TEST REPORT
IEC 60598-2-4
Luminaires
Part 2: Particular requirements
Section 4: Portable general purpose luminaires

Report Number. .....:	SHES171201277201
Date of issue .....:	2018-01-22
Total number of pages	36
Name of Testing Laboratory preparing the Report .....:	SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd.
Applicant's name .....:	Eco Lighting Solutions Limited
Address .....:	2nd Floor, No9 Lefeng Central Road, Lianfeng, Xiaolan Town, Zhongshan, Guangdong, China
Test specification:	
Standard .....:	EN 60598-2-4:1997 used in conjunction with EN 60598-1:2015
Test procedure .....:	CE-LVD
Non-standard test method .....:	N/A
Test Report Form No .....:	IEC60598_2_4D
Test Report Form(s) Originator ....:	UL(US)
Master TRF .....:	2017-02

This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested.
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Test item description ..... :	Portable luminaire (Antique Table Lamp)
Trade Mark ..... :	None
Manufacturer ..... :	Same as applicant
Model/Type reference ..... :	TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113
Ratings ..... :	220 V – 240 V; 50 Hz / 60 Hz; Max. 60 W; IP20; Class II

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):			
☐	**Testing Laboratory:**	Refer to P.1	
Testing location/ address.....:		588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China	
Tested by (name, function, signature).....:		Lisa Li, PE	Lisa Li
Approved by (name, function, signature)...:		Henry Hu, Reviewer	
☐	**Testing procedure: CTF Stage 1:**	N/A	
Testing location/ address.....:			
Tested by (name, function, signature).....:			
Approved by (name, function, signature)...:			
☐	**Testing procedure: CTF Stage 2:**	N/A	
Testing location/ address.....:			
Tested by (name + signature).....:			
Witnessed by (name, function, signature) .:			
Approved by (name, function, signature)...:			
☐	**Testing procedure: CTF Stage 3:**	N/A	
☐	**Testing procedure: CTF Stage 4:**	N/A	
Testing location/ address.....:			
Tested by (name, function, signature).....:			
Witnessed by (name, function, signature) .:			
Approved by (name, function, signature)...:			
Supervised by (name, function, signature) :			

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

1. Attachment A – EU Group difference (2 pages in total)
2. Attachment B – Photo documentation (14 pages in pages)

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
Full tests	SGS-CSTC Standards Technical Services (Shanghai) Co., Ltd. 588 West Jindu Road, Xinqiao, Songjiang, 201612 Shanghai, China

Summary of compliance with National Differences:

List of countries addressed

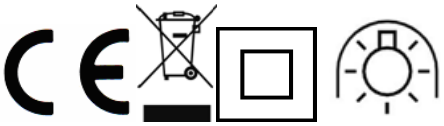
1. EU Group Differences: YES
2. EU Special National Conditions: NONE
3. EU A-deviations: NONE

☒ **The product fulfils the requirements of EN 60598-2-4:1997, EN 60598-1:2015 and EN 62493:2015**

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.

TD-0403
220V-240V, 50/60 Hz, Max. 60W



manufacturer: Eco Lighting Solutions Limited
Postal address: 2nd Floor, No9 Lefeng Central Road, Lianfeng, Xiaolan Town, Zhongshan, Guangdong, China
Importer name:
Postal address:

Label on lampholder:

220V-240V, 50/60 Hz, E27, Max. 60W

The copies of marking plate for other models were the same as above one except for model name.
Note:
1. As declared by the applicant, the importer's name, registered trade name or registered trade mark and the postal address were not decided at the time of application, but will be marked on the products before being place on the market. The contact details shall be in a language easily understood by end-users and market surveillance authorities.

2. Marking on the packaging or in a document accompanying the electrical equipment is only acceptable if it is not possible to place such markings on the product.

3. The height of graphical symbols shall not be less than 5 mm, except for symbols for class II and class III classification which may be reduced to a minimum of 3 mm where the space available for marking is restricted, and the height of letters and numerals shall not be less than 2 mm. The height of WEEE symbol shall not be less than 7 mm.

Test item particulars.....:	Portable luminaire (Antique Table Lamp)
Classification of installation and use.....:	Portable
Supply Connection.....:	Non-detachable cord with 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)
Testing.....:	
Date of receipt of test item .....:	2017-12-22
Date (s) of performance of tests.....:	2017-12-22 to 2018-01-18

General remarks:

"(See Attachment #)" 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.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
Clause numbers between brackets refer to clauses in IEC 60598-1

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:

The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided ..... :	☐ **Yes** ☒ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies) .....:	Same as applicant

General product information:

The products were portable luminaire, with E27 lampholder.
The internal wire equipped in lampholder was potted with decorating copper part.
There were 18 models covered in the report: TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113. They were all the same except for appearance.

