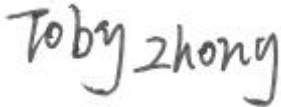

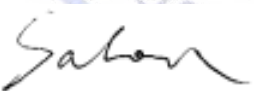


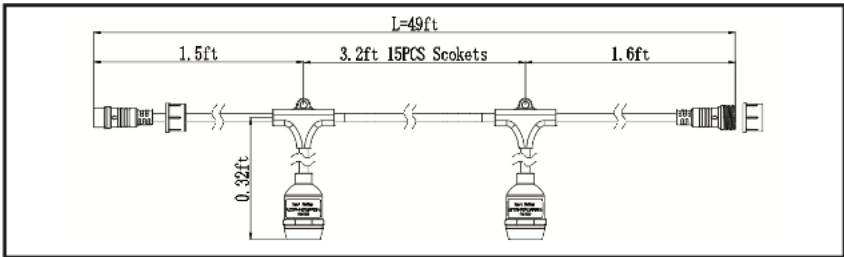


TEST REPORT

UL 588 - 2020

Standard for Safety for Seasonal and Holiday Decorative Products

Report Number :	BSTXD210921169022SR
Date of issue :	September 11, 2021
Total number of pages .:	9 Pages
Compiler (signature) :	 Toby Zhong
Auditor (signature) :	 Tom Chen
Approver by (signature) :	 Salon
Applicant's name :	SHENZHEN LANGMA TECHNOLOGY LIMITED
Address :	Rm. 1001, No.384 Of Gushu 1st str, Gushu Community, Bao'an District, Shenzhen, Chin
Manufacturer's name:	SHENZHEN LANGMA TECHNOLOGY LIMITED
Address:	Rm. 1001, No.384 Of Gushu 1st str, Gushu Community, Bao'an District, Shenzhen, Chin
Product name:	Smart LED String Light
Model/Type reference:	LM-WF-S14-48, LM-WFSL-001, LM-WFSL-002, LM-WFSL-003, LM-WFSL-004, LM-WFSL-005, LM-WFSL-006, LM-WFSL-007, LM-WF-S14-48-UK, LM-WF-S14-48-US
Test Standard:	UL Standard for Safety for Seasonal and Holiday Decorative Products, UL 588 Meet the requirements of 16CFR 1120.3 (C)
Testing Laboratory:	Shenzhen BST Technology Co., Ltd. (ISO17025 CNAS No.L3574)
Laboratory Address:	4Add:Building No.23-24,Zhiheng Industrial Park,Guankouer Road,Nantou,Nanshan District,Shenzhen,Guangdong,China
General remarks:	The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. Throughout this report a comma / point is used as the decimal separator.
Possible test case verdicts	
- test case does not apply to the test object..... :	N/A (or N)
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement	F (Fail)
- Testing Instructions of standards only	Info (Information Only)
Testing	
Date of receipt of test item..... :	September 1, 2021
Date(s) of performance of tests	September 1, 2021 to September 14, 2021

Product information	
Product name.....	Smart LED String Light
Brand name.....	
Model/Type reference.....	LM-WF-S14-48, LM-WFSL-001, LM-WFSL-002, LM-WFSL-003, LM-WFSL-004, LM-WFSL-005, LM-WFSL-006, LM-WFSL-007, LM-WF-S14-48-UK, LM-WF-S14-48-US
General product information: Electrical Ratings: Input AC100V-120V 50/60Hz Bulbs:S14 E27/2W/100-120VAC 2700K Drop length: 0.32ft. Length:49ft Input watt,max:30W Socket distance:3.2ft 15 sochets Local use:Wet	
	
Maximum test ambient temperature: 25°C	

marking plate (Representative):

