



TEST REPORT

Reference No...... : WTD14D0615291S
Applicant..... : Amos Design Electric Co., Ltd
Address..... : Linbeilin industrial area, Xiegang Town, Dongguan City, Guangdong, China
Manufacturer..... : Dongguan Zhenxin Lighting Factory
Address..... : Linbeilin industrial area, Xiegang Town, Dongguan City, Guangdong, China
Product Name..... : G9 6 lights pendant lamp
Model No...... : P0762B
Standards..... : Luminaires –
Part 1: General Requirements And Tests
Part 2: Particular Requirements - Section 1: Fixed General Purpose
Luminaires
EN 60598-2-1:1989
EN 60598-1:2008+A11:2009
Date of Receipt sample.... : 2014-06-13
Date of Test..... : 2014-06-16 to 2014-06-27
Date of Issue..... : 2014-06-30
Test Report Form No...... : WSL-6059821A-02A
Test Result..... : **Pass***

***Remarks:**

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

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Test item description..... : G9 6 lights pendant lamp
Trade Mark..... : N/A
Model/Type reference..... : P0762B
Ratings..... : 220-240V~, 50Hz, G9 6 x Max 28W; IP20, Class I

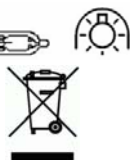
Copy of marking plate:

Amos Design Electric Co., Ltd

Model: P0762B

Input: 220-240V~, 50Hz

G9 6x Max 28W



G9 MAX 28W



(Self-shielded tungsten halogen lamps)

On the luminaries enclosure

Note: The heights of graphical symbols are not less than 5mm. The heights of letters and numerals either shown separately or with or as part of symbols aren't less than 2mm.

Summary of testing:

- The test result complies with the requirements of the standard mentioned on page one.
- Assessment of lighting equipment related to human exposure to electromagnetic fields was evaluated and fulfilled the requirement of EN 62493: 2010, lighting equipment without electronic control gear is deemed to comply with the requirements of the standard without testing.
- Only the most unfavorable results are recorded in this report.

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**Test items particulars:**

Classification of installation and use.....: Fixed mounting

Supply Connection.....: Terminal block

.....
.....**Possible test case verdicts:**

- test case does not apply to the test object.....: N (Not applicable)

- test object does meet the requirement.....: P (Pass)

- test object does not meet the requirement.....: F (Fail)

General remarks:

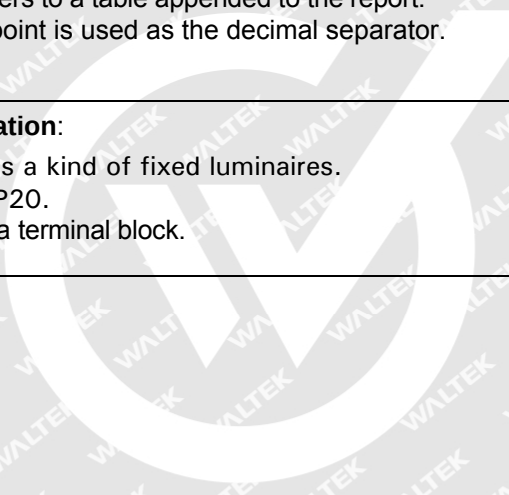
"(see remark #)" refers to a remark appended to the report.

"(see appended table)" refers to a table appended to the report.

Throughout this report a point is used as the decimal separator.

General product information:

1. This series appliance is a kind of fixed luminaires.
2. For indoor use only, IP20.
3. Connected to supply via terminal block.



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EN 60598-2-1			
Cl.	Requirement – Test	Result - Remark	Verdict

1.1 (0)	SCOPE		P
1.1 (0.1)	More sections applicable	No	—

1.4 (2)	CLASSIFICATION		P
1.4 (2.2)	Type of protection	Class I	—
1.4 (2.3)	Degree of protection	IP20	—
1.4 (2.4)	Portable or handheld luminaire	No	—
	Fixed luminaire suitable for normally flammable surfaces	Yes	—
	Fixed luminaire suitable for non-combustible materials only	No	—
1.4 (2.5)	Luminaire for normal use	Yes	—
	Luminaire for rough service	No	—

1.5 (3)	MARKING		P
1.5 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text	See rating label	P
1.5 (3.2.1)	Mark of origin	See rating label	P
1.5 (3.2.2)	Rated voltage	220-240V~	P
1.5 (3.2.3)	The rated maximum ambient temperature		N
1.5 (3.2.4)	Symbol of class II luminaires		N
1.5 (3.2.5)	Symbol of class III luminaires		N
1.5 (3.2.6)	IP number	IP20	P
1.5 (3.2.7)	Model number or type reference	P0762B	P
1.5 (3.2.8)	Rated wattage	G9 6 x Max 28W	P
1.5 (3.2.9)	The symbol not suitable for direct mounting on flammable surface		N
1.5 (3.2.10)	Information concerning special lamps	No special lamp used	N
1.5 (3.2.11)	Cool beam lamp		N
1.5 (3.2.12)	Marking on terminations		P
1.5 (3.2.13)	Minimum distance from lighted object		N
1.5 (3.2.14)	Symbol for rough service luminaire		N
1.5 (3.2.15)	Symbol for using with bowl mirror lamps		N