After review, model TD-0403 was performed the full tests, model TD-0139 and LD-0113 were performed the tests of 6° and 15° stability tests, which were according to EN 60598-2-4 used in conjunction with EN 60598-1.
The submitted appliances were found to be in compliance with EMF requirement of EN 62493:2015 according to the clause 4.2.2.

Factory Location: Same as applicant

IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
4.2 (0)	**GENERAL TEST REQUIREMENTS**		
4.2 (0.1)	Information for luminaire design considered ..... :	Yes ☒ No ☐ Lamp standard: EN 60432-1	—
4.2 (0.3)	More sections applicable..... :	Yes ☐ No ☒ Section/s:	—
4.4 (2)	**CLASSIFICATION OF LUMINAIRES**		
4.4 (2.2)	Type of protection ..... :	Class II	P
4.4 (2.3)	Degree of protection..... :	IP20	P
4.4 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces ..... :	Yes ☒ No ☐	—
4.4 (2.5)	Luminaire for normal use ..... :	Yes ☒ No ☐	—
	Luminaire for rough service ..... :	Yes ☐ No ☒	—
4.5 (3)	**MARKING**		
4.5 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text		P
4.5 (3.3)	Additional information		P
	Language of instructions		P
4.5 (3.3.1)	Combination luminaires		N/A
4.5 (3.3.2)	Nominal frequency in Hz		P
4.5 (3.3.3)	Operating temperature		N/A
4.5 (3.3.4)	Symbol or warning notice		N/A
4.5 (3.3.5)	Wiring diagram		N/A
4.5 (3.3.6)	Special conditions		N/A
4.5 (3.3.7)	Metal halide lamp luminaire – warning		N/A
4.5 (3.3.8)	Limitation for semi-luminaires		N/A
4.5 (3.3.9)	Power factor and supply current		N/A
4.5 (3.3.10)	Suitability for use indoors		N/A
4.5 (3.3.11)	Luminaires with remote control		N/A
4.5 (3.3.12)	Clip-mounted luminaire – warning		N/A
4.5 (3.3.13)	Specifications of protective shields		N/A
4.5 (3.3.14)	Symbol for nature of supply		P
4.5 (3.3.15)	Rated current of socket outlet		N/A

IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
4.5 (3.3.16)	Rough service luminaire		N/A
4.5 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments	Type Z attachment	P
4.5 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
4.5 (3.3.19)	Protective conductor current in instruction if applicable		N/A
4.5 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
4.5 (3.3.21)	Non replaceable and non-user replaceable light sources information provided		N/A
	Cautionary symbol		N/A
4.5 (3.3.22)	Controllable luminaires, classification of insulation provided		N/A
4.5 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test		P
	Label attached		P
4.6 (4)	**CONSTRUCTION**		
4.6 (4.2)	Components replaceable without difficulty		P
4.6 (4.3)	Wireways smooth and free from sharp edges		P
4.6 (4.4)	**Lampholders**		P
4.6 (4.4.1)	Integral lampholder		N/A
4.6 (4.4.2)	Wiring connection		N/A
4.6 (4.4.3)	Lampholder for end-to-end mounting		N/A
4.6 (4.4.4)	Positioning		P
	- pressure test (N) ..... :		—
	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 (N) ..... :	2,0 Nm	—
	After test the lampholder have not moved from its position and show no permanent deformation		P
4.6 (4.4.5)	Peak pulse voltage		N/A
4.6 (4.4.6)	Centre contact		N/A

IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
4.6 (4.4.7)	Parts in rough service luminaires resistant to tracking		N/A
4.6 (4.4.8)	Lamp connectors		N/A
4.6 (4.4.9)	Caps and bases correctly used		N/A
4.6 (4.4.10)	Light source for lampholder or connection according IEC 60061 not connected another way		P
4.6 (4.5)	**Starter holders**		N/A
	Starter holder in luminaires other than class II		N/A
	Starter holder class II construction		N/A
4.6 (4.6)	**Terminal blocks**		N/A
	Tails		N/A
	Unsecured blocks		N/A
4.6 (4.7)	**Terminals and supply connections**		P
4.6 (4.7.1)	Contact to metal parts		P
4.6 (4.7.2)	Test 8 mm live conductor		N/A
	Test 8 mm earth conductor		N/A
4.6 (4.7.3)	Terminals for supply conductors		P
4.6 (4.7.3.1)	Welded method and material		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 15.6.2		N/A
	- electrical test according to 15.6.3		N/A
	- heat test according to 15.6.3.2.3 and 15.6.3.2.4		N/A
4.6 (4.7.4)	Terminals other than supply connection		P
4.6 (4.7.5)	Heat-resistant wiring/sleeves		N/A
4.6 (4.7.6)	Multi-pole plug		N/A
	- test at 30 N		N/A
4.6 (4.8)	**Switches**		P
	- adequate rating		P
	- adequate fixing		P
	- polarized supply		N/A
	- compliance with IEC 61058-1 for electronic switches		N/A
4.6 (4.9)	**Insulating lining and sleeves**		P

IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
4.6 (4.9.1)	Retainment		P
	Method of fixing ..... :	Heat-shrinkable tube	P
4.6 (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
4.6 (4.10)	**Double or reinforced insulation**		P
4.6 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation		P
	Safe installation fixed luminaires		P
	Capacitors and switches		N/A
	Interference suppression capacitors according to IEC 60384-14		N/A
4.6 (4.10.2)	Assembly gaps:		P
	- not coincidental		P
	- no straight access with test probe		P
4.6 (4.10.3)	Retainment of insulation:		P
	- fixed		P
	- unable to be replaced; luminaire inoperative		P
	- sleeves retained in position		P
	- lining in lampholder		P
4.6 (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
4.6 (4.11)	**Electrical connections and current-carrying parts**		P
4.6 (4.11.1)	Contact pressure		P
4.6 (4.11.2)	Screws:		P
	- self-tapping screws		P
	- thread-cutting screws		N/A
4.6 (4.11.3)	Screw locking:		N/A
	- spring washer		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- rivets		N/A
4.6 (4.11.4)	Material of current-carrying parts		P
4.6 (4.11.5)	No contact to wood or mounting surface		P
4.6 (4.11.6)	Electro-mechanical contact systems		N/A
4.6 (4.12)	**Screws and connections (mechanical) and glands**		P
4.6 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		N/A
	Torque test: torque (Nm); part..... :	0,5; Screw in cord anchorage	P
	Torque test: torque (Nm); part..... :		N/A
	Torque test: torque (Nm); part..... :		N/A
4.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
4.6 (4.12.4)	Locked connections:		P
	- fixed arms; torque (Nm) ..... :	M14; 5,0 Nm	P
	- lampholder; torque (Nm) ..... :	E27; 2,0 Nm	P
	- push-button switches; torque 0,8 Nm ..... :		N/A
4.6 (4.12.5)	Screwed glands; force (Nm)..... :		N/A
4.6 (4.13)	**Mechanical strength**		P
4.6 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm) ..... :		N/A
	- other parts; energy (Nm)..... :	Enclosure: 0,5	P
	1) live parts		P
	2) linings		P
	3) protection		N/A
	4) covers		N/A
4.6 (4.13.3)	Straight test finger		P
4.6 (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
4.6 (4.13.6)	Tumbling barrel		N/A
4.6 (4.14)	**Suspensions, fixings and means of adjusting**		P

IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
4.6 (4.14.1)	Mechanical load:		N/A
	A) four times the weight		N/A
	B) torque 2,5 Nm		N/A
	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
4.6 (4.14.2)	Load to flexible cables		P
	Mass (kg) ..... :	0,816 kg	—
	Stress in conductors (N/mm²) ..... :	5,44 N/mm²	P
	Mass (kg) of semi-luminaire ..... :		N/A
	Bending moment (Nm) of semi-luminaire ..... :		N/A
4.6 (4.14.3)	Adjusting devices:		P
	- flexing test; number of cycles..... :	1500	P
	- strands broken ..... :		P
	- electric strength test afterwards		P
4.6 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
4.6 (4.14.5)	Guide pulleys		P
4.6 (4.14.6)	Strain on socket-outlets		P
4.6 (4.15)	**Flammable materials**		N/A
	- glow-wire test 650°C ..... :	See Test Table 4.15 (13.3.2)	N/A
	- spacing ≥30 mm		N/A
	- screen withstanding test of 13.3.1		N/A
	- screen dimensions		N/A
	- no fiercely burning material		P
	- thermal protection		N/A
	- electronic circuits exempted		N/A
4.6 (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

IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
4.6 (4.16)	**Luminaires for mounting on normally flammable surfaces**		P
	No lamp control gear ..... :	(compliance with Section 12)	P
4.6 (4.16.1)	Lamp control gear spacing:		N/A
	- spacing 35 mm		N/A
	- spacing 10 mm		N/A
4.6 (4.16.2)	Thermal protection:		N/A
	- in lamp control gear		N/A
	- external		N/A
	- fixed position		N/A
	- temperature marked lamp control gear		N/A
4.6 (4.16.3)	Design to satisfy the test of 12.6	(see clause 12.6)	N/A
4.6 (4.17)	**Drain holes**		N/A
	Clearance at least 5 mm		N/A
4.6 (4.18)	**Resistance to corrosion**		N/A
4.6 (4.18.1)	- rust-resistance		N/A
4.6 (4.18.2)	- season cracking in copper		N/A
4.6 (4.18.3)	- corrosion of aluminium		N/A
4.6 (4.19)	Ignitors compatible with ballast		N/A
4.6 (4.20)	Rough service vibration		N/A
4.6 (4.21)	**Protective shield**		P
4.6 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps		P
	Shield of glass if tungsten halogen lamps		N/A
4.6 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
4.6 (4.21.3)	No direct path		N/A
4.6 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment..... :	See Test Table 4.15 (13.3.2)	N/A
4.6 (4.22)	Attachments to lamps not cause overheating or damage		N/A
4.6 (4.23)	Semi-luminaires comply Class II		N/A
4.6 (4.24)	**Photobiological hazards**		N/A
4.6 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		N/A
4.6 (4.24.2)	Retinal blue light hazard		N/A
	Class of risk group assessed according to IEC/TR 62778 ..... :		—

