TEST REPORT

Reference No.	:	WTA24X11257488L
Applicant	:	Sunstar Lighting CO., LTD
Address	:	3rd Floor, No.43, Chigang Road, Yongning, Xiaolan Town, Zhongshan City, Guangdong Province, China
Manufacturer	:	Sunstar Lighting CO., LTD
Address	:	3rd Floor, No.43, Chigang Road, Yongning, Xiaolan Town, Zhongshan City, Guangdong Province, China
Product Name	:	Portable Lamp
Model No	:	SF-3017-C (see next page for the details)
Test specification	:	BS EN 60598-2-4:2018 used in conjunction with BS EN IEC 60598-1:2021+ A11:2022; Luminaires Part 2: Particular requirements Section 4: Portable general purpose luminaires
Date of Receipt sample	:	2022-08-19
Date of Test	:	2022-08-19 to 2022-08-31
Date of Issue	:	2024-11-08
Test Report Form No.	:	WTX_BS EN 60598_2_4_2018A
Test Result	:	**Pass**

Remarks:
The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of approver.

Prepared By:
Waltek Testing Group (Shenzhen) Co., Ltd.
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Tested by: John Zhong

John Zhong

Approved by:

Harvid Wei

Test item description.....:	Portable Lamp
Trademark .....:	/
Model and/or type reference .....:	SF-3017, SF-3017-B, SF-3017-C, SF-3017-USB, SF-3017-USB-A, SF-3017-USB-B, SF-3017-USB-C, SF-3017-USB-D, ST-F31088, ST-F31094, ST-S51019, ST-F31130, ST-F31085, ST-F31079, ST-F31041, SF-1196, SF-1154, SF-1155, ST-5513-1SET, ST-5510-1SET, ST-5515-1SET, ST-5514-1SET, SF-1188, SF-1189, JF5492, SF-1197, SF-1372, SF-1175, SF-3044, SF-1186, JF5470, ST-F5307, SF-3881, SF-1374, SF-1170, SF-1185, ST-F5316-A, ST-F5316-B, JF5491, SF-1171, ST-F31076, SF-1173, SF-1174, SF-1176, ST-F31062, ST-F31103, ST-F31104, ST-F31105, ST-F31081, ST-F31082, ST-F31083, ST-F31084, ST-F31085, ST-F31086, ST-F31087, ST-F31088, ST-F31089, ST-F31090, ST-F31091, ST-F31106, ST-F31095, ST-F31098, ST-F31099, ST-F31101, ST-F31102, ST-F31080, ST-S51004, SF-1375, SF-1376, SF-1370, SF-1181, SF-1182, SF-1030, ST-4022, ST-4023, ST-7739, ST-7740, ST-7737, ST-7738, SF-1170, SF-1172, SF-3035, SF-3990, ST-F31005, ST-F31048, ST-F31096, ST-F31097, ST-F31100, ST-F31107, ST-F31108, ST-F31109, ST-F31110, ST-1051, ST-1052, ST-1053, ST-1054, ST-1055, ST-1056, ST-1057, ST-1058, ST-1059, ST-1060, ST-1061, ST-1062, ST-1063, ST-1064, ST-1065, ST-1066, ST-1067, ST-1068, ST-1069, ST-1070, ST-1071, ST-1072, ST-1073, ST-1074, ST-1075, ST-1076, ST-1077, ST-1078, ST-1079, ST-1080, 601116, 601117, 601118, 601119, 601120, 601121, 601122, 601123, 601124, 601125, ST-F3107-C
Rating(s).....:	220-240V~, 50/60Hz, E27, Max. 40W

Remark:

Whether parts of tests for the product have been subcontracted to other labs:

☐ Yes ☒ No

If Yes, list the related test items and lab information:

Test items:

Lab information:

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
- BS EN 60598-2-4:2018 - BS EN IEC 60598-1:2021+ A11:2022 The submitted samples were found to comply with the requirements of above specification.	Waltek Testing Group (Shenzhen) Co., Ltd. Address: 1/F., Room 101, Building 1, Hongwei Industrial Park, Liuxian 2nd Road, Block 70 Bao'an District, Shenzhen, Guangdong, China

Copy of marking plate:

Portable Lamp
Model: SF-3017-C
Rating: 220-240V~, 50/60Hz, E27, Max. 40W



Importer name: XXXX

Importer address: XXXX

Sunstar Lighting CO., LTD
No.1, 8th Street, Zhuyuan Yuanxiang Road,
Xiaolan Town, ZHONGSHAN Guangdong China

Made in China

E27 Max. 40W

The label sticks on E14/E27 lampholder.

Note:
--The heights of graphical symbols aren't less than 5mm;
--The WEEE symbols aren't less than 7.0mm
-- the heights of letters and numerals either shown separately or with as part of symbols aren't less than 2mm.

Test item particulars……:

Classification of installation and use..... Portable luminaire for indoor use

Supply Connection..... Non detachable flexible cable with a plug

.....

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)

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.
"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.
Throughout this report a comma (point) is used as the decimal separator.
Clause numbers between brackets refer to clauses in IEC 60598-1

Amendment 1:

The original test report ref. No. WTZ220X08167098L dated 2022-09-13 was modified on 2022-09-14 to include the following changes and/or additions:

1.The test standard version changed to
- BS EN 60598-2-4:2018
- BS EN 60598-1:2015+A1:2018

After review, no tests need to be done

Amendment 2:

The original test report ref. No. WTZ220X08167104L dated 2022-09-14 was modified on 2023-09-22 to include the following changes and/or additions:

1.The **ANNEX 1 TABLE: Critical components information** of

Alt	B	Jiangmen City Vieta Electrical Appliance Co.,Ltd	VT-11	13A, 250V	BS 1363-1	ASTA 1375

changed to

Alt	B	Jiangmen City Vieta Electrical Appliance Co.,Ltd	VT-11	Max. 13A, 250V	BS 1363-1	ASTA 1375

After review, no tests need to be done,

The original test report ref. No. WTZ22X08167104L will be replaced.

Amendment 3:

The original test report ref. No. WTZ220X08167104X1L dated 2023-09-22 was modified on 2024-04-22 to include the following changes and/or additions:

1.Add the models: ST-1051, ST-1052, ST-1053, ST-1054, ST-1055, ST-1056, ST-1057, ST-1058, ST-1059, ST-1060, ST-1061, ST-1062, ST-1063, ST-1064, ST-1065, ST-1066, ST-1067, ST-1068, ST-1069, ST-1070, ST-1071, ST-1072, ST-1073, ST-1074, ST-1075, ST-1076, ST-1077, ST-1078, ST-1079, ST-1080, 601116, 601117, 601118, 601119, 601120, 601121, 601122, 601123, 601124, 601125

2. Add the alternative components of approved EU plug and Supply Cord that manufacturer Jiangmen City Vieta Electrical Appliance Co., Ltd

After review, no tests need to be done,

Amendment 4:

The original test report ref. No. WTZ220X08167104X1L dated 2024-04-22 was modified on 2024-11-08 to include the following changes and/or additions:

1. Add the models: ST-3017, ST-F3107-C
2. Update standard version: from EN 60598-1:2015+A1:2018 to EN IEC 60598-1:2021+A11:2022
3. Re-test clause 4.7 (4) CONSTRUCTION

General product information:

1. The unit is a class II Portable Lamp with USB chargers and supplied by plug with power cord.
2. This report only evaluates the part of the luminaire.
3. Approved USB chargers for the used, see annex 1 component
4. All models are same except the appearance color and lampshade shape.
5. Unless otherwise specified, the mode SF-3017-C (was chosen as representative model to perform all tests.
6. The max. Ambient temperature is 45.0°C.

