

<b>TEST REPORT</b> <b>IEC/EN 61199</b> <b>Single capped fluorescent lamps – Safety specifications</b>	
Report Reference No. ....	SHES110600104401
Tested by (name+signature) .....	Viki WEI <i>Viki Wei</i>
Witnessed by (name+signature) .....	.....
Supervised by (name+signature) .....	.....
Approved by (name+signature) .....	Elvis YOU <i>Elvis You</i>
Date of issue .....	2011-12-5
Testing Laboratory .....	SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.
Address .....	No. 588 West Jindu Rd, Xinqiao Town, Songjiang District 201612 Shanghai CHINA
Applicant's name .....	Ningbo Yinzhou Antai Illumination Electronic Appliance Factory
Address .....	No 339,Chaoyang Road, Jiangshan Town, Ningbo, Zhejiang, China
<b>Test specification:</b>	
Standard .....	IEC 61199:1999 and / or EN 61199:2000
Test procedure .....	CE_LVD
Non-standard test method .....	N/A
Test Report Form No. ....	IEC61199A
TRF Originator .....	STQC
Master TRF .....	Dated 2005-02
Test item description .....	Fluorescent Lamp
Trade Mark .....	None
Manufacturer .....	Ningbo Yinzhou Antai Illumination Electric Appliance Factory
Model/Type reference .....	Details see page 4
Ratings .....	Details see page 4

Copy of marking plate:

Representative:

Ningbo Yinzhou Antai Illumination Electric Appliance Factory  
Model: AT-B1  
G23; 11 W  
Triple Turn T/E CFL4000 K

Note: The marking plates for other models are same as the above representative except for model's name and rated data.

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)

General remarks:

"(see remark #)" refers to a remark appended to the report.

"(see Annex #)" refers to an annex 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.

Contents:

1. Test report – 10 pages.
2. Photographs — Attachment A — 5 pages

**General product information:**

There are 4 models covered in the report. These 4 models have the same construction except the length in order to achieve different designation. details as below:

Model	Lamp cap	Rated power	Length(mm)
<b>AT-B1:</b>			
7W Single Turn S CFL	G23	7 W	137
9W Single Turn S CFL		9 W	168
11W Single Turn S CFL		11 W	235
<b>AT-B8:</b>			
18W Single Turn L CFL	2G11	18 W	229
24W Single Turn L CFL		24 W	328
36W Single Turn L CFL		36 W	422
40W Single Turn L CFL		40 W	572
55W Single Turn L CFL		55 W	533
<b>AT-B2:</b>			
10W Double Turn D CFL	G24	10 W	109
13W Double Turn D CFL		13 W	119
18W Double Turn D CFL		18 W	153
26W Double Turn D CFL		26 W	171
10W Double Turn D/E CFL		10 W	104
13W Double Turn D/E CFL		13 W	132
18W Double Turn D/E CFL		18 W	147
26W Double Turn D/E CFL		26 W	165
<b>AT-B3:</b>			
13W Triple Turn T/E CFL	G24q	13w	107
18W Triple Turn T/E CFL		18W	112
26W Triple Turn T/E CFL		26W	132
32W Triple Turn T/E CFL		32W	147
42W Triple Turn T/E CFL		42W	168
57W Triple Turn T/E CFL		57W	198

Manufacturer and Factory:

Same as applicant.