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Clause	Requirement + Test	Result - Remark	Verdict
	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
4.6 (4.25)	**Mechanical hazard**		P
	No sharp point or edges		P
4.6 (4.26)	**Short-circuit protection**		N/A
4.6 (4.26.1)	Adequate means of uninsulated accessible SELV parts		N/A
4.6 (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
4.6 (4.27)	**Terminal blocks with integrated screwless earthing contacts**		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
4.6 (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) ..... :		—
	100 cycles between t min and t max		N/A
	Temperature sensing control still in position		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.6 (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
4.6 (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
4.6 (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
4.6 (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
4.6 (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

IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
	Socket outlets does not admit plugs of other voltage systems		N/A
	Socket-outlets does not have protective conductor contact		N/A
4.6 (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
	- slave luminaire constructed as class I		N/A
4.6 (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
4.6.1 (-)	Insulation not damaged when placing on support		P
4.6.2 (-)	Wiring fixed, to avoid rubbing		P
4.6.3 (-)	Luminaire not overturn at angle 6°		P
4.6.4 (-)	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
4.6.5 (-)	Voltage not exceed 25 V for E5 lampholders		N/A
	Voltage not exceed 60 or 250 V for E10 lampholders		N/A
	Maximum rated wattage not exceed 100 W		N/A
4.7 (11)	**CREEPAGE DISTANCES AND CLEARANCES**		
4.7 (11.2)	Creepage distances and clearances..... :	See Table 4.7 (11.2)	P
	Impulse withstand category (Normal category II) (Category III Annex U, Table U.1)	Category II ☒ Category III ☐	—

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Clause	Requirement + Test	Result - Remark	Verdict

4.8 (7)	**PROVISION FOR EARTHING**		
4.8 (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 grove		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
4.8 (7.2.2 + 7.2.3)	Earth continuity in joints, etc.		N/A
4.8 (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
4.8 (7.2.5)	Earth terminal integral part of connector socket		N/A
4.8 (7.2.6)	Earth terminal adjacent to mains terminals		N/A
4.8 (7.2.7)	Electrolytic corrosion of the earth terminal		N/A
4.8 (7.2.8)	Material of earth terminal		N/A
	Contact surface bare metal		N/A
4.8 (7.2.10)	Class II luminaire for looping-in		N/A
	Double or reinforced insulation to functional earth		N/A
4.8 (7.2.11)	Earthing core coloured green-yellow		N/A
	Length of earth conductor		N/A

4.9 (14)	**SCREW TERMINALS**		
	Separately approved; component list	(see Annex 1)	N/A
	Part of the luminaire	(see Annex 3)	N/A

4.9 (15)	**SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS**		
	Separately approved; component list..... :	(see Annex 1)	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Part of the luminaire ..... :	(see Annex 4)	N/A
4.10 (5)	**EXTERNAL AND INTERNAL WIRING**		
4.10 (5.2)	**Supply connection and external wiring**		P
4.10 (5.2.1)	Means of connection ..... :	Supply cord with plug	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
4.10 (5.2.2)	Type of cable ..... :	(See Annex 1)	P
	Nominal cross-sectional area (mm²) ..... :	(See Annex 1)	P
	Cables equal to IEC 60227 or IEC 60245		P
4.10 (5.2.3)	Type of attachment, X, Y or Z	Type Z attachment	P
4.10 (5.2.5)	Type Z not connected to screws		P
4.10 (5.2.6)	Cable entries:		P
	- suitable for introduction		P
	- adequate degree of protection		P
4.10 (5.2.7)	Cable entries through rigid material have rounded edges		P
4.10 (5.2.8)	Insulating bushings:		N/A
	- suitably fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- tubes or guards made of insulating material		N/A
4.10 (5.2.9)	Locking of screwed bushings		N/A
4.10 (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		P
4.10 (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

