

TEST REPORT **UL 48**

Report No.: HUAX241024018KR

Standard for Electric Signs

Report Number...... HUAX241024018KR

Prepared by(Test Engineer):: Kevin su

Approved(Manager): Amy jiang Total number of pages...... 25 pages

Oct. 31, 2024 Date of issue....:

Name of Testing Laboratory preparing

Shenzhen Huaxiang Testing Co., Ltd. the Report....::

Applicant's Name Sichuan Kexian Advertising Limited Company

Shop 119, Zone 2, Floor 1, Building 13, Youhao International Furniture Address: Expo Center, Yongfeng road, Gaoping district, Nanchong city, Sichuan

Province

Test specification

Standard...... UL 48:2011+Rev.9:2023

Test procedure: Type test

Non-standard test method: N/A

Test Report Form No.: UL48

Test Report Form(s) Originator...... Huaxiang

Master TRF...... Dated 2023-04

General disclaimer:

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

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Test item description..... LED Sign

Trade Mark.....: N/A

Sichuan Kexian Advertising Limited Company

Shop 119, Zone 2, Floor 1, Building 13, Youhao International Furniture Manufacturer.....

Expo Center, Yongfeng road, Gaoping district, Nanchong city, Sichuan

Province

Model/Type reference...... KX-FL-001, KX-BL-001, KX-FB-001, KX-GL-001

Input: 100-240V 50/60Hz,3A

Output: 12V, 15/30A

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List of Attachments (including a total number of pages in each attachment):

- Attachment No.1: Photo-documentation

Summary of testing:

Tests performed (name of test and test clause):

The submitted samples were found to comply with the requirements of:

- UL 48:2011+Rev.9:2023

Testing location:

Shenzhen Huaxiang Testing Co., Ltd.

Building B2, Junfeng Zhongcheng Intelligent Manufacturing Innovation Park, Heping Community, Fuhai Street, Bao'an District, Shenzhen City, Guangdong Province

Report No.: HUAX241024018KR

Copy of marking plate:

The artwork below may be only a draft.

LED Sign

Model: KX-FL-001

Rating: Input: 100-240V 50/60Hz,3A

Output: 12V, 15/30A

Sichuan Kexian Advertising Limited Company Shop 119, Zone 2, Floor 1, Building 13, Youhao International Furniture Expo Center, Yongfeng road, Gaoping district, Nanchong city, Sichuan Province

Made in China

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Test item particulars:			
Possible test case verdicts:			
- test case does not apply to the test object:	N		
- test object does meet the requirement:	P (Pass)		
- test object does not meet the requirement:			
Testing:	a Testing	a Testing	
Date of receipt of test item:	2024-10-24		
Date (s) of performance of tests:	2024-10-24 to 2024-10-3	1 _{sstin} 9 _{sstin} 9	
General remarks:	9nii 9nii	Pn: Pn:	
The test results presented in this report relate only to the ob- This report shall not be reproduced, except in full, without the "(See Enclosure #)" refers to additional information appended "(See appended table)" refers to a table appended to the re-	he written approval of the Is ded to the report.	ssuing testing laboratory.	
Throughout this report a \square comma / \boxtimes point is used as the	ne decimal separator.		
Name and address of factory (ies):	Same as Manufacturer	waxiang Termination of the Marketine Termination of the Marketine of the M	waxian'
General product information:	Huaxiang Testing	Huaxiang Testing	tnaxian,
			visin

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Clause Requirement Remark Result

1axian9	Scope	Weikelli.	on _{BYBIU}	Juaxiano	31×18/ - 1.
2	Glossary	70	Po	19	ing -
3	General		19 Testil	iang Te	- 7/5
3.1	Components	Hass	Haski	Husz	Hoax
3.2	Reference publications	(49	ATesting	19	<u>-</u>
3.3	Units of measurement	HUBXION	Huaxiaria	Huaxians	Huaxis
4	Construction	VQ	resting resti	19	in ^g P
4.1	Mechanical	waxiar	inaxian9 10	"axiano	Paxil
4.1.1	General	VQ	::00 :::	70	o P
4.1.2	Materials	:00	19 Testill 319 Testill	iang Te	P
4.1.3	Enclosures	HUSXI	Hnaxe	Husyn	P
4.1.4	Sign bodies	(19)	Testing Testing	1 9	P
4.1.5	Fastening methods	Husxis	Huaxiano	HUBXISING	Paxic
4.1.6	Sign mounting and support	NO	osting osti	19	_{stin} g P
4.2	Electrical	i jariai	19 Terrains Terrains	uaxiang 76	P
4.2.1	General	~Q	700	700	P
4.2.2	Accessibility to live parts	: 40	ng Testills	:010	P
4.2.3	Spacings	Husxir	Huaxic	HUSXIL	P
4.2.4	Grounding and bonding	VQ	Testing	19 	stiin ^g P
4.2.5	Wiring	Huaxist	Hng _{XISUO}	Huaxianu	Paxio
4.2.6	Barriers and bushings	n9	esting esti	70	in ^g P
4.3	Devices and components	axias.	ng Tes and Tes	axiang	P
4.3.1	General	7/02	//02	700	P
4.3.2	Overcurrent protective devices	: 40	Not such devices	:ang Te	N/A
4.3.3	Switches and control devices	HAISKIE	Not such devices	HUSKL	N/A
4.3.4	Disconnect switch	VQ	Testing	19 18	N/A
4.3.5	Receptacles	Huaxia	Hng _{Xigua}	Huaxiana	N/A
4.3.6	Sign rotors/animators	09	ingting institu	70	N/A
4.3.7	Motor operated clocks	ieixe.	ensixe.	axiang Te	N/A
4.3.8	Ballasts, transformers and power supplies	1/1/2	////	41112	N/A
4.3.9	Fans	(ng Testir	. ang Te	N/A
4.3.10	Heaters, air conditioners and controllers	HUBYIA	History.	HAGMa.	N/A
4.3.11	Changing message controllers	VQ	Testing Testing	<u>19</u>	N/A
4.3.12	GFCI	HUBXIBI	Angxigud ,	Hnaxiana,	N/A
4.3.13	Incandescent components	7	O	/Q	N/A

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Clause Requirement Remark Result

