

**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****Report Reference No.**.....: PTC25062611402S-EP01**Compiled by (+ signature)**.....: Huangyongxian**Approved by (+ signature)**.....: Rocky Mao**Date of issue**.....: July 14, 2025**Total number of pages**.....: 20 pages**Testing laboratory****Name**.....: Precise Testing & Certification (Guangdong) Co.,Ltd.**Address**.....: Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China**Testing location**.....: Same as above**Client****Applicant name**.....: Haining Shengchang electric light source technology Co., Ltd**Address**.....: Tanqiao Industrial Park, Yuanhua Town, Haining City, Zhejiang Province**Manufacturer name**.....: Haining Shengchang electric light source technology Co., Ltd**Address**.....: Tanqiao Industrial Park, Yuanhua Town, Haining City, Zhejiang Province**Factory name**.....: /**Address**.....: /**Test specification:****Standard**.....: COMMISSION REGULATION (EU) No 2019/2020  
COMMISSION REGULATION (EU) No 2021/341 COMMISSION  
DELEGATED REGULATION (EU) 2019/2015 COMMISSION  
DELEGATED REGULATION (EU) 2021/340**Non-standard test method**.....: N/A**Test Report Form No**.....: ERP**Test Report Form(s) Originator**.....: PTC**Master TRF**.....: 2021-03-05**Test item description**.....: Eco-design Directive**Product name**.....: LED filament lamp**Trade Mark**.....: /**Model/Type reference**.....: BIB95-5w**Ratings**.....: 220-240V~,50/60Hz 5.0W 470lm

**Product category:**

light sources.....:

- ☒ Lamp  
☒ E27/☐ E14/☐ B22d/☐ GU10 /☐ N/A☐ /  
☒ Clear /☐ Non-clear  
☐ CFL / ☒ LED / ☐ other:  
☐ Luminaire  
☐ Clear /☐ Non-clear  
☐ LED ☐ CFL / ☐ other  
☐ light source  
☐ Clear /☐ Non-clear  
☐ LED ☐ CFL / ☐ other

Specify:

Location type.....:

- ☒ Indoor general use luminaire /☐ Other use:

Specify:

Separate control gear .....

- ☐ HID / CFL / ☒ LED/☐ others      Specify: No  
Separate control gear

**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.....: January 1, 2025

Date (s) of performance of tests.....: January 1, 2025 to July 14, 2025

**Note:**

The test results presented in this report relate only to the object tested.

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**Summary of testing:**

- 1.The luminaire were tested as light source and complies with the requirements of Annex II of COMMISSION REGULATION EU 2019/2020 + EU 2021/341
- 2.The light source belongs to Class F according to COMMISSION REGULATION EU 2019/2015 + EU 2021/340, see table 4.
- 3.The parameters of the product information sheet for EU 2019/2015 + EU 2021/340, please see Product information sheet.
- 4.When determining the test conclusion, the Measurement Uncertainty of test has been considered.

**General information:**

1. The test was performed at 230Vac,Detail see page 3.
2. Unless otherwise specified, the model BIB95-5w was chosen as representative model to perform all test.
3. The covered model: (C82409MM) is only named differently from the main test model.



light source:

| Luminaire Model | Rated Power (W) | Rated total luminous flux (lm) | Measured power (W) | Measured flux (lm) | Measured color temperature (K) |
|-----------------|-----------------|--------------------------------|--------------------|--------------------|--------------------------------|
| BIB95-5w        | 5               | 470                            | 4.9                | 455.7              | 2715                           |

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| Cl.                        | Requirement – Test | Result | Verdict |

|                  |                                   |          |
|------------------|-----------------------------------|----------|
| <b>Article 2</b> | <b>Definitions (light source)</b> | <b>P</b> |
|------------------|-----------------------------------|----------|

