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TEST REPORT
EN 60598-2-1
Luminaires
Part 2: Particular requirements:
Section One – Fixed general purpose luminaires

Report Reference No.	90392-17-70-18-PP003
Tested by (name + signature).....	Nick Yin 
Approved by (name + signature)	Owen Zhan 
Date of issue	January 30, 2018
Contents.....	61 pages
Testing Laboratory	Central Point Testing & Technology (Dongguan) Co., Ltd.
Address.....	No. 2, Wusong Road, Yuwu Industrial Area, Dongcheng District, Dongguan, Guangdong, China
Testing location/ address.....	Same as above
Applicant's name	Lux Electrical & Lighting Co., Ltd.
Address.....	Room 506, Building 2, Zhaoyuan Commercial City, Bigui Avenue Panyu, Guangzhou, Guangdong Province, China
Test specification:	
Standard	EN 60598-2-1:1989 used in conjunction with EN 60598-1:2015
Test procedure.....	Safety test
Non-standard test method	N/A
Master TRF	2016-04 (IEC60598_2_1E)
Test item description.....	Pendant lamp
Trade Mark.....	
Manufacturer	Lux Electrical & Lighting Co., Ltd.
Address	Room 506, Building 2, Zhaoyuan Commercial City, Bigui Avenue Panyu, Guangzhou, Guangdong Province, China
Model/Type reference.....	LS-PE9006; LS-PE517; LS-PE518; LS-PPE01; 5777-P016; 5777-P018; LS-PE676A (TI-CP-0917); LS-PE0917A (TI-FCP-0917A); LS-PE0917B (TI-FCP-0917B); LS-PE863; 5777-T294; 5777-T295; 5777-P032; LS-PE0009; LS-PE0010; 5777-P017
Ratings	See "General product information"



Copy of marking plate (as example):

Rating label of the luminaire on the surface of enclosure



Note: labels for other models are the same as above, except the model name and power input. Details refer to model list.

Marking near lampholder for 40 W :

220-240 V~; 50 Hz; E27; Max. 40 W

Marking near lampholder for 25 W:

220-240 V~; 50 Hz; E27; Max. 25 W

Marking near lampholder for 60 W:

220-240 V~; 50 Hz; E27; Max. 60 W

Summary of testing:

The models LS-PE9006; LS-PPE01; LS-PE0917A (TI-FCP-0917A); 5777-P032; LS-PE0009 were tested and found to comply with the standards mentioned on page one.

Other models were subjected to construction check and were found to comply with the same requirements wherever the tests of the representative samples were insufficient to cover these models.

The product falls under "Clause 4.3 Lighting equipment deemed to comply without testing" of EN 62493:2010 & EN 62493:2015.



Test item particulars	
Classification of installation and use	Class I
Supply Connection	Terminal Block
Possible test case verdicts:	
- test case does not apply to the test object	N/A (Not applicable)
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement	F (Fail)
Testing	
Date of receipt of test item	May 31, 2017; Oct 31, 2017; January 05, 2018
Date (s) of performance of tests	May 31, 2017 – June 19, 2017 Oct 31, 2017 – Nov 08, 2017 January 05, 2018 – January 28, 2018
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/EN 60598-1 Thick vertical line in the margin shows where the contents of TRF have been modified by CPC: - Add ANNEX 1: Critical components information - Add ANNEX 2: temperature measurements, thermal tests; - Add ANNEX 3: screw terminals (part of the luminaire); - Add ANNEX 4: screwless terminals (part of the luminaire); - Add ANNEX 5: National Differences for (country name) or Group Differences - Add used measuring equipment; This report is based on the test report No. 90392-17-70-17-PP002 for adding new models in model list and modified the applicant and address. All models have been subjected to the relevant test and construction check with positive result.	
Name and address of factory (ies)	Lux Electrical & Lighting Co., Ltd. Room 506, Building 2, Zhaoyuan Commercial City, Bigui Avenue Panyu, Guangzhou, Guangdong Province, China

**General product information:****Pendant lamp**

Model: LS-PE9006; LS-PE517; LS-PE518; LS-PPE01; 5777-P016; 5777-P018; LS-PE676A (TI-CP-0917); LS-PE0917A(TI-FCP-0917A); LS-PE0917B(TI-FCP-0917B); LS-PE863; 5777-T294; 5777-T295; 5777-P032; LS-PE0009; LS-PE0010; 5777-P017

220-240 V~; 50 Hz; IP20; Class I; E27 lampholder; power refer to below model list. For indoor use only.
Suitable for mounting on flammable material surfaces.

Model name	Photos	Size (L x W x H: cm)	Ratings	Weight (kg)
LS-PE9006		12 x 12 x 125,5	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 40 W	0,71
LS-PE517		39 x 39 x 150,5	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 40 W	0,95
LS-PE518		39 x 39 x 147	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 40 W	1,18
LS-PPE01		18 x 18 x 150,5	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 40 W	0,65
5777-P016		38 x 38 x 190	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 60 W	1,28
5777-P018		39 x 39 x 168,5	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 40 W	1,53



LS-PE676A (TI-CP-0917)			22 x 22 x 113	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 40 W	0,47
LS-PE0917A (TI-FCP-0917A)			28 x 28 x 122	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 40 W	1,11
LS-PE0917B (TI-FCP-0917B)			39 x 39 x 116	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 40 W	1,24
LS-PE863			13 x 13 x 17,5	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 25 W	0,5
The following models are added in 90392-17-70-17-PP001 issued on November 09, 2017.					
5777-T294			33 x 33 x 120	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 40 W	0,6
5777-T295			14 x 14 x 120	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 40 W	0,42
The following models are added in 90392-17-70-17-PP002 issued on January 31, 2018.					
5777-P032			25 x 25 x 171	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 60 W	1,3
LS-PE0009			30 x 30 x 156	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 40 W	1,4



LS-PE0010		30 x 30 x 156	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 40 W	1,4	
5777-P017		50 x 50 x 180	220-240 V~; 50 Hz; E27 lampholder; Class I; Max. 60 W	1,6	



EN 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.2 (0)	GENERAL TEST REQUIREMENTS		
1.2 (0.1)	Information for luminaire design considered	Standard Yes ☒ No ☐	—
1.2 (0.3)	More sections applicable	Yes ☐ No ☒	—
1.4 (2)	CLASSIFICATION		
1.4 (2.2)	Type of protection	Class I	—
1.4 (2.3)	Degree of protection	IP20	—
1.4 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces	Yes ☒ No ☐	—
1.4 (2.5)	Luminaire for normal use	Yes ☒ No ☐	—
	Luminaire for rough service	Yes ☐ No ☒	—
1.5 (3)	MARKING		
1.5 (3.2)	Mandatory markings		P
	Position of the marking	See "Copy of marking plate"	P
	Format of symbols/text		P
1.5 (3.3)	Additional information		P
	Language of instructions	English	P
1.5 (3.3.1)	Combination luminaires		N/A
1.5 (3.3.2)	Nominal frequency in Hz	50 Hz	P
1.5 (3.3.3)	Operating temperature		N/A
1.5 (3.3.4)	Symbol or warning notice		N/A
1.5 (3.3.5)	Wiring diagram		N/A
1.5 (3.3.6)	Special conditions		N/A
1.5 (3.3.7)	Metal halide lamp luminaire – warning		N/A
1.5 (3.3.8)	Limitation for semi-luminaires		N/A
1.5 (3.3.9)	Power factor and supply current		N/A
1.5 (3.3.10)	Suitability for use indoors		N/A
1.5 (3.3.11)	Luminaires with remote control		N/A
1.5 (3.3.12)	Clip-mounted luminaire – warning		N/A
1.5 (3.3.13)	Specifications of protective shields		N/A
1.5 (3.3.14)	Symbol for nature of supply	~	P
1.5 (3.3.15)	Rated current of socket outlet		N/A
1.5 (3.3.16)	Rough service luminaire		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
1.5 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments	Type Y	P
1.5 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
1.5 (3.3.19)	Protective conductor current in instruction if applicable		N/A
1.5 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
1.5 (3.3.21)	Non-replaceable and non-user replaceable light sources information provided		N/A
	Cautionary symbol		N/A
1.5 (3.3.22)	Controllable luminaires, classification of insulation provided		N/A
1.5 (3.4)	Test with water	Rubbing lightly for 15 s	P
	Test with hexane	Rubbing lightly for 15 s	P
	Legible after test		P
	Label attached		P

1.6 (4)	CONSTRUCTION		
1.6 (4.2)	Components replaceable without difficulty		P
1.6 (4.3)	Wireways smooth and free from sharp edges		P
1.6 (4.4)	Lampholders		
1.6 (4.4.1)	Integral lampholder	Approved lampholder	N/A
1.6 (4.4.2)	Wiring connection		N/A
1.6 (4.4.3)	Lampholder for end-to-end mounting		N/A
1.6 (4.4.4)	Positioning		N/A
	- 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)		N/A
	After test the lampholder have not moved from its position and show no permanent deformation		N/A
1.6 (4.4.5)	Peak pulse voltage		N/A
1.6 (4.4.6)	Centre contact		N/A
1.6 (4.4.7)	Parts in rough service luminaires resistant to tracking		N/A
1.6 (4.4.8)	Lamp connectors		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
1.6 (4.4.9)	Caps and bases correctly used		N/A
1.6 (4.4.10)	Light source for lampholder or connection according IEC 60061 not connected another way		N/A
1.6 (4.5)	Starter holders		
	Starter holder in luminaires other than class II		N/A
	Starter holder class II construction		N/A
1.6 (4.6)	Terminal blocks		N/A
	Tails		N/A
	Unsecured blocks		N/A
1.6 (4.7)	Terminals and supply connections		
1.6 (4.7.1)	Contact to metal parts		P
1.6 (4.7.2)	Test 8 mm live conductor		P
	Test 8 mm earth conductor		P
1.6 (4.7.3)	Terminals for supply conductors		P
1.6 (4.7.3.1)	Welded method and material		
	- 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
	- heat test according to 15.9.2.3 and 15.9.2.4		N/A
1.6 (4.7.4)	Terminals other than supply connection	Lampholder terminals.	P
1.6 (4.7.5)	Heat-resistant wiring/sleeves		N/A
1.6 (4.7.6)	Multi-pole plug		N/A
	- test at 30 N		N/A
1.6 (4.8)	Switches		
	- adequate rating		N/A
	- adequate fixing		N/A
	- polarized supply		N/A
	- compliance with IEC 61058-1 for electronic switches		N/A
1.6 (4.9)	Insulating lining and sleeves		
1.6 (4.9.1)	Retainment		P
	Method of fixing: Form part of luminaire		—
1.6 (4.9.2)	Insulated linings and sleeves:		