4.3.14	Fluorescent components	Testing Testing	N/A
4.3.15	HID components	Anaxiana Anaxiana Anaxia	N/A
4.3.16	Metal halide components	enirs enirs	N/A
4.3.17	Neon/cold cathode components	axiang to saint and to saint	N/A
4.3.18	LED illumination	Hay How How	Р
4.3.19	Speciality lighting		N/A
4.4	Supplementary requirements	Hasking Hasking Hasking	P 🚧
4.4.1	Cord-connected signs	Testing Testing	N/A
4.4.2	Signs using class 2 LED illumination system	Hraxiana, Hraxia	N/A
4.4.3	Outlet box connected (canopy signs)	enis enis	N/A
4.4.4	Trailer signs	wigng Team aviang Team avia	N/A
4.4.5	Awning signs	Haza, Haza, Haza,	N/A
4.4.6	Section signs	20 10 21 10 00 10 00 10 00 00 00 00 00 00 00 00	N/A
4.4.7	HID signs	Huaxian Huaxia	N/A
4.4.8	Neon signs for use in dwellings (residential)	resting resting	N/A
4.4.9	Rebuilt signs	waxiang ' unaxiang ' unaxia	N/A
4.4.10	Glass	enii enii	N/A
4.4.11	Skeleton neon tubing	visuo Teen visuo Teen	N/A
5	Performance	High High	P
5.1	General (Salara Casala)	aresims	o Testing
5.1.1	Signs shall be tested in accordance with the manufacturer's instructions.	Hindright Hindright Hindright	P HU
5.1.2	Adjustable parts shall be positioned to cause maximum heating during the following tests: Temperature, Leakage Current, Abnormal, and Thermal Shock Tests.	Huaxiang Testines Huaxiang Testines Huaxian	ng Testima P HV
5.1.3	For tests that require the unit to be operated, the voltage of the test circuit is to be 120 V when the sign is rated between 110 and 120 V (inclusive), or 240 V when the sign is rated between 220 and 240V (inclusive). At any other voltage rating, the	Huaxiang Tesing Huaxiang Tesing Huaxiang Tesing	ng Testing Hu
	sign is to be tested at its marked rating. A sign that is rated for use at more than one voltage, or for a range of voltages and contains a tapped transformer or other means of being adapted to	Hinaxiaud Lesting Hinaxiaud Lesting Hinaxia	P Po Testino
ng '	different sources of supply, is to be tested at the most unfavorable combination of supply voltage and internal adjustment.	iang Testing ison Testing	ng Testing
5.2	Temperature	See table 5.2	P HO
5.2.1	General	Testiny Testiny	
5.2.2	Test lamps and components	Anaxia. Anaxia. Anaxia	N/A
5.2.3	Change of resistance	entipe entipe	N/A

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Clause Requirement Remark Result

5.3	Dielectric	ng Testin and Testin and T	P
5.3.1	While in a fully heated condition, a sign shall withstand for 1 min, without breakdown, the application of a 40-70 Hz essentially sinusoidal	Testing Lesting Hillship	P and
tuskiano . Oni	potential between live parts and dead metal parts; between circuits of different potentials and not electrically connected (this includes the primary and secondary circuits of isolating transformers); and	ang " Huayang " Huayang " Huayang " Huayang " Huayang Testing	s _{jiu} a Hns _{vis}
Hnayer	between terminals of opposite polarity on capacitors that are across the line.	Hnaxe Hnaxe	Huaxie
5.3.2	The test potential is to be 1000 V plus twice the rated input voltage of the unit or the rated voltage of a component.	ang Teshing Huaxang Teshing Huaxang T	s ^{tinis} P Huaxi ^a
5.3.3	The test potential shall be obtained from any	enir enir	ein ^o P
tuaxiang Tes	convenient source of a capacity, at least 500 VA, to maintain the potential indicated except during breakdown. The voltage source is to be continuously variable. A direct-current source is to be used for a direct-current circuit.	ang Testing Huaxiang Testing Huaxiang T	^{Stiu} 0 Hns _{As}
5.3.4	In all tests, the potential is to be gradually	Marialla Marialla	- Anaxia
ing Huakiang Tes	increased from zero at a substantially uniform rate until the specified test potential is reached. During the test, all circuit interrupting devices shall be in the ON(closed circuit) position.	ang Tesing huaxang Tesing huaxang T	P ³
5.4	Strain relief	Testing Testing	e ^{ting} P
5.4.1	General	ane, maxiane, maxiane,	Paris
5.4.2	Power supply cord		P P
5.4.3	Internal wiring	and team wiand team wiand t	P
5.4.4	Supply leads	Hus. His	Р
5.5	Stability	a Testing	N/A
5.5.1	A sample of the sign is to be completely assembled (including any accessories provided on or in the sign), located on a flat, horizontal surface, and then tipped through an angle of 10 swithout any additional restraint. The sign is to remain in this position for a period of 1 min and then return by gravity to its normal upright position and is to be visually examined.	ang Testing Huaxiang Testing Huaxiang Ti ang Testing Huaxiang Testing Huaxiang Ti	N/A
5.5.2	As a result of the test in 5.5.1 the sign shall not become unstable and tip over and following the test the sample should return to the upright position with no damage to the sample.	ang Testing Huaxiang Testing	N/A
5.6	Mounting	Testing Testing	s ^{ting} P
5.6.1	A wall-mounted sign that uses openings or	ang ' '''axiang ' '''axiang '	P. William
mg Huariang Tes	keyhole slots in a polymeric material or a polymeric frame, or similar parts for mounting is to be tested as described in 5.6.2. As a result of this test, the plastic support, frame, or similar parts shall remain mounted as intended and show no visible cracking or distortion of the supporting part which affects the overall integrity of the sign mounting or	ang Testing Huayang Testing Huayang T	Pilua Hrisiya Pilua Yun

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UL 48				
Clause	Requirement	resim ⁹ Re	emark	Result
5.6.2	A sample of the sign is to be mounted operated as intended. While the sign heated condition, a weight of three to of the sign, and not less than 2.3 kg suspended from it for a period of 1 m. The weight is to be applied so as to of gravity of the sign. The sign is the examined.	n is in a fully- imes the total weight (5 lbs), is to be nin. act through the center	kans tuaxians tuaxians testing tuaxiang tuaxiang Testing tuaxiang tuaxi	P STATE OF S
5.7	Gasket aging	enits enits	enits enits	N/A
5.7.1	A gasket of neoprene, rubber, solid	elastomer	ing test	
ing	material, or open and closed flexible materials relied upon to block the er into a sign shall comply with the folloa) The material shall have its tensile	e cellular ntrance of water owing after testing: e strength and	ang Testing Huaxiang Testing	N/A
	elongation characteristics recorded a submitted. Next, additional samples be subjected to oven aging for 70 h 100° C (212° F) for a 60° C(140° F) r	of the material shall at	_{lang Testing} Huaxiang Testing	axiang Trating
	temperature in accordance with the Gaskets and Seals, UL 157. Followi the sample shall have the tensile strelongation characteristics recorded.	Standard for ing the aging ength and	iang Testing Huaxiang Testing	axiang Testing
	aging tensile and elongation values a less than 60% of the original as-reconstraint shall shows no visible evide such as cracking after flexing,	shall be no eived values. b) The	Rang Testing Huaxiang Testing HILL HILL HILL HILL HILL HILL HILL HIL	Political Tensives
	softening, or hardening after exposu oxygen at a pressure of 2.07 ± 0.07 ± 10 psi) and a temperature of 70.0 ± 1 .8. F) in accordance with the Sta	MPa (300 ±1。C (158.0	iong Testing Huexiang Testing Hu	axiang Tresting Huavi
	Gaskets and Seals, UL 157.	HUBYARO	Anaylang Hi	Huay
5.8	Gasket adhesion		Testing Testing	N/A
5.8.1	Three gasket assemblies shall be us determine the average initial force re		Hriskiaua Hr	N/A
ing Huaxiang Te	remove the gasket from its mounting shall be applied to the edge of the gaperpendicular to the surface on which gasket is mounted.	asket in a plane ch the	iang Testing Huaxiang Testing	axiang Testing
5.8.2	Six additional gasket assemblies sha		ng Testins	N/A
	conditioned for 168 h in an air circul C(36。F) above the maximum temper	- 100	Huaxia Hu	Huay
	as determined by the normal temperature test in 5.2. The force re remove the gaskets from the mountible measured within 30 min after the	equired to ing surface shall	Husking Testing Husking Testing Hu	axiang Testins
Huaxiang Te	conditioning for three of the samples required to remove the gaskets from mounting surface of the three remains be measured 24 h after the condition	s. The force n the ning samples shall	Jang Testing Huaxiang Testing Hu	axiang Training Huay
5.8.3	After conditioning, the average force remove the gaskets from the mounti shall be not less than 60% of the ini measured before conditioning.	e necessary to ing surface	ang thuaxiang to the Hu	N/A
1300	Exclusion of water	1/3/19	1200	7/8/10

