

**DONGGUAN VENUS OPTOELECTRONIC CO.,LTD****PSE REPORT**

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| Prepared For : | DONGGUAN VENUS OPTOELECTRONIC CO.,LTD Huguang Rd, Jiuwei, Qishi Town, Dongguan, Guangdong, China |
| Product Name: | LED BULBS |
| Trade Name: | VENUSOP |
| Model : | E17, E10, E11, E12, E14, E17, E26, E39, G4, G9, GY6.35, GU10, G24, 2G11, B15, MR16 |
| Prepared By : | Shenzhen BST Technology Co., Ltd. Building No.23-24, Zhiheng Industrial Park, Guankouer Road, Nantou, Nanshan District, Shenzhen, Guangdong, China. |
| Test Date: | Jun. 01, 2016 - Jun. 16, 2016 |
| Date of Report : | Jun. 16, 2016 |
| Report No.: | BST1606414450001Y-1SR-2 |

**TEST REPORT****IEC 62560****Luminaires****Part 1: General requirements and tests**

| | |
|--|---|
| Testing Laboratory Name | Shenzhen BST Technology Co., Ltd. |
| Address | Building No.23-24, Zhiheng Industrial Park, Guankouer Road, Nantou, Nanshan District, Shenzhen, Guangdong, China. |
| Testing location | Shenzhen BST Technology Co., Ltd. |
| Applicant's Name | DONGGUAN VENUS OPTOELECTRONIC CO.,LTD |
| Address | Huguang Rd, Jiuwei, Qishi Town, Dongguan, Guangdong, China |
| Manufacturer | DONGGUAN VENUS OPTOELECTRONIC CO.,LTD |
| Address | Huguang Rd, Jiuwei, Qishi Town, Dongguan, Guangdong, China |
| Test specification | |
| Standard | IEC 62560:2011+A1:2015 |
| Procedure deviation | N/A |
| Non-standard test method | N/A |
| Test item description | LED BULBS |
| Trademark | See Page 1 |
| Model and/or type reference | See Page 1 |
| Rating(s) | 100-110V~, 60Hz, 20W |
| Test case verdicts | |
| Test case does not apply to the test object | N(/A) |
| Test item does meet the requirement | P(ass) |
| Test item does not meet the requirement | F(ail) |



General remarks:

This report shall not be reproduced except in full without the written approval of the testing laboratory.

The test results presented in this report relate only to the item(s) tested.

"(see remark #)" refers to a remark appended to the report.

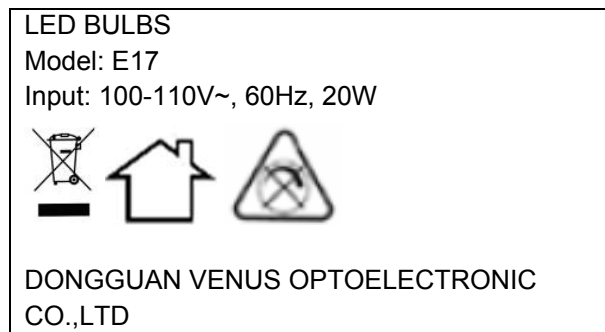
"(see Annex #)" refers to an annex appended to the report.

Clause numbers between brackets refer to clauses in IEC 62560.

General product information:

The series products have the same circuit diagram, PCB layout and functionality. The differences are the model name, so, we select E17 to test.

Copy of marking plate:



Prepared by :

Carl Lin

Engineer

Reviewer :

Andy Yan

Supervisor

Approved & Authorized Signer :

Christina

Christina / Manager



| IEC 62560 | | | |
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| Cl. | Requirement – Test | Result | Verdict |
| 4 | General requirements and general test requirements | | P |
| 4.1 | The lamps shall be so designed and constructed that in normal use they function reliably and cause no danger to the user or surroundings. | | P |
| 4.2 | Self-ballasted LED-lamps are non-repairable, factory-sealed units. They shall normally not be opened for any tests. In the case of doubt based on the inspection of the lamp and the examination of the circuit diagram, and in agreement with the manufacturer or responsible vendor, either the output terminals shall be short-circuited or, in agreement with the manufacturer, lamps specially prepared so that a fault condition can be simulated shall be submitted for testing (see Clause 13). | | P |
| 4.3 | all tests are carried out on each type of lamp or, where a range of similar lamps is involved, for each wattage in the range or on a representative selection from the range, as agreed with the manufacturer. | | P |
| 4.4 | When the lamp fails safely during one of the tests, it is replaced, provided that no fire, smoke or flammable gas is produced. Further requirements on failing safe are given in Clause 12. | | P |
| 5 | Marking | | P |
| 5.1 | Lamps shall be clearly and durably marked with the following mandatory markings: | | P |
| | a) mark of origin (this may take the form of a trademark, the manufacturer's name or the name of the responsible vendor); | see page 3 | P |
| | b) rated voltage or voltage range (marked "V" or "volts"); | 100-110V~ | P |
| | c) rated wattage (marked "W" or "watts"); | 20W | P |
| | d) rated frequency (marked in "Hz"). | 60Hz | P |
| 5.2 | In addition, the following information shall be given by the lamp manufacturer on the lamp or immediate lamp wrapping or container or in installation instructions. | | P |
| | a) Burning position, if restricted, shall be marked with the appropriate symbol. Symbol examples are shown in Annex B. | | P |
| | b) rated current (marked "A" or "ampere"); | | P |



