APPLICATION FOR TEST REPORT

On Behalf of

Report Reference No.	:	XKE231016072-GTR
Prepared For	:	Zhongshan Cattle Man Lighting Co., LTD
Address	:	3, Floor 3, No. 1, North Third Lane, East Hua 'an Road, CaoSAN Pioneer Park, Guzhen Town, Zhongshan City, China
Sample Name	:	Magnetic night light
Model	:	ML-CX002
Trademark	:	N/A
Prepared By	:	Shenzhen xke Testing Technology Co., Ltd.
Address	:	1/F, Building 4, Zhaofuda Industrial Park, Hongqiaotou , Yanluo Street, Bao 'an District, Shenzhen,China
Date of Receipt	:	April.10, 2023
Date of Test	:	April.10, 2023 to October. 23, 2023
Data of Issue	:	October. 23, 2023

Note: *This test report is limited to the above client company and the product model only. duplicated without prior written consent of Shenzhen xke Testing Technology Co., Ltd.*

TEST REPORT

Report Number.....	:	**XKE231016072-GTR**
Compileb by (name+signature).....	:	**Sandy Tang**
Approved by (name+signature).....	:	**Tomi Liu**
Dare of issue.....	:	**October. 23, 2023**

Testing Laboratory..	:	Shenzhen xke Testing Technology Co., Ltd.
Address.	:	1/F, Building 4, Zhaofuda Industrial Park, Hongqiaotou , Yanluo Street, Bao 'an District, Shenzhen,China
Applicant's name	:	Zhongshan Cattle Man Lighting Co., LTD
Address.	:	3, Floor 3, No. 1, North Third Lane, East Hua 'an Road, CaoSAN Pioneer Park, Guzhen Town, Zhongshan City, China

Test specification:

Standard	:	☑ CIE 13.3:1995; ☑ CIE 18.2:1983; ☑ CIE 97:2005; ☑ CIE 15:2004; ☑ CIE 127:2007; ☑ CIE 84:1989; ☑ EU 2019/2020; ☑ IEC62612: 2013+A1 ☑ EU 2015/1428; ☑ EU 2019/2015
Test Procedure	:	COMMISSION REGULATION (EU) 2019/2020 of 1 October 2019 laying down ecodesign requirements for light sources and separate controlgears pursuant to Directive 2009/ 125/EC of the European Parliament and of the Council and repealing Commission Regulations (EC) No 244/2009, (EC) No 245/2009 and (EU) No 1194/2012
Master TRF	:	2022- 11-04
Test Item description	:	Magnetic night light
Trade Mark	:	N/A
Manufacturer	:	Zhongshan Cattle Man Lighting Co., LTD
Address	:	3, Floor 3, No. 1, North Third Lane, East Hua 'an Road, CaoSAN Pioneer Park, Guzhen Town, Zhongshan City, China
Model/Type reference	:	ML-CX002
Serial Model	:	ML-CX001,ML-CX003,ML-CX004,ML-CX005
Rating	:	Input DC5.0V 1A from adapter or others

Test item particulars:

Model name	:	ML-CX002
Lighting type	:	☑ directional ☐ non-directional
Rated voltage and frequency	:	DC5.0V, 3W
Rated wattage	:	3W
Energy efficiency class	:	☐A ☑B ☐C ☐D ☐E ☐F ☐G
Energy consumption in on-mode (kWh/1000h)	:	3
Lamp cap	:	N/A
Nominal luminous flux Φ	:	630lm
Useful luminous flux (Φuse)	:	630lm
Declared ηTM (lm/W)	:	210lm/W
Declared Colour rendering (CRI)	:	90
Declared Displacement factor for LED and OLE MLS(DF)	:	0.99
Declared Lumen maintenance factor for LED and OLE	:	96%
Declared Survival factor for LED and OLED	:	99%
Declared colour consistency for LED and OLED	:	1.5
Declared beam angle for DLS	:	120
Declared lamp life	:	36000h
Declared color temperature	:	6000K
Declared Flicker for LED and OLED MLS	:	0.3
Declared Stroboscopic effect for LED And OLED MLS	:	0.2

Test case verdicts:

Test case does not apply to the test object	:	N(A)
Test item does meet the requirement	:	P(ass)
Test item does not meet the requirement	:	F(ail)

Testing:

Date of receipt of test item	:	April.10, 2023
Date(s) of performance of test	:	April.10, 2023-October. 23, 2023

Summary of testing:

1、These results are in compliance with the ecodesign requirements of the Commission Regulation (EU) 2019/2020.