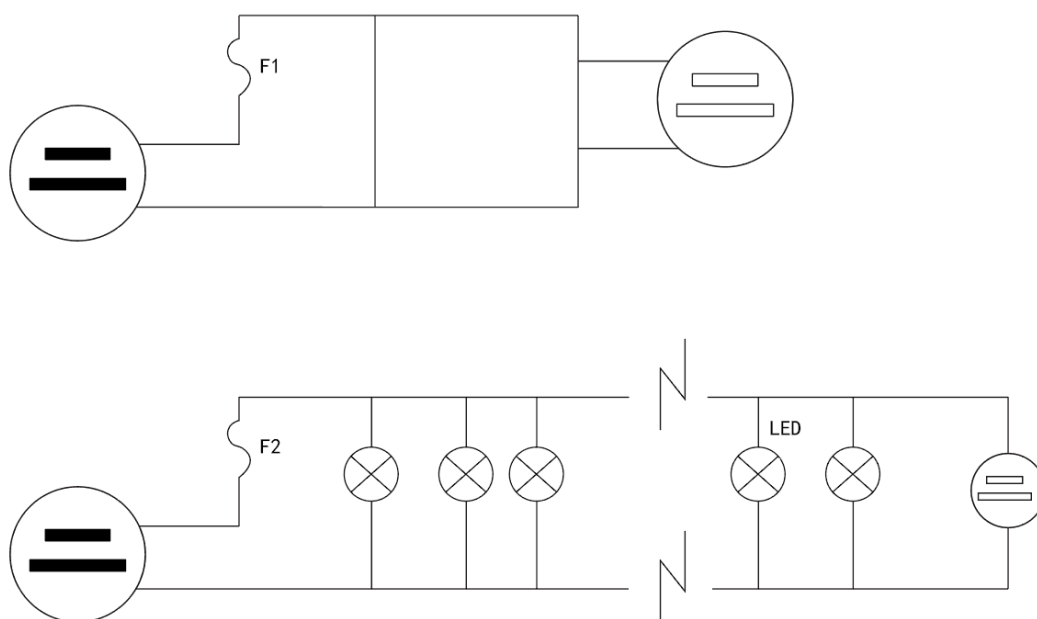
Photo : Sample



Detachable power-supply cord with fusing in accordance



Circuit diagram



**Test Requested:**

16CFR 1120.3 (C) Standard UL588 -2020 Safety for Seasonal and Holiday Decorative Products	
Clause	Description Requirement
6	Types of Wire
6.1	Wire types and overcurrent protection ratings for series-connected seasonal lighting products
6.2	Wire types and overcurrent protection ratings for parallel-connected seasonal lighting products
7	Overcurrent Protection
7.1	A product covered by this standard shall be provided with integral overcurrent protection which complies with the Standard for Low-Voltage Fuses – Part 1
7.2	A product employing a power inlet intended for use with a cord set or a detachable power-supply cord shall be provided with fusing in accordance with this Section: a) In the power inlet or adjacent to the point of connection to the power-supply source provided by the product, and b) In the detachable power-supply cord if provided.
7.3	The overcurrent protection shall be either an integral part of the attachment plug or current tap, or of a through-cord design (in-line fuseholder) located so that there is not more than 6 inches (152 mm) between the face of the attachment plug or current tap and the side of the fuseholder furthest from the attachment plug or current tap. If a through-cord design is employed, a minimum No. 20 AWG (0.52 mm ²) wire shall be used between the attachment plug or current tap and the fuseholder.
7.4	The rating of the overcurrent protection shall be as indicated in Tables 6.1 or 6.2.
7.5	A product provided with a polarized line fitting shall employ one fuse which shall be connected to the ungrounded (narrow) blade of the attachment plug or current tap, and be replaceable.
7.6	A product employing a replaceable fuse shall be provided with at least one spare fuse.
7.7	A product provided with a non-polarized line fitting shall employ two fuses, one connected to each conductor, which are not required to be replaceable.
15	Strain Relief
15.1	A seasonal lighting product shall be provided with strain relief such that a pull exerted on the supply cord cannot be transmitted directly to terminals, splices, or interior wiring of the unit.
15.2	If a seasonal lighting product is provided with a wiring device, such as an attachment plug, cord connector, or current tap, strain relief shall be provided such that a pull exerted on the wire or cord cannot be transmitted directly to the terminals or interior wiring of the wiring device. Compliance shall be determined by the Strain Relief Test, Section 71.
15.3	If a seasonal lighting product is provided with a series-connected lampholder, strain relief shall be provided for the wire attachments at each lampholder, and the insulation on each connected wire shall be held securely. Compliance shall be determined by the Strain Relief Test, Section 46.
15.4	Each surface borne upon or otherwise contacted by a strain-relief knot in a flexible cord shall be free from all burrs, fins, and other projections or sharp edges that can damage the wires.
15.5	An electronically-operated ornament shall be provided with strain relief such that a pull exerted on any external leads subject to handling cannot be transmitted directly to the terminals, splices, or internal wiring of the unit, including the adaptor. Acceptability shall be determined by the Strain Relief Test, Section 101. A non-electronically-operated ornament shall comply with the



