



SAFETY TEST REPORT

Report No: FCS202305214A01

Issued for

Applicant:	Ciolea Brands GmbH & Co. KG
Address:	Eiffestrasse 596, 20537 Hamburg Germany
Product Name:	UV eyelash extension lamp
Brand Name:	AURA Monaco
Model Name:	Beamlight S6
Series Model:	PL002, PL003, PL004, PL005, PL006, PL007
Test Standard:	EN 60598-2-4:2017 for use in conjunction with EN 60598-1:2020

Issued By: Dongguan Funas Testing Technology Co.,Ltd
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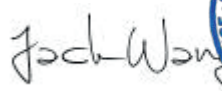


Test Report issued under the responsibility of:



TEST REPORT IEC 60598-2-4 Luminaires Luminaires, Part 2: Particular requirements Section 4: Portable general purpose luminaires	
Report Number.....	FCS202305214A01
Date of issue.....	2023-06-05
Total number of pages.....	43 pages
Name of Testing Laboratory preparing the Report.....	Dongguan Funas Testing Technology Co.,Ltd Room 105 Floor Bao hao Technology Building 1 NO.15 Gong ye West Road Hi-Tech Industrial, Song shan lake Dongguan
Applicant's name.....	Ciolea Brands GmbH & Co. KG
Address.....	Eiffestrasse 596 20537 Hamburg, Germany
Test specification:	
Standard.....	EN 60598-2-4:2017 for use in conjunction with EN 60598-1:2020
Test procedure.....	CE-LVD
Non-standard test method.....	N/A
TRF template used.....	IECEE OD-2020-F1:2020, Ed.1.3
Test Report Form No.....	IEC60598_2_4I
Test Report Form(s) Originator.....	UL (US)
Master TRF.....	Dated 2021-06-10
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Test item description..... :	UV eyelash extension lamp	
Trade Mark(s)..... :	Pinkyleem	
Manufacturer..... :	Same as applicant	
Model/Type reference..... :	PL001, PL002, PL003, PL004, PL005, PL006, PL007	
Ratings..... :	Adapter input: 5.0Vdc, 1.0A	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
<input checked="" type="checkbox"/>	Testing Laboratory:	Dongguan Funas Testing Technology Co.,Ltd
	Testing location/ address..... :	Room 105 Floor Bao hao Technology Building 1 NO.15 Gong ye West Road Hi-Tech Industrial, Song shan lake Dongguan
	Tested by (name, function, signature)..... :	Alan ho Project handler 
	Approved by (name, function, signature)... :	Jack Wang Reviewer 
<input type="checkbox"/>	Testing procedure: CTF Stage 1:	
	Testing location/ address..... :	
	Tested by (name, function, signature)..... :	
	Approved by (name, function, signature)... :	
<input type="checkbox"/>	Testing procedure: CTF Stage 2:	
	Testing location/ address..... :	
	Tested by (name + signature)..... :	
	Witnessed by (name, function, signature).. :	
	Approved by (name, function, signature)... :	
<input type="checkbox"/>	Testing procedure: CTF Stage 3:	
<input type="checkbox"/>	Testing procedure: CTF Stage 4:	
	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: 2 pages of National difference Attachment No. 1: 2 pages of photo documentation	
Summary of testing:	
Tests performed (name of test and test clause): EN60598-2-4:1997 EN 60598-2-4:2018 The submitted sample was found to comply with the requirements of above test specification	Testing location: Dongguan Funas Testing Technology Co.,Ltd Room 105 Floor Bao hao Technology Building 1 NO.15 Gong ye West Road Hi-Tech Industrial, Song shan lake Dongguan
Summary of compliance with National Differences (List of countries addressed): – European Group difference and national difference <input type="checkbox"/> The product fulfils the requirements of _____ (insert standard number and edition and delete the text in parenthesis, leave it blank or delete the whole sentence, if not applicable)	

Copy of marking plate:



BEAM LIGHT S6

EN Never look directly into the UV LED Light! Read instructions before use.

DE Niemals direkt in das UV LED Licht schauen!
Vor der Verwendung Gebrauchsanweisung lesen.

Ciolea Brands GmbH & Co. KG
Eiffestraße 596
20537 Hamburg
Germany



WEEE-Reg.-Nr. DE 96573287

Ui: 250V	Uimp: 2.5kV	Ith: 10A
Ue: AC250V	Ie: 10A	AC-15

Remark: Height of marks at least 5mm, height of letters and numerals at least 2 mm.



