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Applicant's name	Goldful Lighting
Address	EM MACAU, RUA DE TOMAS VIEIRA NO.5EE, CHINA
Test specification:	
Standard	☒ IEC 60598-2-2:2023 used in conjunction with IEC 60598-1:2020 ☒ European Group Differences And National Differences
Test procedure	Type testing
Non-standard test method	N/A
TRF template used	IECEE OD-2020-F1:2022, Ed.1.5
Test Report Form No.	IEC60598_2_2H
Test Report Form(s) Originator	Intertek Semko AB
Master TRF	Dated 2023-02-21
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Test item description	LED PANEL LIGHT		
Trade Mark(s)	Goldful Lighting		
Manufacturer	Goldful Lighting		
Model/Type reference	EM MACAU, RUA DE TOMAS VIEIRA NO.5EE, CHINA GLPBK5-60120-60W, GLPK-X1-X2 X3, GLPO-X1-X2 X3, GLPS-X1-X2 X3, GLPDS-X1-X2 X3, GLPB-X1-X2 X3, GLPG6B-X1-X2 X3, GLPAF2-X1-X2 X3, GLPDP-X1-X2 X3, GLPP-X1-X2 X3, GLPAK-X1-X2 X3, GLPDE-X1-X2 X3, GLPTA-X1-X2 X3, GLPT2-X1-X2 X3, GLPT200-X1-X2 X3, GLPDF-X1-X2 X3, GLPDB-X1-X2 X3, GLPDD-X1-X2 X3, GLPDR-X1-X2 X3, GLPDR32-X1-X2 X3, GLPDG-X1-X2 X3, GLPW-X1-X2 X3, GLPEA-X1-X2 X3, GLPG6A-X1-X2 X3, GLP1-X1-X2 X3, GLP6-X1-X2 X3, GLP8-X1-X2 X3, GLP9-X1-X2 X3, GLP15B-X1-X2 X3, GLP18-X1-X2 X3, GLP34-X1-X2 X3, GLPBKX-X1-X2 X3, GLPBK2-X1-X2 X3, GLPBK3-X1-X2 X3, GLPBK5-X1-X2 X3, GLPBK8-X1-X2 X3, GLPBK22B-X1-X2 X3, GLPBK32-X1-X2 X3, GLP-X1-X2 X3, GLPBK-X1-X2 X3 X1=Nominal length, width X2=Power(7-240W) X3=Non-dimmable(blank)/Dimmable(D)/Power switch(PS)/High Lumen Output(HO)		
Ratings	220-240 V~, 50/60 Hz, 60 W, Class II, ta:40°C		
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):			
☒	CB Testing Laboratory:	Shenzhen AOCE Electronic Technology Service Co., Ltd	
Testing location/ address		Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China	
Tested by (name, function, signature)		ZhiCong Xian Technical Engineer	<i>ZhiCong Xian</i>
Approved by (name, function, signature) ..		Robin Liu Technical Manager	<i>Robin. Liu</i>
☐	Testing procedure: CTF Stage 1:	N/A	
Testing location/ address			
Tested by (name, function, signature)			
Approved by (name, function, signature) ..			
☐	Testing procedure: CTF Stage 2:	N/A	
Testing location/ address			
Tested by (name + signature)			
Witnessed by (name, function, signature) .			
Approved by (name, function, signature) ..			

☐	Testing procedure: CTF Stage 3:	N/A
☐	Testing procedure: CTF Stage 4:	N/A
Testing location/ address		
Tested by (name, function, signature)		
Witnessed by (name, function, signature) . :		
Approved by (name, function, signature) .. :		
Supervised by (name, function, signature) :		

List of Attachments (including a total number of pages in each attachment):**Attachment No.1:** European Group Differences And National Differences**Attachment No.2:** Clause 13 of EN IEC 62031**Attachment No.3:** IEC TR 62778**Attachment No.4:** Photo document.**Summary of testing:****Tests performed (name of test, test clause and date test performed):**

- EN 60598-2-2:2012
- EN IEC 60598-1:2024+A11:2024
- Clause 13 of EN IEC 62031:2020+A11:2021
- IEC TR 62778:2014
- EN 62471:2008
- EN IEC 62493:2015

Testing location: (CBTL, SPTL, CTF, Subcontractor)

Shenzhen AOCE Electronic Technology Service Co., Ltd
 Room 202, 2nd Floor, No.12th Building of Xinhe
 Tongfuyu Industrial Park, Fuhai Street, Baoan
 District, Shenzhen, Guangdong, China

Summary of compliance with National Differences (List of countries addressed):

European Group Differences And National Differences.

☒ **The product fulfils the requirements of EN 60598-2-2:2012 & EN IEC 60598-1:2024+A11:2024**
Use of uncertainty of measurement for decisions on conformity (decision rule) :

☒ No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").

☐ Other: ... (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)

Information on uncertainty of measurement:

The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE.

IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer.

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

Copy of marking plate:

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

Below label stick on the body:

**Remark:**

1. The marking of other models are identical with the marking of model GLPBK5-60120-60W, except model designation and rated power.
2. The above mark is the minimum requirements required by the safety standard. For the final production, the additional mark which do not give rise to misunderstanding may be added.
3. The size of marking 'Luminaires not suitable for covering with thermally insulating material' not less than 25mm each side.

Test item particulars..... :	
Classification of installation and use..... : Recessed Luminaire	
Supply Connection..... : Installation couplers	
Possible test case verdicts:	
- test case does not apply to the test object.....: N/A	
- test object does meet the requirement.....: P (Pass)	
- test object does not meet the requirement.....: F (Fail)	
Testing.....:	
Date of receipt of test item 2025-10-13	
Date (s) of performance of tests 2025-10-13 to 2025-10-31	
General remarks:	
"(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.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC60598-2:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided :	☐ Yes ☒ Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies) Same as manufacturer	

General product information:

1. Class II luminaires, LED light source
 2. All models have the same electrical and mechanical construction, only power and size are different.
- If no specify all testing are performed on model GLPBK5-60120-60W

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.4 (0)	GENERAL TEST REQUIREMENTS		—
2.4 (-)	Measurement of ambient temperature according to Annex A		—
2.4 (0.3)	More sections applicable	Yes ☐ No ☒ Section/s:	—
2.4 (0.5)	Components	(See Annex 1)	—
2.4 (0.7)	Information for luminaire design in light sources standards		—
2.4 (0.7.2)	Light source safety standard		—
	Luminaire design in the light source safety standard		P

2.5 (2)	CLASSIFICATION OF LUMINAIRES		—
2.5 (2.2)	Type of protection	Class II	P
2.5 (2.3)	Degree of protection		—
2.5 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces	Yes ☒ No ☐	—
2.5 (2.5)	Luminaire for normal use	Yes ☒ No ☐	—
	Luminaire for rough service	Yes ☐ No ☒	—

2.6 (3)	MARKING		—
2.6 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text		P
2.6 (3.3)	Additional information		P
	Language of instructions		P
2.6 (3.3.1)	Combination luminaires		N/A
2.6 (3.3.2)	Nominal frequency in Hz		P
2.6 (3.3.3)	Operating temperature		N/A
2.6 (3.3.5)	Wiring diagram		N/A
2.6 (3.3.6)	Special conditions		N/A
2.6 (3.3.7)	Metal halide lamp luminaire – warning		N/A
2.6 (3.3.8)	Limitation for semi-luminaires		N/A
2.6 (3.3.9)	Power factor and supply current		N/A
2.6 (3.3.10)	Suitability for use indoors		P

