable gas, no molten parts;	No
C1	Short circuit:90-264V; test result: Fuse open, no flame, no flammable gas, no molten parts;	No
U1(4-6)	Short circuit:90-264V; test result: Shut down, can work normally when remove short circuit, no flame, no flammable gas, no molten parts;	No
Output	Short circuit:90-264V; test result: Shut down, can work normally when remove short circuit, no flame, no flammable gas, no molten parts;	No
13.2	Overpower condition: 1. Adjusted unit 150% of the rated voltage,current or power is reached. 2. The test continued until the module is thermally stable. 3. Test result:the lamp operated as usual,no hazard.	P

14	Conformity testing during manufacture (See Annex C)		N
	Wood, cotton, silk, paper and similar fibrous material shall not be used as insulation. Compliance is checked by inspection.		P
15	Construction		P
16	CREEPAGE DISTANCES AND CLEARANCES The requirements of IEC 60598-1,Section 11, apply.		
	Working voltage (V) ……:	100-240 V	—

ANNEX 2	LED modules for general lighting — Safety specifications IEC 62031:2008		P
Clause	Requirement + Test	Result - Remark	Verdict
	Voltage form	Sinusoidal ☒	
		Non-sinusoidal ☐	
	PTI	< 600 ☒ ≥ 600 ☐	—
	Rated pulse voltage (kV) ……..:	N	—
	(1) Current-carrying parts of different polarity: cr (mm); cl (mm) ……:		P
	(2) Current-carrying parts and accessible parts: cr (mm); cl (mm) ……:		P
	(3) Parts becoming live due to breakdown of basic insulation and metal parts: cr (mm); cl (mm) ……:		P
17	**Screws, current-carrying parts and connection**		
	The requirements of IEC 61347-1, Clause 17, apply		P
20(18)	**RESISTANCE TO HEAT, FIRE AND TRACKING**		**P**
(18.1)	Parts of insulating material retaining live parts in position, ball pressure test:		P
	- Parts; tested: temperature (℃)……:		P
(18.2)	Printed board in accordance with IEC 60249-1, 4.3		P
(18.3)	External parts of insulating material preventing electric shock glow-wire test 650℃		P
(18.4)	Parts of insulating material retainning live parts in pisition, needle-flame test 10 s:		P
	- flame extinguished within 30 s		P
	- no flaming drops igniting tissue paper		P
(18.5)	Tracking test		N

ANNEX 2	LED modules for general lighting — Safety specifications IEC 62031:2008		P
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 3	**Critical components**	**P**

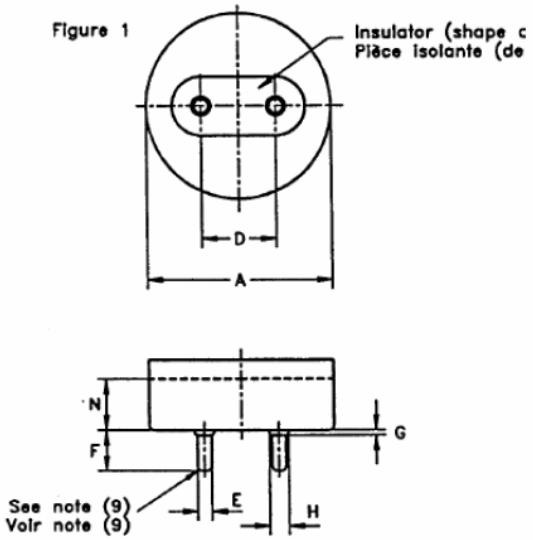
Material: e.g. external enclosure, PCB, close-end connector, sleeves, cord anchorage etc
Components with winding: e.g. motor, transformer, magnetic coil etc.
Other components: e.g. switch, thermostat, heater, plug, internal wire, capacitor, relay, varistor etc.