Test item particulars..... : Portable general purpose luminaires
Classification of installation and use..... : Portable and for indoor use only
Supply Connection..... : Input Port terminal :
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..... : 2023-05-29 Date (s) of performance of tests..... : 2023-05-29 to 2023-06-05
General remarks:
Manufacturer's Declaration per sub-clause 4.2.5 of IECIEE 02:
When differences exist; they shall be identified in the General product information section.
Name and address of factory (ies)..... : Same as applicant
General product information and other remarks: - Portable Luminaires for indoor use only. - All models are identical to each other except for the model name.



IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
4.4 (0)	GENERAL TEST REQUIREMENTS		P
4.4 (0.3)	More sections applicable..... :	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<input type="checkbox"/>
4.4 (0.5)	Components	(see Annex 1)	<input type="checkbox"/>
4.4 (0.7)	Information for luminaire design in light sources standards		<input type="checkbox"/>
4.4 (0.7.2)	Light source safety standard		<input type="checkbox"/>
	Luminaire design in the light source safety standard		

4.5 (2)	CLASSIFICATION OF LUMINAIRES		P
4.5 (2.2)	Type of protection	Class II	P
4.5 (2.3)	Degree of protection..... :	IP 20	<input type="checkbox"/>
4.5 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces..... :	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
4.5 (2.5)	Luminaire for normal use	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<input type="checkbox"/>
	Luminaire for rough service	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>
4.5.1 (-)	Ordinary luminaire classified "for indoor use only"..... :	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<input type="checkbox"/>
	Luminaires other than ordinary classified "for indoor use only"..... :	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>
	Luminaires other than ordinary classified for "outdoor use" and "for indoor use"..... :	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<input type="checkbox"/>
4.5.2 (-)	Portable luminaire for outdoor use classified IPX4 or higher		N/A
4.5.3 (-)	Luminaires designed for standing on a floor or table classified as suitable for direct mounting on normally flammable surfaces		N/A

4.6 (3)	MARKING		P
4.6 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text		P
4.6 (3.3)	Additional information		P
	Language of instructions	ENGLISH	P
4.6 (3.3.1)	Combination luminaires		N/A
4.6 (3.3.2)	Nominal frequency in Hz		N/A
4.6 (3.3.3)	Operating temperature	40°C	P
4.6 (3.3.5)	Wiring diagram		N/A
4.6 (3.3.6)	Special conditions		N/A
4.6 (3.3.7)	Metal halide lamp luminaire – warning		N/A



IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
4.6 (3.3.8)	Limitation for semi-luminaires		N/A
4.6 (3.3.9)	Power factor and supply current		N/A
4.6 (3.3.10)	Suitability for use indoors		N/A
4.6 (3.3.11)	Luminaires with remote control		N/A
4.6 (3.3.12)	Clip-mounted luminaire – warning		N/A
4.6 (3.3.13)	Specifications of protective shields		N/A
4.6 (3.3.14)	Symbol for nature of supply	~	P
4.6 (3.3.15)	Rated current of socket outlet		P
4.6 (3.3.16)	Rough service luminaire		N/A
4.6 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments	TYPE Y	P
4.6 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
4.6 (3.3.19)	Protective conductor current in instruction if applicable		N/A
4.6 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
4.6 (3.3.21)	Non replaceable and non-user replaceable light sources information provided	Non-user replaceable light sources	P
4.6 (3.3.22)	Controllable luminaires, classification of insulation provided		N/A
4.6 (3.3.23)	Luminaires without controlgear provided with necessary information for selection of appropriate component		N/A
4.6 (3.3.24)	If not supplied with terminal block, information on the packaging		N/A
4.6 (3.3.25)	Luminaires employing light sources emitting UV on mains wiring, information provided		P
4.6 (3.3.26)	Wall mounted luminaire using external flexible cable or cord longer than 0.3 m, information provided		N/A
4.6 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test		P
	Label attached		P
4.6.1 (-)	Luminaire not suitable for outdoor application		N/A
	Required symbol		N/A
	Information in the instructions		N/A
4.6.2 (-)	Outdoor use, socket outlet incorporated in the luminaire		N/A
	Maximum power rating marked		N/A



IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
	Position of the marking		N/A
4.7 (4)	CONSTRUCTION		P
4.7 (4.2)	Components replaceable without difficulty		P
4.7 (4.3)	Wireways smooth and free from sharp edges		P
4.7 (4.4)	Lampholders		N/A
4.7 (4.4.1)	Integral lampholder		N/A
4.7 (4.4.2)	Wiring connection		N/A
4.7 (4.4.3)	Lampholder for end-to-end mounting		N/A
4.7 (4.4.4)	Positioning		N/A
	- pressure test (N)		—
	After test the lampholder comply with relevant standard sheets and show no damage		N/A
	After test on single-capped lampholder the lampholder have not moved from its position and show no permanent deformation		N/A
	- bending test (N)		—
	After test the lampholder has not moved from its position and show no permanent deformation		N/A
4.7 (4.4.5)	Peak pulse voltage		N/A
4.7 (4.4.6)	Centre contact		N/A
4.7 (4.4.7)	Parts in rough service luminaires resistant to tracking		N/A
4.7 (4.4.8)	Lamp connectors		N/A
4.7 (4.4.9)	Caps and bases correctly used		N/A
4.7 (4.4.10)	Light source for lampholder or connection according IEC 60061 not connected another way		N/A
4.7 (4.5)	Starter holders		N/A
	Starter holder in luminaires other than class II		N/A
	Starter holder class II construction		N/A
4.7 (4.6)	Terminal blocks		N/A
	Tails		N/A
	Unsecured blocks		N/A
4.7 (4.7)	Terminals and supply connections		P
4.7 (4.7.1)	Contact to metal parts		P
4.7 (4.7.2)	Test 8 mm live conductor		N/A
	Test 8 mm earth conductor		N/A
4.7 (4.7.3)	Terminals for supply conductors		P



IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
4.7 (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
4.7 (4.7.4)	Terminals other than supply connection		P
4.7 (4.7.5)	Heat-resistant wiring/sleeves		N/A
4.7 (4.7.6)	Multi-pole plug		N/A
	- test at 30 N		N/A
4.7 (4.8)	Switches		P
	- adequate rating		P
	- adequate fixing		P
	- polarized supply		N/A
	- compliance with IEC 61058-1 for electronic switches		P
4.7 (4.9)	Insulating lining and sleeves		N/A
4.7 (4.9.1)	Retainment		N/A
	Method of fixing.....:		N/A
4.7 (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
4.7 (4.10)	Double or reinforced insulation		N/A
4.7 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation		N/A
	Safe installation fixed luminaires		N/A
	Capacitors and switches		N/A
4.7 (4.10.2)	Assembly gaps:		N/A
	- not coincidental		N/A
	- no straight access with test probe		N/A
4.7 (4.10.3)	Retainment of insulation:		N/A
	- fixed		N/A



IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
	- unable to be replaced; luminaire inoperative		N/A
	- sleeves retained in position		N/A
	- lining in lampholder		N/A
4.7 (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
4.7 (4.11)	Electrical connections and current-carrying parts		P
4.7 (4.11.1)	Contact pressure		P
4.7 (4.11.2)	Screws:		N/A
	- self-tapping screws		N/A
	- thread-cutting screws		N/A
4.7 (4.11.3)	Screw locking:		N/A
	- spring washer		N/A
	- rivets		N/A
4.7 (4.11.4)	Material of current-carrying parts		P
4.7 (4.14.7)	No contact to wood or mounting surface		P
4.7 (4.14.7)	Electro-mechanical contact systems		N/A
4.7 (4.12)	Screws and connections (mechanical) and glands		N/A
4.7 (4.12.1)	Screws not made of soft metal		N/A
	Screws of insulating material		N/A
	Torque test: torque (Nm); part..... :		N/A
	Torque test: torque (Nm); part..... :		N/A
	Torque test: torque (Nm); part..... :		N/A
4.7 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
4.7 (4.12.4)	Locked connections:		N/A
	- fixed arms; torque (Nm)..... :		N/A
	- lampholder; torque (Nm)..... :		N/A
	- push-button switches; torque 0,8 Nm..... :		N/A
4.7 (4.12.5)	Screwed glands; force (Nm)..... :		N/A
4.7 (4.13)	Mechanical strength		P



IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
4.7 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm)..... :	LED cover: 0.35Nm	P
	- other parts; energy (Nm)..... :	Plastic enclosure: 0.5 Nm	P
	1) live parts		P
	2) linings		N/A
	3) protection		P
	4) covers		P
4.7 (4.13.2)	Metal parts have adequate mechanical strength		P
4.7 (4.13.3)	Straight test finger		N/A
4.7 (4.13.4)	Rough service luminaires		N/A
	- IP54 or higher		N/A
	a) fixed		N/A
	b) hand-held		N/A
	c) delivered with a stand		N/A
	d) for temporary installations and suitable for mounting on a stand		N/A
4.7 (4.13.6)	Tumbling barrel		N/A
4.7 (4.14)	Suspensions, fixings and means of adjusting		P
4.7 (4.14.1)	Mechanical load:		N/A
	A) four times the weight		N/A
	B) torque 2,5 Nm		N/A
	C) bracket arm; bending moment (Nm)..... :		N/A
	D) load track-mounted luminaires		N/A
	E) clip-mounted luminaires, glass-shelve. Thickness (mm)		N/A
	Metal rod. diameter (mm)		N/A
	Fixed luminaire or independent control gear without fixing devices		N/A
4.7 (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
4.7 (4.14.3)	Adjusting devices:		P
	- flexing test; number of cycles..... :	1500 cycles	P
	- strands broken..... :	0	P



IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
	- electric strength test afterwards		P
4.7 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
4.7 (4.14.5)	Guide pulleys		N/A
4.7 (4.14.6)	Strain on socket-outlets		N/A
4.7 (4.15)	Flammable materials		P
	- glow-wire test 650°C..... :	See Test Table 1.15 (13.3.2)	P
	- spacing \geq 30 mm		N/A
	- screen withstanding test of 13.3.1		N/A
	- screen dimensions		N/A
	- no fiercely burning material		P
	- thermal protection		N/A
	- electronic circuits exempted		N/A
4.7 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		N/A
	a) construction		N/A
	b) temperature sensing control		N/A
	c) surface temperature		N/A
4.7 (4.16)	Luminaires for mounting on normally flammable surfaces		N/A
	No lamp control gear..... :	(compliance with Section 12)	N/A
	Provided with adaptor for a track meet the requirements for direct mounting on normally flammable surfaces		N/A
4.7 (4.16.1)	Lamp control gear spacing:		N/A
	- spacing 35 mm		N/A
	- spacing 10 mm		N/A
4.7 (4.16.2)	Thermal protection:		N/A
	- in lamp control gear		N/A
	- external		N/A
	- fixed position		N/A
	- temperature marked lamp control gear		N/A
4.7 (4.16.3)	Design to satisfy the test of 12.6	(see clause 12.6)	N/A
4.7 (4.17)	Drain holes		N/A
	Clearance at least 5 mm		N/A
4.7 (4.18)	Resistance to corrosion		N/A
4.7 (4.18.1)	- rust-resistance		N/A
4.7 (4.18.2)	- season cracking in copper		N/A



IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
4.7 (4.18.3)	- corrosion of aluminium		N/A
4.7 (4.19)	Ignitors compatible with ballast		N/A
4.7 (4.20)	Rough service vibration		N/A
4.7 (4.21)	Protective shield		N/A
4.7 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps		N/A
	Shield of glass if tungsten halogen lamps		N/A
4.7 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
4.7 (4.21.3)	No direct path		N/A
4.7 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment.....:	See Test Table 1.15 (13.3.2)	N/A
4.7 (4.22)	Attachments to lamps not cause overheating or damage		N/A
4.7 (4.23)	Semi-luminaires comply Class II		N/A
4.7 (4.24)	Photobiological hazards		P
4.7 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		N/A
4.7 (4.24.2)	Retinal blue light hazard		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
4.7 (4.25)	Mechanical hazard		P
	No sharp point or edges		P
4.7 (4.26)	Short-circuit protection		N/A
4.7 (4.26.1)	Adequate means of uninsulated accessible SELV or PELV parts		N/A
4.7 (4.26.2)	Short-circuit test with test chain according 4.26.3		N/A
	Supply source ES1 PSE		N/A
	Test chain not melt through		N/A



IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
	Test sample not exceed values of Table 12.1 and 12.2		N/A
4.7 (4.27)	Terminal blocks with integrated screwless protective earthing contacts		N/A
	Test according Annex V		N/A
	Pull test of terminal fixing (20 N)		N/A
	After test, resistance < 0,05 \square		N/A
	Pull test of mechanical connection (50 N)		N/A
	After test, resistance < 0,05 \square		N/A
	Voltage drop test, resistance < 0,05 \square		N/A
4.7 (4.28)	Fixing of thermal sensing control		N/A
	Not plug-in or easily replaceable type		N/A
	Reliably kept in position		N/A
	No adhesive fixing if UV radiations from a lamp can degrade the fixing		N/A
	Not outside the luminaire enclosure		N/A
	Test of adhesive fixing:		N/A
	Max. temperature on adhesive material (°C) :		—
	100 cycles between t_{min} and t_{max}		N/A
	Temperature sensing control still in position		N/A
4.7 (4.29)	Luminaires with non-replaceable light source		N/A
	Not possible to replace light source		N/A
	Live part not accessible after parts have been opened by hand or tools		N/A
4.7 (4.30)	Luminaires with non-user replaceable light source		N/A
	If protective cover provide protection against electric shock and marked with “caution, electric shock risk” symbol:		N/A
	At least one fixing means requiring use of tool		N/A
4.7 (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		N/A
4.7 (4.31.1)	SELV or PELV circuits		P
	Used SELV or PELV source		P
	Voltage \leq ELV		P
	Insulating of SELV or PELV circuits from LV supply		P



IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
	Insulating of SELV or PELV circuits from other non SELV or PELV circuits		N/A
	Insulating of SELV or PELV circuits from FELV		N/A
	Insulating of SELV or PELV circuits from other SELV or PELV circuits		P
	SELV or PELV circuits insulated from accessible parts according Table X.1		P
	Plugs not able to make any electrical contact with socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		P
	Plugs and socket-outlets does not have protective conductor contact		P
4.7 (4.31.2)	FELV circuits		N/A
	Used FELV source		N/A
	Voltage \leq ELV		N/A
	Insulating of FELV circuits from LV supply		N/A
	FELV circuits insulated from accessible parts according Table X.1		N/A
	Plugs not able to make any electrical contact with socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Socket-outlets have protective conductor contact		N/A
4.7 (4.31.3)	Other circuits		N/A
	Other circuits insulated from accessible parts according Table X.1		N/A
	Class II construction with equipotential bonding for protection against indirect contacts with live parts:		N/A
	- conductive parts are connected together		N/A
	- test according 7.2.3		N/A
	- conductive part does not cause an electric shock in case of an insulation fault		N/A
	- equipotential bonding in master/slave applications		N/A
	- master luminaire provided with terminal for accessible conductive parts of slave luminaires		N/A
	- slave luminaire constructed as class I		N/A
4.7 (4.32)	Overvoltage protective devices		N/A
	Comply with IEC 61643-11		N/A
	External to controlgear and connected to earth:		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	- only in fixed luminaires		N/A
	- only connected to protective earth		N/A
4.7 (4.33)	Luminaire powered via information technology communication cabling		N/A
	Requirements for Class III luminaire		N/A
	Rated voltage within the range of ES1 and does not exceed maximum voltage of used connector		N/A
	Luminaire does not create any hazard from overvoltage	(see Annex 2)	N/A
4.7 (4.34)	Electromagnetic fields (EMF)		N/A
	No harmful electromagnetic fields		N/A
4.7 (4.35)	Protection against moving fan blades		N/A
	Test with a standard test finger		N/A
	Test with test probe acc. to Figure 13 (IEC 61032) for portable luminaire		N/A
	Blades rounded with radius ≥ 0.5 mm and:		N/A
	- hardness less than D60 Shore		N/A
	- peripheral speed less than 15 m/s		N/A
	- input power of fan ≤ 2 W at rated voltage		N/A
4.7 (4.36)	Track-mounted luminaires		N/A
	Test in accordance with Annex A of IEC60570:2003/AMD2:2019		N/A
4.7.1 (-)	Insulation not damaged when moving, adjusting or placing on support		P
4.7.2 (-)	Wiring fixed, to avoid rubbing		P
	Carrier or clips of insulation material or with insulating lining		P
4.7.3 (-)	Luminaire does not overturn:		P
	- at an angle of 6° for indoor use		P
	- at an angle 15° for outdoor use		N/A
4.7.4 (-)	Candlestick luminaires provided with switch		N/A
	Switch in candlestick luminaires with E5 or E10 lampholders switches all lamps on and off simultaneously		N/A
	Switch part of the luminaire or within 300 mm of the luminaire if with cord		N/A
4.7.5 (-)	Voltage not exceeding 25 V for E5 lampholders		N/A
	E10 lampholder voltage:		N/A
	- not exceeding 60 V for series connection		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	- not exceeding 250 V for parallel connection		N/A
	Maximum rated wattage does not exceed 100 W		N/A
4.7.6 (-)	Tails not provided for luminaires for outdoor use		N/A
4.7.7 (-)	Not more than two cable entries for luminaires for outdoor use		N/A
4.7.8 (-)	Portable luminaires for outdoor use, socket-outlet degree of protection at least same as the luminaire but not less than IPX4.		N/A
	Degree of protection maintained with or without a plug inserted into the socket-outlet.		N/A
	Class II luminaires, mains socket-outlets comply with the standard and only allow connection to Class II luminaires		N/A
	Class I luminaires, mains socket-outlets comply with the standard and only allow connection to Class I or Class II luminaires		N/A
4.7.9 (-)	Lampholders and plugs resistant to tracking for luminaires for outdoor use	See Test Table 4.16 (13.4)	N/A
	Compliance to clause 13.4		N/A