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.6 (3.3.11)	Luminaires with remote control		N/A
2.6 (3.3.12)	Clip-mounted luminaire – warning		N/A
2.6 (3.3.13)	Specifications of protective shields		N/A
2.6 (3.3.14)	Symbol for nature of supply	~	P
2.6 (3.3.15)	Rated current of socket outlet		N/A
2.6 (3.3.16)	Rough service luminaire		N/A
2.6 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments	Type Y	P
2.6 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
2.6 (3.3.19)	Protective conductor current in instruction if applicable		N/A
2.6 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
2.6 (3.3.21)	Non-replaceable and non-user replaceable light sources information provided	Non-user replaceable	P
2.6 (3.3.22)	Controllable luminaires, classification of insulation provided		P
2.6 (3.3.23)	Luminaire without control gear provided with necessary information for selection of appropriate component		N/A
2.6 (3.3.24)	If not supplied with terminal block, information on the packaging		N/A
2.6 (3.3.25)	Luminaires employing light sources emitting UV on mains wiring, information provided		N/A
2.6 (3.3.26)	Wall mounted luminaire using external flexible cable or cord longer than 0.3 m, information provided		N/A
2.6 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test		P
	Label attached		P
2.6.2 (-)	Luminaires with two IP ratings		N/A
2.6.3 (-)	Symbol “not suitable for direct mounting on normally flammable surface”, if applicable		N/A
2.6.4 (-)	Symbol “not suitable for covering with thermally insulated material”, if applicable		N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.7 (4)	CONSTRUCTION		—
2.7 (4.2)	Components replaceable without difficulty		P
2.7 (4.3)	Wireways smooth and free from sharp edges		P
2.7 (4.4)	Lamp holders		N/A
2.7 (4.4.1)	Integral lamp holder		N/A
2.7 (4.4.2)	Wiring connection		N/A
2.7 (4.4.3)	Lamp holder for end-to-end mounting		N/A
2.7 (4.4.4)	Positioning		N/A
	- pressure test (N)		—
	After test the lamp holder comply with relevant standard sheets and show no damage		N/A
	After test on single-capped lamp holder the lamp holder has not moved from its position and shows no permanent deformation		N/A
	- bending test (N)		—
	After test the lamp holder have not moved from its position and show no permanent deformation		N/A
2.7 (4.4.5)	Peak pulse voltage		N/A
2.7 (4.4.6)	Centre contact		N/A
2.7 (4.4.7)	Parts in rough service luminaires resistant to tracking		N/A
2.7 (4.4.8)	Lamp connectors		N/A
2.7 (4.4.9)	Caps and bases correctly used		N/A
2.7 (4.4.10)	Light source for lamp holder or connection according to IEC 60061 not connected another way		N/A
2.7 (4.5)	Starter holders		N/A
	Starter holder in luminaires other than class II		N/A
	Starter holder class II construction		N/A
2.7 (4.6)	Terminal blocks		N/A
	Tails		N/A
	Unsecured blocks		N/A
2.7 (4.7)	Terminals and supply connections		P
2.7 (4.7.1)	Contact to metal parts		N/A
2.7 (4.7.2)	Test 8 mm live conductor		N/A
	Test 8 mm earth conductor		N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.7 (4.7.3)	Terminals for supply conductors		P
2.7 (4.7.3.1)	Welded method and material		N/A
	- stranded or solid conductor		N/A
	- spot welding		N/A
	- welding between wires		N/A
	- Type Z attachment		N/A
	- mechanical test according to 15.6.2		N/A
	- electrical test according to 15.6.3		N/A
	- heat test according to 15.6.3.2.3 and 15.6.3.2.4		N/A
2.7 (4.7.4)	Terminals other than supply connection		N/A
2.7 (4.7.5)	Heat-resistant wiring/sleeves		N/A
2.7 (4.7.6)	Multi-pole plug		N/A
	- test at 30 N		N/A
2.7 (4.8)	Switches		P
	- adequate rating		P
	- adequate fixing		P
	- polarized supply		N/A
	- compliance with IEC 61058-1 for electronic switches		P
2.7 (4.9)	Insulating lining and sleeves		N/A
2.7 (4.9.1)	Retainment		N/A
	Method of fixing		N/A
2.7 (4.9.2)	Insulated linings and sleeves:		N/A
	Resistant to a temperature > 20 °C to the wire temperature or		N/A
	a) & c) Insulation resistance and electric strength		N/A
	b) Ageing test. Temperature (°C)		N/A
2.7 (4.10)	Double or reinforced insulation		P
2.7 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation		N/A
	Safe installation fixed luminaires		N/A
	Capacitors and switches		N/A
2.7 (4.10.2)	Assembly gaps:		N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	- not coincidental		N/A
	- no straight access with test probe		N/A
2.7 (4.10.3)	Retainment of insulation:		P
	- fixed		P
	- unable to be replaced; luminaire inoperative		P
	- sleeves retained in position		N/A
	- lining in lamp holder		N/A
2.7 (4.10.4)	Protective impedance device		N/A
	Basic and supplementary insulation bridged by resistor(s) or appropriate capacitor		N/A
	Double or reinforced insulation bridged by at least two separate resistors in series or appropriate capacitor(s)		N/A
	Capacitors comply with IEC 60384-14		N/A
	Resistors comply with test (a) in 14.2 of IEC 60065		N/A
2.7 (4.11)	Electrical connections and current-carrying parts		P
2.7 (4.11.1)	Contact pressure		P
2.7 (4.11.2)	Screws:		N/A
	- self-tapping screws		N/A
	- thread-cutting screws		N/A
2.7 (4.11.3)	Screw locking:		N/A
	- spring washer		N/A
	- rivets		N/A
2.7 (4.11.4)	Material of current-carrying parts		P
2.7 (4.11.5)	No contact to wood or mounting surface		P
2.7 (4.11.6)	Electro-mechanical contact systems		N/A
2.7 (4.12)	Screws and connections (mechanical) and glands		P
2.7 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		N/A
	Torque test: torque (Nm); part.....:	Screw for fix cord anchorage: 0.6Nm	P
	Torque test: torque (Nm); part.....:	Screw for fix metal enclosure: 0.6Nm	P

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	Torque test: torque (Nm); part.....:	Screw for fix CCT switch: 0.5Nm	P
2.7 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
2.7 (4.12.4)	Locked connections:		N/A
	- fixed arms; torque (Nm).....:		N/A
	- lamp holder; torque (Nm)		N/A
	- push-button switches; torque 0,8 Nm.....:		N/A
2.7 (4.12.5)	Screwed glands; force (Nm)		N/A
2.7 (4.13)	Mechanical strength		P
2.7 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm)		N/A
	- other parts; energy (Nm)	0.35 Nm	P
	1) live parts		P
	2) linings		N/A
	3) protection		P
	4) covers		P
2.7 (4.13.2)	Metal parts have adequate mechanical strength		P
2.7 (4.13.3)	Straight test finger		P
2.7 (4.13.4)	Rough service luminaires		N/A
	- IP54 or higher		N/A
	a) fixed		N/A
	b) hand-held		N/A
	c) delivered with a stand		N/A
	d) for temporary installations and suitable for mounting on a stand		N/A
2.7 (4.13.6)	Tumbling barrel		N/A
2.7 (4.14)	Suspensions, fixings and means of adjusting		P
2.7 (4.14.1)	Mechanical load:		P
	A) four times the weight		P
	B) torque 2,5 Nm		N/A
	C) bracket arm; bending moment (Nm).....:		N/A
	D) load track-mounted luminaires		N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	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
2.7 (4.14.2)	Load to flexible cables		N/A
	Mass (kg)		—
	Stress in conductors (N/mm ²)		N/A
	Mass (kg) of semi-luminaire		N/A
	Bending moment (Nm) of semi-luminaire		N/A
2.7 (4.14.3)	Adjusting devices:		N/A
	- flexing test; number of cycles		N/A
	- strands broken.....		N/A
	- electric strength test afterwards		N/A
2.7 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
2.7 (4.14.5)	Guide pulleys		N/A
2.7 (4.14.6)	Strain on socket-outlets		N/A
2.7 (4.15)	Flammable materials		P
	- glow-wire test 650°C	See Test Table 2.16 (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
2.7 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		N/A
	a) construction		N/A
	b) temperature sensing control		N/A
	c) surface temperature		N/A
2.7 (4.16)	Luminaires for mounting on normally flammable surfaces		P
	No lamp control gear	(Compliance with Section 12)	N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	Provided with adaptor for a track meet the requirements for direct mounting on normally flammable surfaces		N/A
2.7 (4.16.1)	Lamp control gear spacing:		N/A
	- spacing 35 mm		N/A
	- spacing 10 mm		N/A
2.7 (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
2.7 (4.16.3)	Design to satisfy the test of 12.6	(See clause 12.6)	N/A
2.7 (4.17)	Drain holes		N/A
	Clearance at least 5 mm		N/A
2.7 (4.18)	Resistance to corrosion		N/A
2.7 (4.18.1)	- rust-resistance		N/A
2.7 (4.18.2)	- season cracking in copper		N/A
2.7 (4.18.3)	- corrosion of aluminium		N/A
2.7 (4.19)	Ignitors compatible with ballast		N/A
2.7 (4.20)	Rough service vibration		N/A
2.7 (4.21)	Protective shield		N/A
2.7 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps		N/A
	Shield of glass if tungsten halogen lamps		N/A
2.7 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
2.7 (4.21.3)	No direct path		N/A
2.7 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment.....:	See Test Table 2.16 (13.3.2)	N/A
2.7 (4.22)	Attachments to lamps not cause overheating or damage		N/A
2.7 (4.23)	Semi-luminaires comply Class II		N/A
*2.7 (4.24)	Photobiological hazards		P
2.7 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.7 (4.24.2)	Retinal blue light hazard		P
	Class of risk group assessed according to IEC/TR 62778	RG1	—
	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
2.7 (4.25)	Mechanical hazard		P
	No sharp point or edges		P
2.7 (4.26)	Short-circuit protection		N/A
2.7 (4.26.1)	Adequate means of uninsulated accessible SELV or PELV parts		N/A
2.7 (4.26.2)	Short-circuit test with test chain according 4.26.3		N/A
	Test chain not melt through		N/A
	Test sample not exceed values of Table 12.1 and 12.2		N/A
2.7 (4.27)	Terminal blocks with integrated screwless earthing contacts		N/A
	Test according Annex V		N/A
	Pull test of terminal fixing (20 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Pull test of mechanical connection (50 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Voltage drop test, resistance < 0,05 Ω		N/A
2.7 (4.28)	Fixing of thermal sensing control		N/A
	Not plug-in or easily replaceable type		N/A
	Reliably kept in position		N/A
	No adhesive fixing if UV radiations from a lamp can degrade the fixing		N/A
	Not outside the luminaire enclosure		N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	Test of adhesive fixing:		N/A
	Max. temperature on adhesive material (°C):		—
	100 cycles between t min and t max		N/A
	Temperature sensing control still in position		N/A
2.7 (4.29)	Luminaires with non-replaceable light source		N/A
	Not possible to replace light source		N/A
	Live part not accessible after parts have been opened by hand or tools		N/A
2.7 (4.30)	Luminaires with non-user replaceable light source		P
	If protective cover provide protection against electric shock and marked with “caution, electric shock risk” symbol:		N/A
	One fixing means requiring the use of a tool for its removal		P
2.7 (4.31)	Insulation between circuits		P
	Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3		P
	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		P
2.7 (4.31.1)	SELV or PELV circuits		P
	Used SELV or PELV source		P
	Voltage ≤ ELV		P
	PELV circuit shall have one pole connected to functional earth		N/A
	The connection between PELV and earth shall comply with functional earth		N/A
	Insulating of SELV or PELV circuits from LV supply		P
	Insulating of SELV or PELV circuits from other non SELV circuits		N/A
	Insulating of SELV or PELV circuits from FELV		P
	Insulating of SELV or PELV circuits from other SELV or PELV circuits		N/A
	SELV or PELV circuits insulated from accessible parts according Table X.1		P
	Plugs not able to make any electrical contact socket-outlets of other voltage systems		N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	Socket outlets does not admit plugs of other voltage systems		N/A
	Plugs and socket-outlets does not have protective conductor contact		N/A
2.7 (4.31.2)	FELV circuits		P
	Used FELV source		P
	Voltage $\leq$ ELV		P
	Insulating of FELV circuits from LV supply		P
	FELV circuits insulated from accessible parts according Table X.1		P
	Plugs not able to make any electrical contact socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Socket-outlets does not have protective conductor contact		N/A
2.7 (4.31.3)	Other circuits		N/A
	Other circuits insulated from accessible parts according Table X.1		N/A
	Class II construction with equipotential bonding for protection against indirect contacts with live parts:		N/A
	- conductive parts are connected together		N/A
	- test according 7.2.3		N/A
	- conductive part not cause an electric shock in case of an insulation fault		N/A
	- equipotential bonding in master/slave applications		N/A
	- master luminaire provided with terminal for accessible conductive parts of slave luminaires		N/A
	- slave luminaire constructed as class I		N/A
2.7 (4.32)	Overvoltage protective devices		N/A
	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
2.7(4.33)	Luminaire powered via information technology communication cabling		N/A
	Luminaire shall fulfil the requirement for Class III		N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	Rated voltage of luminaire shall be within range of ES1, not exceed maximum voltage rated to used connector		N/A
	The luminaire shall be designed in line with the limits of the electrical parameters of a PSE.		N/A
	No hazard with 130% rated input voltage minimum 7.5VDC for circuit greater than 5VDC		N/A
	No hazard with 150% rated input voltage for circuit equal to or less than 5VDC		N/A
2.7(4.34)	Electromagnetic field (EMF)		P
	Compliance to IEC 62493:2015		P
2.7(4.35)	Protection against moving fan blades		N/A
	Fan blades not accessible when installed and wired as in normal use and replacing light sources or components		N/A
	This test is not necessary for fans have leading edges and tips rounded with a radius of not less than 0,5mm and:		N/A
	Hardness less than D60 Shore, or		N/A
	Peripheral speed less than 15m/s supplied with rated voltage, or		N/A
	Fan has input power not exceeding 2W supplied with rated voltage.		N/A
2.7(4.36)	Track-mounted luminaires		N/A
	Tested according to Annex A of IEC 60570		N/A