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
4.4 (0)	**GENERAL TEST REQUIREMENTS**		P
4.4 (0.3)	More sections applicable.....:	Yes☐ No☒	—
4.4 (0.5)	Components	(see Annex 1)	—
4.4 (0.7)	**Information for luminaire design in light sources standards**		P
4.4 (0.7.2)	Light source safety standard .....:		—
	Luminaire design in the light source safety standard		—
4.5 (2)	**CLASSIFICATION**		P
4.5 (2.2)	Type of protection.....:	Class II luminaires	—
4.5 (2.3)	Degree of protection.....:	IP20	—
4.4 (2.5)	Luminaire for normal use .....:	Yes ☒ No ☐	—
	Luminaire for rough service .....:	Yes ☐ No ☒	—
4.5.1 (-)	Ordinary luminaire.....:	Yes ☒ No ☐	—
4.5.2 (-)	Portable luminaire for outdoor use.....:	Yes ☐ No ☒	—
4.5.3 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces.....:	Yes ☒ No ☐	—
4.6 (3)	**MARKING**		P
4.6 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text		P
4.6 (3.3)	Additional information		P
	Language of instructions	English	P
4.6 (3.3.1)	Combination luminaires	Not combination luminaires	N
4.6 (3.3.2)	Nominal frequency in Hz	50/60Hz	P
4.6 (3.3.3)	Operating temperature		N/A
4.6 (3.3.5)	Wiring diagram		N/A
4.6 (3.3.6)	Special conditions		N/A
4.6 (3.3.7)	Metal halide lamp luminaire – warning		N/A
4.6 (3.3.8)	Limitation for semi-luminaires		N/A
4.6 (3.3.9)	Power factor and supply current		N/A
4.6 (3.3.10)	Suitability for use indoors		P
4.6 (3.3.11)	Luminaires with remote control	No remote control	N/A
4.6 (3.3.12)	Clip-mounted luminaire – warning		N/A
4.6 (3.3.13)	Specifications of protective shields		N/A
4.6 (3.3.14)	Symbol for nature of supply	“~”	P
4.6 (3.3.15)	Rated current of socket outlet	No socket outlet	N/A
4.6 (3.3.16)	Rough service luminaire		N/A

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
4.6 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments	type Y	P
4.6 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
4.6 (3.3.19)	Protective conductor current in instruction if applicable		N/A
4.6 (3.3.20)	Provided with information if not intended to be mounted within arms reach		N/A
4.6 (3.3.21)	Non replaceable and non-user replaceable light sources information provided		N/A
	Cautionary symbol		N/A
4.6 (3.3.22)	Controllable luminaires, classification of insulation provided		N/A
4.6 (3.3.23)	Luminaire without controlgear provided with necessary information for selection of appropriate component		P
4.6 (3.3.24)	If not supplied with terminal block, information on the packaging		N/A
4.6 (3.3.25)	Luminaires employing light sources emitting UV on mains wiring, information provided		N/A
4.6 (3.3.26)	Wall mounted luminaire using external flexible cable or cord longer than 0.3 m, information provided		N/A
4.6 (3.4)	Test with water	15s	P
	Test with hexane	15s	P
	Legible after test		P
	Label attached		P
4.6.1 (-)	Luminaire not suitable for outdoor application		P
	Required symbol		P
	Information in the instructions		P
4.6.2 (-)	Outdoor use, socket outlet incorporated in the luminaire	Not outdoor use	N/A
	Maximum current rating marked		N/A
	Position of the marking		N/A
4.7 (4)	**CONSTRUCTION**		P
4.7 (4.2)	Components replaceable without difficulty		P
4.7 (4.3)	Wire ways smooth and free from sharp edges		P
4.7 (4.4)	**Lampholders**		P
4.7 (4.4.1)	Integral lampholder		P
4.7 (4.4.2)	Wiring connection		P
4.7 (4.4.3)	Lampholder for end- to- end mounting	Not luminaires for tubular fluorescent lamps	N/A
4.7 (4.4.4)	Positioning	Lampholder approved	N/A
	- pressure test (N)……:		—

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
	After test the lampholder comply with relevant standard sheets and show no damage		N/A
	After test on single-capped lampholder the lampholder have not moved from its position and show no permanent deformation		N/A
	- bending test (Nm)..... :	E27: 2.0Nm	P
	After test the lampholder have not moved from its position and show no permanent deformation		P
4.7 (4.4.5)	Peak pulse voltage	Without any ignitors	N/A
4.7 (4.4.6)	Centre contact		N/A
4.7 (4.4.7)	Parts in rough service luminaires resistance to tracking		N/A
4.7 (4.4.8)	Lamp connectors		N/A
4.7 (4.4.9)	Caps and bases correctly used		N/A
4.7 (4.4.10)	Light source for lampholder or connection according IEC 60061 not connected another way		N/A
4.7 (4.5)	**Starter holders**		N/A
	Starter holder in luminaires other than class II	No starter	N/A
	Starter holder class II construction		N/A
4.7 (4.6)	**Terminal blocks**		N/A
	Tails		N/A
	Unsecured blocks		N/A
4.7 (4.7)	**Terminals and supply connections**		P
4.7 (4.7.1)	Contact to metal parts	Methods are (d) and (h), see photo for detail	P
4.7 (4.7.2)	Test 8 mm live conductor		N/A
	Test 8 mm earth conductor		N/A
4.7 (4.7.3)	Terminals for supply conductors		P
4.7 (4.7.3.1)	Welded connections:		N/A
	- stranded or solid conductor		N/A
	- spot welding		N/A
	- welding between wires		N/A
	- Type Z attachment		N/A
	- mechanical test according to 15.8.2		N/A
	- electrical test according to 15.9		N/A
	- ageing test according to 15.9.2.3 and 15.9.2.4		N/A
4.7 (4.7.4)	Terminals other than supply connection		N/A
4.7 (4.7.5)	Heat-resistant wiring/sleeves		N/A
4.7 (4.7.6)	Multi-pole plug	No multi-pole plug	N/A
	- test at 30 N		N/A
4.7 (4.8)	**Switches:**		P

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
	- adequate rating		P
	- adequate fixing		P
	- polarized supply		P
	- compliance with 61058-1 for electronic switches	Approved, see annex 1 component for detail.	P
4.7 (4.9)	**Insulating lining and sleeves**		P
4.7 (4.9.1)	Retainment		P
	Method of fixing.....:	Heat-shrinkable tube	P
4.7 (4.9.2)	Insulated linings and sleeves		P
	Resistant to a temperature > 20 °C to the wire temperature or		P
	a) & c) Insulation resistance and electric strength		N/A
	b) Ageing test. Temperature (°C) .....:		N/A
4.7 (4.10)	**Double or reinforced insulation**		P
4.7 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation		N/A
	Safe installation fixed luminaires		N/A
	Capacitors and switches		N/A
	Interference suppression capacitors according to IEC 60384-14		N/A
4.7 (4.10.2)	Assembly gaps:		N/A
	- not coincidental		N/A
	- no straight access with test probe		N/A
4.7(4.10.3)	Retainment of insulation:		P
	- fixed		N/A
	- unable to be replaced; luminaire inoperative		N/A
	- sleeves retained in position	Only be removed by breaking or cutting	P
	- lining in lampholder	Heat shrinkable-tube, see photo for detail	P
4.7 (4.10.4)	Protective impedance device		N/A
	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor		N/A
	Y1 or Y2 capacitors comply with IEC 60384-14		N/A
	Resistors comply with test (a) in 14.1 of IEC 60065		N/A
4.7 (4.11)	**Electrical connections and current-carrying parts**		P
4.7 (4.11.1)	Contact pressure	No ceramic, pure mica or other material with characteristics.	P
4.7 (4.11.2)	Screws:		N/A
	- self-tapping screws		N/A

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
	- thread-cutting screws		N/A
4.7 (4.11.3)	Screw locking:		N/A
	- spring washer		N/A
	- rivets		N/A
4.7 (4.11.4)	Material of current-carrying parts	An alloy containing 50% copper	P
4.7 (4.11.5)	No contact to wood		P
4.7 (4.11.6)	Electro-mechanical contact systems		N/A
4.7 (4.12)	**Screws and connections (mechanical) and glands**		N/A
4.7 (4.12.1)	Screws not made of soft metal		N/A
	Screws of insulating material		N/A
	Torque test: torque (Nm); part.....:		N/A
	Torque test: torque (Nm); part.....:		N/A
4.7 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
4.7 (4.12.4)	Locked connections:		N/A
	- fixed arms; torque (Nm)..... :		N/A
	- lampholder; torque (Nm).....:		N/A
	- push-button switches; torque 0,8 Nm.....:		N/A
4.7 (4.12.5)	Screwed glands; force (Nm).....:		N/A
4.7 (4.13)	**Mechanical strength**		P
4.7 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm).....:		N/A
	- other parts; energy (Nm).....:	0.5Nm	P
	1) live parts		P
	2) linings		P
	3) protection		P
	4) covers		P
4.7 (4.13.2)	Metal parts enclosing live parts		N/A
4.7 (4.13.3)	Straight test finger	30N	P
4.7 (4.13.4)	Rough service luminaires		N/A
	- IP54 or higher		N/A
	a) fixed		N/A
	b) hand-held		N/A
	c) delivered with a stand		N/A
	d) for temporary installations and suitable for mounting on a stand		N/A
4.7 (4.13.6)	Tumbling barrel		N/A
4.7 (4.14)	**Suspensions, fixings and means of adjusting**		N/A
4.7 (4.14.1)	Mechanical load:		N/A
	A) four times the weight		N/A
	B) torque 2,5 Nm ..... :		N/A