	Lampholder Strain Relief Tests, Section 79.
71	Strain Relief Test
71.1	a) Neither conductor of the pair shall become detached from the terminal to which it is connected,
	b) There shall not be exposure of live parts as determined by contact with the probe illustrated in Figure 9.1,
	c) There shall not be any breakage of the cord, and
	d) The leads shall not be displaced more than 1/16 inch (1.6 mm) from the point of entry into the device.
71.2	One device is to be securely supported
79	Lampholder Strain Relief Tests
79.1	Lead pull test
79.1.2	a) The average of the recorded pull values is at least 27 lbf (120 N),
	b) No lampholder or connection sustained damage at less than 24 lbf (107 N), and
	c) No portion of the conductor becomes exposed outside the lampholder body.
79.2	Secureness of leads test
79.2.1	a) There is no damage to the lead connection,
	b) There is no breakage of the conductor,
	c) No portion of the conductor becomes exposed outside the lampholder body, and
	d) The leads are not displaced more than 1/16 (1.6 mm) from the point of entry into the lampholder body.
79.2.2	Each of three previously untested lampholders is to be subjected to this test.

Remark:

1. The declaration of conformity is only based on the actual value of laboratory activity, measurement uncertainty of the results not take into account.
2. Packaging and Package Marking assessment was based on the information provided by the customer, excluding the verification of the authenticity of the content. BST is not responsible for verifying the accuracy of the information provided by customers.

Test Results:

**Test of 16CFR 1120.3 (C) Standard
UL588 -2020
Safety for Seasonal and Holiday Decorative Products**

Clause	Description Requirement	Result - Remark	Verdict
6	Types of Wire		P
6.1	Wire types and overcurrent protection ratings for series-connected seasonal lighting products		N/A



6.2	Wire types and overcurrent protection ratings for parallel-connected seasonal lighting products	22AWG >20AWG	P
7	Overcurrent Protection		P
7.1	A product covered by this standard shall be provided with integral overcurrent protection which complies with the Standard for Low-Voltage Fuses – Part 1		N/A
7.2	A product employing a power inlet intended for use with a cord set or a detachable power-supply cord shall be provided with fusing in accordance with this Section: a) In the power inlet or adjacent to the point of connection to the power-supply source provided by the product, and b) In the detachable power-supply cord if provided.	Approved fuse with UL248 In the power inlet	P
7.3	The overcurrent protection shall be either an integral part of the attachment plug or current tap, or of a through-cord design (in-line fuseholder) located so that there is not more than 6 inches (152 mm) between the face of the attachment plug or current tap and the side of the fuseholder furthest from the attachment plug or current tap. If a through-cord design is employed, a minimum No. 20 AWG (0.52 mm ²) wire shall be used between the attachment plug or current tap and the fuseholder.		N/A
7.4	The rating of the overcurrent protection shall be as indicated in Tables 6.1 or 6.2.	Fuse specification 8A125V, Maximum conductor current of a fully loaded 1.8A	P
7.5	A product provided with a polarized line fitting shall employ one fuse which shall be connected to the ungrounded (narrow) blade of the attachment plug or current tap, and be replaceable.		N/A
7.6	A product employing a replaceable fuse shall be provided with at least one spare fuse.		N/A
7.7	A product provided with a non-polarized line fitting shall employ two fuses, one connected to each conductor, which are not required to be replaceable.		N/A
15	Strain Relief		P