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Clause	Requirement + Test	Result - Remark	Verdict
	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
4.10 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment		P
4.10 (5.2.10.3)	Tests:		P
	- impossible to push cable; unsafe		P
	- pull test: 25 times; pull (N) ..... :	60 N	P
	- torque test: torque (Nm) ..... :	0,15 Nm	P
	- displacement ≤ 2 mm		P
	- no movement of conductors		P
	- no damage of cable or cord		P
	- function independent of electrical connection		N/A
4.10 (5.2.11)	External wiring passing into luminaire		P
4.10 (5.2.12)	Looping-in terminals		N/A
4.10 (5.2.13)	Wire ends not tinned		P
	Wire ends tinned: no cold flow		N/A
4.10 (5.2.14)	Mains plug same protection		P
	Class III luminaire plug		N/A
	No unsafe compatibility		N/A
4.10 (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
4.10 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
4.10 (5.2.18)	Used plug in accordance with		P
	- IEC 60083		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- other standard		P
4.10 (5.3)	**Internal wiring**		P
4.10 (5.3.1)	Internal wiring of suitable size and type		P
	Through wiring		N/A
	- not delivered/ mounting instruction		N/A
	- factory assembled		N/A
	- socket outlet loaded (A) ..... :		N/A
	- temperatures ..... :	(see Annex 2)	N/A
	Green-yellow for earth only		N/A
4.10 (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
4.10 (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
4.10 (5.3.1.3)	Double or reinforced insulation for class II		P
4.10 (5.3.1.4)	Conductors without insulation		N/A
4.10 (5.3.1.5)	SELV current-carrying parts		N/A
4.10 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A
4.10 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		P
	Joints, raising/lowering devices		N/A
	Telescopic tubes etc.		N/A
	No twisting over 360°		P
4.10 (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
4.10 (5.3.4)	Joints and junctions effectively insulated		P

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Clause	Requirement + Test	Result - Remark	Verdict
4.10 (5.3.5)	Strain on internal wiring		N/A
4.10 (5.3.6)	Wire carriers		N/A
4.10 (5.3.7)	Wire ends not tinned		P
	Wire ends tinned: no cold flow		N/A
4.10 (-)	1) The requirement of one part of cord anchorage shall be fixed to the luminaire not apply for table lamps of glass or ceramic		—
	2) Luminaire with a mass less than 1 kg the current ≤ 2,5 A and cable ≤ 2 m and conductor ≥ 0,5 mm^2		N/A
4.11 (8)	**PROTECTION AGAINST ELECTRIC SHOCK**		
4.11 (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		N/A
	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		N/A
	Double-ended high pressure discharge lamp		N/A
	Relevant warning according to 3.2.18 fitted to the luminaire		N/A
4.11 (8.2.2)	Portable luminaire adjusted in most unfavourable position		P
4.11 (8.2.3.a)	Class II luminaire:		P
	- basic insulated metal parts not accessible during starter or lamp replacement		P
	- basic insulation not accessible other than during starter or lamp replacement		P
	- glass protective shields not used as supplementary insulation		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.11 (8.2.3.b)	BC lampholder of metal in class I luminaires shall be earthed		N/A
4.11 (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
4.11 (8.2.4)	Portable luminaire have protection independent of supporting surface		P
4.11 (8.2.5)	Compliance with the standard test finger or relevant probe		P
4.11 (8.2.6)	Covers reliably secured		N/A
4.11 (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
4.11.1 (-)	Class I luminaire with bayonet lampholder:		N/A
	1) cap not accessible with test finger		N/A
	2) metal lampholder is earthed		N/A

4.12 (12)	**ENDURANCE TEST AND THERMAL TEST**		
4.12 (-)	If IP > IP 20 relevant test of (12.4), (12.5) and (12.6) after (9.2) before (9.3) specified in 4.13		—
4.12 (12.3)	Endurance test:		P
	- mounting-position..... :	Standing on the table	—
	- test temperature (°C) ..... :	35 °C	—
	- total duration (h) ..... :	240 h	—

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Clause	Requirement + Test	Result - Remark	Verdict
	- supply voltage: Un factor; calculated voltage (V)... :	1,05; 247 V	—
	- lamp used..... :	60 W, tungsten filament lamp	—
4.12 (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
4.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
4.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	N/A
4.12 (12.6)	Thermal test (failed lamp control gear condition):		N/A
4.12 (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
4.12 (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
4.12 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		N/A
4.12 (12.7.1)	Luminaire without temperature sensing control		N/A
4.12 (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

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Clause	Requirement + Test	Result - Remark	Verdict
	- case of abnormal conditions ..... :		—
	- 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 .....:	See Table 4.15 (13.2.1)	N/A
4.12 (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 ..... :	See Table 4.15 (13.2.1)	N/A
4.12 (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
4.12 (12.7.2)	Luminaire with temperature sensing control		N/A
	- thermal link..... :	Yes ☐ No ☐	—
	- manual reset cut-out ..... :	Yes ☐ No ☐	—
	- auto reset cut-out ..... :	Yes ☐ No ☐	—
	- case of abnormal conditions ..... :		—
	- highest measured temperature of fixing point/ exposed part (°C): ..... :		—
	Ball-pressure test: ..... :	See Table 4.15 (13.2.1)	N/A
4.12 (-)	Test overturned position (overturns < 15°)	No overturning	P

