TEST REPORT

ErP verification of Ecodesign and Energy labelling requirement for Light Source Implementation measure (EU) 2019/2020 and (EU) 2019/2015

Report Number. ..... :	ZTLJ2024059
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Date of issue..... :	January 13, 2024
Total number of pages.....	17 pages
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Address ..... :	5th Floor, R&D Center Building, Hongfa Jateli High-tech Park, Shiyan Street, Baoan District, Shenzhen
Applicant's name..... :	iPixel LED Light Co., Ltd
Address ..... :	7F, Mingjinhai Complex Building, Tangtou Rd, Shiyan Town, Baoan, Shenzhen, China
Test specification:	
Standard ..... :	(EU) 2019/2020:2019-10-01 with Corrigendum; (EU) 2019/2015:2019-03-11; (EU) 2021/341:2021-02-23; (EU) 2021/340:2020-12-17
Test procedure ..... :	ErP verification test
Non-standard test method.:	N/A
This test report is specially limited to the above client company and product model only. It may not be duplicated without prior written consent of ZTL Test.	
Manufacturer ..... :	iPixel LED Light Co., Ltd
Address	7F, Mingjinhai Complex Building, Tangtou Rd, Shiyan Town, Baoan, Shenzhen, China
Factory ..... :	iPixel LED Light Co., Ltd
Address..... :	7F, Mingjinhai Complex Building, Tangtou Rd, Shiyan Town, Baoan, Shenzhen, China
Test item description..... :	LED FLEX
Model name ..... :	See model list
Trade Mark ..... :	N/A
Ratings ..... :	Rated voltage: 24VDC, Ra: 80/90, 50000 hours, others see model list

Test item particulars:	
Light source type:	
- Containing product is a light source	☐
- LED (Light Emitting Diode)	☑
- OLED (Organic Light Emitting Diode)	☐
- Incandescent Lamp	☐
- CFL (Compact Fluorescent Lamp)	☐
- CFLni (Compact Fluorescent Lamp without integrated ballast)	☐
- HL (Halogen Lamp)	☐
- FL (Fluorescent Lamp, including circular, U-shape, etc.)	☐
- LFL (Linear Fluorescent Lamp)	☐
- Magnetic induction light source	☐
- HID (High-intensity Discharge lamp, including metal halide, high-pressure sodium and mercury vapour type)	☐
Use of light source:	
- Indoor	☑
- Outdoor	☐
- Industry	☐
Envelope:	
- No	☑
- Second envelope	☐
- Non-clear envelope	☐
Light source characteristic :	
- NDLS (non-directional light source)	☑
- DLS (directional light source)	☐
- MLS (mains light source)	☐
- NMLS (non-mains light source)	☑
- CTLS (colour-tuneable light source)	☐
- CLS (connected light source)	☐
- Dimmable	☐
- Programmable	☐
- With standby mode	☐
- With networked standby mode	☐
- With anti-glare shield	☐
Useful luminous flux (φuse) type:	
- Narrow cone (90°)	☐
- Wide cone (120°)	☐
- Sphere (360°)	☑
Lamp cap installed:	N/A

Summary of testing:

For Ecodesign requirement:

The product meets the energy efficiency, functional & information requirement as specified in following details.

Copy of marking plate

Not provided by Applicant

Possible test case verdicts:

- test case does not apply to the test object..... : N (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..... : August 07, 2023

Date(s) of performance of tests ..... : August 07, 2023 to January 10, 2024

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.

General product information:

1. The product is LED FLEX for indoor use only.

2. According to client's requirement, S010180BC1LZ (3000K) was chosen for full test, and other models were chosen for initial test only.

See below model list for details:

Model name	Rated voltage	Rated power	Rated useful luminous flux	CCT	Ra	Rated life time
S010180BC1LZ (3000K)	24VDC	11.3W	2500 lm	3000K	80/90	50000h
S010180BC1LZ (4000K)	24VDC	11.3W	2500 lm	4000K	80/90	50000h
S010180BC1LZ (6500K)	24VDC	11.3W	2500 lm	6500K	80/90	50000h