EN 60598-2-1			
Cl.	Requirement – Test	Result - Remark	Verdict
1.5 (3.2.16)	Symbol for replacing the cracked protective shield		N
1.5 (3.2.17)	The maximum number of luminaires for looping-in		N
1.5 (3.2.18)	A warning symbol for luminaires with ignitor for using with double-ended high pressure discharge lamps		N
1.5 (3.2.19)	Symbol of self-shield tungsten halogen lamps or self-shielded metal halide lamps	G9 self-shield tungsten halogen lamps	P
1.5 (3.2.20)	The means of adjustment where not obvious, needs to be identified		N
1.5 (3.2.21)	The symbol for not suitable for covering with thermally insulated material		N
1.5 (3.2.22)	Symbol for luminaires with internal replaceable fuses		N
1.5 (3.3)	Additional information		P
	Language of instructions	In English	P
1.5 (3.3.1)	Combination luminaires		N
1.5 (3.3.2)	Nominal frequency in Hz	50Hz	P
1.5 (3.3.3)	Operating temperature		N
1.5 (3.3.4)	Symbol or warning notice		N
1.5 (3.3.5)	Wiring diagram		N
1.5 (3.3.6)	Special conditions		N
1.5 (3.3.7)	Metal halid lamp luminaire – warning		N
1.5 (3.3.8)	Limitation for semi-luminaires		N
1.5 (3.3.9)	Power factor and supply current		N
1.5 (3.3.10)	Suitability for use indoors	Indoor use only	P
1.5 (3.3.11)	Luminaires with remote control		N
1.5 (3.3.12)	Clip-mounted luminaire – warning		N
1.5 (3.3.13)	Specifications of protective shields		N
1.5 (3.3.14)	Symbol for nature of supply	~	P
1.5 (3.3.15)	Rated current of socket outlet		N
1.5 (3.3.16)	Rough service luminaire		N
1.5 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments	Type Y	P



EN 60598-2-1			
Cl.	Requirement – Test	Result - Remark	Verdict
1.5 (3.3.18)	Non-ordinary luminaires with PVC cable		N
1.5 (3.3.19)	The protective conductor current shall stated in the manufacturer's instruction		N
1.5 (3.3.20)	Only to be installed outside arms reach		N
4.5 (3.3.101)	Terminal block not included, Installation may require advice from a qualified person		N
1.5 (3.4)	Test with water	15s	P
	Test with hexane	15s	P
	Legible after test		P
	Label attached		P

1.6 (4)	CONSTRUCTION		P
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		P
1.6 (4.4.1)	Integral lampholder	Approved lampholder used	P
1.6 (4.4.2)	Wiring connection		P
1.6 (4.4.3)	Lampholder for end-to-end mounting		N
1.6 (4.4.4)	Positioning		P
	- pressure test (N)		N
	- bending test (Nm).....		N
1.6 (4.4.5)	Peak pulse voltage		N
1.6 (4.4.6)	Centre contact		N
1.6 (4.4.7)	Rough service luminaires		N
1.6 (4.4.8)	Lamp connectors		N
1.6 (4.4.9)	Caps and bases correctly used		N
1.6 (4.5)	Starter holders		N
	Starter holder in luminaires other than class II		N
	Starter holder class II construction		N
1.6 (4.6)	Terminal blocks		N
	Tails		N
	Unsecured blocks		N
1.6 (4.7)	Terminals and supply connections		P
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		N



EN 60598-2-1			
Cl.	Requirement – Test	Result - Remark	Verdict
1.6 (4.7.3)	Terminals for supply conductors		P
1.6 (4.7.3.1)	Welded connections:		N
	- stranded or solid conductor		N
	- spot welding		N
	- welding between wires		N
	- Type Z attachment		N
	- mechanical test according to 15.8.2		N
	- electrical test according to 15.9		N
	- ageing test according to 15.9.2.3 and 15.9.2.4		N
1.6 (4.7.4)	Terminals other than supply connection		N
1.6 (4.7.5)	Heat-resistant wiring/sleeves		N
1.6 (4.7.6)	Multi-pole plug		N
1.6 (4.8)	Switches:		N
	- adequate rating		N
	- adequate fixing		N
	- polarized supply		N
1.6 (4.9)	Insulating lining and sleeves		N
1.6 (4.9.1)	Retainment		N
	Method of fixing		N
1.6 (4.9.2)	Insulated linings and sleeves		N
	a) & c) Insulation resistance and electric strength		N
	b) Ageing test. Temperature (°C)		N
1.6 (4.10)	Insulation of Class II luminaires		P
1.6 (4.10.1)	No contact, mounting surface - accessible metal parts - wiring of basic insulation	Class II construction within Class I luminaires	P
	Safe installation fixed luminaires		N
	Capacitors		N
	Interference suppression capacitors according to IEC 60384-14		N
1.6 (4.10.2)	Assembly gaps:		P
	- not coincidental		P
	- no straight access with test probe		P
1.6 (4.10.3)	Retainment of insulation:		P
	- fixed		P
	- unable to be replaced; luminaire inoperative		P



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Cl.	Requirement – Test	Result - Remark	Verdict
	- sleeves retained in position		P
	- lining in lampholder		N
1.6 (4.11)	Electrical connections		P
1.6 (4.11.1)	Contact pressure		N
1.6 (4.11.2)	Screws:		N
	- self-tapping screws		N
	- thread-cutting screws		N
	- at least two self-tapping screws		N
1.6 (4.11.3)	Screw locking:		N
	- spring washer		N
	- rivets		N
1.6 (4.11.4)	Material of current-carrying parts		P
1.6 (4.11.5)	Current-carrying parts shall not be direct contact with the mounting surface or wood	No such part	N
1.6 (4.11.6)	Electro-mechanical contact systems		N
1.6 (4.12)	Mechanical connections and glands		P
1.6 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		N
	Torque test: torque (Nm); part.....:	Screw for fixing enclosure; 1.2 Nm	P
	Torque test: torque (Nm); part.....:	Screw for fixing bracket; 1.2Nm	P
	Torque test: torque (Nm); part.....:	Screw for fixing lampholder; 0.4Nm	P
	Torque test: torque (Nm); part.....:		N
1.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N
1.6 (4.12.4)	Locked connections:		P
	- fixed arms; torque (Nm)		N
	- lampholder; torque (Nm)		N
	- push-button switches; torque 0,8 Nm		N
1.6 (4.12.5)	Screwed glands; force (N).....		N
1.6 (4.13)	Mechanical strength		P