2、Measurement was conducted at voltage 5VDC and a stable ambient temperature 25±10℃.

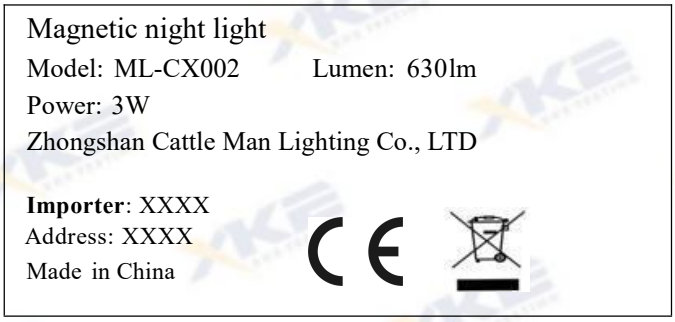
3、THDu ≤ 3%

General remarks

"(see remark #)" refers to a remark appended to the report.
"(see appended table)" refers to a table appended to the report.
Throughout this report a comma is used as the decimal separator.
The test results presented in this report relate only to the object tested.
This report shall not be reproduced except in full without the written approval of the testing laboratory.

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.



(EU) 2019/2020			
Clause	Requirement – Test	Result - Remark	Verdict
Annex I	**Definitions in Regulation (EU) 2019/2020**		P
1	Number of sample used for test ……:	10 PCS	P
(3)	Directional Light Source		N
	at least 80 % of total luminous flux within a solid angle of π sr (corresponding to a cone with angle of 120°)		N
(15)	Useful luminous flux Φuse		P
	for non-directional light sources it is the total flux emitted in a solid angle of 4π sr (corresponding to a 360° sphere)		P
	for directional light sources with beam angle ≥ 90° it is the flux emitted in a solid angle of π sr (corresponding to a cone with angle of 120°)		N
	for directional light sources with beam angle < 90° it is the flux emitted in a solid angle of 0,586π sr (corresponding to a cone with angle of 90°)		N
Annex II (Clause)	**Energy Efficiency Requirements in Regulation (EU) 2019/2020**		P
1.(a)	**Energy Efficiency Requirements – Light Source**		P
	On-mode Power Pon (W):	Pon=3W	P
	Maximum Allowed Power Ponmax (W): Ponmax = C x (L + Φuse/(F x η)) x R	Ponmax=4.76W	P
	Φuse:	630 lm	
	Threshold efficacy η (lm/W): η for LED:	210	P
	End loss factor L (W) depending on light source: L for LED: 1.5	1.5	P
	End loss factor L (W) for connected light sources: 2.0		
	Efficacy Factor F: 1.00 for non-directional light sources (NDLS, using total flux)	1.00	P

