TEST REPORT

Report No.	:	HGY-LCSZ190904-03SL
Applicant	:	UGUR AYDINLATMA SAN. TIC. Ltd. Şti
Address	:	BANKALAR SAIR ZIYA PASA CADDESI MODERN HAN NO:3/B KARAKOY /ISTANBUL -TURKEY
Manufacturer	:	UGUR AYDINLATMA SAN. TIC. Ltd. Şti
Address	:	BANKALAR SAIR ZIYA PASA CADDESI MODERN HAN NO:3/B KARAKOY /ISTANBUL -TURKEY
Product Name	:	LED Bulb
Model No	:	See general product information on page 2
Standards	:	EN 62560:2012+A1:2015 EN 62493:2015 EN 62471:2008
Date of Receipt sample	:	2019-08-26
Date of Test	:	2019-08-26~2019-09-06
Date of Issue	:	2019-09-12
Test Type.	:	CE- LVD
Test Result	:	**Pass**

Test done by.	**Approved by.**
Project Engineer	Technical manager
Jack TONG	Kevin YU

Lecetek Service (Suzhou) Co.,Ltd .
No. 5 Tian e Dang Road, Wuzhong district, Suzhou , China (215003)
Hotline : 400 611 3386
Web: www.lecetek.com
E-mail: szlece@lecetek.com

Test item description.....:	LED Bulb
Trade Mark.....:	CATA
Model/Type reference.....:	See below
Ratings.....:	See below

Possible test case verdicts:

- test case does not apply to the test object	:	N/A (Not applicable)
- test object does meet the requirement	:	P (Pass)
- test object does not meet the requirement	:	F (Fail)
- test object does not demand		N/D (Not demanded)

General remarks:

"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.

Throughout this report a ☐ comma / ☒ point is used as the decimal separator.

Summary of subcontract test:

N/A

General product information:

1. LED Bulb for general use,non-dimmable with integral LED driver and LED module.
2. For indoor use only.
3.All the models have the same circuit and construction except the model name,wattage for the different designation of each type.
4. Details information please see below:

Model	Rated voltage (V) /Frequency (Hz)	Rated Wattage (W)	Type of lamp Cap
CT-4240	AC220V-240V, 50/60Hz	4W	GU10
CT-4243	AC220V-240V, 50/60Hz	4W	MR11
CT-4216	AC220V-240V, 50/60Hz	7W	GU10
CT-4215	AC220V-240V, 50/60Hz	7W	GU10
CT-4246	AC220V-240V, 50/60Hz	7W	MR11

Summary of testing:

1. All the tests of standard listed on page 1 have been performed and passed.
2. All the tests were performed on model CT-4215 which were considered representative for the series and gave the most unfavourable test results.
3. Construction check were performed on the other models.
4. The LED module satisfied the standard EN 62031:2008+A2:2015.
5. Product was evaluated as Exempt Group according to EN 62471: 2008.

IEC/EN62560			
Clause	Requirement + Test	Result - Remark	Verdict

Copy of marking

Take the model CT- 4215 as an example：

UGUR AYDINLATMA SAN. TIC. Ltd. Şti
BANKALAR SAIR ZIYA PASA CADDESI MODERN HAN
NO:3/B KARAKOY/ISTANBUL -TURKEY
CATA
LED Bulb
CT- 4215 7W 70mA GU10
AC220-240V 50/60Hz

The importer information should be marked on product when exported to EU market:

Importer name : xxx

Importer address : xxx

Notice:

The height of letters and numerals shall not be less than 2mm.
The height of graphical symbols shall not be less than 5 mm.
The height of symbol of WEEE shall not be less than 7 mm.