|                                                                             |                                                                                                                                                                                                                                                                              |  |     |
|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----|
| For the purposes of this Regulation, the following definitions shall apply: |                                                                                                                                                                                                                                                                              |  | P   |
| (1)                                                                         | '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:                                        |  | P   |
| (a)                                                                         | a) chromaticity coordinates x and y in the range: $0,270 < x < 0,530$ ; and $-2,3172 x^2 + 2,3653 x - 0,2199 < y < -2,3172 x^2 + 2,3653 x - 0,1595$ ;                                                                                                                        |  | P   |
| (b)                                                                         | a luminous flux $< 500$ lumen per $\text{mm}^2$ of projected light-emitting surface area as defined in Annex I;                                                                                                                                                              |  | P   |
| c)                                                                          | a luminous flux between 60 and 82 000 lumen;                                                                                                                                                                                                                                 |  | P   |
| d)                                                                          | a colour rendering index (CRI) $> 0$ ;                                                                                                                                                                                                                                       |  | P   |
|                                                                             | using incandescence, fluorescence, high-intensity discharge, inorganic light emitting diodes (LED) or organic light emitting diodes (OLED), or their combinations as lighting technology, and that can be verified as a light source according to the procedure of Annex IX. |  | P   |
|                                                                             | High-pressure sodium (HPS) light sources that do not fulfil condition (a) are considered light sources for the purposes of this Regulation.                                                                                                                                  |  | N/A |

|                |                               |          |
|----------------|-------------------------------|----------|
| <b>NNEX II</b> | <b>Ecodesign requirements</b> | <b>P</b> |
|----------------|-------------------------------|----------|

|     |                                                                                                                                                                                                                      |            |     |
|-----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----|
| 1   | ENERGY EFFICIENCY REQUIREMENTS                                                                                                                                                                                       |            | P   |
|     | Energy efficiency requirements                                                                                                                                                                                       |            | P   |
| (a) | 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)<br>$P_{onmax} = C \times (L + \Phi_{use}/(F \times \eta)) \times R$ ; | 5.9        | P   |
|     | The standby power $P_{sb}$ of a light source shall not exceed 0,5 W.                                                                                                                                                 |            | N/A |
|     | The networked standby power $P_{net}$ of a connected light source shall not exceed 0,5 W.                                                                                                                            |            | N/A |
|     | The allowable values for $P_{sb}$ and $P_{net}$ shall not be added together.                                                                                                                                         |            | N/A |
| (b) | From 1 September 2021, the minimum energy efficiency requirements of a separate control gear operating at full-load shall meet requirement of table 3.                                                               | Table (b)1 | N/A |





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| Cl. | Requirement – Test                                                                                                                                                                                                                                                                                                                                                                 | Result       | Verdict |
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|     | Multi-wattage separate control gears shall comply with the requirements in Table 3 according to the maximum declared power on which they can operate.                                                                                                                                                                                                                              |              | N/A     |
|     | The no-load power $P_{no}$ of a separate control gear shall not exceed 0,5 W (only to separate control gear designed for no-load mode)                                                                                                                                                                                                                                             |              | N/A     |
|     | The standby power $P_{sb}$ of a separate control gear shall not exceed 0,5 W                                                                                                                                                                                                                                                                                                       | Table (b)1   | N/A     |
|     | The networked standby power $P_{net}$ of a connected separate control gear shall not exceed 0,5 W                                                                                                                                                                                                                                                                                  |              | N/A     |
|     | The allowable values for $P_{sb}$ and $P_{net}$ shall not be added together.                                                                                                                                                                                                                                                                                                       |              | N/A     |
| 2   | FUNCTIONALITY REQUIREMENTS                                                                                                                                                                                                                                                                                                                                                         |              | P       |
| 2.1 | From 1 September 2021, the functional requirements specified in Table 4 shall apply for light sources                                                                                                                                                                                                                                                                              |              | P       |
|     | Colour rendering                                                                                                                                                                                                                                                                                                                                                                   | Table (a)1   | P       |
|     | Displacement factor ( $DF$ , $\cos \phi_1$ ) at power input $P_{on}$ for LED and OLED MLS                                                                                                                                                                                                                                                                                          |              | P       |
|     | Lumen maintenance factor (for LED and OLED)                                                                                                                                                                                                                                                                                                                                        | Table (a)1   | P       |
|     | Survival factor (for LED and OLED)                                                                                                                                                                                                                                                                                                                                                 | Table 2.1(c) | P       |
|     | Colour consistency for LED and O12 bead led square lamp sources                                                                                                                                                                                                                                                                                                                    | Table (a)1   | P       |
|     | Flicker for LED and OLED MLS                                                                                                                                                                                                                                                                                                                                                       |              | P       |
|     | Stroboscopic effect for LED and OLED MLS                                                                                                                                                                                                                                                                                                                                           |              | P       |
| 3   | Information requirements                                                                                                                                                                                                                                                                                                                                                           |              | P       |
|     | From 1 September 2021 the following information requirements shall apply                                                                                                                                                                                                                                                                                                           |              | --      |
| a)  | 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 ( $^\circ$ ) shall also be indicated.                                                                                                                                                                                                                                                                                                |              | N/A     |
|     | If there is room for only two values, the useful luminous flux and the correlated colour temperature shall be displayed. If there is room for only one value, the useful luminous flux shall be displayed.                                                                                                                                                                         |              | N/A     |
| b)  | Information to be visibly displayed on the packaging                                                                                                                                                                                                                                                                                                                               |              | P       |
| (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                                                                                                                                                                                                                           |              | P       |

