



# TEST REPORT

**COMMISSION REGULATION (EU) 2019/2020 of 1 October 2019 COMMISSION REGULATION (EU) 2021/341 of 23 February 2021**  
**laying down ecodesign requirements for light sources and separate control gears pursuant to Directive 2009/125/EC of the European Parliament and of the Council**

<b>Report Number.....</b>	RHDTL251103001
<b>Total number of pages.....</b>	14 pages
<b>Tested by (name + signature).....</b>	Qiaoli Chen <i>Qiaoli Chen</i>
<b>Approved by (name + signature)....</b>	Chris Zhao <i>Chris Zhao</i>
<b>Testing Laboratory Name.....</b>	Dongguan HDTL Technology Co., Ltd.
<b>Address.....</b>	Room 101, Building 1, No. 5 of Jinzhong Road, Dongcheng Street, Dongguan City, Guangdong Province, China.
<b>Applicant's name.....</b>	Xiamen Zhenlexin Electronic Technology Co., Ltd.
<b>Address.....</b>	3rd Floor, No. 96 Huli Garden, Xinmei Subdistrict, Tong'an District, Xiamen
<b>Manufacturer's name.....</b>	Xiamen Zhenlexin Electronic Technology Co., Ltd.
<b>Address.....</b>	3rd Floor, No. 96 Huli Garden, Xinmei Subdistrict, Tong'an District, Xiamen
<b>Test specification:</b>	
<b>Standard.....</b>	Commission Regulation (EU) 2019/2020 Commission Regulation (EU) 2021/341
<b>Test procedure.....</b>	Commission Regulation (EU) 2019/2020 Commission Regulation (EU) 2021/341
<b>Non-standard test method.....</b>	N/A
<b>Test item description.....</b>	LED strip light
<b>Trade Mark.....</b>	N/A
<b>Model/Type reference.....</b>	5050 RGB 30D/60D
<b>Ratings.....</b>	DC5-12V, 1.75W

**Dongguan HDTL Technology Co., Ltd.**

Address: Room 101, Building 1, No. 5 of Jinzhong Road, Dongcheng Street, Dongguan City, Guangdong Province, China.  
Tel:15015165612 E-mail: official@hdtl-lab.com

This report is only responsible for the test results of the samples submitted for inspection, and is not responsible for the source of the samples submitted for inspection.  
This report shall not be altered, increased or deleted. Without written approval of HDTL, this test report shall not be copied except in full and published as advertisement.



**Possible test case verdicts:**

- test case does not apply to the test object..... : N/A(Not Applicable)
- test object does meet the requirement..... : P (Pass)
- test object does not meet the requirement.....: F (Fail)

**Testing.....:**

**Date of receipt of test item.....:** Mar. 24, 2026

**Date (s) of performance of tests..... :** Mar. 24, 2026 to Apr. 03, 2026

**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.**

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

**Summary of testing:**

1. According to definition of light source, the light “LED strip light” was Chrominance coordinates x and y are in range, The luminous flux is not between 60 and 82,000 lumens. So the products not belongs to light source, and no need to complied with Ecodesign requirements.
2. These tests were conducted by test lab that fulfils the requirements of standard ISO/IEC 17025.
3. When determining the test conclusion, the Measurement Uncertainty of test has been considered.

**General product information:**

1. The appliance/equipment is “LED strip light” with models “5050 RGB 30D/60D”.
2. The manufacturer's regulations ambient temperature is 25°C.

(EU) 2019/2020			
Clause	Requirement + Test	Result - Remark	Verdict
	<b>Classification</b>		—
	Lighting technology .....	<input checked="" type="checkbox"/> LED <input type="checkbox"/> Others:	—
	Directional or non-directional .....	<input type="checkbox"/> Directional <input checked="" type="checkbox"/> Non-directional	—
	Dimmable .....	<input checked="" type="checkbox"/> Dimmable <input type="checkbox"/> Non-dimmable	—
	<b>Light source</b> ..... :	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	—
	CLS .....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	—
	<b>Separate control gear</b> .....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	—
	CSCG .....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	—
	<b>Containing product</b> .....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	—
	Light source removeable .....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	—
	Light source CLS.....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	—
	Control gear removeable .....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	—
	Control gear CSCG .....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	—
<b>Article 2</b>	<b>Definitions</b>		—
	‘light source’ means an electrically operated product intended to emit, or, in the case of a non-incandescent light source, intended to be possibly tuned to emit, light, or both, with all of the following optical characteristics:		—
(a)	chromaticity coordinates x and y in the range 0,270 < x < 0,530 and -2,3172 x <sup>2</sup> + 2,3653 x - 0,2199 < y < - 2,3172 x <sup>2</sup> + 2,3653 x - 0,1595		P
(b)	a luminous flux < 500 lumen per mm <sup>2</sup> of projected light- emitting surface area		N/A