IEC/EN62560			
Clause	Requirement + Test	Result - Remark	Verdict

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		P
	- rated supply voltage (V)..... :	AC220-240V	P
	- rated wattage (W)..... :	See the marking	P
	- rated frequency (Hz)..... :	50/60Hz	P
5.2	Addition marking		P
	- rated current (A)..... :	See instruction manual or packaging	P
	- weight significantly higher		N/A
	- special conditions or restrictions		P
	Not suitable for dimming; symbol used 	See the marking	P
	- not suitable for water contact		P
5.3	Marking durable and legible		P
	rubbing 15 s water, 15 s petroleum; marking legible		P

6	INTERCHANGEABILITY		P
6.1	Cap interchangeability in accordance with IEC 60061-1		N/A
	Gauge in accordance with IEC 60061-3		N/A
6.2	Bending moment and mass imparted by the lamp at the lampholder		P
	Bending moment imparted by the lamp at the lampholder (Nm)..... :	0.01Nm	P
	Mass not exceeding value table 2 or as specified in IEC 60061-1 (kg)..... :		N/A

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

IEC/EN62560			
Clause	Requirement + Test	Result - Remark	Verdict
	Edison screw caps compliance with gauge IEC 60061-3, sheet 7006-51A for E27 caps		N/A
	and sheet 7006-55 for E14 caps		N/A
	B22, B15, GU10 or GZ10 caps compliances with normal incandescent lamps		P
	External metal parts shall be so designed that live parts are not accessible (test of Cl. 8)		N/A
8	**INSULATION RESISTANCE AND ELECTRIC STRENGTH**		**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	2960V	P
	No flashover or breakdown		P
9	**MECHANICAL STRENGTH**		N/A
	Torsion resistance of unused lamps		N/A
9.2.1	Torque test		N/A
	B15d or E14 Cap..... 1,15 Nm		N/A
	B22d, E26, E26d or E27 Cap.....3,0 Nm		N/A
	E11 or E12 Cap.....0,8 Nm		N/A
	E17 Cap.....1,5 Nm		N/A
	E39 or E40 Cap.....5,0 Nm		N/A
	GX53 Cap.....3,0 Nm		N/A
9.3	Compliance criteria		N/A
	Clause 8 shall comply after the mechanical strength test.		N/A
9.4	Axial strength of Edison caps		N/A
	After full insertion into the gauge an axial force of Table 4 is applied to the central contact (N).....:		N/A
	The insulation around the central contact shall remain intact		N/A
10	**CAP TEMPERATURE RISE**		**P**
	The cap temperature rise Δt_s of the lamp shall not exceed 120 K.	Max.21.7K	P

IEC/EN62560			
Clause	Requirement + Test	Result - Remark	Verdict

11	RESISTANCE TO HEAT		P
	External parts of insulation material providing protection against electric shock resistant to heat		P
	Ball-pressure test:	Diffuse: 80℃	P
	Parts of insulation material retaining live parts in position resistance to heat		P
	Ball-pressure test:	PCB \ Bobbin\ Enclosure:125 ℃	P

12	RESISTANCE TO FLAME AND IGNITION		P
	External parts of insulation material providing protection against electric shock and parts of insulation material retaining live parts in position resistant to flame and ignition		P
	Glow-wire test 650 °C	Diffuse\PCB\ Bobbin and Enclosure	P

13	FAULT CONDITIONS		P
13.1	The lamps shall not impair safety when operated under fault conditions which may occur during the intended use	(see appended table)	P
13.2	Fault conditions: where diagram indicates fault condition impairs safety, electronic components have been short-circuited or disconnected		P
13.3	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

14 (16)	CREEPAGE DISTANCES AND CLEARANCES		P
	Creepage distances and clearances according to IEC 61347-1	(see appended table)	P
	Conductive accessible parts according to IEC 60598-1	(see appended table)	P

15	ABNORMAL OPERATION		P
	Non-dimmable self-ballasted lamps are tested on a dimmer or an electronic switch according the test circuit shown in Figure 8		P
	Operate the lamp for 8 h at most onerous dimming level		P

IEC/EN62560			
Clause	Requirement + Test	Result - Remark	Verdict

	When operated under abnormal operation the lamp		P
	- does not catch fire		P
	- does not produce flammable gases		P
	- live parts not accessible		P
16	**TEST CONDITIONS FOR DIMMABLE LAMPS**		**N/A**
	Test are carried out at maximum power setting for Clause 10 and Clause 17		N/A