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
	C) bracket arm; bending moment (Nm)..... :		N/A
	D) load track- mounted luminaires		N/A
	E) clip-mounted luminaires, glass-shelve. Thickness (mm) ..... :		N/A
	metal rod. Diameter (mm) ..... :		N/A
	Fixed luminaire or independent control gear without fixing devices		N/A
4.7 (4.14.2)	Load to flexible cables		N/A
	Mass (kg)..... :		N/A
	Stress in conductors (N/mm²)..... :		N/A
	Semi-luminaires – mass (kg) ..... :		N/A
	Semi-luminaires – bending moment (Nm)..... :		N/A
4.7 (4.14.3)	Adjusting devices:		N/A
	- flexing test; number of cycles..... :		N/A
	- strands broken		N/A
	- electric strength test afterwards		N/A
4.7 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
4.7 (4.14.5)	Guide pulleys		N/A
4.7 (4.14.6)	Strain on socket-outlets		N/A
4.7 (4.15)	**Flammable materials:**		P
	- glow- wire test 650 C	See test table 4.15(13.3.2)	P
	- spacing ≥ 30 mm		N/A
	- screen withstanding test of 13.3.1		N/A
	- screen dimensions		N/A
	- no fiercely burning material		N/A
	- thermal protection		N/A
	- electronic circuits exempted		N/A
4.7 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		N/A
	a) construction		N/A
	b) temperature sensing control		N/A
	c) surface temperature		N/A
4.7 (4.16)	**Luminaires for mounting on normally flammable surfaces**		N/A
	No lamp control gear		N/A
4.7 (4.16.1)	Lamp control gear spacing:		N/A
	- spacing 35 mm		N/A
	- spacing 10 mm		N/A
4.7 (4.16.2)	Thermal protection:		N/A
	- in lamp control gear		N/A
	- external		N/A
	- fixed position		N/A

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
	- temperature marked lamp control gear		N/A
4.7 (4.16.3)	Design to satisfy the test of 12.6		N/A
4.7 (4.17)	**Drain holes**	No drain holes	N/A
	Clearance at least 5 mm		N/A
4.7 (4.18)	**Resistance to corrosion:**		N/A
4.7 (4.18.1)	- rust-resistance		N/A
4.7 (4.18.2)	- season cracking in copper		N/A
4.7 (4.18.3)	- corrosion of aluminium		N/A
4.7 (4.19)	**Ignitors compatible with ballast**		N/A
4.7 (4.20)	**Rough service vibration**		N/A
4.7 (4.21)	**Protective shield:**		N/A
4.7 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps		N/A
	Shield of glass if tungsten halogen lamps		N/A
4.7 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
4.7 (4.21.3)	No direct path		N/A
4.7 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment		N/A
4.7 (4.22)	**Attachments to lamps not cause overheating or damage**		N/A
4.7 (4.23)	**Semi-luminaires comply class II**		N/A
4.7 (4.24)	**Photobiological hazards**		N/A
4.7 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		N/A
4.7 (4.24.2)	Retinal blue light hazard		N/A
	Class of risk group assessed according to IEC/TR 62778 .....:		N/A
	Luminaires with E_{thr}		N/A
	a) Fixed luminaires		N/A
	- distance x m, borderline between RG1 and RG2... :		N/A
	- marking and instruction according 3.2.23		N/A
	b) Portable and handheld luminaires		N/A
	- marking according 3.2.23 if RG1 exceeded at 200 mm according to IEC/TR 62778		N/A
	Portable luminaires for children IEC 60598-2-10 and Mains socket outlet nightlights IEC 60598-2-12 not exceed RG1 at 200 mm according to IEC/62778		N/A
4.7 (4.25)	**Mechanical hazard**		P
	No sharp point or edges		P
4.7 (4.26)	**Short-circuit protection:**		N/A

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
4.7 (4.26.1)	Adequate means of uninsulated accessible SELV parts		N/A
4.7 (4.26.2)	Short-circuit test with test chain according 4.26.3		N/A
	Test chain not melt through		N/A
	Test sample not exceed values of Table 12.1 and 12.2		N/A
4.7 (4.27)	**Terminal blocks with integrated screwless earthing contacts tested according Annex V**		N/A
	Test according Annex V		N/A
	Pull test of terminal fixing (20 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Pull test of mechanical connection (50 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Voltage drop test, resistance < 0,05 Ω		N/A
4.7 (4.28)	**Fixing of thermal sensing control**		N/A
	Not plug-in or easily replaceable type		N/A
	Reliably kept in position		N/A
	No adhesive fixing if UV radiations from a lamp can degrade the fixing		N/A
	Not outside the luminaire enclosure		N/A
	Test of adhesive fixing:		N/A
	Max. temperature on adhesive material (°C) ..... :		N/A
	100 cycles between t min and t max		N/A
	Temperature sensing control still in position		N/A
4.7 (4.29)	**Luminaires with non-replaceable light source**		N/A
	Not possible to replace light source		N/A
	Live part not accessible after parts have been opened by hand or tools		N/A
4.7 (4.30)	**Luminaires with non-user replaceable light source**		N/A
	If protective cover provide protection against electric shock and marked with “caution, electric shock risk” symbol:		N/A
	Minimum two fixing means		N/A
4.7 (4.31)	**Insulation between circuits**		N/A
	Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3		N/A
	Controllable luminaires requiring same level of insulation for all components, the insulation between control terminals and LV supply fulfil requirements according 4.31.1 – 4.31.3		N/A

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
4.7 (4.31.1)	SELV circuits		N/A
	Used SELV source		N/A
	Voltage ≤ ELV		N/A
	Insulating of SELV circuits from LV supply		N/A
	Insulating of SELV circuits from other non SELV circuits		N/A
	Insulating of SELV circuits from FELV		N/A
	Insulating of SELV circuits from other SELV circuits		N/A
	SELV circuits insulated from accessible parts according Table X.1		N/A
	Plugs not able to enter socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Plugs and socket-outlets does not have protective conductor contact		N/A
4.7 (4.31.2)	FELV circuits		N/A
	Used FELV source		N/A
	Voltage ≤ ELV		N/A
	Insulating of FELV circuits from LV supply		N/A
	FELV circuits insulated from accessible parts according Table X.1		N/A
	Plugs not able to enter socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Socket-outlets does not have protective conductor contact		N/A
4.7 (4.31.3)	Other circuits		N/A
	Other circuits insulated from accessible parts according Table X.1		N/A
	Class II construction with equipotential bonding for protection against indirect contacts with live parts:		N/A
	- conductive parts are connected together		N/A
	- test according 7.2.3		N/A
	- conductive part not cause an electric shock in case of an insulation fault		N/A
	- equipotential bonding in master/slave applications		N/A
	- master luminaire provided with terminal for accessible conductive parts of slave luminaires		N/A