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Clause	Requirement + Test	Result - Remark	Verdict
	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
1.6 (4.10)	Double or reinforced insulation		
1.6 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation	For class II construction in class I luminaire.	P
	Safe installation fixed luminaires		P
	Capacitors and switches		N/A
	Interference suppression capacitors according to IEC 60384-14		N/A
1.6 (4.10.2)	Assembly gaps:		P
	- not coincidental		P
	- no straight access with test probe		P
1.6 (4.10.3)	Retention of insulation:		
	- fixed		P
	- unable to be replaced; luminaire inoperative		P
	- sleeves retained in position		P
	- lining in lampholder		P
1.6 (4.10.4)	Protective impedance device		
	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
1.6 (4.11)	Electrical connections and current-carrying parts		
1.6 (4.11.1)	Contact pressure		P
1.6 (4.11.2)	Screws:		
	- self-tapping screws		N/A
	- thread-cutting screws		N/A
1.6 (4.11.3)	Screw locking:		
	- spring washer		P
	- rivets		N/A
1.6 (4.11.4)	Material of current-carrying parts	Cu	P
1.6 (4.11.5)	No contact to wood or mounting surface		P
1.6 (4.11.6)	Electro-mechanical contact systems		N/A
1.6 (4.12)	Screws and connections (mechanical) and glands		



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Clause	Requirement + Test	Result - Remark	Verdict
1.6 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material	0,5 Nm for screw of insulating material used in cord anchorage and bearing directly on the cord.	P
	Torque test: torque (Nm); part	Fixed screw for mounting bracket: $\Phi 3,86$ mm; 1,2 Nm	P
	Torque test: torque (Nm); part		N/A
1.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal	No such purpose screws	N/A
1.6 (4.12.4)	Locked connections:		
	- fixed arms; torque (Nm).....		N/A
	- lampholder; torque (Nm)	2,0 Nm for E27 lampholder	P
	- push-button switches; torque 0,8 Nm	-----	N/A
1.6 (4.12.5)	Screwed glands; force (Nm)	Plastic glands for models LS-PE518; LS-PPE01; 5777-P016; 5777-P018; LS-PE517; LS-PE863 up to 7 mm; 2,5 Nm	P
1.6 (4.13)	Mechanical strength		
1.6 (4.13.1)	Impact tests:		
	- fragile parts; energy (Nm).....		N/A
	- other parts; energy (Nm)	0,35 Nm for metal parts	P
	1) live parts		P
	2) linings		P
	3) protection		P
	4) covers		N/A
1.6 (4.13.3)	Straight test finger	30 N	P
1.6 (4.13.4)	Rough service luminaires		
	- 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
1.6 (4.13.6)	Tumbling barrel		N/A
1.6 (4.14)	Suspensions, fixings and means of adjusting		
1.6 (4.14.1)	Mechanical load:		



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Clause	Requirement + Test	Result - Remark	Verdict
	A) four times the weight	For model 5777-P018: Max. approximately 1,53 kg; loading: 6,12 kg for 1 hour. For model 5777-P017: Max. approximately 1,6 kg; loading: 6,4 kg for 1 hour.	P
	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
1.6 (4.14.2)	Load to flexible cables		
	Mass (kg)	For model 5777-P017: Max. 1,45 kg with 2 x 0,75 mm ² cable	P
	Stress in conductors (N/mm ²)	4,35 < 15 N/mm ²	P
	Mass (kg) of semi-luminaire		—
	Bending moment (Nm) of semi-luminaire		N/A
1.6 (4.14.3)	Adjusting devices:		N/A
	- flexing test; number of cycles		N/A
	- strands broken		N/A
	- electric strength test afterwards		N/A
1.6 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
1.6 (4.14.5)	Guide pulleys		N/A
1.6 (4.14.6)	Strain on socket-outlets		N/A
1.6 (4.15)	Flammable materials		
	- glow-wire test 650°C	See Test Table 1.15 (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		P
	- thermal protection		N/A
	- electronic circuits exempted		N/A
1.6 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		N/A
	a) construction		N/A
	b) temperature sensing control		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	c) surface temperature		N/A
1.6 (4.16)	Luminaires for mounting on normally flammable surfaces		
	No lamp control gear: (compliance with Section 12)		N/A
1.6 (4.16.1)	Lamp control gear spacing:		N/A
	- spacing 35 mm		N/A
	- spacing 10 mm		N/A
1.6 (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
1.6 (4.16.3)	Design to satisfy the test of 12.6	(see clause 12.6)	N/A
1.6 (4.17)	Drain holes		
	Clearance at least 5 mm		N/A
1.6 (4.18)	Resistance to corrosion		
1.6 (4.18.1)	- rust-resistance		N/A
1.6 (4.18.2)	- season cracking in copper		P
1.6 (4.18.3)	- corrosion of aluminium		N/A
1.6 (4.19)	Igniters compatible with ballast		N/A
1.6 (4.20)	Rough service vibration		N/A
1.6 (4.21)	Protective shield		
1.6 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps		N/A
	Shield of glass if tungsten halogen lamps		N/A
1.6 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
1.6 (4.21.3)	No direct path		N/A
1.6 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment.....: See Test Table 1.15 (13.3.2)		N/A
1.6 (4.22)	Attachments to lamps not cause overheating or damage		N/A
1.6 (4.23)	Semi-luminaires comply Class II		N/A
1.6 (4.24)	Photobiological hazards		
1.6 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		N/A
1.6 (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
1.6 (4.25)	Mechanical hazard		
	No sharp point or edges		P
1.6 (4.26)	Short-circuit protection		
1.6 (4.26.1)	Adequate means of uninsulated accessible SELV parts		N/A
1.6 (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
1.6 (4.27)	Terminal blocks with integrated screwless earthing contacts		
	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
1.6 (4.28)	Fixing of thermal sensing control		
	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 ($^{\circ}\text{C}$).....:		—
	100 cycles between t min and t max		N/A
	Temperature sensing control still in position		N/A
1.6 (4.29)	Luminaires with non-replaceable light source		



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Clause	Requirement + Test	Result - Remark	Verdict
	Not possible to replace light source		N/A
	Live part not accessible after parts have been opened by hand or tools		N/A
1.6 (4.30)	Luminaires with non-user replaceable light source		
	If protective cover provide protection against electric shock and marked with "caution, electric shock risk" symbol:		N/A
	Minimum two fixing means		N/A
1.6 (4.31)	Insulation between circuits		
	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
1.6 (4.31.1)	SELV circuits		N/A
	Used SELV source		N/A
	Voltage $\leq$ 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
1.6 (4.31.2)	FELV circuits		N/A
	Used FELV source		N/A
	Voltage $\leq$ 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



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Clause	Requirement + Test	Result - Remark	Verdict
	Socket-outlets does not have protective conductor contact		N/A
1.6 (4.31.3)	Other circuits		
	Other circuits insulated from accessible parts according Table X.1		P
	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 of above		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
1.6 (4.32)	Overvoltage protective devices		
	Comply with IEC 61643-11		N/A
	External to control gear and connected to earth:		N/A
	- only in fixed luminaires		N/A
	- only connected to protective earth		N/A

1.7 (11)	CREEPAGE DISTANCES AND CLEARANCES		
1.7 (11.2)	Creepage distances and clearances	See Table 1.7 (11.2)	P
	Impulse withstand category (Normal category II) (Category III Annex U)	Category II ☒ Category III ☐	—

1.8 (7)	PROVISION FOR EARTHING		
1.8 (7.2.1 + 7.2.3)	Accessible metal parts	Class I luminaire	P
	Metal parts in contact with supporting surface		P
	Resistance < 0,5 Ω	Max. 0,01 Ω	P
	Self-tapping screws used		N/A
	Thread-forming screws		N/A
	Thread-forming screw used in a grove		N/A
	Earth makes contact first		P
	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



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Clause	Requirement + Test	Result - Remark	Verdict
1.8 (7.2.2 + 7.2.3)	Earth continuity in joints, etc.		P
1.8 (7.2.4)	Locking of clamping means		P
	Compliance with 4.7.3		P
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
1.8 (7.2.5)	Earth terminal integral part of connector socket		N/A
1.8 (7.2.6)	Earth terminal adjacent to mains terminals		P
1.8 (7.2.7)	Electrolytic corrosion of the earth terminal		P
1.8 (7.2.8)	Material of earth terminal		P
	Contact surface bare metal		P
1.8 (7.2.10)	Class II luminaire for looping-in		N/A
	Double or reinforced insulation to functional earth		N/A
1.8 (7.2.11)	Earthing core coloured green-yellow		P
	Length of earth conductor		N/A

1.9 (14)	SCREW TERMINALS		
	Separately approved; component list	(see Annex 1) Approved terminal block.	P
	Part of the luminaire	(see Annex 3)	N/A

1.9 (15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		
	Separately approved; component list	(see Annex 1) Approved lampholder.	P
	Part of the luminaire	(see Annex 4)	N/A

1.10 (5)	EXTERNAL AND INTERNAL WIRING		
1.10 (5.2)	Supply connection and external wiring		
1.10 (5.2.1)	Means of connection	Terminal block	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
1.10 (5.2.2)	Type of cable	(see Annex 1).	P
	Nominal cross-sectional area (mm ²)	(see Annex 1)	P
	Cables equal to IEC 60227 or IEC 60245		P
1.10 (5.2.3)	Type of attachment, X, Y or Z	Type Y	P
1.10 (5.2.5)	Type Z not connected to screws		N/A
1.10 (5.2.6)	Cable entries:		



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Clause	Requirement + Test	Result - Remark	Verdict
	- suitable for introduction		P
	- adequate degree of protection		P
1.10 (5.2.7)	Cable entries through rigid material have rounded edges		P
1.10 (5.2.8)	Insulating bushings:		
	- suitably fixed		P
	- material in bushings		P
	- material not likely to deteriorate		P
	- tubes or guards made of insulating material		P
1.10 (5.2.9)	Locking of screwed bushings		N/A
1.10 (5.2.10)	Cord anchorage:		
	- 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
1.10 (5.2.10.1)	Cord anchorage for type X attachment:		
	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
1.10 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment	Type Y	P
1.10 (5.2.10.3)	Tests:		
	- impossible to push cable; unsafe	External cable	P
	- pull test: 25 times; pull (N).....: 60 N		P
	- torque test: torque (Nm): 0,15 Nm		P
	- displacement ≤ 2 mm	Max 1,0 mm < 2 mm	P
	- no movement of conductors		P
	- no damage of cable or cord		P