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Clause	Requirement + Test	Result - Remark	Verdict

4.13 (9)	**RESISTANCE TO DUST AND MOISTURE**		
4.13 (-)	If IP > IP 20 the order of tests as specified in clause 4.12		P
4.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		P
	- classification according to IP..... :	IP20	—
	- mounting position during test ..... :	Standing on the table	—
	- fixing screws tightened; torque (Nm) ..... :	N/A	—
	- tests according to clauses..... :	9.2.0	—
	- electric strength test afterwards		P
	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
4.13 (9.3)	Humidity test 48 h		P

4.14 (10)	**INSULATION RESISTANCE AND ELECTRIC STRENGTH**		
4.14 (10.2.1)	Insulation resistance test		P
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø ..... :	Covered by metal foil	—
	Insulation resistance (MΩ) ..... :	See below	—
	SELV		N/A
	- between current-carrying parts of different polarity :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- 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 ..... :	> 200 MΩ	P
	- between live parts and mounting surface ..... :	> 200 MΩ	P
	- between live parts and metal parts ..... :	> 200 MΩ	P
	- between live parts of different polarity through action of a switch..... :	> 200 MΩ	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts..... :	> 200 MΩ	P
	- Insulation bushings as described in Section 5 ..... :		N/A
4.14 (10.2.2)	Electric strength test		P
	Dummy lamp		N/A
	Luminaires with ignitors after 24 h test		N/A
	Luminaires with manual ignitors		N/A
	Test voltage (V)..... :	See below	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 ..... :	1480 V	P
	- between live parts and mounting surface ..... :	2960 V	P
	- between live parts and metal parts ..... :	2960 V	P

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Clause	Requirement + Test	Result - Remark	Verdict
	- between live parts of different polarity through action of a switch..... :	1480 V	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts..... :	1480 V	P
	- Insulation bushings as described in Section 5 ..... :		N/A
4.14 (10.3)	Touch current or protective conductor current (mA).:	0,03 mA	P

4.15 (13)	**RESISTANCE TO HEAT, FIRE AND TRACKING**		
4.15 (13.2.1)	Ball-pressure test ..... :	See Test Table 4.15 (13.2.1)	P
4.15 (13.3.1)	Needle-flame test (10 s)..... :	See Test Table 4.15 (13.3.1)	P
4.15 (13.3.2)	Glow-wire test (650°C) ..... :	See Test Table 4.15 (13.3.2)	N/A
4.15 (13.4)	Proof tracking test (IEC 60112)..... :	See Test Table 4.15 (13.4)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

4.7 (11.2)	**TABLE: Creepage distances and clearances**							P
	Minimum distances (mm) for a.c. (50/60 Hz) sinusoidal voltages							P
	Applicable part of IEC 60598-1 Table 11.1* and 11.2*							P
	Insulation type **	**Measured clearance**	**Required**		**Measured creepage**	**Required**		
			clearance	***Table**		**creepage**	***Table**	
Distance 1:	B	2,0	1,5	11.1	3,3	2,5	11.1	
Working voltage (V) .....:					240 V			—
PTI .....:					< 600 ☒ ≥ 600 ☐			—
Pulse voltage if applicable (kV) .....:					2,5 kV			—
Supplementary information: N/A								
Distance 2:	S	2,0	1,5	11.1	3,3	2,5	11.1	
Working voltage (V) .....:					240 V			—
PTI .....:					< 600 ☒ ≥ 600 ☐			—
Pulse voltage if applicable (kV) .....:					2,5 kV			—
Supplementary information: N/A								
Distance 3:	R	3,9	3,0	11.1	6,5	5,0	11.1	
Working voltage (V) .....:					240 V			—
PTI .....:					< 600 ☒ ≥ 600 ☐			—
Pulse voltage if applicable (kV) .....:					2,5 kV			—
Supplementary information: N/A								

** Insulation type: B – Basic; S – Supplementary; R – Reinforced. See also IEC 60598-1 Annex M.

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Clause	Requirement + Test	Result - Remark	Verdict

4.15 (13.2.1)	**TABLE: Ball Pressure Test of Thermoplastics**				P
Allowed impression diameter (mm) ..... :		2,0			—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)		
End terminal	See Annex 1	125	0,55		
Supplementary information: N/A					

4.15 (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
End terminal	See Annex 1	10	No	0	P
Supplementary information: N/A					

4.15 (13.3.2)	**TABLE: Glow-wire test (IEC 60695-2-11)**				N/A
Glow wire temperature ..... :		650°C			—
Object/ Part No./ Material	Manufacturer/ trademark		Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
N/A	N/A		N/A	N/A	N/A
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) ..... :					N/A
Supplementary information: N/A					

4.15 (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
N/A	N/A	N/A	N/A	N/A	N/A
Supplementary information: N/A					