Clause	Requirement + Test	Result - Remark	Verdict
(EU) 2019/2020 - Ecodesign requirement:			
0	Measurement methods		P
	Recognised state of art measurement methods incl. the one published in the Official Journal taking into account the measurement methods of (EU) 2019/2020	EN 62612:2013+A1:2017+ A11:2017+A2:2018 EN 13032-4:2015+A1:2019 EU 2019/2020 Annex V	P
1.	Sample		P
	Number of sample used for test ……:	10 pcs	P
2.	Energy efficiency requirements (Annex II, clause 1 of EU 2019/2020)		P
2.1	Maximum allowed power P_{onmax} of light source (Annex II, clause 1, (a) of EU 2019/2020)		P
	From 1 September 2021, the declared power consumption of a light source P_{on} shall not exceed the maximum allowed power P_{onmax} (in W), defined as a function of the declared useful luminous flux Φ_{use} (in lm) and the declared colour rendering index CRI (-) as follows	P_{on}: 11.3W $P_{on} \leq P_{onmax}$	P
	Ponmax = C × (L + Φuse/(F × η)) × R	P_{onmax}: 22.33W	P
	where:		P
	-The values for threshold efficacy (η in lm/W) and end loss factor (L in W) are specified in Table 1 of EU 2019/2020, depending on the light source type. They are constants used for computations and do not reflect true parameters of light sources. The threshold efficacy is not the minimum required efficacy; the latter can be computed by dividing the useful luminous flux by the computed maximum allowed power	η: 120 L: 1.5	P

Clause	Requirement + Test	Result - Remark	Verdict

Table 1 of EU 2019/2020

Threshold efficacy (η) and end loss factor (L)

Light source description	η [lm/W]	L [W]
LFL T5-HE	98,8	1,9
LFL T5-HO, 4 000 ≤ Φ ≤ 5 000 lm	83,0	1,9
LFL T5-HO, other lm output	79,0	1,9
FL T5 circular	79,0	1,9
FL T8 (including FL T8 U-shaped)	89,7	4,5
From 1 September 2023, for FL T8 of 2-, 4- and 5-foot	120,0	1,5
Magnetic induction light source, any length/flux	70,2	2,3
CFLni	70,2	2,3
FL T9 circular	71,5	6,2
HPS single-ended	88,0	50,0
HPS double-ended	78,0	47,7
MH ≤ 405 W single-ended	84,5	7,7
MH > 405 W single-ended	79,3	12,3
MH ceramic double-ended	84,5	7,7
MH quartz double-ended	79,3	12,3
Organic light-emitting diode (OLED)	65,0	1,5
Until 1 September 2023: HL G9, G4 and GY6.35	19,5	7,7
HL R7s ≤ 2 700 lm	26,0	13,0
Other light sources in scope not mentioned above	120,0	1,5 (*)
(*) For connected light sources (CLS) a factor L = 2,0 shall be applied.		

Verdict: P

-Basic values for correction factor (C) depending on light source type, and additions to C for special light source features are specified in Table 2 of EU 2019/2020	C: 1.00	P

Clause	Requirement + Test	Result - Remark	Verdict

Table 2 of EU 2019/2020

Correction factor C depending on light source characteristics

Light source type	Basic C value
Non-directional (NDLS) not operating on mains (NMLS)	1,00
Non-directional (NDLS) operating on mains (MLS)	1,08
Directional (DLS) not operating on mains (NMLS)	1,15
Directional (DLS) operating on mains (MLS)	1,23
Special light source feature	Bonus on C
FL or HID with CCT > 5 000 K	+0,10
FL with CRI > 90	+0,10
HID with second envelope	+0,10
MH NDLS > 405 W with non-clear envelope	+0,10
DLS with anti-glare shield	+0,20
Colour-tuneable light source (CTLS)	+0,10
High luminance light sources (HLLS)	+0,0058 • Luminance-HLLS - 0,0167

P

	Where applicable, bonuses on correction factor C are cumulative		N
	The bonus for HLLS shall not be combined with the basic C-value for DLS (basic C-value for NDLS shall be used for HLLS)		N
	-Efficacy factor (F) is:		P
	1,00 for non-directional light sources (NDLS, using total flux)	F: 1.00	P
	0,85 for directional light sources (DLS, using flux in a cone)	F:	N
	-CRI factor (R) is:		P
	0,65 for CRI ≤ 25	R:	N
	(CRI+80)/160 for CRI > 25, rounded to two decimals	R: 1.00	P
	Light sources that allow the end-user to adapt the spectrum and/or the beam angle of the emitted light, thus changing the values for useful luminous flux, colour rendering index (CRI) and/or correlated colour temperature (CCT), and/or changing the directional/non-directional status of the light source, shall be evaluated using the reference control settings.		N
	Standby power P_{sb} and networked standby power P_{net} of light source		N
	The standby power P_{sb} of a light source shall not	P_{sb}:	N