2.8 (11)	CREEPAGE DISTANCES AND CLEARANCES		—
2.8 (11.2.1)	Impulse withstand category (Normal category II)	Category II ☒ Category III ☐	—
	Category III according to Annex U		N/A
	Protected against pollution, reduced creepage and clearance according Annex P of IEC 61347-1		N/A
2.8 (11.2.2)	Creepage distances for frequency up to 30 kHz	See Test Table 2.8 (11.2) I	P
	Creepage distances for frequency over 30 kHz:		N/A
	- Control gear marked with $\hat{U}_{OUT}$ and f_{UOUT} according to IEC 61347-1, clause 7.1, item w	See Test Table 2.8 (11.2) II	N/A
	- Requirements according to IEC 60664-4 for control gear not covered by IEC 61347	See Test Table 2.8 (11.2) II	N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.8 (11.2.3)	Clearances for frequency up to 30 kHz	See Test Table 2.8 (11.2) I	P
	Clearances distances for frequency over 30 kHz:		N/A
	- Control gear marked with U_P	See Test Table 2.8 (11.2) II	N/A
	- Requirements according to IEC 60664-4 for control gear not covered by IEC 61347	See Test Table 2.8 (11.2) II	N/A

2.9 (7)	PROVISION FOR EARTHING		—
2.9 (7.2.1 + 7.2.3)	Accessible metal parts		N/A
	Metal parts in contact with supporting surface		N/A
	Resistance $< 0,5 \Omega$		N/A
	Self-tapping screws used		N/A
	Thread-forming screws		N/A
	Thread-forming screw used in a groove		N/A
	Earth makes contact first		N/A
	Terminal blocks with integrated screwless earthing contacts tested according to Annex V		N/A
	Protective earthing of the luminaire not via built-in control gear		N/A
2.9 (7.2.2 + 7.2.3)	Earth continuity in joints, etc.		N/A
2.9 (7.2.4)	Locking of clamping means		N/A
	Compliance with 4.7.3		N/A
	Terminal blocks with integrated screwless earthing contacts tested according to Annex V		N/A
2.9 (7.2.5)	Earth terminal integral part of connector socket		N/A
2.9 (7.2.6)	Earth terminal adjacent to mains terminals		N/A
2.9 (7.2.7)	Electrolytic corrosion of the earth terminal		N/A
2.9 (7.2.8)	Material of earth terminal		N/A
	Contact surface bare metal		N/A
2.9 (7.2.10)	Class II luminaire for looping-in		N/A
	Double or reinforced insulation to functional earth		N/A
2.9 (7.2.11)	Earthing core coloured green-yellow		N/A
	Length of earth conductor		N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.9 (7.2.12)	PELV circuit connected to protective earth for functional purpose		N/A

2.10 (14)	SCREW TERMINALS		—
	Separately approved; component list	(See Annex 1)	N/A
	Part of the luminaire	(See Annex 3)	N/A

2.10 (15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		—
	Separately approved; component list	(See Annex 1)	N/A
	Part of the luminaire	(See Annex 4)	N/A

2.11 (5)	EXTERNAL AND INTERNAL WIRING		—
2.11 (5.2)	Supply connection and external wiring		P
2.11 (5.2.1)	Means of connection	Installation couplers	P
	Outdoor luminaire has not PVC insulated external wiring if not class III or SELV ≤ 25 V a.c./60 V d.c./25V peak interrupted DC voltage with frequency between 10Hz and 200Hz or protected from outdoor environment		N/A
2.11 (5.2.2)	Type of cable		P
	Nominal cross-sectional area (mm ²)		P
	Cables equal to IEC 60227 or IEC 60245		P
2.11 (5.2.3)	Type of attachment, X, Y or Z	Type Y	P
2.11 (5.2.5)	Type Z not connected to screws		N/A
2.11 (5.2.6)	Cable entries:		P
	- suitable for introduction		P
	- adequate degree of protection		P
2.11 (5.2.7)	Cable entries through rigid material have rounded edges		N/A
2.11 (5.2.8)	Insulating bushings:		N/A
	- suitably fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- tubes or guards made of insulating material		N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.11 (5.2.9)	Locking of screwed bushings		N/A
2.11 (5.2.10)	Cord anchorage:		P
	- covering protected from abrasion		P
	- clear how to be effective		P
	- no mechanical or thermal stress		P
	- no tying of cables into knots etc.		P
	- insulating material or lining		P
2.11 (5.2.10.1)	Cord anchorage for type X attachment:		N/A
	a) at least one part fixed		N/A
	b) types of cable		N/A
	c) no damaging of the cable		N/A
	d) whole cable can be mounted		N/A
	e) no touching of clamping screws		N/A
	f) metal screw not directly on cable		N/A
	g) replacement without special tool		N/A
	Glands not used as anchorage		N/A
	Labyrinth type anchorages		N/A
2.11 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment		P
2.11 (5.2.10.3)	Tests:		P
	- impossible to push cable; unsafe		P
	- pull test: 25 times; pull (N).....:		P
	- torque test: torque (Nm)		P
	- displacement ≤ 2 mm		P
	- no movement of conductors		P
	- no damage of cable or cord		P
	- function independent of electrical connection		P
2.11 (5.2.10.4)	Exemption from cord anchorage test in 5.2.10.3 if maximum current 2A, including short circuit current.		N/A
	Prior to the operation of an overcurrent limiting device and the following conditions and test requirements are met		N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	Ordinary SELV Class III luminaire at voltage not exceeding 25Vrms or 60VDC		N/A
	Ordinary PELV Class III luminaire at voltage not exceeding 12Vrms or 30VDC		N/A
	Other than ordinary Class III luminaire at voltage not exceeding 12Vrms or 30VDC		N/A
	Pull test 30N for 1min		N/A
2.11 (5.2.11)	External wiring passing into luminaire		P
2.11 (5.2.12)	Looping-in terminals		N/A
2.11 (5.2.13)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
2.11 (5.2.14)	Mains plug same protection		N/A
	Class III luminaire plug		N/A
	No unsafe compatibility		N/A
2.11 (5.2.15)	Connectors for Class III luminaires (IEC 60603 or IEC 62680)		N/A
2.11 (5.2.16)	Appliance inlets (IEC 60320)		N/A
	Installation couplers (IEC 61535)		N/A
	For appliance inlet or connector systems according to IEC 61984, additional requirements apply:		N/A
	a) Polarization		N/A
	b) Protection against electric shock		N/A
	c) Mechanical locking		N/A
	d) Early contact making		N/A
	e) Protection against short circuit poles		N/A
	f) Cable Clamp		N/A
2.11 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
2.11 (5.2.18)	Used plug in accordance with		N/A
	- IEC 60083		N/A
	- other standard		N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.11 (5.3)	Internal wiring		P
2.11 (5.3.1)	Internal wiring of suitable size and type		P
	Through wiring		N/A
	- not delivered/ mounting instruction		N/A
	- factory assembled		N/A
	- socket outlet loaded (A)..... :		N/A
	- temperatures : (See Annex 2)		N/A
	Green-yellow for earth only		N/A
2.11 (5.3.1.1)	Internal wiring connected directly to fixed wiring		N/A
	Cross-sectional area (mm ²) :		N/A
	Insulation thickness (mm) :		N/A
	Extra insulation added where necessary		N/A
2.11 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		P
	Cross-sectional area (mm ²) :		P
2.11 (5.3.1.3)	Double or reinforced insulation for class II		N/A
2.11 (5.3.1.4)	Conductors without insulation		N/A
2.11 (5.3.1.5)	SELV current-carrying parts		P
2.11 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A
2.11 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		N/A
	Joints, raising/lowering devices		N/A
	Telescopic tubes etc.		N/A
	No twisting over 360°		P
2.11 (5.3.3)	Insulating bushings:		N/A
	- suitable fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- cables with protective sheath		N/A
2.11 (5.3.4)	Joints and junctions effectively insulated		N/A

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IEC60598_2_2H

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.11 (5.3.5)	Strain on internal wiring		N/A
2.11 (5.3.6)	Wire carriers		N/A
2.11 (5.3.7)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
2.11 (5.4)	Test to determine suitability of conductors having a reduced cross-sectional area		N/A
	Under test the temperature of the luminaire wiring insulation not exceed the limits stated in Table 12.2	(See Annex 2)	N/A
	No damage to luminaire wiring after test		N/A

2.12 (8)	PROTECTION AGAINST ELECTRIC SHOCK		—
2.12 (8.2.1)	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		P
	Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires		N/A
	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires		P
	Lamp and starter holders 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
2.12 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N/A
2.12 (8.2.3.a)	Class II luminaire:		P
	- basic insulated metal parts not accessible during starter or lamp replacement		P