IEC 61199			
Cl.	Requirement	Results	Verdict
<b>2</b>	<b>Requirements</b>		<b>P</b>
2.1	General		P
	Lamps present no danger to the user or surroundings in normal use		P
2.2	Marking		P
2.2.1	Mandatory markings		P
	a) mark of origin		P
	b) the rated wattage		P
	Marked on the lamps		P
	Markings are legible and durable		P
2.2.2	The marking is legible after rubbed by hand with a smooth cloth dampened with water for a period of 15 s		P
2.3	Mechanical requirements for caps		P
2.3.1	Caps are remain attached during and after operation		P
	For caps G23, G24 and GX 24:		P
	a) Pull test on unused lamps (Nm) ..... :	40 N	P
	bending moment of (Nm).....:		N/A
	No damage that impairs safety.		P
	b) Heating treatment for 2000 h ± 50 h at a temperature of (°C) .....		P
	Pull test on unused lamps (Nm) .....	40 N	P
	bending moment of (Nm).....		N/A
	No damage that impairs safety.		P
2.3.2	Dimentional requirements for caps		P
2.3.2.1	Lamps use standardized caps in accordance with the requirement of IEC 60061-1		P
2.3.2.2	Cap type 2GX 7 checked by Gauge 7006-102		N/A
	Cap type 2G 7 checked by Gauge 7006-102.....		N/A
	Cap type 2G11 checked by Gauge 7006-82.....		P
	Cap type G10q checked by Gauge 7006-79		N/A
	Cap type 2G10 checked by Gauge 7006-118		N/A
	Cap type GR8 checked by Gauge 7006-68A,68B,68E		N/A
	Cap type GR10q checked by Gauge 7006-77A,68B,68E		N/A
	Cap type GX 10q checked by Gauge 7006-79,84,84A and 84B		N/A

IEC 61199			
Cl.	Requirement	Results	Verdict
	Cap type GY10q checked by Gauge 7006-79,85 and 85A		N/A
	Cap type G23 checked by Gauge 7006-69		P
	Cap type GX23 checked by Gauge 7006-86		N/A
	Cap type G24,GX24 checked by Gauge 7006-78		P
	Cap type GX32 checked by Gauge 7006-87		N/A
2.3.3.	Pin connections and Keying configurations		P
2.3.3.1	Pin connections		P
	Connection of lamp cathodes to the pins of cap.		P
2.3.3.2	Key Configuration		P
	Cap conform to cap / key version.		P
2.4	Insulation resistance		P
	Insualtion resistance measurement carried out with 500 V d.c.		P
	Insulating resistance between the metal shell of the cap and the pins or contacts not less than 2 MΩ..... :	200 MΩ	P
2.5	Electric strength		P
	Not apply to lamps having caps with internal resistors		P
	A 1500 V a.c. voltage of substantially sine-wave form, with a frequency of 50 Hz or 60 Hz and applied for 1 min		P
	The insulation between the shell of the cap and the pins or contancts withstand the test voltage		P
	No flash-over or breakdown occur during the test		P
2.6	Parts which can become accidentally live		P
2.6.1	Metal parts intended to be insulated from live parts not be or become live		P
2.6.2	No live part project from any part of the cap except the cap pins		P
2.6.3	Checked by a suitable system		P
2.7	Resistance to heat and fire		P
2.7.1	Insulating material of cap is resistant to heat		P
2.7.2.1	Samples tested in a heating cabinet for a period of 168 h, temperature (°C)..... :	160 °C	P
	At the end of test, the samples not have undergone any change impairing their further safety		P
	No reduction in the protection against electric shock as required in 2.4 and 2.5		P
	No loosening of cap pins, cracks, swelling and shrinking		P

IEC 61199			
Cl.	Requirement	Results	Verdict
	Dimension comply with the requirement of 2.3.2		P
2.7.2.2	Ball pressure test		P
	Part tested, temperature (° C) .....	Insulating material of caps; 125 ° C; d=1,80 mm	P
	Part tested, temperature (° C) .....		N/A
2.7.3	External parts of insulating material are resistant to abnormal and to fire		P
2.7.4	Glow-wire test (650 °C) .....	Insulating material of caps	P
2.8	Creepage distance for caps		P
	Between contact pins or contacts and the metal shell of the cap (mm) .....	7,45 mm	P
	Requirement (mm) .....	6,11 mm	P
2.9	Lamp cap temperature rise (Limit as per table B.2)	AT-B1: 21,2 K; AT-B8: 39,5 K; AT-B2: 41,3 K; AT-B3: 42,3 K	P
2.10	Radio interference suppression capacitors		N/A
2.10.1	Moisture Resistance		N/A
	Humidity test for 48 hrs.		N/A
	Electric strength test at 2KV for 1Min.		N/A
2.10.2	Resistance to flame and ignition.		N/A
	Not induce flame or cause ignition.		N/A
2.11	Information for luminaire design		N/A
2.12	Information for ballast design		N/A