Object/Part no.	Manufacturer/ trademark	Type/model	Technical data	Standard	Certified mark
Metal Pin	Jinjun moulb co.,ltd	--	Cu content: 62 %	---	Tested with appliance
PCB for LED driver	KINGBOARD LAMINATES HOLDINGS LTD	KB-6160A	V-0, 130°C	---	UL E123995 + tested with appliance
PCB for LED	GOLDENMAX INTERNATIONAL TECHNOLOGY (ZHUHAI)LTD	FR-4	V-0, 130°C	---	UL E33071 + tested with appliance
Fuse (F1)	Conquer Electronics Co., Ltd.	PTU	T1A/250 VAC	EN60127-1	VDE 40001462
Alternative	SHENZHEN LANSON ELECTRONICS CO LTD	3N1100A	T1A/250 VAC	EN60127-1	VDE 40016660
X2 Capacitor (CX1,CX2) for 1500mm LED tube	SHENZHEN SINCERITY TECHNOLOGY CO.,LTD	MPX/MKP	AC275 V, 0,1 µF, 110°C	EN60384-14 IEC60384-14	VDE 40028812
X2 Capacitor (CX1,CX2) for 1200mm LED tube	SHENZHEN SINCERITY TECHNOLOGY CO.,LTD	MPX/MKP	AC275 V, 0,047 µF, 110°C	EN60384-14 IEC60384-14	VDE 40028812
X2 Capacitor (CX1,CX2) for 900mm LED tube	SHENZHEN SINCERITY TECHNOLOGY CO.,LTD	MPX/MKP	AC275 V, 0.015µF,110°C	EN60384-14 IEC60384-14	VDE 40028812
X2 Capacitor (CX1,CX2) for 600mm LED tube	SHENZHEN SINCERITY TECHNOLOGY CO.,LTD	MPX/MKP	AC275 V, 0,01 µF, 110°C	EN60384-14 IEC60384-14	VDE 40028812
Y1 Capacitor (CY1)	Shangtou High-New Zone songtian Enterprise Co.,LTD	Y	AC400 V, 2200 PF, 125°C	EN60384-14 IEC60384-14	VDE 40028812
Bridge rectifiers(BD1)	MICROSEMI TAIWAN CO LTD	SDB1	1000V, 1A	---	UL E165989
Screwless terminal material	HONGXING ELECTRICAL CO.,LTD YUEQING ZHEJIANG CHINA	2502-YYY	V-0, 1.0mm min	---	UL E228500
Varistors for	THINKING ELECTRONIC INDUSTRIAL CO LTD.	TVR05 / TVD05D	P=5mm，450Vdc/350Vac 400A, 85°C	---	VDE 5944

Varistors for	THINKING ELECTRONIC INDUSTRIAL CO LTD.	TVD05D	400A, AC 350V, 85°C	---	VDE 5944
Insulation sheet	SHENZHEN TEESUN TECHNOLOGY CO LTD	FR365,FR363	V-0, 80°C, Min thickness: 0.4mm	---	UL E329660
Alternative	AGC POLYCARBONATE CO LTD	CarboGlass CFR(b)B	V-0, 130°C thickness: 0.4mm	---	UL E141248
Internal supply wire	ZHUANG SHUAN ELECTRICAL PRODUCTS(KUNSHAN)CO LTD 318 JINCHANG RD	1672	105°C, 22 AWG	---	UL E236079 + tested with appliance
Internal wire to LED	GUANGZHOU FENG TAI ELECTRONIC CO LTD 26 SHANG SHI LANE	3266	105°C, 24AWG	---	UL E204798 + tested with appliance
Translucent cover	MITSUBISHI ENGINEERING –PLASTICS CORP	S-2000V+(f1)	94V-2, 125 °C	---	UL E41179 + tested with appliance
Metal enclosure	Jijia optoecectronics technology co.,ltd	--	Material: aluminium thickness: 1.0 mm Min	---	Tested with appliance
Plastic material of lamp cap	CHIMEI CORPORATION	PA-764B	ABS, V-0	---	UL E56070 + tested with appliance
Heatshrink tube	Shenzhen Woer Heat-Shrinkable Material Co Ltd	RSFR	125°C, 600 V	---	UL E203950 + tested with appliance
Winding of L1,L2	Various	*UEW/130	Polyurethane, 130°C	---	UL E239508 Tested with appliance
L3	Various	--	2.4 mH	---	Tested with appliance
C3	Various	--	50 V, 47 µF, 105°C	---	Tested with appliance
CS2,CS3	Various	--	50 V, 470 µF, 105°C	---	Tested with appliance
Transformer T1A	SHENZHEN DONGXINGFENG ELECTRONICS Co.,LTD	HG-T840-500-V1.0	CLASS B	---	Tested with appliance
Primary winding of T1A	SHANTOU SHENGANG ELECTRICAL INDUSTRIAL CO LTD	*UEW/130	Polyurethane, 130°C	---	UL E239508 + tested with appliance