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	UL 48		
Clause	Requirement	Remark	Result
- Hayian	T = 1100 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Haylan Haylan	408
5.9.1	Except as noted in 5.9.2, the sign to be tested shall be positioned as intended in service and 1	Testing Testing	P P
	gallon (3.8 L) of water is to be poured in a continuous stream on or over each part of the sign that permits the entrance of water, such as	Hnayaua Hnayaua Hnayaua	Huai
	openings at the back of the sign for drainage,	ang Testing iang Testing	resting
	openings for ventilation, mounting straps, seams, or joints. At the conclusion of the test, the exterior of the sign is to be wiped dry and the interior	Hnaye Hnayer Hnayer	Husi
- Jano Te	examined for compliance with 5.9.3.	and Testin's sign of Testin's sign of	(estille
5.9.2	An outdoor sign intended to be mounted on a post or mast that extends through the sign, is to be subjected to the test described in 5.9.1 with short	Hnsy Hnsy Hnsy	P ^{va}
	sections of the post or sheet-metal replicas that extend a distance to simulate the intended	Hnas _{jaug} , Hnasjaug , Hnasjaug	Hua
0 F 0 2	installation.	Testing Testing	(esting
5.9.3	An outdoor awning sign that is dependent upon the surface of a building to exclude water shall be	Hnaxiaud , Hnaxiaud , Hnaxiaud	P
	mounted as intended on a surface in accordance with the sign installation instructions, including any required	a Testing	iesting
	caulking, to simulate the intended installation, prior to being subject to the test described in 5.9.1.	Huaxians Huaxians Huaxians	Husi
5.9.4	Subassemblies of a section sign shall be joined	Testing Testing	(85/100)
Huaxiang	together in accordance with the installation instructions, excluding the use of any caulking	Hnayaua Hnayaua Hnayaua	P
	compounds, prior to conducting the tests described in 5.9.1.	entiesting and Testing	i estino
5.9.5	As a result of the test: a) Water shall not contact any electrical device	Hines Hines, Hines,	P
	unless that device is suitable for water contact,	ng Teshina ng Teshina	(85m)
	such as wet location, weatherproof, water-tight, or outdoor use, and	Huaxiana Huaxiana Huaxiana	Husi
	b) Water shall not enter: 1) A splice enclosure provided as part of a ballast,	waxang Testing	(estime
	transformer, or power supply; 2) A separate enclosure housing a ballast, transformer, or power supply;	Are Ho He	(esting
	3) An enclosure housing appliance-wiring-material conductors;	Huayana Huaxiana	Husi
	4) An enclosure housing a snap switch, or similar device; or5) A drain opening provided on the back surface of a sign	n at ans testing	(esting
J	9711 9711 9711 9711 9711 9711	ir. How How	Hing
5.10	Bond impedance	one. Test energial energial	N/A
5.10.1	The bond impedance test apparatus shall consist of an indicating instrument and an ac or dc	History History	N/A
	power supply of approximately 12 V providing a current of 30 A through the bonding means being evaluated.	uuayang Testing	(85 _{filus}

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Hor	UL 48	Ho. Ho. Ho.	Ho
Clause	Requirement	Remark	Result
5.10.2	The sample shall be tested for impedance of the bonding of accessible non-current carrying metal part with the grounding terminal means. When tested i accordance with 5.10.3: a) The resulting voltage drop shall not exceed 4 V; and b) There shall be no melting of any metal in the bond, and no heating or burning, which is likely to create a	s testing testing	N/A
	fire hazard.	4nexe Hnexe Hnexe	tilug Hnax
5.10.3	The test of impedance shall be performed by passing a 30 A current from a part to be grounded to the grounding terminal means for a period of 2 min and measuring the potential drop between them at the end of the period.	e juaxang tesing Huaxiang tesing	N/A
5.11	Accessibility barrier dielectric	Hasy Hasy	P
5.11.1	This test shall be conducted across the combination of the barrier material, spacing between barriers and live parts, and any other material between current-carrying parts and the user or service personnel side of the barrier.	Huariang Tesing Huariang Tesing Huariang Tesing	P HUBY
5.11.2	For this test a dielectric voltage-withstand potential of 1750 V plus 1.25 times the maximum potential voltage difference between ground and the live part being insulated from user or service personnel contact. The test potential shall be	Huaxand Huaxand Huaxand Huaxand	P ^{Jax}
	applied between the current-carrying part made inaccessible by the barrier and the edge of the straight metal strip specified in 4.4.8.3.1. The straight metal strip shall be in contact with the opposite side of the barrier. The dielectric voltage is to be raised gradually, within 10 s, to the test voltage and the test voltage maintained for one minute.	tuarang Tesing Huariang Tesing Huariang Tesing Huariang Tesing	Husy Filing Husy
5.11.3	During the test there shall be no breakdown.	enitestins contestins	Р
5.12	Glass impact test	History Hostin	N/A
5.12.1	A test specimen of the glass shall be broken by impact to determine the acceptability of the temper of th glass.	ne Huaxiand Tesind Huaxiand Tesind	N/A
5.12.2	The test shall be conducted at 25 +5。C(77 +9。F).	Testing Testing	N/A
5.12.3	The sample shall be weighed and the weight of 65 cm 2 (10 in 2) shall be calculated.	Hinaxiana, Hinaxiana, Hinaxiana,	N/A
5.12.4	The bottom surface of the glass sample shall be covered with tape to retain the particles when the glast breaks.		N/A
5.12.5	The glass shall be placed on flat surface and shattered with a center punch at a point 30 mm (1.18in) from the midpoint on the edge of the glass towarthe center. The edge is defined as the longest side. When shattered, the glass shall completely dice into particles.	ard Hustiano Testino Testino Hustiano Testino	N/A
5.12.6	The ten largest crack-free particles shall be weighed together within 5 min, to avoid further fracture. The total weight of the ten selected particles shall be less than the calculated weight of the	Huaxana Huaxana Huaxana	N/A
	65mm 2 (0.1 in 2) of glass from 5.1 2.3.	Hnaxiaua Hnaxiaua Hnaxiaua	Huax

