Test Report issued under the responsibility of:

TEST REPORT
IEC 62560
Self-Ballasted LED-Lamp
for general lighting services by voltage > 50V Safety specifications

Report Number. .....:	GZES210201206201
Date of issue .....:	2021-02-24
Total number of pages	28
Name of Testing Laboratory preparing the Report.....:	SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch
Applicant's name.....:	Foshan Electrical and Lighting Co., Ltd.
Address .....:	64 North Fenjiang Road, Foshan, Guangdong, China.
Test specification:	
Standard.....:	IEC 62560:2011, AMD1:2015
Test procedure .....:	IEC test report+ EU Group difference + AU deviation + NZ deviation
Non-standard test method.....:	N/A
Test Report Form No.....:	IEC62560C
Test Report Form(s) Originator.....:	DEKRA Certification B.V.
Master TRF.....:	Dated 2018-12-21

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Test item description .....:	Self-ballasted LED Lamp (LED Lamp)
Trade Mark .....:	**FSL, Mirabella, Olsent, Coles, Luce Bella**
Manufacturer.....:	Same as applicant
Model/Type reference.....:	See model list in page 7
Ratings .....:	220 V a.c.– 240 V a.c.; 50 Hz / 60 Hz; other details see model list in page 7

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):			
☒	**CB Testing Laboratory:**	SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch	
Testing location/ address.....:		198 Kezhu Road, Science City, Economic & Technology Development Area, Guangzhou, Guangdong, China	
Tested by (name, function, signature) .....:		Freddy Chen/ Project Engineer	Freddy chen
Approved by (name, function, signature)...:		Mon Liang / Reviewer	
☐	**Testing procedure: CTF Stage 1:**	N/A	
Testing location/ address.....:			
Tested by (name, function, signature) .....:			
Approved by (name, function, signature)...:			
☐	**Testing procedure: CTF Stage 2:**	N/A	
Testing location/ address.....:			
Tested by (name + signature) .....:			
Witnessed by (name, function, signature)..:			
Approved by (name, function, signature)...:			
☐	**Testing procedure: CTF Stage 3:**	N/A	
☐	**Testing procedure: CTF Stage 4:**	N/A	
Testing location/ address.....:			
Tested by (name, function, signature) .....:			
Witnessed by (name, function, signature)..:			
Approved by (name, function, signature)...:			
Supervised by (name, function, signature) :			

List of Attachments (including a total number of pages in each attachment):

Attachment 1: Australia / New Zealand National Differences (total: 18 pages)

Attachment 2: EU Group differences (total: 1 page)

Attachment 3: Additional requirements of EN 62493: 2015 (total: 1 page)

Attachment 4: Circuit diagram and PCB layout (total: 6 pages);

Attachment 5: Photo documentation (total: 27 pages).

Summary of testing:

1. The submitted samples are in compliance with the standard IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019 and AS/NZS 62560: 2017 + A1: 2019.
2. The luminaires were found to be in compliance with the EMF requirement of EN 62493: 2015 according to sub-clause 4.2.2.
3. Blue light hazard has been assessed according to IEC/TR 62778: 2014 and the blue light hazard is RG1 unlimited for GU10-6-XX/A159/14/XJ, A60-6.5-XX/G128/5Y2, A60-6.5-XX/G138/5Y2, C35-4-XX/G118/5Y2 and RG0 unlimited for other models.
4. Model A60-14-65/A12J/14/M, A60-14-65/A13J/14/M, G45-5.5-65/A11F/11/3 and GU10-6-65/A159/14/XJ were selected for full test as they have the maximum power in different lamp cap;
   Model C37-5.5-65/A11F/11/3, A60-6.5-65/G128/5Y2 and C35-4-65/G118/5Y2 were selected for Cap temperature rise test, Fault conditions, Photobiological safety test, Endurance and thermal tests as they have different LED and PCB;
   Model A60-6-XX/A13J/14/5/M, A60-9-XX/A12J/14/5 and A60-6.5-XX/G138/5Y2 were selected for Cap temperature rise test, Endurance, Surface temperature compliance and Photobiological safety test, Endurance and thermal tests as they have different LED;
   Model C37-5.5-65/A11F/11/3 was selected for Bending moment, axial pull and mass test as it has the harshest structure;
   All alternative LED were performed Photobiological safety test;
   Other models were performed construction check.
5. **The test data based on original test report ref. GZES201103183101 date on 2021-01-07 with the following change:**

- **Add PCB view for GU10-6-XX/A159/14/XJ, detail see Attachment 5: Photo documentation.**
- **Correct LED PCB model name from "JAL-2" to "JAL-5", detail see Annex 1;**
- **Correct PCB for driver model name from "FR1" to "JFR-1", detail see Annex 1;**

After review, there is no additional test needed.

Tests performed (name of test and test clause):	**Testing location:**
Clause 5 Marking Clause 6 Interchangeability Clause 7 Protection against accidental contact with live parts Clause 8 Insulation resistance and electric strength after humidity treatment Clause 9 Mechanical strength Clause 10 Cap temperature rise Clause 11 Resistance to heat Clause 12 Resistance to flame and ignition Clause 13 Fault conditions Clause 14 Creepage distances and clearances Clause 15 Abnormal operation Clause 17 Photobiological safety	198 Kezhu Road, Science City, Economic & Technology Development Area, Guangzhou, Guangdong, China

Summary of compliance with National Differences (List of countries addressed):

EU Group differences, AU / NZ deviation were considered.

☒ The product fulfils the requirements of AS/NZS 62560: 2017 + A1: 2019 and EN 62560: 2012 + A1: 2015 + A11: 2019.

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

Representative

FSL®

A60-6-27/A12J/14/5/M
6W I:47 mA 2700K
220-240V~ 50Hz/60Hz



Printed on enclosure

Remark:

1. The height of "" symbol is not less than 7 mm;
2. The height of CE symbol is not less than 5 mm;
3. According to the standard, warning and text required by the standard should be written in the official language(s) of the country in which the appliance is to be sold. The applicant should ensure that the samples in future production fulfill the requirement;
4. As declared by the applicant, the importer **(and manufacturer, if it is different)**'s name, registered trade name or registered trade mark and the postal address will be marked on the products before being place on the market. The contact details shall be in a language easily understood by end-users and market surveillance authorities;
5. Marking on the packaging or in a document accompanying the electrical equipment is only acceptable if it is not possible to place such markings on the product.
6. Other models have similar label as above, just model no., rated wattage, rated current and correlated color temperature are different.

Test item particulars.....:	
Classification of installation and use .....:	—
Supply Connection .....:	E27, E14, GU10, B22d Lamp cap
Possible test case verdicts:	
- test case does not apply to the test object .....:	N/A
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement .....:	F (Fail)
Testing .....:	
Date of receipt of test item .....:	2020-11-21
Date (s) of performance of tests .....:	2020-11-21 to 2020-12-04

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.

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Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .....:	☐ **Yes** ☒ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) .....: Same as applicant

General product information and other remarks:

1. Self-ballasted LED lamp.
2. The LED lamps have non-SELV drivers, integrated with E27, E14, GU10 or B22d lamp cap and they cannot be used in the dimmable circuit. For dry location use only.
3. All models have similar construction, only different in the lamp cap, circuit diagram and size of appearance.

Model list

Model	Power	Input current	Lamp cap
A60-6-XX/A12J/14/5/M	6 W	47 mA	E27
A60-9-XX/A12J/14/5	9 W	70 mA	
A60-14-XX/A12J/14/M	14 W	106 mA	
G45-5.5-XX/A12F/11/3	5,5 W	46 mA	
C37-5.5-XX/A12F/11/3	5,5 W	46 mA	
A60-6.5-XX/G128/5Y2	6,5 W	56 mA	
A60-6-XX/A13J/14/5/M	6 W	47 mA	B22d
A60-9-XX/A13J/14/5	9 W	70 mA	
A60-14-XX/A13J/14/M	14 W	106 mA	
G45-5.5-XX/A13F/11/3	5,5 W	46 mA	
C37-5.5-XX/A13F/11/3	5,5 W	46 mA	
A60-6.5-XX/G138/5Y2	6,5 W	56 mA	
G45-5.5-XX/A11F/11/3	5,5 W	46 mA	E14
C37-5.5-XX/A11F/11/3	5,5 W	46 mA	
C35-4-XX/G118/5Y2	4 W	30 mA	
GU10-6-XX/A159/14/XJ	6 W	50 mA	GU10
For all models except A60-6.5-XX/G128/5Y2, A60-6.5-XX/G138/5Y2 and C35-4-XX/G118/5Y2: XX = “27-65”, means color temperature, 27 means 2700 K, 65 means 6500 K. For A60-6.5-XX/G128/5Y2, A60-6.5-XX/G138/5Y2 and C35-4-XX/G118/5Y2: XX = “18-65”, means color temperature, 18 means 1800 K, 65 means 6500 K.			

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Clause	Requirement + Test	Result - Remark	Verdict

4	**GENERAL REQUIREMENTS**		
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**		
5.1	Mandatory marking		P
	- mark of origin		P
	- rated supply voltage (V).....:	See copy of marking plate	P
	- rated wattage (W) .....:	See copy of marking plate	P
	- rated frequency (Hz).....:	See copy of marking plate	P
5.2	Addition marking		P
	- rated current (A) .....:	See copy of marking plate	P
	- weight significantly higher		P
	- special conditions or restrictions		P
	Not suitable for dimming; symbol used 		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**		P
	Gauge in accordance with IEC 60061-3		P
6.2	**Bending moment and mass imparted by the lamp at the lampholder**		P
	Bending moment imparted by the lamp at the lampholder (Nm) .....:	Max. 0,03 Nm for B22d lamp cap; Max. 0,058 Nm for E27 lamp cap; Max. 0,029 Nm for E14 lamp cap; Max. 0,029 Nm for GU10 lamp cap;	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Mass not exceeding value table 2 or as specified in IEC 60061-1 (kg).....:	Max 0,03 kg for B22d lamp cap; Max 0,05 kg for E27 lamp cap; Max. 0,03 kg for E14 lamp cap; Max. 0,03 kg for GU10 lamp cap;	P
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		P
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.....:	20 MΩ	P
8.3	Immediately after clause 8.2 electric strength test for 1 min		P
	Double or reinforced insulation, 4U + 2000 V	2960 V	P
	No flashover or breakdown		P
9	**MECHANICAL STRENGTH**		**P**
9.2.1	Torsion resistance of unused lamps		P
	B15d or E14 Cap.....1,15 Nm	E14 lamp cap	P
	B22d, E26, E26d or E27 Cap.....3,0 Nm	E27 and B22d lamp cap	P
	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**		**P**
	Clause 8 shall comply after the mechanical strength test.		P
9.4	**Axial strength of Edison caps**		**P**

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Clause	Requirement + Test	Result - Remark	Verdict
	After full insertion into the gauge an axial force of Table 4 is applied to the central contact (N) .....:	120 N for E27 lamp cap; 80 N for E14 lamp cap	P
	The insulation around the central contact shall remain intact		P
10	**CAP TEMPERATURE RISE**		**P**
	The cap temperature rise Δt_s of the lamp shall not exceed 120 K.	A60-6-65/A13J/14/5/M: 25,5 K; A60-9-65/A12J/14/5: 25,8 K; A60-14-65/A12J/14/M: 34,6 K; A60-14-65/A13J/14/M: 30,6 K; G45-5.5-65/A11F/11/3: 26,6 K; C37-5.5-65/A11F/11/3: 23,3 K; GU10-6-65/A159/14/XJ: 22,8 K; A60-6.5-65/G128/5Y2: 33,2 K; A60-6.5-65/G138/5Y2: 29,3 K; C35-4-65/G118/5Y2: 25,0 K;	P
11	**RESISTANCE TO HEAT**		**P**
	Parts of insulating material providing protection against electric shock, retaining live parts in position, ball-pressure test:	(see appended table)	P
12	**RESISTANCE TO FLAME AND IGNITION**		**P**
	External parts of insulating material preventing electric shock glow-wire test 650 °C	(see appended table)	P
13	**FAULT CONDITIONS**		**P**
13.2	Fault conditions: where diagram indicates fault condition impairs safety, electronic components have been short-circuited or disconnected	(see appended table)	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.....:	20 MΩ	P

IEC 62560			
Clause	Requirement + Test	Result - Remark	Verdict
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
	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**		P
	The LED lamp doesn't exceed 2mW/klm		P
17.2	**Blue light hazard**		**P**
	Assessed according to IEC TR 62778		P
	LED lamps shall be RG0 or RG1	RG1 unlimited for GU10-6-XX/A159/14/XJ, A60-6.5-XX/G128/5Y2, A60-6.5-XX/G138/5Y2, C35-4-XX/G118/5Y2 and RG0 unlimited for other models	P
18	**INGRESS PROTECTION**		N/A
18.1	Lamps shall be suitable for water contact unless marked with Figure 6		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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

IEC 62560			
Clause	Requirement + Test	Result - Remark	Verdict

11	TABLE: Ball Pressure Test of Thermoplastics		P
Allowed impression diameter (mm) .....:		≤2 mm	—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)
Lens (lamp shade)	See Annex 1	141,4	0,9
Plastic enclosure	See Annex 1	125	1,95
Plastic for fixed pins	See Annex 1	125	1,56
Connector on LED module	See Annex 1	125	1,8
PCB for driver	See Annex 1	129	1,7
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		**P**
		te	**ti**	
Plastic enclosure	See Annex 1	0	0	P
Connector on LED module	See Annex 1	0	0	P
Plastic for fixed pins	See Annex 1	0	0	P
Heat shrinkable tube	See Annex 1	0	0	P
Lens (lamp shade)	See Annex 1	0	0	P
PCB for driver	See Annex 1	0	0	P
Supplementary information: —				

13	TABLE: tests of fault conditions (A60-14-65/A12J/14/M)	P
Part	Simulated fault	Hazard
LED	Shorted circuit	NO
LED	Opened circuit	NO
DB1	Shorted circuit	NO
Electrolytic capacitor	Shorted circuit	NO

IEC 62560			
Clause	Requirement + Test	Result - Remark	Verdict

Electrolytic capacitor	Open circuit	NO
U1	Shorted circuit	NO
U2	Shorted circuit	NO

13	**TABLE: tests of fault conditions (G45-5.5-65/A11F/11/3)**	**P**
Part	Simulated fault	Hazard
LED	Shorted circuit	NO
LED	Open circuit	NO
DB1	Shorted circuit	NO
Electrolytic capacitor	Shorted circuit	NO
Electrolytic capacitor	Open circuit	NO
U1	Shorted circuit	NO

13	**TABLE: tests of fault conditions (C37-5.5-65/A11F/11/3)**	**P**
Part	Simulated fault	Hazard
LED	Shorted circuit	NO
LED	Open circuit	NO
DB1	Shorted circuit	NO
Electrolytic capacitor	Shorted circuit	NO
Electrolytic capacitor	Open circuit	NO
U1	Shorted circuit	NO

13	**TABLE: tests of fault conditions (GU10-6-65/A159/14/XJ)**	**P**
Part	**Simulated fault**	**Hazard**
LED	Shorted circuit	NO
LED	Open circuit	NO
DB1	Shorted circuit	NO
Electrolytic capacitor	Shorted circuit	NO
Electrolytic capacitor	Open circuit	NO
U1	Shorted circuit	NO

IEC 62560			
Clause	Requirement + Test	Result - Remark	Verdict

13	**TABLE: tests of fault conditions (A60-6.5-65/G128/5Y2)**	**P**
Part	**Simulated fault**	**Hazard**
LED	Shorted circuit	NO
LED	Open circuit	NO
DB1	Shorted circuit	NO
Electrolytic capacitor	Shorted circuit	NO
Electrolytic capacitor	Open circuit	NO
U1	Shorted circuit	NO

13	**TABLE: tests of fault conditions (C35-4-65/G118/5Y2)**	**P**
Part	**Simulated fault**	**Hazard**
LED	Shorted circuit	NO
LED	Open circuit	NO
DB1	Shorted circuit	NO
Electrolytic capacitor	Shorted circuit	NO
Electrolytic capacitor	Open circuit	NO
U1	Shorted circuit	NO

14	**TABLE: Clearance And Creepage Distance Measurements (All module)**					**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)**
L to N	—	240	1,5	2,9	2,5	2,9
Live part and enclosure	—	240	3	5,5	5	5,5
Supplementary information: —						

IEC 62560			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	**TABLE: Critical components information**					
Object / part No.	**Code**	**Manufacturer/ trademark**	**Type / model**	**Technical data**	**Standard**	**Mark(s) of conformity[1)]**
LED module (A60-6-XX/A12J/14/5/M, A60-6-XX/A13J/14/5/M)	B	Bridgelux. Inc.LED Lighting	2835	Vf: 50 ~ 55 V, If: 17 mA; CCT: 2700 K-6500 K	IEC 62560: 2011 + A1: 2015 EN 62560: 2012 + A1: 2015 + A11: 2019 AS/NZS 62560: 2017 + A1: 2019	Tested with appliance
	D	Everlight Electronics Co., Ltd.	2835	Vf: 50 ~ 55 V, If: 17 mA; CCT: 2700 K-6500 K	IEC 62560: 2011 + A1: 2015 EN 62560: 2012 + A1: 2015 + A11: 2019 AS/NZS 62560: 2017 + A1: 2019	Tested with appliance
LED module (A60-9-XX/A12J/14/5, A60-9-XX/A13J/14/5)	B	Bridgelux. Inc.LED Lighting	2835	Vf: 18 ~ 21 V, If: 25 mA; CCT: 2700 K-6500 K	IEC 62560: 2011 + A1: 2015 EN 62560: 2012 + A1: 2015 + A11: 2019 AS/NZS 62560: 2017 + A1: 2019	Tested with appliance
	D	Everlight Electronics Co., Ltd.	2835	Vf: 18 ~ 21 V, If: 25 mA; CCT: 2700 K-6500 K	IEC 62560: 2011 + A1: 2015 EN 62560: 2012 + A1: 2015 + A11: 2019 AS/NZS 62560: 2017 + A1: 2019	Tested with appliance

IEC 62560						
Clause	Requirement + Test			Result - Remark		Verdict
LED module (A60-14-XX/A12J/14/M, A60-14-XX/A13J/14/M)	B	Bridgelux. Inc.LED Lighting	2835	Vf: 8,6 ~ 9,8 V, If: 100 mA; CCT: 2700 K-6500 K	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019	Tested with appliance
	D	Everlight Electronics Co., Ltd.	2835	Vf: 8,6 ~ 9,8 V, If: 100 mA; CCT: 2700 K-6500 K	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019	Tested with appliance
	D	Bridgelux. Inc.LED Lighting	2835	Vf: 18,0 ~ 21,0 V, If: 30 mA; CCT: 2700 K-6500 K	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019	Tested with appliance
LED module (G45-5.5-XX/A12F/11/3, G45-5.5-XX/A13F/11/3, G45-5.5-XX/A11F/11/3)	B	Shineon(Beijing) Technology Co., Ltd.	BXEN2835	Vf: 50 ~ 56 V, If: 20 mA; CCT: 2700 K-6500 K	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019	Tested with appliance
LED module (C37-5.5-XX/A12F/11/3, C37-5.5-XX/A13F/11/3, C37-5.5-XX/A11F/11/3)	B	Shineon(Beijing) Technology Co., Ltd.	BXEN2835	Vf: 50 ~ 56 V, If: 20 mA; CCT: 2700 K-6500 K	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019	Tested with appliance