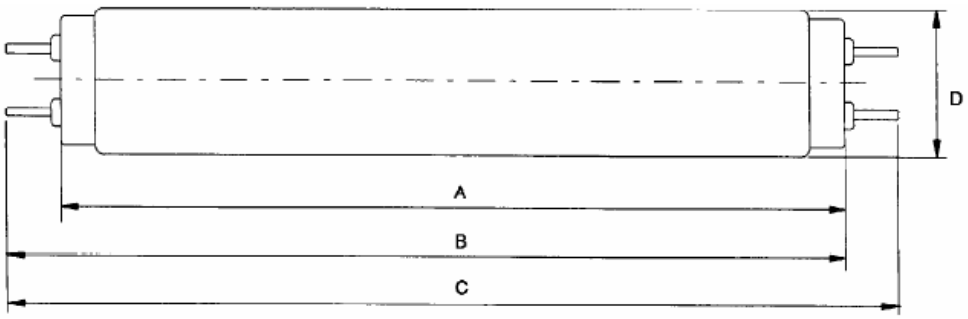
Secondary winding of T1A	DAH JIN TECHNOLOGY CO LTD	TLW-B	Triple insulation, 130°C	---	VDE 40008834 + tested with appliance
Bobbin	CHANG CHUN PLASTICS CO LTD	T200NA	V-0, 150°C	---	UL 59481 + tested with appliance
Varnish	SHENZHEN XINGSHIDA SCIEN TECH PROD CO LTD	SD-1181	130°C	---	UL E327170 + tested with appliance
Insulation tape	JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD	CT	130°C	---	UL E165111 + tested with appliance
Black coating	DONGGUAN EATTO ELECTRONIC MATERIAL CO LTD	E-500	130°C	---	UL E218090 + tested with appliance
LED	MTC	3528	3.2 V, 20 mA	---	Tested with appliance

ANNEX 4	**Dimensions measurement for lamp cap of G13 (according to 7004-51-8 of EN 60061-1)**	**P**



Dimension	Limit		Measurement(mm)
	Min.(mm)	Max.(mm)	
A	--	31,50	25,40
D	12,70		12,70
E	2,29	2,67	2,40
F	6,60	7,62	7,50

ANNEX 5	**Double-capped fluorescent lamps diagrammatic data sheet for location of Lamp dimensions** (according to 60081-IEC-01-1 of IEC 60081)	P