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| Cl.                        | Requirement – Test                                                                                                                                                                                                                                                                                                        | Result | Verdict |
|                            | prior to its purchase, the following information shall be clearly and prominently displayed on the packaging:                                                                                                                                                                                                             |        |         |
| (a)                        | The useful luminous flux ( $\Phi_{use}$ ) 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 ( $360^\circ$ ), in a wide cone ( $120^\circ$ ) or in a narrow cone ( $90^\circ$ );                                                 |        | 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;                                                                                                                                                                                                                   |        | P       |
| (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 L70B50 lifetime for LED and OLED bead led square lamp sources, expressed in hours;                                                                                                                                                                                                                                    |        | P       |
| (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/A     |
| (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/A     |
| (i)                        | The colour rendering index, rounded to the nearest integer, or the range of CRI-values that can be set;                                                                                                                                                                                                                   |        | N/A     |
| (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 $> 4\,000\text{ lm}$ , this indication is not mandatory; |        |         |
| (k)                        | if the light source is designed for optimum use in non-standard conditions (such as ambient temperature $T_a \neq 25^\circ\text{C}$ or specific thermal management is necessary): information on those conditions;                                                                                                        |        | N/A     |
| (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/A     |
| (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                                                                                                                                                           |        | N/A     |



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| Cl. | Requirement – Test                                                                                                                                                                                                                                                                                                                                                    | Result | Verdict |
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|     | contains mercury: a warning that it shall not be disposed of as unsorted municipal waste.                                                                                                                                                                                                                                                                             |        |         |
|     | 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.                                                                                                                                                                                                    |        | N/A     |
|     | 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/A     |
|     | 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.                                                                                                                                                                                                              |        | N/A     |
| (2) | Separate control gears:                                                                                                                                                                                                                                                                                                                                               |        | 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 (P <sub>no</sub> ), 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 (P <sub>sb</sub> ), 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     |
| (f) | where applicable, the networked standby power (P <sub>net</sub> ), 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 |        | N/A     |





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| Cl. | Requirement – Test                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Result | Verdict |
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|     | website;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |        |         |
| (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     |
|     | 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.                                                                                                                                                                                                                                                                                                                                        |        | N/A     |
| c)  | Information to be visibly displayed on a free-access website of the manufacturer, importer or authorised representative                                                                                                                                                                                                                                                                                                                                                                         |        | N/A     |
| (1) | Separate control gears:                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        | N/A     |
|     | 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     |
| (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 control gear during dimming, and possibly a list of compatible dimmable light sources;                                                                                                                                                                                                                                        |        | N/A     |
| (f) | recommendations on how to dispose of it at the end of its life in line with Directive 2012/19/EU. The information does not need to use the exact wording in the list above. Alternatively, it may be displayed in the form of graphs, drawings or symbols.                                                                                                                                                                                                                                      |        | N/A     |
| (d) | Technical documentation                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |        | N/A     |
| (1) | Separate control gears:<br>The information specified in point 3(c)(2) of this Annex shall also be contained in the technical documentation file drawn up for the purposes of conformity assessment pursuant to Article 8 of Directive 2009/125/EC.                                                                                                                                                                                                                                              |        | N/A     |
|     | (e) Information for products specified in point 3 of Annex III<br>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 for compliance assessment as per Article 5 of this Regulation and on all forms of packaging, product information and advertisement, together with an explicit indication that the light source or separate control gear is not intended for use in other applications. |        | N/A     |