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
	- slave luminaire constructed as class I		N/A
4.7 (4.32)	**Overvoltage protective devices**		N/A
	Comply with IEC 61643-11		N/A
	External to controlgear and connected to earth:		N/A
	- only in fixed luminaires		N/A
	- only connected to protective earth		N/A
4.7 (4.33)	**Luminaire powered via information technology communication cabling**		N/A
	Requirements for Class III luminaire		N/A
	Rated voltage within the range of ES1 and does not exceed maximum voltage of used connector		N/A
	Luminaire does not create any hazard from overvoltage	(see Annex 2)	N/A
4.7 (4.34)	**Electromagnetic fields (EMF)**		P
	No harmful electromagnetic fields		P
4.7 (4.35)	**Protection against moving fan blades**		N/A
	Test with a standard test finger		N/A
	Test with test probe acc. to Figure 13 (IEC 61032) for portable luminaire		N/A
	Blades rounded with radius ≥ 0.5 mm and:		N/A
	-hardness less than D60 Shore		N/A
	-peripheral speed less than 15 m/s		N/A
	-input power of fan ≤ 2 W at rated voltage		N/A
4.7 (4.36)	**Track-mounted luminaires**		N/A
	Test in accordance with Annex A of IEC60570:2003/AMD2:2019		N/A
4.7.1 (-)	Insulation not damaged when placing on support	No damaged	P
4.7.2 (-)	Wiring fixed, to avoid rubbing		P
4.7.3 (-)	Luminaire not overturn at angle 6°		P
	Outdoor use luminaire not overturn at an angle 15°		N/A
4.7.4 (-)	Candlestick luminaires with E5 or E10 lampholders provided with a switch		N/A
	Switch part of the luminaire or within 300 mm of the luminaire if with cord		N/A
4.7.5 (-)	Voltage not exceed 25 V for E5 lampholders	Not E5 lampholders	N/A
	E10 lampholder voltage not exceed as noted		N/A
	60 V for series connection) or		N/A
	250 V for parallel connections		N/A
	Maximum rated wattage not exceed 100 W		N/A

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
4.8 (11)	**CREEPAGE DISTANCES AND CLEARANCES**		P
	Impulse withstand category (Normal category II) (Category III Annex U, Table U.1)……:	Category II ☒ Category III ☐	—
4.8 (11.2.1)	Category III according Annex U		N/A
	Protected against pollution, reduced creepage and clearance according Annex P of IEC 61347-1		N/A
4.8 (11.2.2)	Creepage distances for frequency up to 30 kHz…:		P
	Creepage distances for frequency over 30 kHz:		N/A
	- Controlgear marked with $\hat{U}_{OUT}$ and f_{UOUT} according IEC 61347-1, clause 7.1, item w)……:		N/A
	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347……:		N/A
4.8(11.2.3)	Clearances for frequency up to 30 kHz……..:		P
	Clearances distances for frequency over 30 kHz:		N/A
	- Controlgear marked with U_P.....:		N/A
	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347……:		N/A
4.9 (7)	**PROVISION FOR EARTHING**		N/A
4.9 (7.2.1 + 7.2.3)	Accessible metal parts		N/A
	Metal parts in contact with supporting surface		N/A
	Resistance < 0,5 Ω		N/A
	Self-tapping screws used		N/A
	Thread-forming screws		N/A
	Thread-forming screw used in a groove		N/A
	Earth makes contact first		N/A
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
	Protective earthing of the luminaire not via built-in control gear		N/A
4.9 (7.2.2 + 7.2.3)	Earth continuity in joints etc.		N/A
4.9 (7.2.4)	Locking of clamping means		N/A
	Compliance with 4.7.3		N/A
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
4.9 (7.2.5)	Earth terminal integral part of connector socket		N/A
4.9 (7.2.6)	Earth terminal adjacent to mains terminals		N/A
4.9 (7.2.7)	Electrolytic corrosion of the earth terminal		N/A
4.9 (7.2.8)	Material of earth terminal		N/A
	Contact surface bare metal		N/A

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
4.9 (7.2.10)	Class II luminaire for looping-in		N/A
	Double or reinforced insulation to functional earth		N/A
4.9 (7.2.11)	Earthing core coloured green-yellow		N/A
	Length of earth conductor		N/A
4.9 (7.2.12)	PELV circuit connected to protective earth for functional purpose		N/A
4.10 (14)	**SCREW TERMINALS**		N/A
	Separately approved; component list	(see Annex 1)	N/A
	Part of the luminaire	(see Annex 3)	N/A
4.11 (15)	**SCREWLESS TERMINALS**		N/A
	Separately approved; component list	(see Annex 1)	N/A
	Part of the luminaire	(see Annex 4)	N/A
4.11 (5)	**EXTERNAL AND INTERNAL WIRING**		P
4.11 (5.2)	**Supply connection and external wiring**		P
4.11 (5.2.1)	Means of connection.....:	Supply cord, with plugs	P
	Outdoor luminaire has not PVC insulated external wiring if not class III or SELV ≤ 25 V a.c./60 V d.c. or protected from outdoor environment		N/A
4.11 (5.2.2)	Type of cable.....:	H03VVH2-F	P
	Nominal cross-sectional area (mm²).....:	2x0.75 mm²	P
	Cables equal to IEC 60227 or IEC 60245	IEC 60227	P
4.11 (5.2.3)	Type of attachment, X, Y or Z	Type Y	P
4.11 (5.2.5)	Type Z not connected to screws		N/A
4.11 (5.2.6)	Cable entries:		P
	- suitable for introduction		P
	- adequate degree of protection		P
4.11 (5.2.7)	Cable entries through rigid material have rounded edges		P
4.11 (5.2.8)	Insulating bushings:		P
	- suitably fixed		P
	- material in bushings		P
	- material not likely to deteriorate		P
	- tubes or guards made of insulating material		P
4.11 (5.2.9)	Locking of screwed bushings		N/A
4.11 (5.2.10)	Cord anchorage:		P
	- covering protected from abrasion		P
	- clear how to be effective		P
	- no mechanical or thermal stress		P
	- no tying of cables into knots etc.		P
	- insulating material or lining		N/A

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
4.11 (5.2.10.1)	Cord anchorage for type X attachment:		N/A
	a) at least one part fixed		N/A
	b) types of cable		N/A
	c) no damaging of the cable		N/A
	d) whole cable can be mounted		N/A
	e) no touching of clamping screws		N/A
	f) metal screw not directly on cable		N/A
	g) replacement without special tool		N/A
	Glands not used as anchorage		N/A
	Labyrinth type anchorages		N/A
4.11 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment		P
4.11 (5.2.10.3)	Tests:		P
	- impossible to push cable; unsafe		P
	- pull test: 25 times; pull (N).....:	60N	P
	- torque test: torque (Nm)..... :	0.25Nm	P
	- displacement ≤ 2 mm	0.3mm	P
	- no movement of conductors		P
	- no damage of cable or cord		P
	- function independent of electrical connection		P
4.11 (5.2.11)	External wiring passing into luminaire		P
4.11 (5.2.12)	Looping-in terminals		N/A
4.11 (5.2.13)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		P
4.11 (5.2.14)	Mains plug same protection	Plug approved, see annex 1 component	P
	Class III luminaire plug		N/A
4.11 (5.2.16)	Appliance inlets (IEC 60320)		N/A
	Installation couplers (IEC 61535)		N/A
	Other appliance inlet or connector according relevant IEC standard		N/A
4.11 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
4.11 (5.2.18)	Used plug in accordance with		P
	- IEC 60083		N/A