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Clause	Requirement + Test	Result - Remark	Verdict
	- function independent of electrical connection		P
1.10 (5.2.11)	External wiring passing into luminaire		P
1.10 (5.2.12)	Looping-in terminals		N/A
1.10 (5.2.13)	Wire ends not tinned		P
	Wire ends tinned: no cold flow		N/A
1.10 (5.2.14)	Mains plug same protection		N/A
	Class III luminaire plug		N/A
	No unsafe compatibility		N/A
1.10 (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
1.10 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
1.10 (5.2.18)	Used plug in accordance with		
	- IEC 60083		N/A
	- other standard		N/A
1.10 (5.3)	Internal wiring		
1.10 (5.3.1)	Internal wiring of suitable size and type	(see Annex 1)	P
	Through wiring		
	- not delivered/ mounting instruction		N/A
	- factory assembled		N/A
	- socket outlet loaded (A).....: ----		N/A
	- temperatures: (see Annex 2)		P
	Green-yellow for earth only		P
1.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring		
	Cross-sectional area (mm ²): (see Annex 1)		P
	Insulation thickness	Approved wires	P
	Extra insulation added where necessary		N/A
1.10 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		
	Adequate cross-sectional area and insulation thickness		N/A
1.10 (5.3.1.3)	Double or reinforced insulation for class II	Class II construction	P
1.10 (5.3.1.4)	Conductors without insulation		N/A
1.10 (5.3.1.5)	SELV current-carrying parts		N/A
1.10 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A
1.10 (5.3.2)	Sharp edges etc.		P



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Clause	Requirement + Test	Result - Remark	Verdict
	No moving parts of switches etc.		N/A
	Joints, raising/lowering devices		N/A
	Telescopic tubes etc.		N/A
	No twisting over 360°		P
1.10 (5.3.3)	Insulating bushings:		
	- suitable fixed		P
	- material in bushings		P
	- material not likely to deteriorate		P
	- cables with protective sheath		P
1.10 (5.3.4)	Joints and junctions effectively insulated		P
1.10 (5.3.5)	Strain on internal wiring		P
1.10 (5.3.6)	Wire carriers		N/A
1.10 (5.3.7)	Wire ends not tinned		P
	Wire ends tinned: no cold flow		N/A

1.11 (8)	PROTECTION AGAINST ELECTRIC SHOCK		
1.11 (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		N/A
	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		N/A
	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
1.11 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N/A
1.11 (8.2.3.a)	Class II luminaire:		P



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Clause	Requirement + Test	Result - Remark	Verdict
	- basic insulated metal parts not accessible during starter or lamp replacement	Class II construction	P
	- basic insulation not accessible other than during starter or lamp replacement	Class II construction	P
	- glass protective shields not used as supplementary insulation		N/A
1.11 (8.2.3.b)	BC lampholder of metal in class I luminaires shall be earthed		N/A
1.11 (8.2.3.c)	SELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- touch current	----	N/A
	- no-load voltage	----	N/A
	Other than ordinary luminaire:		N/A
	- nominal voltage	----	N/A
1.11 (8.2.4)	Portable luminaire have protection independent of supporting surface		N/A
1.11 (8.2.5)	Compliance with the standard test finger or relevant probe		P
1.11 (8.2.6)	Covers reliably secured		N/A
1.11 (8.2.7)	Discharging of capacitors $\geq 0,5 \mu\text{F}$		N/A
	Portable plug connected luminaire with capacitor		N/A
	Other plug connected luminaire with capacitor		N/A
	Discharge device on or within capacitor		N/A
	Discharge device mounted separately		N/A
1.12 (12)	ENDURANCE TEST AND THERMAL TEST		
1.12 (-)	If IP > IP 20 relevant test of (12.4), (12.5) and (12.6) after (9.2) before (9.3) specified in 4.13		—
1.12 (12.3)	Endurance test:		
	- mounting-position	Acc. to the user manual	—
	- test temperature (°C)	35 °C	—
	- total duration (h)	240 h	—



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Clause	Requirement + Test	Result - Remark	Verdict
	- supply voltage: U_n factor; calculated voltage (V) ...:	For models LS-PPE01; LS-PE9006; LS-PE0917A (TI-FCP-0917A);: $P_R=40\text{ W} \rightarrow I=0,17\text{ A} \rightarrow$ $U=237,2\text{ V} \rightarrow PF=1$ $1,05U=249,8\text{ V} \rightarrow P=43,7\text{ W} \rightarrow$ $I=0,175\text{ A} \rightarrow PF=1$ For model 5777-P032: $P_R=60\text{ W} \rightarrow I=0,26\text{ A} \rightarrow U=231$ $V \rightarrow PF=1$ $1,05U=244,8\text{ V} \rightarrow P=65,6\text{ W} \rightarrow$ $I=0,268\text{ A} \rightarrow PF=1$ For model LS-PE0009: $P_R=40\text{ W} \rightarrow I=0,165\text{ A} \rightarrow U=245$ $V \rightarrow PF=1$ $1,05U=257,2\text{ V} \rightarrow P=43,4\text{ W} \rightarrow$ $I=0,17\text{ A} \rightarrow PF=1$	—
	- lamp used	E27 incandescent lamp: 40 W; 60 W	—
1.12 (12.3.2)	After endurance test:		
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N/A
	- marking legible		P
	- no cracks, deformation etc.		P
1.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
1.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	N/A
1.12 (12.6)	Thermal test (failed lamp control gear condition):		
1.12 (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 U_n	----	—
	- measured mounting surface temperature (°C) at 1,1 U_n	----	N/A
	- calculated mounting surface temperature (°C)	----	N/A
	- track-mounted luminaires		N/A
1.12 (12.6.2)	Temperature sensing control		
	- case of abnormal conditions.....	----	—



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Clause	Requirement + Test	Result - Remark	Verdict
	- 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
1.12 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		
1.12 (12.7.1)	Luminaire without temperature sensing control		
1.12 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		
	Test method 12.7.1.1 or Annex W: -----		—
	Test according to 12.7.1.1:		N/A
	- 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 1.15 (13.2.1)		N/A
1.12 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		
	- 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 1.15 (13.2.1)		N/A
1.12 (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
1.12 (12.7.2)	Luminaire with temperature sensing control		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	- 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 1.15 (13.2.1)	N/A

1.13 (9)	RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE		
1.13 (-)	If IP > IP 20 the order of tests as specified in clause 1.12		
1.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		—
	- classification according to IP	IP20	—
	- mounting position during test	acc. to user manual	—
	- 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
	d) i) For luminaires without drain holes – no water entry		N/A
	d) ii) For luminaires with drain holes – no hazardous water entry		N/A
	e) no water in watertight luminaire		N/A
	f) no contact with live parts (IP 2X)	IP20	P
	f) no entry into enclosure (IP 3X and IP 4X)		N/A
	f) no contact with live parts (IP3X and IP4X)		N/A
	g) no trace of water on part of lamp requiring protection from splashing water		N/A
	h) no damage of protective shield or glass envelope		N/A
1.13 (9.3)	Humidity test 48 h	R.H.: 93 %; 25 °C	P

1.14 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		
1.14 (10.2.1)	Insulation resistance test		
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø	----	—



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Clause	Requirement + Test	Result - Remark	Verdict
	Insulation resistance (MΩ).....	----	—
	SELV		
	- 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		
	- between live parts of different polarity	> 10 MΩ	P
	- between live parts and mounting surface.....	> 10 MΩ	P
	- between live parts and metal parts	> 10 MΩ	P
	- between live parts of different polarity through action of a switch	----	N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	> 10 MΩ	P
	- Insulation bushings as described in Section 5	----	N/A
1.14 (10.2.2)	Electric strength test		
	Dummy lamp		N/A
	Luminaires with ignitors after 24 h test		N/A
	Luminaires with manual ignitors		N/A
	Test voltage (V)	----	
	SELV		
	- 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		
	- between live parts of different polarity	$U_{test}=1480\text{ V}$	P
	- between live parts and mounting surface.....	$U_{test}=1480\text{ V}$ (2960 V for class II construction)	P



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Clause	Requirement + Test	Result - Remark	Verdict
	- between live parts and metal parts	$U_{\text{test}}=1480 \text{ V}$	P
	- between live parts of different polarity through action of a switch	-----	N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	$U_{\text{test}}=1480 \text{ V}$	P
	- Insulation bushings as described in Section 5	-----	N/A
1.14 (10.3)	Touch current or protective conductor current (mA):	Max. 0,01 mA	P
1.15 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		
1.15 (13.2.1)	Ball-pressure test.....	See Test Table 1.15 (13.2.1)	N/A
1.15 (13.3.1)	Needle-flame test (10 s)	See Test Table 1.15 (13.3.1)	P
1.15 (13.3.2)	Glow-wire test (650°C)	See Test Table 1.15 (13.3.2)	P
1.15 (13.4)	Proof tracking test (IEC 60112)	See Test Table 1.15 (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 and approved lampholder and terminal block	1,5	11.1	>3 and approved lampholder and terminal block	2,5	11.1
Working voltage (V)					220-240		—
PTI					< 600 ☒ ≥ 600 ☐		—
Pulse voltage if applicable (kV)					2,5		—
Supplementary information:							
Distance 2:	S	>2 and approved lampholder and terminal block	1,5	11.1	>3 and approved lampholder and terminal block	2,5	11.1
Working voltage (V)					220-240		—
PTI					< 600 ☒ ≥ 600 ☐		—
Pulse voltage if applicable (kV)					2,5		—
Supplementary information:							
Distance 3:	R	>4,0 and approved lampholder and terminal block	3,0	11.1	>6,5 and approved lampholder and terminal block	5,0	11.1
Working voltage (V)					220-240		—
PTI					< 600 ☒ ≥ 600 ☐		—
Pulse voltage if applicable (kV)					2,5		—
Supplementary information:							
Remark: ** 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

1.15 (13.2.1)	TABLE: Ball Pressure Test of Thermoplastics			N/A
Allowed impression diameter (mm)		≤ 2 mm		—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
---	---	---	---	
Supplementary information:				