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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)]**
Supply cord	B	Zhongshan Luoka Electric Co., Ltd.	H03VVH2-F	2 x 0,75 mm^2	EN 50525-2-11	VDE (40034861)
(Alternative)	D	Kenic Electric Co., Ltd.	H03VVH2-F	2 x 0,75 mm^2	EN 50525-2-11	VDE (103853)
Plug	B	Zhongshan Luoka Electric Co., Ltd.	LK-21	250 V, 2,5 A, IP20	EN 50075	VDE (40038234)
Cord Switch	B	Foshan Ojun Electric Technology Co., Ltd.	8S.303	250 V, 2[32] A, 10E3, T55	EN 61058-1 EN 61058-2-1	VDE (40023915)
Lampholder	B	Xiaolan Town Ruicheng Housekeeping Electrical Appliance Fittings Factory	E27-A	250 V, 4 A, 165 °C	EN 60238	VDE (40025119)
(Alternative)	D	Zhongshan Xiaolan Town Jia Zhan Electric Appliance Factory	E27-S	250 V, 4 A, 210 °C	EN 60238	VDE (40019138)
Heat shrinkable tubing	C	Shenzhen Woer Heat-shrinkable material Co., Ltd.	RSFR	600 V, 125 °C	EN 60598-2-4 EN 60598-1	UL (E203950) + tested with appliance
End terminal	C	Heavy Power Co Ltd.	CE1X, CE2X, CE5X	--	EN 60598-2-4 EN 60598-1	UL (E113650) + tested with appliance

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

IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12		P
	Type reference ..... :	TD-0403	—
	Lamp used..... :	Tungsten Filament Lamp, 60 W	—
	Lamp control gear used..... :	N/A	—
	Mounting position of luminaire ..... :	Standing on table	—
	Supply wattage (W) ..... :	63	—
	Supply current (A) ..... :	0,26	—
	Calculated power factor..... :	1,0	—
	Table: measured temperatures corrected for ta = 25 °C:		P
	- abnormal operating mode ..... :	—	—
	- test 1: rated voltage..... :	—	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage ..... :	1,05 x 60 W = 63 W 240 V at 63 W	—
	- 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
Switch	See above	—	26,9	—	55	—	—
Supply cord (stressed)	See above	—	26,1	—	75	—	—
Supply cord (unstressed)	See above	—	25,8	—	90	—	—
Lampholder rim	See above	—	136,4	—	165	—	—
Bifurcation of the cable from lampholder (10 mm)	See above	—	32,1	—	90	—	—
Lampholder screw shell	See above	—	85,6	—	165	—	—
Mounting surface	See above	—	43,5	—	90	—	—

IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict

Means of Adjustment and its surrounding space	See above	—	32,3	—	60	—	—
Supplementary information: N/A							

IEC 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).....:	M	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

IEC 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

IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
	Terminal size and rating		N/A
15.6.2	Mechanical tests		N/A
(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)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Voltage drop of two inseparable joints									N/A
	Voltage drop after 10th alt. 25th cycle									N/A
	Max. allowed voltage drop (mV) ..... :									—
terminal	1	2	3	4	5	6	7	8	9	10
voltage drop (mV)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Voltage drop after 50th alt. 100th cycle									N/A
	Max. allowed voltage drop (mV) ..... :									—
terminal	1	2	3	4	5	6	7	8	9	10
voltage drop (mV)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Continued ageing: voltage drop after 10th alt. 25th cycle									N/A
	Max. allowed voltage drop (mV) ..... :									—
terminal	1	2	3	4	5	6	7	8	9	10
voltage drop (mV)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Continued ageing: voltage drop after 50th alt. 100th cycle									N/A
	Max. allowed voltage drop (mV) ..... :									—
terminal	1	2	3	4	5	6	7	8	9	10
voltage drop (mV)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Supplementary information: N/A										

— End of main report—

Attachment A

IEC60598_2_4C - ATTACHMENT			
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 60598-2-4:1997 used in conjunction with EN 60598-1:2015

Annex Form No.....: EU_GD_IEC60598_2_4C

Annex Form Originator .....: OVE

Master Annex Form.....: 2015-04

	CENELEC COMMON MODIFICATIONS (EN)		

4.5 (3)	**MARKING**		
4.5 (3.3.101)	For luminaires not supplied with terminal block: Adequate warning on the package		N/A

4.6 (4)	**CONSTRUCTION**		
4.6 (4.11.6)	Electro-mechanical contact systems		N/A

4.10 (5)	**EXTERNAL AND INTERNAL WIRING**		
4.10 (5.2.1)	Connecting leads		N/A
	- without a means for connection to the supply		N/A
	- terminal block specified		N/A
	- relevant information provided		N/A
	- compliance with 4.6, 4.7.1, 4.7.2, 4.10.1, 11.2, 12 and 13.2 of Part 1		N/A
4.10 (5.2.2)	Cables equal to EN 50525		P
	Replace table 5.1 – Supply cord		P