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Clause	Requirement	Remark	Result
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5.13	Lamp containment barrier melt-through test	40 40	N/A
5.13.1	Three samples of the lamp containment barrier shall be subjected to each test. Each test sample shall be: a) Rectangular and have a minimum dimension of 1 50 mm (5.9 in) on each side;	luadang Tesima Huayang Tesima Huayang T	N/A
	b) Supported on its outer edges 200 mm (7.87 in) above a surface covered by a layer of dry absorbent cotton of nominal 6 mm (0.24 in) thickness;	uaxang To Huaxiang To Huaxiang T	esting Huaxi
	c) Oriented as it would be in the sign; and d) Preheated to and maintained at the maximum temperature the barrier attained during the normal temperature test.	uaxans Huaxians Huaxians	esting Huaxi
Huaxian	Linakan Hilakan	Maxigu.	Huaxi
5.13.2	Three quartz arc tube segments shall be chosen based on Table 5.2, and preheated in an oven to 1100。C(2012。F) for at least 15 min. Each arc	wang Testing wang Testing	N/A
	tube segment shall then be removed from the oven and, within 2 s, be placed on the thinnest part of the barrier, where particles from a ruptured lamp are likely to drop and rest, with the longitudinal axis of the cylinde		Huari Huari
9	perpendicular to the plane of the barrier.	Testing Testing	esting
5.13.4	The cotton indicator located below the barrier sample shall not be ignited as a result of this test. Glass barriers shall not break or shatter.	max _{aua} Hnax _{iaua} Hnax _{iaua}	N/A
5.14	Polymeric ground/bond strength test	tensive termination with the tensive t	N/A
5.14.1	The grounding or bonding fitting shall be secured with a tightening torque of 3.4 N-m (30 lbf-in) and the assembly shall be subjected to the Mold Stres Relief Distortion Test, 5.1 6 and while still fully heated, the assembly shall be subjected to the Bond Impedance Test, 5.1 0.	s ng Teshing ng Teshing	N/A
5.15	Straight accessibility probe test	Wang to Wang to Wang	Park
5.15.1	A probe measuring 101 .6-mm (4-in) long by 12.7- mm (1/2-in) wide, and 1.6-mm (1/1 6-in) thick shall be used for this test. The probe shall be	no Testing no Testing	esting Ho
ia Hng _{Xla} ,	applied to all openings in the product with a force not exceeding 4.4 N (1 lb).	Inaxe Hnaxe Hnaxe.	P
5.15.2	The probe shall not be able to contact parts that are required to be inaccessible.	majang lensiyany husisany	P
5.16	Mold stress relief distortion test	enis. enis	N/A
5.16.1	One sample shall be conditioned in a full-draft circulating-air oven for 7 h at 10 \pm 1.0 C(18 \pm 1.8 F)higher than the maximum operating	makang tesa. Huakiang tesa. Huakiang t	N/A
	temperature of the polymeric material to be tested, or 70. C (158. F), whichever is greater. After conditioning, any distortion of the polymeric material is to be evaluated for compliance with	uaxang Tesing Huaxiang Tesing Huaxiang T	esting Huaxi
	enclosure or other applicable requirements. Following conditioning, wet location polymeric sign bodie are to be subjected to the Water Exclusion Test, 5.9.	Salang Tesu Huakang Tesu Huakang Tesu Huakang T	aing Husyi
	M. Tanking the state of the sta		

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Huc.	Hno Hno Hno Hno	UL 48	Ano Ano An	Hua.
Clause	Requirement	Testing	Remark	Result
5.17.1	Three 31 by 31 -cm (12 by 12-in) sa	amples of rigid	HASKISH HASKISH	94/24/4 1
0.17.1	polymeric material are to be provide		enits enits	N/A
	minimum thickness to be used. The		ing Test	· 00765
	mounted across the open side of a 4		Angxig. Hagxig. Ha	axia, Hnaxia
	size outlet box. An open hole sized		000	0
	accommodate a trade size 1/2 condu	uit fitting is to be	Testins	765th13
	made in the center of the sample at		e and a second	axians
	center of the outlet box. A trade size	1 /2 conduit fitting	Account to	, Ac
	with a 2.4-m (8-ft) length of	resting	Testing Testing	Testin9
	conduit secured to it, is to be inserted		'ensix	oxiano '
Hos	and secured in the manner intended		Hing, Hing, Hin	Hua
ϱ_{ni}	sample is to be mounted so that the sample to be tested is vertical to the		e _{tin} o e _{tin} o	e _{nite}
i eng T	torque of 22.6 N-m (200 lbf-in) is to		ang Tee	:ang 783
Huaxic	conduit for one minute. The test is to		Anaxic Hinaxic Hin	axic Huaxic
:nO	repeated applying sufficient weight t		Paris Paris	O
2011	result in a 1 7 N-m (1 50 lbf-in) bend		an Testino	0785th.
Maxialia	applied to the union between the co		uu erisiksuu uudxians	axians
4.	fitting and the sample surface. The to	est is to be	41.	7
in ⁹	repeated with a 890 N (200 lb) force		Testing Testing	Testing
	conduit normal to the surface of the	material for 5 min.	ang '	axiang '
F 47.0	The material shall continue to secure	a the conduit and	400 400	Hos
5.17.2	fitting in place and not crack or perm		Testing Testing	N/A
	after the application of the torque an		i ensix	oxiano '
	bending moment.	A Hills, H	40,00 HO.00. HO	Hua,
5.18	Conduit knockout and twistout test	Testing Testing	Testing Testing	N/A
5.18.1	The following test shall apply only to		"axiaua	N/A
Ho	and shall be performed on a sample		Account to	190
	securely held in place using the test	apparatus	Testing Testing	Testin9
' ensix	described in Figure 5.1.	on page 1	eng lang	iso ' ensis
5.18.2	A force of 44 N (10 lb) shall be appli		Ang. Haga.	N/A
	knockout for 1 min by means of a 6.4 diameter mandrel with a flat end. The		enite Poits	enita
i ano T	shall be applied to the exterior surfa-		iang Tes	: 2119 183
Huaxie	knockout, in a direction perpendicula		Insylve Hisyler Hi	axic. Huaxic
	knockout, and at the point most likel		ens ens	O
	result in movement.	765211	og Teshin	20 Te 5111
5.18.3	The knockout shall remain in place,	and the	max maxiana	N/A
0	clearance between the knockout and		-0	19/7
ins T	be no more than 1.6 mm (0.063 in)		Testing Testing	Testing
Unaxian ^o	measured after the force has been r	emoved.	1113x 3U3 3113x 3U3	exign ⁹
5.19	Leakage current			Р
5.19.1	Except as noted in 5.19.3, a portable		710stills 710stills	Te ^{sting} P
	in a leakage current in excess of 0.5		ayang	axians
F 40.0	when tested in accordance with 5.1		An Ho	Ho
5.19.2	Except as noted in 5.19.3, a, station		Testing resting	Testing P
	shall not result in leakage current in when tested in accordance with 5.19		' engine '	axiano '
5.19.3	For cord connected signs, other than		100 HOO. HO	7/1/21
J. 13.J	intended for use in dwellings, which		stin9 stin9	sting P
	filtering components such as those i		rang least	wang '
	with requirements for emission of	Higher combit	Angu Hingui. Hin	ar. Hnax.
	electromagnetic interference (EMI),	the leakage	enia enia	$\varrho_{\Omega ii_{-}}$
	current shall not exceed 3.5 mA who		101esh	-0765h
	accordance with 5.19.		axians	axia