1.15 (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
Terminal block for all kinds of models	See Annex 1	10	No	---	P
Supplementary information:					

1.15 (13.3.2)	TABLE: Glow-wire test (IEC 60695-2-11)				P
Glow wire temperature : 650°C					—
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
Heat-shrinkable tube	See Annex 1	30 s	No	---	P
Plastic enclosure in lampholder	See Annex 1	30 s	No	---	P
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:					

1.15 (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
---	---	---	---	---	---
Supplementary information:					



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Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	TABLE: Critical components information	P
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object/part No.	code	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity
E27 lampholder	B	Guangdong Kangrong High-Tech New Material Co., Ltd	K327J; K327K; K327L; K327N; K327P	250 V; 4 A; T210;	EN 60238:2004 + A1:2008 + A2:2011-04	VDE 40028752
Alternative	D	Zhong Shan Yi Hang Electric Co., Ltd.	YH266; YH267; YH268; YH269;	250 V; 4 A; T210;	EN 60238:2004 + A1:2008 + A2:2011-04	VDE 40033010
Alternative	D	Dong Guan Nuo Bao Xin Plastic Co., Ltd.	270S; 270F; 270;	250 V; 4 A; T210	EN 60238:2004 + A1:2008 + A2:2011-04	VDE 40030292
Alternative	D	Gao Shi Electrical Appliances Factory	GS3556; GS3557-1; GS3558A2; GS3557; GS3558; GS3558A3	250 V; 4 A; T210;	EN 60238:2004 + A1:2008 + A2:2011-04	VDE 40027948
Alternative	D	Yarncin Lighting Technology Co., Ltd.	YX78; YX78F; YX78FC; YX79; YX79A	250 V; 4 A; T210;	EN 60238:2004 + A1:2008 + A2:2011-04	VDE 40013631
Alternative	D	Arditi S.p.A	80S; 81S; 82S	250 V; 4 A; T210;	EN 60238:2004 + A1:2008 + A2:2011-04	IMQ EN732
Alternative	D	Feiyang Lighting Electric Factory	FY-F2; FY-F3; FY-F4	250 V; 4 A; T210;	EN 60238:2004 + A1:2008 + A2:2011-04	VDE 40027366
Alternative	D	VA ELECTRICS LIMITED HONG KONG	78N; 78N/FC; 78N/F; 79/S; 756N; 756N/RS; 757	250V; 4 A; T210	EN 60238: 2004+A1+A2	Intertek SE/16043-8
Alternative	D	Jiangmen Z&X Plastics Co., Ltd	E27-H; E27-L; E27-T	250 V; 4 A; T210;	EN 60238:2004 + A1:2008 + A2:2011-04	VDE 40032300
Alternative	D	ZhongShan Xiaolan Town JiaZhan Electric Appliance Factory	E27-L; E27-S; E27-S-1	250 V; 4 A; T210;	EN 60238:2004 + A1:2008 + A2:2011-04	VDE 40019138



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Clause	Requirement + Test			Result - Remark		Verdict
object/part No.	code	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity
Alternative	D	Yacht Electrical Lighting Co., Ltd	AT755; AT756; AT757	250 V; 4 A; T210;	EN 60238:2004 + A1:2008 + A2:2011-04	VDE 40024035
Alternative	D	Zhongshan Guzhen Shangzheng	SZ-2701; SZ-2702; SZ-2703	250 V; 4 A; T210;	EN 60238:2004 + A1:2008 + A2:2011-04	VDE 40033804
Supply wire	B	Toong Yean Plastic Ind. Co., Ltd.	H03VV-F	2 x 0,75 mm ²	EN 50525-2- 11:2011	VDE 40024356
Alternative	D	Arditi CN Electric (Huizhou) Co., Ltd.	H03VV-F	2 x 0.75 mm ²	EN 50525-2- 11:2011	VED 40032075
Alternative	D	Dongguan Taihe Electronics Co., Ltd.	H03VV-F	2 x 0,75 mm ²	EN 50525-2- 11:2011	VDE 40042407
Alternative	D	Kenic Electric Mfg.Co., Ltd.	H03VV-F	2 x 0,75 mm ²	EN 50525-2- 11:2011	VDE 103853
Alternative	D	Guangdong KaiHua Electric Appliance Co., Ltd	H03VV-F	2 x 0,75 mm ²	EN 50525-2-11	VDE 40001903
Alternative	D	Sheng Yi Electrical Factory	H03VV-F	2 x 0,75 mm ²	EN 50525-2-11	VDE 40023272
Alternative	D	Dongguan Power- sun Industry Co. Ltd	H03VV-F	2 x 0,75 mm ²	EN 50525-2-11	VDE 40033035
Alternative	D	Dongguan Kaixiang Electric Co., Ltd	H03VV-F	2 x 0.75 mm ²	EN 50525-2-11	VDE 40044218
Alternative	D	3E(HK)Ltd.	H03VV-F	2 x 0.75 mm ²	EN 50525-2-11	VDE 40031804
Alternative	D	Dongguan Poweryuan Wire Industries Co., Ltd.	H03VV-F	2 x 0.75 mm ²	EN 50525-2-11	VDE 40038705
Alternative	D	Top Resources Co., Ltd	H03VV-F	2 x 0.75 mm ²	EN 50525-2-11	VDE 096273
Alternative	D	Zhongshan Hongyun Electrical Appliance Co., Ltd.	H03VV-F	2 x 0.75 mm ²	EN 50525-2-11	VDE 40041433
Alternative	D	DongGuan R&G Electric Co., Ltd.	H03VV-F	2 x 0.75 mm ²	EN 50525-2-11	VDE 40030323
Alternative	D	Guangzhou Feng Tai Electronic Co. Ltd.	FT-FEP-102	300/500V; 20 AWG (0,52 mm ²); T180°C	VDE 0250 Teil 106	VDE 40013289
Alternative	D	DONGGUAN ZHIHE ELECTRICAL CABLE TECH CO., LTD.	(N)6YAF	300/500V; 20 AWG (0,52 mm ²); T180°C	VDE 0250 Teil 106	VDE 40017520



EN 60598-2-1						
Clause	Requirement + Test			Result - Remark		Verdict
object/part No.	code	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity
Alternative	D	DONGGUAN ZHIHE ELECTRICAL CABLE TECH CO., LTD.	8043	300/500V; 20 AWG (0,52 mm ²); T180°C	VDE 0250 Teil 106	VDE 40043532
Earthing wire	B	Top Resources Co. Ltd.	H03VH7-H	1 x 0.75 mm ²	HD 21.8 S2:1999	VDE 40016896
Alternative	D	Dongguan Nistar Transmitting Technology Co. Inc.	H05V-K	1 x 0.75 mm ²	EN 50525-2- 31:2011	VDE 40009152
Alternative	D	Guangdong Yongrui Cable Technology Co., Ltd	H03VH7-H	1 x 0.75 mm ²	HD 21.8 S2:1999	VDE 40027126
Alternative	D	Guangdong Yongrui Cable Technology Co., Ltd	H03VH7-H	1 x 0.75 mm ²	HD 21.8 S2:1999	VDE 40027126
Terminal block for models LS- PE517; LS- PE518; LS- PPE01; 5777- P016; 5777- P018	B	Jiangmen Z&X Plastic Products Co., Ltd.	ZX1282 ZX1283	AC 250 V; 10 A; T80; 0,75 mm ² – 1,5 mm ²	EN 60998- 1:2004; EN 60998-2-1:2004	ENEC 05 DEKRA Certificate Number 2154500.01
Terminal block for model LS- PE9006	B	Foshan Ojun Electronic Technology	OJ-3218; OJ-3318; OJ-3319	AC 250 V; 17,5 A; T100; 0,75 mm ² – 1,5 mm ²	EN 60998- 1:2004; EN 60998-2-1:2004	ENEC 05 DEKRA Certificate Number 2171288.02
Terminal block for models LS- PE676A (TI- CP-0917); LS- PE0917A (TI- FCP-0917A); LS-PE0917B (TI-FCP-0917B)	B	Foshan Shunde Jinjin Electrical Co. Ltd.	KZ8-PA8	AC 450 V; 17,5 A; T110; 0,75 mm ² – 1,5 mm ²	EN 60998- 1:2004; EN 60998-2-1:2004	VDE 40018824
Alternative	D	Heavy Power Co., Ltd.	PA9	AC 450 V; 24 A; T110; 1,0 mm ² – 2,5 mm ²	EN 60998- 1:2004; EN 60998-2-1:2004	VDE 40016425
Alternative	D	Foshan Shunde Jinjin Electrical Co. Ltd.	KZ8-502	AC 750 V; 24 A; T110; 1,0 mm ² – 2,5 mm ²	EN 60998- 1:2004; EN 60998-2-1:2004	VDE 40018824
Alternative	D	Heavy Power Co., Ltd.	PA10	AC 450 V; 24 A; T110; 1,0 mm ² – 2,5 mm ²	EN 60998- 1:2004; EN 60998-2-1:2004	VDE 40019247



EN 60598-2-1						
Clause	Requirement + Test			Result - Remark		Verdict
object/part No.	code	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity
Alternative	D	Zhongshan Hongyue Lighting Electrical Appliance Factory	PA10	AC 450 V; 41 A; T105; 2,5 mm ² – 6,0 mm ²	EN 60998- 1:2004; EN 60998-2-1:2004	VDE 40022438
Terminal block for model LS- PE863	B	Foshan Shunde Jinjin Electrical Co. Ltd.	KZ8-230	AC 450 V; 17,5 A; T110; 0,75 mm ² – 1,5 mm ²	EN 60998- 1:2004; EN 60998-2-1:2004	VDE 40018824
Heat-shrinkable tube	B	SHENZHEN WOER HEAT- SHRINKABLE MATERIAL CO LTD	RSFR	600 V; 125°C; VW-1	-----	UL E203950 + test with appliance
Alternative	D	DONGGUAN SALIPT CO LTD	SALIPT S- 901-300	300V,125°C; VW-1	-----	UL E209436 + test with appliance
Alternative	D	DONGGUAN SALIPT CO LTD	SALIPT S- 901-600	600V,125°C; VW-1	-----	UL E209436 + test with appliance
Alternative	D	Wenzhou Huida Plastic Co., Ltd	HD-1	600V,125°C; VW-1	-----	UL E359946 + test with appliance
Alternative	D	Wenzhou Huida Plastic Co., Ltd	HD-2	300V,125°C; VW-1	-----	UL E359946 + test with appliance