17	**PHOTOBIOLOGICAL SAFETY**		**P**
17.1	UV radiation		N/A
	The LED lamp doesn't exceed 2mW/klm		N/A
17.2	Blue light hazard		P
	Assessed according to IEC TR 62778		P
	LED lamps shall be RG0 or RG1	RG0	P

18	**INGRESS PROTECTION**		**N/A**
18.1	Lamps shall be suitable for water contact unless marked with Figure 6		N/A
18.2	The lamp is subjected to an IPX4 test according to IEC 60598-1		N/A
	The lamp complies with the compliance provisions of 9.2 of IEC 60598-1		N/A
	Lamps constructed so that it is sealed to exclude water need not to be tested		N/A

11	**TABLE: Ball Pressure Test of Thermoplastics**		**P**
Allowed impression diameter (mm) .....:		2	—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)
Diffuse	HANGZHOU GOWIN PHOTOELECTRICITY CO.,LTD	80	0.55
Enclosure near PCB	HANGZHOU GOWIN PHOTOELECTRICITY CO.,LTD	125	0.41
PCB	Hangzhou In Kangyi Yi Electronics Co., Ltd	125	0.38
Bobbin	Changchun Plastic Co., Ltd	125	0.31

IEC/EN62560			
Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information:

12	TABLE: Resistance to heat and fire - Glow wire tests			P
Object/ Part No./ Material	**Manufacturer/ trademark**	**Glow wire test (GWT); (°C)**		**Verdict**
		650		**--**
		te	**ti**	**--**
Diffuse	HANGZHOU GOWIN PHOTOELECTRICITY CO.,LTD	30	0	P
Enclosure near PCB	HANGZHOU GOWIN PHOTOELECTRICITY CO.,LTD	30	0	P
PCB	Hangzhou In Kangyi Yi Electronics Co., Ltd	30	0	P
Bobbin	Changchun Plastic Co., Ltd	30	0	P

13	TABLE: tests of fault conditions		P
Part	Simulated fault	Result	Hazard
C1	Short-circuit	Unit shut down,fuse oped,unrecoverable	NO
DB1	Short-circuit	Unit shut down,fuse oped,unrecoverable	NO
Output	Short-circuit	Unit shut down,fuse oped,unrecoverable	NO
Output	Open-circuit	0.01A, 0.3W, Recoverable	NO

14	TABLE: Clearance And Creepage Distance Measurements					P
clearance cl and creepage distance dcr at/of:	**Up (V)**	**U r.m.s. (V)**	**Required cl (mm)**	**cl (mm)**	**required dcr (mm)**	**dcr (mm)**
Between different polarity of lamp cap	2500	250	1.5mm	4.5	2.5mm	4.5
Between live parts and accessible parts	2500	250	3mm	6.0	5mm	6.0
Supplementary information: N/A						

IEC/EN62560			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1: Components						**P**
object/part No.	**code**	**manufac-turer/ trademark**	**type/model**	**technical data**	**Standard**	**mark(s) of conformity**
Fuse resistor	C	Changzhou huayugroup electronics Co., Ltd	RXF-1W	10 Ohm,1W	EN62560	UL E479825 Test with appliance
PCB	C	Hangzhou In Kangyi Yi Electronics Co., Ltd	FR-4	V-0;130 °C; Thickness: 1.2 mm	EN62560	UL E134893 Test with appliance
Heat-shrinkable tube	C	Changzhou huayugroup electronics co., LTD	RSFR	600V 125 °C	EN62560	UL E329530 Test with appliance
Input wire	C	Shanghai changan wire and cable co., LTD	24AWG	24AWG; 150 °C; 3000V	EN62560	UL E255495 Test with appliance
Plastic enclosure	C	HANGZHOU GOWIN PHOTOELECTRICITY CO.,LTD	SA-1	Min1.2mm thick	EN62560	Test with appliance
Diffuse	C	HANGZHOU GOWIN PHOTOELECTRICITY CO.,LTD	PA-1	1.0mm thick	EN62560	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