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
	- other standard	Plug approved, see annex 1 component	P
4.11 (5.3)	**Internal wiring**		P
4.11 (5.3.1)	Internal wiring of suitable size and type	See annex 1 component for detail	P
	Through wiring		N/A
	- not delivered/ mounting instruction		N/A
	- factory assembled		N/A
	- socket outlet loaded (A)..... :		N/A
	- temperatures.....:		N/A
	Green- yellow for earth only		N/A
4.11 (5.3.1.1)	Internal wiring connected directly to fixed wiring		N/A
	Cross-sectional area (mm²)..... :		N/A
	Insulation thickness		N/A
	Extra insulation added where necessary		N/A
4.11 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		N/A
	Adequate cross-sectional area and insulation thickness		N/A
4.11 (5.3.1.3)	Double or reinforced insulation for class II	Heat shrinkable tube used	P
4.11 (5.3.1.4)	Conductors without insulation		N/A
4.11 (5.3.1.5)	SELV current-carrying parts		N/A
4.11 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A
4.11 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		P
	Joints, raising/lowering devices		P
	Telescopic tubes etc.		P
	No twisting over 360°	No twisting	P
4.11 (5.3.3)	Insulating bushings:		N/A
	- suitable fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- cables with protective sheath		N/A
4.11 (5.3.4)	Joints and junctions effectively insulated		N/A
4.11 (5.3.5)	Strain on internal wiring		N/A
4.11 (5.3.6)	Wire carriers		N/A
4.11 (5.3.7)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
4.11 (5.4)	**Test to determine suitability of conductors having a reduced cross-sectional area**		N/A
	Under test the temperature of the luminaire wiring insulation not exceed the limits stated in Table 12.2		N/A
	No damage to luminaire wiring after test		N/A
4.11.1 (-)	Indoor use luminaire The requirement of one part of cord anchorage to be fixed to the luminaire not applied for table lamps of glass or ceramic		P
4.11.2 (-)	Class I and class II indoor use Luminaire with a mass less than 1 kg the current ≤ 2,5 A and cable ≤ 2 m and conductor ≥ 0,5 mm²	0.75 mm²	P
4.11.3 (-)	Portable luminaire for outdoor use delivered without a flexible cable or cord and a plug		N/A
	Terminals, a cord anchorage and an inlet opening for the proper connection of the flexible cable or cord.		N/A
4.11.4 (-)	Portable luminaires for outdoor use Insulation class I and class II, non-detachable flexible cables or cords at least type 245 IEC 57.	Indoor use	N/A
4.12 (8)	**PROTECTION AGAINST ELECTRIC SHOCK**		P
4.12 (8.2.1)	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		P
	Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires		P
	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires		P
	Lamp and starterholders in portable and adjustable luminaires comply with double or reinforced insulation requirements		P
	Basic insulation only accessible under lamp or starter replacement		N/A
	Protection in any position		P
	Double-ended tungsten filament lamp		N/A
	Insulation lacquer not reliable		P
	Double-ended high pressure discharge lamp		N/A
	Relevant warning according to 3.2.18 fitted to the luminaire		N/A
4.12 (8.2.2)	Portable luminaire adjusted in most unfavourable position		P
4.12 (8.2.3a)	Class II luminaire:		N/A

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
	- basic insulated metal parts not accessible during starter or lamp replacement		N/A
	- basic insulation not accessible other than during starter or lamp replacement		N/A
	- glass protective shields not used as supplementary insulation	No glass protective shields	N/A
4.112 (8.2.3.b)	BC lampholder of metal in class I luminaires shall be earthed		N/A
4.12 (8.2.3.c)	SELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- voltage under load (V)..... :		N/A
	- no-load voltage (V)..... :		N/A
	- touch current if applicable (Ma) ..... :		N/A
	One conductive part insulated if required		N/A
	Other than ordinary luminaire:		N/A
	- nominal voltage (V) ..... :		N/A
	Class III luminaire only for connection to SELV		N/A
	Class III luminaire not provided with means for protective earthing		N/A
4.12 (8.2.4)	Portable luminaire have protection independent of supporting surface		P
4.12 (8.2.5)	Compliance with the standard test finger or relevant probe		P
4.12 (8.2.6)	Covers reliably secured		P
4.12 (8.2.7)	Luminaire other than below with capacitor > 0,5 μF not exceed 50 V 1 min after disconnection		N/A
	Portable luminaire with capacitor > 0,1 μF (0.25) not exceed 34 V 1 s after disconnection		N/A
	Other luminaires with capacitor > 0,1 μF (0.25) with plug and track adaptors not exceed 60 V 5 s after disconnection		N/A
4.12.1(-)	Class I luminaire with bayonet lampholder:		N/A
	1) cap not accessible with test finger		N/A
	2) metal lampholder is earthed		N/A
4.13 (12)	**ENDURANCE TEST AND THERMAL TEST**		P
4.13 (-)	If IP > IP 20 relevant test of (12.4), (12.5) and (12.6) after (9.2) before (9.3) specified in 4.13		N/A
4.13 (12.2)	**Selection of lamps and ballasts**		P
	Lamp used according Annex B..... :		P
	Controlgear if separate and not supplied..... :		N/A
4.13 (12.3)	Endurance test:		P

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
	a) mounting- position.....:		—
	b) test temperature (°C).....:	55°C	—
	c) total duration (h).....:	240h	—
	d) if not equipped with controlgear, constant voltage/current (V) or (A).....:	240V	—
	e) luminaire ceases to operate:		—
4.13 (12.3.2)	After endurance test:		P
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N/A
	- marking legible		P
	- no cracks, deformation etc.		P
4.13 (12.4)	**Thermal test (normal operation)**	(see Annex 2)	P
4.13 (12.5)	**Thermal test (abnormal operation)**		N/A
4.13 (12.6)	**Thermal test (failed lamp control gear condition):**		N/A
4.13 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A).....:		—
	- case of abnormal conditions.....:		—
	- electronic lamp control gear		N/A
	- measured winding temperature (°C) at 1,1 Un.....:		—
	- measured mounting surface temperature (°C) at 1,1 Un.....:		N/A
	- calculated mounting surface temperature (°C).....: .....:		N/A
	- track- mounted luminaires		N/A
4.13 (12.6.2)	Temperature sensing control		N/A
	- case of abnormal conditions.....:		—
	- thermal link		N/A
	- manual reset cut- out		N/A
	- auto reset cut- out		N/A
	- measured mounting surface temperature (°C) .....:		N/A
	- track- mounted luminaires		N/A
4.13 (12.7)	**Thermal test (failed lamp control gear in plastic luminaires):**		N/A
4.13 (12.7.1)	Test for luminaires without temperature sensing controls		N/A
4.13 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		N/A
	Test method 12.7.1.1 or Annex W……..:		—
	Test according to 12.7.1.1:		N/A
	- case of abnormal conditions		—

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
	- ballast failure at supply voltage (V) ..... :		—
	- components retained in place after the test		N/A
	- test with standard test finger after the test		N/A
	Test according to Annex W:		N/A
	- case of abnormal conditions		—
	- measured winding temperature (°C): at 1,1 Un..:		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un..... :		—
	- calculated temperature of fixing point/exposed part (°C)..... :		—
	Ball-pressure test:		N/A
	- part tested; temperature (°C):		N/A
	- part tested; temperature (°C)..... :		N/A
4.13 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		N/A
	- case of abnormal conditions		—
	- measured winding temperature (°C): at 1,1 Un..:		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un..... :		—
	- calculated temperature of fixing point/exposed part (°C)..... :		—
	Ball-pressure test:		N/A
	- part tested; temperature (°C)..... :		N/A
	- part tested; temperature (°C)..... :		N/A
4.13 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA		N/A
	- case of abnormal conditions		—
	- components retained in place after the test		N/A
	- test with standard test finger after the test		N/A
4.13 (12.7.2)	Temperature sensing control		N/A
	- thermal link		N/A
	- manual reset cut- out		N/A
	- auto reset cut- out		N/A
	- measured temperature of fixing point/ exposed part (°C) ..... :		N/A
4.13 (-)	Indoor use luminaire, Test overturned position (overturns < 15°)	Test overturned position	P
4.14 (9)	**RESISTANCE TO DUST AND MOISTURE**		P
4.14 (-)	If IP > IP 20 the order of tests as specified in clause 4.12		N/A
4.14 (9.2)	Tests for ingress of dust, solid objects and moisture:		P
	- classification according to IP..... :	IP20	—
	- mounting position during test..... :		—

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
	- fixing screws tightened; torque (Nm)..... :		—
	- tests according to clauses..... :		—
	- electric strength test afterwards		N/A
	a) no deposit in dust-proof luminaire		N/A
	b) no talcum in dust- tight luminaire		N/A
	c) no trace of water on current-carrying parts or on insulation where it could become a hazard		N/A
	c.1) For luminaires without drain holes – no water entry		N/A
	c.2) For luminaires with drain holes – no hazardous water entry		N/A
	d) no water in watertight or pressure watertight luminaire		N/A
	e) no contact with live parts (IP 2X)		P
	e) no entry into enclosure (IP 3X and IP 4X)		N/A
	e) no contact with live parts through drain holes and ventilation slots (IP3X and IP4X)		N/A
	f) no trace of water on part of lamp requiring protection from splashing water		N/A
	g) no damage of protective shield or glass envelope		N/A
4.14 (9.3)	Humidity test 48 h	93%, 25°C	P
4.14 (-)	Portable luminaire for outdoor use tested in the most unfavourable of the overturned positions likely to occur		N/A
4.15 (10)	**INSULATION RESISTANCE AND ELECTRIC STRENGTH**		P
4.15 (10.2.1)	Insulation resistance test		P
	Cable or cord covered by metal foil or replaced by a metal rod of mmØ .....:	By metal foil	—
	Insulation resistance (MΩ):	See below	—
	SELV:		N/A
	- between current-carrying parts of different polarity .....:		N/A
	- between current-carrying parts and mounting surface.....:		N/A
	- between current-carrying parts and metal parts of the luminaire.....:		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts..... :		N/A
	- Insulation bushings as described in Section 5 ..... :		N/A
	Other than SELV:		P
	- between live parts of different polarity.....:	> 100MΩ	P