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



EN 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12	
----------------	---	--

	Type reference.....:	LS-PE9006; LS-PPE01; LS-PE0917A (TI-FCP-0917A); 5777-P032; LS-PE0009	—
	Lamp used	E27; 40 W & 60 W	—
	Lamp control gear used	-----	—
	Mounting position of luminaire	Acc. to use manual	—
	Supply wattage (W)	See below following	—
	Supply current (A)	See below following	—
	Calculated power factor	See below following	—
	Table: measured temperatures corrected for $t_a = 25\text{ °C}$:		P
	- abnormal operating mode	-----	—
	- test 1: rated voltage	-----	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage	Models LS-PE9006; LS-PPE01; LS-PE0917A (TI-FCP-0917A): $P_R=40\text{ W} \rightarrow 1,05P_R=42\text{ W} \rightarrow$ $I=0,173\text{ A} \rightarrow U=243,4\text{ V} \rightarrow$ $PF=1$ Model 5777-P032: $P_R=40\text{ W} \rightarrow 1,05P_R=42\text{ W} \rightarrow$ $I=0,168\text{ A} \rightarrow U=252,5\text{ V} \rightarrow$ $PF=1$ Model LS-PE0009: $P_R=60\text{ W} \rightarrow 1,05P_R=63\text{ W} \rightarrow$ $I=0,264\text{ A} \rightarrow U=239\text{ V} \rightarrow PF=1$	—
	- 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)

LS-PPE01						
Part	Clause 12.4 – normal				Clause 12.5 – abnormal	
	test 1	test 2	test 3	limit	test 4	limit
Lampholder wire (add heat-shrinkable tube)	---	49	---	120	---	---
Lampholder contact	---	60	---	210	---	---
Lampholder rim	---	73	---	210	---	---



EN 60598-2-1						
Clause	Requirement + Test			Result - Remark		Verdict
Earthing wire	---	26	---	90	---	---
Terminal block	---	27	---	110	---	---
Mounting surface	---	26	---	90	---	---
Object lighting (0,1 m)	---	26	---	90	---	---
LS-PE9006						
Lampholder wire (add heat-shrinkable tube)	---	62	---	120	---	---
Lampholder contact	---	78	---	210	---	---
Lampholder rim	---	91	---	210	---	---
Earthing wire	---	27	---	90	---	---
Terminal block	---	27	---	80	---	---
Lampshade outside	---	42	---	Ref.	---	---
Mounting surface	---	27	---	90	---	---
Object lighting (0,1 m)	---	29	---	90	---	---
LS-PE0917A (TI-FCP-0917A)						
Lampholder wire (add heat-shrinkable tube)	---	70	---	120	---	---
Lampholder contact	---	85	---	210	---	---
Lampholder rim	---	93	---	210	---	---
Earthing wire	---	28	---	90	---	---
Terminal block	---	27	---	110	---	---
Mounting surface	---	26	---	90	---	---
Object lighting (0,1 m)	---	32	---	90	---	---
5777-P032						
Lampholder wire (add heat-shrinkable tube)	---	77	---	120	---	---
Lampholder contact	---	117	---	210	---	---
Lampholder rim	---	111	---	210	---	---
Terminal block	---	28	---	110	---	---
Mounting surface	---	27	---	90	---	---
Object lighting (0,1 m)	---	30	---	90	---	---
LS-PE0009						
Lampholder wire (add heat-shrinkable tube)	---	49	---	120	---	---
Lampholder contact	---	59	---	210	---	---
Lampholder rim	---	62	---	210	---	---
Terminal block	---	28	---	110	---	---



EN 60598-2-1						
Clause	Requirement + Test			Result - Remark		Verdict
Mounting surface	---	27	---	90	---	---
Lampshade outside	---	33	---	90	---	---



EN 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 3	Screw terminals (part of the luminaire)		
(14)	SCREW TERMINALS		
(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 (mm ²)		—
(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



EN 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 4	Screwless terminals (part of the luminaire)		
(15)	SCREWLESS TERMINALS		
(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
(15.5.1)	Terminals internal wiring		N/A
(15.5.1.1)	Pull test spring-type terminals (4 N, 4 samples) :	----	N/A
(15.5.1.2)	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 external wiring		N/A
	Terminal size and rating		N/A
(15.6.2.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N) :	----	N/A
	Pull test pin or tab terminals (4 samples); pull (N) :	----	N/A
(15.6.3.1)	TABLE: Contact resistance test		



EN 60598-2-1										
Clause	Requirement + Test					Result - Remark				Verdict
	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									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)	---	---	---	---	---	---	---	---	---	---
	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)	---	---	---	---	---	---	---	---	---	---
	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)	---	---	---	---	---	---	---	---	---	---
	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)	---	---	---	---	---	---	---	---	---	---
Supplementary information:										



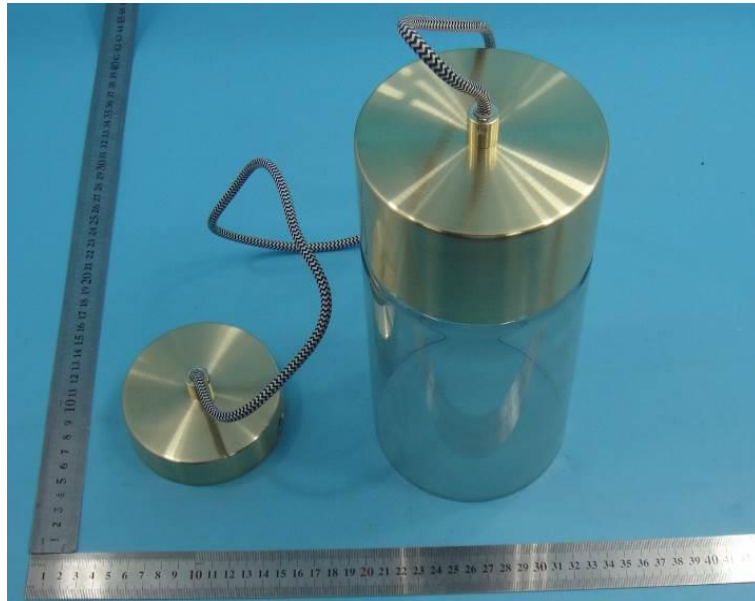
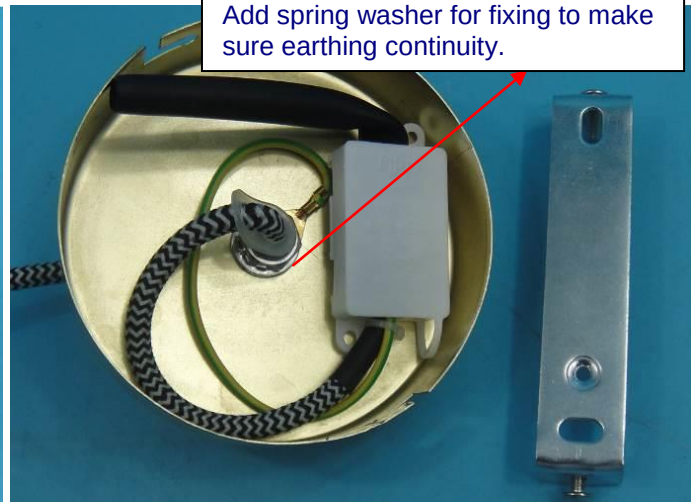
EN 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
	ANNEX 5: National Differences for (country name) or Group Differences		
	CENELEC COMMON MODIFICATIONS (EN)		
1.5 (3)	MARKING		
1.5 (3.3.101)	For luminaires not supplied with terminal block: Adequate warning on the package		N/A
1.6 (4)	CONSTRUCTION		
1.6 (4.11.6)	Electro-mechanical contact systems		N/A
1.10 (5)	EXTERNAL AND INTERNAL WIRING		
1.10 (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
1.10 (5.2.2)	Cables equal to EN 50525		P
	Replace table 5.1 – Supply cord		P
1.12 (12)	ENDURANCE TEST AND THERMAL TEST		
1.12 (12.4.2c)	Thermal test (normal operation) see footnote c to table 12.2 relating to unsleeved fixed wiring		P
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



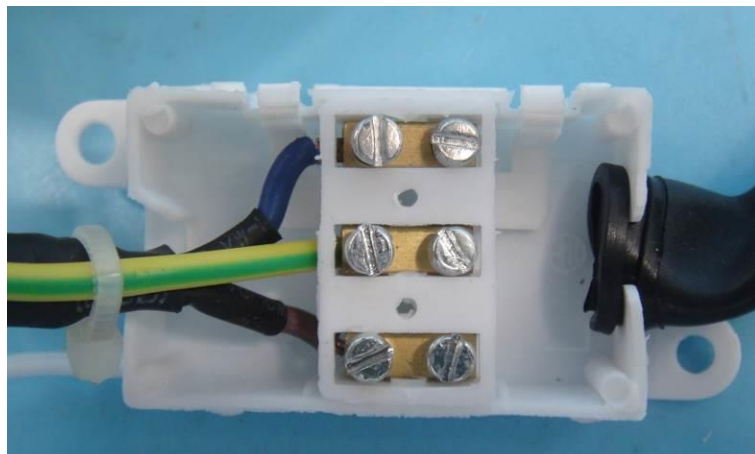
EN 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
	ANNEX 5: National Differences for (country name) or Group Differences		
	CENELEC COMMON MODIFICATIONS (EN)		
	- 850°C for luminaires in stairways and horizontal travel paths		N/A
	- 650°C for indoor luminaires		N/A
(13.3)	GB: Requirements according to United Kingdom Building Regulation		N/A