<b>(EU) 2019/2020</b>			
Clause	Requirement + Test	Result - Remark	Verdict
(c)	a luminous flux between 60 and 82 000 lumen;		N/A
(d)	a colour rendering index (CRI) > 0		P
	High-pressure sodium (HPS) light sources that do not fulfil condition (a) are considered light sources for the purposes of this Regulation		—
<b>ANNEX II</b>	<b>Ecodesign requirements</b>		N/A
<b>3</b>	<b>Information requirements</b>		N/A
	From 1 September 2021 the following information requirements shall apply:		N/A
<b>(b)</b>	<b>Information to be visibly displayed on the packaging</b>		N/A
<b>-(2)</b>	<b>Separate control gears:</b>		N/A
	If a separate control gear is placed on the market as a stand-alone product and not as a part of a containing product, in a packaging containing information to be visibly displayed to potential buyers, prior to their purchase, the following information shall be clearly and prominently displayed on the packaging:		N/A
	(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/A
	(b) the type of light source(s) for which it is intended		N/A
	(c) the efficiency in full-load, expressed in percentage		N/A
	(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/A
	(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 the technical documentation and on websites;		N/A

<b>(EU) 2019/2020</b>			
Clause	Requirement + Test	Result - Remark	Verdict
	(f) where applicable, 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/A
	(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/A
	(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/A
<b>(c)</b>	<b>Information to be visibly displayed on a free-access website for separate control gears</b>		N/A
	(a) the information specified in point 3(b)(2), except 3(b)(2)(h)		N/A
	(b) the outer dimensions in mm		N/A
	(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/A
	(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/A
	(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		N/A

<b>(EU) 2019/2020</b>			
Clause	Requirement + Test	Result - Remark	Verdict
	control gear during dimming, and possibly a list of compatible dimmable light sources		
	(f) recommendations on how to dispose of it at the end of its life in line with Directive 2012/19/EU		N/A
<b>(d)</b>	<b>Technical documentation for separate control gears</b>		N/A
	The information specified in point 3(c) of this Annex shall also be contained in the technical documentation file		N/A
<b>(e)</b>	<b>Information for products specified in point 3 of Annex III</b>		N/A
	For the light sources and separate control gears specified in point 3 of Annex III the intended purpose shall be stated in the technical documentation		N/A
	The technical documentation file drawn up for the purposes of conformity assessment, in accordance with Article 5 of this Regulation shall list the technical parameters that make the product design specific to qualify for the exemption		N/A
	For light sources indicated in point 3(p) of Annex III it shall be stated: ‘This light source is only for use by photo sensitive patients. Use of this light source will lead to increased energy cost compared to an equivalent more energy efficient product.’		N/A
<b>ANNEX III</b>	<b>Exemptions</b>		<b>P</b>
<b>1</b>	<b>This Regulation shall not apply to light sources and separate control gears specifically tested and approved to operate in other directives or regulations specified in (EU) 2019/2020 ANNEX III point 1..... :</b>		N/A
<b>2</b>	<b>This Regulation shall not apply to</b>		-
	(a) double-capped fluorescent T5 light sources with power $P \leq 13$ W		N/A
	(b) electronic displays		N/A

<b>(EU) 2019/2020</b>			
Clause	Requirement + Test	Result - Remark	Verdict
	(c) light sources and separate control gears in battery-operated products (light sources and separate control gears in battery-operated products, including but not limited to e.g. torches, mobile phones with an integrated torch light, toys including light sources, desk lamps operating only on batteries, armband lamps for cyclists, solar-powered garden lamp)		N/A
	(d) light sources for spectroscopy and photometric applications		N/A
	(e) light sources and separate control gears on bicycles and other non-motorised vehicles.		N/A
<b>3</b>	<b>Any light source or separate control gear within the scope of this Regulation shall be exempt from the requirements of this Regulation, with the exception of the information requirements set out in point 3(e) of Annex II, if they are specifically designed and marketed for their intended use in at least one of the following applications:</b>		N/A
	(a) signalling		N/A
	(b) image capture and image projection		N/A
	(c) light sources with specific effective ultraviolet power > 2 mW/klm and intended for use in applications requiring high UV-content		N/A
	(d) light sources with a peak radiation around 253,7 nm and intended for germicidal use (destruction of DNA)		N/A
	(e) light sources emitting 5 % or more of total radiation power of the range 250-800 nm in the range of 250-315 nm and/or 20 % or more of total radiation power of the range 250-800 nm in the range of 315-400 nm, and intended for disinfection or fly trapping		N/A
	(f) light sources with the primary purpose of emitting radiation around 185,1 nm and intended to be used for		N/A