	Efficacy Factor F: 0.85 for directional light sources (DLS, using flux in a cone)		N
	CRI Factor R: 0.65 for CRI ≤ 25		N
	CRI Factor R: (CRI+80)/160 for CRI > 25, rounded to two decimals	R=(80+90)/160	P
	Correction Factor C Depending on Light Source Characteristics in Table 2		N
	Non-directional (NDLS) not operating on mains (NMLS), Basic Value: 1.00	1.00	P
	Non-directional (NDLS) operating on mains (MLS), Basic Value: 1.08		N
	Directional (DLS) not operating on mains (NMLS), Basic Value: 1.15		N
	Directional (DLS) operating on mains (MLS), Basic Value: 1.23		N
	Special Light Source Bonus on C		N
1.(a)	**Standby power–Light Source**		N
	The standby power Psb of a light source shall not exceed 0.5 W		N
	The networked standby power Pnet of a connected light source shall not exceed 0.5 W		N
	The allowable values for Psb and Pnet shall not be added together		N
1.(b)	**Energy Efficiency Requirements–Separate Control Gear (atfull-load)**		N
	Control gear for LED or OLED light sources: $P_{eg}{}^{0.81}/(1.09 \times P_{eg}{}^{0.81} + 2.10)$		N
	The no-load power Pno of a separate control gear shall not exceed 0.5 W		N
	The standby power Psb of a separate control gear shall not exceed 0.5 W		N
	The networked standby power Pnet of a connected separate control gear shall not exceed 0.5 W		N

	The allowable values for Psb and Pnet shall not be added together		N
2.	**FunctionalRequirements–LightSource(Table4)**		P
	Colour Rendering Index CRI:≥80	90	P
	Displacement Factor DF at Power Input Pon for LED and OLED MLS:		P
	No limit at Pon ≤ 5W DF≥0.5 at 5W < Pon ≤ 10W, DF≥ 0.7 at 10W < Pon ≤ 25W DF≥0.9 at 25W < Pon	Pon=3W	P
	Lumen Maintenance Factor (for LED and OLED): $X_{LMF,MIN}\% = 100 \times e^{\frac{(3000 \times \ln(0.7))}{L_{70}}}$	99%	P
	Survival Factor (for LED and OLED): At least 9 light sources of the test sample must be operational after completing the test in Annex V of this Regulation.	100%	P
	Colour consistency for LED and OLED light sources: Variation of chromaticity coordinates within a six-step MacAdam ellipse or less.	1.5	P
	Flicker for LED and OLED MLS: Pst LM ≤ 1.0 at full-load	0.000	P
	Stroboscopic effect for LED and OLED MLS: SVM ≤ 0.9 at full-load	0.000	P
3.(a)	**Information to be displayed on the light source itself**		P
	Useful luminous flux (lm)	630lm	P
	Correlated colour temperature (K)	6000K	P
	Beam angle (°) For directional light sources		N
3.(b)	**Information to be visibly displayed on the packaging**		P
3.(b)(1)	**Light source placed on the market, not in a containing product**		P

	Useful luminous flux (lm): -In a font at least twice as large as the display of the on-mode power (Pon) -Clearly indicating if it refers to the flux in a sphere(360°),in a wide cone(120°) or in a narrow cone(90°)		P
	(b) Correlated Colour Temperature, rounded to the nearest 100 K		P
	(c) Beam angle in degrees For directional light sources		N
	(d) electrical interface details, e.g. cap- or connector-type, type of power supply (e.g. 230 V AC 50 Hz, 12 V DC)	5VDC	P
	(e) L70B50 lifetime for LED and OLED light sources, expressed in hours		P
	(f) on-mode power (Pon), expressed in W		P
	(g) standby power (Psb), expressed in W and rounded to the second decimal. If the value is zero, it may be omitted from the packaging		N
	(h) networked standby power (Pnet) for CLS, expressed in W and rounded to the second decimal. If the value is zero, it may be omitted from the packaging		N
	(i) Colour Rendering Index, rounded to the nearest integer		P
	(j) Clear indication to this effect, if CRI< 80, and the light source is intended for use in outdoor applications, industrial applications or other applications where lighting standards allow a CRI< 80.		N
	(k) Information on non-standard conditions (such as ambient temperature Ta ≠ 25 °C or specific thermal management is necessary)		N
	(l) a warning if the light source cannot be dimmed or can be dimmed only with specific dimmers or with specific wired or wireless dimming methods. In the latter cases a list of compatible dimmers and/or methods shall be provided on the manufacturer's website		P
	(m) if the light source contains mercury: a warning of this, including the mercury content in mg rounded to the first decimal place		P