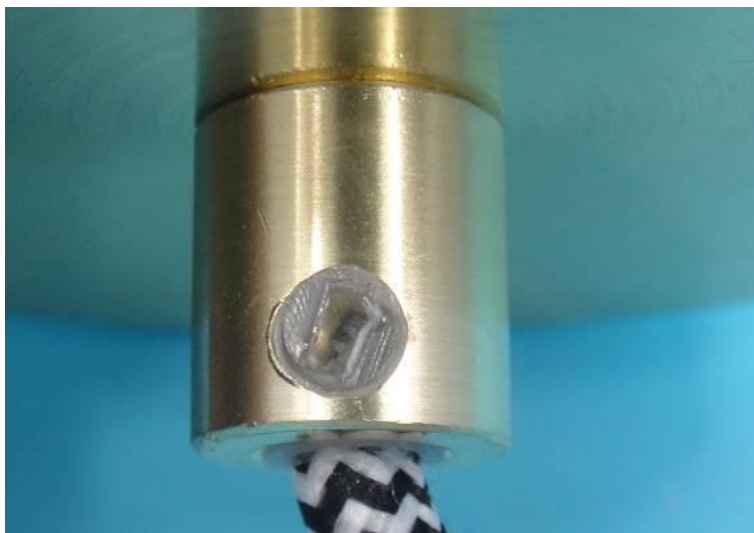
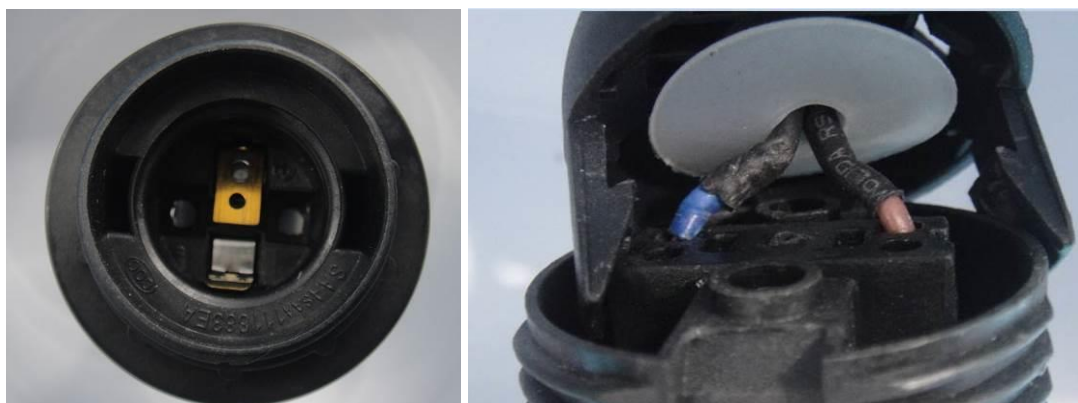
**Used measuring instruments:**

Inventory no.	Details	Type name	Manufacturer
L-A-002	Temperature rise test corner	N/A	Dongguan Luxing Mechanic Company
L-A-006	HIOKI 3157 / AC Earthing Tester	1146980	Japan. HIOKI
L-A-010	CS2672C dielectric test	20210265	Nanjing Chang Sheng Electronic Devices Manufactory
L-B-005	Ball pressure tester	2001196	Guang Zhou Electrical Appliance Science Institute
L-B-035	FZ-5101P Glow Wire Tester	1210003	Dongguan Hanyang electronic company
L-C-002	Insulation resistance tester	---	HIOKI
L-C-025	Simpson 228 Leakage current tester	N/A	Simpson electric company
L-T-170	Temperature & humidity recorder	AR807	Aosong (Guangzhou) Electronics Co., Ltd.
L-C-007	Power & Loading Testing Unit	E-20010302	Guangzhou Electrical Appliance Science Institute
L-C-013	8770 / Digital-type Power Tester	870104083	Qingdao Qingzhi Meters Company
L-C-040-2	MX-100 / Multiple-channel Temperature Tester	---	JAPAN YOKOGAWA
L-C-026	AC Power Source	---	HUAYUAN INSTRUMENT
L-T-002	F22.50 / Spring Hammer	5011141	German PTL Dr. Grabenhorst GmbH
L-T-005	FTD2000CN2-S Torque screwdriver	430768P	Japan TOHNICHI
L-T-014-2	CD-6"CS / Digital-type Caliper	514144	Japan Mitutoyo
L-T-025-1	Test Finger & Test Pin	N/A	U.S.A Educated Design& Development
L-T-025-8	Test Finger with pressure force indication	---	Dongguan Hanyang electronic company
L-C-039	Luminaire endurance test room	---	---
L-T-043-1	Fluke Universal Electric Meter	---	FLUKE
L-T-140	Digital Thermometer (2 channel)	2011011	TES
L-T-186	Electronic weigher	20130646	Sanyou
L-B-003	SH5401A / Needle flame tester	SH0950906	Guangzhou Electrical Appliance Science Institute

**ANNEX photo documentation****Photo 1: whole view for model LS-PE9006**

Add spring washer for fixing to make sure earthing continuity.

Photo 2: canopy view for model LS-PE9006**Photo 3: terminal block view for model LS-PE9006**

**ANNEX photo documentation****Photo 4: assembly view for model LS-PE9006****Photo 5: cord anchorage view for model LS-PE9006****Photo 6: E27 lampholder view for model LS-PE9006**



ANNEX photo documentation



Photo 7: whole view for model LS-PPE01



Photo 8: canopy view for model LS-PPE01



Photo 9: terminal block view for models LS-PPE01; LS-PE517; LS-PE518; LS-PPE01; 5777-P016; 5777-P018



ANNEX photo documentation

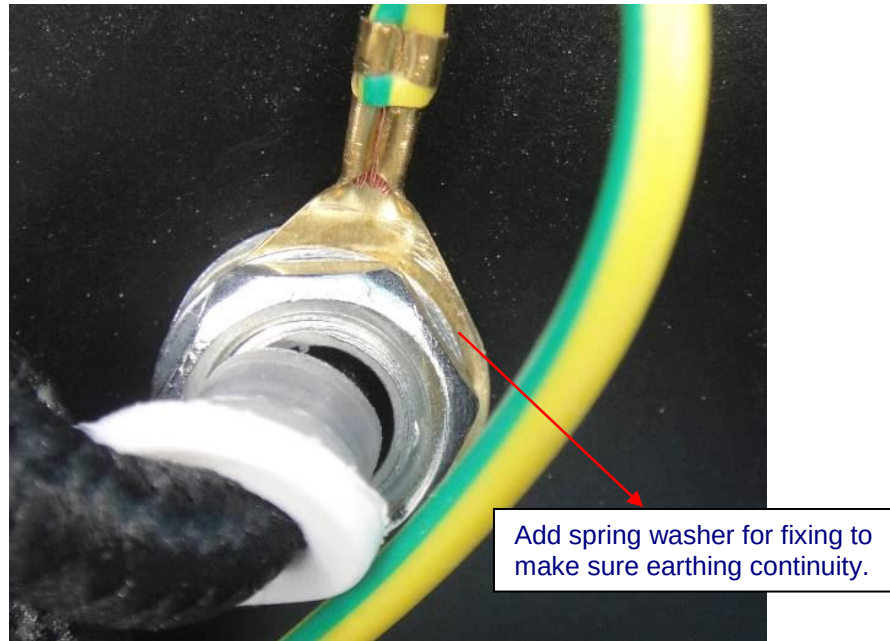


Photo 10: earthing connection view for models LS-PE9006; LS-PE517; LS-PE518; LS-PPE01; 5777-P016; 5777-P018



Photo 11: cord anchorage view for models LS-PE9006; LS-PE517; LS-PE518; LS-PPE01; 5777-P016; 5777-P018



Photo 12: E27 lampholder view for models LS-PE9006; LS-PE517; LS-PE518; LS-PPE01; 5777-P016; 5777-P018

**ANNEX photo documentation**

Photo 13: E27 lampholder internal connection view for models LS-PE9006; LS-PE517; LS-PE518; LS-PPE01; 5777-P016; 5777-P018



Photo 14: whole view for model LS-PE517



Photo 15: whole view for model LS-PE518



ANNEX photo documentation



Photo 16: whole view for model 5777-P016

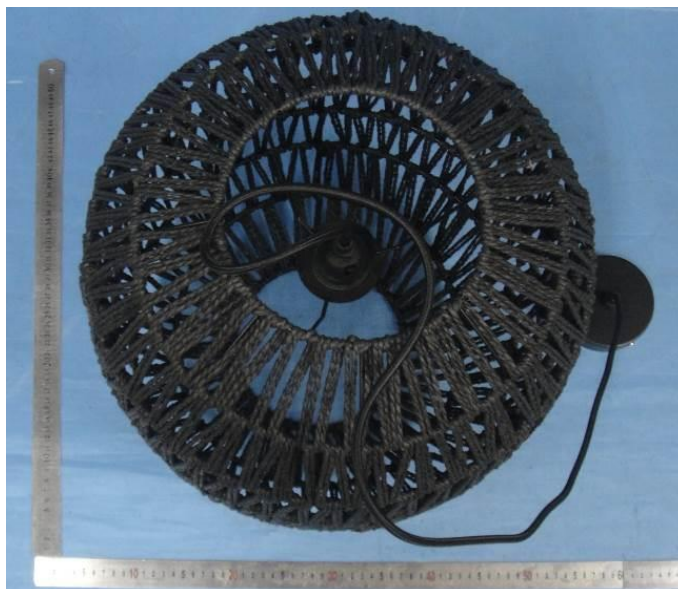


Photo 17: whole view for model 5777-P018



Photo 18: whole view for model LS-PE676A (TI-CP-0917)

**ANNEX photo documentation****Photo 19: cord anchorage view for model LS-PE676A (TI-CP-0917)****Photo 20: whole view for model LS-PE0917A (TI-FCP-0917A)****Photo 21: cord anchorage view for model LS-PE0917A (TI-FCP-0917A)**

**ANNEX photo documentation**

Photo 22: whole view for model LS-PE0917B (TI-FCP-0917B)



Photo 23: cord anchorage view for model LS-PE0917B (TI-FCP-0917B)



Photo 24: canopy view for models LS-PE676A (TI-CP-0917); LS-PE0917A (TI-FCP-0917A); LS-PE0917B (TI-FCP-0917B)



ANNEX photo documentation



Photo 25: terminal block view for models LS-PE676A (TI-CP-0917); LS-PE0917A (TI-FCP-0917A); LS-PE0917B (TI-FCP-0917B)



Photo 26: internal cord anchorage and earthing connection view for models LS-PE676A (TI-CP-0917); LS-PE0917A (TI-FCP-0917A); LS-PE0917B (TI-FCP-0917B)