4.8 (11)	CREEPAGE DISTANCES AND CLEARANCES		N/A
4.8 (11.2.1)	Impulse withstand category (Normal category II)	Category II <input checked="" type="checkbox"/> Category III <input type="checkbox"/>	<input type="checkbox"/>
	Category III according Annex U		N/A
	Protected against pollution, reduced creepage and clearance according Annex P of IEC 61347-1		N/A
4.8 (11.2.2)	Creepage distances for frequency up to 30 kHz	See Test Table 4.8 (11.2) I	N/A
	Creepage distances for frequency over 30 kHz:		N/A
	- Controlgear marked with \hat{U}_{OUT} and f_{UOUT} according IEC 61347-1, clause 7.1, item w	See Test Table 4.8 (11.2) II	N/A
	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347	See Test Table 4.8 (11.2) II	N/A
4.8 (11.2.3)	Clearances for frequency up to 30 kHz	See Test Table 4.8 (11.2) I	N/A
	Clearances distances for frequency over 30 kHz:		N/A
	- Controlgear marked with U_P	See Test Table 4.8 (11.2) II	N/A
	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347	See Test Table 4.8 (11.2) II	N/A

4.9 (7)	PROVISION FOR EARTHING		N/A
4.9 (7.2.1 + 7.2.3)	Accessible metal parts		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	Metal parts in contact with supporting surface		N/A
	Resistance < 0,5 Ω :		N/A
	Self-tapping screws used		N/A
	Thread-forming screws		N/A
	Thread-forming screw used in a groove		N/A
	Protective earth makes contact first		N/A
	Terminal blocks with integrated screwless protective earthing contacts tested according Annex V		N/A
	Protective earthing of the luminaire not via built-in control gear		N/A
4.9 (7.2.2 + 7.2.3)	Protective earthing continuity in joints, etc.		N/A
4.9 (7.2.4)	Locking of clamping means		N/A
	Compliance with 4.7.3		N/A
4.9 (7.2.5)	Earth terminal integral part of connector socket		N/A
4.9 (7.2.6)	Earth terminal adjacent to mains terminals		N/A
4.9 (7.2.7)	Electrolytic corrosion of the protective earth terminal		N/A
4.9 (7.2.8)	Material of protective earth terminal		N/A
	Contact surface bare metal		N/A
4.9 (7.2.10)	Class II luminaire for looping-in		N/A
	Double or reinforced insulation to functional earth		N/A
4.9 (7.2.11)	Protective earthing core coloured green-yellow		N/A
	Length of protective earthing conductor		N/A
4.9 (7.2.12)	PELV circuit connected to protective earth for functional purpose		N/A

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

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

4.11 (5)	EXTERNAL AND INTERNAL WIRING		P
4.11 (5.2)	Supply connection and external wiring		P