Clause	Requirement + Test	Result - Remark	Verdict
	exceed 0,5 W		
	The networked standby power P_{net} of a connected light source shall not exceed 0,5 W	P_{net}:	N
	The allowable values for P_{sb} and P_{net} shall not be added together		N
	CLS and CSCG 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, discos and during concerts or other entertainment events, for connection to high speed control networks (utilising signalling rates of 250 000 bits per second and higher) 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
3	Functional requirements (Annex II, clause 2 of EU 2019/2020)		P
	From 1 September 2021, the functional requirements should apply for **light sources** (Annex II, clause 2, table 4 of EU 2019/2020)		P
3.1	Colour rendering		P
	CRI ≥ 80	CRI: Details see table 1	P
	except for HID with Φuse > 4 klm and for light sources intended for use in outdoor applications, industrial applications or other applications where lighting standards allow a CRI< 80, when a clear indication to this effect is shown on the light source packaging and in all relevant printed and electronic documentation	CRI:	N
3.2	Displacement factor (DF, cos φ_1) at power input P_{on} for LED and OLED MLS		N
	No limit at $P_{on} \leq 5$ W	P_{on}:	N
	DF ≥ 0,5 at 5 W < P_{on} ≤ 10 W	P_{on}: DF:	N
	DF ≥ 0,7 at 10 W < P_{on} ≤ 25 W	P_{on}: DF:	N
	DF ≥ 0,9 at 25 W < P_{on}	P_{on}: DF:	N
3.3	Lumen maintenance factor (for LED and OLED)		P
	The lumen maintenance factor X_{LMF}% after endurance testing shall be at least $X_{LMF,MIN}$ % calculated as follows		P
	$X_{LMF,MIN}\% = 100 \times e^{\frac{(3000 \times \ln(0.7))}{L_{70}}}$ where L_{70} is the declared $L_{70}B_{50}$ lifetime (in hours)	L_{70}: 50000h	P
	If the calculated value for $X_{LMF,MIN}$ exceeds 96,0 %, an $X_{LMF,MIN}$ value of 96,0 % shall be used	$X_{LMF,MIN}$%=96,0%	P
3.4	Survival factor (SF) (for LED and OLED)		P
	At least 9 light sources of the 10 test samples must be operational after completing the	10 pcs light sources are	P

Clause	Requirement + Test	Result - Remark	Verdict
	endurance testing	operational after endurance testing	
3.5	Colour consistency for LED and OLED light sources		P
	Variation of chromaticity coordinates within a six-step MacAdam ellipse or less.		P
7.0	Flicker for LED and OLED MLS		N
	P_{st} LM ≤ 1,0 at full-load		N
3.7	Stroboscopic effect for LED and OLED MLS		N
	SVM ≤ 0,9 at full-load		N
	From 1 September 2024: SVM ≤ 0,4 at full-load		N
	except for light sources intended for use in outdoor applications, industrial applications or other applications where lighting standards allow a CRI < 80		N
4	Information requirements (Annex II, clause 3 of EU 2019/2020)		P
	From 1 September 2021 the following information requirements shall apply:		P
4.1	Information to be displayed on the light source itself		P
	For all light sources, except CTLS, LFL, CFLni, other FL, and HID, the value and physical unit of the useful luminous flux (lm) and correlated colour temperature (K) shall be displayed in a legible font on the surface if, after the inclusion of safety-related information, there is sufficient space available for it without unduly obstructing the light emission		P
	For directional light sources, the beam angle (°) shall also be indicated		N
	If there is room for only two values, the useful luminous flux and the correlated colour temperature shall be displayed		N
	If there is room for only one value, the useful luminous flux shall be displayed		N
4.2	Information to be visibly displayed on the packaging		P
4.2.1	Light source placed on the market, not in a containing product		P
	If a light source is placed on the market, not in a containing product, in a packaging containing information to be visibly displayed at a point-of-sale prior to its purchase, the following information shall be clearly and prominently displayed on the packaging:		P
(a)	the useful luminous flux (Φ_{use}) in a font at least twice as large as the display of the on-mode power (P_{on}), 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)	the correlated colour temperature, rounded to the nearest 100 K, also expressed graphically or in words, or the range of correlated colour temperatures that can be set		P
(c)	the beam angle in degrees (for directional light sources), or the range of beam angles that can be set		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)		P
(e)	the $L_{70}B_{50}$ lifetime for LED and OLED light sources, expressed in hours		P