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
	- between live parts and mounting surface.....:	> 100MΩ	P
	- between live parts and metal parts.....:	> 100MΩ	P
	- between live parts of different polarity through action of a switch.....:	> 100MΩ	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts.....:		N/A
	- Insulation bushings as described in Section 5....:		N/A
4.15 (10.2.2)	Electric strength test		P
	Dummy lamp		N/A
	Luminaires with ignitors after 24 h test	No ignitors	N/A
	Luminaires with manual ignitors		N/A
	Test voltage (V):		P
	SELV:		N/A
	- between current-carrying parts of different polarity .....:		N/A
	- between current-carrying parts and mounting surface.....:		N/A
	- between current-carrying parts and metal parts of the luminaire.....:		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts.....:		N/A
	- Insulation bushings as described in Section 5 .....:		N/A
	Other than SELV:		P
	- between live parts of different polarity.....:	2x240+1000=1480V	P
	- between live parts and mounting surface.....:	4x240+2000=2960V	P
	- between live parts and metal parts.....:	4x240+2000=2960V	P
	- between live parts of different polarity through action of a switch.....:	2x240+1000=1480V	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts.....:		N/A
	- Insulation bushings as described in Section 5 .....:		N/A
4.15 (10.3)	Touch current or protective conductor current (Ma):	Max. 0.02mA	P
4.16 (13)	**RESISTANCE TO HEAT, FIRE AND TRACKING**		P
4.16 (13.2.1)	Ball-pressure test:.....:	See Test Table 4.15 (13.2.1)	P
4.16 (13.3.1)	Needle flame test (10 s):.....:	See Test Table 4.15 (13.3.1)	P
4.16 (13.3.2)	Glow wire test (650°C):.....:	See Test Table 4.15 (13.3.2)	P

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict

4.16 (13.4.1)	Tracking test: part tested.....:							N/A
4.7 (11.2)	**TABLE: Creepage distances and clearances**							P
	Minimum distances (mm) for a.c. (50/60 Hz) sinusoidal voltages							
	Applicable part of IEC 60598-1 Table 11.1* and 11.2*							
	Insulation type **	**Measured clearance**	**Required**		**Measured creepage**	**Required**		
			clearance	***Table**		**creepage**	***Table**	
Distance 1:	B	4.5	1.5	11.1	4.5	2.5	11.1	
Working voltage (V)..... :					240			—
PTI..... :					< 600 ☒ ≥ 600 ☐			—
Pulse voltage if applicable (Kv) .....:					--			—
Supplementary information: Distance 1: Different polarities of live parts(L/N)								
Distance 2:	R	6.5	3.0	11.1	6.5	5.0	11.1	
Working voltage (V)..... :					240			—
PTI..... :					< 600 ☒ ≥ 600 ☐			—
Pulse voltage if applicable (Kv) .....:					--			—
Supplementary information: Distance 2: live parts(L/N) to accessible parts								
Supplementary information: ** Insulation type: B – Basic; S – Supplementary; R – Reinforced. See also IEC 60598-1 Annex M.								

4.7 (11.2)	**TABLE II: Creepage distances and clearances**							N/A
Minimum distances (mm) for a.c. higher than 30 kHz sinusoidal voltages								
Applicable part of IEC 61347-1 Table 7 and 8* or IEC 60664-4 Table 1 and 2								
Distances	**Insulation type ****	**Measured clearance**	**Required**		**Measured creepage**	**Required**		
			clearance	***Table**		**creepage**	***Table**	
Distance 1:								
Working voltage (V)..... :								—
Frequency if applicable (kHz).....:								—
PTI..... :					< 600 ☐ ≥ 600 ☐			—
Peak value of the working voltage $\hat{U}_{out}$ if applicable (Kv) ..... :								—
Supplementary information:								
Distance 2:								

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict

Working voltage (V)..... :		—
Frequency if applicable (kHz)..... :		—
PTI..... :	< 600 ☐ ≥ 600 ☐	—
Peak value of the working voltage $\hat{U}_{out}$ if applicable (Kv) ..... :		—
Supplementary information:		
Distance 3:		
Working voltage (V)..... :		—
Frequency if applicable (kHz)..... :		—
PTI..... :	< 600 ☐ ≥ 600 ☐	—
Peak value of the working voltage $\hat{U}_{out}$ if applicable (Kv) ..... :		—
Supplementary information: ** Insulation type: B – Basic; S – Supplementary; R – Reinforced. See also IEC 60598-1 Annex M.		

4.16(13.2.1)	**TABLE: Ball Pressure Test of Thermoplastics**		P
Allowed impression diameter (mm) .....:			—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)
E27 lampholder	See ANNEX 1	125	1.1
Supplementary information:			

4.16(13.3.1)	**TABLE: Needle-flame test (IEC 60695-11-5)**				P
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
E27 lampholder	See ANNEX 1	10	No	0	P
Supplementary information:					

4.16(13.3.2)	**TABLE: Glow-wire test (IEC 60695-2-11)**			P
Glow wire temperature .....:	650°C			—
Object/ Part No./ Material	Manufacturer/ trademark	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
E27 lampholder	See ANNEX 1	0	No	P
Lamp cover	--	0	No	P

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict

Any flame or glowing of the sample extinguished within 30 s of withdrawing the glow-wire, and any burning or molten drop did not ignite the underlying parts (Yes/No).....	Yes
Supplementary information:	

4.16 (13.4)	**TABLE: Proof tracking test (IEC 60112)**				N/A
Test voltage PTI ..... :		175 V			—
Object/ Part No./ Material	Manufacturer/ trademark	Withstand 50 drops without failure on three places or on three specimens			Verdict
--	--	--	--	--	--
Supplementary information:					

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict

ANNEX 1	TABLE: Critical components information					P
Object / part No.	**Code**	**Manufacturer/ trademark**	**Type / model**	**Technical data**	**Standard**	**Mark(s) of conformity[1)]**
EU plug	B	Dongguan Kaixiang Electric Co., Ltd	KX-005	AC 250,2.5A	EN50075	VDE 40045754
Alt.	B	Zhongshan Ruitian Wire & Cable Co.,Ltd	RT-05	AC 250,2.5A	EN50075	VDE 40045033
Alt	B	Unirise Electric Wire & Cable Co.,Ltd	UE-211	AC 250,2.5A	EN50075	VDE 40014452
Alt	B	Jiangmen Jianghai Vieta Electric Appliance Co., Ltd.	VT-01	AC 250,2.5A	EN50075	ENEC HN 69261380
Alt	B	Guangdong Jiaqixing Electric Tech Co., Ltd.	JQX-201	AC 250,2.5A	EN50075	VDE 40045993
Alt	B	Jiangmen Gude Wire Co., Ltd.	GD-08	AC 250,2.5A	EN50075	VDE 40055396
Fused Plug	B	Foshan Shunde Ojun Electrical Co.,Ltd	OJ-8138	13A, 250V	BS 1363-1	ASTA 1196
Alt	B	Dongguan Kaixiang Electric Co.,Ltd	KX-018 & KX-028	13A, 250V	BS 1363-1	DEKRA 35-109441
Alt	B	Jiangmen City Vieta Electrical Appliance Co.,Ltd	VT-11	Max. 13A, 250V	BS 1363-1	ASTA 1375
Alt	B	Guangdong Jiaqixing Electric Tech Co., Ltd.	JQ-208	Max. 13A, 250V	BS 1363-1	ASTA 1358
Alt	B	Jiangmen Gude Wire Co., Ltd.	GD-16	Max. 13A, 250V	BS 1363-1	UKCA CTK20230323011
Supply Cord	B	Dongguan Kaixiang Electric Co.,Ltd	H03VVH2-F	2X0.75mm^2	VDE0285-525-2-11	VDE 40044218
Alt.	B	Zhongshan Ruitian Wire & Cable Co.,Ltd	H03VVH2-F	2X0.75mm^2	VDE0285-525-2-11	VDE 40043858