15.1	A seasonal lighting product shall be provided with strain relief such that a pull exerted on the supply cord cannot be transmitted directly to terminals, splices, or interior wiring of the unit.		P
15.2	If a seasonal lighting product is provided with a wiring device, such as an attachment plug, cord connector, or current tap, strain relief shall be provided such that a pull exerted on the wire or cord cannot be transmitted directly to the terminals or interior wiring of the wiring device. Compliance shall be determined by the Strain Relief Test, Section 71.	Test in 71	P
15.3	If a seasonal lighting product is provided with a series-connected lampholder, strain relief shall be provided for the wire attachments at each lampholder, and the insulation on each connected wire shall be held securely. Compliance shall be determined by the Strain Relief Test, Section 46.		NA
15.4	Each surface borne upon or otherwise contacted by a strain-relief knot in a flexible cord shall be free from all burrs, fins, and other projections or sharp edges that can damage the wires.		P
15.5	An electronically-operated ornament shall be provided with strain relief such that a pull exerted on any external leads subject to handling cannot be transmitted directly to the terminals, splices, or internal wiring of the unit, including the adaptor. Acceptability shall be determined by the Strain Relief Test, Section 101. A non-electronically-operated ornament shall comply with the Lampholder Strain Relief Tests, Section 79.	TEST IN 79	P
71	Strain Relief Test		P
71.1	a) Neither conductor of the pair shall become detached from the terminal to which it is connected,		P
	b) There shall not be exposure of live parts as determined by contact with the probe illustrated in Figure 9.1,		P
	c) There shall not be any breakage of the cord, and		P
	d) The leads shall not be displaced more than 1/16 inch (1.6 mm) from the point of entry into the device.	0.9mm	P
71.2	One device is to be securely supported	>18AWG 146N	P



79	Lampholder Strain Relief Tests		P
79.1	Lead pull test		P
79.1.2	a) The average of the recorded pull values is at least 27 lbf (120 N),	Average pull values 131N	P
	b) No lampholder or connection sustained damage at less than 24 lbf (107 N), and	Minimum 116N	P
	c) No portion of the conductor becomes exposed outside the lampholder body.		P
79.2	Secureness of leads test		P
79.2.1	a) There is no damage to the lead connection,		P
	b) There is no breakage of the conductor,		P
	c) No portion of the conductor becomes exposed outside the lampholder body, and		P
	d) The leads are not displaced more than 1/16 (1.6 mm) from the point of entry into the lampholder body.	0.8mm	P
79.2.2	Each of three previously untested lampholders is to be subjected to this test.	>20AWG 95N	

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 requirement.....: F (Fail)

STATEMENT

- 1.This report is invalid without special seal for inspection and testing and cross stitch seal of testing unit.
- 2.This report is invalid without the signature of compile,check and approve.
- 3.This report is invalid if altered.
- 4.The copy of this report is invalid without the special seal for inspection and testing of the inspection unit and the cross stitch seal.
- 5.This report shall not be used for all kinds of advertising.
- 6.Any objection to the test results of this report should be raised within 10 working days from the date of receiving the report.
- 7.For non laboratory sampling (or on-site inspection), the inspection results in this report are only responsible for the samples (or the inspected parts / areas).

End of Report