EN 60598-2-1			
Cl.	Requirement – Test	Result - Remark	Verdict
1.6 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm)		N
	- other parts; energy (Nm).....	Enclosure; 0.35Nm 3 times	P
	1) live parts		P
	2) linings		P
	3) protection		P
	4) covers		P
1.6 (4.13.3)	Straight test finger	30N	P
1.6 (4.13.4)	Rough service luminaires		N
	a) fixed		N
	b) hand-held		N
	c) delivered with a stand		N
	d) for temporary installations and suitable for mounting on a stand		N
1.6 (4.13.6)	Tumbling barrel		N
1.6 (4.14)	Suspensions and adjusting devices		P
1.6 (4.14.1)	Mechanical load:		P
	A) four times the weight	4 × 9.79kg	P
	B) torque 2,5 Nm		P
	C) bracket arm; bending moment (Nm)	> 1.0Nm	P
	D) load track-mounted luminaires		N
	E) clip-mounted luminaires, glass-shelve. Thickness (mm)		N
	metal rod. Diameter (mm)		N
1.6 (4.14.2)	Load to flexible cables		N
	Mass (kg).....		N
	Stress in conductors (N/mm ²)		N
	Semi-luminaires – mass (kg)		N
	Semi-luminaires – bending moment (Nm)		N
1.6 (4.14.3)	Adjusting devices:		N
	- flexing test; number of cycles.....		N
	- strands broken		N
	- electric strength test afterwards		N



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Cl.	Requirement – Test	Result - Remark	Verdict
1.6 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N
1.6 (4.14.5)	Guide pulleys		N
1.6 (4.14.6)	Strain on socket-outlets		N
1.6 (4.15)	Flammable materials:		P
	- glow-wire test 650 °C		N
	- spacing ≥ 30 mm		N
	- screen withstanding test of 13.3.1		N
	- screen dimensions		N
	- no fiercely burning material		P
	- thermal protection		N
	- electronic circuits exempted		N
1.6 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		N
	a) construction		N
	b) temperature sensing control		N
	c) surface temperature		N
1.6 (4.16)	Luminaires for mounting on normally flammable surfaces		N
	No lamp control gear		N
1.6 (4.16.1)	Lamp control gear spacing:		N
	- spacing 35 mm		N
	- spacing 10 mm		N
1.6 (4.16.2)	Thermal protection:		N
	- in lamp control gear		N
	- external		N
	- fixed position		N
	- temperature marked lamp control gear		N
1.6 (4.16.3)	"F" curve measured		N
1.6 (4.17)	Drain holes		N
	Clearance at least 5 mm		N
1.6 (4.18)	Resistance to corrosion:		N
1.6 (4.18.1)	- rust-resistance		N
1.6 (4.18.2)	- season cracking in copper		N



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Cl.	Requirement – Test	Result - Remark	Verdict
1.6 (4.18.3)	- corrosion of aluminium		N
1.6 (4.19)	Igniters compatible with ballast		N
1.6 (4.20)	Rough service vibration..... :		N
1.6 (4.21)	Protective shield:		N
1.6 (4.21.1)	Shield fitted		N
1.6 (4.21.2)	Particles from a shattering lamp not impair safety		N
1.6 (4.21.3)	No direct path		N
1.6 (4.21.4)	Impact test on shield		N
	Glow-wire test on lamp compartment		N
1.6 (4.22)	Attachments to lamps		N
1.6 (4.23)	Semi-luminaires comply class II		N
1.6 (4.24)	UV radiation, metal halide lamps		N
1.6 (4.25)	No sharp point or edges		P
1.6 (4.26)	Short-circuit protection:		N
1.6 (4.26.1)	Uninsulated accessible SELV parts		N
1.6 (4.26.2)	Short-circuit test		N
1.6 (4.26.3)	Test chain according to IEC 61032		N
1.6 (4.27)	Terminal block with integrated screwless earthing contacts		N

1.7 (11)	CREEPAGE DISTANCES AND CLEARANCES		P
	Working voltage (V)..... :	220-240V~	—
	Voltage form	Sinusoidal [√] Non-sinusoidal []	—
	PTI	< 600 [√] > 600 []	—
	Rated pulse voltage (kV)		—
	(1) Current-carrying parts of different polarity: cr (mm); cl (mm)	> 3.2mm, Between live parts (L, N) of the lampholder (approved lampholder and terminal block used)	P
	(2) Current-carrying parts and accessible parts: cr (mm); cl (mm)	> 5.2mm, From live parts (L, N) of terminal to metal enclosure	P



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Cl.	Requirement – Test	Result - Remark	Verdict
	(3) Parts becoming live due to breakdown of basic insulation and metal parts: cr (mm); cl (mm).....:		N
	(4) Outer surface of cable where it is clamped and metal parts: cr (mm); cl (mm).....:	>8mm	P
	(5) Current-carrying parts of switches and metal parts, after removal of insulation: cr (mm); cl (mm).....:		N
	(6) Current-carrying parts and supporting surface: cr (mm); cl (mm).....:	>8mm; Between current-carrying parts and the mounting surface	P

1.8 (7)	PROVISION FOR EARTHING		P
1.8 (7.2.1 + 7.2.3)	Accessible metal parts		P
	Metal parts in contact with supporting surface		P
	Resistance < 0,5 Ω	<0.1 Ω	P
	Two self-tapping screws used		N
	Thread-forming screws		N
	Connector earthing first		P
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
1.8 (7.2.5)	Earth terminal integral part of connector socket		N
1.8 (7.2.6)	Earth terminal adjacent to mains terminals		N
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
1.8 (7.2.11)	Earthing core coloured green-yellow		P
	Length of earth conductor		P