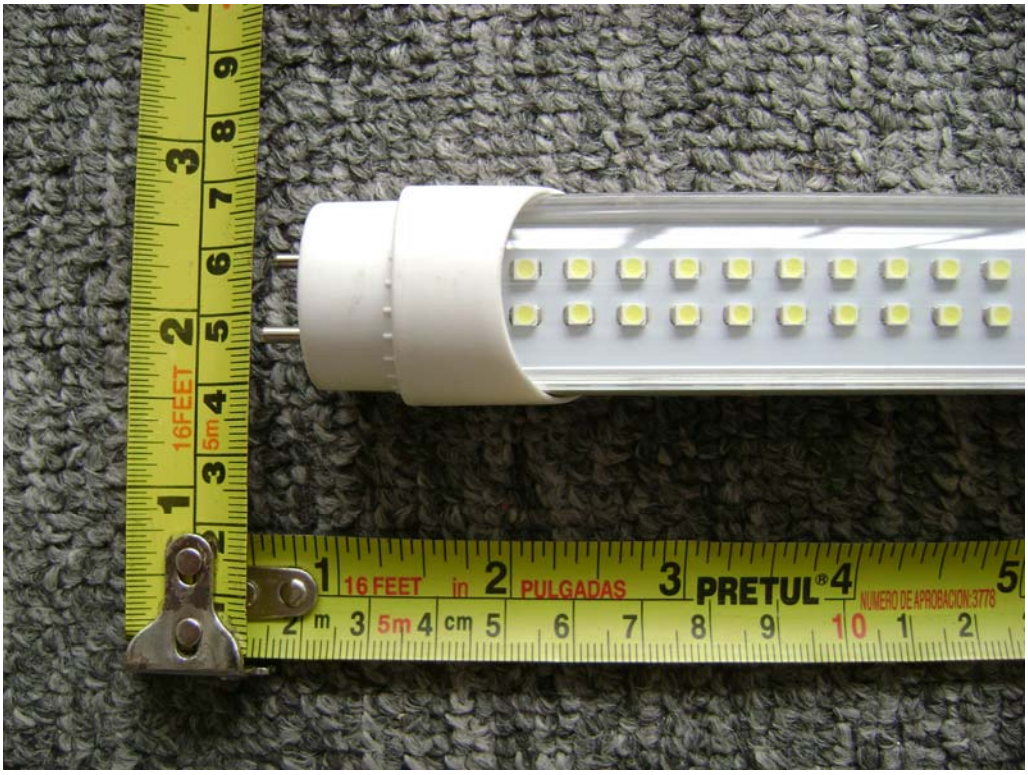


Model	Dimension	Limit		Measurement(mm)
		Min.(mm)	Max.(mm)	
SL-T85X22-408-X	A	--	1500	1497,7
	B	1504,7	1507,1	1505,4
	C	--	1514,2	1513,1
SL-T84X20-360-X	A	--	1500	1497,7
	B	1204,1	1206,5	1204,6
	C	--	1213,6	1212,3
SL-T83X15-240-X	A	--	894,6	893.2
	B	899,3	901,7	899.8
	C	--	908,8	906.2
SL-T82X8-120-X	A	--	589,8	587,1
	B	594,5	596,9	594,8
	C	--	604,0	602,5

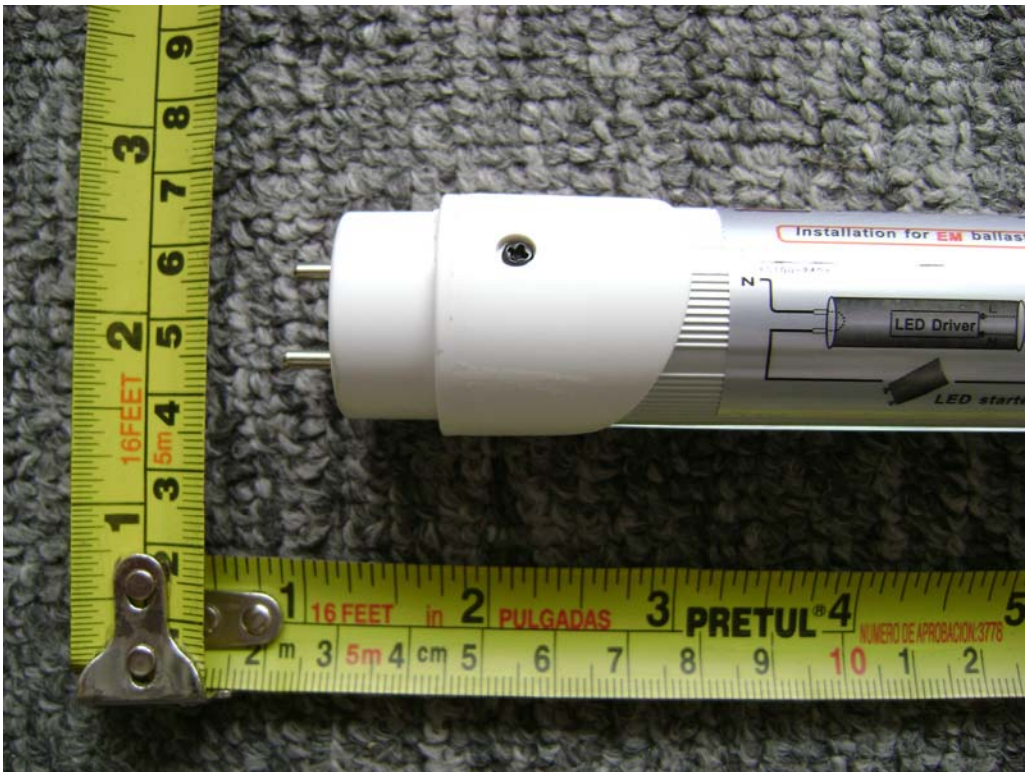
Remark:
For SL-T85X22-408-X, the limits are referred to the dimensions of fluorescent tube of T8 22W;
For SL-T84X20-360-X, the limits are referred to the dimensions of fluorescent tube of T8 20W;
For SL-T83X15-240-X, the limits are referred to the dimensions of fluorescent tube of T8 15W;
For SL-T82X8-120-X, the limits are referred to the dimensions of fluorescent tube of T8 8W;