4.12 (12)	**ENDURANCE TESTS AND THERMAL TESTS**		
4.12 (12.4.2c)	Thermal test (normal operation) see footnote c to table 12.2 relating to unsleeved fixed wiring		N/A

Attachment A

IEC60598_2_4C - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ZB	**ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)**		
(3.3)	DK: power supply cords of class I luminaires with label		N/A
(4.5.1)	DK: socket-outlets		N/A
(5.2.1)	CY, DK, FI, GB: type of plug		N/A

ZC	**ANNEX ZC, NATIONAL DEVIATIONS (EN)**		
(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
(13.3)	GB: Requirements according to United Kingdom Building Regulation		N/A

— End of Attachment A —

Attachment B
Photo documentation
Portable Luminaire
TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113

Report No.: SHES171201277201

Details of: TD-0403

View:

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Details of: Lamp shade for model TD-0403

View:

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Attachment B
Photo documentation
Portable Luminaire

Report No.: SHES171201277201

TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113

Details of: Switch

View:

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Details of: Plug

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Attachment B
Photo documentation
Portable Luminaire
TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113

Report No.: SHES171201277201

Details of: Cable entry and cord anchorage

View:

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Details of: Cable entry

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Attachment B
Photo documentation
Report No.: SHES171201277201
Portable Luminaire
TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113

Details of: Lampholder

View:

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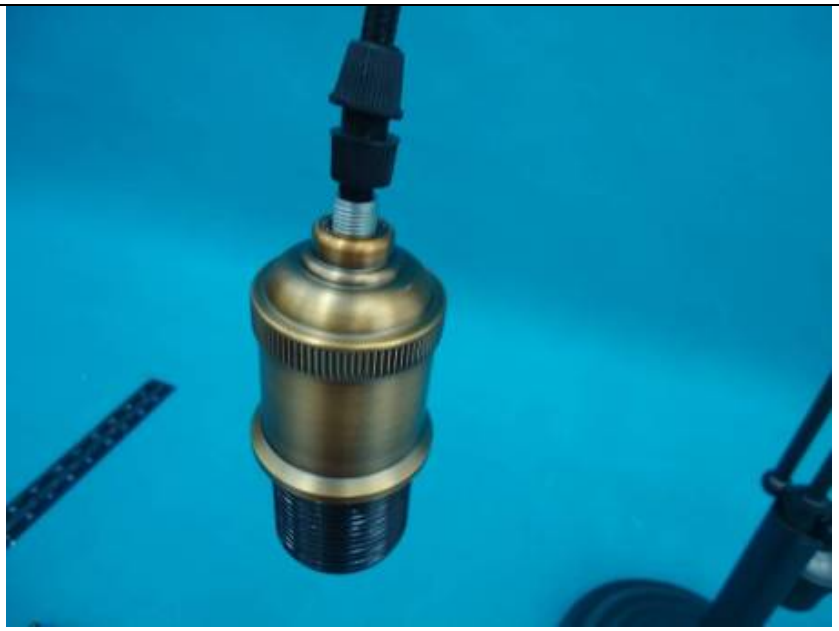

Details of: End terminal

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Attachment B
Photo documentation
Portable Luminaire
TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113

Report No.: SHES171201277201

Details of: Insulated pulley

View:

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Details of: Insulated pulley

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Attachment B
Photo documentation
Portable Luminaire
TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113

Report No.: SHES171201277201

Details of: TD-0139

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Details of: LD-0113

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Attachment B
Photo documentation
Portable Luminaire
TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113

Report No.: SHES171201277201

Details of: TD-0132

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Details of: TD-0448

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Attachment B
Photo documentation
Portable Luminaire
TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113

Details of: TD-0179

View:

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Details of: TD-0510

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Attachment B
Photo documentation
Portable Luminaire
TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113

Details of: TD-0130

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Details of: TD-0157

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Photo documentation
Portable Luminaire
TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113

Report No.: SHES171201277201

Details of: LD-0114

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Details of: TD-0116

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Photo documentation
Portable Luminaire
TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113

Details of: TD-0119

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Details of: TD-0131

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Attachment B
Photo documentation
Portable Luminaire
TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113

Details of: TD-0138

View:

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Details of: TD-0432

View:

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Attachment B
Photo documentation
Portable Luminaire
TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113

Report No.: SHES171201277201

Details of: LD-0121

View:

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Details of: TD-0181

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Attachment B
Photo documentation
Report No.: SHES171201277201
Portable Luminaire
TD-0403, TD-0132, TD-0448, TD-0179, TD-0510, TD-0130, TD-0157, LD-0114, TD-0116, TD-0119, TD-0131, TD-0138, TD-0139, TD-0432, LD-0121, TD-0181, TD-0182, LD-0113

Details of: TD-0182

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— End of Attachment B —