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Hos	Hon Hon Hon	UL 48	In. Ho.	Ho. Ho.
Clause	Requirement	ng Testing	Remark	Result
5.19.4	Leakage current from all exposed surfaces is to be measured to the conductor.		nakana makana makana	P
5.19.5	The circuit for the leakage curren		Max Hings	Huaxia Puax
	to be as illustrated in Figure 5.2. measurement instrument is define that is actually used for a measurement.	d in (a) -(c). The meter rement	waxiang Testing	onis Tensirano (
	need only indicate the same num particular measurement as would instrument. The meter used need	the defined not have all the	avang Testing Wiang Testing	ng hat sting to sting the state of the state
	attributes of the defined instrumer a) The meter is to have an input in resistive shunted by a capacitance	impedance of 1 500 Q	ule, Hus,	Hua, Hua,
	 0.15 μF. b) The meter is to indicate 1.11 t full-wave rectified composite wav 	imes the average of the	Hisking to	Huaxiang (
	across the resistor or current thro c) Over a frequency range of 0 to measurement circuit is to have a	ough the resistor. 100 kHz, the	uaxang Testing Huaxiang Testin	Hnaxiana Leanis Hnaxi
	response ratio of indicated to actucurrent that is equal to the ratio of 1500-0 resistor shunted by a 0.1	ual value of f the impedance of a	wakang Testing Huakiang Testi	ng Huaxiang Testing Huaxi
	capacitor to 1500 Q . At an indica measurement is not to have an el	tion of 0.5 mA, the	ang Testing	enite at ten
	60 Hz.		Mayor Hoay	Hnaxin Hnax
5.19.6	Unless the meter is being used to leakage from one part of a production is to be connected between an accordance of supply conductor.	ct to another, the meter	uaxang Tesing Huaxang Tesh	P Huaxiang Testind P
5.19.7	A sample of the product is to be current starting with the as-receiv	ed condition the as-	maxigua Hnaxigua Lega	Huaxiang 1 P
	received condition is without prior may occur as part of the production the grounding conductor, if any,			ng waxiang Testing
	open at the attachment plug. The adjusted to the product's maxim	num rated voltage. The	e otesiing	ng 21/18
	the product is to be	a) With switch S1 open,	uaxians Huaxians	Huaxiana Huaxi
	without load and connected to the The leakage current is to be mea positions of switch S2 and with the	sured using both e product switching	waxiang testi	Huaxiang Team Huax
	devices in all their operating posit b) Switch S1 is then to be closed product, and within 5 s the leakage	, energizing the ge current is	_{luarang} Tesh ^o Huariang Teshi	hnaviand <u>Linda</u> Hnaviand Lesiud
	to be measured using both position with the product switching devices their operating positions.	s in all	axiang Testing	enits of ensises .
	c) The leakage current is to be m thermal stabilization. Both positio be used in making this measurem	ns of switch S2 are to	Testing Testing	19 400 House
	Thermal stabilization is obtained temperatures by operation as in temperature test are reached.	when maximum	maxians Huarians	Huaxiany Huax

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400	UL 48	Hon Hon	HUC
Clause	Requirement	Remark	Result
5.20	Self-threading screw torque test	Anayang Anayang	N/A
5.20.1	A self threading screw that is required to be tightened during installation shall be able to withstand a tightening torque of 3.4 N-m (30 lbf-in) without resulting in the screw threads stripping or being pulled from its anchorage.	avang Testing Huaxiang Testing Huaxiang T	N/A
6	Manufacturing and Production Line Testing - Production Line Grounding Continuity	Hnaxes Hnaxes	P
6.1	The following test is to be conducted on 100% of production of all cord connected signs.	oxiang Testing oxiang Testing oxiang T	P
6.2	Continuity is to be verified between the ground pin on the supply cord and all dead metal parts on the sign that are required to be conductively connected to ground.	l l	P P
6.3	Any rated indicating device, such as a battery-and-buzze combination, an ohmmeter, or similar equipment, may be used to determine compliance with 6.2.	r example testing Huanang Testing	sting P
7	Marking	Testing Testing	e ^{ting} P
7.1 (Javiana)	General	axiang Huaxiang Huaxiang	Pusyie
7.1.1	Signs shall be provided with the applicable markings below.	Testing Testing	sting P
7.1.2	All markings shall be in a font that is easily legible.	axisua, maxisua, maxisua,	Puaxie
7.1.3	All markings shall be minimum 3.2-mm (0.125-in) tall unless indicated otherwise.	Testing Testing	esting P
7.1.4	All markings shall be visible during installation and available after installation.	Hnaxiaua , Hnaxiaua ,	Plaxie
7.1.5	Markings other than lamp replacement, on a canopy mounted sign are not required to be visible after the sign is installed. Instead they may be located adjacent to the branch circuit supply connection visible during installation.	avang Testing Huaxiang Testing Huaxiang T	e ^{ling} P
7.1.6	Cautionary and user markings are required to be permanent and shall be suitable for the environmental conditions which it is subjected.	Anavisus Hasisus	Ruavie eting
7.2	All signs	axiang leasing lang axiang l	P
7.2.1	A sign shall be marked with the manufacturer's name, trade name, trademark, or identifier, and electrical ratings in volts and amps.	eng Testing and Testing and T	Р
7.2.2	A sign shall be marked with the date or other dating period of manufacture not exceeding any three consecutive months.	a. Hnay. Hnay.	P
7.2.3	If a manufacturer produces or assembles signs at more than one factory, each finished sign shall have a distinctive marking by which it is identified as the product of a particular factory.	axans Huaxans Huaxans Huaxans Auaxans Huaxans Auaxans Huaxans Auaxans Huaxans Auaxans	P. and
7.2.4	A sign shall be marked with a unique identifier.	gr Hngyer Hngyer	Pign
7.2.5	Unless the mounting position is fixed by the construction or message, a damp or wet location sign shall be marked to indicate the proper mounting position.	arang Testing Huaxiang Testing Huaxiang T	s ^{ling} P