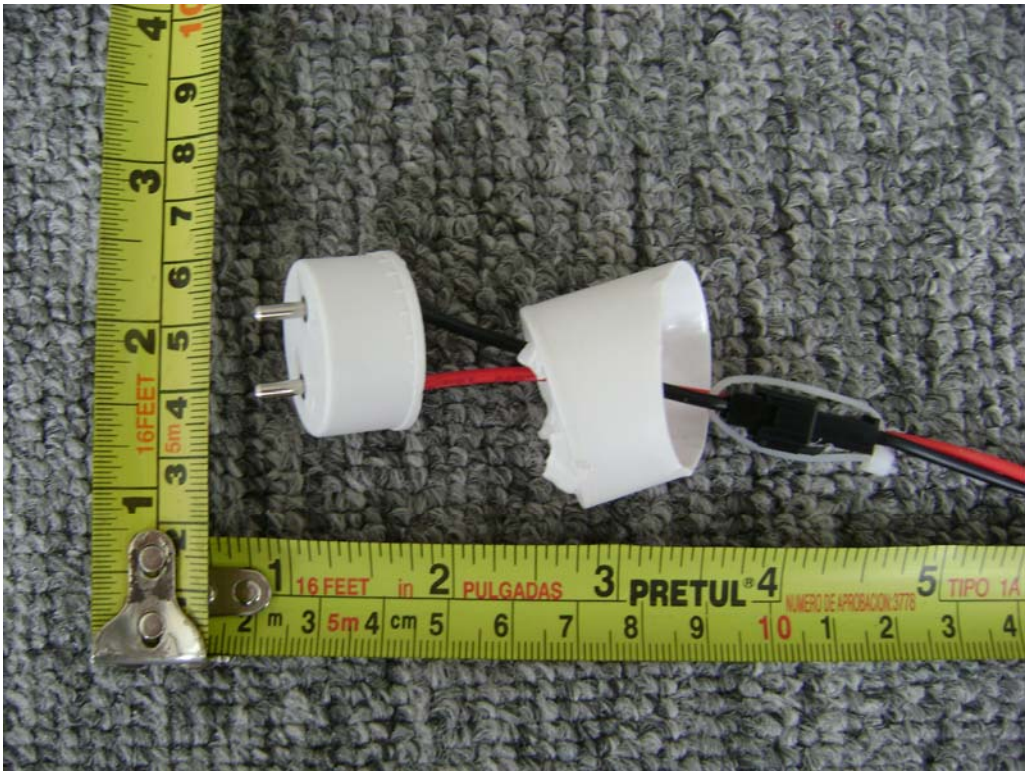
APPENDIX A
Photographs of the EUT

Product: LED TUBE
Trademark: N.A

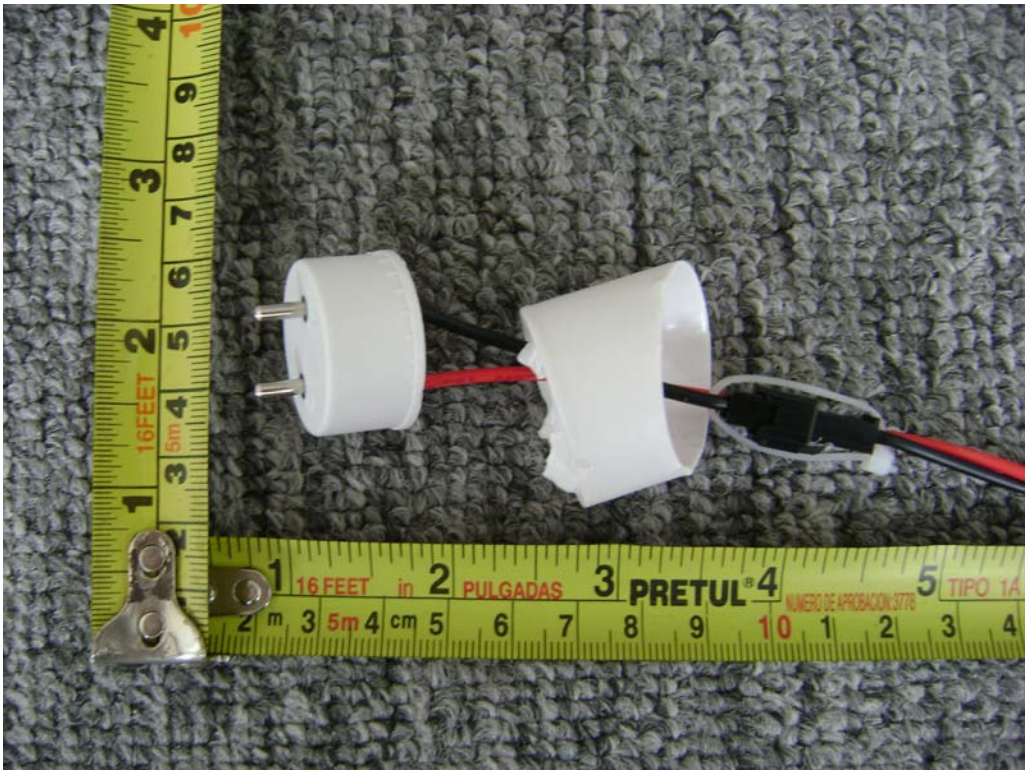