IEC 61199			
Cl.	Requirement	Results	Verdict

<b>3.</b>	<b>Assessment</b>		<b>N/A</b>
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<b>Table 2 – Grouping of test records, sampling and acceptable quality levels.</b>				
Cl.	Tests	Type of test	Samples number	Quality number
2.2.2 a)	Marking - legibility	Runing	N/A	N/A
2.2.2 b)	Marking - durability	Periodic	N/A	N/A
2.3.1.(ann- ex A as appropriate)	Construction and assembly of caps to bulb (unused lamps )	Periodic or design	N/A	N/A
	Construction and assembly of caps to bulb (after heating test)	Design		
2.3.2.2	Dimensioal requirements for caps	Periodi	N/A	N/A
2.3.3.1	Cap pin connection	Periodi	N/A	N/A
2.3.3.2  (where applicable)	Cap key configuration	Periodi	N/A	N/A
2.4.	Insulating resistance	Design	N/A	N/A
2.5.	Electric strength	Design	N/A	N/A
2.6.	Accidentally live part	100% inspection	N/A	N/A
2.7.2	Resistance to heat	Design	N/A	N/A
2.7.4	Resistance to fire	Design	N/A	N/A
2.8.	Cap creepage distance	Design	N/A	N/A
2.9.	Cap temperature rise	Design	N/A	N/A
2.10.	Capacitor test	Design	N/A	N/A



IEC 61199			
Cl.	Requirement	Remarks	Verify

<b>Table 5. Batch test</b>			
Cl.	Test	Samples number	Rejection number
2.2.2 a)	Marking - legibility	200	N/A
2.2.2 b)	Marking - durability	50	N/A
2.3.1.	Construction and assembly of caps (unused lamps)	125	N/A
2.3.2.2	Dimensional requirement for caps	32	N/A
2.3.3.1	Pin connections	125	N/A
2.3.3.2	Key configuration	125	N/A
2.4.	Insulation resistance	Apply D.2	N/A
2.5.	Electric strength	Apply D.2	N/A
2.6	Accidentally live parts	500	N/A
2.3.1.	Construction and assembly of caps (after heating)	Apply D.1	N/A
2.7.2	Resistance to heat	Apply D.3	N/A
2.7.4	Resistance to fire	Apply D.3	N/A
2.8	Cap creepage distance	Apply D.3	N/A
2.9.	Cap temperature rise	Test not applicable	N/A
2.10	Radio interference suppression capacitor	Apply D.3	N/A

Remarks

	<b>ANNEX 1: Components</b>	
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object/part No.	code	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity
Enclosure	B	Yuyao Tenglong Plastics & Chemical Co.,Ltd.	GF30	V-0; min thickness:1,6 mm	EN 61199	Test with appliance