1.9 (14)	SCREW TERMINALS		P
	Separately approved; component list	See annex 1	P
	Part of the luminaire		N



EN 60598-2-1			
Cl.	Requirement – Test	Result - Remark	Verdict
1.9 (15)	SCREWLESS TERMINALS		N
	Separately approved; component list		N
	Part of the luminaire		N
1.10 (5)	EXTERNAL AND INTERNAL WIRING		P
1.10 (5.2)	Supply connection and external wiring		P
1.10 (5.2.1)	Means of connection : Terminal block		N
1.10 (5.2.2)	Type of cable : See annex 1		P
	Nominal cross-sectional area (mm ²) : See annex 1		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
1.10 (5.2.6)	Cable entries:		P
	- 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:		P
	- suitably fixed		P
	- material in bushings		P
	- tubes or guards made of insulating material		P
1.10 (5.2.9)	Locking of screwed bushings		P
1.10 (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
1.10 (5.2.10.1)	Cord anchorage for type X attachment:		N
	a) at least one part fixed		N
	b) types of cable		N
	c) no damaging of the cable		N
	d) whole cable can be mounted		N



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Cl.	Requirement – Test	Result - Remark	Verdict
	e) no touching of clamping screws		N
	f) metal screw not directly on cable		N
	g) replacement without special tool		N
	Glands not used as anchorage		N
	Labyrinth type anchorages		N
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:		P
	- impossible to push cable; unsafe		P
	- pull test: 25 times; pull (N)	60N	P
	- torque test: torque (Nm)	0.15Nm	P
	- displacement ≤ 2 mm		P
	- no movement of conductors		P
	- no damage of cable or cord		P
1.10 (5.2.11)	External wiring passing into luminaire		P
1.10 (5.2.12)	Looping-in terminals		N
1.10 (5.2.13)	Wire ends not tinned		P
	Wire ends tinned: no cold flow		N
1.10 (5.2.14)	Mains plug same protection		N
	Class III luminaire plug		N
1.10 (5.2.15)	Colour code low voltage		N
1.10 (5.2.16)	Appliance inlets (IEC 60320)		N
	Appliance couplers of class II type		N
1.10 (5.2.17)	Inter-connecting cable		N
1.10 (5.2.18)	Luminaires intended to be connected to the supply via a socket outlet		N
1.10 (5.3)	Internal wiring		P
1.10 (5.3.1)	Internal wiring of suitable size and type	(see Annex 1)	P
	Through wiring		N
	- not delivered/ mounting instruction		N
	- factory assembled		N
	- socket outlet loaded (A)		N



EN 60598-2-1			
Cl.	Requirement – Test	Result - Remark	Verdict
	- temperatures		N
	Green-yellow for earth only		N
1.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring		N
	Cross-sectional area (mm ²).....	(see Annex 1)	P
	Insulation thickness	> 0.5mm	P
	Extra insulation added where necessary		N
1.10 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		N
	Adequate cross-sectional area and insulation thickness		N
1.10 (5.3.1.3)	Double or reinforced insulation for class II		P
1.10 (5.3.1.4)	Conductors without insulation		N
1.10 (5.3.1.5)	SELV current-carrying parts		N
1.10 (5.3.1.6)	Insulation thickness other than PVC or rubber		N
1.10 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		P
	Joints, raising/lowering devices		P
	Telescopic tubes etc.		N
	No twisting over 360°		P
1.10 (5.3.3)	Openings		P
	Bushings not removable		P
	Bushings in sharp openings		N
	Cables with protective sheath		N
1.10 (5.3.4)	Joints and junctions effectively insulated		N
1.10 (5.3.5)	Strain on internal wiring		N
1.10 (5.3.6)	Wire carriers		N
1.10 (5.3.7)	Wire ends not tinned		P
	Wire ends tinned: no cold flow		N
1.11 (8)	PROTECTION AGAINST ELECTRIC SHOCK		P



EN 60598-2-1			
Cl.	Requirement – Test	Result - Remark	Verdict
1.11 (8.2.1)	Live parts not accessible		P
	Protection in any position		P
	- For portable luminaires and adjustable luminaires		N
	- for wall-mounted luminaires, with arms reach, there shall be no access to basic insulated parts from the outside of the luminaires		N
	Double-ended tungsten filament lamp		N
	Insulation lacquer not reliable		N
	Double-ended high pressure discharge lamp		N
1.11 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N
1.11 (8.2.3)	Class II luminaire:		P
	- basic insulated metal parts not accessible during starter or lamp replacement		N
	- basic insulation not accessible other than during starter or lamp replacement		N
	- glass protective shields not used as supplementary insulation		N
	Class I luminaire with BC lampholder		N
	Class III luminaires may have exposed current carrying parts in the SELV circuit under the following conditions		N
	- The voltage under load does not exceed 25V r.m.s or 60V ripple-free d.c. and where the voltage exceeds 25V r.m.s. or 60V d.c., the touch current does not exceed: - for a.c.: 0.7mA (Peak) - for d.c. : 2.0mA		N
	- The no-load voltage does not exceed 35 peak or 60V Ripple-free d.c.		N
	The nominal voltage does not exceed 12V r.m.s. or 30V ripple-free d.c.		N
1.11 (8.2.4)	Portable luminaire:		N
	- protection independent of supporting surface		N
	- terminal block completely covered		N
1.11 (8.2.5)	Compliance with the standard test finger or relevant probe		P
1.11 (8.2.6)	Covers reliably secured		P