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict

Alt	B	Unirise Electric Wire & Cable Co.,Ltd	H03VVH2-F	2X0.75mm^2	VDE0285-525-2-11	VDE 40017449
Alt	B	Guangdong Detong Elecrric Wire&Cable Co.,Ltd	H03VVH2-F	2X0.75mm^2	VDE0285-525-2-11	VDE 40050872
Alt	B	Zhongshan Guzhen Pinzheng Wire and Electric Appliance Factory	H03VVH2-F	2X0.75mm^2	VDE0285-525-2-11	VDE 40044806
Alt	B	Jiangmen Jianghai Vieta Electric Appliance Co., Ltd.	H03VVH2-F	2X0.75mm^2	VDE0285-525-2-11	VDE 40054263
Alt	B	Guangdong Jiaqixing Electric Tech Co., Ltd.	H03VVH2-F	2X0.75mm^2	VDE0285-525-2-11	VDE 40045567
Alt	B	Jiangmen Gude Wire Co., Ltd.	H03VVH2-F	2X0.75mm^2	VDE0285-525-2-11	VDE 40053906
Swiss Plug	B	Jiangmen Gude Wire Co., Ltd.	GD-40	250V~ 10A, CH-type 12, H03VV-F 2X0.75mm2	IEC 60884-1, SN 441011-1, SN 441011-2-1	Number: 23.0774
Lampholder	B	Rich Brand Industries Limited	E27R-A; E27R-B; E27S-A; E27S-B	AC 250V 2A	EN IEC 60238	CE 242062
Alt	B	Ruicheng Housekeeping Electrical Appliance	E27-A; E27-B; E27-C	AC 250V 4A	EN IEC 60238	CE PNT-RH20SE0001LSR-V1
Alt	B	Xiaolan Town Baile Electrical Appliance Factory	E27-B/1, E27-Rh233, E27-Rh244, E27-A/1	AC 250V T210 4A / 2A	AS/NZS 60238	TUV 017857EA
Alt	B	Zhong Shan Yi Hang Electric Co.,Ltd	YH266 YH267 YH268 YH269	AC 250V T210 4A	EN IEC 60238	VDE 40033010

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict

Alt	B	Dongguan Nuobaoxin Lighting Technology Co., Ltd.	270, 270F, 270S	AC 250V T210 4A	EN IEC 60238	VDE 40030292
Alt	B	Xiaolan Town BaiLe Electrical Appliance Factory	E27-A/1, E27-B/1, E27-Rh233, E27-Rh244	AC 250V T210 4A	EN IEC 60238	VDE 40032321
Switch	B	Foshan Shunde Ojun Electrical Co.,Ltd	8s.317	AC 250V T55 2A	EN 61058-1 EN 61058-2-1	DEKRA 2168733.01
Alt	B	Foshan Shunde Ojun Electrical Co.,Ltd	8s.304	AC 250V T55 2A	EN 61058-1 EN 61058-2-1	DEKRA 2168732.01
Alt	B	Foshan Shunde Ojun Electrical Co.,Ltd	8s.303	AC 250V T55 2A	EN 61058-1 EN 61058-2-1	DEKRA 2163323.01
Alt	B	Foshan Shunde Ojun Electrical Co.,Ltd	OJ-303	AC 250V T55 2A	EN 61058-1 EN 61058-2-1	DEKRA 2188699.01
Alt	B	Dongguan Xianghui Elec. Engineering Material Co. Ltd.	XH-317	AC 250V T55 2A	EN 61058-1 EN 61058-2-1	DEKRA 35-121535
Alt	B	Dongguan Xianghui Elec. Engineering Material Co. Ltd.	XH-303, XH-304	AC 250V T55 2A	EN 61058-1 EN 61058-2-1 UL 20	DEKRA 35-121538 REV.1 UL E34914
Alt	B	Dongguan Zhenghao Electrical Co., Ltd.	ZH-303	AC 250V T55 2A	EN 61058-1 EN 61058-2-1	DEKRA 35-103202 REV.1
Alt	B	Dongguan Zhenghao Electrical Co., Ltd.	ZH-317	AC 250V T55 2A	EN 61058-1 EN 61058-2-1	DEKRA 35-103412 REV.1
Adapter (for USB charger)	B	Dong Guan Ya Li Electric Appliance Co., Ltd	YL-888-1, YL-888-2	Input:100-240VAC,50/60Hz ,0.5A Output:5VDC, 2.1A Max	EN 61558-1, EN 61558-2-16	TUV test report no.: 6425017060 6201

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict

Supplementary information:

[1)] Provided evidence ensures the agreed level of compliance. See OD-CB2039.

The codes above have the following meaning:

A- The component is replaceable with another one, also certified, with equivalent characteristics

B- The component is replaceable if authorised by the test house

C- Integrated component tested together with the appliance

D- Alternative component

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict

ANNEX 2	**TABLE: Temperature measurements, thermal tests of Section 12**		P
	Type reference.....:	SF-3017-C	—
	Lamp used.....:	Test with filament lamp	—
	Lamp control gear used.....:		—
	Mounting position of luminaire.....:		—
	Supply wattage (W).....:	42.0	—
	Supply current (A)..... :	0.188	—
	Calculated power factor.....:	0.97	—
	Table: measured temperatures corrected for ta = 45°C:		
	- abnormal operating mode.....:		—
	- test 1: rated voltage..... :		—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage.....:	1.05x40W=42.0W Input:223.5 V, 0.188A	—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage..... :		—
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage.....:		—
	Through wiring or looping-in wiring loaded by a current of A during the test ..... :		—

Temperature measurements, (°C)

Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Power cord	45.0	--	47.6	--	75	--	--
Enclosure near lampholder		--	59.8	--	90	--	--
Internal wire near Lampholder		--	50.5	--	105	--	--
E27 Lampholder		--	83.9	--	210	--	--
Lampshade inside		--	51.8	--	90	--	--
Lampshade outside		--	51.3	--	90	--	--
Mounting surface		--	46.3	--	90	--	--

Supplementary information:

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict

ANNEX 2	**TABLE: Temperature measurements, thermal tests of Section 12**		P
	Type reference.....:	SF-3017-C	—
	Lamp used.....:	Test with filament lamp	—
	Lamp control gear used.....:		—
	Mounting position of luminaire.....:		—
	Supply wattage (W).....:	42.0	—
	Supply current (A)..... :	0.188	—
	Calculated power factor.....:	0.97	—
	Table: measured temperatures corrected for ta = 45°C:		
	- abnormal operating mode.....:		—
	- test 1: rated voltage.....:		—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage.....:	1.05x40W=42.0W Input:223.5 V, 0.188A	—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage..... :		—
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage.....:		—
	Through wiring or looping-in wiring loaded by a current of A during the test ..... :		—

Temperature measurements, (°C)

Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Power cord	45.0	--	47.6	--	75	--	--
Enclosure near lampholder		--	59.8	--	90	--	--
Internal wire near Lampholder		--	50.5	--	105	--	--
E27 Lampholder		--	83.9	--	210	--	--
Lampshade inside		--	51.8	--	90	--	--
Lampshade outside		--	51.3	--	90	--	--
Mounting surface		--	46.3	--	90	--	--

Supplementary information:

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
ANNEX 3	**Screw terminals (part of the luminaire)**		N/A
(14)	**SCREW TERMINALS**		N/A
(14.2)	Type of terminal.....:		—
	Rated current (A).....:		—
(14.3.2.1)	One or more conductors		N/A
(14.3.2.2)	Special preparation		N/A
(14.3.2.3)	Terminal size		N/A
	Cross-sectional area (mm²).....:		—
(14.3.3)	Conductor space (mm).....:		N/A
(14.4)	Mechanical tests		N/A
(14.4.1)	Minimum distance		N/A
(14.4.2)	Cannot slip out		N/A
(14.4.3)	Special preparation		N/A
(14.4.4)	Nominal diameter of thread (metric ISO thread).....:		N/A
	External wiring		N/A
	No soft metal		N/A
(14.4.5)	Corrosion		N/A
(14.4.6)	Nominal diameter of thread (mm).....:		N/A
	Torque (Nm).....:		N/A
(14.4.7)	Between metal surfaces		N/A
	Lug terminal		N/A
	Mantle terminal		N/A
	Pull test; pull (N).....:		N/A
(14.4.8)	Without undue damage		N/A