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| Cl.                        | Requirement – Test                                                                                                                                                                                                                                                            | Result | Verdict |
|                            | 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.                                  |        |         |
|                            | In particular 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     |

| ANNEX III | Exemptions                                                                                                                                                                                                                                                                                                                                                |  | N/A |
|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----|
| 1         | <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 |
| 2         | <b>This Regulation shall not apply to</b>                                                                                                                                                                                                                                                                                                                 |  | N/A |
|           | (a) double-capped fluorescent T5 light sources with power $P \leq 13$ W                                                                                                                                                                                                                                                                                   |  | N/A |
|           | (b) electronic displays                                                                                                                                                                                                                                                                                                                                   |  | N/A |
|           | (c) light sources and separate control gears in battery- operated products                                                                                                                                                                                                                                                                                |  | 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 |
| 3         | <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 |

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|                            | (f) light sources with the primary purpose of emitting radiation around 185,1 nm and intended to be used for the generation of ozone                                                                                                                                                                                                                   |        | N/A     |
|                            | (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 $\mu\text{mol/J}$ , and/or emitting 25 % or more of total radiation power of the range 250-800 nm in the range of 700-800 nm, 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, GX9.5, GZY9.5, GZZ9.5, K39d, G9.5HPL, G16d, GES/E40 (low voltage (24V) silver crown only), GX16, GX16d, GY16, G22, G38, 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 light                         |        | N/A     |
|                            | (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     |

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| Cl.                        | Requirement – Test                                                                                                                                                                                                                                                                                                                                  | Result | Verdict |
|                            | (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     |
|                            | (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 OTRUCK SYSTEM LED 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     |





| EU 2019/2020 + EU 2021/341 |                                                                                                                                                                                                                                                                                                                                                                                                  |        |         |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|
| Cl.                        | Requirement – Test                                                                                                                                                                                                                                                                                                                                                                               | Result | Verdict |
|                            | --(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     |
|                            | (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 ( $P_{sb}$ ) and on networked standby ( $P_{net}$ ) 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     |



### Threshold efficacy ( $\eta$ ) and end loss factor (L)

| Light source description                              | $\eta$ | L    |
|-------------------------------------------------------|--------|------|
|                                                       | [lm/W] | [W]  |
| LFL T5-HE                                             | 98,8   | 1,9  |
| LFL T5-HO, $4\,000 \leq \Phi \leq 5\,000\text{ lm}$   | 83,0   | 1,9  |
| LFL T5-HO, other $\text{lm}$ 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 |

| Light source description                         | $\eta$ | L       |
|--------------------------------------------------|--------|---------|
|                                                  | [lm/W] | [W]     |
| HPS double-ended                                 | 78,0   | 47,7    |
| MH $\leq 405\text{ W}$ single-ended              | 84,5   | 7,7     |
| MH $> 405\text{ W}$ 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 $\leq 2\,700\text{ lm}$                   | 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.



**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-<br>HLLS - 0,0167 |

Table 2.1(c):Survival factor (for LED and OLED) Model:BIB95-5w

| Items<br>Sample No.                                                                                                                                                                                          | Switch Survival | Lumen maintenance Survival | Verdict |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|----------------------------|---------|
| 1                                                                                                                                                                                                            | P               | P                          | P       |
| 2                                                                                                                                                                                                            | P               | P                          | P       |
| 3                                                                                                                                                                                                            | P               | P                          | P       |
| 4                                                                                                                                                                                                            | P               | P                          | P       |
| 5                                                                                                                                                                                                            | P               | P                          | P       |
| 6                                                                                                                                                                                                            | P               | P                          | P       |
| 7                                                                                                                                                                                                            | P               | P                          | P       |
| 8                                                                                                                                                                                                            | P               | P                          | P       |
| 9                                                                                                                                                                                                            | P               | P                          | P       |
| 10                                                                                                                                                                                                           | P               | P                          | P       |
| Average                                                                                                                                                                                                      | P               |                            | P       |
| Remarks:<br>1 for LED and OLED MLS only.<br>2 At least 9 Luminaire of the test sample must be operational after completing the test in Annex V of this Regulation or at least 90% of the UUT is operational. |                 |                            |         |

