

Applicant: Guangzhou East Arc Lighting Co., Ltd
Address: 201, Block A, No. 913-981, Congyun Road, Tongguling, Chentai Road, Baiyun District, Guangzhou

Report on the submitted sample(s) said to be:

Sample Name Night Light
Sample Model YL-001
Series Models YL-002, YL-003, YL-004, YL-005, YL-006, YL-007, YL-008, YL-009, YL-010, YL-011, YL-012, YL-013, YL-014, YL-015, YL-016, YL-017, YL-018, YL-019, YL-020, YL-021, YL-022, YL-023, YL-024, YL-025, YL-026, YL-027, YL-028, YL-029, YL-030, YL-031, YL-032, YL-033, YL-034, YL-035, YL-036, YL-037, YL-038, YL-039, YL-040, YL-041, YL-042, YL-043, YL-044, YL-045, YL-046, YL-047, YL-048, YL-049, YL-050, YD-001, YD-002, YD-003, YD-004, YD-005, YD-006, YD-007, YD-008, YD-009, YD-010, YD-011, YD-012, YD-013, YD-014, YD-015, YD-016, YD-017, YD-018, YD-019, YD-020, YD-021, YD-022, YD-023, YD-024, YD-025, YD-026, YD-027, YD-028, YD-029, YD-030, YD-031, YD-032, YD-033, YD-034, YD-035, YD-036, YD-037, YD-038, YD-039, YD-040, YD-041, YD-042, YD-043, YD-044, YD-045, YD-046, YD-047, YD-048, YD-049, YD-050
Trademark N/A
Manufacturer Guangzhou East Arc Lighting Co., Ltd
Address 201, Block A, No. 913-981, Congyun Road, Tongguling, Chentai Road, Baiyun District, Guangzhou
Overhead information N/A
Sample Received Date 2025. 09. 01
Testing Period 2025. 09. 01-2025. 09. 15
Test Method : 1.Screening test method: IEC 62321-3-1:2013/XRF
2.Wet chemical test method
Lead(Pb): IEC 62321-5:2013/ICP-OES
Cadmium(Cd): IEC 62321-5:2013/ICP-OES
Mercury(Hg): IEC 62321-4:2013+A1:2017/ICP-OES
Hexavalent Chromium(CrVI): IEC 62321-7-1:2015/UV-VIS and IEC 62321-7-2:2017/UV-VIS
Polybrominated Biphenyls (PBBs):IEC 62321-6:2015 /GC-MS
Polybrominated Biphenyl Ethers(PBDEs): IEC 62321-6:2015 /GC-MS
3. Phthalates: IEC 62321-8:2017 /GC-MS
Test Results : Refer to the next page(s).
Additional information : : N/A

Test Report

RED Laboratories Inc.

Report No.: RED250915076266ED-AM

Test Requested	Conclusion
{1}RoHS Directive 2011/65/EU Annex II – Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(CrVI), Polybrominated Biphenyls (PBBs), Polybrominated Biphenyl Ethers(PBDEs)	PASS
{2} RoHS Directive (EU)2015/863 amending Annex II - Dibutyl phthalate (DBP), Butyl benzyl phthalate(BBP), Bis-(2-ethylhexyl)phthalate(DEHP), Di-iso-butyl ortho-phthalate(DIBP)	PASS

Test Report

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Test by: Steve Liu

Inspected by:


Approved by: Sophia Chen

Date : 2025. 09. 15

{1} Pb、Cd、Hg、CrVI、PBBs、PBDEs Test Results:

Part No.	Results	Cd	Pb	Hg	Cr ⁶⁺	PBBs	PBDEs	Conclusion on RoHS
1	EDXRF	BL	BL	BL	BL	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
2	EDXRF	BL	BL	BL	X	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
3	EDXRF	BL	BL	BL	BL	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
4	EDXRF	BL	BL	BL	BL	X	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
5	EDXRF	BL	BL	BL	BL	--	--	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
6	EDXRF	BL	BL	BL	X	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
7	EDXRF	BL	BL	BL	BL	X	--	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
8	EDXRF	BL	BL	BL	BL	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
9	EDXRF	BL	BL	BL	X	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
10	EDXRF	BL	BL	BL	BL	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
11	EDXRF	BL	BL	BL	BL	X	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
12	EDXRF	BL	BL	BL	BL	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply

Part No.	Results	Cd	Pb	Hg	Cr ⁶⁺	PBBs	PBDEs	Conclusion on RoHS
13	EDXRF	BL	BL	BL	BL	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
14	EDXRF	BL	BL	BL	BL	X	--	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
15	EDXRF	BL	BL	BL	BL	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
16	EDXRF	BL	BL	BL	X	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
17	EDXRF	BL	BL	BL	BL	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
18	EDXRF	BL	BL	BL	BL	X	--	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
19	EDXRF	BL	BL	BL	BL	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
20	EDXRF	BL	BL	BL	X	--	--	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
21	EDXRF	BL	BL	BL	BL	X	--	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
22	EDXRF	BL	BL	BL	BL	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
23	EDXRF	BL	BL	BL	X	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
24	EDXRF	BL	BL	BL	BL	X	--	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply
25	EDXRF	BL	BL	BL	BL	BL	BL	--
	Wet Chemical Testing	--	--	--	--	--	--	Comply

Remark:

(a) It is the result on total Br while test item on restricted substances is PBBs/PBDEs. It is the result on total Cr while test item on restricted substances is Cr6+.

(b) Results are obtained by EDXRF for primary screening, and further chemical testing by ICP (for Cd, Pb, Hg), UV-VIS (for CrVI) and GC/MS (for PBBs, PBDEs) is recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1: 2013 (Unit: mg/kg)

Element	Polymer	Metal	Composite Materials
Cd	$BL \leq (70-3\sigma) < X < (130+30\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+30\sigma) \leq OL$	$LOD < X < (150+30\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < X < (1300+30\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+30\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1300+30\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < X < (1300+30\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+30\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1300+30\sigma) \leq OL$
Br	$BL \leq (300-3\sigma) < X$	--	$BL \leq (250-3\sigma) < X$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

(c) BL=Below Limit, OL=Over Limit, IN=Inconclusive, LOD=Limit of Detection,

(d) The XRF screening test for RoHS elements – The reading may be different to the actual content in the sample be of non-uniformity composition

(e) mg/kg = ppm = 0.0001%, N.D. = not detected (<MDL), --- = not conducted

(f) Unit and Method Detection Limit (MDL) in wet chemical test:

Test Items	Pb	Cd	Hg
Units	mg/kg	mg/kg	mg/kg
MDL	2	2	2

The MDL for single compound of PBBs & PBDEs is 5 mg/kg and MDL of Cr6+ for polymer & composite sample is 2 mg/kg.

(g) According to IEC 62321:2008, result on Cr6+ for metal sample is shown as Positive/Negative.

Positive = Presence of Cr6+ coating, Negative = Absence of Cr6+ coating.

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{2} Phthalates Test Results

Test Method: Refer to EN14372:2004 and use GC-MS to perform the test

Test Item	CAS No.	Test Method / Instrument	MDL (%)	Limit (%)
Dibutyl phthalate (DBP)	84-74-2	IEC 62321-8:2017 / GC-MS	0.005	0.1
Butyl benzyl phthalate (BBP)	85-68-7	IEC 62321-8:2017 / GC-MS	0.005	0.1
Bis-(2-ethylhexyl)phthalate (DEHP)	117-81-7	IEC 62321-8:2017 / GC-MS	0.005	0.1
Di-iso-butyl ortho-phthalate (DIBP)	84-69-5	IEC 62321-8:2017 / GC-MS	0.005	0.1