<b>(EU) 2019/2020</b>			
Clause	Requirement + Test	Result - Remark	Verdict
	the generation of ozone		
	(g) light sources emitting 40 % or more of total radiation power of the range 250-800 nm in the range of 400-480 nm, and intended for coral zooxanthellae symbioses		N/A
	(h) FL light sources emitting 80 % or more of total radiation power of the range 250-800 nm in the range of 250-400 nm, and intended for sun-tanning		N/A
	(i) HID light sources emitting 40 % or more of total radiation power of the range 250-800 nm in the range of 250-400 nm, and intended for sun-tanning		N/A
	(j) light sources with a photosynthetic efficacy > 1,2 μmol/J, and/or emitting 25 % or more of total radiation power of the range 250-800 nm in the range of 700-800nm, and intended for use in horticulture		N/A
	(k) HID light sources with correlated colour temperature CCT > 7000 K and intended for use in applications requiring such a high CCT		N/A
	(l) light sources with a beam angle of less than 10° and intended for spot-lighting applications requiring a very narrow light beam		N/A
	(m) halogen light sources with cap-type G9.5, GX9.5, GY9.5, GZ9.5, GZX9.5, GZY9.5, GZZ9.5, K39d, G9.5HPL, G16d, GES/E40 (low voltage (24V) silver crown only), GX16, GX16d, GY16, G22, GX38, GX38Q, P28s, P40s, PGJX28, PGJX 36, PGJX50, R7s with a luminous flux > 12 000 lm, QXL, designed and marketed specifically for entertainment events		N/A
	(n) colour-tuneable light sources that can be set to at least the colours listed in this point and which have for each of these colours, measured at the dominant wavelength, a minimum excitation purity of blue (90%); green (65%); red (95%) and are intended for use in applications requiring high-quality coloured		N/A

(EU) 2019/2020			
Clause	Requirement + Test	Result - Remark	Verdict
	light		
	(o) light sources accompanied by an individual calibration certificate detailing the exact radiometric flux and/or spectrum under specified conditions, and intended for use in photometric calibration, or for laboratory use or quality control applications for the evaluation of coloured surfaces and materials under standard viewing conditions		N/A
	(p) light sources provided specifically for use by photosensitive patients, to be sold in pharmacies and other authorised selling points (e.g. suppliers of disability products), upon presentation of a medical prescription;		N/A
	(q) incandescent light sources (not including halogen light sources) fulfilling all of the following conditions: power $\leq 40$ W, length $\leq 60$ mm, diameter $\leq 30$ mm, declared suitable for operation at ambient temperature $\geq 300$ °C, and intended for use in high temperature applications such as ovens;		N/A
	(r) halogen light sources fulfilling all of the following conditions: cap-type G4, GY6.35 or G9, power $\leq 60$ W, declared suitable for operation at ambient temperature $\geq 300$ °C, and intended for use in high temperature applications such as ovens		N/A
	(s) incandescent light sources with blade contact-, metal lug-, cable-, litz wire- or non-standard customised electrical interface, specifically designed and marketed for industrial or professional electro-heating equipment		N/A
	(t) halogen light sources fulfilling all of the following conditions: R7s cap, CCT $\leq 2\ 500$ K, length not in the ranges 75-80 mm and 110-120 mm, specifically designed and marketed for industrial or professional electroheating equipment		N/A

<b>(EU) 2019/2020</b>			
Clause	Requirement + Test	Result - Remark	Verdict
	(u) single capped fluorescent lamps (CFLni) having a diameter of 16 mm (T5), 2G11 4 pin base, with CCT = 3200 K and chromaticity coordinates $x = 0,415$ $y = 0,377$ , or with CCT = 5 500 K and chromaticity coordinates $x = 0,330$ $y = 0,335$ , specifically designed and marketed for studio and video applications for traditional filmmaking		N/A
	(v) LED or OLED light sources, complying with the definition of ‘original works of art’ as defined in Directive 2001/84/EC of the European Parliament and of the Council (17), made by the artist him/herself in a limited number below 10 pieces		N/A
	(w) light sources which		N/A
	-(1) are designed and marketed specifically for scene-lighting use in film-studios, TV- studios and locations, and photographic-studios and locations, or for stage-lighting use in theatres, during concerts or other entertainment events; and		N/A
	-(2) provide two or more of the following specifications:		N/A
	--(a) LED with power $\geq 100$ W and CRI $> 90$ ;		N/A
	--(b) GES/E40, K39d socket with changeable Colour Temperature down to 1 800 K (undimmed), used with low voltage power supply;		N/A
	--(c) LED rated at 180W and greater and arranged to direct output to an area smaller than the light emitting surface;		N/A
	--(d) Incandescent light source that is DWE type and has 650 W power, 120 V voltage and pressure screw terminal;		N/A
	--(e) LED with power $\geq 100$ W that allows the user to set different correlated colour temperatures for the emitted light;		N/A
	--(f) LFL T5 with G5 cap with CRI $\geq 85$ and CCT 2 900, 3 000, 3 200, 5 600 or 6 500 K.		N/A