Table 2.1(d):Energy efficiency requirements &amp; Functionality requirements for Luminaire

| Model :                 | BIB95-5w                                              | Test voltage (V) : | 230V~      |
|-------------------------|-------------------------------------------------------|--------------------|------------|
| Functionality parameter | DF<br>at power input $P_{on}$ for LED<br>and OLED MLS | $P_{st}$ LM        | SVM        |
| Sample                  |                                                       |                    |            |
| 1                       | 0.969                                                 | 0.223              | 0.022      |
| 2                       | 0.968                                                 | 0.221              | 0.027      |
| 3                       | 0.969                                                 | 0.224              | 0.026      |
| 4                       | 0.968                                                 | 0.225              | 0.026      |
| 5                       | 0.969                                                 | 0.223              | 0.023      |
| 6                       | 0.969                                                 | 0.226              | 0.023      |
| 7                       | 0.968                                                 | 0.226              | 0.026      |
| 8                       | 0.969                                                 | 0.227              | 0.026      |
| 9                       | 0.968                                                 | 0.222              | 0.026      |
| 10                      | 0.969                                                 | 0.221              | 0.027      |
| Average                 | 0.968                                                 | 0.223              | 0.025      |
| Limit                   | $\geq 0.5$                                            | $\leq 1.0$         | $\leq 0,4$ |
| Verdict                 | P                                                     | P                  | P          |
| Remark: --              |                                                       |                    |            |

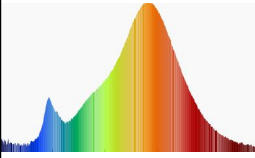
**Table 3 – COMMISSION REGULATION EU 2019/2015 + EU 2021/340**  
**Energy efficiency classes of light source**

|                                                                                                                |                         |                                     |                                       |
|----------------------------------------------------------------------------------------------------------------|-------------------------|-------------------------------------|---------------------------------------|
| Model :                                                                                                        | BIB95-5w                |                                     |                                       |
| Rated value :                                                                                                  |                         |                                     |                                       |
| $\Phi_{\text{use}}$ :                                                                                          | 470lm;                  | $P_{\text{on}}$ :                   | 5.0W; $F_{\text{TM}}$ : 1.000         |
| $\eta_{\text{T M}} = (\Phi_{\text{use}} / P_{\text{on}}) \times F_{\text{T M}}(\text{lm/W}) = 94 \text{ lm/W}$ |                         |                                     |                                       |
| Measured value :                                                                                               |                         |                                     |                                       |
| $\Phi_{\text{use}}$ :                                                                                          | 455.7 lm;               | $P_{\text{on}}$ :                   | 4.9W; $F_{\text{TM}}$ : 1.000         |
| $\eta_{\text{T M}} = (\Phi_{\text{use}} / P_{\text{on}}) \times F_{\text{T M}}(\text{lm/W}) = 93 \text{ lm/W}$ |                         |                                     |                                       |
|                                                                                                                |                         |                                     |                                       |
| Total mains efficacy $\eta_{\text{T M}}$<br>(lm/W)                                                             | Energy efficiency class | Energy efficiency class<br>(Rated)  | Energy efficiency class<br>(Measured) |
| $210 \leq \eta_{\text{T M}}$                                                                                   | A                       | <input type="checkbox"/>            | <input type="checkbox"/>              |
| $185 \leq \eta_{\text{T M}} < 210$                                                                             | B                       | <input type="checkbox"/>            | <input type="checkbox"/>              |
| $160 \leq \eta_{\text{T M}} < 185$                                                                             | C                       | <input type="checkbox"/>            | <input type="checkbox"/>              |
| $135 \leq \eta_{\text{T M}} < 160$                                                                             | D                       | <input type="checkbox"/>            | <input type="checkbox"/>              |
| $110 \leq \eta_{\text{T M}} < 135$                                                                             | E                       | <input type="checkbox"/>            | <input type="checkbox"/>              |
| $85 \leq \eta_{\text{T M}} < 110$                                                                              | F                       | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/>   |
| $\eta_{\text{T M}} < 85$                                                                                       | G                       | <input type="checkbox"/>            | <input type="checkbox"/>              |