	(n) if the light source is within the scope of Directive 2012/19/EU, without prejudice to marking obligations pursuant to Article 14(4) of Directive 2012/19/EU, or contains mercury: a warning that it shall not be disposed of as unsorted municipal waste		P
3.(b)(2)	**Separate control gears** For separate control gear placed on the market as a stand-alone product, not as a part of a containing product		N
	(a) the maximum output power of the control gear (for HL, LED and OLED) or the power of the light source for which the control gear is intended (for FL and HID)		N
	(b) the type of light source(s) for which it is intended		N
	(c) the efficiency in full-load, expressed in percentage		N
	(d) the no-load power (Pno), expressed in W and rounded to the second decimal, or the indication that the gear is not intended to operate in no-load mode. If the value is zero, it may be omitted from the packaging but shall nonetheless be declared in the technical documentation and on websites		N
	(e) the standby power (Psb), expressed in W and rounded to the second decimal. If the value is zero, it may be omitted from the packaging but shall nonetheless be declared in		N
	(f) the networked standby power (Pnet), expressed in W and rounded to the second decimal. If the value is zero, it may be omitted from the packaging but shall nonetheless be declared in the technical documentation and on websites		N
	(g) a warning if the control gear is not suitable for dimming of light sources or can be used only with specific types of dimmable light sources or using specific wired or wireless dimming methods. In the latter cases, detailed information on the conditions in which the control gear can be used for dimming shall be provided on the manufacturer's or importer's website		N

	(h) a QR-code redirecting to a free-access website of the manufacturer, importer or authorised representative, or the internet address for such a website, where full information on the control gear can be found		N
3.(c)	**Information to be visibly displayed on a free-access website of the manufacturer, importer or authorised representative**		N
3.(c)(1)	Separate control gears For any separate control gear that is placed on the EU market, the following information shall be displayed on at least one free- access website:		N
	(a) the information specified in point 3(b)(2), except 3(b)(2)(h)		N
	(b) the outer dimensions in mm		N
	(c) the mass in grams of the control gear, without packaging, and without lighting control parts and non-lighting parts, if any and if they can be physically separated from the control gear		N
	(d) instructions on how to remove lighting control parts and non-lighting parts, if any, or how to switch them off or minimise their power consumption during control-gear testing for market surveillance purposes		N
	(e) if the control gear can be used with dimmable light sources, a list of minimum characteristics that the light sources should have to be fully compatible with the control gear during dimming, and possibly a list of compatible dimmable light sources		N
	(f) recommendations on how to dispose of it at		

Appendix tables

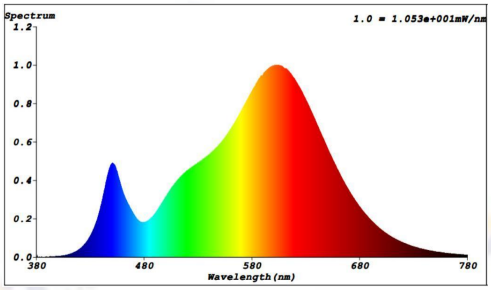
1. Initial Lumen Measurement and Color Performance:

Sample No.	Power Pon (W)	Disp. Factor	Luminous Flux Φtotal (lm)	Efficacy (lm/W)	Color Temp (CCT)	Color rendering (Ra)	R9	SDCM	x	y
1	3.10	0.99	628.26	202.66	5989	90.1	5	1.6	0.4282	0.4058
2	3.02	0.99	629.54	209.84	5995	90.3	6	1.8	0.4413	0.4115
3	3.05	0.99	624.35	208.11	6012	90.8	5	1.6	0.4325	0.4009
4	2.94	0.99	623.67	212.13	6003	90.6	5	1.4	0.433	0.4107
5	3.12	0.99	627.66	201.17	5993	90.8	5	1.6	0.4235	0.3989
6	2.91	0.99	629.20	216.21	5985	90.3	5	1.6	0.4256	0.4053
7	3.06	0.99	630.55	206.06	6002	90.1	4	1.4	0.4239	0.3981
8	2.93	0.99	628.77	214.59	6011	90.9	4	1.4	0.4282	0.3989
9	3.05	0.99	626.93	205.55	6001	90.6	5	1.7	0.4357	0.3969
10	3.07	0.99	628.05	204.57	5992	90.8	5	1.6	0.4247	0.4074
AVG.	3.02	0.99	627.69	208.08	5998	90.2	5	1.5	0.4297	0.4034