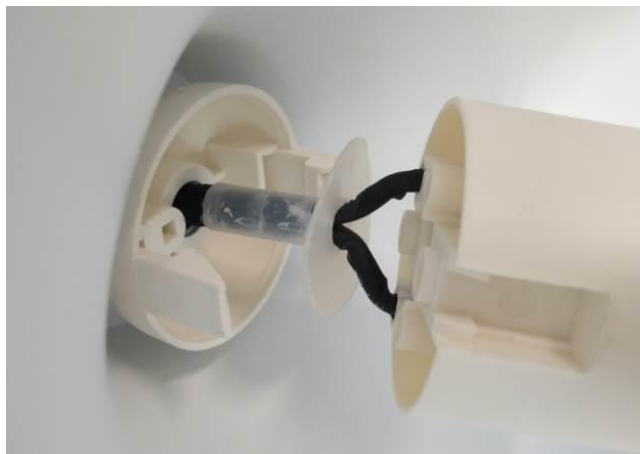
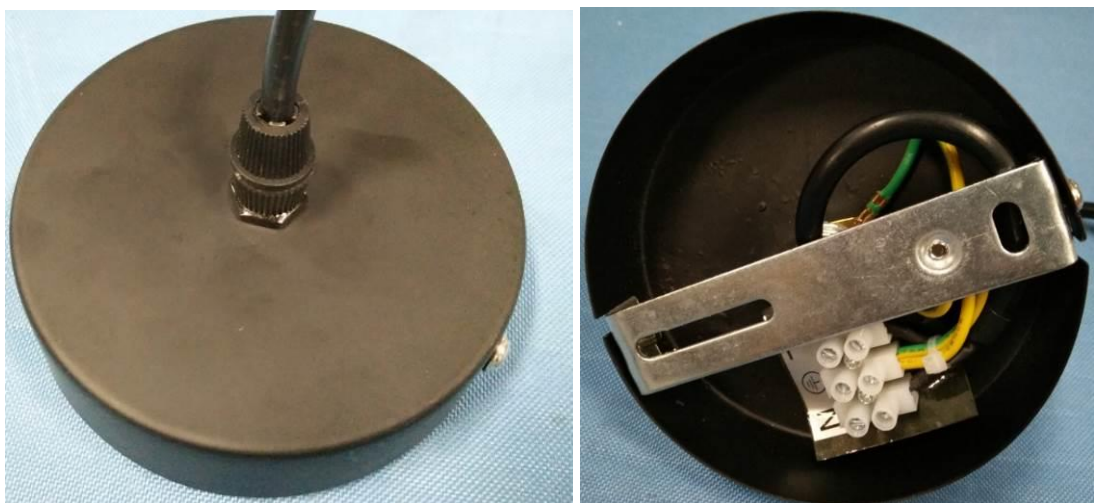


Photo 27: internal cord anchorage and earthing connection view for models LS-PE676A (TI-CP-0917); LS-PE0917A (TI-FCP-0917A); LS-PE0917B (TI-FCP-0917B)

**ANNEX photo documentation****Photo 28: mounting screw view****Photo 29: whole view for model LS-PE863****Photo 30: canopy view for model LS-PE863**



ANNEX photo documentation



Photo 31: earthing connection view for model LS-PE863



Photo 32: earthing connection and terminal block view for model LS-PE863

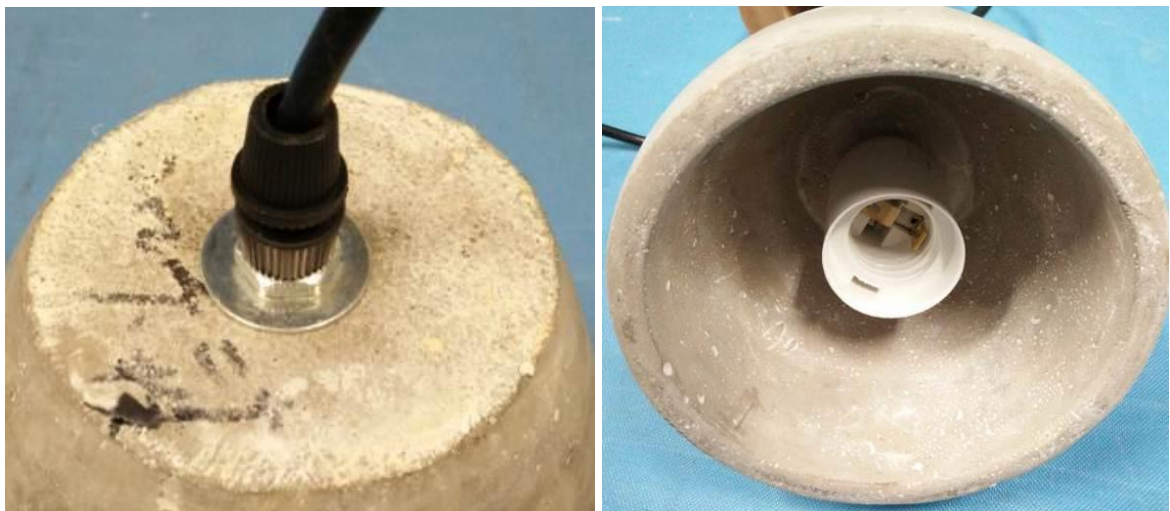


Photo 33: part and E27 lampholder view for model LS-PE863

**ANNEX photo documentation**

Photo 34: internal connection for E27 lampholder view for model LS-PE863



Photo 35: whole view for model 5777-T294



ANNEX photo documentation



Photo 36: canopy view for model 5777-T294

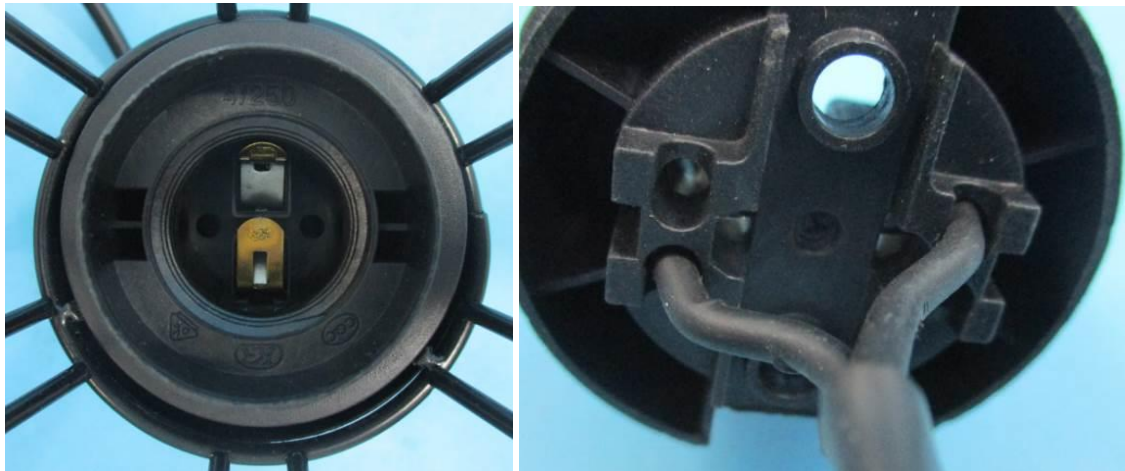


Photo 37: lampholder and internal connection view for model 5777-T294

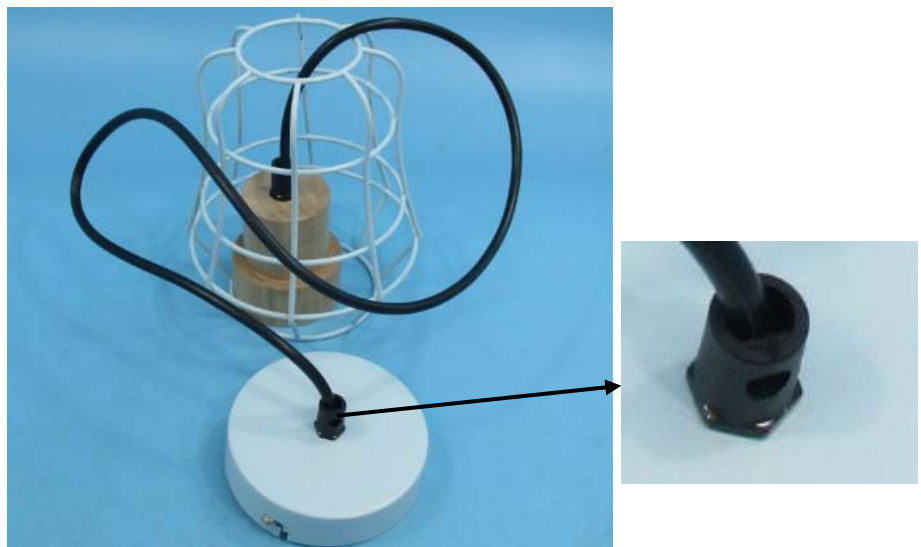
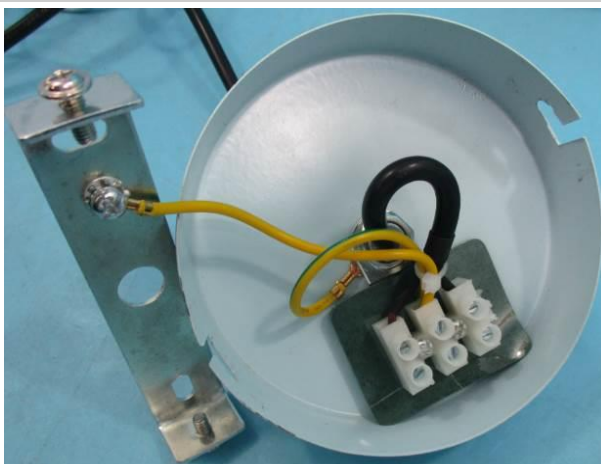
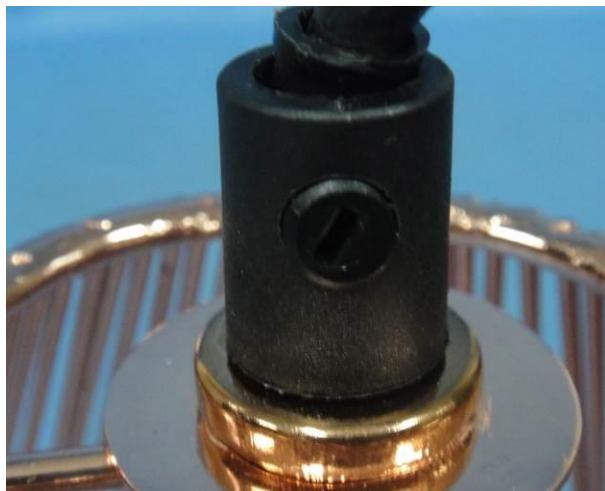