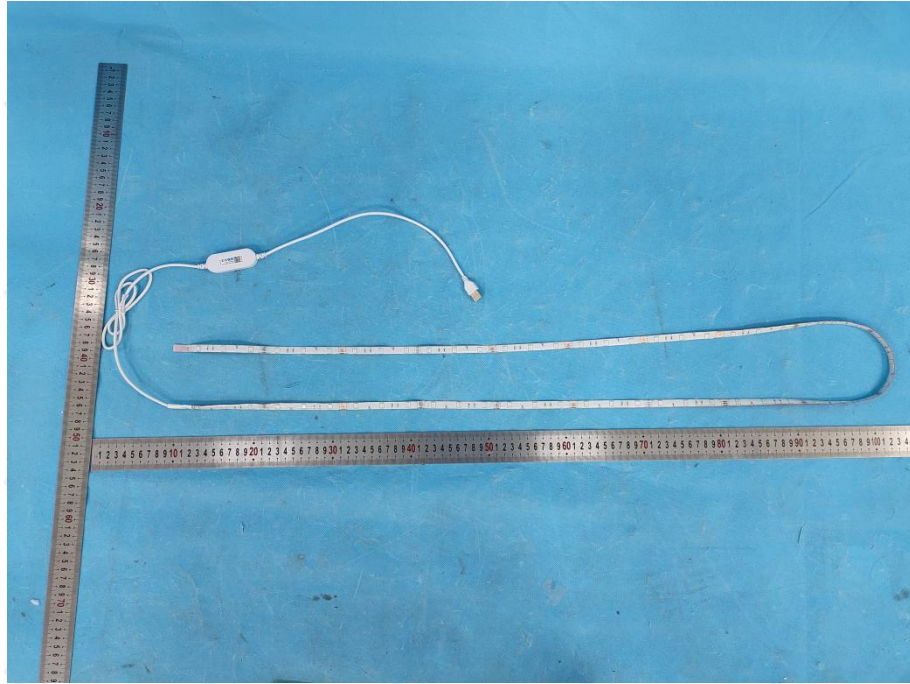
<b>(EU) 2019/2020</b>			
Clause	Requirement + Test	Result - Remark	Verdict
	(x) incandescent DLS fulfilling all of the following conditions: E27 cap, clear envelope, power $\geq 100$ W and $\leq 400$ W, CCT $\leq 2\ 500$ K, specifically designed and exclusively marketed for infrared heating		N/A
4	CLS and CSCG designed and marketed specifically for entertainment events, for connection to high speed control networks in always-listening mode, shall be exempt from the requirements on standby (Psb) and on networked standby (Pnet) of points 1(a) and 1(b) of Annex II		N/A
5	Light sources specifically designed and exclusively marketed for use in products in the scope of Commission Regulations 2019/2023, 2019/2022, 932/2012 and 2019/2019, shall be exempt from the requirements regarding lumen maintenance factor and survival factor set out in point 2 Table 4 of Annex II, and from the lifetime information requirement set out in point 3(b)(1)(e) of Annex II		N/A