Test Item	Result (%)								
	1	2	3	4	6	8	9	10	11
Dibutyl phthalate (DBP)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
Butyl benzyl phthalate (BBP)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
Bis-(2-ethylhexyl) phthalate (DEHP)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
Di-iso-butyl ortho-phthalate (DIBP)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D

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Test Item	Result (%)								
	12	13	15	16	17	19	22	23	25
Dibutyl phthalate (DBP)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
Butyl benzyl phthalate(BBP)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
Bis-(2-ethylhexyl) phthalate (DEHP)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D
Di-iso-butyl ortho-phthalate (DIBP)	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D	N.D

Note:

(1) 1 mg/kg = 1 ppm = 0.0001%

(2) N.D. = Not Detected (less than MDL)

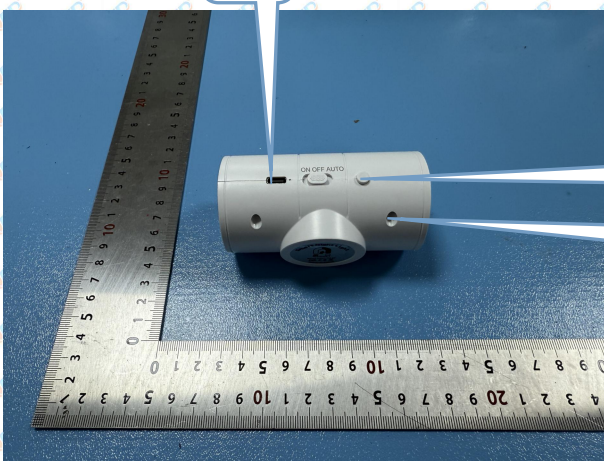
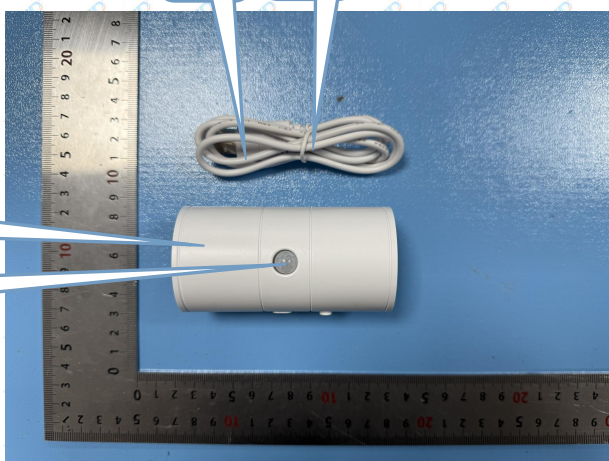
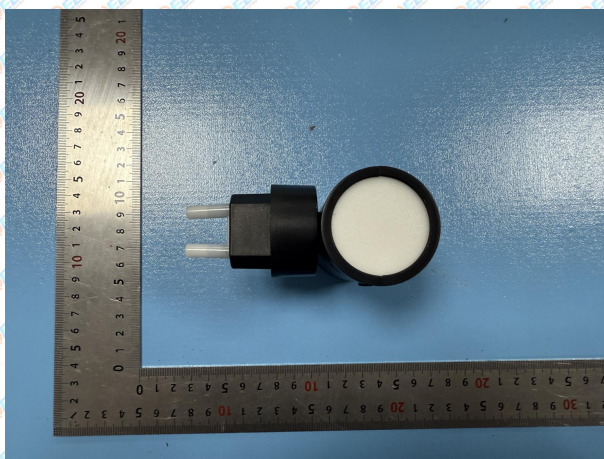
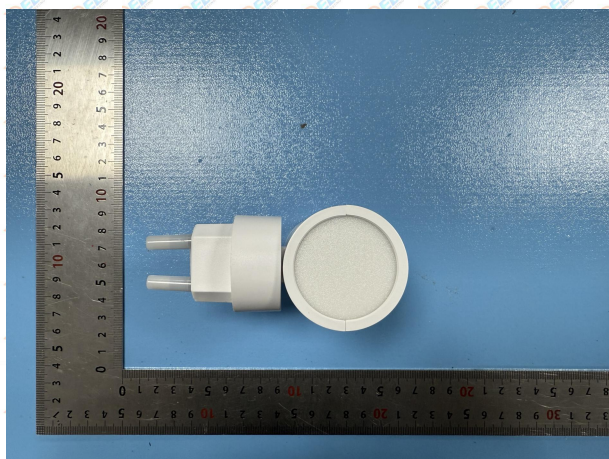
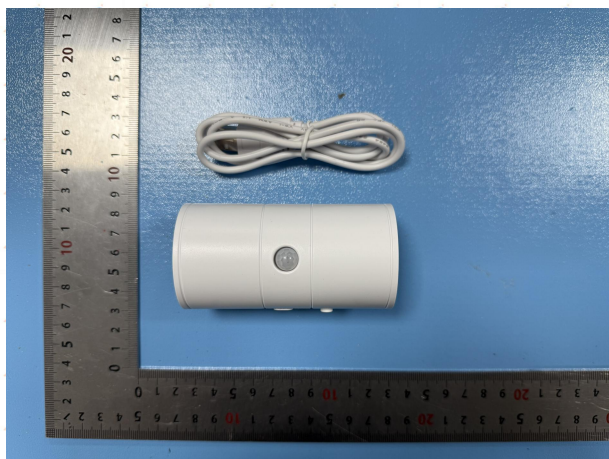
(3) MDL = Method Detection Limit