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Cl.	Requirement – Test	Result - Remark	Verdict
1.11 (8.2.7)	Discharging of capacitors $\geq 0,5 \mu\text{F}$		N
	Portable plug connected luminaire with capacitor		N
	Other plug connected luminaire with capacitor		N
	Discharge device on or within capacitor		N
	Discharge device mounted separately		N

1.12 (12)	ENDURANCE TEST AND THERMAL TEST		P
1.12 (12.3)	Endurance test:		P
	- mounting-position.....	Fixed mounting	—
	- test temperature (°C)	35°C	—
	- total duration (h)	240h	—
	- supply voltage: Un factor; calculated voltage (V)	1.05 times voltage at which the rated wattage of the lamp is obtained	—
	- lamp used.....	G9 6 x 28W	—
1.12 (12.3.2)	After endurance test:		P
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N
	- 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)		N
1.12 (12.6)	Thermal test (failed lamp control gear condition):		N
1.12 (12.6.1)	- case of abnormal conditions		—
	- electronic lamp control gear		N
	- measured winding temperature (°C) at 1,1 Un ..		—
	- measured mounting surface temperature (°C) at 1,1 Un		N
	- calculated mounting surface temperature (°C) ..		N
	- track-mounted luminaires		N
1.12 (12.6.2)	Temperature sensing control		N
	- case of abnormal conditions		—
	- thermal link		N
	- manual reset cut-out		N



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Cl.	Requirement – Test	Result - Remark	Verdict
	- auto reset cut-out		N
	- measured mounting surface temperature (°C) :		N
	- track-mounted luminaires		N
1.12 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		N
	- case of abnormal conditions		—
1.12 (12.7.1)	- measured winding temperature (°C) at 1,1 Un .:		—
	- measured temperature of fixing point/ exposed part (°C) at 1,1 Un		N
	- calculated temperature of fixing point/ exposed part (°C).....		N
1.12 (12.7.1.1)	- Test for luminaires incorporating ballast of fluorescent lamp with a lamp load < 70W		N
1.12 (12.7.1.2)	Test for luminaires in incorporating discharge lamps, fluorescent lamps(>70W), transformer of power > 10A		N
1.12 (12.7.1.3)	Test for luminaires with inherently short-circuit proof transformer of power <10A		N
1.12 (12.7.2)	Temperature sensing control		N
	- thermal link		N
	- manual reset cut-out		N
	- auto reset cut-out		N
	- measured temperature of fixing point/ exposed part (°C)		N
1.13 (9)	RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE		P
1.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		P
	- classification according to IP.....	IP20	—
	- mounting position during test.....	Acc. to user manual	—
	- fixing screws tightened; torque (Nm)	---	—
	- tests according to clauses.....	9.2.0	—
	- electric strength test afterwards		N
	a) no deposit in dust-proof luminaire		N
	b) no talcum in dust-tight luminaire		N
	c) no trace of water on current-carrying parts or where it could become a hazard		N
	d) i) For luminaires without drain holes – no water entry		N
	d) ii) For luminaires with drain holes – no hazardous water entry		N



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Cl.	Requirement – Test	Result - Remark	Verdict
	e) no water in watertight luminaire		N
	f) no contact with live parts (IP 2X)	IP20	P
	f) no entry into enclosure (IP 3X and IP 4X)		N
1.13 (9.3)	Humidity test 48 h	25°C, 93%	P

1.14 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		P
1.14 (10.2.1)	Insulation resistance test		P
	Insulation resistance (MΩ):		P
	SELV:		N
	- between current-carrying parts of different polarity		N
	- between current-carrying parts and mounting surface		N
	- between current-carrying parts and metal parts of the luminaire		N
	Between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts		N
	Insulating bushing as described in section 5		N
	Other than SELV:		P
	- between live parts of different polarity	>100MΩ	P
	- between live parts and mounting surface	>100MΩ	P
	- between live parts and metal parts	>100MΩ	P
	- between live parts of different polarity through action of a switch		N
	Between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	>100MΩ	P
	Insulating bushing as described in section 5		N
1.14 (10.2.2)	Electric strength test		P
	Dummy lamp		N
	Luminaires with ignitors after 24 h test		N
	Luminaires with manual ignitors		N
	Test voltage (V):		P
	SELV:		N
	- between current-carrying parts of different polarity		N



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Cl.	Requirement – Test	Result - Remark	Verdict
	- between current-carrying parts and mounting surface.....:		N
	- between current-carrying parts and metal parts of the luminaire.....:		N
	Between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts		N
	Insulating bushing as described in section 5		N
	Other than SELV:		P
	- between live parts of different polarity	1480V	P
	- between live parts and mounting surface	2960V	P
	- between live parts and metal parts	2960V	P
	- between live parts of different polarity through action of a switch.....:		N
	Between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	1480V	P
	Insulating bushing as described in section 5		N
1.14 (10.3)	Leakage current (mA)	<0.1mA	P
	Protective conductor current (mA)	Max. 0.05mA	P

1.15 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		P
1.15 (13.2.1)	Ball-pressure test:		P
	- part tested; temperature (°C)	Terminal block, 125°C, 1.1mm	P
	- part tested; temperature (°C)	Close-end connector, 125°C, 1.4mm	P
1.15 (13.3.1)	Needle flame test (10 s):		P
	- part tested	Terminal block	P
	- part tested	Close-end connector	P
1.15 (13.3.2)	Glow wire test (650 °C):		P
	- part tested	Close-end connector	P
1.15 (13.4.1)	Tracking test: part tested.....:		N



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Cl.	Requirement – Test	Result - Remark	Verdict