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

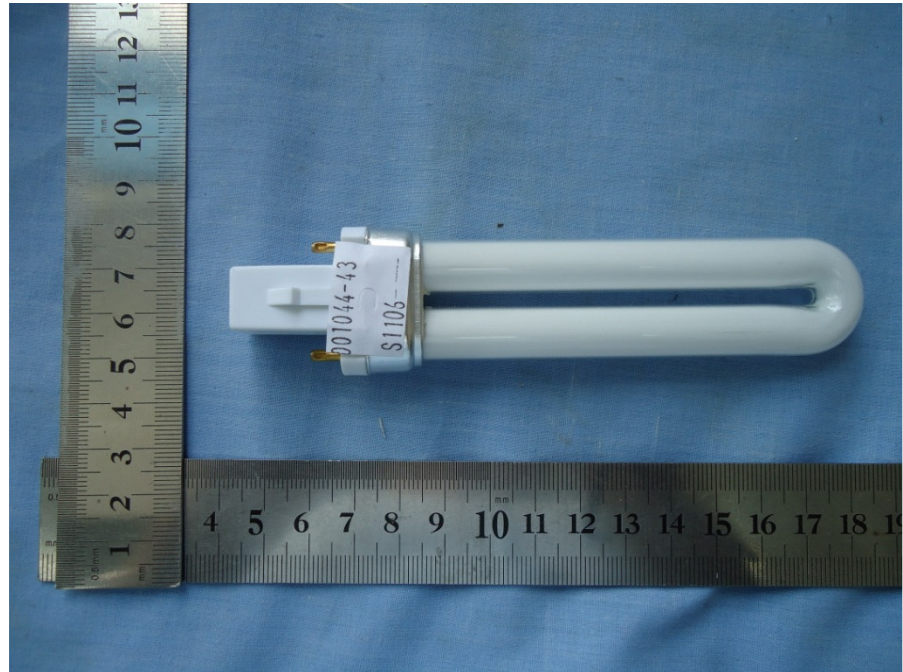
Attachment A

Photo documentation

Details of: AT-B1

View:

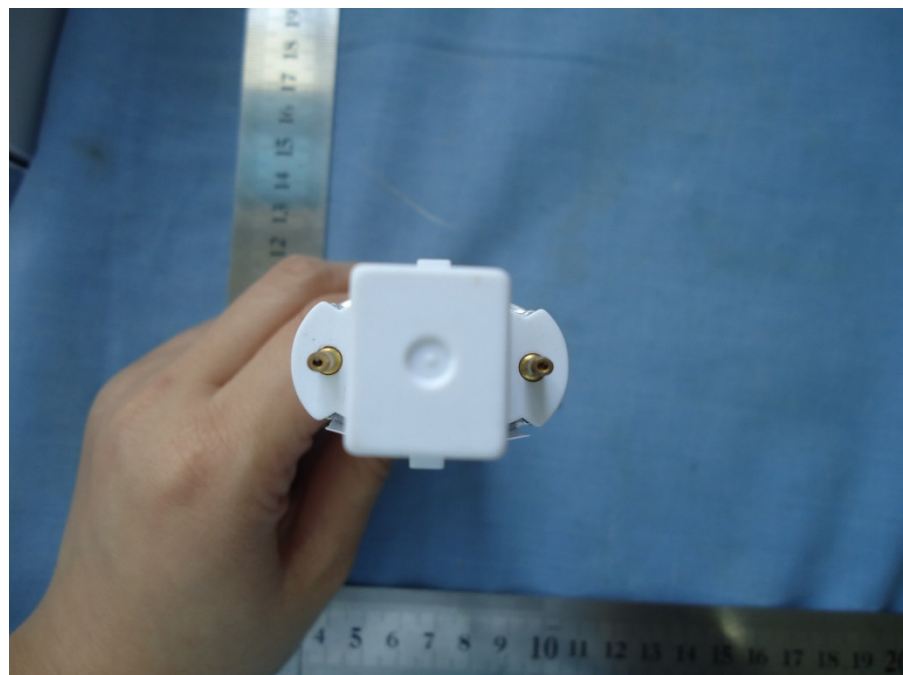
- general
- front
- rear
- right
- left
- top
- bottom



Details of: AT-B1

View:

- general
- front
- rear
- right
- left
- top
- bottom

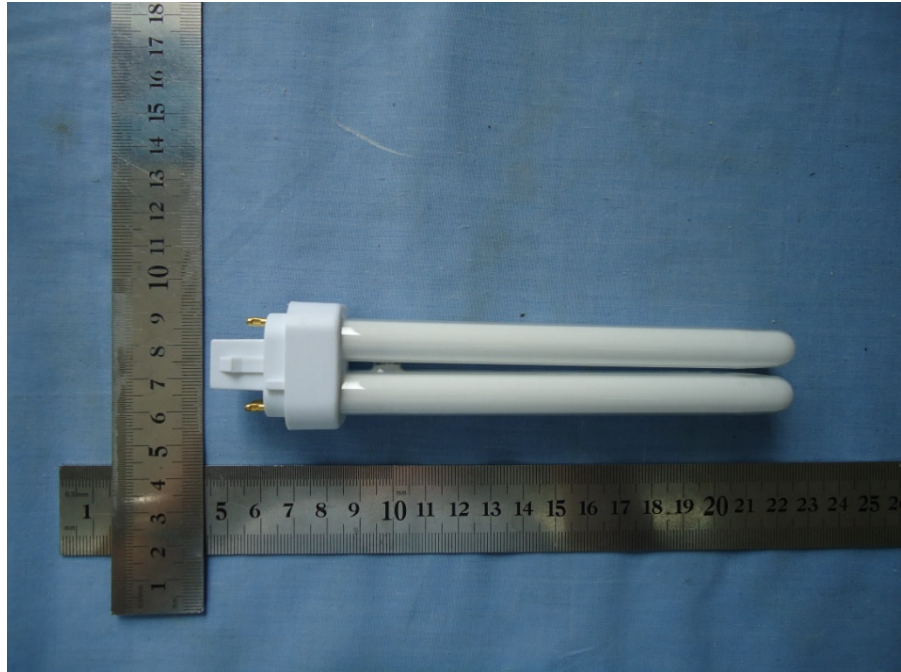


Attachment A

Details of: AT-B2 (for 4 pin)

View:

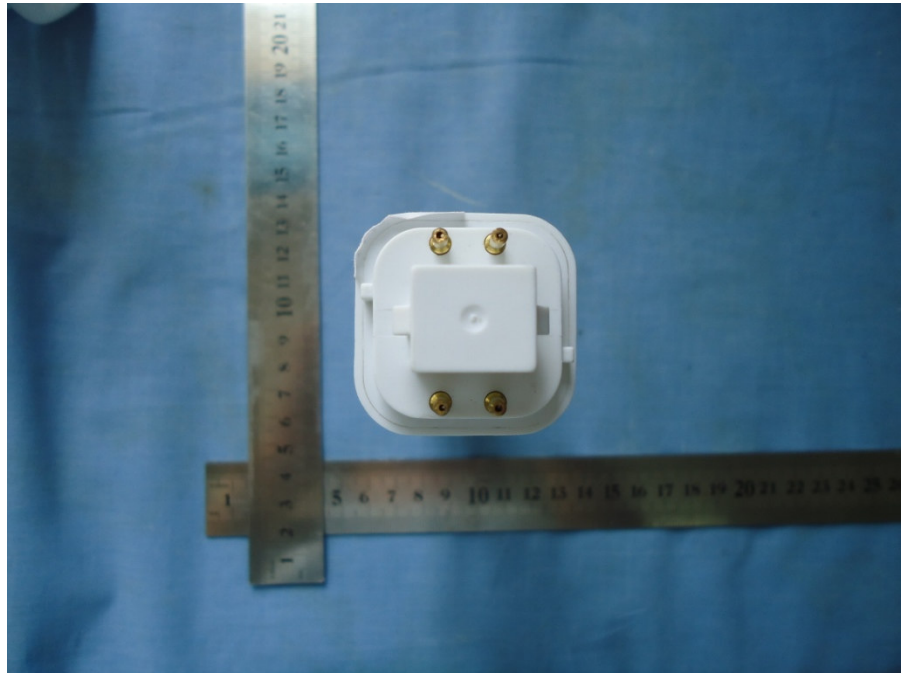
- general
- front
- rear
- right
- left
- top
- bottom



Details of: AT-B2 (for 4 pin)

View:

- general
- front
- rear
- right
- left
- top
- bottom

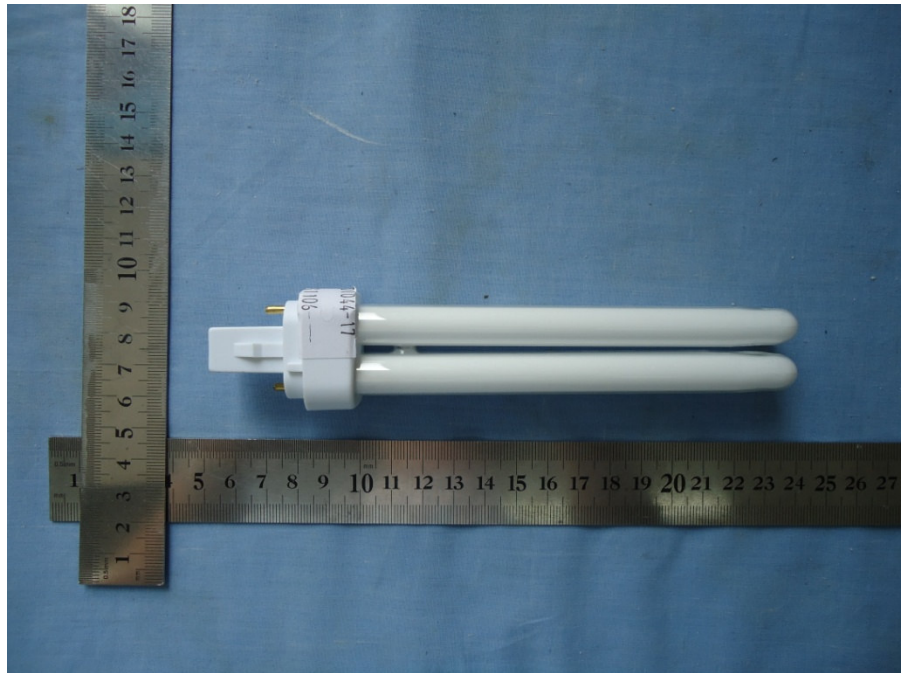


Attachment A

Details of: AT-B2 (for 2 pin)

View:

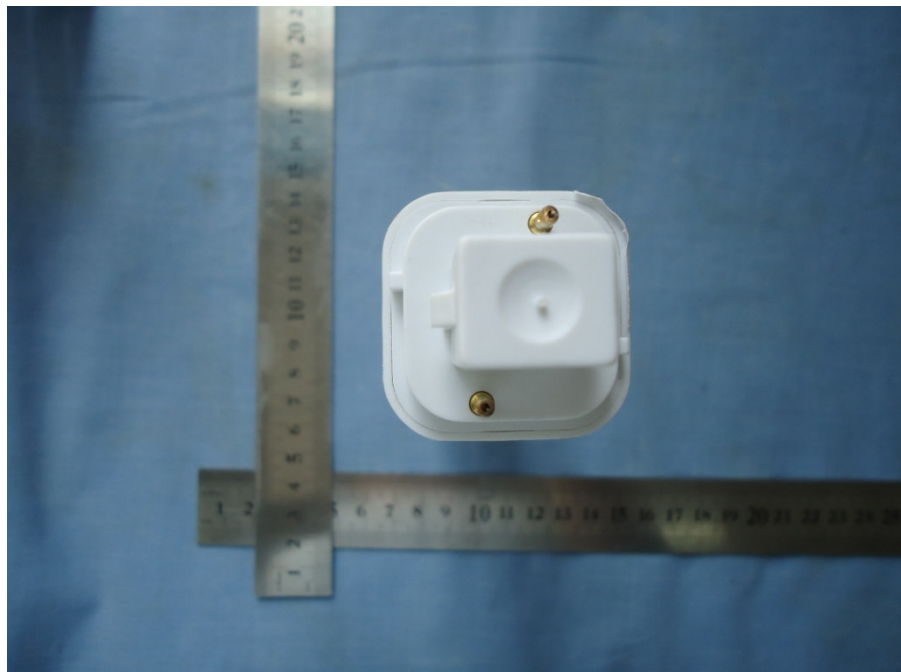
- general
- front
- rear
- right
- left
- top
- bottom



Details of: AT-B2 (for 2 pin)

View:

- general
- front
- rear
- right
- left
- top
- bottom

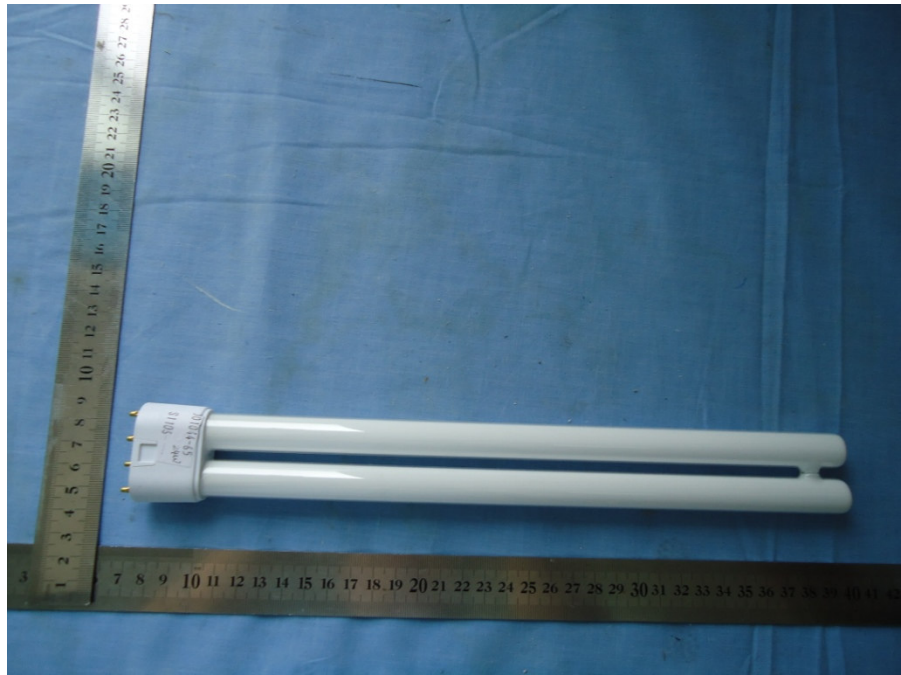


Attachment A

Details of: AT-B8

View:

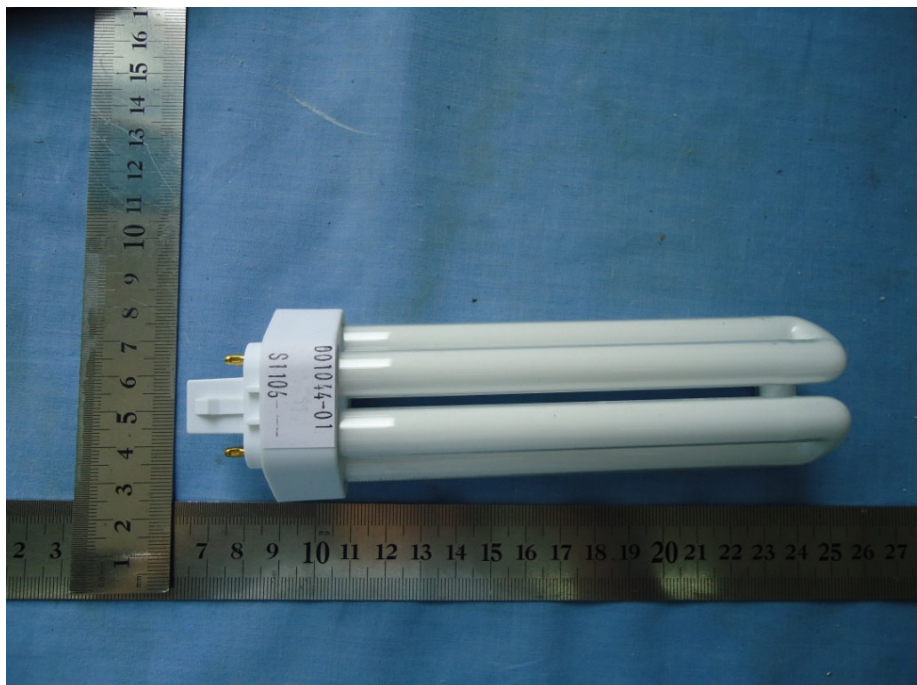
- general
- front
- rear
- right
- left
- top
- bottom



Details of: AT-B3

View:

- general
- front
- rear
- right
- left
- top
- bottom



## Attachment A

Details of: AT-B3

View:

 general front rear right left top bottom

— End of Attachment A—