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	UL 48			
lause	Requirement	sting	Remark	Result
7.0.0	A sign intended for operation at a frequency of		Maxigue Hisaxigue Hisax	191.0
7.2.6	other than 60 Hz shall be marked with its rated		ens ens	P
	frequency expressed in one of the following terms:		of Learning	0785th
	hertz, hz, cycles per second, cps, or		waxiansaxians	19119
	cycles/second.		Ho Ho	1
7.2.7	A sign having blank faces that are intended to	Sing	7.85/m ^Q	TO Sing
·Z.	have advertising applied shall be marked with the		ayang'	P P
	following: " This sign is intended to have		man Hinga	HAIS
	advertising applied to the face (or faces) ".		eniis eniis	e _{nita}
7.2.8	A sign shipped without a face shall be marked	5	est english	AND NIA
HUBXIO	with the following: " This sign is intended to be		inax Hinaxic Hinax	N/A
	installed with a rigid sign face having dimensions		Par. Par.	::00
	of, " or, " This sign is intended to be		Testil's	75 Still 3
	installed with a flexible sign face designated		axiansaxians	isuss
	, using a tensioning system designated		Ho. Ho.	Ho
	and manufactured by The		esting esting	stin9
	appropriate dimensions, designations, and		lenging lenging	ISNO I
	identifications shall be inserted in the blanks.		max, Hngx, Hngs	HAS
	This marking shall be located in the open lamp		ϱ_{ni} ϱ_{ni}	enia e
	area where readily visible prior to installation of the	sian.	of Lean,	~9785h
	Instructions for installation of the sign face shall also	_	waxiana	19119
	be provided.		4,0	7,0
	s ing ' resting resting resting		Testing Testing	Testing
7.2.9	A replaceable overcurrent protective device, such a	ıs a	in and in a second	N/A
	fuse shall be marked as follows: " Replace with ty	ре	Hon Hon	1,600
	fuse ratedA,V only " . The marking shall b	e	osting cating	e _{tin} 9
	located next to the device.		iang Tes	ang Tes
7.2.10	Each dedicated receptacle shall have a mar	rking	may Hnay	P
	immediately adjacent to it identifying its use.	The	ϱ_{ni} ϱ_{ni}	enia e
	marking shall include the statement: " Not a		ates	~0165h.
	convenience receptacle — For use with		waxiana uwaxiana	1113
	only " . A description of the product to be		, ,	7.
	connected to the receptacle, including the model		Testing Testing	Testing
	number, catalog number, or other identification		iang' aiang'	isua,
	determined to be equivalent, shall be inserted in the	e 🖓	Man Hiller Hiller	Hue
	blank space.		cating cating	e _{tin} 9
7.2.11	Each convenience receptacle shall have a marking		:20976"	ang P
	immediately adjacent to it identifying its use.		max, Hnaxic Hinax	Hua
	The marking shall include the statement: "		ens ens	Q
	CAUTION - Risk of electric shock. Sign disconnect		of Lean,	~016211
	not de-energize this receptacle. Disconnect all bra		Maxigus Maxigus	191.5
	circuit-breakers or fuses before servicing this circuit	" ·	. 4	7
y 	sing resing resing	sting	Testing Testing	Testin9
7.2.12	An indoor sign shall be marked: "Dry Locations Only	<i>'</i> ".	enalizario ' enalizario '	iang ' P
Huja	Hing. Hing. Hing. Hing.	H	Inc. Hing. Hing.	HIIS
7.2.13	A damp location evaluated sign shall be		enits enits	etin [©] P
	marked: " Suitable for Damp Locations "		016-	and Tes
7.2.14	A wet location evaluated sign shall be marked: "		max. Hinaxia. Hinax	P
	Suitable for Wet Locations ".			1

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UL 48						
Clause	Requirement	Remark	Result			
7.2.15	A sign that is provided with drain openings at the bottom edge of the back surface, and that is capable of being mounted so the drain openings are	maxians maxians maxians	P			
	spaced less than 12.7 mm (1 /2 in) from the mounting surface, shall be marked with the following: "Maintain 1 /2 inch clearance between all drain openings and the mounting surface".	Huakan Hu	esting Huax			
7.2.16	A rebuilt sign shall be marked: "Rebuilt Electric Sign".	100 100 Hassa Hassa	P			
7.2.17	A sign or subassembly that requires an enclosure rated sign face shall be marked where readily visible during servicing with the following: "WARNING: This sign is provided with an	Huaxiang feeting Huaxiang feeting	P			
	enclosure rated sign face. Replace only with an enclosure rated sign face."	Huaxiang To Huaxiang To Huaxiang	Hnax			
7.3	Illumination specific	ssing ssing	N/A			
7.3.1	An incandescent-lamp sign shall be marked " Replace with watt lamp, maximum ". The letters of this marking shall be minimum 6-mm (0.24-in) tall and shall be visible during relamping.	Huaxiana (Huaxiana (Huaxiana)	N/A			
7.3.2	An HID lamp sign shall be marked "USE ONLY LAMP TYPE(S) FOR REPLACEMENT." The	HITSYLES HITSYLES	N/A			
	appropriate ANSI lamp code designation shall be inserte in the blank space. This marking shall be located adjacent to each lamp assembly where visible during servicing.	d Huakang Tesima Huakang T	esting Huaxi			
7.4 (a)	Portable/stationary/mobile	ensite Pensite	N/A			
7.4.1	A trailer sign shall be marked: "Trailer on which sign may be mounted has not been investigated."	Hing Hing.	N/A			
7.4.2	A damp or wet location cord-connected sign shall be marked to specify that the power supply cord shall be protected from excessive abuse, such as by vehicle traffic.	Max Hraye Hraye	N/A			
7.4.3	A sign provided with a cord reel shall be marked with instructions to completely unreel the cord before use. The markings shall be provided next to the supply cord entry into the sign.	Huaxianis Huaxianis Huaxianis	N/A			
7.4.4	A damp or wet location cord-connected sign shall be marked: "Replace with a hard-service cord Type SW-A, SOW-A, STW-A, or STOW-A". The	Testing Testing Huave	N/A			
7.4.5	marking shall be provided next to the supply cord. A sign using a GFCI shall be marked with	Hiskigud , Hiskigud , Hiskigud	, max			
1.4.5 19 Huakiang Te	instructions for testing the interrupter. The marking shall be located adjacent to the interrupter so that the user is aware of the instructions. The instructions shall include any required cautionary statements provided with the interrupter	waxiang Testing Huaxiang Testing Huaxiang Testing	N/A			
	instructions, and enough information to enable to user to conduct the required tests on the interrupter. The instructions shall also specify the	Huaxiana Te- Huaxiana Te- Huaxiana Te-	Huaxi			
	frequency of such testing, for example: "Test operation of ground-fault circuit-interrupter each time sign is plugged in".	Huaxiang Tesm. Huaxiang Tesm. Huaxiang T	Hnax,			