Table 4

## Information

| Product information sheet                                                                                                                      |                    |               |                                                                                                                                                            |                                                                                       |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Supplier's name or trade mark:Haining Shengchang electric light source technology Co., Ltd                                                     |                    |               |                                                                                                                                                            |                                                                                       |
| Supplier's address: Tanqiao Industrial Park, Yuanhua Town, Haining City, Zhejiang Province                                                     |                    |               |                                                                                                                                                            |                                                                                       |
| Model identifier: BIB95-5w                                                                                                                     |                    |               |                                                                                                                                                            |                                                                                       |
| Type of light source :                                                                                                                         |                    |               |                                                                                                                                                            |                                                                                       |
| Lighting technology used:                                                                                                                      | LED                |               | Non-directional or directional:                                                                                                                            | NDLS                                                                                  |
| Light source cap-type (or other electric interface)                                                                                            | 220-240Vac;50/60Hz |               |                                                                                                                                                            |                                                                                       |
| Mains or non-mains:                                                                                                                            | MLS                |               | Connected light source (CLS):                                                                                                                              | No                                                                                    |
| Colour-tuneable light source:                                                                                                                  | No                 |               | Envelope:                                                                                                                                                  | No                                                                                    |
| High luminance light source:                                                                                                                   | No                 |               |                                                                                                                                                            |                                                                                       |
| Anti-glare shield:                                                                                                                             | No                 |               | Dimmable:                                                                                                                                                  | No                                                                                    |
| Product parameters                                                                                                                             |                    |               |                                                                                                                                                            |                                                                                       |
| Parameters                                                                                                                                     | --                 |               |                                                                                                                                                            |                                                                                       |
| General product parameters:                                                                                                                    |                    |               |                                                                                                                                                            |                                                                                       |
| Energy consumption in on-mode (kWh/1 000 h), rounded up to the nearest integer                                                                 | 5                  |               | Energy efficiency class                                                                                                                                    | F                                                                                     |
| Useful luminous flux ( $\Phi_{use}$ ), indicating if it refers to the flux in a sphere (360°), in a wide cone (120°) or in a narrow cone (90°) | 470 lm in a sphere |               | 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 | 2700 K                                                                                |
| On-mode power ( $P_{on}$ ), expressed in W                                                                                                     | 5.0                |               | 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                                                                                    |
| Outer dimensions without separate control gear, lighting control parts and non-lighting control parts, if any (millimetre)                     | Diameter           | See the photo | Spectral power distribution in the range 250 nm to 800 nm, at full-load                                                                                    |  |
|                                                                                                                                                | --                 | --            |                                                                                                                                                            |                                                                                       |
|                                                                                                                                                | height             | See the photo |                                                                                                                                                            |                                                                                       |
| Claim of equivalent power                                                                                                                      | —                  |               | If yes, equivalent power (W)                                                                                                                               | —                                                                                     |
|                                                                                                                                                |                    |               | Chromaticity coordinates (x and y)                                                                                                                         | x:0.4568;<br>y:0.4089                                                                 |
| Parameters for directional light source :                                                                                                      |                    |               |                                                                                                                                                            |                                                                                       |
| Peak luminous intensity (cd)                                                                                                                   | N/A                |               | Beam angle in degrees, or the range of beam angles                                                                                                         | N/A                                                                                   |

|  |  |          |  |
|--|--|----------|--|
|  |  | that can |  |
|--|--|----------|--|

| Parameters for LED or OLED light sources |      |                 |     |
|------------------------------------------|------|-----------------|-----|
| R9 colour rendering index value          | 7    | Survival factor | 0.9 |
| the lumen maintenance factor             | 0.96 | --              | --  |

**Photo documentation**



=====END OF REPORT=====