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	- basic insulation not accessible other than during starter or lamp replacement		N/A
	- glass protective shields not used as supplementary insulation		N/A
2.12 (8.2.3.b)	BC lamp holder of metal in class I luminaires shall be earthed		N/A
2.12 (8.2.3.c)	SELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- voltage under load (V)		N/A
	- no-load voltage (V)		N/A
	- touch current if applicable (mA)		N/A
	One conductive part insulated if required		N/A
	Other than ordinary luminaire:		N/A
	- nominal voltage (V)		N/A
	Class III luminaire only for connection to SELV		N/A
	Class III luminaire not provided with means for protective earthing		N/A
2.12 (8.2.3.d)	PELV circuit may have exposed current carrying parts under the following conditions:		N/A
	For ordinary luminaires voltage not exceed 12 VRMS or 30VDC (under load and no load)		N/A
	For other than ordinary, voltage nor exceed 12 VRMS or 30VDC (under load and no load)		N/A
	If voltage exceed, only the earthed pole may be accessible, other pole shall be insulated accordance with 10.2.2		N/A
	Class III luminaires are accepted by connection to SELV source or PELV source		N/A
2.12 (8.2.4)	Portable luminaire has protection independent of supporting surface		N/A
2.12 (8.2.5)	Compliance with the standard test finger or relevant probe		P
2.12 (8.2.6)	Covers reliably secured		P
2.12 (8.2.7)	Luminaire other than below with capacitor > 0,5 μ F not exceed 50 V 1 min after disconnection	0 V	P
	Portable luminaire with capacitor > 0,1 μ F (0.25) not exceed 34 V 1 s after disconnection		N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	Other luminaires with capacitor > 0,1 µF (0.25) with plug and track adaptors not exceed 60 V 5 s after disconnection		N/A
2.12 (-)	Parts within ceiling space provide same degree of protection against electric shock as parts below ceiling space		P

2.13 (12)	ENDURANCE TEST AND THERMAL TEST		—
2.13.1 (-)	If IP > IP 20 relevant test of (12.4), (12.5), (12.6) and (12.7) after (9.2) before (9.3) specified in 2.14		—
2.13.2 (-)	Luminaire mounted and tested according to Annex B		—
2.13 (12.2)	Selection of lamps and ballasts		—
	Lamp used according to Annex B	(Lamp used see Annex 2)	—
	Control gear if separate and not supplied	(Control gear used see Annex 2)	—
2.13 (12.3)	Endurance test		P
	a) mounting-position	Recessed mounting	—
	b) test temperature (°C).....	50 °C	—
	c) total duration (h)	240 h	—
	d) supply voltage (V).....	1.1×240 V	—
	d) if not equipped with control gear, constant voltage/current (V) or (A)		—
	e) luminaire ceases to operate		—
2.13 (12.3.2)	After endurance test:		P
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N/A
	- marking legible		P
	- no cracks, deformation etc.		P
2.13 (12.4)	Thermal test (normal operation)	(See Annex 2)	P
2.13 (12.5)	Thermal test (abnormal operation)	(See Annex 2)	N/A
2.13 (12.6)	Thermal test (failed lamp control gear condition):		N/A
2.13 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A)		—

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	- case of abnormal conditions		—
	- electronic lamp control gear		N/A
	- measured winding temperature (°C): at 1,1 Un		—
	- measured mounting surface temperature (°C) at 1,1 Un		N/A
	- calculated mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
2.13 (12.6.2)	Temperature sensing control		N/A
	- case of abnormal conditions		—
	- thermal link		N/A
	- manual reset cut-out		N/A
	- auto reset cut-out		N/A
	- measured mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
2.13 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		N/A
2.13 (12.7.1)	Luminaire without temperature sensing control		N/A
2.13 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		N/A
	Test method 12.7.1.1 or Annex W		—
	Test according to 12.7.1.1:		N/A
	- case of abnormal conditions		—
	- 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 Test Table 2.16 (13.2.1)	N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
2.13 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		N/A
	- case of abnormal conditions		—
	- measured winding temperature (°C): at 1,1 Un		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un.....		—
	- calculated temperature of fixing point/exposed part (°C)		—
	Ball-pressure test.....	See Test Table 2.16 (13.2.1)	N/A
2.13 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA		N/A
	- case of abnormal conditions		—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
2.13 (12.7.2)	Luminaire with temperature sensing control		N/A
	- thermal link	Yes ☐ No ☐	—
	- manual reset cut-out.....	Yes ☐ No ☐	—
	- auto reset cut-out	Yes ☐ No ☐	—
	- case of abnormal conditions		—
	- highest measured temperature of fixing point/exposed part (°C):		—
	Ball-pressure test:.....	See Test Table 2.16 (13.2.1)	N/A
2.13.3 (-)	Wiring, for connection to the supply, not reach unsafe temperature		N/A
	- measured temperature of the cable (°C)		N/A
2.13. 4(-)	Test for air-handling luminaires under static operating conditions:		N/A
	-Normal operation		N/A
	-Abnormal operation		N/A

2.14 (9)	RESISTANCE TO DUST AND MOISTURE	—
2.14 (-)	If IP > IP 20 the order of tests as specified in clause 2.13	P
2.14 (9.2)	Tests for ingress of dust, solid objects and moisture:	P
	- classification according to IP	IP 50
	- mounting position during test	Normal mounting

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	- fixing screws tightened; torque (Nm).....:		—
	- tests according to clauses		—
	- electric strength test afterwards		P
	a) no deposit in dust-proof luminaire		P
	b) no talcum in dust-tight luminaire		N/A
	c) no trace of water on current-carrying parts or on insulation where it could become a hazard		N/A
	c.1) For luminaires without drain holes – no water entry		N/A
	c.2) For luminaires with drain holes – no hazardous water entry		N/A
	d) no water in watertight or pressure watertight luminaire or high pressure and temperature water jet-proof luminaire or high pressure and cold water jet-proof luminaire		N/A
	e) no contact with live parts (IP 2X)		N/A
	e) no entry into enclosure (IP 3X and IP 4X)		N/A
	e) no contact with live parts through drain holes and ventilation slots (IP3X and IP4X)		N/A
	f) no trace of water on part of lamp requiring protection from splashing water		N/A
	g) no damage of protective shield or glass envelope		N/A
2.14 (9.3)	Humidity test 48 h	25°C, 93%RH	P

2.15 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		—
2.15 (10.2.1)	Insulation resistance test		P
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø		—
	Insulation resistance (MΩ).....:		—
	SELV/PELV		P
	- between current-carrying parts of different polarity :	>100 MΩ	P
	- between current-carrying parts and mounting surface	>100 MΩ	P
	- between current-carrying parts and metal parts of the luminaire	>100 MΩ	P

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	- 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/PELV		P
	- between live parts of different polarity.....	>100 MΩ	P
	- between live parts and mounting surface.....	>100 MΩ	P
	- between live parts and metal parts	>100 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		N/A
	- Insulation bushings as described in Section 5		N/A
2.15 (10.2.2)	Electric strength test		P
	Dummy lamp		N/A
	Luminaires with ignitors after 24 h test		N/A
	Luminaires with manual ignitors		N/A
	Test voltage (V)		N/A
	SELV/PELV		P
	- between current-carrying parts of different polarity:	500 V	P
	- between current-carrying parts and mounting surface	500 V	P
	- between current-carrying parts and metal parts of the luminaire	500 V	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts		N/A
	- Insulation bushings as described in Section 5		N/A
	Other than SELV/PELV		P
	- between live parts of different polarity.....	1480 V	P
	- between live parts and mounting surface.....	2960 V	P
	- between live parts and metal parts	2960 V	P
	- between live parts of different polarity through action of a switch		N/A

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
	- 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
2.15 (10.3)	Touch current or protective conductor current (mA):	Touch current: 0.01mA	P

2.16 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		—
2.16 (13.2.1)	Ball-pressure test.....	See Test Table 2.16 (13.2.1)	P
2.16 (13.3.1)	Needle-flame test (10 s)	See Test Table 2.16 (13.3.1)	P
2.16 (13.3.2)	Glow-wire test (650°C)	See Test Table 2.16 (13.3.2)	P
2.16 (13.4)	Proof tracking test (IEC 60112)	See Test Table 2.16 (13.4)	N/A

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

2.8 (11.2)	TABLE I: Creepage distances and clearances						P
	Minimum distances (mm) for a.c. up to 30 kHz sinusoidal voltages						P
	Applicable part of IEC 60598-1 Table 11.1.A*, 11.1.B* and 11.2*						P
	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:	B	>1.95	1.5	11.1.B	>3.25	2.5	11.1.A
Working voltage (V)					240 V		—
PTI					< 600 ☒ ≥ 600 ☐		—
Pulse voltage or U_P if applicable (kV)					-		—
Supplementary information: Between L and N							
Distance 2:	R	>3.9	3.0	11.1.B	>6.5	5.0	11.1.A
Working voltage (V)					240 V		—
PTI					< 600 ☒ ≥ 600 ☐		—
Pulse voltage or U_P if applicable (kV)					-		—
Supplementary information: Between live part and accessible part							
Distance 3:	R	>3.9	3.0	11.1.B	>6.5	5.0	11.1.A
Working voltage (V)					240 V		—
PTI					< 600 ☒ ≥ 600 ☐		—
Pulse voltage or U_P if applicable (kV)					-		—
Supplementary information: Between live part and mounting surface							

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

2.8 (11.2)	TABLE II: Creepage distances and clearances						N/A
	Minimum distances (mm) for a.c. higher than 30 kHz sinusoidal voltages						
	Applicable part of IEC 61347-1 Table 7 and 8* or IEC 60664-4 Table 1 and 2						
Distances	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:							
Working voltage (V)							—
Frequency if applicable (kHz)							—
PTI					< 600 ☐ ≥ 600 ☐		—

IEC 60598-2-2							
Clause	Requirement + Test				Result - Remark		Verdict
Peak value of the working voltage $\hat{U}_{out}$ if applicable (kV)							—
Supplementary information:							
Distance 2:							
Working voltage (V)							—
Frequency if applicable (kHz)							—
PTI					< 600 ☐ $\geq$ 600 ☐		—
Peak value of the working voltage $\hat{U}_{out}$ if applicable (kV)							—
Supplementary information:							
Distance 3:							
Working voltage (V)							—
Frequency if applicable (kHz)							—
PTI					< 600 ☐ $\geq$ 600 ☐		—
Peak value of the working voltage $\hat{U}_{out}$ if applicable (kV)							—
Supplementary information:							

** Insulation type: B – Basic; S – Supplementary; R – Reinforced.

2.16 (13.2.1)	TABLE: Ball Pressure Test of Thermoplastics			P
Allowed impression diameter (mm)		2		—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
DC connector	See Annex 1	75	0.8	
Plastic enclosure of CCT Switch	See Annex 1	75	0.7	
PCB of CCT Switch	See Annex 1	125	0.7	
Supplementary information:				

IEC 60598-2-2					
Clause	Requirement + Test			Result - Remark	Verdict
2.16 (13.3.1)	TABLE: Needle-flame test (IEC 60695-11-5)				P
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
DC Connector	See Annex 1	10	No	0	P
PCB of CCT Switch	See Annex 1	10	No	0	P
Supplementary information:					