Clause	Requirement + Test	Result - Remark	Verdict
(f)	the on-mode power (P_{on}), expressed in W		P
(g)	the standby power (P_{sb}), expressed in W and rounded to the second decimal. If the value is zero, it may be omitted from the packaging		N
(h)	the networked standby power (P_{net}) 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)	the colour rendering index, rounded to the nearest integer, or the range of CRI-values that can be set		P
(j)	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, a clear indication to this effect. For HID light sources with useful luminous flux > 4 000 lm, this indication is not mandatory		N
(k)	if the light source is designed for optimum use in non-standard conditions (such as ambient temperature Ta≠ 25 °C or specific thermal management is necessary): information on those conditions		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		N
(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
	Items (a) to (d) shall be displayed on the packaging in the direction meant to face prospective buyer; for other items this is also recommended, if space permits		P
	For light sources that can be set to emit light with different characteristics, the information shall be reported for the **reference control settings**. In addition, a range of obtainable values may be indicated		N
	The information does not need to use the exact wording on the list above. Alternatively, it may be displayed in the form of graphs, drawings or symbols		P
5	Removal of light sources and separate control gears (Article 4 of EU 2019/2020)		N
5.1	Manufacturers, importers or authorised representatives of containing products shall ensure that light sources and separate control gears can be replaced with the use of common available tools and without permanent damage to the containing product, unless a technical justification related to the functionality of the containing product is provided in the technical		N

Clause	Requirement + Test	Result - Remark	Verdict
	documentation explaining why the replacement of light sources and separate control gear is not appropriate		
	The technical documentation shall also provide instructions on how light sources and separate control gears can be removed without being permanently damaged for verification purposes by market surveillance authorities		N
5.2	Manufacturers, importers or authorized representatives of containing products shall provide information about the replaceability or non-replaceability of light sources and control gears by end-users or qualified persons without permanent damage to the containing product. Such information shall be available on a free-access website. For products sold directly to end-users, this information shall be on the packaging, at least in the form of a pictogram, and in the user instructions		N
5.3	Manufacturers, importers or authorised representatives of containing products shall ensure that light sources and separate control gears can be dismantled from containing products at end of life. Dismantling instructions shall be available on a free access website		N

Table 1	**Test data**											
Model:	**S010180BC1LZ (3000K)**											
Voltage (V):		**24VDC**			**Frequency (Hz):**			**-**				
Φ_{use} measured at:		**total luminous flux**			**Ambient (T/rh) (°C / %)**			**24.6 / 54**				
Test item	**Measured Value**										**Average**	**Limit**
Sample:	1	2	3	4	5	6	7	8	9	10	-	-
U (V) [1)]	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	-
P (W) [1)]	11.21	11.19	11.06	11.09	11.09	11.17	11.19	11.09	11.22	11.20	11.15	≤11.3W
Φ_{use} (lm) [1)]	2588	2582	2611	2582	2616	2601	2570	2580	2563	2563	2586	≥2500 lm
CCT (K) [1)]	3093	3084	3081	3099	3096	3079	3102	3092	3091	3112	3093	-
CRI [1)2)]	82.8	82.7	82.5	82.7	82.7	82.8	83.0	82.9	82.6	82.8	82.8	≥ 80 3)
Color consistency [1)2)]	4.3	4.3	4.3	4.1	4.3	4.5	4.4	4.3	4.3	4.4	4.3	≤ 5-step
SF @ 3600h [2)5)8)]	S	S	S	S	S	S	S	S	S	S	100%	≥90%
Φ_{use}, @ 3600h[8)] (lm)	2570	2569	2598	2580	2611	2596	2562	2567	2552	2555	2576	-
X_{LMF} @ 3600h [2)8)6)]	99.3%	99.5%	99.5%	99.9%	99.8%	99.8%	99.7%	99.5%	99.6%	99.7%	99.6%	≥96.0%

Supplementary information:

[1)] initial measurement value after aging of: 45 min

[2)] for LED and OLED

[4)] means the colour rendering index for a red coloured object as defined in standards

[5)] 'survival factor' (SF) means the defined fraction of the total number of light sources that continue to operate at a given time under defined conditions and switching frequency

[6)] 'lumen maintenance factor' (X_{LMF}) means the ratio of the luminous flux emitted by a light source at a given time in its life to the initial luminous flux

[8)] '3600h' referes to (EU)2019/2020 Annex V, the total test time is 3600h (1200 cycle of 150min 'ON' and 30min 'OFF'), the actual operation time is 3000h

**The condition which with blue LED chips light only belongs to exemption product since the rated luminous flux <60 lm.

Table 1	**Test data**											
Model:	**S010180BC1LZ (4000K)**											
Voltage (V):		**24VDC**			**Frequency (Hz):**			**-**				
Φ_{use} measured at:		**total luminous flux**			**Ambient (T/rh) (°C / %)**			**24.6 / 54**				
Test item	**Measured Value**										**Average**	**Limit**
Sample:	1	2	3	4	5	6	7	8	9	10	-	-
U (V) [1)]	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	-
P (W) [1)]	11.29	11.27	11.14	11.17	11.18	11.26	11.28	11.12	11.28	11.29	11.23	≤11.3W
Φ_{use} (lm) [1)]	2604	2609	2581	2553	2586	2617	2565	2550	2648	2632	2595	≥2500 lm
CCT (K) [1)]	4044	4056	4028	4076	4072	4026	4032	4043	4042	4044	4046	-
CRI [1)2)]	85.3	85.4	85.3	85.4	85.2	85.5	85.3	85.1	85.2	85.3	85.3	≥ 80 [3)]
Color consistency [1)2)]	4.6	4.9	4.9	4.8	5.0	4.8	4.7	4.6	4.9	4.8	4.8	≤ 5-step

Supplementary information:

[1)] initial measurement value after aging of: 45 min

[2)] for LED and OLED

[4)] means the colour rendering index for a red coloured object as defined in standards

[5)] 'survival factor' (SF) means the defined fraction of the total number of light sources that continue to operate at a given time under defined conditions and switching frequency

[6)] 'lumen maintenance factor' (X_{LMF}) means the ratio of the luminous flux emitted by a light source at a given time in its life to the initial luminous flux

[8)] '3600h' referes to (EU)2019/2020 Annex V, the total test time is 3600h (1200 cycle of 150min 'ON' and 30min 'OFF'), the actual operation time is 3000h

**The condition which with blue LED chips light only belongs to exemption product since the rated luminous flux <60 lm.

Table 1	**Test data**											
Model:	**S010180BC1LZ (6500K)**											
Voltage (V):		**24VDC**			**Frequency (Hz):**			**-**				
Φ_{use} measured at:		**total luminous flux**			**Ambient (T/rh) (°C / %)**			**24.6 / 54**				
Test item	**Measured Value**										**Average**	**Limit**
Sample:	1	2	3	4	5	6	7	8	9	10	-	-
U (V) [1)]	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	-
P (W) [1)]	11.19	11.14	11.27	11.24	11.25	11.17	11.14	11.23	11.20	11.16	11.20	≤11.3W
Φ_{use} (lm) [1)]	2547	2557	2557	2550	2550	2560	2537	2527	2557	2531	2547	≥2500 lm
CCT (K) [1)]	6588	6590	6614	6557	6551	6611	6551	6639	6637	6570	6591	-
CRI [1)2)]	83.8	83.7	83.9	83.7	83.9	83.8	83.8	83.6	83.6	84.0	83.8	≥ 80 [3)]
Color consistency [1)2)]	4.4	4.3	4.5	4.7	4.3	4.2	4.1	4.3	4.2	4.1	4.3	≤ 5-step

Supplementary information:

[1)] initial measurement value after aging of: 45 min

[2)] for LED and OLED

[4)] means the colour rendering index for a red coloured object as defined in standards

[5)] 'survival factor' (SF) means the defined fraction of the total number of light sources that continue to operate at a given time under defined conditions and switching frequency