IEC 62560						
Clause	Requirement + Test			Result - Remark		Verdict
LED module (GU10-6-XX/A159/14/XJ)	B	Nanchang Shineon Photoelectric Technology Co., Ltd.	2835	Vf: 50-56 V; 20 mA	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019	Tested with appliance
LED module (A60-6.5-XX/G128/5Y2, A60-6.5-XX/G138/5Y2)	B	SAMSUNG	—	Vf: 69 ~ 73 V; If: 22 mA; CCT: 2700 K-6500 K	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019	Tested with appliance
LED module (C35-4-XX/G118/5Y2)	B	SAMSUNG	60-150	Vf: 67 ~ 71 V; If: 15 mA; CCT: 2700 K-6500 K	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019	Tested with appliance
LED PCB (**GU10-6-XX/A159/14/XJ**, A60-6-XX/A12J/14/5/M, A60-6-XX/A13J/14/5/M, A60-9-XX/A12J/14/5, A60-9-XX/A13J/14/5, A60-14-XX/A12J/14/M, A60-14-XX/A13J/14/M)	B	Quanzhou Jintian Electronic circuit board Co., Ltd.	JAL-5, JAL-6	MCPCB; V-0; 130 °C	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 94: 6 ED, 2013	UL E239807 & Tested with appliance
	D	Jiang xi Leadfly circuit Co., Ltd.	LD-8, LD-6	V-0; 130 °C	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 94: 6 ED, 2013	UL E333645 & Tested with appliance

IEC 62560						
Clause	Requirement + Test			Result - Remark		Verdict
	D	Guang Zhou Hong Yu Electronic Co.,Ltd	HY-5, HY-6, HY-8	V-0; 130 °C	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 94: 6 ED, 2013	UL E309772 & Tested with appliance
LED PCB (G45-5.5-XX/A12F/11/3, G45-5.5-XX/A13F/11/3, G45-5.5-XX/A11F/11/3, C37-5.5-XX/A12F/11/3, C37-5.5-XX/A13F/11/3, C37-5.5-XX/A11F/11/3)	B	Quanzhou Jintian Electronic circuit board Co., Ltd.	**JAL-5**	MCPCB; V-0; 130 °C	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 94: 6 ED, 2013	UL E239807 & Tested with appliance
PCB for driver (A60-6.5-XX/G128/5Y2, A60-6.5-XX/G138/5Y2)	B	JinTian Electronics Co., Ltd.	**JFR-1**	V-0	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 758: 3ED, 2014	UL E239807 & Tested with appliance
PCB for driver (C35-4-XX/G118/5Y2)	B	Guangdong Hetong Technology Co., Ltd.	FR4	V-0	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 758: 3ED, 2014	UL E243157 & Tested with appliance

IEC 62560						
Clause	Requirement + Test			Result - Remark		Verdict
Input wire (A60-6-XX/A12J/14/5/M, A60-6-XX/A13J/14/5/M, A60-9-XX/A12J/14/5, A60-9-XX/A13J/14/5, A60-14-XX/A12J/14/M, A60-14-XX/A13J/14/M)	B	Foshan JianQiang Electronic & Electrical Co., Ltd	3135	200 °C; 600 Vac, 24 AWG	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 758: 3ED, 2014	UL E256415 & Tested with appliance
	D	Foshan JianQiang Electronic & Electrical Co., Ltd.	1015	105 °C; 600 Vac, 24 AWG	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 758: 3ED, 2014	UL E256415 & Tested with appliance
Input wire (G45-5.5-XX/A12F/11/3, G45-5.5-XX/A13F/11/3, G45-5.5-XX/A11F/11/3, C37-5.5-XX/A12F/11/3, C37-5.5-XX/A13F/11/3, C37-5.5-XX/A11F/11/3)	B	Foshan JianQiang Electronic & Electrical Co., Ltd.	1015	105 °C; 600 Vac, 24 AWG	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 758: 3ED, 2014	UL E256415 & Tested with appliance
Input wire (GU10-6-XX/A159/14/XJ)	B	Foshan JianQiang Electronic & Electrical Co., Ltd.	1015	105 °C; 600 Vac, 24 AWG	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 758: 3ED, 2014	UL E256415 & Tested with appliance

IEC 62560						
Clause	Requirement + Test			Result - Remark		Verdict
	D	ZHONGSHAN XINSHENG ELECTRIC Co., Ltd.	1015	105 °C; 600 Vac, 24 AWG	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 758: 3ED, 2014	UL E328303 & Tested with appliance
	D	DONGGUAN ZHONGZHENG WIRE & CABLE TECH. Co., Ltd.	1015	105 °C; 600 Vac, 24 AWG	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 758: 3ED, 2014	UL E336285 & Tested with appliance
	D	DONGGUAN ZELONGKANG WIRE Co., Ltd.	1015	105 °C; 600 Vac, 24 AWG	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 758: 3ED, 2014	UL E330488 & Tested with appliance
Input wire (A60-6.5-XX/G128/5Y2, A60-6.5-XX/G138/5Y2, C35-4-XX/G118/5Y2)	B	Foshan JianQiang Electronic & Electrical Co., Ltd	1015	105 °C; 600 Vac, min. 28 AWG	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 758: 3ED, 2014	UL E256415 & Tested with appliance

IEC 62560						
Clause	Requirement + Test			Result - Remark		Verdict
Lamp shade (A60-6-XX/A12J/14/5/M, A60-6-XX/A13J/14/5/M, A60-9-XX/A12J/14/5, A60-9-XX/A13J/14/5)	B	Xiamen Tianyu Plastic Industry Co., Ltd.	PBT-TGA(f1)	V-0	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 746C: 7ED, 2018	UL E309739 & Tested with appliance
Lamp shade (A60-14-XX/A12J/14/M, A60-14-XX/A13J/14/M)	B	Xiamen Hongshengxing Industry and Trade Co., Ltd.	HSX-1X	V-0	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 746C: 7ED, 2018	UL E464975 & Tested with appliance
Lamp shade (G45-5.5-XX/A12F/11/3, G45-5.5-XX/A13F/11/3, G45-5.5-XX/A11F/11/3, C37-5.5-XX/A12F/11/3, C37-5.5-XX/A13F/11/3, C37-5.5-XX/A11F/11/3)	B	Fujian Huasu Innovative Plastics Material Co LTD	HS12(aa)T	V-2	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 746C: 7ED, 2018	UL E477366 & Tested with appliance
Lamp shade (GU10-6-XX/A159/14/XJ)	B	TEIJIN LIMITED RESIN AND PLASTIC	L-1250U(#)(f1) L-1250V(#)(f1) L-1250Z(#)(f1)	V-2; 125 ℃	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 746C: 7ED, 2018	UL E50075 & Tested with appliance

IEC 62560						
Clause	Requirement + Test				Result - Remark	Verdict
Fuse resistor (A60-6-XX/A12J/14/5/M, A60-6-XX/A13J/14/5/M, A60-9-XX/A12J/14/5, A60-9-XX/A13J/14/5)	B	Shenzhen Great Electronics Co., Ltd.	RXF	30 Ω/1 W	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 1412: 5ED, 1999	UL E301541 & Tested with appliance
Fuse resistor (A60-14-XX/A12J/14/M, A60-14-XX/A13J/14/M)	B	Shenzhen Great Electronics Co., Ltd.	SRF-1W	20 Ω/2 W	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 1412: 5ED, 1999	UL E301541 & Tested with appliance
Fuse resistor (G45-5.5-XX/A12F/11/3, G45-5.5-XX/A13F/11/3, G45-5.5-XX/A11F/11/3)	B	Shenzhen Great Electronics Co., Ltd.	SRF-1W	20 Ω/1 W	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 1412: 5ED, 1999	UL E301541 & Tested with appliance
Fuse resistor (C37-5.5-XX/A12F/11/3, C37-5.5-XX/A13F/11/3, C37-5.5-XX/A11F/11/3)	B	Shenzhen Great Electronics Co., Ltd.	RXF	20 Ω/1 W	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 1412: 5ED, 1999	UL E301541 & Tested with appliance

IEC 62560						
Clause	Requirement + Test			Result - Remark		Verdict
Fuse resistor (GU10-6-XX/A159/14/XJ)	B	Shenzhen Great Electronics Co., Ltd.	RXF	30 Ω/1 W	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 1412: 5ED, 1999	UL E301541 & Tested with appliance
	D	Dongguan Qing Yuan Electronic Co., Ltd.	RXF	30 Ω/1 W	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 1412: 5ED, 1999	UL E486101 & Tested with appliance
Fuse resistor (A60-6.5-XX/G128/5Y2, A60-6.5-XX/G138/5Y2)	B	Shenzhen Great Electronics Co., Ltd.	RXF	30 Ω/1 W	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 1412: 5ED, 1999	UL E301541 & Tested with appliance
Fuse resistor (C35-4-XX/G118/5Y2)	B	Shenzhen Great Electronics Co., Ltd.	RXF-0.5W	47 Ω/0,5 W	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 1412: 5ED, 1999	UL E301541 & Tested with appliance

IEC 62560						
Clause	Requirement + Test			Result - Remark		Verdict
Heat-shrinkable tube	B	GUANGZHOU KAIHENG ENTERPRISE GROUP	K-2 (+)	125 ℃,600 Vac	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 224: 6ED, 2006	UL E214175 Test with appliance
	D	ShenZhenWoer Heat-Shrinkable Material Co., Ltd.	RSFR-HT	150 °C; 600 V AC	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 224: 6ED, 2006	UL E316016 Test with appliance
	D	DONGGUAN SALIPT Co., Ltd.	S-901-600	125 °C; 600 V AC	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 224: 6ED, 2006	UL E209436 Test with appliance
	D	Shenzhen Woer Heat-Shrinkable Material Co., Ltd.	RSFR-H	125 °C; 600 V AC	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 224: 6ED, 2006	UL E203950 Test with appliance

IEC 62560			
Clause	Requirement + Test	Result - Remark	Verdict

	D	DONGGUAN GOLD-COOL NANO TECHNOLOGY Co., Ltd.	GC-TP	V-0; 150 °C	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 224: 6ED, 2006	UL E364451 Test with appliance
Plastic enclosure (G45-5.5-XX/A12F/11/3, G45-5.5-XX/A13F/11/3, G45-5.5-XX/A11F/11/3, C37-5.5-XX/A12F/11/3, C37-5.5-XX/A13F/11/3, C37-5.5-XX/A11F/11/3, GU10-6-XX/A159/14/XJ)	B	DONGGUAN POWIDE OPTO-ELECTRONIC& HEAT DISSIPATION TECHNOLOGY. Co., Ltd.	PA-AF0915	V-0; 130 ℃	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 746C: 7ED, 2018	UL E487857 Tested with appliance
	D	GUANGDONG GREAT MATERIALS Co., Ltd.	TCP.PA-PS28A TC(XXX)(f1), TCP.PA-PS28A	V-0; 130 ℃	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 746C: 7ED, 2018	UL E464888 Tested with appliance
Plastic enclosure (A60-6-XX/A12J/14/5/M, A60-6-XX/A13J/14/5/M, A60-9-XX/A12J/14/5, A60-9-XX/A13J/14/5, A60-14-XX/A12J/14/M, A60-14-XX/A13J/14/M)	B	Sichuan Coremer Materials Co., Ltd	PBT605(X)	V-0; 130 ℃	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 746C: 7ED, 2018	UL E255235 Tested with appliance

IEC 62560						
Clause	Requirement + Test			Result - Remark		Verdict
Connector in PCB	B	KINGFA SCI & TECH Co., Ltd.	Vicryst R8(gg)(ccc)(r5)	V-0; 130 ℃	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 746C: 7ED, 2018	UL E171666 Tested with appliance
Plastic for fixed pins (A60-15-XX/A12J/14/5, A60-15-XX/A13J/14/5, A60-9-XX/A12J/14/5, A60-9-XX/A13J/14/5, A60-14-XX/A12J/14/M, A60-14-XX/A13J/14/M, A60-6.5-XX/G128/5Y2, A60-6.5-XX/G138/5Y2, C35-4-XX/G118/5Y2)	B	NANTONG ZHONGLAN ENGINEERING PLASTICS CO LTD	403G-M(XX)	V-0; 130 ℃	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 746C: 7ED, 2018	UL E255317 Tested with appliance
	D	KINGFA SCI & TECH CO LTD	PBT-RG301	V-0; 130 ℃	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 746C: 7ED, 2018	UL E171666 Tested with appliance
Plastic for fixed pins (G45-5.5-XX/A12F/11/3, G45-5.5-XX/A13F/11/3, G45-5.5-XX/A11F/11/3, C37-5.5-XX/A12F/11/3, C37-5.5-XX/A13F/11/3, C37-5.5-XX/A11F/11/3)	B	KINGFA SCI & TECH CO LTD	PBT-RG301	V-0; 130 ℃	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 746C: 7ED, 2018	UL E171666 Tested with appliance

IEC 62560						
Clause	Requirement + Test			Result - Remark		Verdict
Insulation bushing in the cap (A60-6.5-XX/G128/5Y2, A60-6.5-XX/G138/5Y2, C35-4-XX/G118/5Y2)	B	KINGFA SCI & TECH CO LTD	PBT-RG301	V-0; 130 ℃	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 746C: 7ED, 2018	UL E171666 Tested with appliance
	D	DONGGUAN GOLD-COOL NANO TECHNOLOGY CO., LTD.	GC-TP	V-0; 130 ℃	IEC 62560: 2011 + A1: 2015, EN 62560: 2012 + A1: 2015 + A11: 2019, AS/NZS 62560: 2017 + A1: 2019 UL 746C: 7ED, 2018	UL E364451 Tested with appliance
Supplementary information: 1) Provided evidence ensures the agreed level of compliance. See OD-CB2039. 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						

---End of main report ---

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017+ A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict

	National Differences		P
Appendix ZZ	VARIATIONS TO **Error! No text of specified style in document.**FOR APPLICATION IN AUSTRALIA AND NEW ZEALAND		P
ZZ1	Variations to IEC 62560:2011+AMD1:2015 CSV form the Australian/New Zealand variations for the purposes of the IECEE Scheme for recognition of testing to Standards for safety of electrical equipment (the CB Scheme).		P
ZZ2	VARIATIONS		P
1	Deletion *Delete* first dash item		P
2	Addition *Add* the following normative references: • AS/NZS 3117, *Approval and test specification—Bayonet lampholders* • AS/NZS 3140, *Approval and test specification—Edison screw lampholders* • AS/NZS 60238, *Edison screw lampholders (IEC 60238, Ed. 8.2 (2011) MOD)* • AS/NZS 60598.1, *Luminaires—Part 1: General requirements and tests (IEC 60598-1, Ed. 7.0 (2008) MOD)* • AS/NZS 60695.2.10, *Glowing/hot wire based test methods—Part 2.10:* • *Glow-wire apparatus and common test procedure (IEC 60695-2-10:2000, IDT)* • AS/NZS 60695.11.5, *Fire hazard testing—Part 11.5: Needle-flame test method—Apparatus, confirmatory test arrangement and guidance (IEC 60695-11-5 Ed 1.0, IDT)* • AS/NZS 60695.11.10, *Fire hazard testing—Part 11.10: Test flames—50 W horizontal and vertical flame test methods (IEC 60695-11-10:1999, IDT)* • AS/NZS 61184, *Bayonet lampholders (IEC 61184, Ed. 3.1 (2011) MOD)*		P
3.1	*Variation* *Delete* Clause and *replace* with the following: **self-ballasted LED-lamp** unit which is provided with a lamp cap for means of connection to supply and incorporates a light emitting semiconductor light source and any additional elements,		P

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict
	necessary for stable operation of the light source, that are integral components of the device. NOTERequirements for lamp caps are given in IEC 60061-1		
4.1.1	Addition *Add* the following new Clause: **4.1.1 Test voltage** In Australia, equipment other than class III equipment that is intended for connection to the supply mains and is not marked with: – a rated voltage of at least 240 V for single phase equipment or a rated voltage of at least 415 V for three phase equipment; or – a rated voltage range that includes 240 V for single phase equipment and 415 V for three phase equipment, the rated voltage is equal to 240 V for single phase equipment and 415 V for three phase equipment, and the upper limit of the voltage range is equal to 240 V for single phase equipment and 415 V for three phase equipment.		P
4.2	Variation *Delete* existing paragraph and *replace* with the following: **4.2**Self-ballasted LED-lamps shall be non-repairable, factory sealed units that cannot be dismantled without causing permanent damage		P
6.1	Addition *Insert* the following text after the second paragraph: *Alternatively for Edison screw lampholders, compliance with Clause 6.1 is checked by measurement and by inserting the lamp cap into a lampholder complying with AS/NZS 3140 or AS/NZS 60238 to ensure compatibility.* *Alternatively for bayonet cap lampholders, compliance with Clauses 5.1 and 5.2 is*		P

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict

<table>
<tr><td></td><td>checked by measurement and by inserting the lamp cap into a lampholder complying with AS/NZS 3117 or AS/NZS 61184 to ensure compatibility.</td><td></td><td></td></tr>
<tr><td>Table 1</td><td>
Add the following 5 new entries to the Table:
<table>
<tr><th>Lamp cap</th><th>Cap sheet no. from IEC 60061-1</th><th>Cap dimension to be checked by the gauge</th><th>Gauge sheet no. from IEC 60061-3</th></tr>
<tr><td>E39</td><td>7004-24A</td><td>Max. dimensions of the screw thread
Min. major diameter of the screw thread
Contact making</td><td>7006-24B
7006-24C
7006-24A</td></tr>
<tr><td>E40</td><td>7004-24</td><td>Max. dimensions of the screw thread
Min. major diameter of the screw thread
Protection against accidental contact
Contact making</td><td>7006-23
7006-24
7006-53
7006-52</td></tr>
<tr><td>R7s</td><td>7004-92</td><td>Go for pairs of holders
Protection against accidental contact for pairs of holders</td><td>7006-62
7006-62B-1</td></tr>
<tr><td>RX7s</td><td>7004-92A</td><td>Go for pairs of holders RX7s
protection against accidental contact for pairs of holders</td><td>7006-62A-2
7006-62C-1</td></tr>
<tr><td>G9</td><td>7004-129</td><td>Go gauge for lamp holder
Minimum retention force
Contact making</td><td>7006-129B
7006-129C
7006-129D</td></tr>
</table>
</td><td></td><td>N/A</td></tr>
<tr><td>7</td><td>Variation

1. Delete fourth paragraph and replace with the following:

Compliance is checked by measurement or with the aid of a gauge in accordance with the current edition of IEC 60061-3, sheet 7006-</td><td></td><td>P</td></tr>
</table>

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict
	51A for E27 caps and sheet 7006-55 for E14 caps.		
	2. *Insert* the following after ninth paragraph: All accessible parts shall be separated from live parts by double or reinforced insulation.		P
10	Variation *Delete* Clause and *replace* with the following: **10 Endurance and thermal tests** **10.1 General** The provisions of Section 12 of AS/NZS 60598.1 and Clauses 10.2 and 10.3 shall apply.		P
	10.2 Endurance The test duration shall be 240 h (i.e. 10 × 24 normal operations).		P
	10.3 Surface temperature compliance Any accessible surface temperature of the lamp shall be not higher than 73°C for metallic surfaces and 90°C for non-metallic surfaces. NOTE These temperature limits were derived from the upper limits of touch temperature from IEC Guide 117. The surface temperature of inaccessible parts of the lamp cap shall be not higher than 145°C.	See Annex 1	P
12	Variation *Delete* Clause and *replace* with the following: **12 Resistance to flame and ignition** **12.1 General** Parts made of non-metallic material shall be resistant to flame and ignition. For materials other than ceramic, compliance is checked by the tests specified in Clauses 12.2, 12.3, 12.4 and 12.5 as appropriate. This Clause does not apply to decorative trims, knobs, wiring insulation and other parts not likely to be ignited or to propagate flames from inside the lamp. This Clause applies to all other parts, including components even if they have been tested to their		P