2.16 (13.3.2)	TABLE: Resistance to heat and fire - Glow wire tests				P
Object/ Part No./ Material	Manufacturer/ trademark	GWT (°C): 650			Verdict
		t_E (s)	t_I (s)	t_R (s)	
LED cover	See Annex 1	0	0	P	pass
Plastic enclosure of CCT Switch	See Annex 1	0	0	P	pass
Ignition of the specified layer placed underneath the test specimen (Yes/No)					No
Supplementary information:					

2.16 (13.4)	TABLE: Proof tracking test (IEC 60112)				N/A
Test voltage PTI		175 V			—
Object/ Part No./ Material	Manufacturer/ trademark	Withstand 50 drops without failure on three places or on three specimens			Verdict
Supplementary information:					

ANNEX 1	TABLE: Critical components information						P
Object / part No.	Co de	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾	

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED cover	B	CHI MEI CORPORATION	PG-33	HB, 50°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E56070 Tested with appliance
Plastic enclosure of receiver	B	TEIJIN LIMITED RESIN AND PLASTIC	LN-2525U(#)(f1), LN-2525V(#)(f1), LN-2525Z(#)(f1)	V-0, 115 C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E50075 Tested with appliance
DC connector	B	Shenzhen Mianjiang Industrial Co.Ltd..	5521	230 1A	IEC/EN 60598-1 IEC/EN 60598-2-2	Tested with appliance
Alternative	B	Shiqing Electronics (Huizhou) Co., Ltd.	5521(2P-1.5A / 2P-1.5B)	50V 3A	IEC/EN 60598-1 IEC/EN 60598-2-2	Tested with appliance
Alternative	B	SHENZHEN XING XIANG RUI ELECTRONIC CO., LTD	5521(2P-1.5A / 2P-1.5B)	50V 3A	IEC/EN 60598-1 IEC/EN 60598-2-2	Tested with appliance
Alternative	B	Hui Zhou Zhong Xun Tong Industrial Co.,Ltd.	5521(2P-1.5A / 2P-1.5B)	50V 3A	IEC/EN 60598-1 IEC/EN 60598-2-2	Tested with appliance
LED PCB	B	WODE ELECTRONICS TECHNOLOGY(ZHUHAI)CO., LTD.	WD-16	V-0; 130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E323980 Tested with appliance
Alternative	D	Guangdong Jida Circuit Technology Co Ltd	JYD-L	V-0; 90°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E345177 Tested with appliance

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
Alternative	D	DONGGUAN QINGKANG ELECTRONICS CO LTD	LQK-001	V-0; 90°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E359435 Tested with appliance
Alternative	D	JUCHUANG OPTOELECTRONIC CO LTD	JC-1	V-0; 90°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E503117 Tested with appliance
Alternative	D	JIANGXI HONG YU ELECTRONIC CO LTD	HY-6	V-0; 130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E309772 Tested with appliance
Alternative	D	FOSHAN SHUNDE TONGYU ELECTRONICS CO LTD	TY-6	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E337729 Tested with appliance
Alternative	D	LIANMENG ELECTRONICS HUIYANG CO LTD	LM-6	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E469262 Tested with appliance
Alternative	D	Hunan Huapuxing Photoelectric Co Ltd	HPX-L	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E523207 Tested with appliance
Alternative	D	Zhongshan Cakee PCB Co Ltd	NST-6	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E205740 Tested with appliance

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
Alternative	D	Jiangxi ChuangJu Technology Co LTD	CHT-01	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E519701 Tested with appliance
Alternative	D	Jiangxi Province MLS Photoelectric Technology Co Ltd	MLSLJB	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E501244 Tested with appliance
Alternative	D	Jiangxi Hengqing Lighting Co Ltd	JXHQ-L	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E502352 Tested with appliance
Alternative	D	POYANG ZHONGHUI LIGHTING MATERIALS CO., LTD	PYZH-L	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E513212 Tested with appliance
Output wire of LED driver & input wire of LED module	D	SHENZHEN JIAHUIDA ELECTRONICS CO LTD	3239	20-24AWG 200°C, 3KV	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E361915 Tested with appliance
Alt.	D	DONGGUANHU AJUNDA CO.,LTD	3239	20-24AWG 200°C,3KV	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E363052 Tested with appliance
Alt.	D	Shenzhen Dingyu Electrical Technology Co Ltd	3239	20-24AWG 200°C, 3KV	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E365423 Tested with appliance

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
Alt.	D	GUANGDONG HAERKN NEW ENERGY CO LTD	3239	20-24AWG 200°C, 3KV	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E300956 Tested with appliance
Alt.	D	DONG GUAN SHENG PAI ELECTRIC WIRE & CABLE CO LTD	3239	20-24AWG 200°C, 3KV	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E347603 Tested with appliance
Alt.	D	DONGGUAN TRIUMPHCABLE CO LTD	2464	300VAC; 80°C 18-22AWG	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E249743 Tested with appliance
Alt.	D	DONGGUAN HONGFUWEI CABLE TECHNOLOGY CO LTD	2464	300VAC; 80°C 18-22AWG	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E316005 Tested with appliance
Alt.	D	SHIQING ELECTRONICS (HUIZHOU) CO LTD	2464	300VAC; 80°C 18-22AWG	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E342682 Tested with appliance
Alt.	D	DONGGUAN CHANGAN HUAWEI WIRE CO LTD	2464	300VAC; 80°C 18-22AWG	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E320244 Tested with appliance
Alt.	D	SHENZHEN CHAOJIE ELECTRONICS CO LTD	2464	300VAC; 80°C 18-22AWG	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E484929 Tested with appliance

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
Alt.	D	Dongguan Linoya Wire&Cable Co Ltd	2464	300VAC; 80°C 18-22AWG	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E315618 Tested with appliance
Alt.	D	KEMP ELECTRIC MFG CO LTD	2464	300VAC; 80°C 18-22AWG	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E484741 Tested with appliance
Alt.	D	QIFURUI ELECTRONICS CO	2464	300VAC; 80°C 18-22AWG	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E211048 Tested with appliance
Alt.	D	SHENZHEN JIAHUIDA ELECTRONICS CO LTD	2464	300VAC; 80°C 18-22AWG	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E361915 Tested with appliance
Alt.	D	DONGGUAN ZHIHE ELECTRICAL CABLETECHCO LTD	2464	300VAC; 80°C 18-22AWG	IEC/EN 60598-1 IEC/EN 60598-2-22	UL E258239 Tested with appliance
Alt.	D	GUANGDONG HAERKN NEW ENERGY CO LTD	2464	300VAC; 80°C 18-22AWG	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E300956 Tested with appliance
Alt.	D	HUIZHOU YUENDA ELECTRONIC & HARDWARE PRODUCTS CO LTD	2464	300VAC; 80°C 18-22AWG	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E244721 Tested with appliance

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
Plastic enclosure of CCT switch	B	TEIJIN LIMITED RESIN AND PLASTIC	LN-2525U(#)(f1), LN-2525V(#)(f1), LN-2525Z(#)(f1)	V-0, 115°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E50075 Tested with appliance
CCT switch		Dongguan Yahao Electronics Co., Ltd	MS23C01G2	DC 50V,1.0A	IEC/EN 60598-1 IEC/EN 60598-2-2	Tested with appliance
PCB of CCT switch		Guangdong Jida Circuit Technology Co Ltd	JYD-S1	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E345177 Tested with appliance
Alt.	D	HUIZHOU YUENDA ELECTRONIC & HARDWARE PRODUCTS CO LTD	2464	300VAC; 80°C 18-22AWG	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E244721 Tested with appliance
Alternative		DONGGUAN CITY TONSUN ELECTRONIC CO LTD	TS-03	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E315942 Tested with appliance
Alternative		HUNG HING ELECTRONICS CO LTD	HH-05	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E327405 Tested with appliance
Alternative		SHENZHEN YAHENG ELECTRONIC CO LTD	YH-D	V-0; 130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E501849 Tested with appliance

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
Alternative		Guangdong Jida Circuit Technology Co Ltd	JYD-D1	V-0; 130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E345177 Tested with appliance
Alternative		Guangdong Jida Circuit Technology Co Ltd	JYD-D2	V-0; 130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E345177 Tested with appliance
Alternative		SHENZHEN INORSEN CIRCUITS CO LTD	ANX-DPCB	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E503083 Tested with appliance
Alternative		DONGGUAN HRSC PCB CO LTD	HX-008	V-0;120°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E230194 Tested with appliance
Alternative		DONGGUAN HRSC PCB CO LTD	HX-009	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E230194 Tested with appliance
Alternative		Shenzhen ShunYiJie Technology Co.,Ltd	SYJ-M	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E493604 Tested with appliance
Alt.		HUNG HING ELECTRONICS CO LTD	HH-05	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E327405 Tested with appliance
Alt.		Zhongshan Cakee PCB Co Ltd	NST-02	V-0;130°C	IEC/EN 60598-1 IEC/EN 60598-2-2	UL E205740 Tested with appliance

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED chip	C	Shenzhen Jufei Optoelectronics Co., Ltd	2835	IF=Max.150mA , VF=5.6-6.4V, CCT=2700-65000K, angle view 120	IEC TR 62778	Tested with appliance
LED driver	B	Up-shine Lighting Co., Limited	VSI-17W400-NF2	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, 0.1A; O/P: 30-40VDC, max. 50VDC, 400mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:201 6+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV- 026047-EA CB: DE 2- 035476-M1 Mark: R 50548856 0001
LED driver	B	Up-shine Lighting Co., Limited	VSI-19W450-NF2	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, 0.11A; O/P: 30-40VDC, max. 50VDC, 450mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:201 6+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV-026047-EA CB: DE 2- 035476-M1 Mark: R 50548856 0001

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Up-shine Lighting Co., Limited	VSI-21W500-NF2	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, 0.12A; O/P: 30-40VDC, max. 50VDC, 500mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:201 6+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV-026047-EA CB: DE 2- 035476-M1 Mark: R 50548856 0001
LED driver	B	Up-shine Lighting Co., Limited	VSI-23W550-NF2	Independent SELV constant current type; Class II; I/P: 220-240VAC, 50/60Hz, 0.13A; O/P: 30-40VDC, max. 50VDC, 550mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:2016+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV-026047-EA CB: DE 2- 035476-M1 Mark: R 50548856 0001