ANNEX 1: Components (all critical components should be approved)						P
object/part No.	Code	manufacturer/ trademark	Type/model	technical data	Standard	mark(s) of conformity
Terminal block	B	Shenzhen Green Way Electronics Co., Ltd.	MK1283	250V, Max. 1.5mm ² , T100	EN 60998-2-1	CE Cert. No.: V00704000 4-1
Alternative	D	Zhongshan Lianjin Metal & Electrical Appliances Co., Ltd.	EJE-2315	250VAC, 0.75-1.5mm ² , T100	EN 60998-1 EN 60998-2-1	VDE 40030009
G9 lampholder	A	Zhong Xin Electrical Appliances Manufacturing Co., Ltd.	ZX-128	250Vac, 2A, T250°C	EN 60838-1	VDE 40009784
Power cord	A	Guangzhou Tang Yao Wires Co. Ltd.	TY 1961 (7727)	Flexible FEP/PVC-cable, 2 x 18AWG, 180°C	--	VDE 40002707
Internal wire	B	Guangzhou Tang Yao Wires Co. Ltd.	TY1963	300/300 V; 0.5-0.75mm ² ; T180	DIN VDE 0250	VDE 40009954
Alternative	D	Dongguan Zhihe Electrical Cable Tech Co., Ltd.	(N)6YAF	FEP; 300/500 V; 0.5-0.75mm ² ; 180 °C	DIN VDE 0250 Teil 106	VDE 40017520
Alternative	D	Dongguan Qinda Wire Co.,Ltd.	(N)6YAR	450/750V; 0.5-0.75mm ² ; 180°C	VDE 0250	VDE 40028735
Earthing wire	B	Dong Guan Nistar Transmitting Technology Co. Inc.	H05V-K	1 x 0.75mm ² , 300/500V	VDE 0282-3	VDE 40009152
Alternative	D	Lucky United Electric Wire & Cable Co. Ltd.	H03VH7-H	0.75mm ² , 300/500V	VDE 0282-3	IMQ CA01.0013 3
Close-end connector	B	HEAVY POWER CO LTD	CE1, CE2	150°C	UL 486A-486B	UL E113650
Heatshrink tube	A	SHENZHEN WOLIDA TRADING CO LTD	RSFR-H	600V, 125°C	UL 224	UL E329530



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Cl.	Requirement – Test			Result - Remark		Verdict
Fiberglass sleeving	A	XIAN NING CITY HAI JIN YANG INSULATION MATERIAL CO LTD	SRG-868- 7AE, SRG- 868-IE	White color	UL 1441	UL E303665

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



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Cl.	Requirement – Test	Result - Remark	Verdict

ANNEX 2:	Temperature measurements, according to section 12 of IEC 60598-1						P	
	Type reference	P0762B					—	
	Lamp used.....	G9 6 x 28W					—	
	Lamp control gear used.....	--					—	
	Mounting position of luminaire.....	Pendant mounting					—	
	Supply wattage (W)	176.5					—	
	Supply current (A).....	0.753					—	
	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 6 x 28W=176.4W a. lampholder up towards b. lamp shine each other					—	
	- test 3: 1,06 times rated voltage or 1,05 times rated wattage	--					—	
	- test 4: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage....	--					—	
	- test 5: 1,1 times rated voltage or 1,05 times rated wattage	--					—	
temperature (C) of part		clause 12.4 – normal					clause 12.5 – abnormal	
	test 1	test 2	test 2	test 3	test 4	limits	test 5	Limit
		a.	b.					
Terminal block	--	26.9	27.2	--	--	For CL.13	--	--
Stressed power cord	--	26.7	26.5	--	--	165	--	--
Close-end connector	--	94.3	81.8	--	--	For CL.13	--	--
Internal wire to lampholder at a distance 10mm	--	118.6	106.7	--	--	180	--	--
Live part of lampholder	--	227.1	197.6	--	--	250	--	--
Lampholder rim	--	257.3	214.8	--	--	Ref.	--	--
Accessible enclosure	--	37.4	34.1	--	--	75	--	--
Accessible metal parts		43.0	43.3			60		
Mounting surface (flammable surface)		26.6	26.6			90		
Surface illuminated by lamp(0.1m)		32.3	34.4			90		



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Cl.	Requirement – Test	Result - Remark	Verdict

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

	ANNEX 4: SCREWLESS TERMINALS (PART OF THE LUMINAIRE)		N
(15)	SCREWLESS TERMINALS		N
(15.2)	Type of terminal.....:		—
	Rated current (A).....:		—
(15.3.1)	Material		N
(15.3.2)	Clamping		N
(15.3.3)	Stop		N
(15.3.4)	Unprepared conductors		N
(15.3.5)	Pressure on insulating material		N
(15.3.6)	Clear connection method		N
(15.3.7)	Clamping independently		N



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Cl.	Requirement – Test	Result - Remark	Verdict
(15.3.8)	Fixed in position		N
(15.3.10)	Conductor size		N
	Type of conductor		N
(15.5.1)	Terminals internal wiring		N
(15.5.1.1)	Pull test spring-type terminals		N
(15.5.1.2)	Pull test pin or tab terminals		N
	Insertion force not exceeding 50N		N
(15.5.2)	Permanent connections: pull-off test (20N)		N
(15.6)	Electrical tests		N