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict
	own standard.		
	12.2 Non-metallic material that supports current-carrying connections Parts made of non-metallic material that supports current-carrying connections shall withstand the following tests: *Parts are subjected to a test using a nickel-chromium glow-wire.* *The test apparatus and test procedure shall be those described in AS/NZS 60695.2.10.* *The glow-wire is heated to 750°C and applied to the test sample for 30 s.* *For all tests, any flame or glowing of the sample shall extinguish within 30 s of withdrawing the glow-wire, and any burning or molten drop shall not ignite a single layer of tissue paper, as specified in Clause 4.187 of ISO 4046-4, spread out horizontally 200 mm ± 5 mm below the sample.*	Plastic enclosure, connector on LED module, Plastic for fixed pins, PCB for driver	P
	12.3 All other parts made of non-metallic material *All other parts made of non-metallic material shall withstand the following test:* *Parts are subjected to a test using a nickel-chromium glow-wire.* *The test apparatus and test procedure shall be those described in AS/NZS 60695.2.10.* *The glow-wire is heated to 650°C and applied to the test sample for 30 s.* *For all tests, any flame or glowing of the sample shall extinguish within 30 s of withdrawing the glow-wire, and any burning or molten drop shall not ignite a single layer of tissue paper, as specified in Clause 4.187 of ISO 4046-4, spread out horizontally 200 mm ± 5 mm below the sample.*	Heat shrinkable tube, Lens (lamp shade), Insulation bushing in the cap	P
	12.4 Consequential needle flame test During the application of the 750°C glow-wire test of Clause 12.2, if a flame is produced that persists for longer than 2 s the lamp shall be further tested as follows:		N/A

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict
	The needle-flame test of AS/NZS 60695.11.5 is applied to non-metallic parts that encroach within the envelope of a vertical cylinder having a diameter of 20 mm and a height of 50 mm above the point of application of the glow-wire. The needle-flame is applied to the test sample for 30 s. *Parts shielded by a barrier that meets the needle-flame test of AS/NZS 60695.11.5 are not tested.* *The duration of burning shall not exceed 30 s after removal of the test flame and any burning drop shall not ignite the underlying parts or tissue paper specified in Clause 4.187 of ISO 4046-4, spread out horizontally 200 mm ± 5 mm below the sample.* *The needle-flame test is not carried out on parts that are made of material classified as V-0 or V-1 according to AS/NZS 60695.11.10. The sample of material submitted to the test of AS/NZS 60695.11.10 shall be no thicker than the relevant part*		
	12.5 PCB needle flame test *PCBs shall be subjected to the needle flame test of AS/NZS 60695.11.5. The needle-flame shall be applied for 30 s on an edge of the PCB at least 10 mm from a corner.* *The duration of burning shall not exceed 15 s after removal of the needle-flame and any burning droplets shall not ignite the tissue paper placed underneath the PCB.* *The needle-flame test is not carried out on PCBs made of material that is V0 rated according to AS/NZS 60695.11.10.*	V-0	P
Bibliography	*Addition* *Add* the following: IEC Guide 117, *Electrotechnical equipment—Temperatures of touchable hot surfaces*		N/A
	Special national conditions (if any)		P
4.101	Self-ballasted LED lamps shall not be		P

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict
	constructed to represent a model, person or animal, such that by its design and materials is likely to be treated by a child as a toy.		

Annex 1: 10.3 Surface temperature compliance

1	Thermal test (normal operation)		
	Type reference.....:	A60-6-65/A13J/14/5/M	—
	Lamp used.....:	Self-ballasted LED lamps	—
	Lamp control gear used.....:	—	—
	Mounting position of luminaire.....:	Assembled with cap-up	—
	Supply wattage (W).....:	5,72	—
	Supply current (A).....:	0,045	—
	Calculated power factor.....:	0,53	—
	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 x 240 V = 254,4 V	—
	- 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	limit	test 4	limit
Lamp cap	—	50,5	—	145	—	—
Outside surface of enclosure	—	56,2	—	90	—	—
Electrolytic capacitor	—	88,4	—	105	—	—
Connector on LED module	—	114,6	—	Ref.	—	—
PCB	—	122,6	—	Ref.	—	—
Plastic for fixed pins	—	49,1	—	Ref.	—	—
LED	—	124,6	—	Ref.	—	—
Internal Wire	—	89,2	—	105	—	—
Heat shrinkable tube	—	96,5	—	125	—	—

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict

Lens (lamp shade)	—	37,9	—	Ref.	—	—
Supplementary information: —						

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict

2	Thermal test (normal operation)		
	Type reference.....:	A60-9-65/A12J/14/5	—
	Lamp used.....:	Self-ballasted LED lamps	—
	Lamp control gear used.....:	—	—
	Mounting position of luminaire.....:	Assembled with cap-up	—
	Supply wattage (W) .....:	8,47	—
	Supply current (A).....:	0,068	—
	Calculated power factor.....:	0,519	—
	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 x 240 V = 254,4 V	—
	- 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	limit	test 4	limit
Lamp cap	—	50,8	—	145	—	—
Outside surface of enclosure	—	62,3	—	90	—	—
Electrolytic capacitor	—	98,0	—	105	—	—
Connector on LED module	—	125,6	—	Ref.	—	—
PCB	—	119,5	—	Ref.	—	—
Plastic for fixed pins	—	46,5	—	Ref.	—	—
LED	—	124,0	—	Ref.	—	—
Internal Wire	—	99,8	—	105	—	—
Heat shrinkable tube	—	92,8	—	125	—	—
Lens (lamp shade)	—	36,4	—	Ref.	—	—

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information: —

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict

3	Thermal test (normal operation)		
	Type reference.....:	A60-14-65/A12J/14/M	—
	Lamp used.....:	Self-ballasted LED lamps	—
	Lamp control gear used.....:	—	—
	Mounting position of luminaire.....:	Assembled with cap-up	—
	Supply wattage (W) .....:	11,92	—
	Supply current (A).....:	0,097	—
	Calculated power factor.....:	0,512	—
	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 x 240 V = 254,4 V	—
	- 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	limit	test 4	limit
Lamp cap	—	59,6	—	145	—	—
Outside surface of enclosure	—	69,1	—	90	—	—
Electrolytic capacitor	—	102,4	—	105	—	—
Connector on LED module	—	102,5	—	Ref.	—	—
PCB	—	124,5	—	Ref.	—	—
Plastic for fixed pins	—	51,1	—	Ref.	—	—
LED	—	130,5	—	Ref.	—	—
Internal Wire	—	105,0	—	105+5	—	—
Heat shrinkable tube	—	108,2	—	125	—	—
Lens (lamp shade)	—	48,7	—	Ref.	—	—
Supplementary information: —						

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict

4	Thermal test (normal operation)		
	Type reference.....:	A60-14-65/A13J/14/5/M	—
	Lamp used.....:	Self-ballasted LED lamps	—
	Lamp control gear used.....:	—	—
	Mounting position of luminaire.....:	Assembled with cap-up	—
	Supply wattage (W) .....:	11,63	—
	Supply current (A).....:	0,095	—
	Calculated power factor.....:	0,51	—
	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 x 240 V = 254,4 V	—
	- 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	limit	test 4	limit
Lamp cap	—	55,6	—	145	—	—
Outside surface of enclosure	—	70,7	—	90	—	—
Electrolytic capacitor	—	103,4	—	105	—	—
Connector on LED module	—	103,6	—	Ref.	—	—
PCB	—	125,4	—	Ref.	—	—
Plastic for fixed pins	—	54,1	—	Ref.	—	—
LED	—	131,4	—	Ref.	—	—
Internal Wire	—	106,1	—	105+5	—	—
Heat shrinkable tube	—	109,1	—	125	—	—
Lens (lamp shade)	—	51,8	—	Ref.	—	—
Supplementary information: —						

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict

5	Thermal test (normal operation)		
	Type reference.....:	G45-5.5-65/A11F/11/3	—
	Lamp used.....:	Self-ballasted LED lamps	—
	Lamp control gear used.....:	—	—
	Mounting position of luminaire.....:	Assembled with cap-up	—
	Supply wattage (W).....:	4,69	—
	Supply current (A).....:	0,039	—
	Calculated power factor.....:	0,501	—
	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 x 240 V = 254,4 V	—
	- 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	limit	test 4	limit
Lamp cap	—	48,6	—	145	—	—
Outside surface of enclosure	—	65,4	—	90	—	—
Electrolytic capacitor	—	113,5	—	105	—	—
Connector on LED module	—	116,4	—	Ref.	—	—
PCB	—	128,7	—	Ref.	—	—
Plastic for fixed pins	—	47,1	—	Ref.	—	—
LED	—	139,4	—	Ref.	—	—
Internal Wire	—	94,5	—	105	—	—
Heat shrinkable tube	—	118,5	—	125	—	—
Lens (lamp shade)	—	43,7	—	Ref.	—	—
Supplementary information: —						

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict

6	Thermal test (normal operation)		
	Type reference.....:	C37-5.5-65/A11F/11/3	—
	Lamp used.....:	Self-ballasted LED lamps	—
	Lamp control gear used.....:	—	—
	Mounting position of luminaire.....:	Assembled with cap-up	—
	Supply wattage (W).....:	4,16	—
	Supply current (A).....:	0,035	—
	Calculated power factor.....:	0,49	—
	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 x 240 V = 254,4 V	—
	- 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	limit	test 4	limit
Lamp cap	—	48,3	—	145	—	—
Outside surface of enclosure	—	64,7	—	90	—	—
Electrolytic capacitor	—	103,9	—	105	—	—
Connector on LED module	—	112,2	—	Ref.	—	—
PCB	—	120,1	—	Ref.	—	—
Plastic for fixed pins	—	46,8	—	Ref.	—	—
LED	—	119,5	—	Ref.	—	—
Internal Wire	—	95,8	—	105	—	—
Heat shrinkable tube	—	93,8	—	125	—	—
Lens (lamp shade)	—	42,0	—	Ref.	—	—
Supplementary information: —						

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict

7	Thermal test (normal operation)		
	Type reference.....:	GU10-6-65/A159/14/XJ	—
	Lamp used.....:	Self-ballasted LED lamps	—
	Lamp control gear used.....:	—	—
	Mounting position of luminaire.....:	Assembled with cap-up	—
	Supply wattage (W).....:	5,56	—
	Supply current (A).....:	0,046	—
	Calculated power factor.....:	0,504	—
	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 ated wattage .....:	1,06 x 240 V = 254,4 V	—
	- test 3: Load on wiring to socket-outlet, ,06 times voltage or 1,05 times wattage.....:	—	—
	- test 4: 1,1 times rated voltage or 1,05 times ated wattage .....:	—	—

temperature (°C) of part	Clause 12.4 – normal				Clause 12.5 – abnormal	
	test 1	test 2	test 3	limit	test 4	limit
Lamp cap	—	47,8	—	145	—	—
Outside surface of enclosure	—	88,7	—	90	—	—
Electrolytic capacitor	—	97,6	—	105	—	—
Connector on LED module	—	141,7	—	Ref.	—	—
PCB	—	134,1	—	Ref.	—	—
LED	—	132,8	—	Ref.	—	—
Internal Wire	—	96,1	—	105	—	—
Heat shrinkable tube	—	93,2	—	125	—	—
Inner surface of Lens (lamp shade)	—	116,4	—	Ref.	—	—
Supplementary information: —						

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict

8	Thermal test (normal operation)		
	Type reference.....:	A60-6.5-65/G128/5Y2	—
	Lamp used.....:	Self-ballasted LED lamps	—
	Lamp control gear used.....:	—	—
	Mounting position of luminaire.....:	Assembled with cap-up	—
	Supply wattage (W).....:	7,3	—
	Supply current (A).....:	0,057	—
	Calculated power factor.....:	0,534	—
	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 ated wattage .....:	1,06 x 240 V = 254,4 V	—
	- test 3: Load on wiring to socket-outlet, ,06 times voltage or 1,05 times wattage.....:	—	—
	- test 4: 1,1 times rated voltage or 1,05 times ated wattage .....:	—	—

temperature (°C) of part	Clause 12.4 – normal				Clause 12.5 – abnormal	
	test 1	test 2	test 3	limit	test 4	limit
Lamp cap	—	58,2	—	145	—	—
Outside surface of nclosure	—	47,9	—	90	—	—
Electrolytic capacitor	—	73,7	—	105	—	—
PCB	—	85,0	—	Ref.	—	—
Plastic for fixed pins	—	43,7	—	Ref.	—	—
LED	—	49,2	—	Ref.	—	—
Internal Wire	—	62,9	—	105	—	—
Heat shrinkable tube	—	60,1	—	125	—	—
Lens (lamp shade)	—	58,5	—	Ref.	—	—

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information: —

9	Thermal test (normal operation)		
	Type reference.....:	A60-6.5-65/G138/5Y2	—
	Lamp used.....:	Self-ballasted LED lamps	—
	Lamp control gear used.....:	—	—
	Mounting position of luminaire.....:	Assembled with cap-up	—
	Supply wattage (W).....:	7,52	—
	Supply current (A).....:	0,059	—
	Calculated power factor.....:	0,53	—
	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 ated wattage .....:	1,06 x 240 V = 254,4 V	—
	- test 3: Load on wiring to socket-outlet, ,06 times voltage or 1,05 times wattage.....:	—	—
	- test 4: 1,1 times rated voltage or 1,05 times ated wattage .....:	—	—

temperature (°C) of part	Clause 12.4 – normal				Clause 12.5 – abnormal	
	test 1	test 2	test 3	limit	test 4	limit
Lamp cap	—	54,3	—	145	—	—
Outside surface of nclosure	—	47,7	—	90	—	—
Electrolytic capacitor	—	73,7	—	105	—	—
PCB	—	85,0	—	Ref.	—	—
Plastic for fixed pins	—	49,3	—	Ref.	—	—
LED	—	62,9	—	Ref.	—	—
Internal Wire	—	62,9	—	105	—	—
Heat shrinkable tube	—	60,1	—	125	—	—
Supplementary information: —						

Attachment 1: Australia / New Zealand National Differences for AS/NZS 62560: 2017 + A1: 2019			
Clause	Requirement + Test	Result - Remark	Verdict

10	Thermal test (normal operation)		
	Type reference.....:	C35-4-65/G118/5Y2	—
	Lamp used.....:	Self-ballasted LED lamps	—
	Lamp control gear used.....:	—	—
	Mounting position of luminaire.....:	Assembled with cap-up	—
	Supply wattage (W).....:	4,9	—
	Supply current (A).....:	0,04	—
	Calculated power factor.....:	0,51	—
	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 ated wattage .....:	1,06 x 240 V = 254,4 V	—
	- test 3: Load on wiring to socket-outlet, ,06 times voltage or 1,05 times wattage.....:	—	—
	- test 4: 1,1 times rated voltage or 1,05 times ated wattage .....:	—	—

temperature (°C) of part	Clause 12.4 – normal				Clause 12.5 – abnormal	
	test 1	test 2	test 3	limit	test 4	limit
Lamp cap	—	50,0	—	145	—	—
Outside surface of nclosure	—	48,9	—	90	—	—
Electrolytic capacitor	—	84,2	—	105	—	—
PCB	—	104,2	—	Ref.	—	—
Plastic for fixed pins	—	47,2	—	Ref.	—	—
LED	—	55,0	—	Ref.	—	—
Internal Wire	—	88,2	—	105	—	—
Heat shrinkable tube	—	79,6	—	125	—	—
Supplementary information: —						

--- End of attachment 1---

Attachment 2: EU Group differences			
Clause	Requirement + Test	Result - Remark	Verdict

	CENELEC COMMON MODIFICATIONS (EN)		
Annex ZA (normative)	Normative references to international publications with their corresponding European publications		—
	Lamps with the following caps are excluded from EN 62560:2012/A1:2015 as they do not comply with European safety requirements: E11; E12; E17; E26; E26d; E39		N/A
7.Z2	**Fixing of conductors**		P
7.Z2.1	**Requirements** The fixing of the conductors inside the lamp shall be such that, if a conductor becomes loose or detached, the conductor cannot reduce clearances or creepage distances below the values as specified in 14. For the purpose of these requirements, it is assumed that: – two independent fixings will not become loose or detached at the same time; and – parts fixed by means of screws or nuts provided with self-locking washers or other means of locking are not liable to become loose or detached.		P
7.Z2.2	**Compliance criteria** Compliance is checked by inspection, by measurement or in case of doubt by applying a force of 10 N in the most unfavourable direction. EXAMPLE Constructions regarded as meeting the requirements include: – close-fitting tubing (for example, a heat shrink or rubber sleeve), applied over the wire and its termination; – conductors connected by soldering and held in place near to the termination, independently of the soldered connection; – conductors connected by soldering and securely hooked in before soldering, provided that the hole through which the conductor is passed is not unduly large; – conductors connected to screw terminals, with an additional fixing near to the terminal that clamps, in the case of stranded conductors, the insulation and not only the conductors; – conductors connected to screw terminals and provided with terminators that are unlikely to become free (for example, ring lugs crimped onto the conductors), however, the pivoting of such terminators is considered; or – short rigid conductors that remain in position when the terminal screw is loosened		P

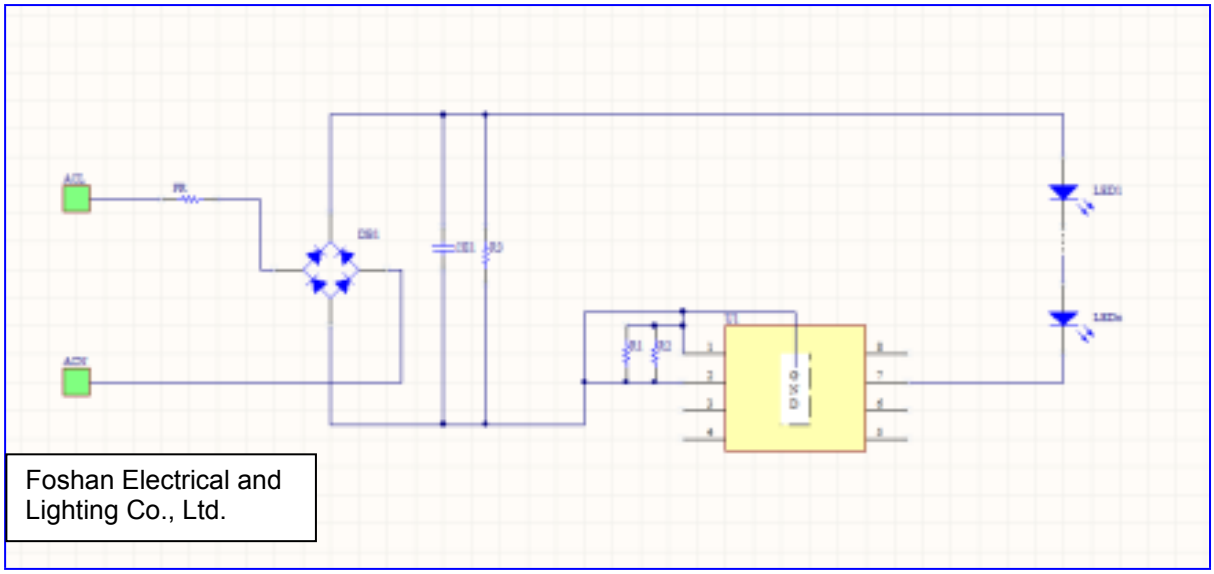
---End of attachment 2 ---

Attachment 3: Additional requirements of EN 62493: 2015			
Clause	Requirement + Test	Result - Remark	Verdict
4	LIMITS (Test summary)		P
4.2.2	Lighting equipment deemed to comply with the Van der Hoofden test without testing		P
4.2.3	Unintentional radiating part of lighting equipment	factor F ≤ 1	N/A
4.3	Intentional radiating part of lighting equipment	No intentional radiating from EUT	N/A

--- End of Attachment 3---

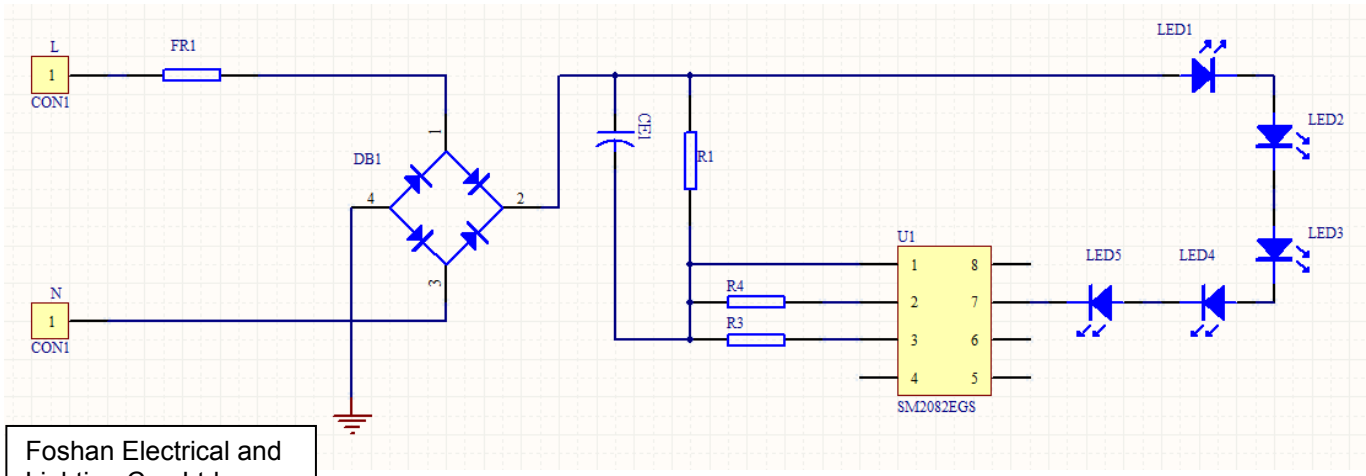
Attachment 4: Circuit diagram and PCB layout

Circuit diagram for A60-6-XX/A12J/14/5/M, A60-6-XX/A13J/14/5/M, A60-9-XX/A12J/14/5, A60-9-XX/A13J/14/5, A60-14-XX/A12J/14/M, A60-14-XX/A13J/14/M



Foshan Electrical and Lighting Co., Ltd.