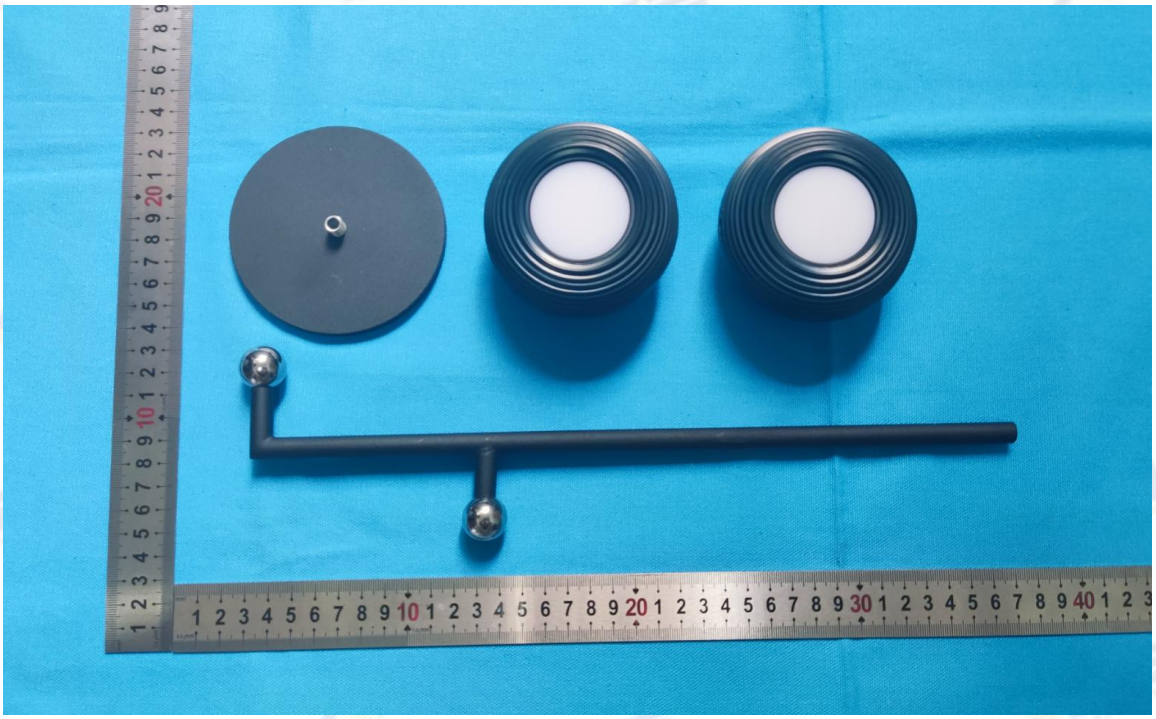
2. Different Mode Power 、Flicker、Stroboscopic Effect and Lumen Maintenance Test:

Sample No.	No Load Power Pno	Standby Power Psb	Network Sb. Power Pnet	Flicker Pst LM	Stroboscopic Effect SVM	Total Luminous flux (lm) After 3600h	Lumen Maintenance at 3600h (%)	Survival factor at 3600h
1	N/A	N/A	N/A	0.000	0.000	599.88	95.22%	P
2	N/A	N/A	N/A	0.000	0.000	606.18	96.22%	P
3	N/A	N/A	N/A	0.000	0.000	607.19	96.38%	P
4	N/A	N/A	N/A	0.000	0.000	606.87	96.33%	P
5	N/A	N/A	N/A	0.000	0.000	599.94	95.23%	P
6	N/A	N/A	N/A	0.000	0.000	600.26	95.28%	P
7	N/A	N/A	N/A	0.000	0.000	605.55	96.12%	P
8	N/A	N/A	N/A	0.000	0.000	610.02	96.83%	P
9	N/A	N/A	N/A	0.000	0.000	613.11	97.32%	P
10	N/A	N/A	N/A	0.000	0.000	609.21	96.70%	P
AVG.	N/A	N/A	N/A	0.000	0.000	**605.82**	**96.16%**	P