IEC/EN62560			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 2 EMF Requirements			
	The Tested product also complies to the requirements of EN 62493 :2015		-
1	DISTURBANCE VOLTAGE		P
	Disturbance voltage mains terminals in the frequency range from 20 kHz to 30 MHz		-
2	RADIATED ELECTROMAGNETIC DISTURBANCE – MAGNETIC FIELD		P
	Radiated electromagnetic disturbances in the frequency range from 100 kHz to 30 MHz		-
3	RADIATED ELECTROMAGNETIC DISTURBANCE - ELECTRIC FIELD		P
	Radiated electromagnetic disturbances in the frequency range from 30 MHz to 300 MHz		-
4	INDUCED CURRENT DENSITY TEST		P
	the measured (weighted and summarized) induced current density due to the electric field in the frequency range 20 kHz to 10 MHz does not exceed the factor (F) 0,85		-

Photo Documentation

Photo 1 - CT-4216&CT-4246

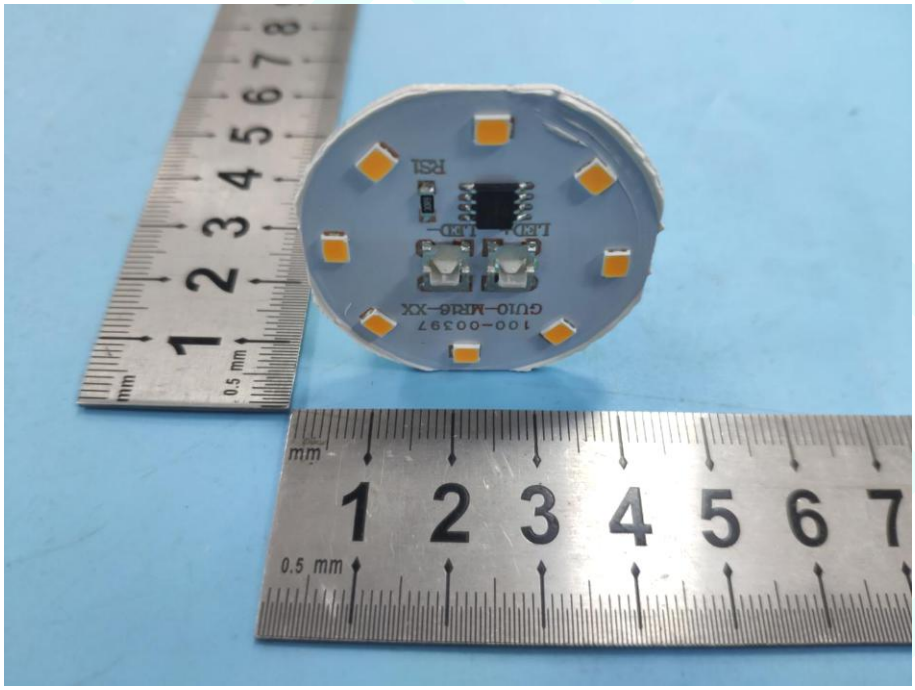

Photo 2 - CT-4216

Photo Documentation

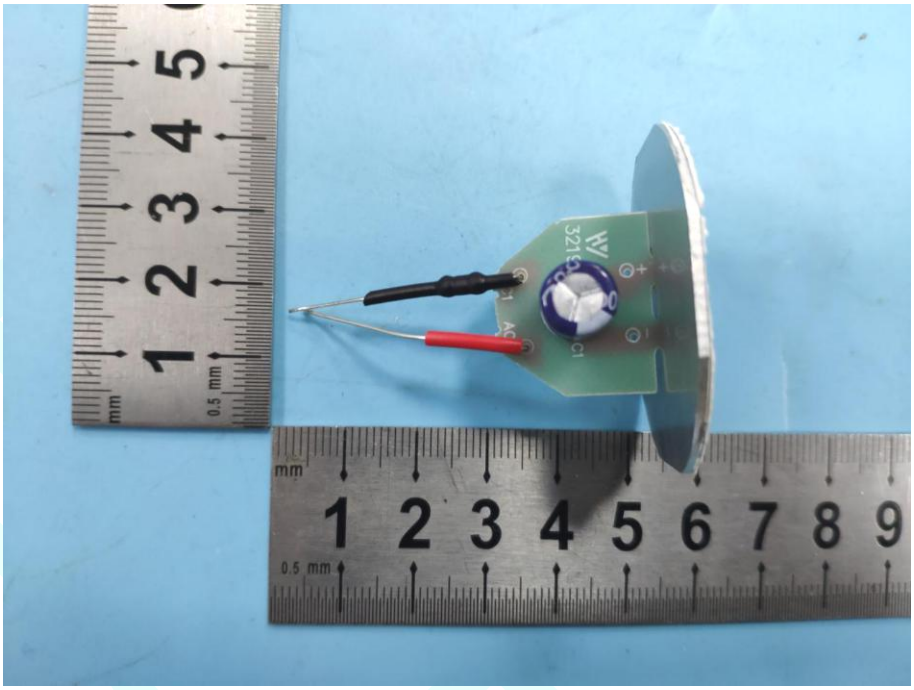

Photo 3 - LED driver of CT-4216

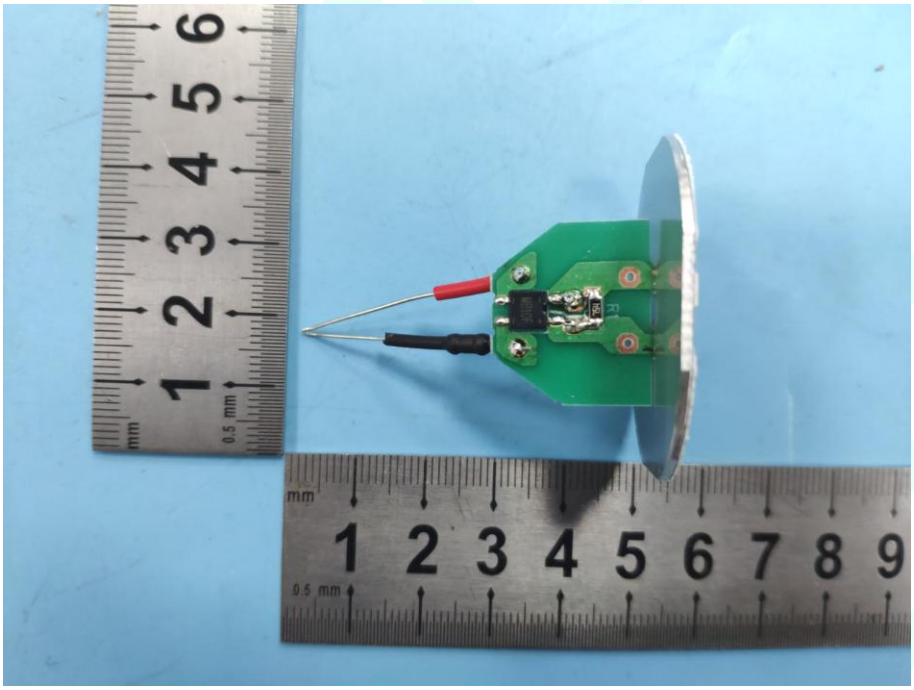

Photo 4 - Back view of LED driver of CT-4216

Photo Documentation