Product: LED TUBE
Trademark: N.A

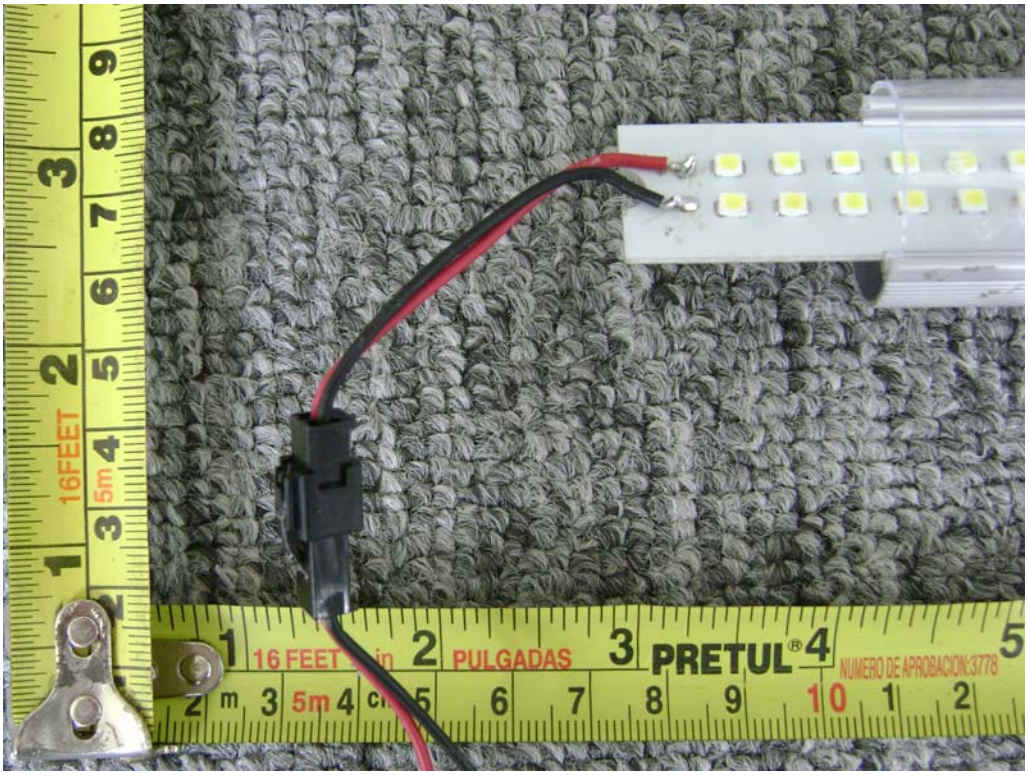




Product: LED TUBE
Trademark: N.A

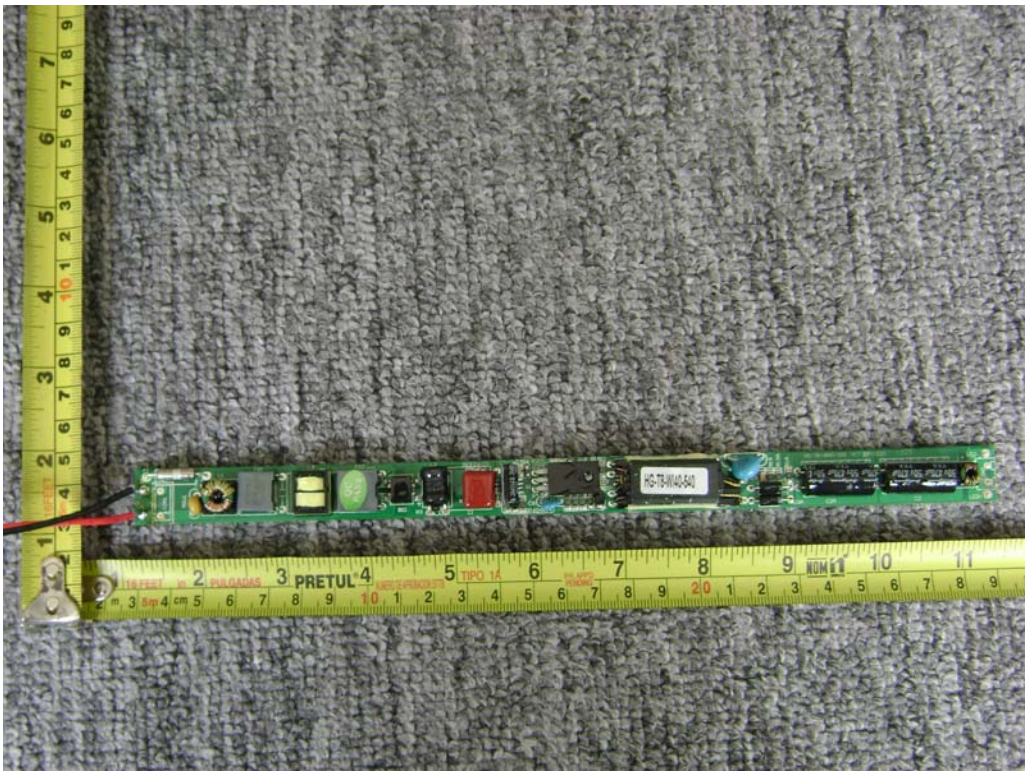