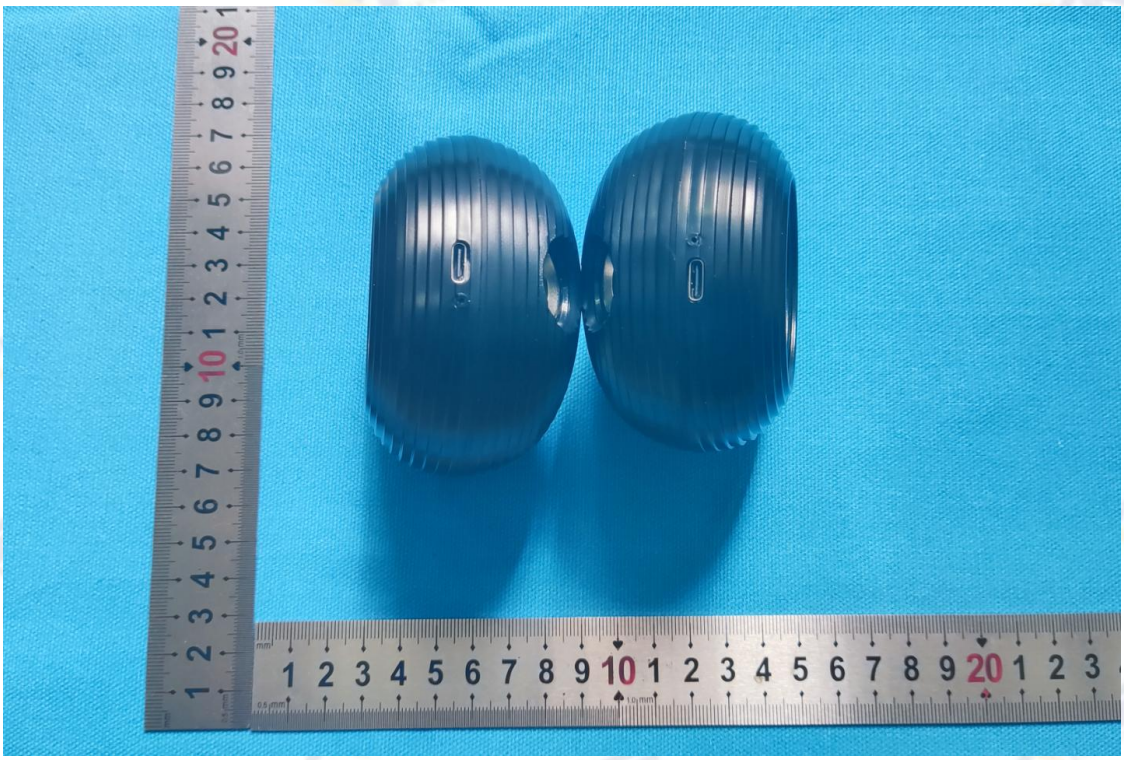
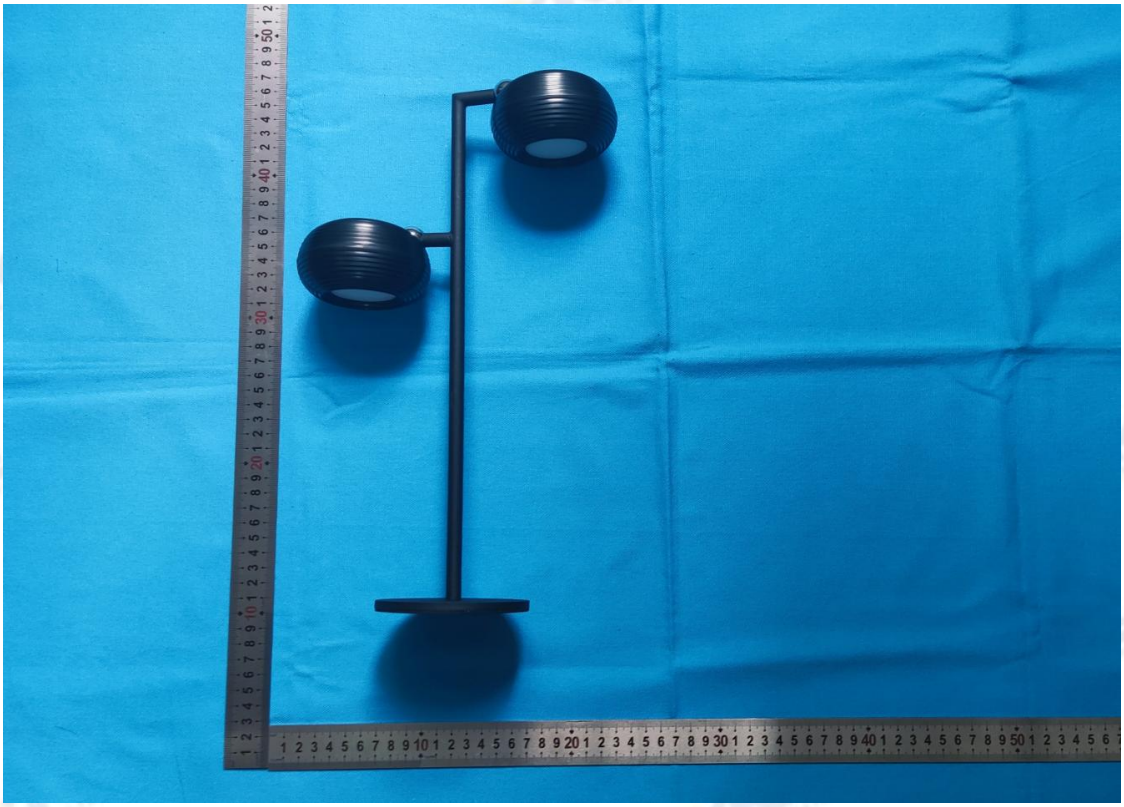
Energy efficiency classes			
Standard	**Clause**	**Model No.**	**Verdict**
(EU) 2019/2015	Energy class	ML-CX002	P
Conditions	-Test conditions: -ambient: 25℃/65%R.H. -Test voltage: 5VDC		
Φuse	630lm (Declared)		
Pon	Pon = 3W (Declared)		
F_{TM}	0.926		
ηTM	194.46lm/w (Declared)		
Technical requirements	Test result		
$\eta_{TM} = (\Phi_{use}/P_{on}) \times F_{TM}$ (lm/W).	Energy efficiency class	Total mains efficacy ηTM (lm/W)	--
	A	210 ≤ ηTM	N
	B	185 ≤ ηTM < 210	P
	C	160 ≤ ηTM < 185	N
	D	135 ≤ ηTM < 160	N
	E	110 ≤ ηTM < 135	N
	F	85 ≤ ηTM < 110	N
	G	ηTM < 85	N
Factors FTM by light source type			
Light source type		Factor FTM	--
Non-directional (NDLS) operating on mains (MLS)		1.000	N
Non-directional (NDLS) not operating on mains (NMLS)		0.926	P
Directional (DLS) operating on mains (MLS)		1.176	N
Directional (DLS) not operating on mains (NMLS)		1.089	N

ATTACHMENT 2


Sample Photo:

Photo 1	
Photo 2	

Sample Photo:

Photo 3	
Photo 4	

********** END OF THE REPORT **********