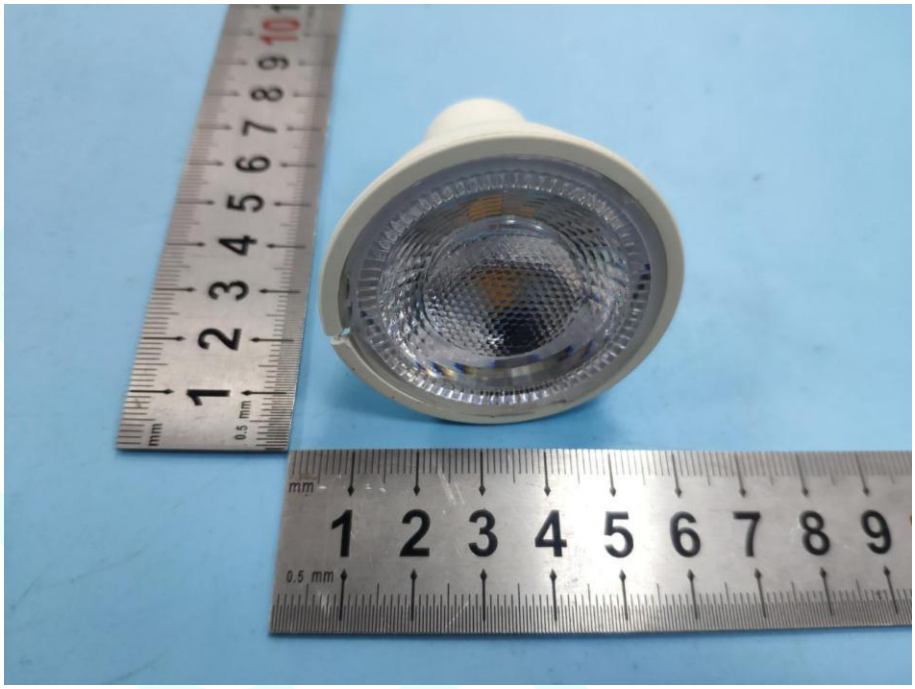

Photo 5 - CT- 4216

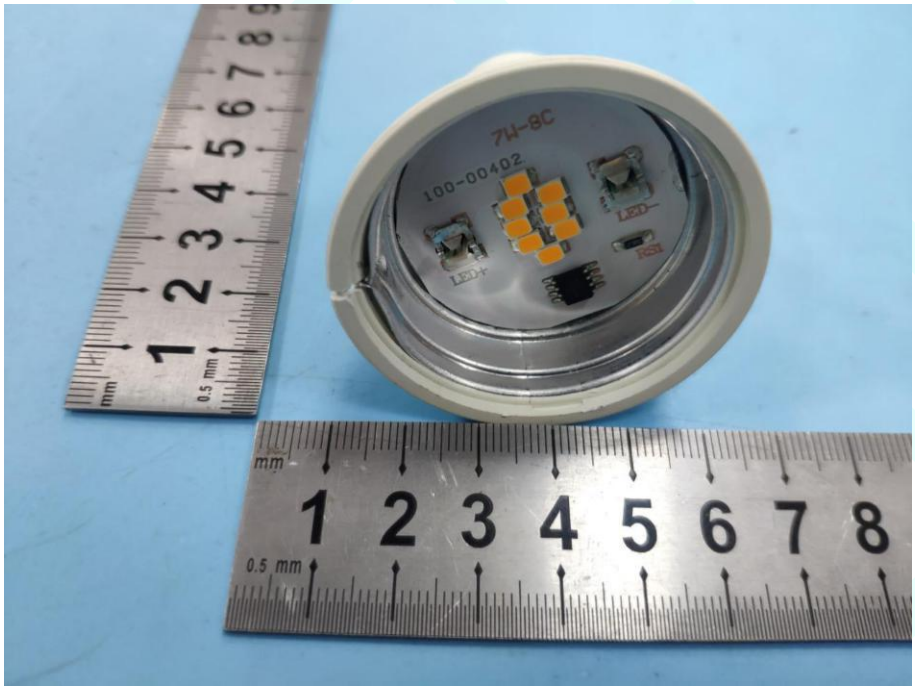

Photo 6 - LED module of CT- 4216

Photo Documentation

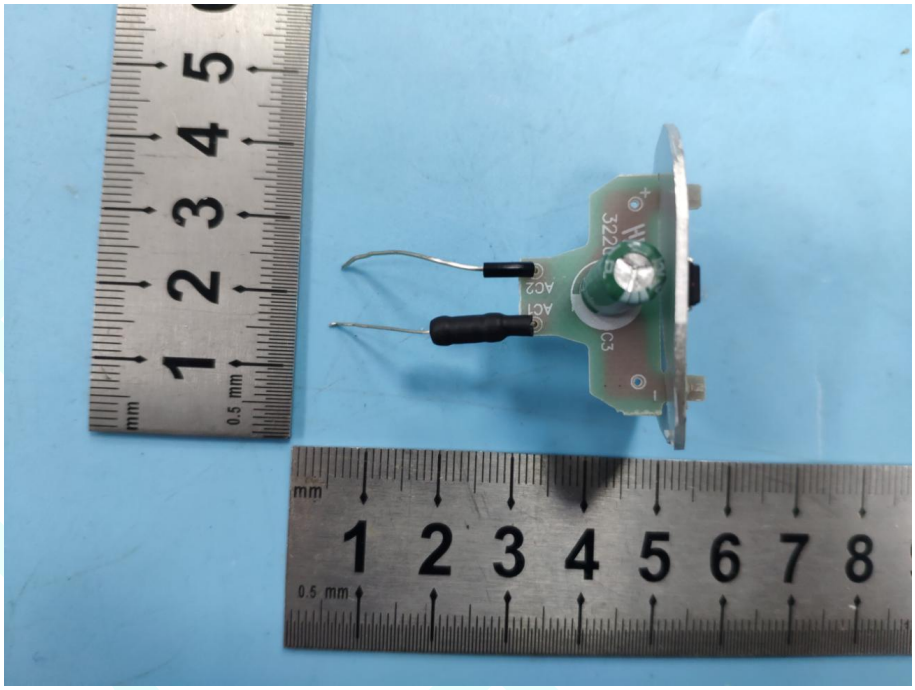

Photo 7 - LED driver of CT- 4216

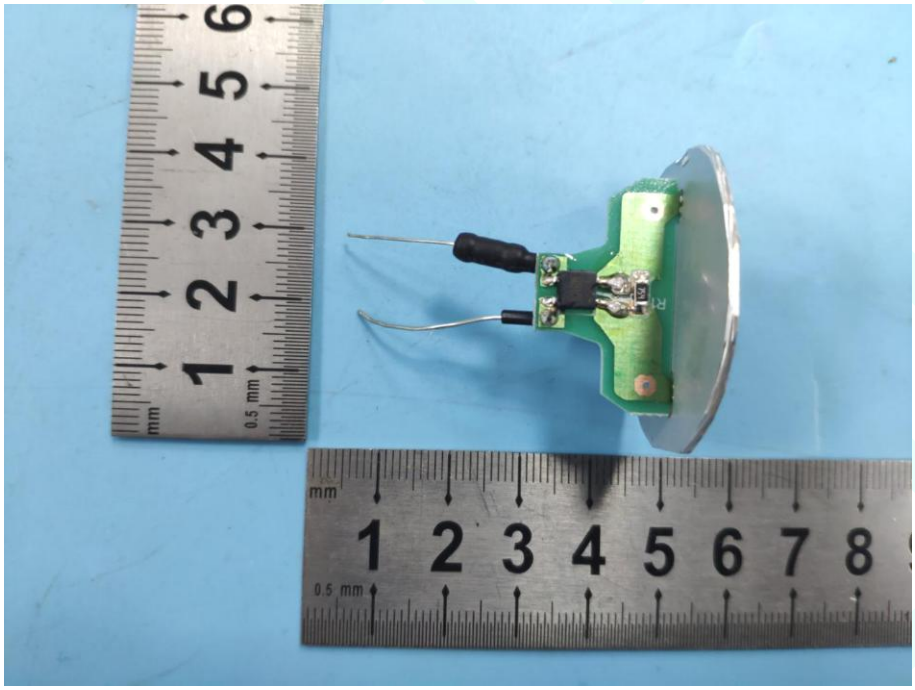

Photo 8 - Back view of LED driver of CT- 4216

========== End of Report ==========