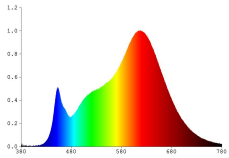
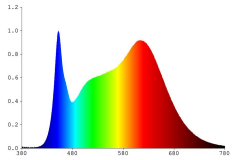
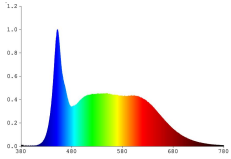
[6)] 'lumen maintenance factor' (X_{LMF}) means the ratio of the luminous flux emitted by a light source at a given time in its life to the initial luminous flux

[8)] '3600h' referes to (EU)2019/2020 Annex V, the total test time is 3600h (1200 cycle of 150min 'ON' and 30min 'OFF'), the actual operation time is 3000h

**The condition which with blue LED chips light only belongs to exemption product since the rated luminous flux <60 lm.

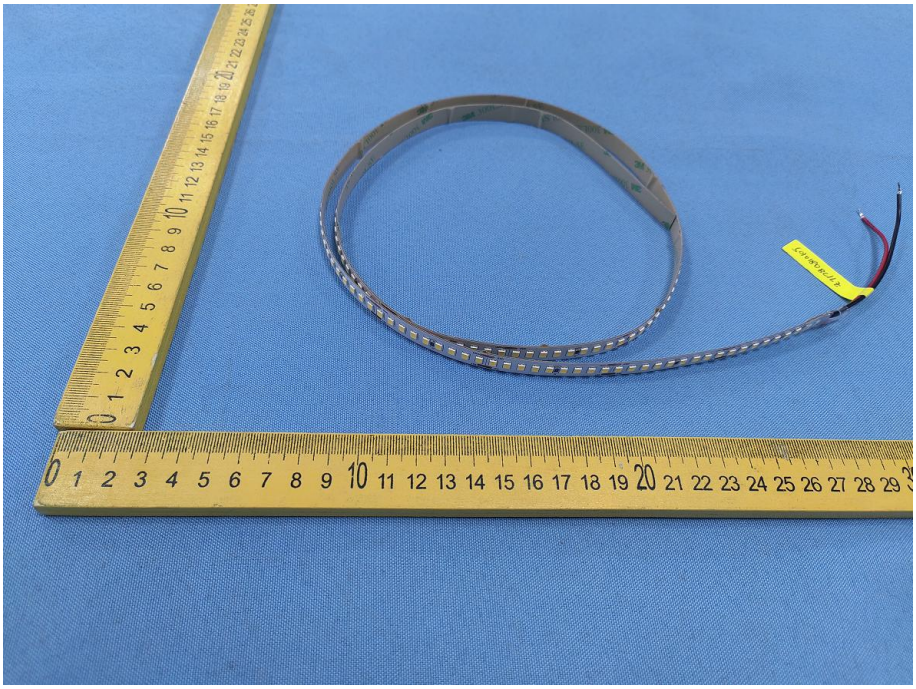
Table 2	The energy efficiency class
Item	**Rated value**
Φ_{use} (lm)	2500 lm
P_{on} (W)	11.3W
η_{TM}	204.9
Energy efficiency class	B
E_C (kWh/1000h)	12
Remarks: -	