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
ANNEX 4	**Screwless terminals (part of the luminaire)**		N/A
(15)	**SCREWLESS TERMINALS**		N/A
(15.2)	Type of terminal.....:		—
	Rated current (A).....:		—
(15.3.1)	Material		N/A
(15.3.2)	Clamping		N/A
(15.3.3)	Stop		N/A
(15.3.4)	Unprepared conductors		N/A
(15.3.5)	Pressure on insulating material		N/A
(15.3.6)	Clear connection method		N/A
(15.3.7)	Clamping independently		N/A
(15.3.8)	Fixed in position		N/A
(15.3.10)	Conductor size		N/A
	Type of conductor		N/A
(15.5)	Terminals and connections for internal wiring		N/A
(15.5.1)	Mechanical tests		N/A
(15.5.1.1.1)	Pull test spring-type terminals (4 N, 4 samples).....:		N/A
(15.5.1.1.2)	Pull test pin or tab terminals (4 N, 4 samples).....:		N/A
	Insertion force not exceeding 50 N		N/A
(15.5.1.2)	Permanent connections: pull-off test (20 N)		N/A
(15.5.2)	Electrical tests		N/A
	Voltage drop (mV) after 1 h (4 samples)..... :		N/A
	Voltage drop of two inseparable joints		N/A
	Number of cycles:		—
	Voltage drop (mV) after 10th alt. 25th cycle (4 samples).....:		N/A
	Voltage drop (mV) after 50th alt. 100th cycle (4 samples).....:		N/A
	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples).....:		N/A
	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples)..... :		N/A
(15.6)	Terminals and connections for external wiring		N/A
(15.6.1)	Conductors		N/A
	Terminal size and rating		N/A
15.6.2	Mechanical tests		N/A

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
(15.6.2.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N) .....:		N/A
(15.6.2.2)	Pull test pin or tab terminals (4 samples); pull (N) .....:		N/A
(15.6.3)	Electrical tests		N/A
	Tests according 15.6.3.1 + 15.6.3.2 in IEC 60598-1		N/A

(15.6.3.1) **(15.6.3.2)**	**TABLE: Contact resistance test / Heating tests**										N/A
	Voltage drop (mV) after 1 h										—
terminal		1	2	3	4	5	6	7	8	9	10
voltage drop (mV)											
	Voltage drop of two inseparable joints										
	Voltage drop after 10th alt. 25th cycle										
	Max. allowed voltage drop (mV)……..:										—
terminal		1	2	3	4	5	6	7	8	9	10
voltage drop (mV)											
	Voltage drop after 50th alt. 100th cycle										
	Max. allowed voltage drop (mV)……..:										—
terminal		1	2	3	4	5	6	7	8	9	10
voltage drop (mV)											
	Continued ageing: voltage drop after 10th alt. 25th cycle										
	Max. allowed voltage drop (mV).....:										—
terminal		1	2	3	4	5	6	7	8	9	10
voltage drop (mV)											
	Continued ageing: voltage drop after 50th alt. 100th cycle										
	Max. allowed voltage drop (mV).....:										—
terminal		1	2	3	4	5	6	7	8	9	10
voltage drop (mV)											
Supplementary information:											

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60598-2-4
EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES

Luminaires

Part 2: Particular requirements

Section 4: Portable general purpose luminaires

Differences according to.....:	EN 60598-2-4:2018 used in conjunction with EN IEC 60598-1:2021 + A11:2022
TRF template used.....:	IECEE OD-2020-F2:2020, Ed. 1.1
Attachment Form No.....:	EU_GD_IEC60598_2_4I_II
Attachment Originator.....:	IMQ S.p.A.
Master Attachment.....:	Dated 2022-07-01

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	CENELEC COMMON MODIFICATIONS (EN)		
4.6 (3)	**MARKING**		N/A
(3.2.12)	Delete the note 4		N/A

4.7 (4)	**CONSTRUCTION**		N/A
4.7 (4.11.6)	Electro-mechanical contact systems: electric strength test at 1 500 V		N/A

4.11 (5)	**EXTERNAL AND INTERNAL WIRING**		N/A
4.11 (5.2.2)	Cables equal to EN 50525		P
4.11 (5.2.2)	Delete paragraph 2		P
	Replace table 5.1 – Supply cord		P
4.11.4 (-)	For class I and class II portable luminaires for outdoor use, non-detachable flexible cables or cords not lighter than type H05RN-F		N/A

4.13 (12)	**ENDURANCE TESTS AND THERMAL TESTS**		P
4.13 (12.4.2c)	Thermal test (normal operation) see footnote c to table 12.2 relating to unsleeved fixed wiring		P

BS EN 60598-2-4			
Clause	Requirement – Test	Result – Remark	Verdict
ZB	**ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)**		N/A
(3.3)	DK: power supply cords of class I luminaires with label		N/A
(5.2.18)	DK: socket- outlets		N/A
(5.2.1)	CY, DK, FI, GB: type of plug		N/A
4.4.4 (-)	DK: luminaires for outdoor use classified as class II or class III		N/A
ZC	**ANNEX ZC, NATIONAL DEVIATIONS (EN)**		N/A
(4 & 5)	FR: Shuttered socket-outlets 10/16A		N/A
	FR: Safety requirements for high buildings (Arrêté du 30 décembre 2011 portant règlement de sécurité pour la construction des immeubles de grande hauteur et leur protection contre les risques d'incendie et de panique; Section VIII; Article GH 48, Eclairage) Glow-wire test for outer parts of luminaires:		N/A
	- 850°C for luminaires in stairways and horizontal travel paths		N/A
	- 650°C for indoor luminaires		N/A
	GB: Requirements according to United Kingdom Building Regulation		N/A

Photo Documentation

Model: SF-3017-C



Photo 1



Photo 2

Photo Documentation



Photo 3



Photo 4

Photo Documentation

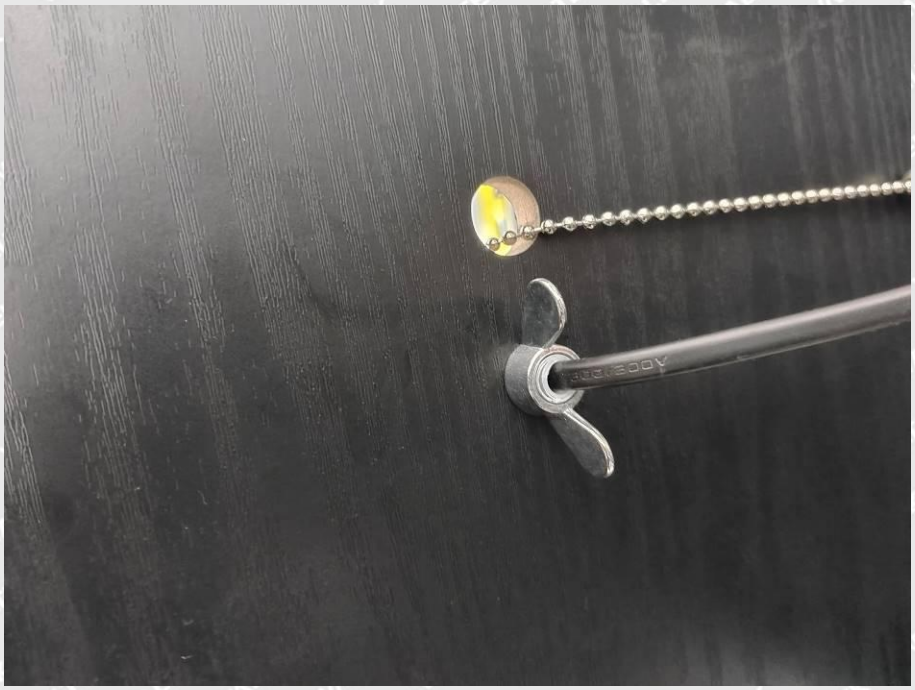


Photo 5



Photo 6

Photo Documentation



Photo 7



Photo 8

====== End of Report ======