| IEC 62560 | | | |
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| Cl. | Requirement – Test | Result | Verdict |
| | c) “For lamps with a weight significantly higher than that of the lamps for which they are a replacement, attention should be drawn to the fact that the increased weight may reduce the mechanical stability of certain luminaires and lampholders and may impair contact making and lamp retention.” | | P |
| | d) Special conditions or restrictions which shall be observed for lamp operation, for example operation in dimming circuits. Where lamps are not suitable for dimming, the following symbol in Figure 1 may be used | | P |
| | e) For eye protection, see requirements of IEC/TR 62471-2 | | N |
| 5.3 | Compliance is checked by the following: Presence and legibility of the marking required in 5.1 – by visual inspection. The durability of the marking is checked by trying to remove it by rubbing lightly for 15 s with a piece of cloth soaked with water and, after drying, for a further 15 s with a piece of cloth soaked with hexane. The marking shall be legible after the test. Availability of information required in 5.2 – by visual inspection. | | P |
| 6 | Interchangeability | | P |
| 6.1 | Cap interchangeability | E17 | P |
| 6.2 | Bending moment, axial pull and mass | | P |
| 7 | Protection against accidental contact with live parts | | P |
| | lamp is installed in a lampholder according to the relevant IEC lampholder data sheet | | P |
| 8 | Insulation resistance and electric strength after humidity treatment | | P |
| 8.1 | General | | P |
| 8.2 | Insulation resistance | 30°C, 95%R.H >4MΩ | P |
| 8.3 | Electric strength | 3000V | P |
| 9 | Mechanical strength | | P |
| 9.1 | Torsion resistance of unused lamps | | P |



| 9.2 | Torsion resistance of lamps after a defined time of usage | | N |
|-----------|--|-------------------|---------|
| IEC 62560 | | | |
| Cl. | Requirement – Test | Result | Verdict |
| 9.3 | Repetition of Clause 8 | | P |
| 10 | Cap temperature rise | 43.9K | P |
| 11 | Resistance to heat | | P |
| 12 | Resistance to flame and ignition | | N |
| 13 | Fault conditions | | P |
| 13.1 | General | | -- |
| 13.2 | Extreme electrical conditions (dimmable lamps) | | N |
| 13.3 | Extreme electrical conditions (non-dimmable lamps) | | P |
| 13.4 | Short-circuit across capacitors | No dangerous | P |
| 13.5 | Fault conditions across electronic components | No dangerous | P |
| 13.6 | Compliance | | P |
| 14 | Creepage distances and clearances | Cr.>5mm, Cl. >3mm | P |
| Annex A | (informative) Overview of systems composed of LED modules and control gear . | | N |
| Annex B | (normative) Lamps with operating position limitations (see 5.2) | | P |

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| Table 8.2 | Title: Insulating resistance | | P |
| Test comments | Location | | Insulation resistance (MΩ) |
| | Between | And | |
| | Live parts | Mounting surface | >4MΩ |
| | Live parts | Enclosure | >4MΩ |

| | | | |
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| Table 8.3 | Title: Electric strength | | P |
| | Location | | Test voltage |
| | Between | And | |
| | Live parts | Enclosure | 3000V |



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| IEC 62560 | | | |
| Cl. | Requirement – Test | Result | Verdict |

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| Table 12 | Title: Glow wire test | | | N |
| Test comments | Parts | Test temp. (°C) | Results | |
| | | | | |

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| Table 13 | TABLE: tests of fault conditions | | | P |
| Part | Simulated fault | Test voltage | | Hazard |
| output | Short-circuit | 110V | | No |



ANNEX A:

Photo-documentation



Photo 1 General Appearance of the EUT

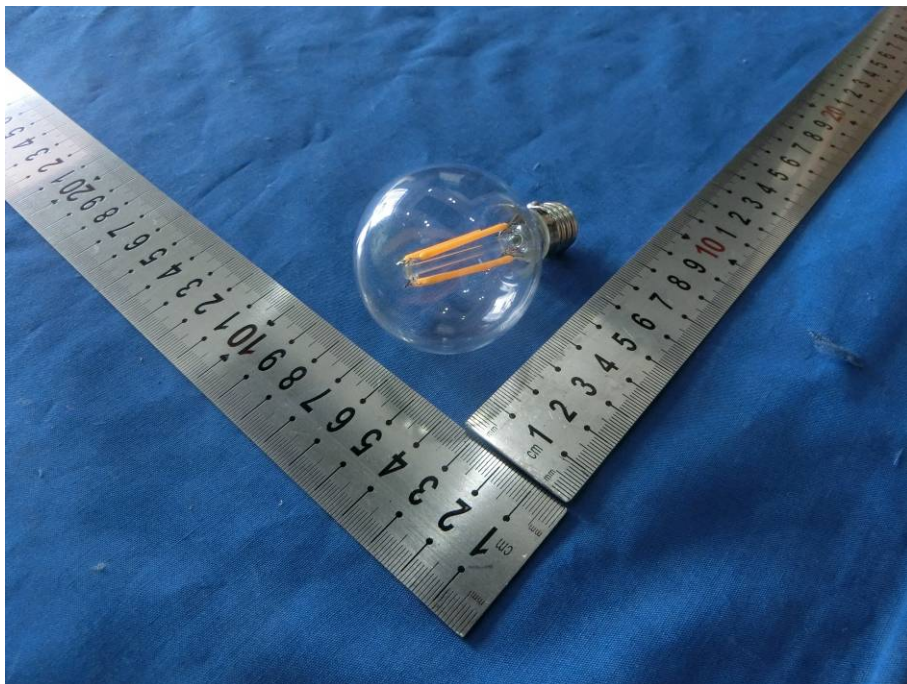


Photo 2 General Appearance of the EUT