Test Report

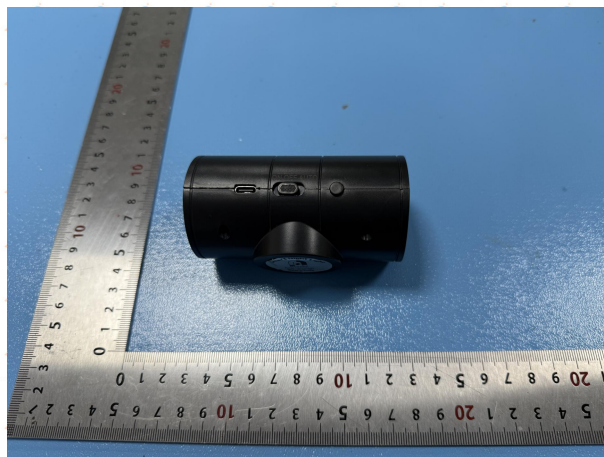
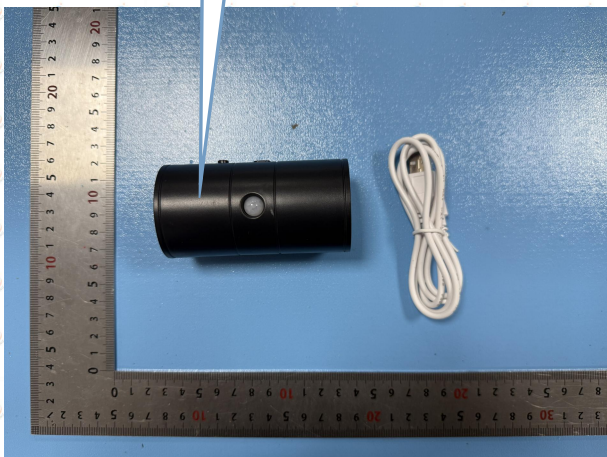
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Photo(s) of the sample(s)