	Voltage drop (mV) after 1 (4 samples)..... :										N
	Voltage drop of two inseparable joints										N
	Number of cycles..... :										—
	Voltage drop (mV) after 10 th at. 25 th cycle (4samples)..... :										N
	Voltage drop (mV) after 50 th alt. 100 th cycle (4 samples)..... :										N
	After ageing, voltage drop (mV) after 10 th alt. 25 th cycle (4samples)..... :										N
	After ageing, voltage drop (mV) after 50 th alt. 100 th cycle (4 samples)..... :										N
(15.7)	Terminals external wiring										N
	Terminal size and rating										N
(15.8.1)	Pull test spring-type terminals (4 samples); pull (N)										N
	Pull test pin or tab terminals (4 samples); pull (N)										N
(15.9)	Contact resistance test										N
	Voltage drop (mV) after 1h										N
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Voltage drop of two inseparable joints										N
	Voltage drop after 10th alt. 25th cycle										N
	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
	Max. allowed voltage drop (mV)										—
terminal	1	2	3	4	5	6	7	8	9	10	



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Cl.	Requirement – Test					Result - Remark				Verdict

voltage drop (mV)										
	Continued ageing: voltage drop after 10th alt. 25th cycle									N
	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
	Max. allowed voltage drop (mV)									—
terminal	1	2	3	4	5	6	7	8	9	10
voltage drop (mV)										

ANNEX 5	National Differences for (country name) or Group Differences									P
	CENELEC COMMON MODIFICATIONS (EN)									P

1.5 (3)	MARKING									N
1.5 (3.3.101)	Adequate warning on the package									N

1.6 (4)	CONSTRUCTION									N
1.6 (4.11.6)	Electro-mechanical contact systems									N

1.10 (5)	EXTERNAL AND INTERNAL WIRING									P
1.10 (5.2.1)	Connecting leads									N
	- without a means for connection to the supply									N
	- terminal block specified									N
	- relevant information provided									N
	- compliance with 4.6, 4.7.1, 4.7.2, 4.10.1, 11.2, 12 and 13.2 of Part 1									N
1.10 (5.2.2)	Cables equal to HD21 S2 or HD22 S2									N

1.12 (12)	ENDURANCE TEST AND THERMAL TEST									P
1.12 (12.4.2c)	Thermal test (normal operation)									P

ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)									N
(3.3)	DK: power supply cord with label									N
	IT: warning label on Class 0 luminaire									N
(4.5.1)	DK: socket-outlets									N



EN 60598-2-1			
Cl.	Requirement – Test	Result - Remark	Verdict

(5.2.1)	CY, DK, FI, SE, GB: type of plug		N
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ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		N
(4 & 5)	FR: Shuttered socket-outlets 10/16A		N
(13.3)	FR: Glow-wire test 850°C alt. 750°C for luminaires in premises open to public or 960°C for luminaires in emergency exits		N
(13.3)	GB: Requirements according to United Kingdom Building Regulation		N

	EN 60598-1:2008 + A11:2009		P
	Replace the existing definition 1.2.76 with the following:		P
1.2.76	Impulse withstand category (former term “overvoltage categories”)		P
	Numeral defining a transient overvoltage condition		P
Note 1	Impulse withstand categories I, II, III and IV are used.		P
Note 2	Explanation is taken from IEC 60364-4-44:2007		P
	Table 1.1		P