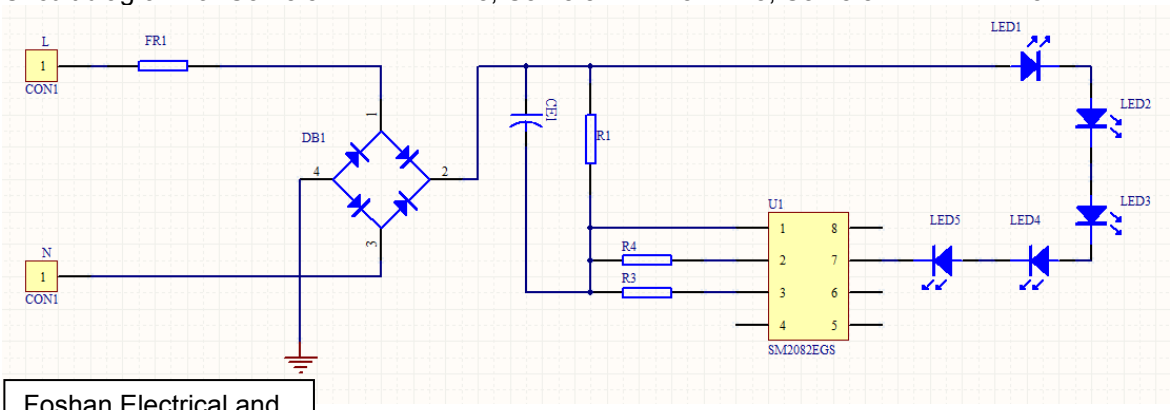
Circuit diagram for G45-5.5-XX/A12F/11/3, G45-5.5-XX/A13F/11/3, G45-5.5-XX/A11F/11/3



Foshan Electrical and Lighting Co., Ltd.

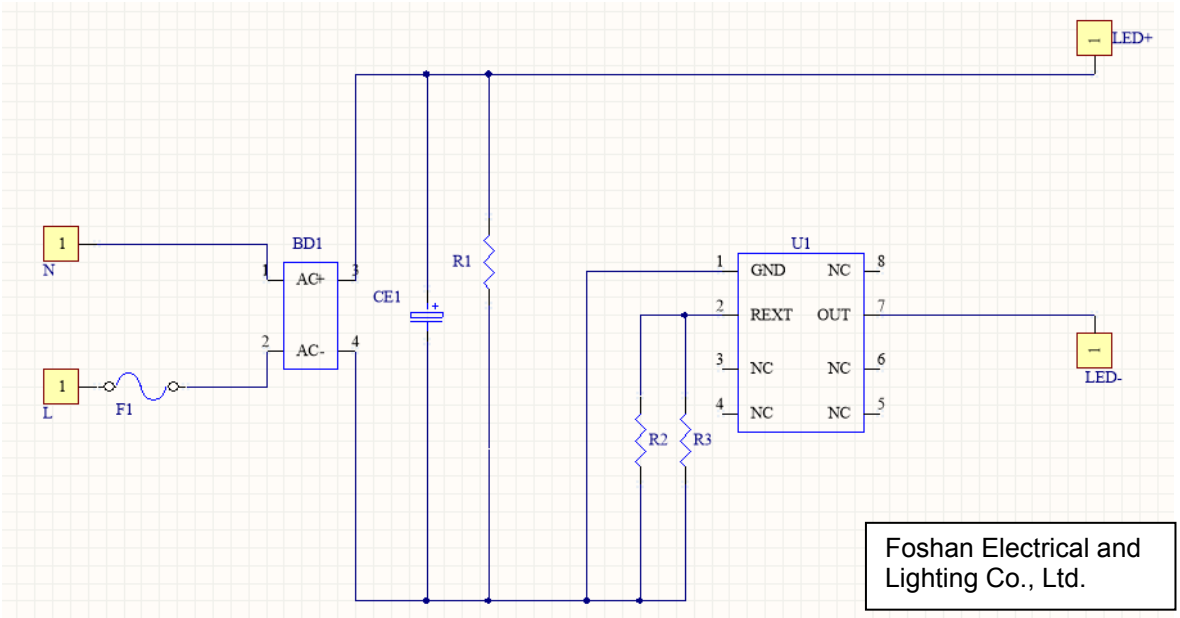
Attachment 4: Circuit diagram and PCB layout

Circuit diagram for C37-5.5-XX/A12F/11/3, C37-5.5-XX/A13F/11/3, C37-5.5 XX/A11F/11/3



Foshan Electrical and Lighting Co., Ltd.

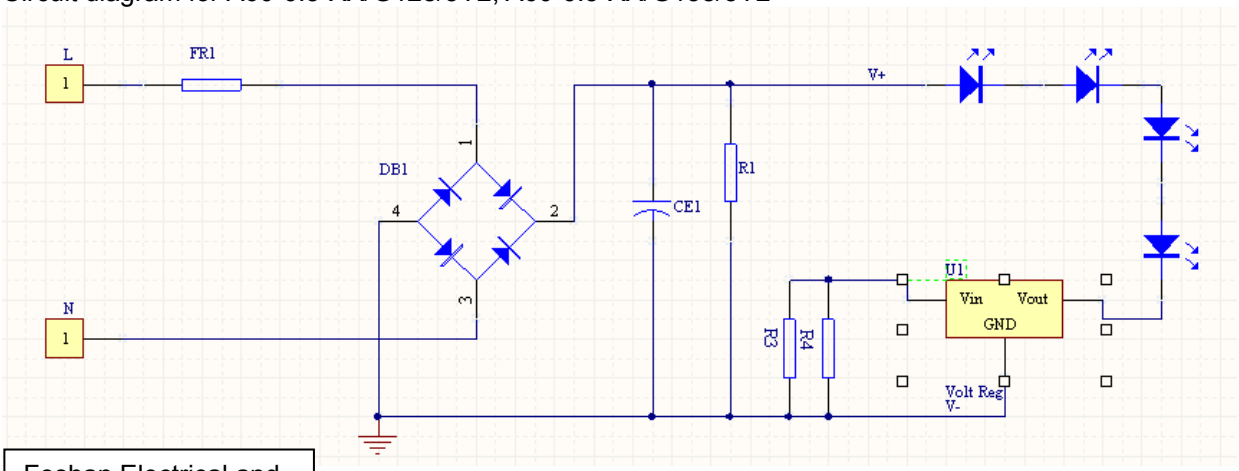
Circuit diagram for GU10-6-XX/A159/14/XJ



Foshan Electrical and Lighting Co., Ltd.

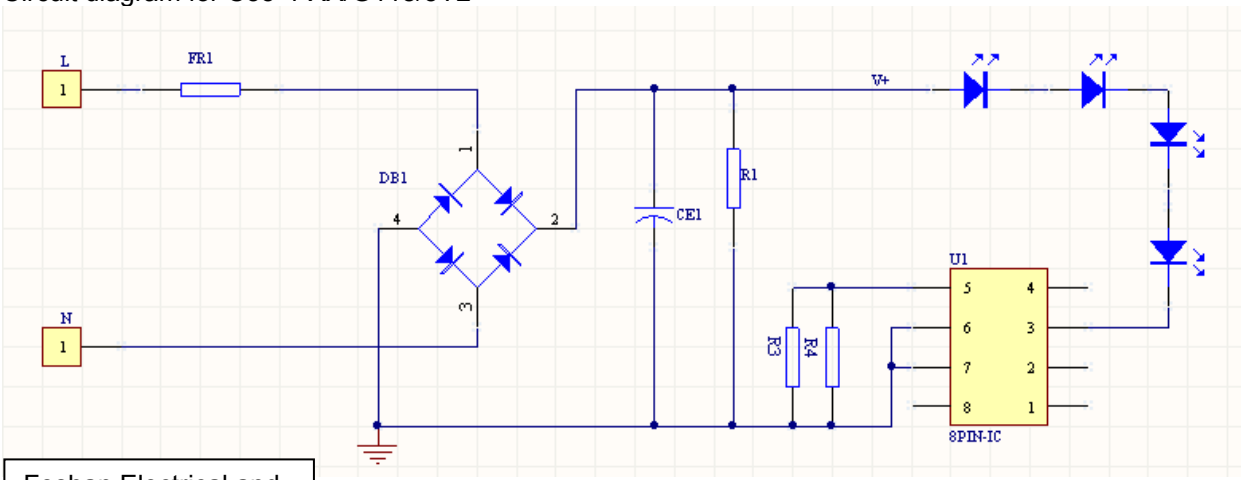
Attachment 4: Circuit diagram and PCB layout

Circuit diagram for A60-6.5-XX/G128/5Y2, A60-6.5-XX/G138/5Y2



Foshan Electrical and Lighting Co., Ltd.

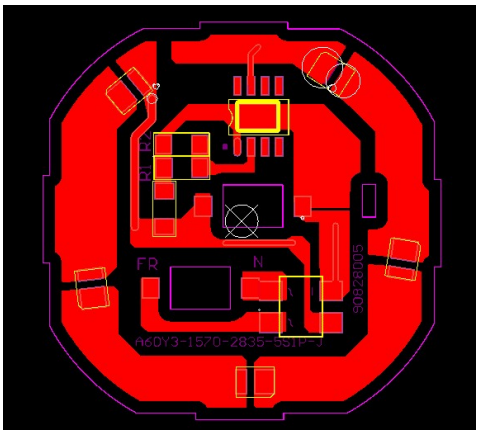
Circuit diagram for C35-4-XX/G118/5Y2



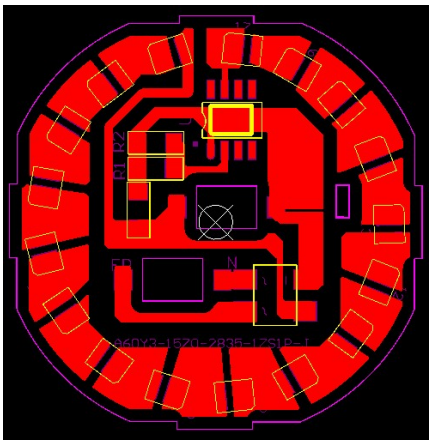
Foshan Electrical and Lighting Co., Ltd.

Attachment 4: Circuit diagram and PCB layout

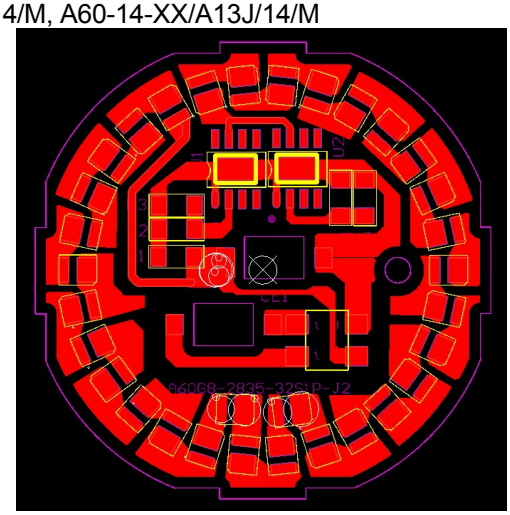
PCB Layout for A60-6-XX/A12J/14/5/M, A60-6-XX/A13J/14/5/M



PCB Layout for A60-9-XX/A12J/14/5, A60-9-XX/A13J/14/5

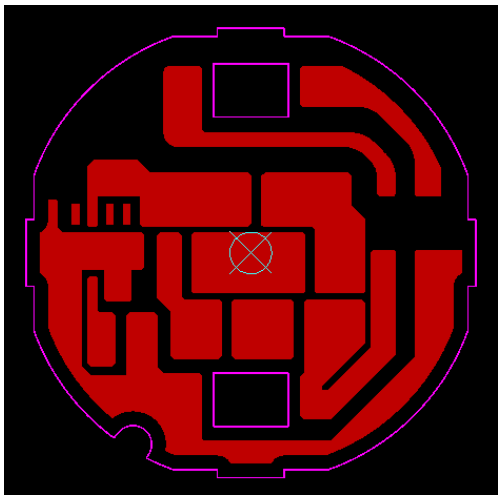


PCB Layout for A60-14-XX/A12J/14/M, A60-14-XX/A13J/14/M

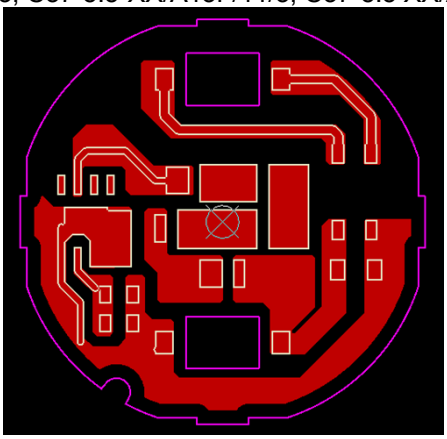


Attachment 4: Circuit diagram and PCB layout

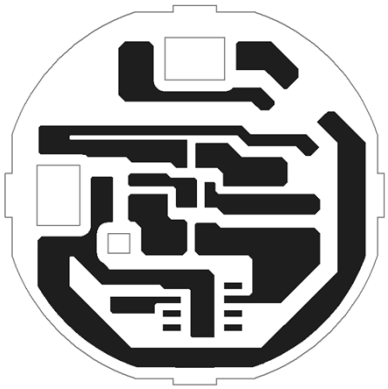
PCB Layout for G45-5.5-XX/A12F/11/3, G45-5.5-XX/A13F/11/3, G45-5.5-XX/A11F/11/3



PCB Layout for C37-5.5-XX/A12F/11/3, C37-5.5-XX/A13F/11/3, C37-5.5 XX/A11F/11/3

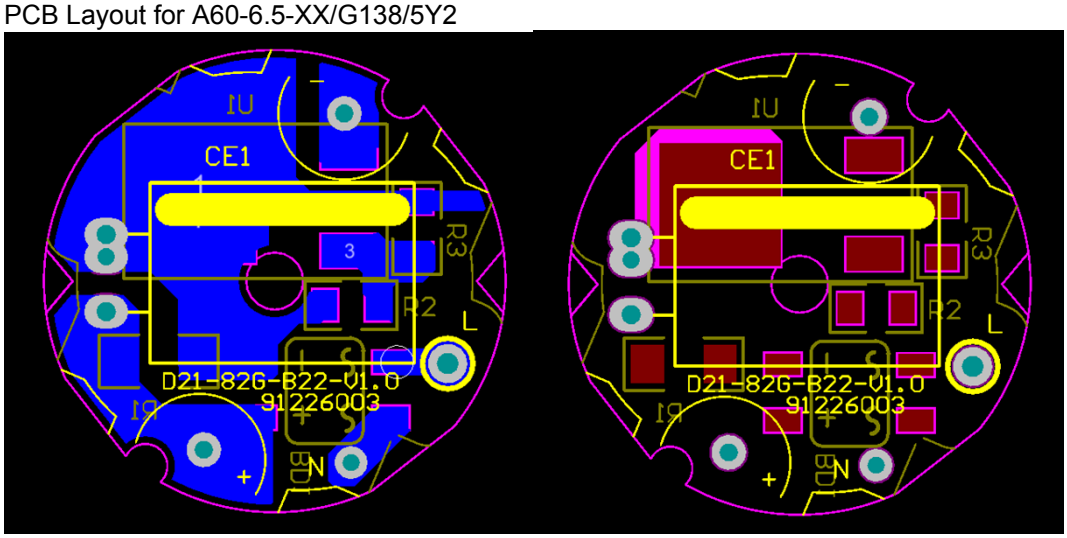


PCB Layout for GU10-6-XX/A159/14/XJ

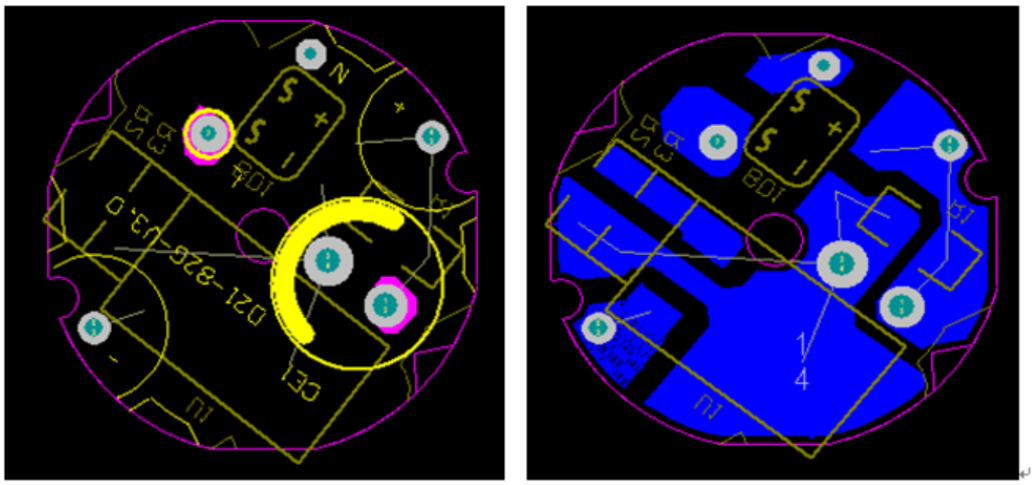


Attachment 4: Circuit diagram and PCB layout

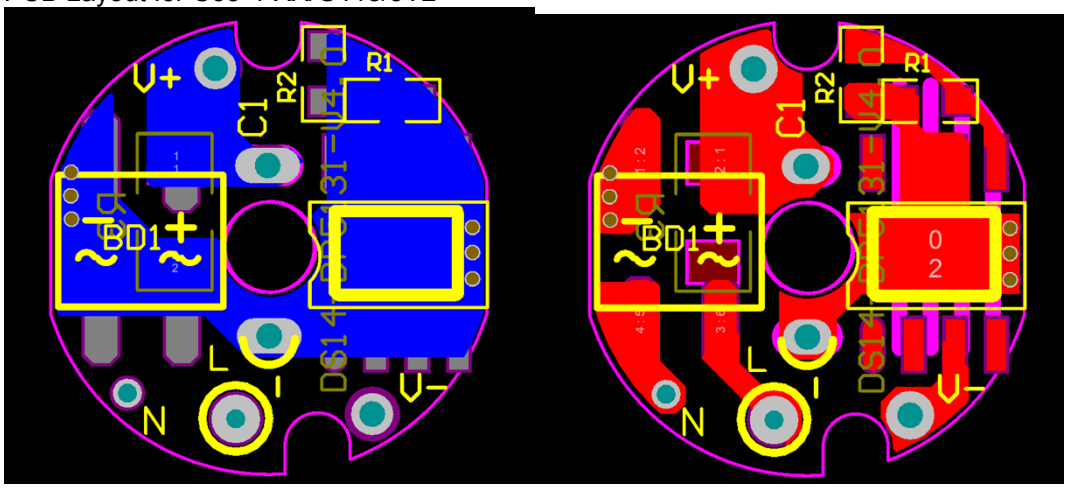
PCB Layout for A60-6.5-XX/G138/5Y2



PCB Layout for A60-6.5-XX/G128/5Y2



PCB Layout for C35-4-XX/G118/5Y2



--- End of Attachment 4 ---

Attachment 5: Photo documentation

Details of: General view of A60-6-XX/A12J/14/5/M and A60-9-XX/A12J/14/5

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: General view of A60-6-XX/A13J/14/5/M and A60-9-XX/A13J/14/5