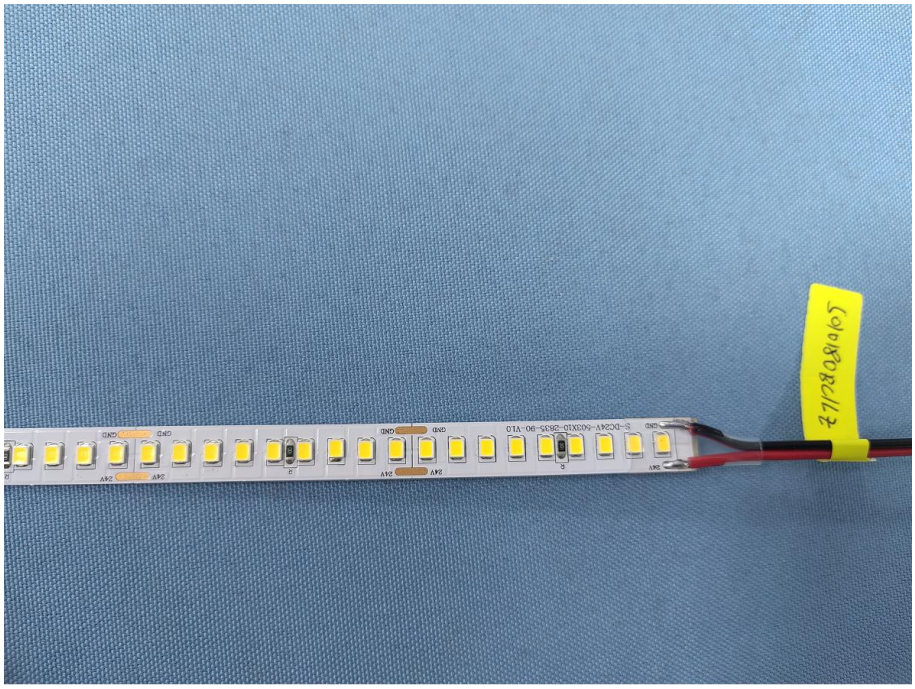
Table 3	Product information sheet		
Supplier's name or trade mark:	iPixel LED Light Co., Ltd		
Supplier's address:	7F, Mingjinhai Complex Building, Tangtou Rd, Shiyan Town, Baoan, Shenzhen, China		
Model identifier:	S010180BC1LZ (3000K), S010180BC1LZ (4000K), S010180BC1LZ (6500K)		
Type of light source:	LED FLEX		
Lighting technology used:	☐ HL ☐ LFL T5 HE ☐ LFL T5 HO ☐ CFLni ☐ other FL ☐ HPS ☐ MH ☐ other HID ☒ LED ☐ OLED ☐ mixed ☐ other	Non-directional or directional:	☒ NDLS ☐ DLS
Light source cap-type (or other electric interface)	Lead wire		
Mains or non-mains:	☐ MLS ☒ NMLS	Connected light source (CLS):	☐ yes ☒ no
Colour-tuneable light source:	☐ yes ☒ no	Envelope:	☒ no ☐ second ☐ non-clear
High luminance light source:	☐ yes ☒ no		
Anti-glare shield:	☐ yes ☒ no	Dimmable:	☐ yes ☐ only with specific dimmers ☒ no
Product parameters			
Parameter	Value	Parameter	Value
General product parameters:			

Energy consumption in on-mode (kWh/1 000 h), **rounded up to the nearest integer**		12	Energy efficiency class	☐ A ☒ B ☐ C ☐ D ☐ E ☐ F ☐ G
Useful luminous flux (Φ_{use}), indicating if it refers to the flux in a sphere (360°), in a wide cone (120°) or in a narrow cone (90°)		2500 lm in 360°	Correlated colour temperature, rounded to the nearest 100 K, or the range of correlated colour temperatures, rounded to the nearest 100 K, that can be set	S010180BC1LZ (3000K), S010180BC1LZ (4000K), S010180BC1LZ (6500K)
On-mode power (P_{on}), expressed in W		11.3	Standby power (P_{sb}), expressed in W and rounded to the second decimal	-
Networked standby power (P_{net}) for CLS, expressed in W and rounded to the second decimal		-	Colour rendering index, rounded to the nearest integer, or the range of CRI values that can be set	80/90
Outer dimensions without separate control gear, lighting control parts and nonlighting control parts, if any (millimetre)	Height	Not specified	Spectral power distribution in the range 250 nm to 800 nm, at full-load	S010180BC1LZ (3000K)  S010180BC1LZ (4000K)  S010180BC1LZ (6500K) 
	Width	Not specified		
	Depth	Not specified		
Claim of equivalent power		☐ yes ☒ -	If yes, equivalent power (W)	-
			Chromaticity coordinates (x and y)	S010180BC1LZ (3000K): x=0.440, y=0.403 S010180BC1LZ (4000K): x=0.380, y=0.380 S010180BC1LZ (6500K): x=0.313, y=0.337
Parameters for directional light sources:				
Peak luminous intensity (cd)		-	Beam angle in degrees, or the range of beam angles that can be set	-
Parameters for LED and OLED light sources:				
R9 colour rendering index value		0	Survival factor	0.90

the lumen maintenance factor	0.96		
Parameters for LED and OLED mains light sources:			
displacement factor (cos φ1)	-	Colour consistency in McAdam ellipses	5
Claims that an LED light source replaces a fluorescent light source without integrated ballast of a particular wattage.	☐ yes ☒ -	If yes then replacement claim (W)	-
Flicker metric (P_{st} LM)	-	Stroboscopic effect metric (SVM)	-

Product photograph





------End of Report------