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

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Photo Documentation

Reference No.: WTD14D0615291S

Model: P0762B



Photo 1

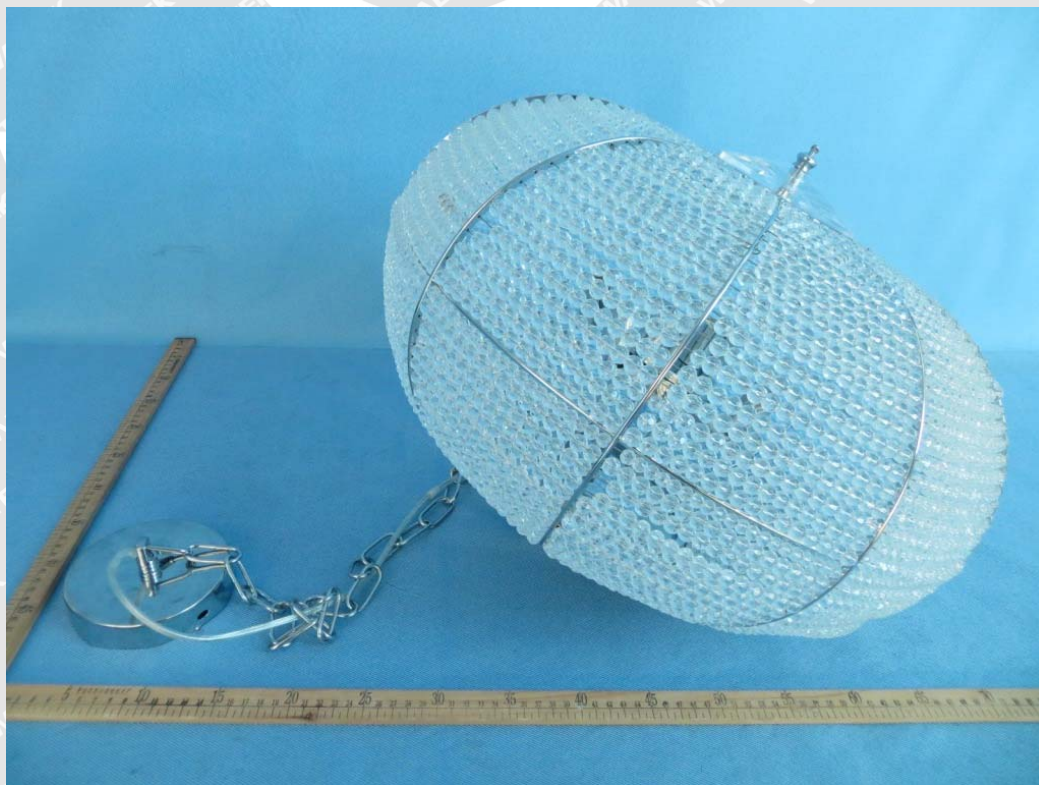


Photo 2



Photo Documentation

Reference No.: WTD14D0615291S

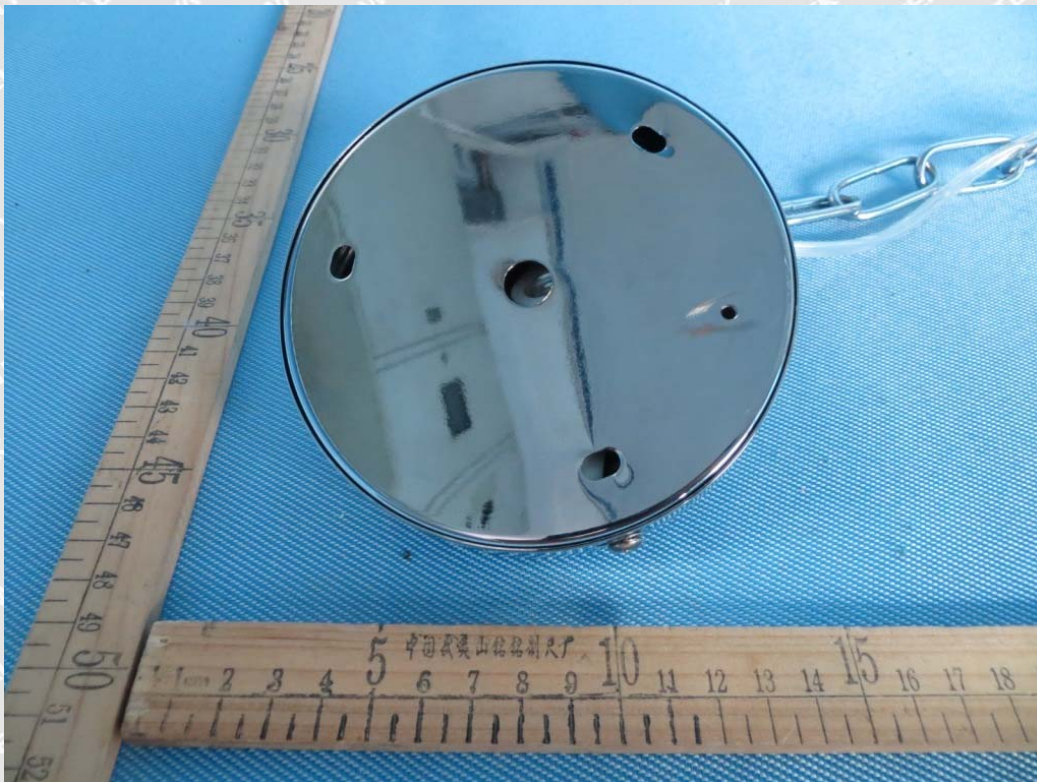


Photo 3

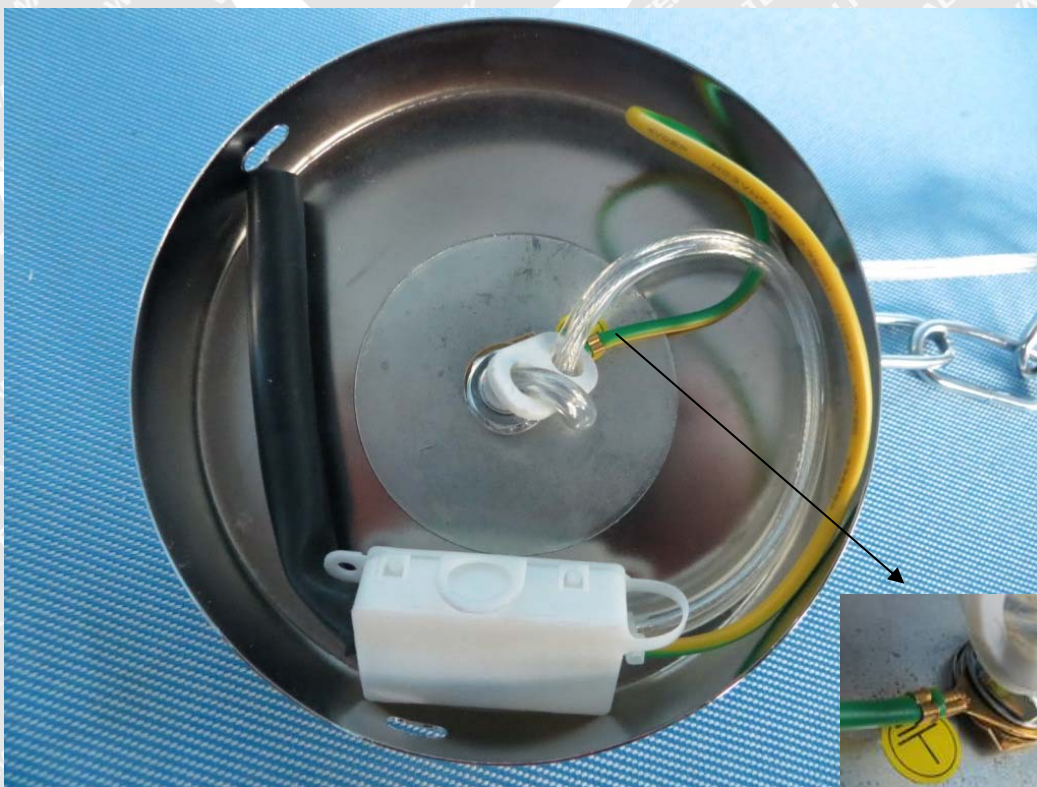


Photo 4



Photo Documentation

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Photo 5



Photo 6



Photo Documentation

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Photo 7



Photo 8



Photo Documentation

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Photo 9



Photo 10



Photo Documentation

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Photo 11

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