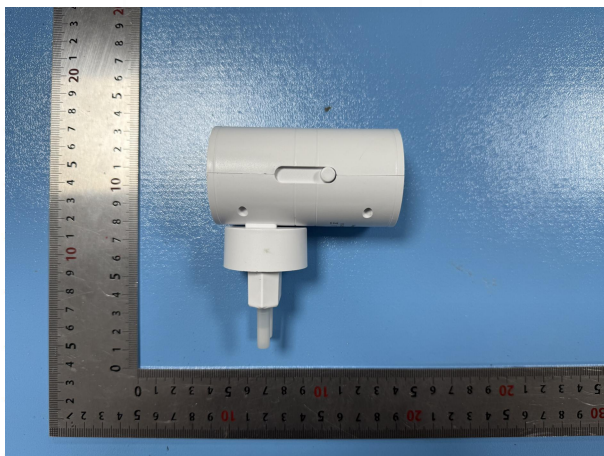
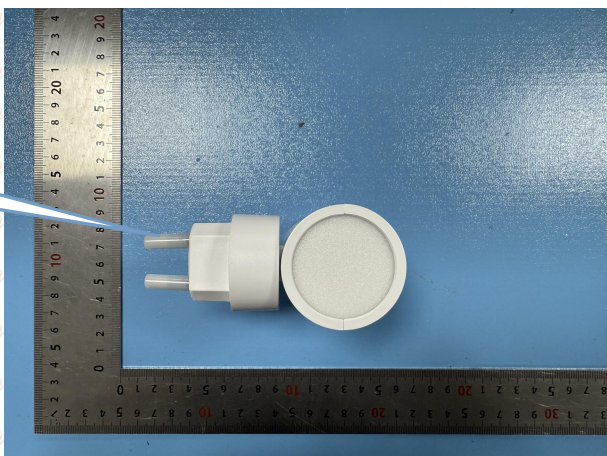
product



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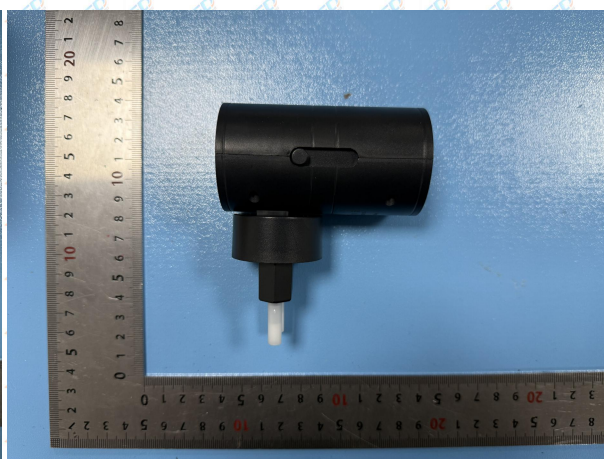
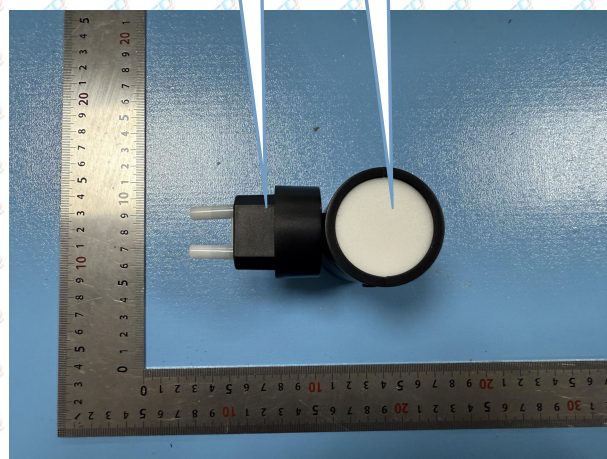