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: Internal view for A60-9-XX/A12J/14/5 similar to A60-6-XX/A12J/14/5/M

View:

☒ general

☐ front

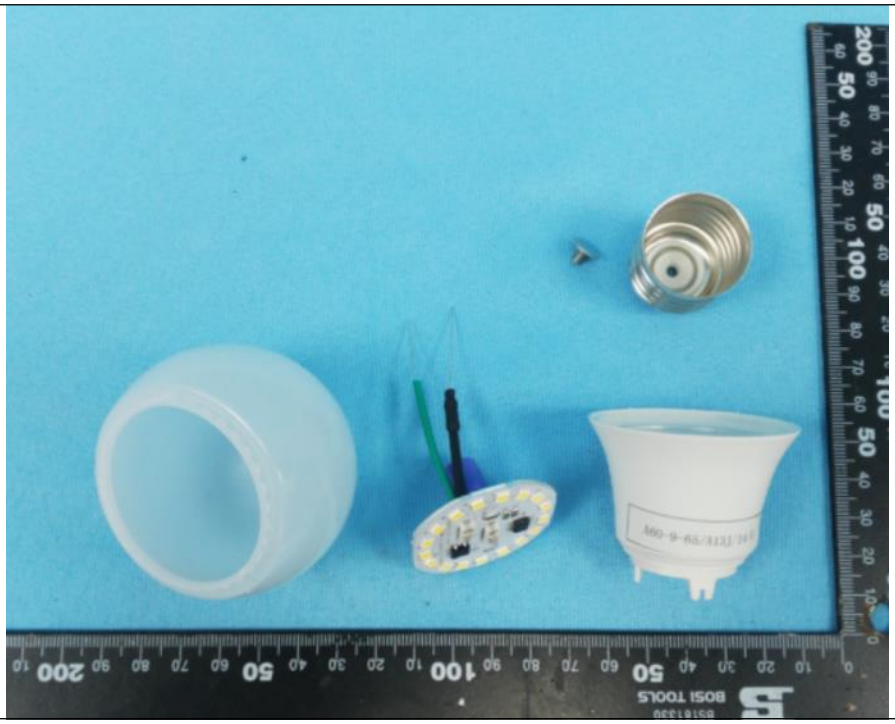
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: Internal view for A60-6-XX/A13J/14/5/M similar to A60-9-XX/A13J/14/5

View:

☒ general

☐ front

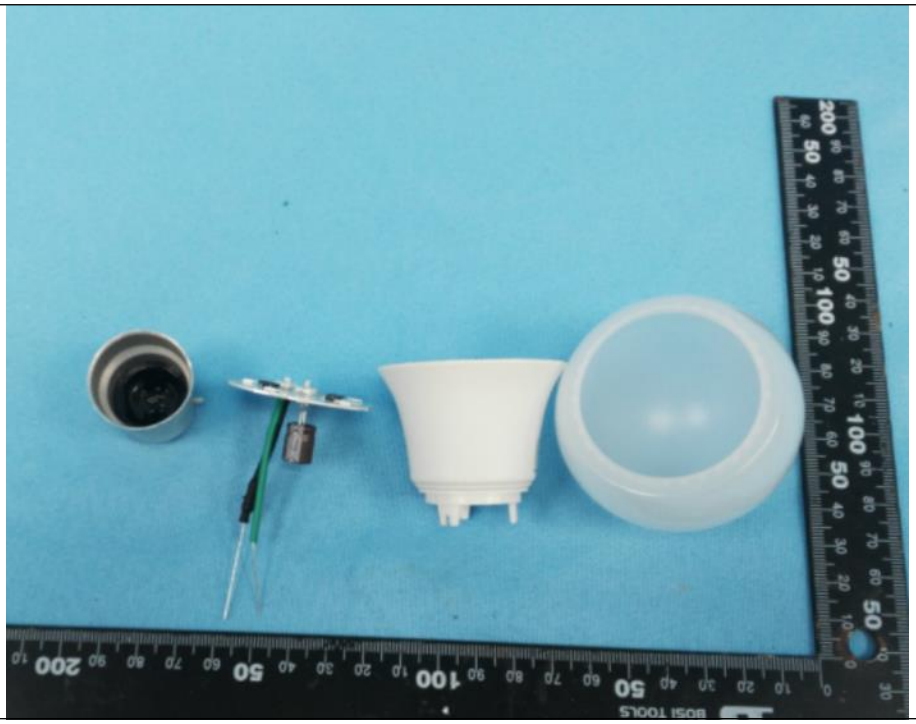
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: PCB view for A60-6-XX/A12J/14/5/M and A60-6-XX/A13J/14/5/M

View:

☒ general

☐ front

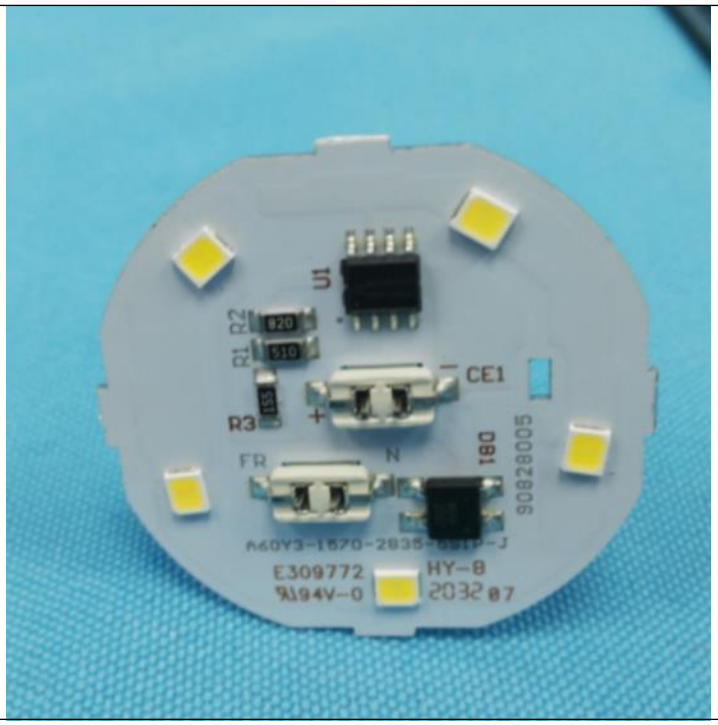
☐ rear

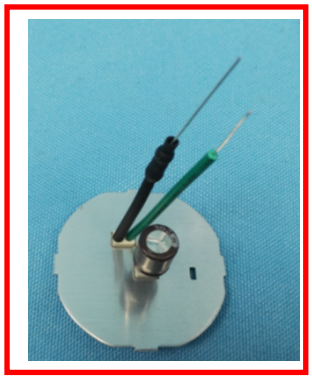
☐ right

☐ left

☐ top

☐ bottom





Details of: PCB view for A60-9-XX/A12J/14/5 and A60-9-XX/A13J/14/5

View:

☒ general

☐ front

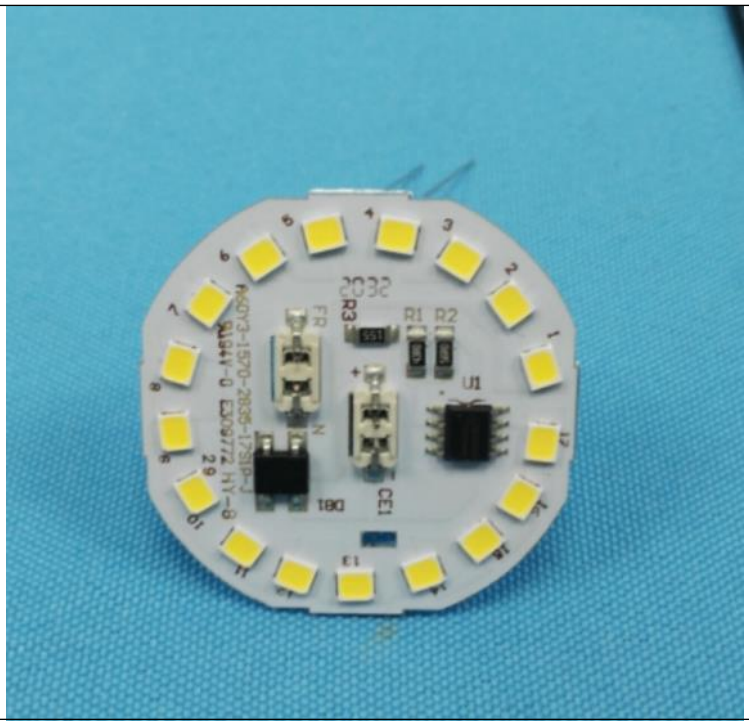
☐ rear

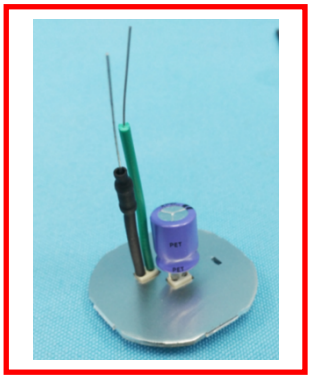
☐ right

☐ left

☐ top

☐ bottom





Attachment 5: Photo documentation

Details of: Detail view for A60-6-XX/A12J/14/5/M, A60-6-XX/A13J/14/5/M, A60-9-XX/A12J/14/5 and A60-9-XX/A13J/14/5

View:

☒ general

☐ front

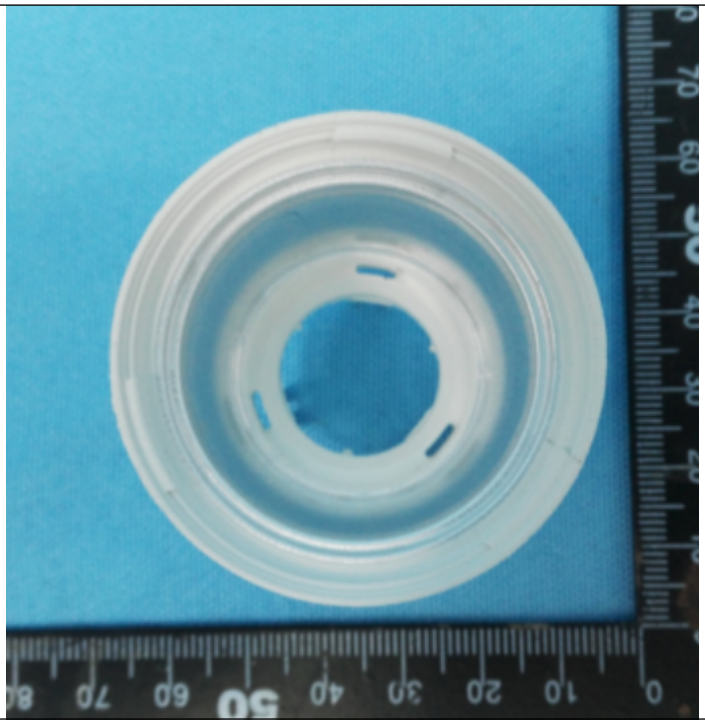
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: Detail view for A60-6-XX/A12J/14/5/M, A60-6-XX/A13J/14/5/M, A60-9-XX/A12J/14/5 and A60-9-XX/A13J/14/5

View:

☒ general

☐ front

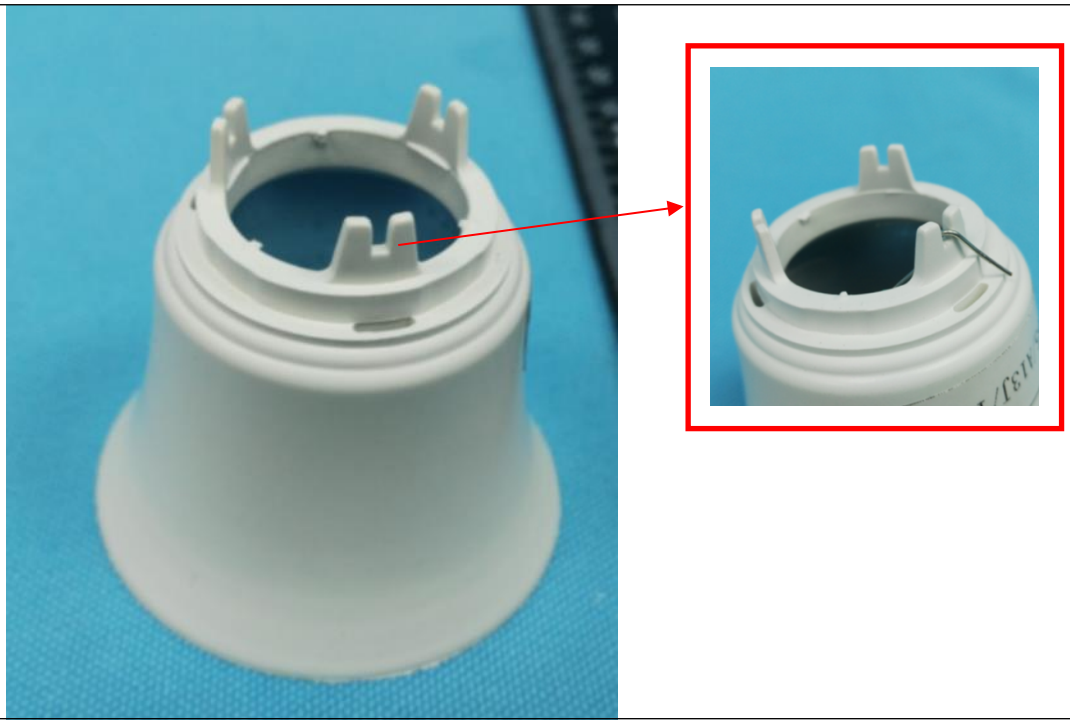
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: General view of A60-14-XX/A12J/14/M

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: General view of A60-14-XX/A13J/14/M

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: Internal view for A60-14-XX/A12J/14/M

View:

☒ general

☐ front

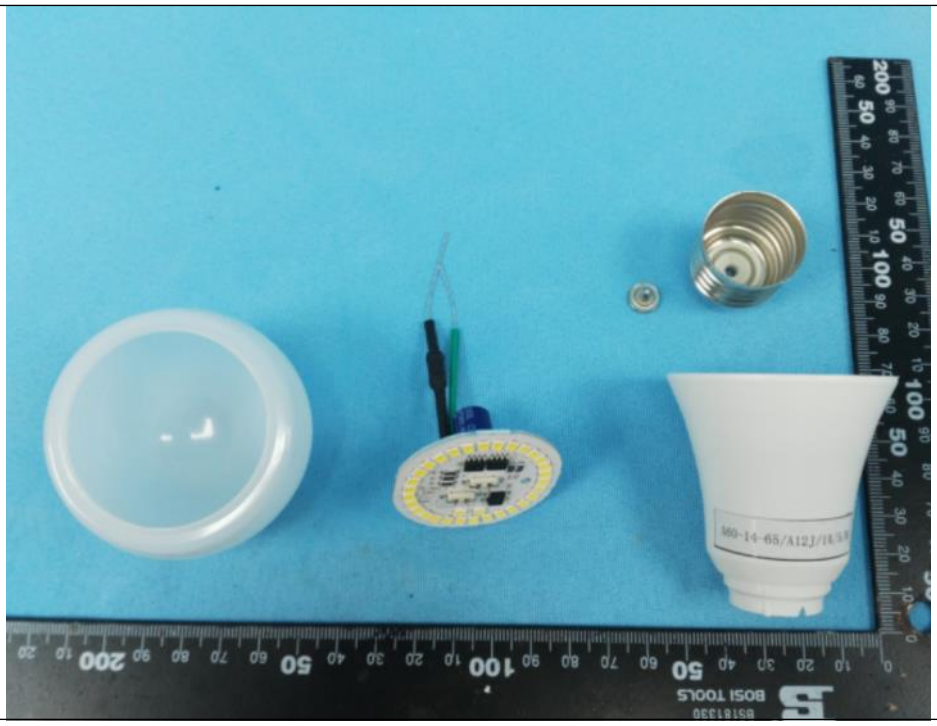
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: Internal view for A60-14-XX/A13J/14/M

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: PCB view for A60-14-XX/A12J/14/M and A60-14-XX/A13J/14/M

View:

☒ general

☐ front

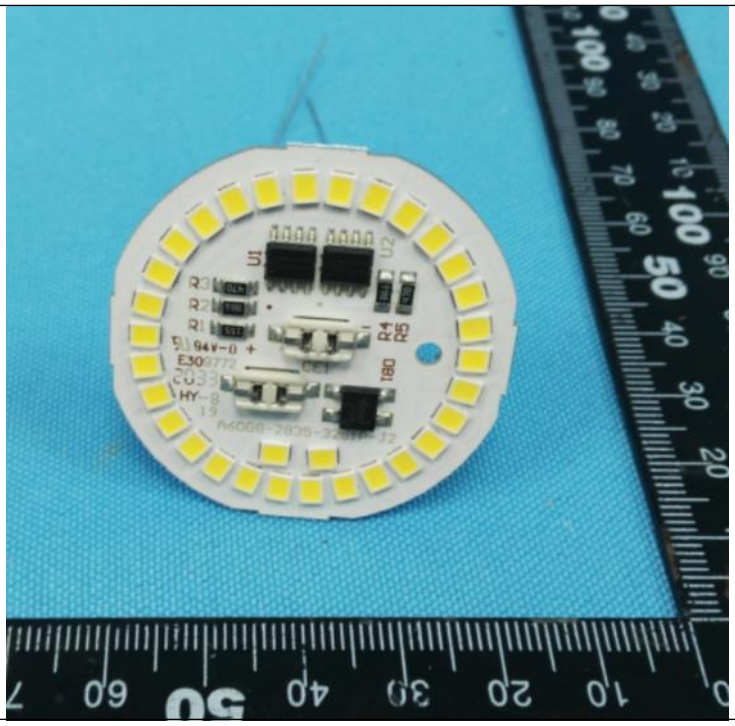
☐ rear

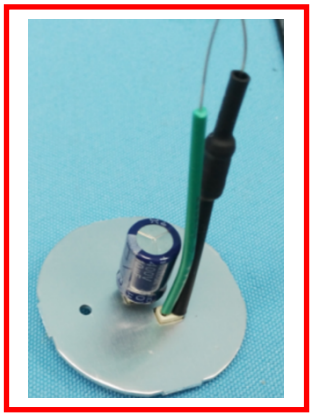
☐ right

☐ left

☐ top

☐ bottom





Details of: Detail view for A60-14-XX/A12J/14/M and A60-14-XX/A13J/14/M

View:

☒ general

☐ front

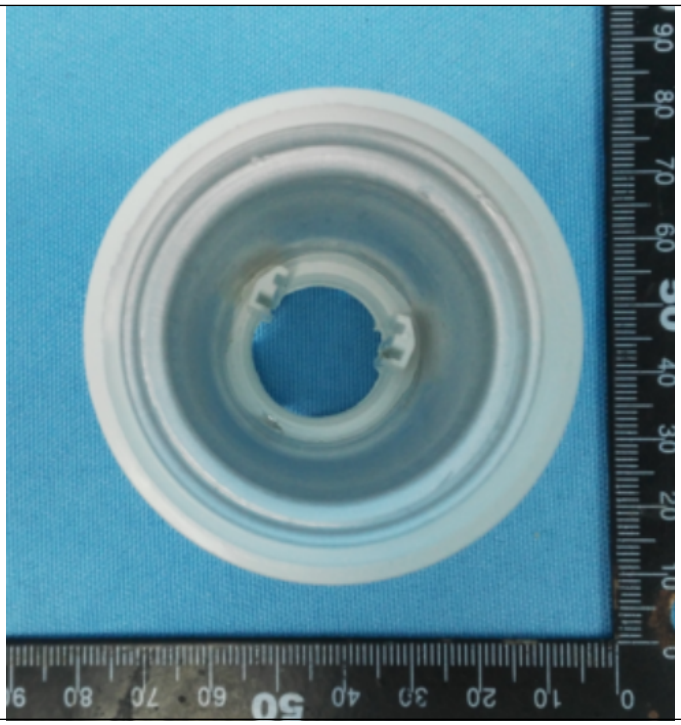
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: Detail view for A60-14-XX/A12J/14/M and A60-14-XX/A13J/14/M

View:

☒ general

☐ front

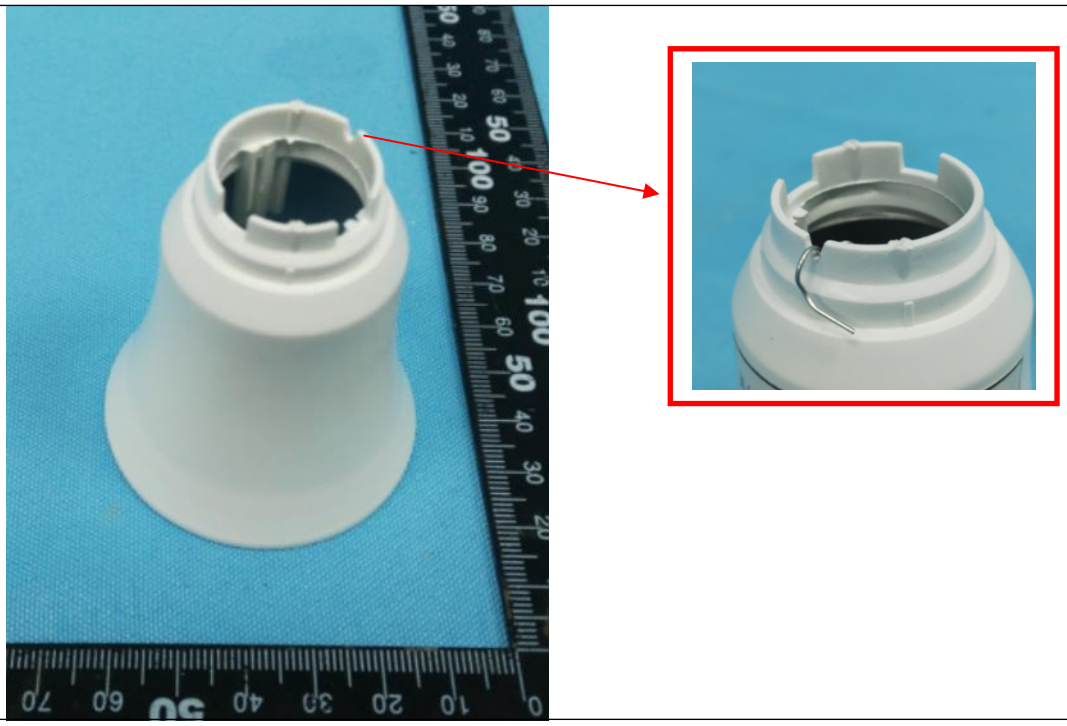
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: General view of G45-5.5-XX/A12F/11/3

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: General view of G45-5.5-XX/A13F/11/3

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: General view of G45-5.5-XX/A11F/11/3

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: Internal view for G45-5.5-XX/A12F/11/3 similar to G45-5.5-XX/A13F/11/3, except the lamp cap is different

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: Internal view for G45-5.5-XX/A11F/11/3

View:

☒ general

☐ front

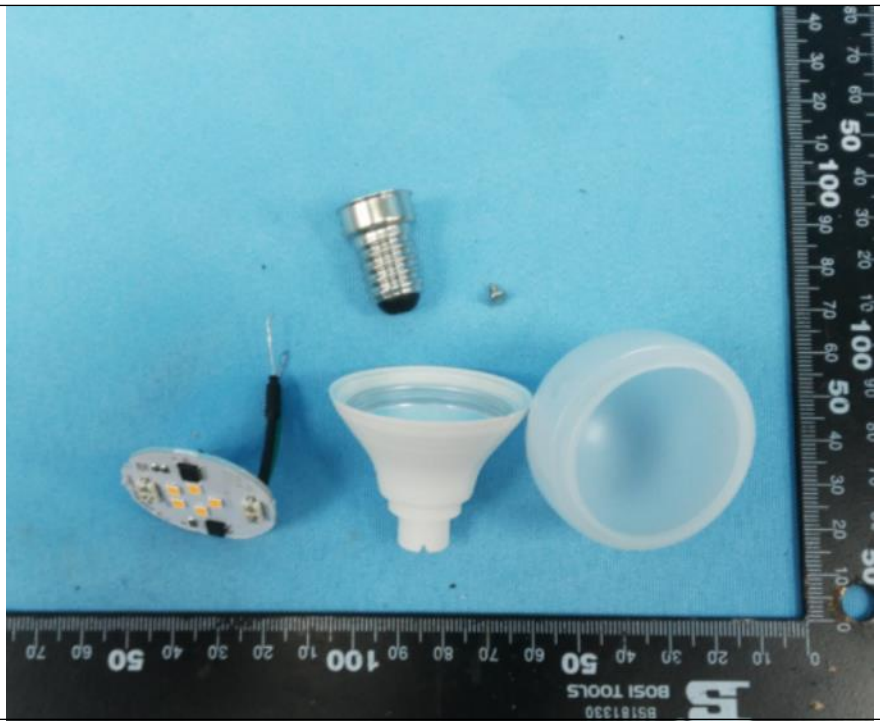
☐ rear

☐ right

☐ left

☐ top

☐ bottom



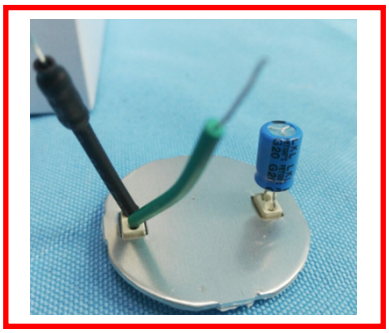
Attachment 5: Photo documentation

Details of: PCB view for G45-5.5-XX/A12F/11/3, G45-5.5-XX/A13F/11/3 and G45-5.5-XX/A11F/11/3

View:

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

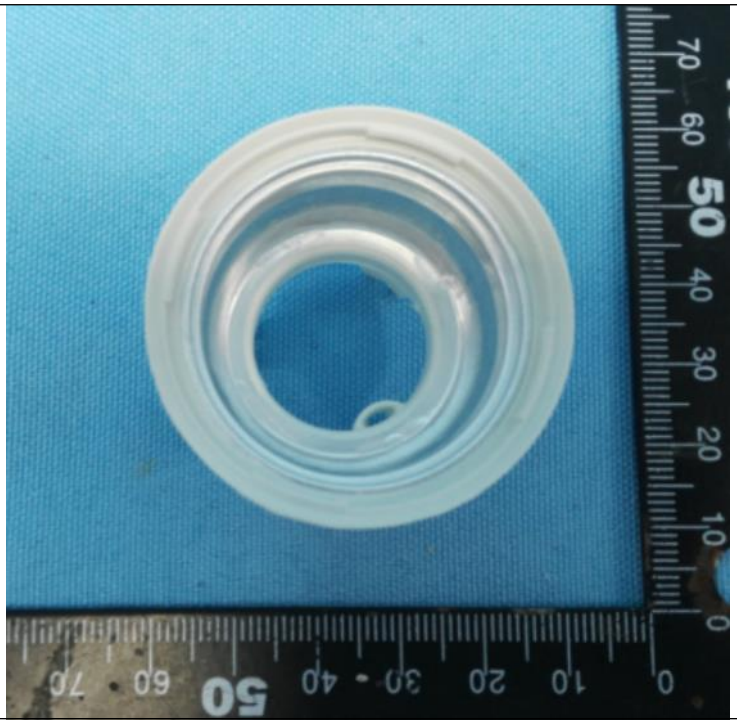




Details of: Detail view for G45-5.5-XX/A12F/11/3 and G45-5.5-XX/A13F/11/3

View:

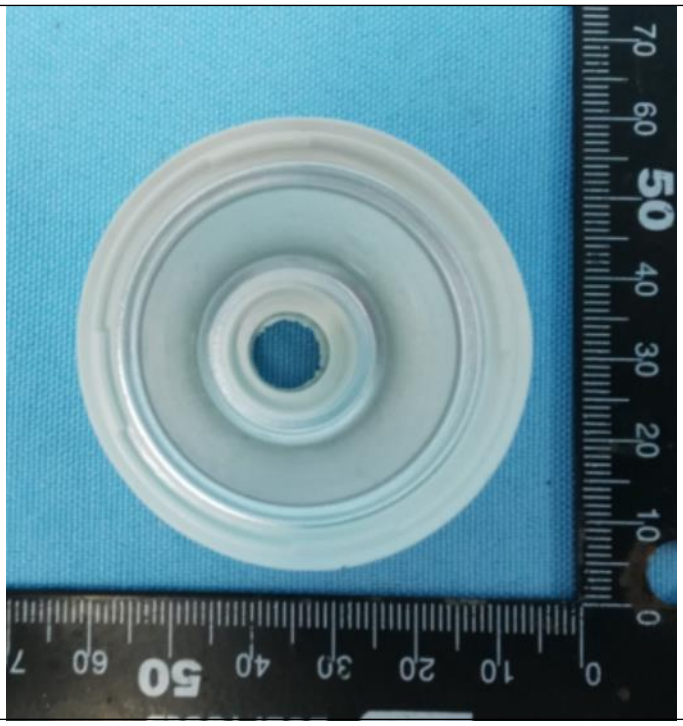
- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom



Attachment 5: Photo documentation

Details of: Detail view for G45-5.5-XX/A11F/11/3

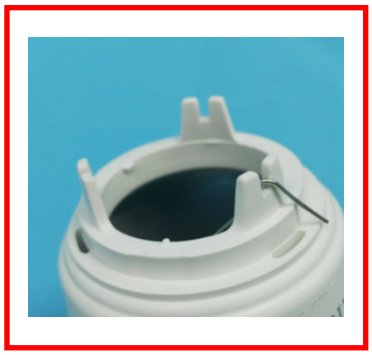
View:
- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom



Details of: Detail view for G45-5.5-XX/A12F/11/3 and G45-5.5-XX/A13F/11/3

View:
- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom





Attachment 5: Photo documentation

Details of: Detail view for G45-5.5-XX/A11F/11/3

View:

☒ general

☐ front

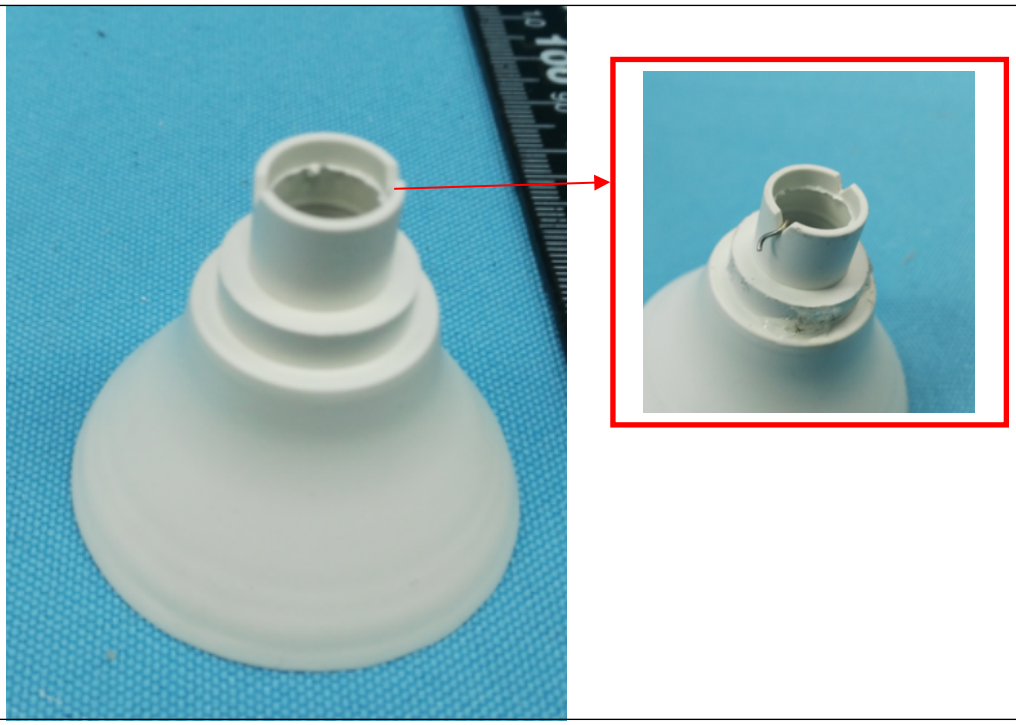
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: General view of C37-5.5-XX/A12F/11/3

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: General view of C37-5.5-XX/A13F/11/3

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: General view of C37-5.5-XX/A11F/11/3

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

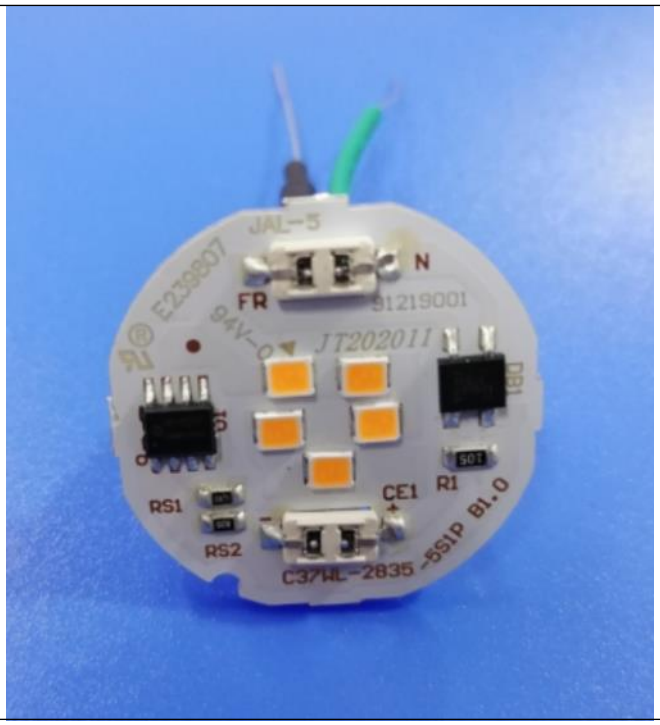
☐ bottom

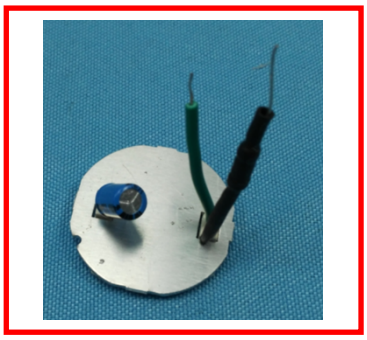


Attachment 5: Photo documentation

Details of: PCB view for C37-5.5-XX/A12F/11/3, C37-5.5-XX/A13F/11/3 and C37-5.5-XX/A11F/11/3

View:
- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom





Details of: Detail view for C37-5.5-XX/A12F/11/3, C37-5.5-XX/A13F/11/3 and C37-5.5-XX/A11F/11/3

View:
- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom



Attachment 5: Photo documentation

Details of: Detail view for C37-5.5-XX/A12F/11/3 and C37-5.5-XX/A13F/11/3

View:

☒ general

☐ front

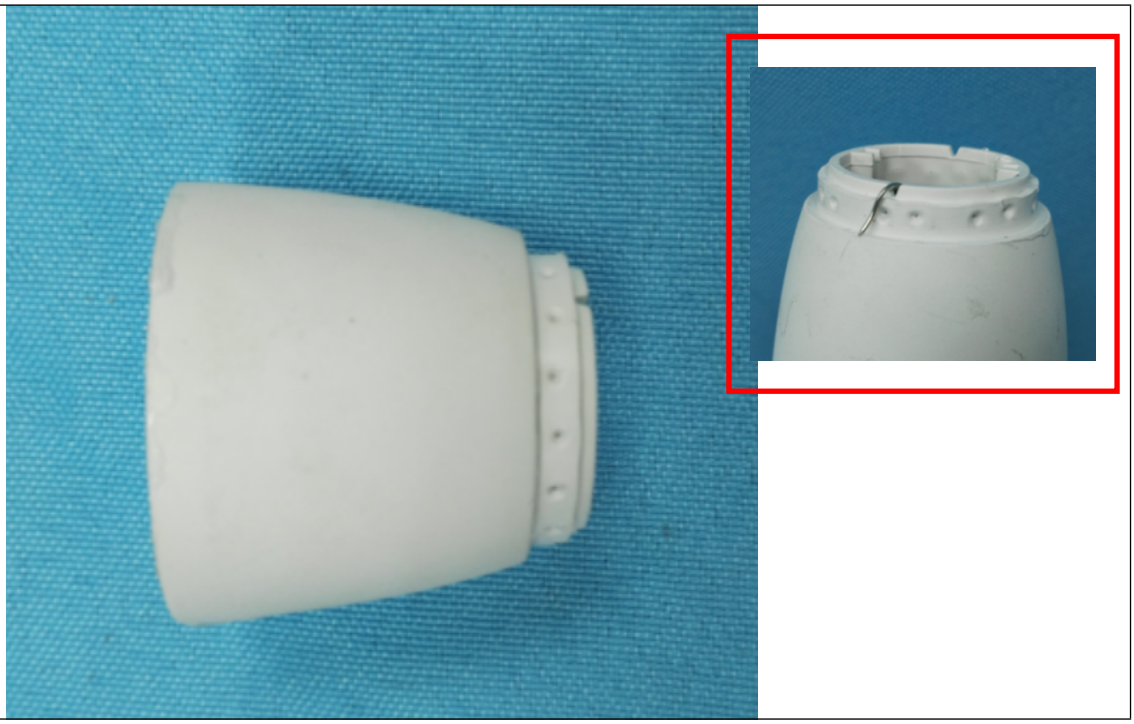
☐ rear

☐ right

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☐ bottom



Details of: Detail view for C37-5.5-XX/A11F/11/3

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: General view of GU10-6-XX/A159/14/XJ