**Table 1 - Light source test for exempt product**

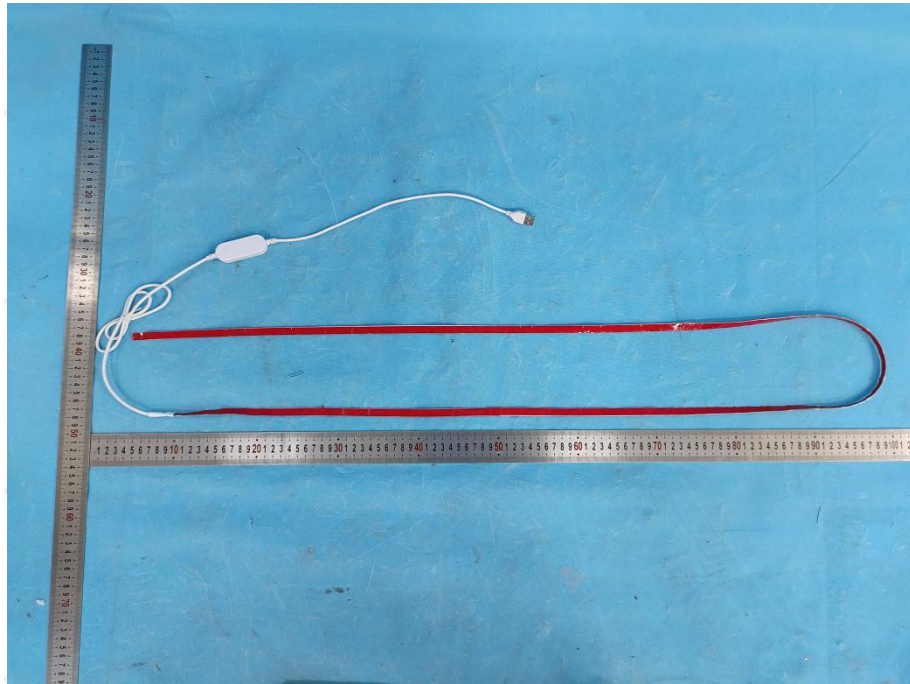
Model :	5050 RGB 30D/60D	Test voltage (V) :		5V	
Functionality parameter Sample	Luminance flux (lm)	colour rendering index (CRI)	CCT (K)	Chromaticity coordinates	
				x	y
1	17.22lm	18.3	2551	0.5032	0.4645
Verdict	<input checked="" type="checkbox"/> EXEMPT <input type="checkbox"/> Not EXEMPT	<input type="checkbox"/> EXEMPT <input checked="" type="checkbox"/> Not EXEMPT	—	<input type="checkbox"/> EXEMPT <input checked="" type="checkbox"/> Not EXEMPT	

**Photo documentation**

- front
- rear
- right side
- left side
- top
- bottom
- internal



- front
- rear
- right side
- left side
- top
- bottom
- internal



- front
- rear
- right side
- left side
- top
- bottom
- internal



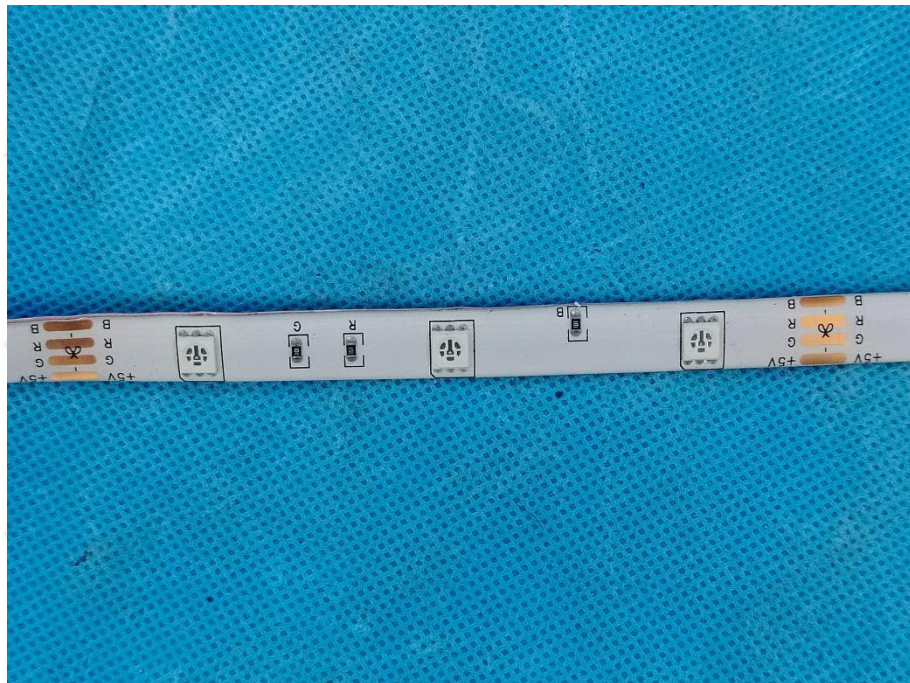
- front
- rear
- right side
- left side
- top
- bottom
- internal



- front
- rear
- right side
- left side
- top
- bottom
- internal



- front
- rear
- right side
- left side
- top
- bottom
- internal



\*\*\* End of Report \*\*\*