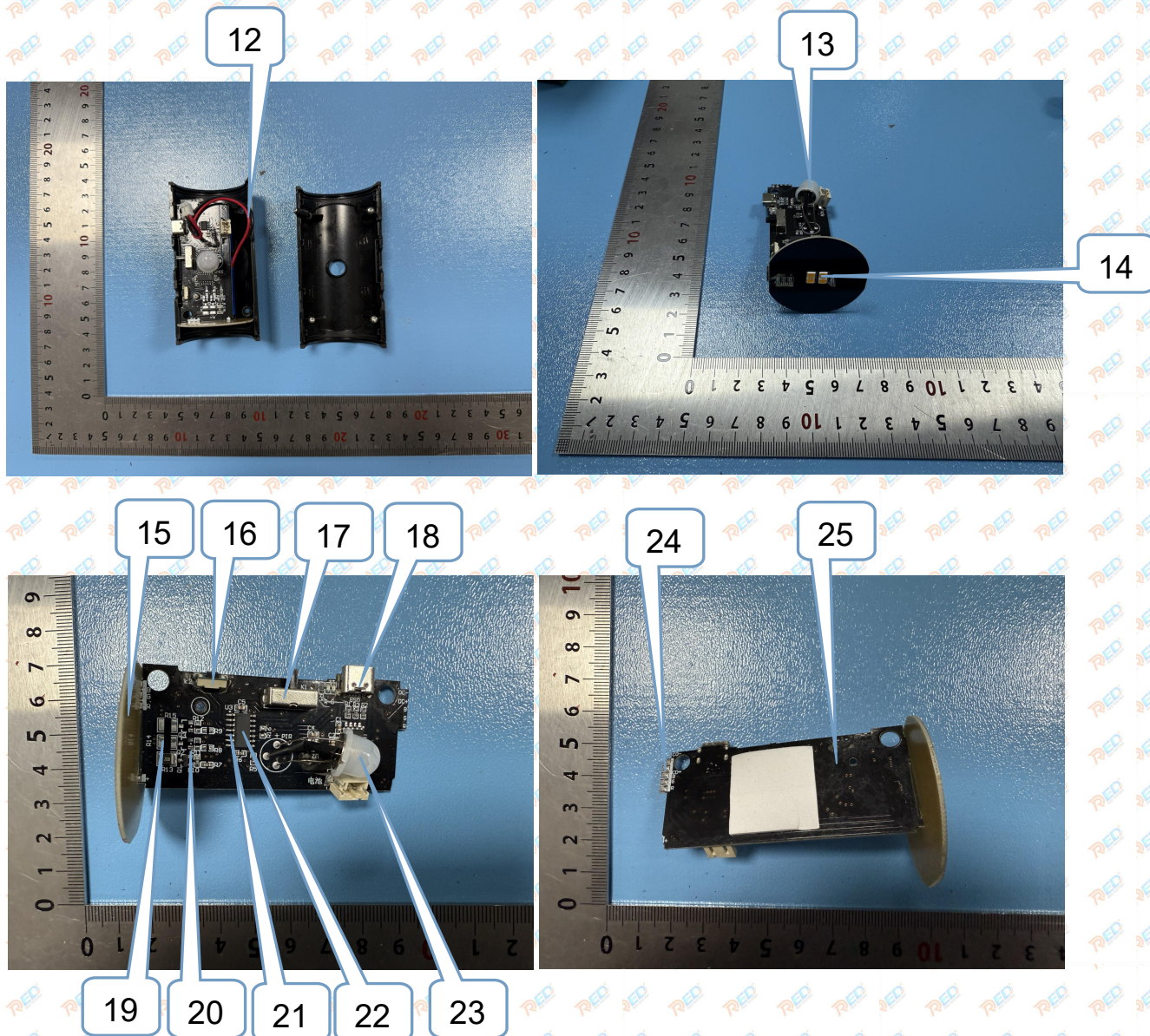
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*** End of Report ***

Remark: This report is considered invalidated without the Special Seal for Inspection of the RED. This report shall not be altered, increased or deleted. The results shown in this test report refer only to the sample(s) tested. Without written approval of RED, this test report shall not be copied except in full and published as advertisement.