View:

☒ general

☐ front

☐ rear

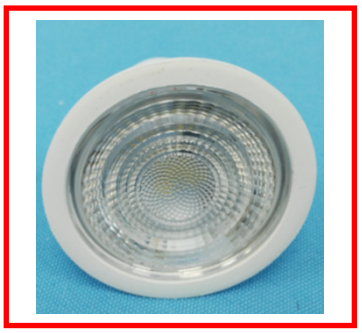
☐ right

☐ left

☐ top

☐ bottom





Details of: Internal view for GU10-6-XX/A159/14/XJ

View:

☒ general

☐ front

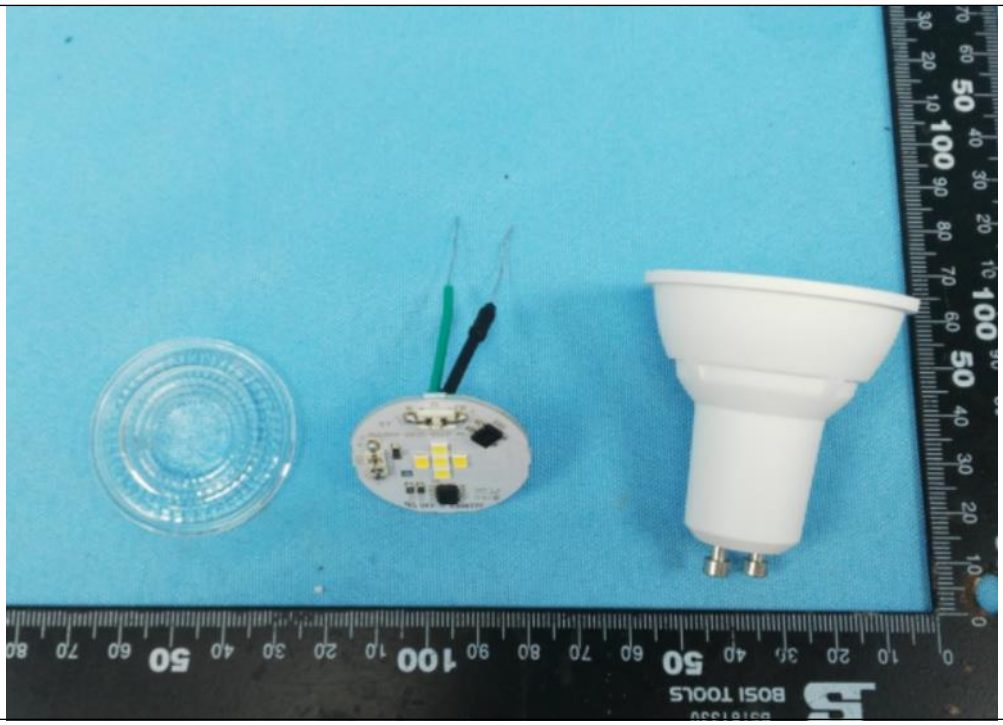
☐ rear

☐ right

☐ left

☐ top

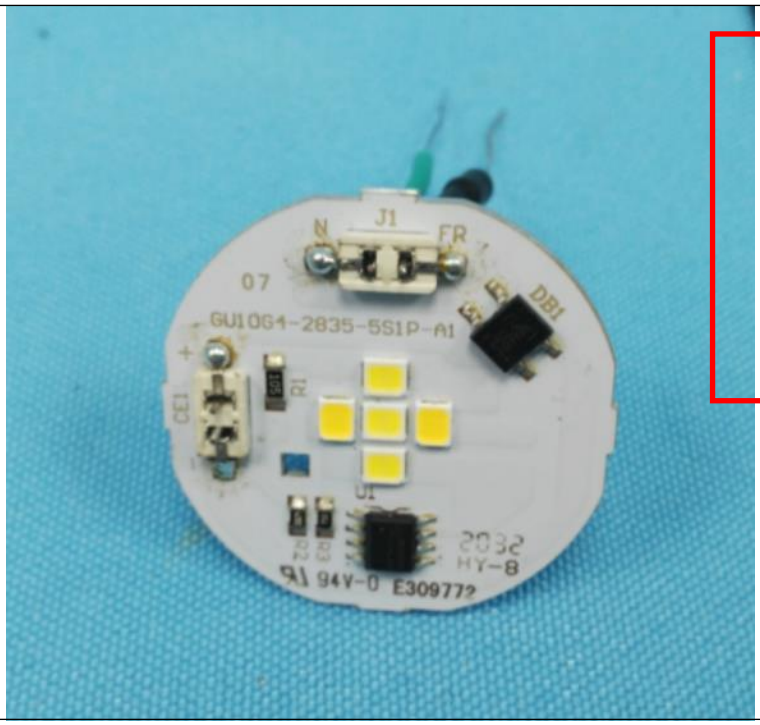
☐ bottom

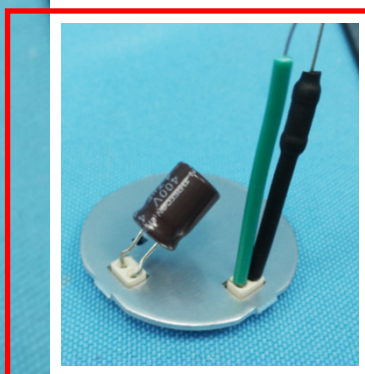


Attachment 5: Photo documentation

Details of: **PCB view for GU10-6-XX/A159/14/XJ**

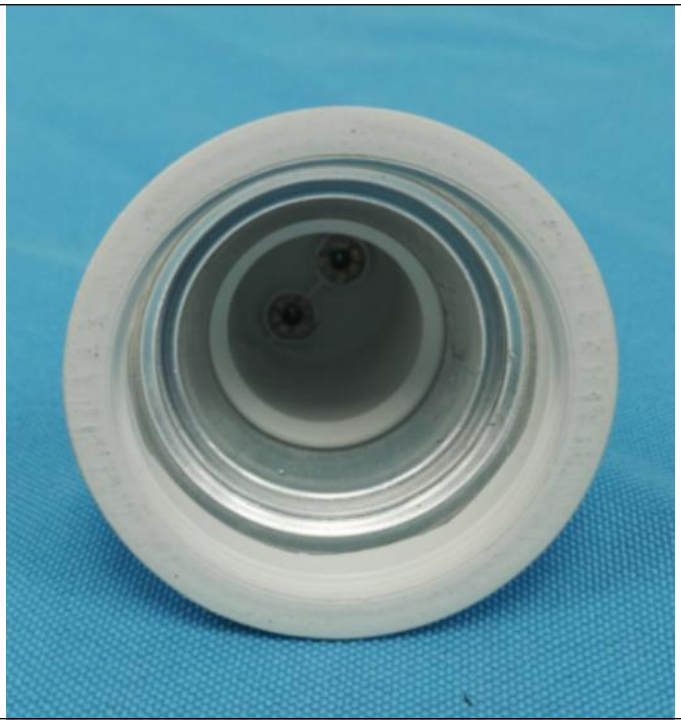
View:
- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom

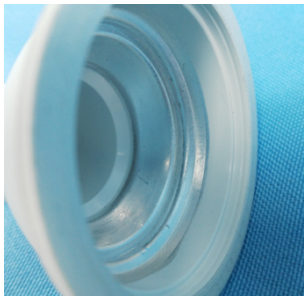




Details of: Detail view for GU10-6-XX/A159/14/XJ

View:
- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom





Attachment 5: Photo documentation

Details of: Detail view for GU10-6-XX/A159/14/XJ

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: General view of A60-6.5-XX/G128/5Y2

View:

☒ general

☐ front

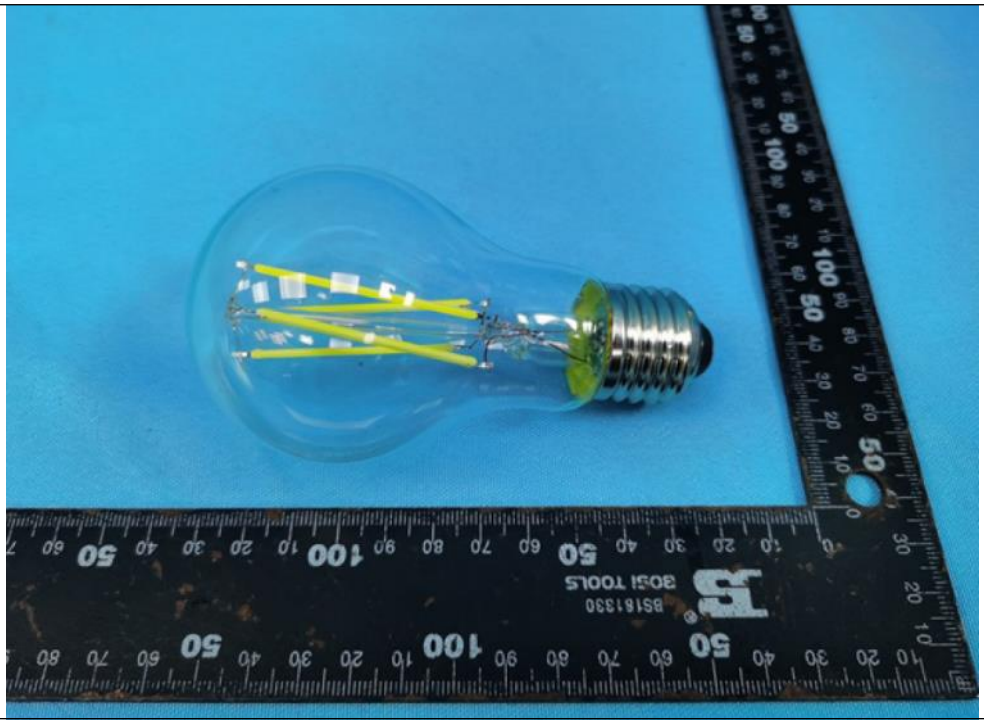
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: General view of A60-6.5-XX/G138/5Y2

View:

☒ general

☐ front

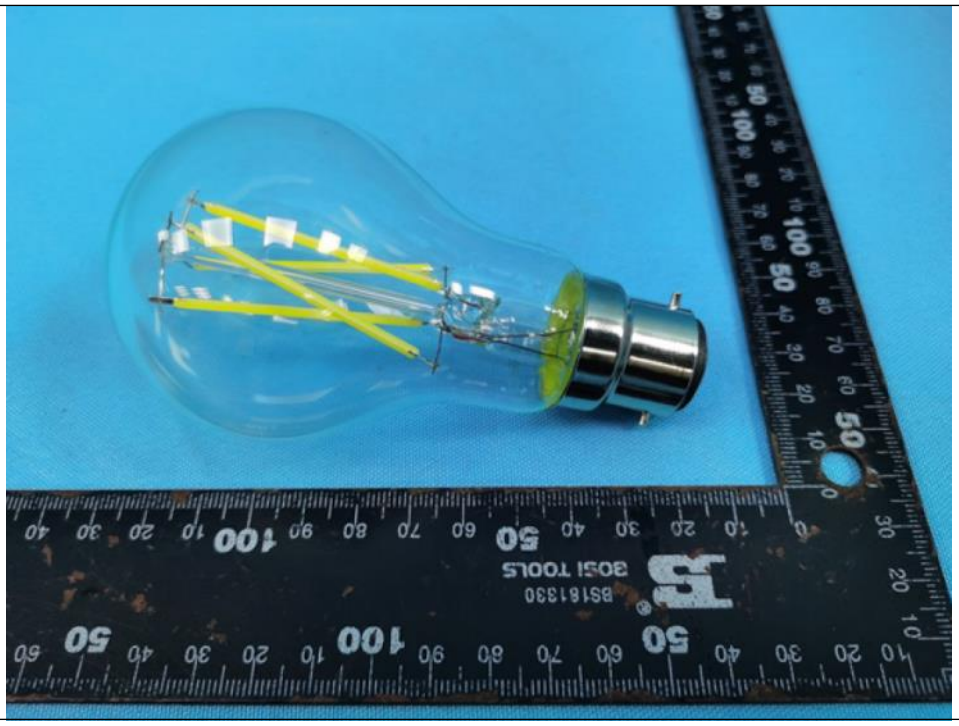
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: General view of C35-4-XX/G118/5Y2

View:

☒ general

☐ front

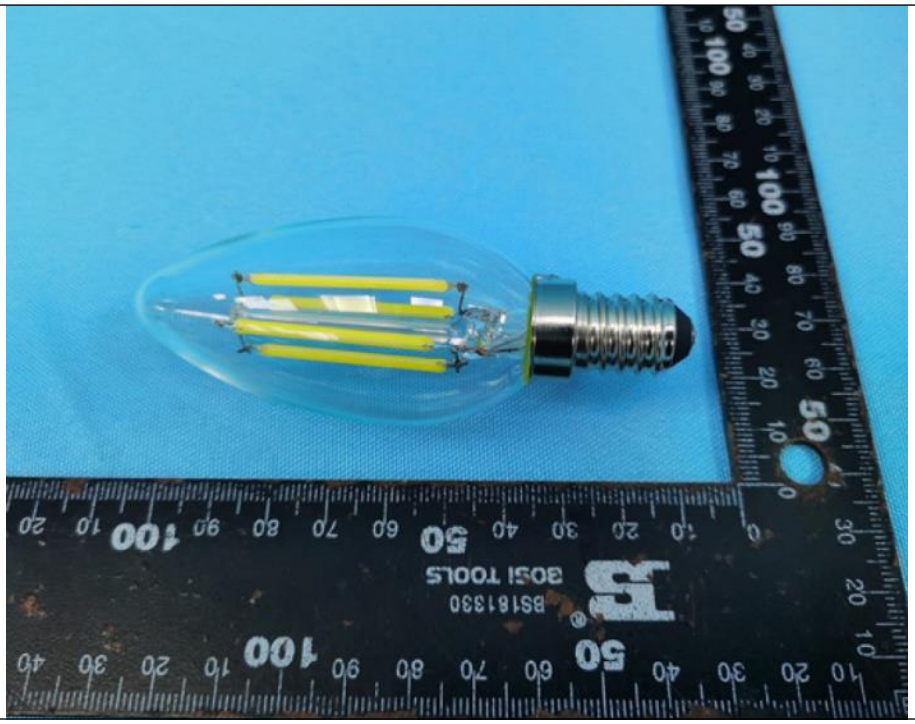
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: Internal view for A60-6.5-XX/G128/5Y2

View:

☒ general

☐ front

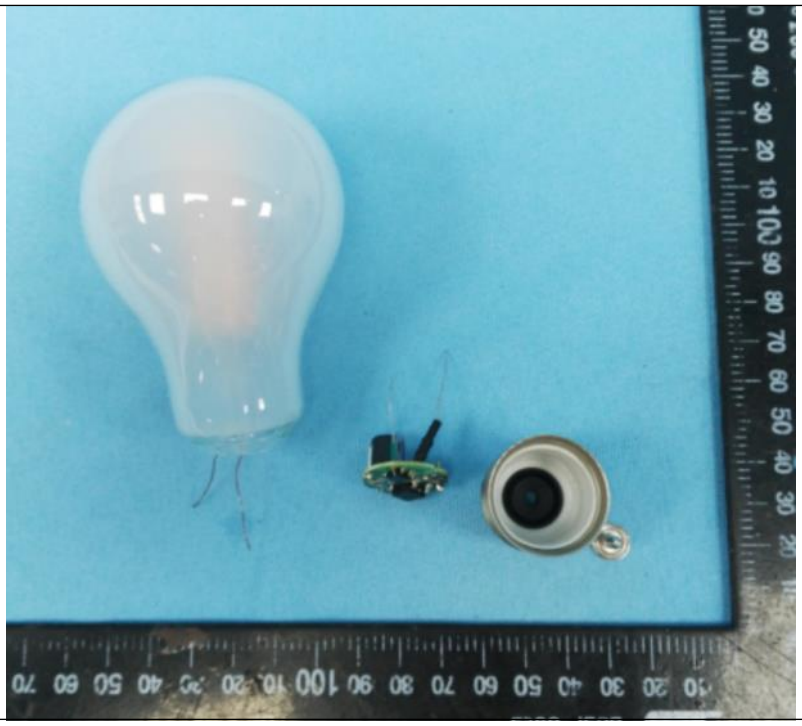
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: Internal view for A60-6.5-XX/G138/5Y2

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: Internal view for C35-4-XX/G118/5Y2

View:

☒ general

☐ front

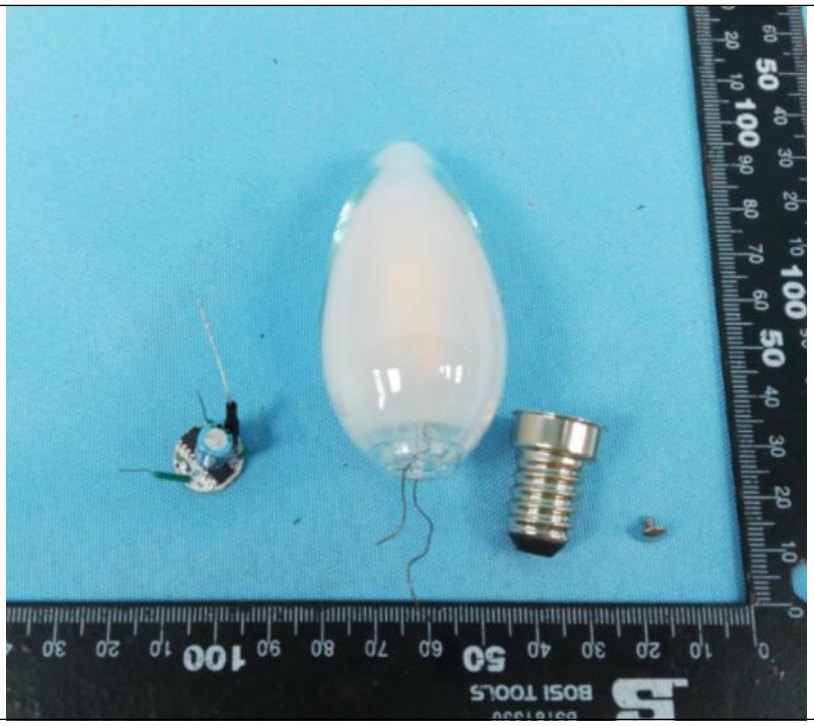
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: LED view for A60-6.5-XX/G128/5Y2, A60-6.5-XX/G138/5Y2 and C35-4-XX/G118/5Y2

View:

☒ general

☐ front

☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: PCB view for A60-6.5-XX/G128/5Y2

View:

☒ general

☐ front

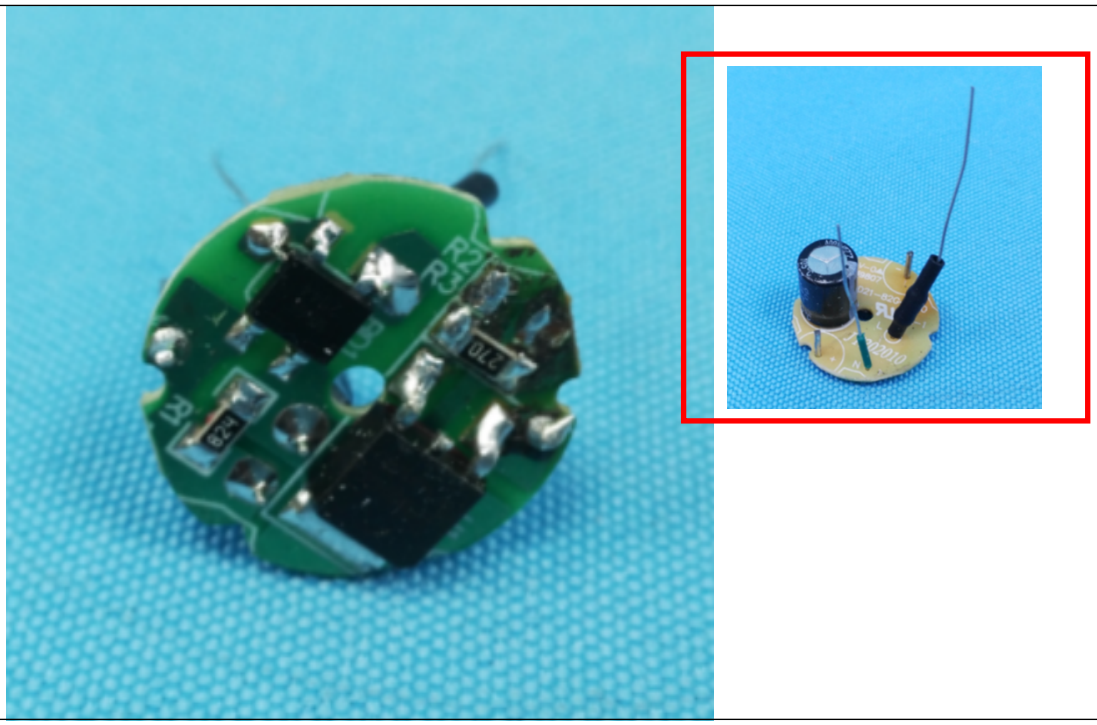
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: PCB view for A60-6.5-XX/G138/5Y2

View:

☒ general

☐ front

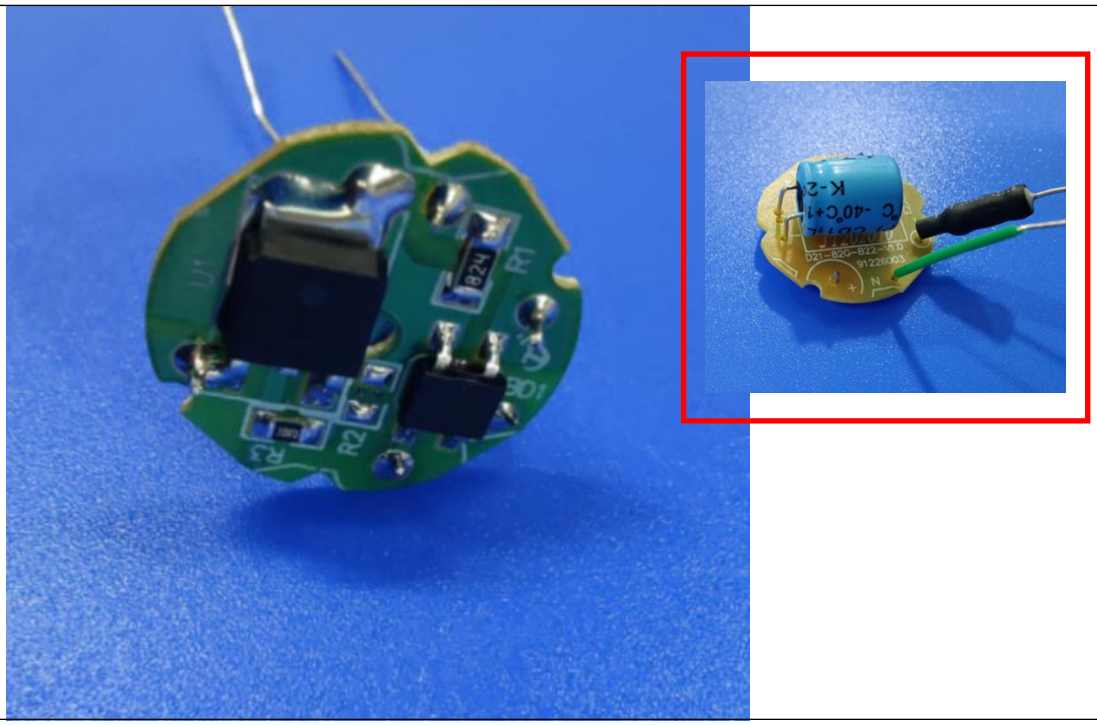
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: PCB view for C35-4-XX/G118/5Y2

View:

☒ general

☐ front

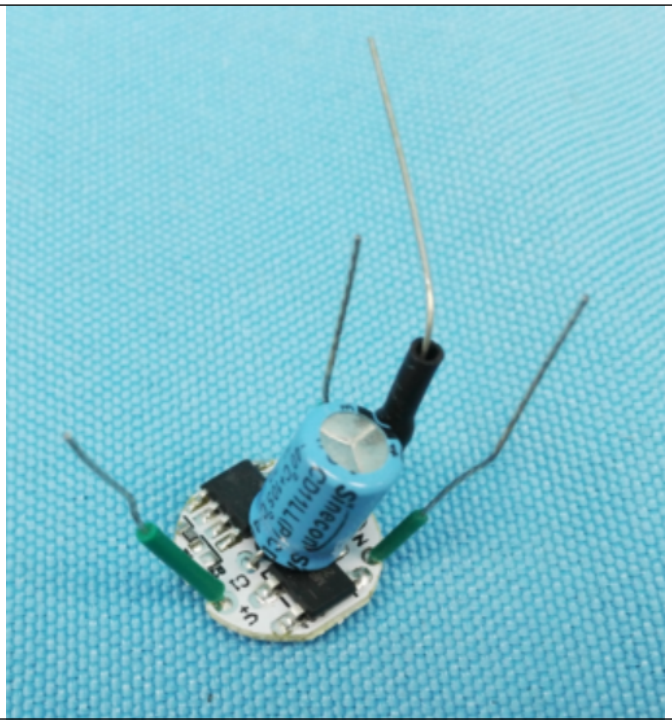
☐ rear

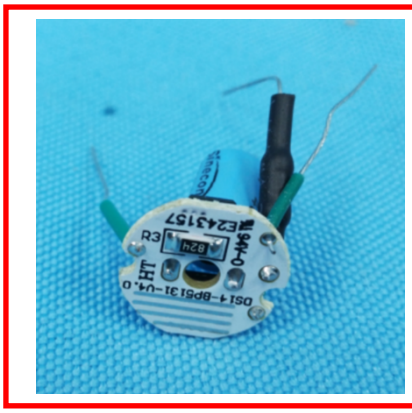
☐ right

☐ left

☐ top

☐ bottom





Details of: Detail view for C35-4-XX/G118/5Y2 similar to A60-6.5-XX/G128/5Y2, A60-6.5-XX/G138/5Y2

View:

☒ general

☐ front

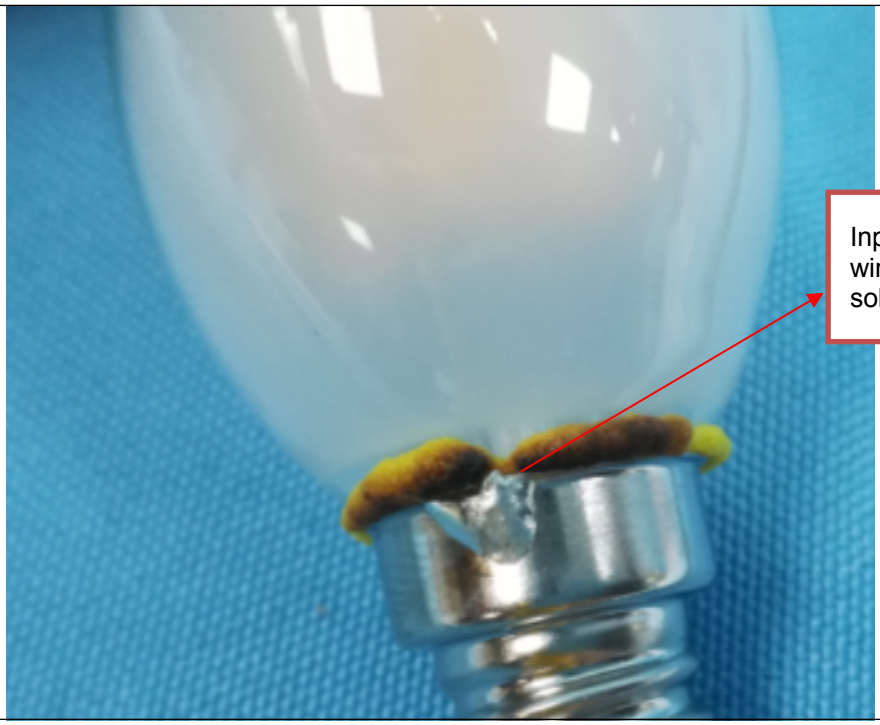
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Attachment 5: Photo documentation

Details of: E27 lamp cap for A60-6.5-XX/G128/5Y2

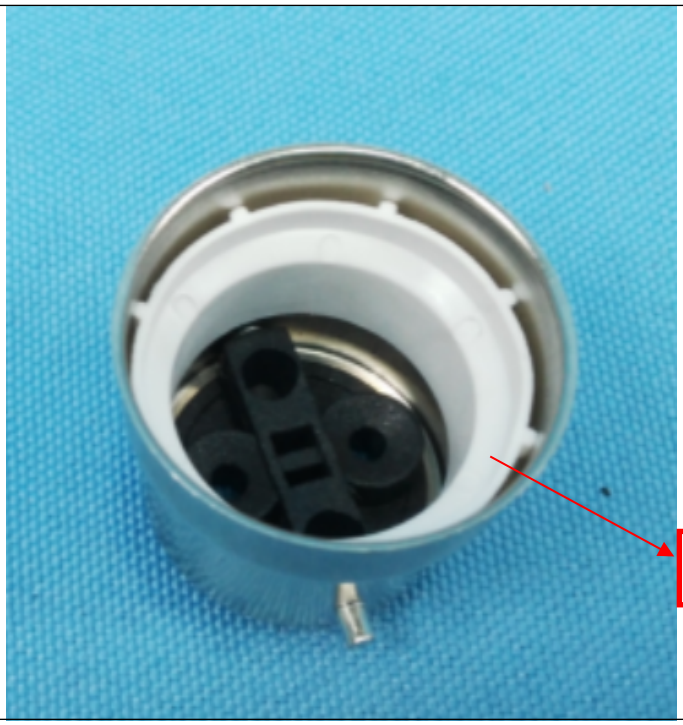
View:
- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom

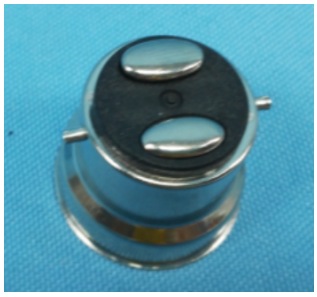




Details of: B22d lamp cap for A60-6.5-XX/G138/5Y2

View:
- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom

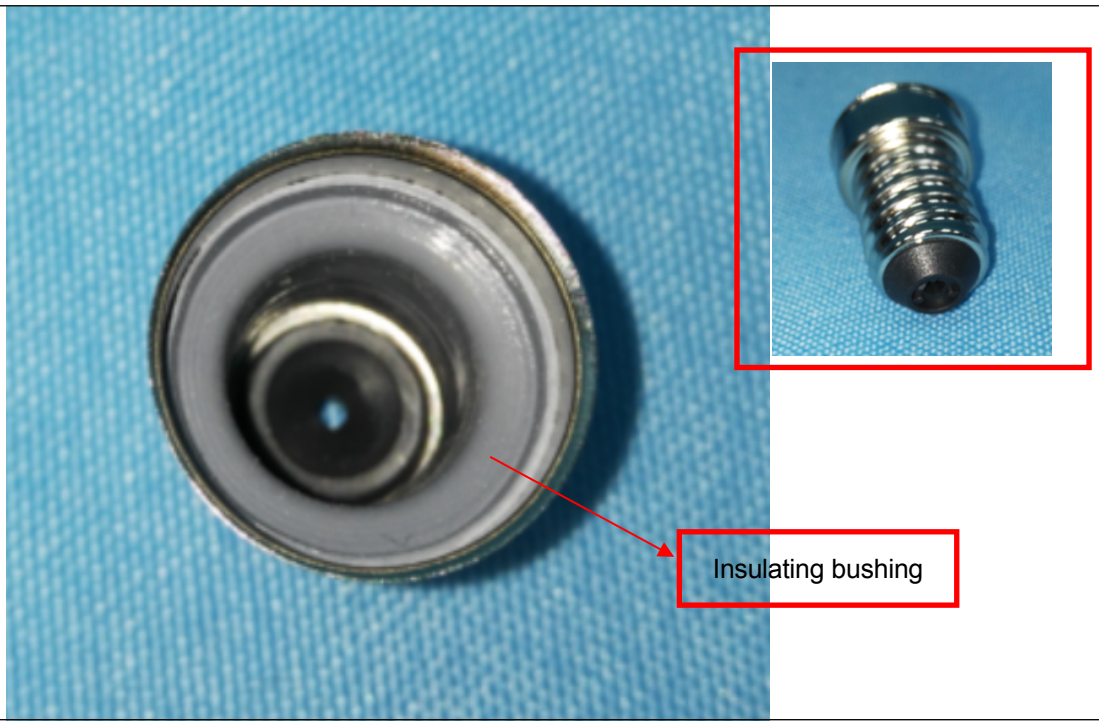




Attachment 5: Photo documentation

Details of: E14 lamp cap for C35-4-XX/G118/5Y2

View:
- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom



Details of: E27 lamp cap for all E27 models except A60-6.5-XX/G128/5Y2

View:
- ☒ general
- ☐ front
- ☐ rear
- ☐ right
- ☐ left
- ☐ top
- ☐ bottom



Attachment 5: Photo documentation

Details of: E14 lamp cap for all E14 models except C35-4-XX/G118/5Y2

View:

☒ general

☐ front

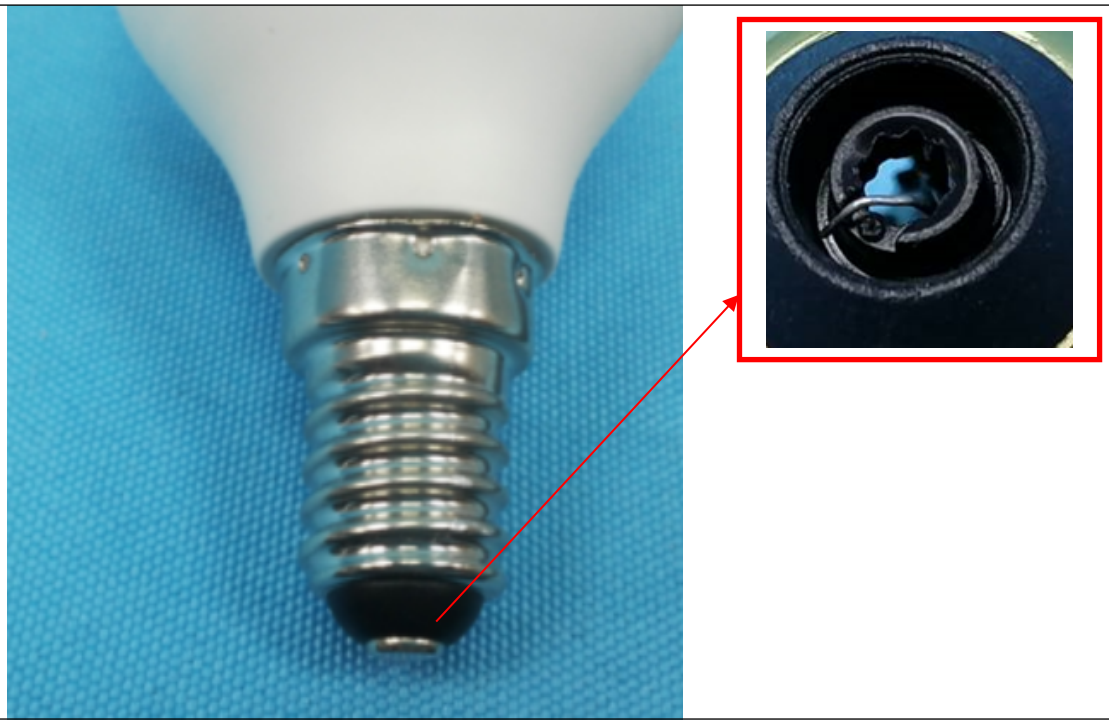
☐ rear

☐ right

☐ left

☐ top

☐ bottom



Details of: B22d lamp cap for all B22d models, except for A60-6.5-XX/G138/5Y2

View:

☒ general

☐ front

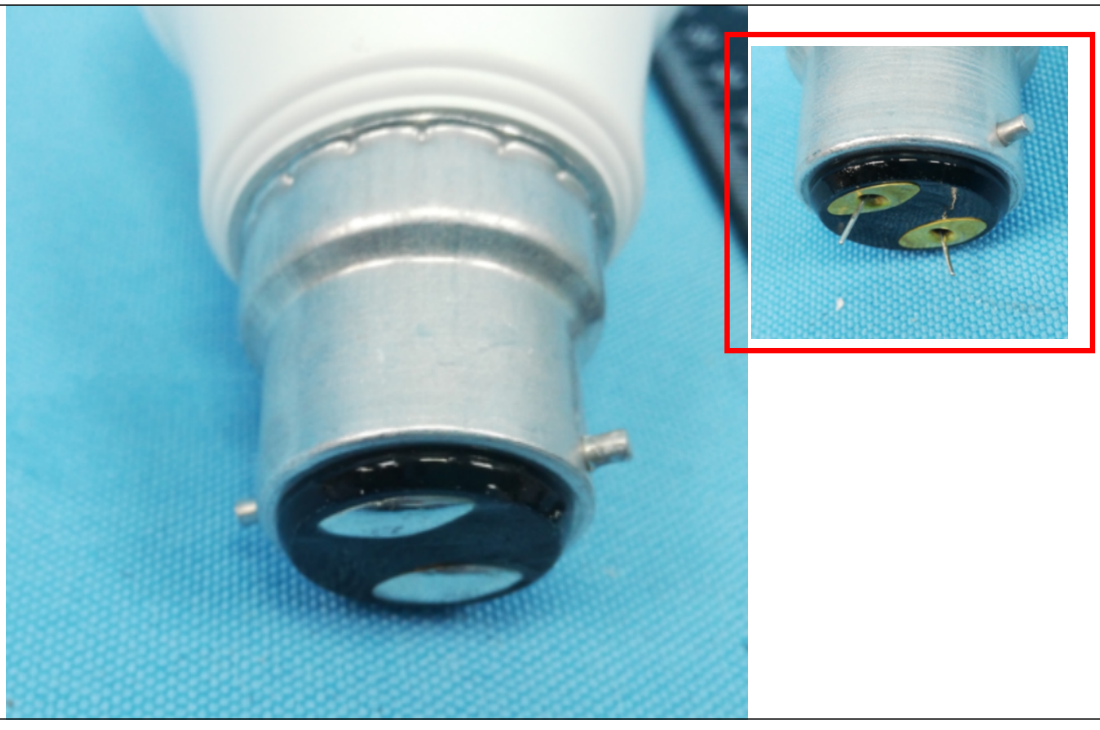
☐ rear

☐ right

☐ left

☐ top

☐ bottom



- - - End of Attachment 5 - - -