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Up-shine Lighting Co., Limited	VSI-26W650-NF3	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, 0.14A; O/P: 30-40VDC, max. 50VDC, 650mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347- 2-13:2014+A 1AS/NZS 61347-1:201 6+A1 AS/N ZS 61347 -2-13:2018+ Rule 1:2020	TUV Rh: TUV- 0246424- EA CB: DE 2- 036523 Mark: R 50579016 0001
LED driver	B	Up-shine Lighting Co., Limited	VSI-28W700-NF3	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, 0.16A; O/P: 30-40VDC, max. 50VDC, 650mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A 1 IEC/EN 61347- 2-13:2014+A 1AS/NZS 61347-1:201 6+A1 AS/NZ S 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV-0246424- EA CB: DE 2- 036523 Mark: R 50579016 0001

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Up-shine Lighting Co., Limited	VSI-30W750-NF3	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, 0.17A; O/P: 30-40VDC, max. 50VDC, 750mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:201 6+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV-0246424-EA CB: DE 2-036523 Mark: R 50579016 0001
LED driver	B	Up-shine Lighting Co., Limited	VSI-32W800-NF3	Independent SELV constant current type; Class II; I/P: 220-240VAC, 50/60Hz, 0.18A; O/P: 30-40VDC, max. 50VDC, 800mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:2016+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV-0246424-EA CB: DE 2-036523 Mark: R 50579016 0001

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Up-shine Lighting Co., Limited	VSI-34W850-NF3	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, 0.19A; O/P: 30-40VDC, max. 50VDC, 850mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347- 2-13:2014+A 1AS/NZS 61347-1:201 6+A1 AS/N ZS 61347 -2-13:2018+ Rule 1:2020	TUV Rh: TUV- 0246424- EA CB: DE 2- 036523 Mark: R 50579016 0001
LED driver	B	Up-shine Lighting Co., Limited	VSI-36W900-NF3	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, 0.2A; O/P: 30-40VDC, max. 50VDC, 900mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A 1 IEC/EN 61347- 2-13:2014+A 1AS/NZS 61347-1:201 6+A1 AS/NZ S 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV-0246424- EA CB: DE 2- 036523 Mark: R 50579016 0001

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Up-shine Lighting Co., Limited	VSI-42W1050-NF2	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, 0.23A; O/P: 30-38VDC, max. 50VDC, 1050mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:201 6+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV-026047-EA CB: DE 2- 035476-M1 Mark: R 50548856 0001
LED driver	B	Up-shine Lighting Co., Limited	VSI-44W1100-NF2	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, 0.25A; O/P: 30-40VDC, max. 50VDC, 1100mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:2016+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV-026047-EA CB: DE 2- 035476-M1 Mark: R 50548856 0001

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Up-shine Lighting Co., Limited	VSI-50W1250-NF2	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, 0.28A; O/P: 30-40VDC, max. 50VDC, 1250mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347- 2-13:2014+A 1AS/NZS 61347-1:201 6+A1 AS/N ZS 61347 -2-13:2018+ Rule 1:2020	TUV Rh: TUV- 026047- EA CB: DE 2- 035476-M1 Mark: R 50548856 0001
LED driver	B	Up-shine Lighting Co., Limited	VSI-60W1500-NF2	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, 0.33A; O/P: 30-40VDC, max. 50VDC, 1500mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A 1 IEC/EN 61347- 2-13:2014+A 1AS/NZS 61347-1:201 6+A1 AS/NZ S 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV-026047- EA CB: DE 2- 035476-M1 Mark: R 50548856 0001

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Up-shine Lighting Co., Limited	XSI-60W1500-A8DA0F	Independent SELV constant current type; Class II; I/P: 200- 240VAC, 50/60Hz, 0.34A; O/P: 30-40VDC, max. 50VDC, 1500mA; Max. 60W ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:201 6+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV-024786EA CB: DE 2- 029385-M1 Mark: R 50489687 0001
LED driver	B	Up-shine Lighting Co., Limited	VSI-15W350-DF1	Independent SELV constant current type; Class II; I/P: 200-240VAC, 50Hz, 0.9A; O/P: 30-40VDC, max. 50VDC, 350mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:2016+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV024011 EA CB: DE 2- 026529-M1 Mark: R 50454311 0001

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Up-shine Lighting Co., Limited	VSI-17W400-DF1	Independent SELV constant current type; Class II; I/P: 200- 240VAC, 50Hz, 0.11A; O/P: 30-40VDC, max. 50VDC, 400mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347- 2-13:2014+A1 AS/NZS 61347-1:201 6+A1 AS/N ZS 61347 -2-13:2018+ Rule 1:2020	TUV Rh: TUV024011 EA CB:DE 2-026529-M1 Mark: R 50454311 0001
LED driver	B	Up-shine Lighting Co., Limited	VSI-19W450-DF1	Independent SELV constant current type; Class II; I/P: 200- 240VAC, 50Hz, 0.11A; O/P: 30-40VDC, max. 50VDC, 450mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347- 2-13:2014+A1 AS/NZS 61347-1:201 6+A1 AS/NZ S 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV024011EA CB: DE 2- 026529-M1 Mark: R 50454311 0001

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Up-shine Lighting Co., Limited	VSI-21W500-DF1	Independent SELV constant current type; Class II; I/P: 200- 240VAC, 50Hz, 0.12A; O/P: 30-40VDC, max. 50VDC, 500mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:201 6+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV024011EA CB: DE 2- 026529-M1 Mark: R 50454311 0001
LED driver	B	Up-shine Lighting Co., Limited	VSI-26W600-DF1	Independent SELV constant current type; Class II; I/P: 200-240VAC, 50Hz, 0.15A; O/P: 30-40VDC, max. 50VDC, 600mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:2016+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV024011 EA CB: DE 2- 026529-M1 Mark: R 50454311 0001

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Up-shine Lighting Co., Limited	VSI-28W650-DF1	Independent SELV constant current type; Class II; I/P: 200- 240VAC, 50Hz, 0.16A; O/P: 30-40VDC, max. 50VDC, 650mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 1AS/NZS 61347-1:201 6+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV024011 EA CB:DE 2-026529-M1 Mark: R 50454311 0001
LED driver	B	Up-shine Lighting Co., Limited	VSI-30W700-DF1	Independent SELV constant current type; Class II; I/P: 200- 240VAC, 50Hz, 0.18A; O/P: 30-40VDC, max. 50VDC, 700mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 1AS/NZS 61347-1:201 6+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV024011EA CB: DE 2- 026529-M1 Mark: R 50454311 0001

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Up-shine Lighting Co., Limited	VSI-32W750-DF1	Independent SELV constant current type; Class II; I/P: 200- 240VAC, 50Hz, 0.20A; O/P: 30-40VDC, max. 50VDC, 750mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:201 6+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV024011EA CB: DE 2- 026529-M1 Mark: R 50454311 0001
LED driver	B	Up-shine Lighting Co., Limited	VSI-35W800-DF1	Independent SELV constant current type; Class II; I/P: 200-240VAC, 50Hz, 0.20A; O/P: 30-40VDC, max. 50VDC, 800mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:2016+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV024011 EA CB: DE 2- 026529-M1 Mark: R 50454311 0001

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Up-shine Lighting Co., Limited	VSI-36W850-DF1	Independent SELV constant current type; Class II; I/P: 200- 240VAC, 50Hz, 0.20A; O/P: 30-40VDC, max. 50VDC, 850mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347- 2-13:2014+A 1AS/NZS 61347-1:201 6+A1 AS/N ZS 61347 -2-13:2018+ Rule 1:2020	TUV Rh: TUV024011 EA CB:DE 2-026529-M1 Mark: R 50454311 0001
LED driver	B	Up-shine Lighting Co., Limited	VSI-42W1000-DF1	Independent SELV constant current type; Class II; I/P: 200- 240VAC, 50Hz, 0.24A; O/P: 30-40VDC, max. 50VDC, 1000mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A 1 IEC/EN 61347- 2-13:2014+A 1AS/NZS 61347-1:201 6+A1 AS/NZ S 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV024011EA CB: DE 2- 026529-M1 Mark: R 50454311 0001

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Up-shine Lighting Co., Limited	VSI-45W1050-DF1	Independent SELV constant current type; Class II; I/P: 200- 240VAC, 50Hz, 0.25A; O/P: 30-40VDC, max. 50VDC, 1050mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:201 6+A1 AS/NZS 61347-2-13:2018+ Rule 1:2020	TUV Rh: TUV024011EA CB: DE 2- 026529-M1 Mark: R 50454311 0001
LED driver	B	Lifud Technology Co., Ltd	LF-GIF030YAI10 5 50H	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, Max. 0.2A; O/P: 33-40VDC, max. 55VDC, 550mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:201 6+A1 AS/NZS 61347-2-13:2018	GMA- 503099-EA TUV SUD SG PSB-LE-03490M1 No.U6 004006 0054 Rev.03

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF030YA055 0H Pro	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, Max. 0.2A; O/P: 33- 38VDC, max. 55VDC, 550mA; ta=50° C, tc=90° C	IEC/EN 61347- 1:2015+A1 IEC/EN 61347- 2- 13:2014+A 1AS/NZS 61347- 1:201 6+A1 AS/N ZS 61347 -2- 13:2018	GMA- 513616- EA TUV SUD SG PSB-LE- 04354 No.U6 004006 0233 Rev.00
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF030YS06 50H	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz,Max. 0.2A; O/P: 33- 40VDC, max. 55VDC, 650mA; ta=45° C, tc=90° C	IEC/EN 61347- 1:2015+A1 IEC/EN 61347-2- 13:2014+A 1AS/NZS 61347- 1:2016+A1 AS/ NZ S 613 47- 2- 13:2018	GMA- 503099- EA TUV SUD SG PSB-LE- 03490M1 No.U6 004006 0054 Rev.03
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF030YS07 00H	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz,Max. 0.2A; O/P: 33- 40VDC, max. 55VDC, 700mA; ta=45° C, tc=90° C	IEC/EN 61347- 1:2015+A1 IEC/EN 61347- 2- 13:2014+A 1AS/NZS 61347- 1:201 6+A1 AS/NZ S 61347 -2- 13:2018	GMA- 503099-EA TUV SUD SG PSB-LE- 03490M1 No.U6 004006 0054 Rev.03