Photo 38: whole view for model 5777-T295

**ANNEX photo documentation****Photo 39: canopy view for model 5777-T295****Photo 40: E27 lampholder view for model 5777-T295****Photo 41: whole view for model 5777-P032**

**ANNEX photo documentation****Photo 42: canopy view for model 5777-P032****Photo 43: earthing connection and cord anchorage view for model 5777-P032****Photo 44: cord anchorage view for model 5777-P032**



ANNEX photo documentation



Photo 45: E27 lampholder and internal connection view for model 5777-P032



Photo 46: whole view for model 5777-P017

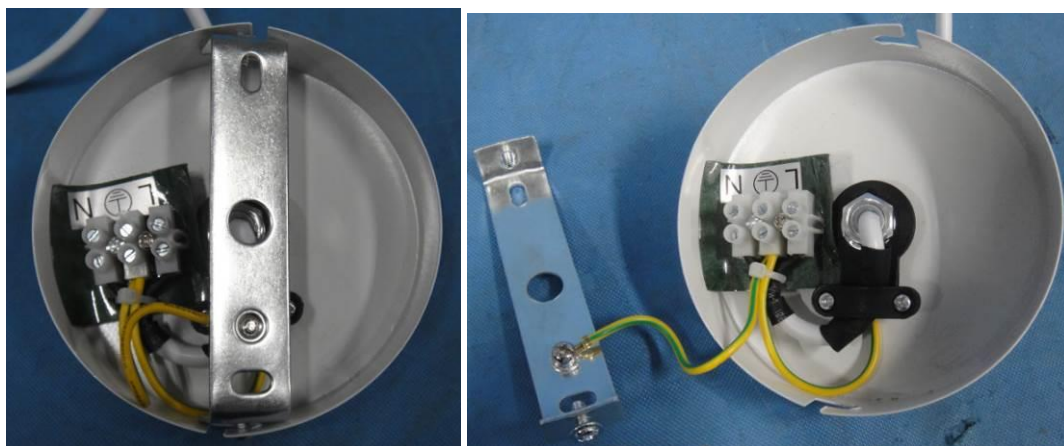


Photo 47: whole view for model 5777-P017

**ANNEX photo documentation****Photo 48: earthing connection view for model 5777-P017****Photo 49: E27 lampholder view for model 5777-P017****Photo 50: E27 lampholder and internal connection view for model 5777-P017**



ANNEX photo documentation

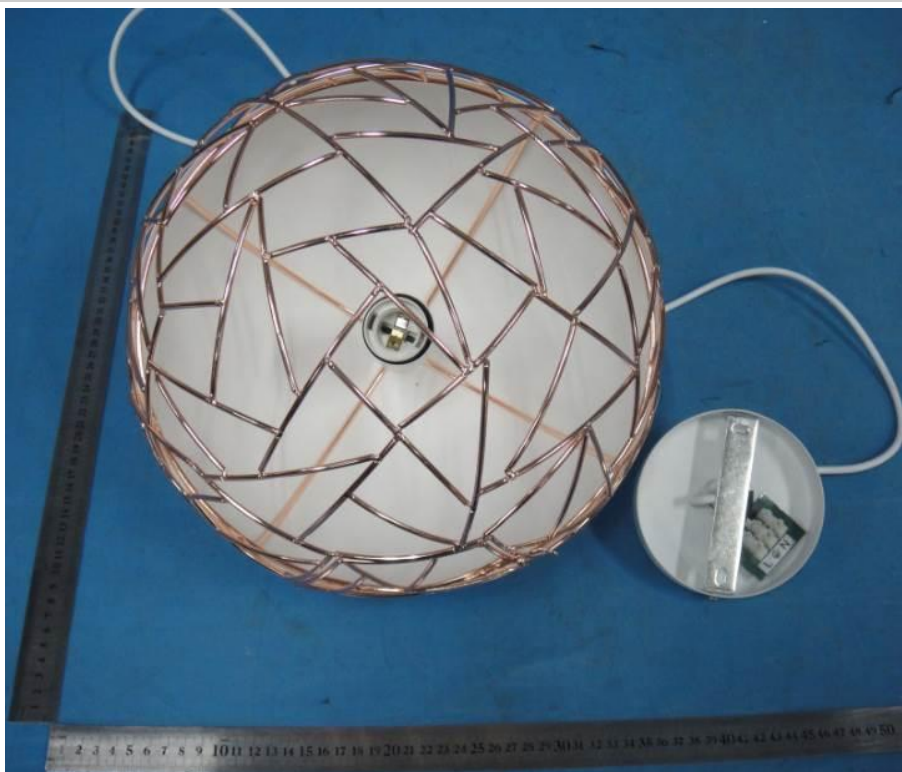


Photo 51: whole view for model LS-PE0010

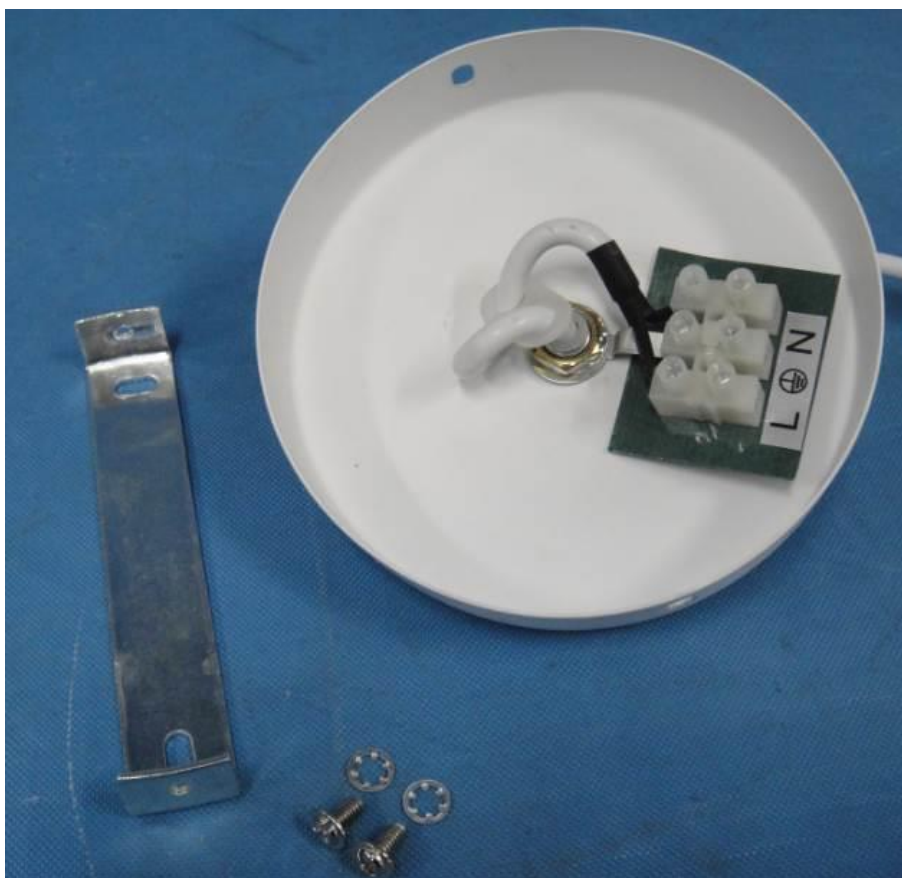


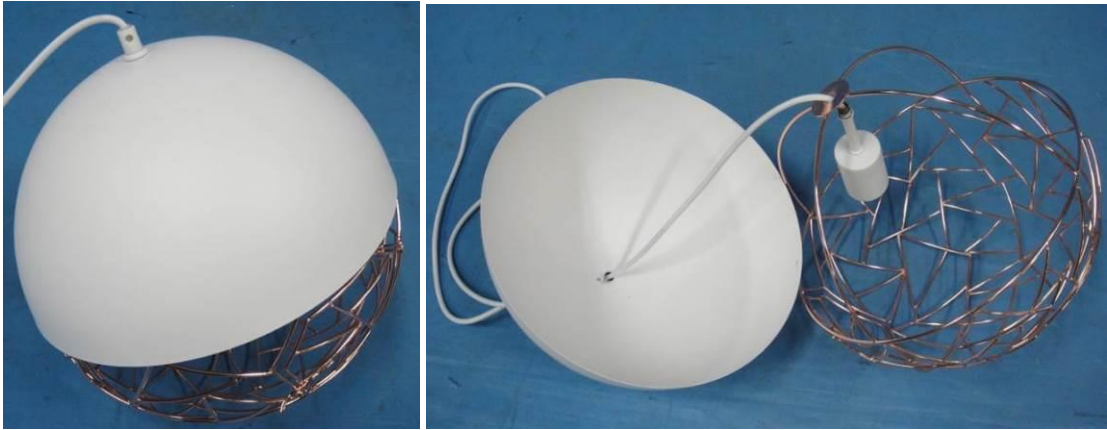
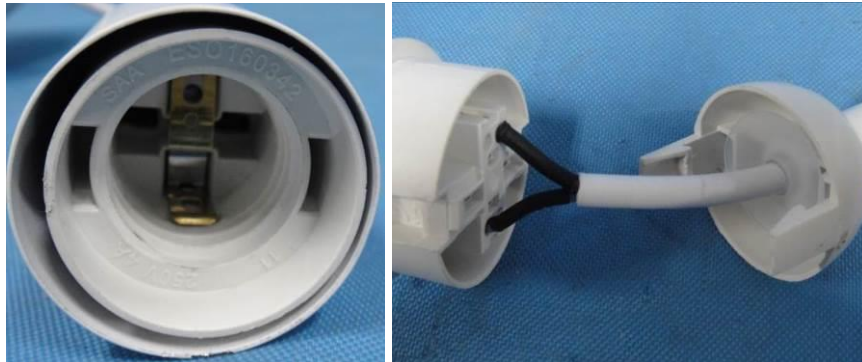
Photo 52: canopy view for model LS-PE0010

**ANNEX photo documentation**

Photo 53: earthing connection view for model LS-PE0010



Photo 54: canopy view for model LS-PE0010

**ANNEX photo documentation****Photo 55: assembly view for model LS-PE0010****Photo 56: E27 lampholder and internal connection view for model LS-PE0010****Photo 57: whole view for model LS-PE0009**

End of the test report