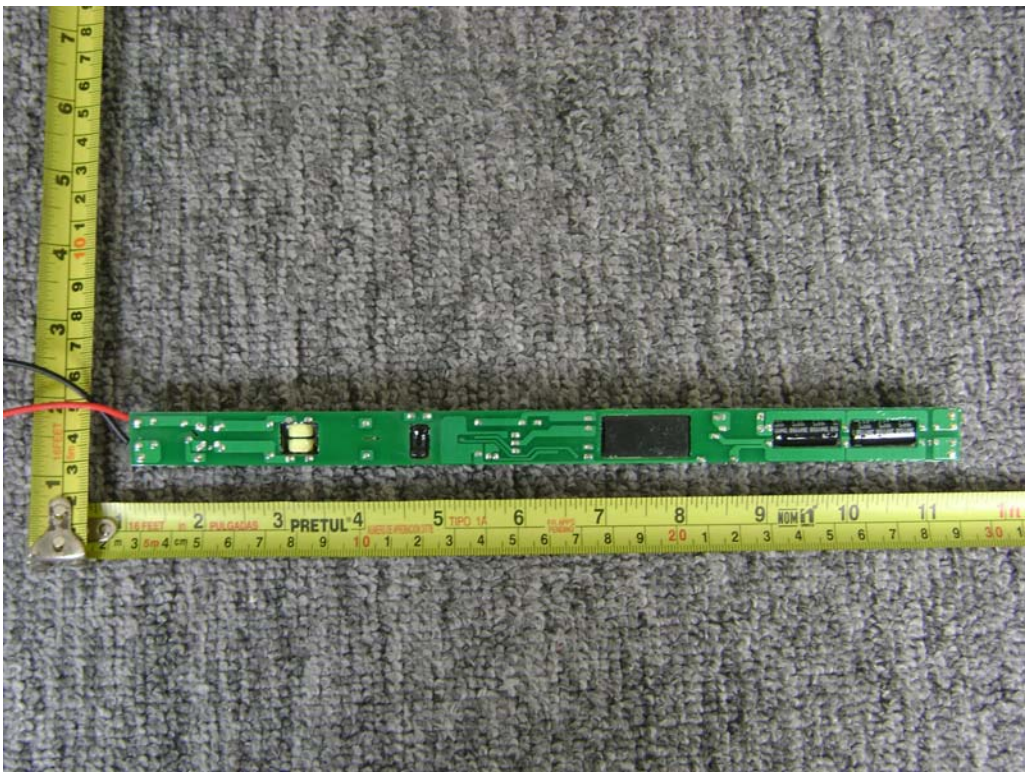
Product: LED TUBE
Trademark: N.A



Product: LED TUBE
Trademark: N.A

Product: LED TUBE
Trademark: N.A





APPENDIX B
User Manual