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF030YS07 5 0H	Independent SELV constant current type; Class II; I/P: 220-240VAC, 50/60Hz, Max. 0.2A; O/P: 33-40VDC, max. 55VDC, 750mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:2016+A1 AS/NZS 61347-2-13:2018	GMA-503099-EA TUV SUD SG PSB-LE-03490M1 No.U6 004006 0054 Rev.03
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF040YS08 00H	Independent SELV constant current type; Class II; I/P: 220-240VAC, 50/60Hz, Max. 0.28A; O/P: 33-40VDC, max. 55VDC, 800mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:2016+A1 AS/NZS 61347-2-13:2018	GMA-503099-EA TUV SUD SG PSB-LE-03490M1 No.U6 004006 0054 Rev.03
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF040YT08 5 0H	Independent SELV constant current type; Class II; I/P: 220-240VAC, 50/60Hz, Max. 0.28A; O/P: 30-40VDC, max. 55VDC, 850mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:2016+A1 AS/NZS 61347-2-13:2018	GMA-514662-EA TUV SUD SG PSB-LE-04677 No.N8A 004006 0245 Rev.00

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF040YT09 0 0H	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, Max. 0.28A; O/P: 30- 40VDC, max. 55VDC, 900mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347- 2-13:2014+A1AS/NZS 61347-1:201 6+A1 AS/NZ S 61347 -2-13:2018	GMA- 514662-EA TUV SUD SG PSB-LE- 04677 No.N8A 004006 0245 Rev.00
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF040YT09 5 0H	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, Max. 0.28A; O/P: 30- 40VDC, max. 55VDC, 950mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347- 2-13:2014+A1 AS/NZS 61347-1:2016+A1 AS/NZS 61347-2-13:2018	GMA- 514662-EA TUV SUD SG PSB-LE- 04677 No.N8A 004006 0245 Rev.00
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF040YS08 5 0H	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, Max. 0.28A; O/P: 33- 40VDC, max. 55VDC, 850mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347- 2-13:2014+A1AS/NZS 61347-1:201 6+A1 AS/N ZS 61347 -2-13:2018	GMA- 509633-EA TUV SUD SG PSB-LE- 02995M3 No.U6 004006 0165 Rev.01

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF040YS09 00H	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, Max. 0.28A; O/P: 33- 40VDC, max. 55VDC, 900mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1AS/NZS 61347-1:2016+A1AS/NZS 61347-2-13:2018	GMA- 509633-EA TUV SUD SG PSB-LE- 02995M3 No.U6 004006 0165 Rev.01
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF040YAI11 0 50H	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz,Max. 0.3A; O/P: 33- 38VDC, max. 55VDC, 1050mA; ta=45° C, tc=90° C	IEC/EN 61347-1:2015+A1 IEC/EN 61347- 2-13:2014+A1AS/NZS 61347-1:2016+A1AS/NZS 61347-2-13:2018	GMA- 510149-EA TUV SUD SG PSB-LE- 03277 No.N8A 004006 0177 Rev.00
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF050YAI11 00H	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz,Max. 0.4A; O/P: 33- 40VDC, max. 55VDC, 1100mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1AS/NZS 61347-1:2016+A1AS/NZS 61347-2-13:2018	GMA- 503099-EA TUV SUD SG PSB-LE- 03490M1 No.U6 004006 0054 Rev.03

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF040YA105 0H Pro	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz, Max. 0.3A; O/P: 33- 38VDC, max. 55VDC, 1050mA; ta=50° C, tc=90° C	IEC/EN 61347- 1:2015+A1 IEC/EN 61347- 2- 13:2014+A 1AS/NZS 61347- 1:201 6+A1 AS/N ZS 61347 -2- 13:2018	GMA- 513616- EA TUV SUD SG PSB-LE- 04354 No.U6 004006 0233 Rev.00
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF050YS12 50H	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz,Max. 0.4A; O/P: 30- 40VDC, max. 55VDC, 1250mA; ta=45° C, tc=90° C	IEC/EN 61347- 1:2015+A1 IEC/EN 61347-2- 13:2014+A 1AS/NZS 61347- 1:2016+A1 AS/ NZ S 613 47- 2- 13:2018	GMA- 513616- EA TUV SUD SG PSB-LE- 04354 No.U6 004006 0233 Rev.00
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF050YS13 00H	Independent SELV constant current type; Class II; I/P: 220- 240VAC, 50/60Hz,Max. 0.4A; O/P: 30- 40VDC, max. 55VDC, 1300mA; ta=45° C, tc=90° C	IEC/EN 61347- 1:2015+A1 IEC/EN 61347- 2- 13:2014+A 1AS/NZS 61347- 1:201 6+A1 AS/NZ S 61347 -2- 13:2018	GMA- 513616-EA TUV SUDSG PSB-LE- 04354 No.U6 004006 0233 Rev.00

IEC 60598-2-2						
Clause	Requirement + Test			Result - Remark		Verdict
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF060YS15 0 0H	Independent SELV constant current type; Class II; I/P: 220-240VAC, 50/60Hz,Max. 0.5A; O/P: 30-40VDC, max. 55VDC, 1500mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:2016+A1 AS/NZS 61347-2-13:2018	GMA-513616-EA TUV SUD SG PSB-LE-04354 No.U6 004006 0233 Rev.00
LED driver	B	Lifud Technology Co.,Ltd	LF-GIF060YS15 50H	Independent SELV constant current type; Class II; I/P: 220-240VAC, 50/60Hz,Max. 0.5A; O/P: 30-40VDC, max. 55VDC, 1550mA; ta=45°C, tc=90°C	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1 AS/NZS 61347-1:2016+A1 AS/NZS 61347-2-13:2018	GMA-513616-EA TUV SUD SG PSB-LE-04354 No.U6 004006 0233 Rev.00
Supplementary information: ¹⁾ Provided evidence ensures the agreed level of compliance. See OD-CB2039. The codes above have the following meaning: A - The component is replaceable with another one, also certified, with equivalent characteristics B - The component is replaceable if authorised by the test house C - Integrated component tested together with the appliance D - Alternative component						

IEC 60598-2-2							
Clause	Requirement + Test				Result - Remark		Verdict
ANNEX 2	TABLE: Thermal tests of Section 12						P
	Type reference :				GLPBK5-60120-60W		—
	Lamp used :				LED module		—
	Lamp control gear used..... :				-		—
	Mounting position of luminaire..... :				Recessed mounting		—
	Supply wattage (W) :				58.1 W		—
	Supply current (A)..... :				0.243		—
	Temperatures in test 1 - 4 below are corrected for ta (°C) :				40°C		—
	- abnormal operating mode :				-		—
2.13 (12.4)	- test 1: rated voltage :				-		—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current :				1.06×240 V		—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage :				-		—
	Through wiring or looping-in wiring loaded by a current of A during the test :				-		—
2.13 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current :				-		—
Temperature measurements (°C)							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
DC connector	40	-	42.1	-	Ref.	-	-
Switch for CCT	40	-	48.7	-	Ref.	-	-
Input cord of LED driver (test piece)	40	-	48.5	-	90	-	-
Tc of LED driver	40	-	73.8	-	90	-	-
Output cord of LED driver (Near LED module)	40	-	45.4	-	90	-	-
LED PCB	40	-	51.3	-	80	-	-
LED lens	40	-	49.5	-	Ref.	-	-
Recessed box surface (side T1)	40	-	41.6		90	-	-
Recessed box surface (top T2)	40	-	41.0		90	-	-

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IEC60598_2_2H

IEC 60598-2-2							
Clause	Requirement + Test			Result - Remark			Verdict
Mounting surface (T3)	40	-	42.5	-	90	-	-
Back side of luminaire (T4)	40	-	49.5	-	90	-	-
Supplementary information:							

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

ANNEX 3	Screw terminals (part of the luminaire)		N/A
(14)	SCREW TERMINALS		N/A
(14.2)	Type of terminal		—
	Rated current (A)		—
(14.3.2.1)	One or more conductors		N/A
(14.3.2.2)	Special preparation		N/A
(14.3.2.3)	Terminal size		N/A
	Cross-sectional area (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).....	M	N/A
	External wiring		N/A
	No soft metal		N/A
(14.4.5)	Corrosion		N/A
(14.4.6)	Nominal diameter of thread (mm)		N/A
	Torque (Nm).....		N/A
(14.4.7)	Between metal surfaces		N/A
	Lug terminal		N/A
	Mantle terminal		N/A
	Pull test; pull (N).....		N/A
(14.4.8)	Without undue damage		N/A

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

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

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
(15.6.1)	Conductors		N/A
	Terminal size and rating		N/A
15.6.2	Mechanical tests		N/A
(15.6.2.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N)		N/A
(15.6.2.2)	Pull test pin or tab terminals (4 samples); pull (N)		N/A
(15.6.3)	Electrical tests		N/A
	Tests according 15.6.3.1 + 15.6.3.2 in IEC 60598-1		N/A

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

IEC 60598-2-2			
Clause	Requirement + Test	Result - Remark	Verdict
Supplementary information:			

Attachment No.1**IEC60598_2_ 2F ATTACHMENT**

Clause	Requirement + Test	Result - Remark	Verdict
IEC60598_2_2G ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO TEST REPORT IEC 60598-2-2 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES LUMINAIRES PART 2: PARTICULAR REQUIREMENTS SECTION 2: RECESSED LUMINAIRES			
Differences according to : EN 60598-2-2:2012 used in conjunction with EN IEC 60598-1:2021 + A11:2022			
TRF template used : IECEE OD-2020-F2:2020, Ed. 1.1			
Attachment Form No. : EU_GD_IEC60598_2_2G			
Attachment Originator : UL(Demko)			
Master Attachment..... : 2022-05-23			
Copyright © 2022 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.			
	CENELEC COMMON MODIFICATIONS (EN)		
2.6 (3)	MARKING		
2.6 (3.2.12)	Note 4 deleted		
2.7 (4)	CONSTRUCTION		
2.7 (4.11.6)	Electro-mechanical contact systems: electric strength test at 1 500 V		
2.11 (5)	EXTERNAL AND INTERNAL WIRING		
2.11 (5.2.2)	Cables equal to EN 50525 (all parts)		
	Paragraph 2 deleted		
	Replace table 5.1 – Supply cord		
2.13 (12)	ENDURANCE TESTS AND THERMAL TESTS		
2.13 (12.4.2c)	Thermal test (normal operation) see footnote c to table 12.2 relating to unsleeved fixed wiring		
ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		
(3.3)	DK: power supply cords of class I luminaires with label		
(5.2.1)	CY, DK, FI, UK: type of plug		

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IEC60598_2_2H

Attachment No.1

IEC60598_2_2F ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
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IEC60598_2_2G ATTACHMENT