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UL 48						
Clause	Requirement	Remark	Result			
7.4.6	A cord-connected sign not intended or tested for continuous duty and imposing a load greater than of the branch-circuit rating on the branch circuit shall be marked: "Use on single-outlet circuit	80%	N/A			
7.5	Permanently connected signs	Testing Testing	NI/A			
7.5 7.5.1	A permanently connected sign using a motor rate	d more	N/A			
7.Q.1 Q	than 1 /20-hp (38-W output) shall be marked with the motor rating in volts and amps.	Testing	N/A			
7.5.2	A permanently connected sign shall be marked with the number and size of branch circuits/feede intended to be connected to the sign.	rs Hugy and Hugyans	N/A			
7.5.3	A permanently connected sign having a motor with motor-overload protection shall be marked to indicate the presence of such protection.	Hinax aud Je Hinaxiaud Je	N/A			
7.5.4	A permanently connected sign having a motor without motor-overload protection shall be marke indicate that remote motor-overload protection is provided; to identify the leads to which the power supply circuit to the motor shall be	V. VOV	N/A			
	connected; and to provide motor-rating data, sucl	ırrent	Huaxians Huax			
7.6	Outline lighting	Hing. Hings	N/A			
7.6.1	Each enclosure of a sign for outline lighting that houses high-voltage secondary circuits in excess 1000 V and 30 mA, shall be marked in letters not less than 6.35-mm (0.25-in) high with the following or equivalent statement: "Caution: Volts". The voltage indicated shall be the maximulopen circuit transformer voltage.	Testing Huar Huar	N/A			
7.7	Section signs	Testing Testing	N/A			
7.7.1 Warding Tel	A sign shipped in subassemblies shall be marked adjacent to the splice compartment, or cover where it is readily visible during installation, to identify the following: a) The splice enclosure, b) The conductors to be spliced, c) The voltage rating of the splice insulation determined by the maximum voltage between any	y two bund,	N/A			
::::::::::::::::::::::::::::::::::	ans	Testing Testing Testing	enigno Tostino			
7.8 7.8.1	Neon signs for use in dwellings	Hng. Hngs.	N/A			
7.8.1	A sign intended for use in dwellings shall be marked on an exterior facing surface, adjacent to power supply connection means with lettering mir 3.2-mm (0.125-in) high. The marking or its equivalently shall be as follows: "No User Serviceable Parts, Return To A Qualified Service	nimum	N/A			

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	UL 48		
Clause	Requirement	Remark	Result
7.8.2	A sign that does not have open-circuit protection in accordance with 4.4.8.4.2 shall be marked	Huskin Hosping History	N/A
	"Disconnect Power When Any Length of Neon Tubing Does Not Light." The location and letter height of the marking shall be as specified in 7.8.1.	Huaxans Huaxans Huaxans	Huaxi Huaxi
7.8.3	A sign that is intended for use in dwellings, shall be marked "For Use In Dwellings" or "Suitable For Use In Dwellings".	Huar Huare Huare	N/A
8 Augylaira	Instructions	Huaxia Huaxia Huaxia	P
8.1	General	sting sting	stin ⁹ P
8.1.1	All signs and outline lighting, including skeleton neon tubing shall be provided with installation instructions per 8.1.2 - 8.1.6.	Hnaxigua Hnaxigua	PHURK
8.1.2	The installation instructions shall include, but are not limited to the following: a) Conditions of use (e.g. dry, damp, and wet locations),	Huaxang Tes Huaxang Tes Huaxang Tes Huaxang Tesing	P Huax
	b) Instructions for installation or reassembly (if applicable) of any parts or subassemblies, and c) Identification of any user maintenance or user servicing functions.	Huaxang Testing	esting Huax
8.1.3	All permanently connected signs shall include instructions for installation, including mounting details and wiring methods. Installation instructions may be in the form of drawings and/or diagrams.	Huakans Huakans Huakans Huakans Huakans Huakans Huakans	N/A
8.1.4	All signs intended for field installation of a flexible sign face system, electrode receptacles, dedicated receptacles, or other special constructions permitted by this standard shall be provided with appropriate supplemental instructions.	Huaxang Testing Huaxang Testing Huaxang Testing	P P
8.1.5	All signs requiring removal of packing tape or material, or removal of protective coverings on sign face or other parts, shall include appropriate instructions to facilitate unpacking and setup without damage to the sign.	Juarang Testing Huaxiang Testing	P
8.1.6	Instructions shall be marked on, attached to, or shipped with the sign or outline lighting such that they are available during installation and setup.	no Testing and Testing	P
8.2	Section signs	Hnsy Hnsys	N/A

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UL 48						
Clause	Requirement	Remark	Result			
8.2.1	Instructions for the installation of a section sign shall be provided, attached to each subassembly of the section sign (where readily visible during	hinayana hinayana hin	N/A			
	installation) or shipped with the section sign (for example, as a stuffer sheet), and shall contain the	Hna _{klaria} Hna _{klaria} Hn	ayian's Huaxi			
	information specified below. These instructions are not prohibited from including details of operator or user servicing features.	Huaxang Teshi Huaxiang Teshi Hu	axiang Tasu. Huaxi			
	a) A drawing(s) depicting the arrangement of the subassemblies,b) Instructions for the physical installation of the subassemblies and the mechanical	Huaxang Testina Huaxiang Testina	axiang Tasting			
	connections between subassemblies, c) A drawing depicting the wiring arrangement of the subassemblies and components	Huaxiang Testing Huaxiang Testing	aylang Tasling Huaxi			
	necessary to complete the electrical connection between subassemblies, d) Any conditions of use required for the subassemblies,	Huakang Testing Huakang Testing	axiang Testing			
	e) Any conditions of use for any components required to complete the wiring, and f) Instruction for the field wiring between the subassemblies and any components, and	Huakang Tesing Huakang Tesing Huakang Tesing	axiang Testing Huaxi			
Huaxiang T	connection to the source of supply. g) Instructions for the grounding and bonding of the sign.	Huaxang Tesm Huaxang Tesm Hu	axiang Tesur			
8.3	Skeleton neon tubing	Testing Testing	N/A			
8.3.1	Instructions provided for skeleton neon tubing shall comply with 8.2 and also specify: a) Care should be taken to locate electrode assemblies and electric discharge tubing where	Huaxama Huaxama Hu	N/A			
	not subject to abuse or physical damage; and b) Location of tube supports and details for mechanical attachment to the building surface; and c) A		axian di Huax			
	complete material list for each subsection of skeleton tubing.	Hnaxiana Hnaxiana	axians			
8.4	Awning signs	Testing Testing	N/A			
8.4.1	Instructions for the installation of an awning sign shall be provided either attached to a sign where readi visible during installation, or shipped with a sign (i.e. stuffer sheet). Instructions shall contain the information	y Huaxaria Huaxaria Hu	N/A			
Huaxic ng	specified in 4.4.5.7 and 4.4.5.8. These instructions shall include details of operator or user servicing features.	Hnaxe Hnaxe Hn	Testing Huay			
8.5	Cord-connected	Hngxigus Hngxigus	N/A			
8.5.1	Stationary signs shall include instructions for installation, including mounting details which may be in the form of drawings or diagrams.	acang Testing	N/A			
APPEND I X A	Standards for Components	Ho. Ho. Ho.				

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HUBNISH	HARVIN	History History	UL 48	HARVISI	HARVISI	HASYRS	HASKISK
Clause	Requirement	g Testing	Testing	Remark	765)	enije.	Result

TABLE Dielectric Voltage-Withstand Test) P100
Test voltage applied between:	Voltage shape (AC, DC)	Test voltage (V)	Breakdown Yes / No
Input to plastic enclosure	AC (SSW	1000	NO

Torchiere Input Tes	st Huser			
Test voltage(Vdc)	Rating Current(A)	Test Current(A)	Deviation(%)	Description
100	1.1	1.08	-1.81	Pass
240	1.1	0.59	-46.36	Pass

Table Temperature measure			ents	Huse Huse							Р		
7117-	Supply voltage	(V) : "(V)		110	_{(n} 0		ening	:	n9	enis			
9783	Ambient T _{min} (。	C) :		40.0	20.	079		08		-10-100m			
Huskie	Ambient T _{max} (。	C) :	Huax	40.0	HUBXIO		HUBXIO		HUBX		Huax		
Maximum m part/at:	neasured tempera	ature T of		T (, C	C)			•				Allowe T _{max} (, C)	d
Power cord	V - V		Kin	47.2	-0		-0		-0		P/C	105	1
tc of LED dr	iver	ag Testinia		71.2	,(C)	<u>1</u> 0	Sins	105ti		10 1 estine		90	<u> </u>
Input wire to	LED driver	Uaxial13	Huax	57.9	Huaxial		HUBXIS		HUBX		Huax	85	Hus
Output wire	of LED driver	- sting		56.5		stin ^g	sti	09	- sting		130	3	
LED modul	e PCB	axian9	- i	76.1	axiar	9	o XiSi	UQ	Áss	200	à	Ref.	
Mounted sur	rface	7.0.	Hos	47.1	Hos		Hayar		Hoja		Hos	90	Hoe
Supplement	ary information:	785tin9		785t	(n9	48	Stin9	785ti	(1)	7 estim9		785tin	3
Temperature	e T of winding:	t ₁ (°C)	R ₁	(Ω)	t ₂ (°C)		R ₂ (Ω)	T (。	C)	Allowed	-	Insulation class	at
	and Ter	o Tes		209 Tes		078	<u>-</u>	00 <u>7</u> 80		an d Ter		~10 -	
Supplement	ary information:	Uaxia	HUBX	10.	HUBXIC		HUBXIO		HUBK	.0	HUSX	10	Hng

Table	Abnormal Temperature Test	isus axisi	ig Xian	9	79	310
Hom	Supply voltage (V) :	Hos	400	- 1900	1/0/20	
sting	Ambient T _{min} (。C) :	csting	-stin ⁹	-stin9	- sting	
visno 1	Ambient T _{max} (。C) :	78/s	nsive	9	(<u>0</u>)	
Maximum mo	easured temperature T of	T (。C)	Allowed T _{max} (, C)			
Huaxia	Hnaxia, Hnaxia, Hnax	HABKISI	Huaxian	Huaxia	Huax	Hns.
- estin	d sting sting	- esting	resting	- esting	sting .	esting
waxiang 1	i ensita	and lawiar	(g) Turkian	9 10	(O)	3UQ
- Pro	yo yo yo	No.	700	700		
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Clause	Requirement	g Testing	Testing Testing	Remark	Testing	Result

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Attachment No.1 Photo-documentation



Photo 1



Photo 2

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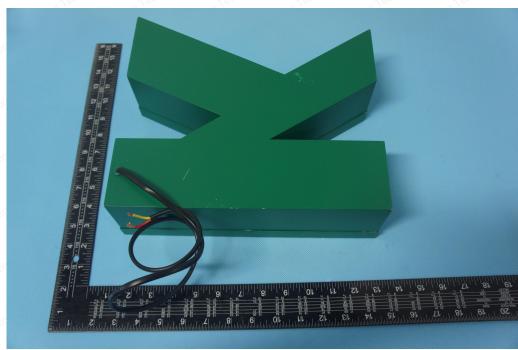


Photo 3

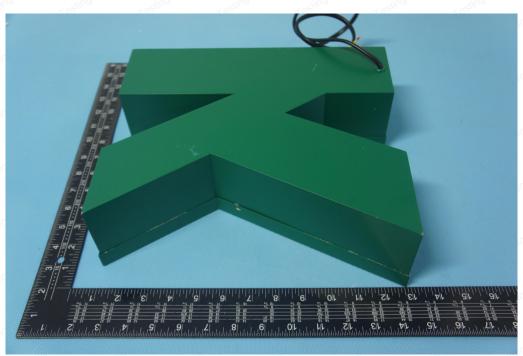


Photo 4

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Photo 5



Photo 6

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Photo 7

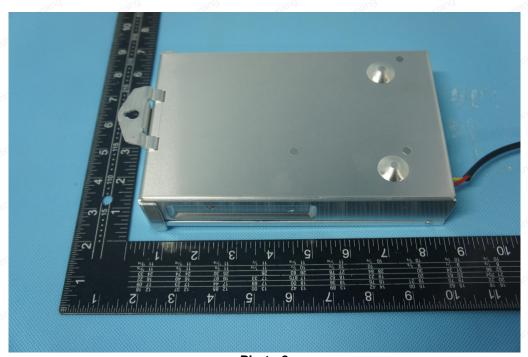


Photo 8

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Photo 9



Photo 10

**** END OF REPORT ****

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