Clause	Requirement + Test	Result - Remark	Verdict
(5.2.18)	DK: socket-outlets		
ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		
(4 & 5)	FR: Shuttered socket-outlets 10/16A		
	FR: Safety requirements for high buildings (Decree of 30 December 2011 on safety regulations for the construction of high-rise buildings and their protection against fire and panic risks; Section VIII; Article GH 48, Lighting) Glow-wire test for outer parts of luminaires:		
	- 850°C for luminaires in stairways and horizontal travel paths		
	- 650°C for indoor luminaires		
	UK: Requirements according to United Kingdom Building Regulation		

Attachment No.2

EN IEC 62031

Clause	Requirement + Test	Result - Remark	Verdict
13 (14)	FAULT CONDITIONS		P
- (14.1)	In compliance with IEC 61347-1 (clause numbers between parentheses refer to IEC 61347-1)		N/A
	When operated under fault conditions the LED module:		N/A
	- does not emit flames or molten material		N/A
	- does not produce flammable gases		N/A
	- protection against accidental contact not impaired		N/A
	Thermally protected controlgear does not exceed the marked temperature value		N/A
	Fault conditions: capacitors, resistors or inductors without proof of compliance with relevant specifications have been short-circuited or disconnected		N/A
- (14.2)	Short-circuit of creepage distances and clearances if less than specified in clause 16 in Part 1 (except between live parts and accessible metal parts)		N/A
	Creepage distances on printed boards less than specified in clause 16 in Part 1 provided with coating according to IEC 60664-3		N/A
- (14.3)	Short-circuit or interruption of semiconductor devices		N/A
- (14.4)	Short-circuit across insulation consisting of lacquer, enamel or textile		N/A
- (14.5)	Short-circuit across electrolytic capacitors		N/A
- (14.6)	After the tests has been carried out on three samples:		N/A
	The insulation resistance $\geq 1 \text{ M}\Omega$		N/A
	No flammable gases		N/A
	No accessible parts have become live		N/A
	During the tests, a five-layer tissue paper, where the test specimen is wrapped, does not ignite		N/A
- (14.7)	Relevant fault condition tests with high-power supply		N/A
13.2	Overpower condition		P
	Module withstands overpower condition >15 min.		P
	Module with automatic protective device or power limiter, test performed 15 min. at limit.		N/A
	No fire, smoke or flammable gas is produced		P
	Molten material does not ignite tissue paper, spread below the module		P

Attachment No.3

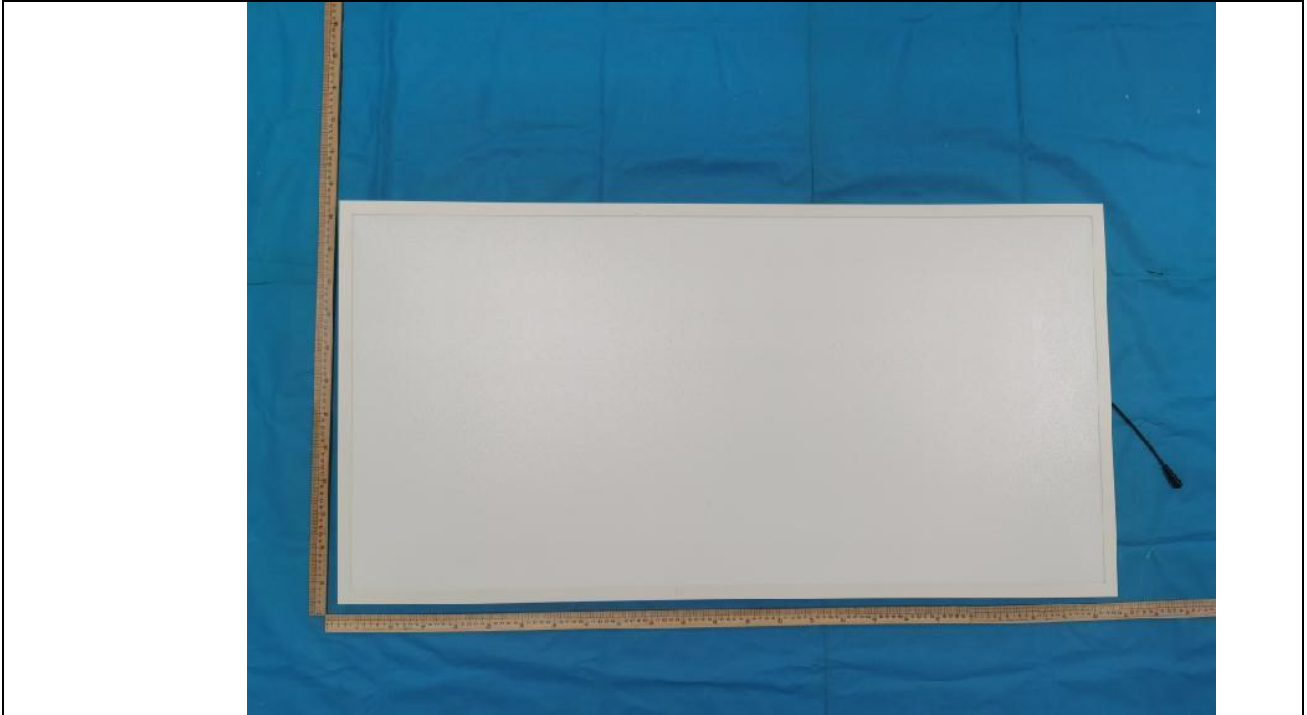
IEC TR 62778

Clause	Requirement + Test				Result - Remark				Verdict
Table 6.1	Emission limits for risk groups of continuous wave lamps (based on EU Directive 2006/25/EC)								—
	Photobiological safety of lamps and lamp systems (LED bulb emit white light)								P
Risk	Action spectrum	Symbol	Units	Emission limits					
				Exempt	Result	Low risk	Result	Mod risk	Result
Actinic UV	S _{UV} (λ)	E _s	mW·m ⁻²	0,001	1.002E-06	0.003	--	--	--
Near UV	--	E _{UVA}	W·m ⁻²	0,33	3.455E-04	33	--	--	--
Blue light	B(λ)	L _B	W·m ⁻² ·sr ⁻¹	100	3.087E+00	10000	--	4000000	--
Blue light, small source	B(λ)	E _B	W·m ⁻²	1,0*	--	--	--	400	--
Retinal thermal	R(λ)	L _R	W·m ⁻² ·sr ⁻¹	28000/α	1.006E+03	1.011E+06	--	71000/α	--
Retinal thermal, weak visual stimulus**	R(λ)	L _{IR}	W·m ⁻² ·sr ⁻¹	545000 0,0017≤ α ≤ 0,011	--				
					--				
IR radiation, eye	--	E _{IR}	W·m ⁻²	6000/α 0,011≤ α ≤ 0,1	0.000E+00	570	--	3200	--
* Small source defined as one with α < 0,011radian. Averaging field of view at 10000 s is 0.1radian. ** Involves evaluation of non-GLS source NOTE 1. Angular subtense of apparent source: α=77.53 mrad 2. Measure distance is 200mm.									
Blue light	B(λ)	LB	W·m ⁻² ·sr ⁻¹	100	3.746E+00	10000	--	4000000	--
NOTE Angular subtense of apparent source: α= 77.53 mrad. Measure distance 200mm.									

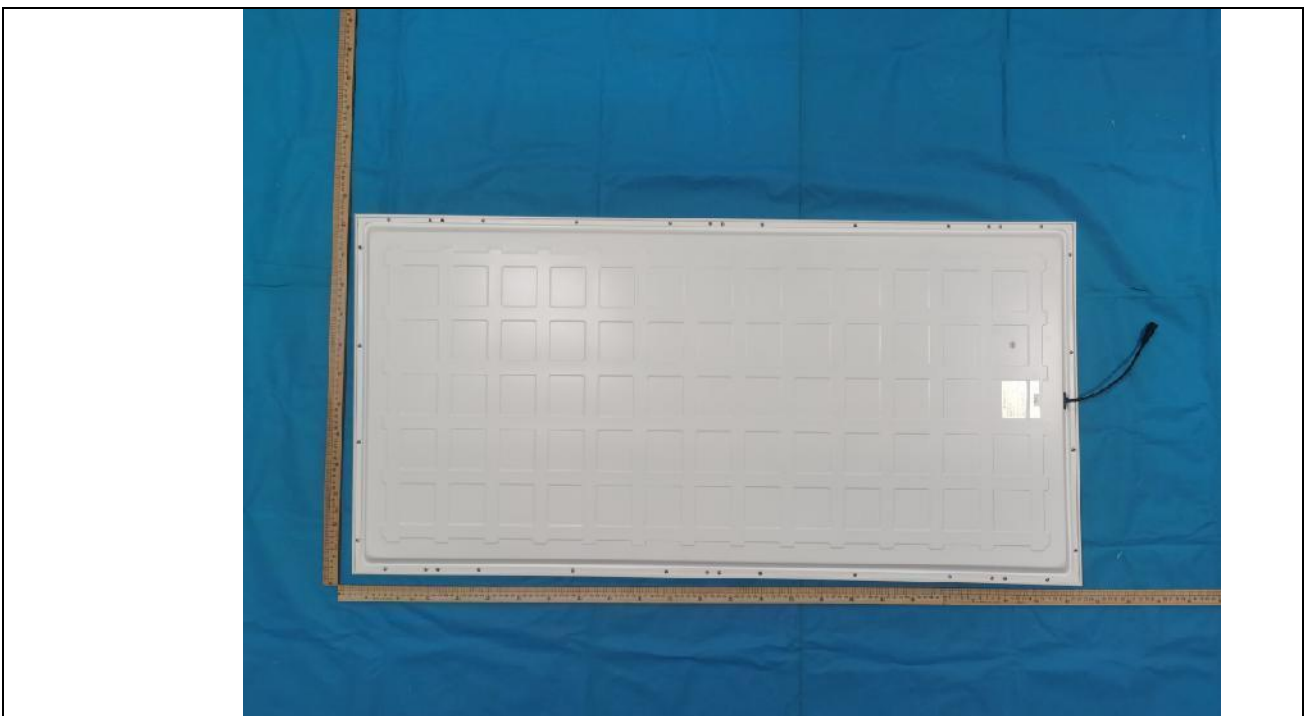
Attachment No.4

Product Photos

Details of: Fig.1



Details of: Fig.2



- End of test report -