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Clause	Requirement + Test	Result - Remark	Verdict
4.11 (5.2.1)	Means of connection..... :		N/A
	Outdoor luminaire has not PVC insulated external wiring if not Class III or SELV/PELV circuits ≤ 25 V AC/60 V DC/25 V peak interrupted DC voltage with frequency 10Hz -200 Hz or protected from outdoor environment		N/A
4.11 (5.2.2)	Type of cable..... :		N/A
	Nominal cross-sectional area (mm ²)..... :		N/A
	Cables equal to IEC 60227 or IEC 60245		N/A
4.11 (5.2.3)	Type of attachment, X, Y or Z	TYPE Y	P
4.11 (5.2.5)	Type Z not connected to screws		N/A
4.11 (5.2.6)	Cable entries:		P
	- suitable for introduction		P
	- adequate degree of protection		P
4.11 (5.2.7)	Cable entries through rigid material have rounded edges		N/A
4.11 (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
4.11 (5.2.9)	Locking of screwed bushings		N/A
4.11 (5.2.10)	Cord anchorage:		P
	- covering protected from abrasion		P
	- clear how to be effective		P
	- no mechanical or thermal stress		P
	- no tying of cables into knots etc.		P
	- insulating material or lining		P
4.11 (5.2.10.1)	Cord anchorage for type X attachment:		N/A
	a) at least one part fixed		N/A
	b) types of cable		N/A
	c) no damaging of the cable		N/A
	d) whole cable can be mounted		N/A
	e) no touching of clamping screws		N/A
	f) metal screw not directly on cable		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	g) replacement without special tool		N/A
	Glands not used as anchorage		N/A
	Labyrinth type anchorages		N/A
4.11 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment	TYPE Y	P
4.11 (5.2.10.3)	Tests:		P
	- impossible to push cable; unsafe		P
	- pull test: 25 times; pull (N)..... : 80	80	P
	- torque test: torque (Nm)..... : 0.35	0.35	P
	- displacement \square 2 mm		P
	- no movement of conductors		P
	- no damage of cable or cord		P
	- function independent of electrical connection		P
4.11 (5.2.10.4)	Luminaire with/ designed for use with supply cord with maximum current of 2A:		N/A
	- Ordinary Class III luminaire supplied with SELV \leq 25V RMS/60V DC		N/A
	- Ordinary Class III luminaire supplied with PELV \leq 12V RMS/30V DC		N/A
	- Other than ordinary Class III luminaire supplied with voltage \leq 12V RMS/30V DC		N/A
	Pull test of 30 N		N/A
4.11 (5.2.11)	External wiring passing into luminaire		P
4.11 (5.2.12)	Looping-in terminals		N/A
4.11 (5.2.13)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		P
4.11 (5.2.14)	Mains plug same protection		P
	Class III luminaire plug		N/A
	No unsafe compatibility		N/A
4.11 (5.2.15)	Connectors for Class III luminaires (IEC 60603 or IEC 62680)		N/A
4.11 (5.2.16)	Appliance inlets (IEC 60320)		N/A
	Installation couplers (IEC 61535)		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	Appliance inlet or connector systems (IEC 61984)		N/A
4.11 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
4.11 (5.2.18)	Used plug in accordance with		P
	- IEC 60083		N/A
	- other standard		P
4.11 (5.3)	Internal wiring		P
4.11 (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)..... : 5W		P
	- temperatures..... : (see Annex 2)		N/A
	Green-yellow for protective earth only		N/A
4.11 (5.3.1.1)	Internal wiring connected directly to fixed wiring		P
	Cross-sectional area (mm ²)..... : See Annex 1		P
	Insulation thickness (mm) : Approved cable		P
	Extra insulation added where necessary		N/A
4.11 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		P
	Cross-sectional area (mm ²)..... : See Annex 1		P
4.11 (5.3.1.3)	Double or reinforced insulation for class II		P
4.11 (5.3.1.4)	Conductors without insulation		N/A
4.11 (5.3.1.5)	SELV or PELV current-carrying parts		P
4.11 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A
4.11 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		P
	Joints, raising/lowering devices		P
	Telescopic tubes etc.		N/A
	No twisting over 360°		P
4.11 (5.3.3)	Insulating bushings:		N/A
	- suitable fixed		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- cables with protective sheath		N/A
4.11 (5.3.4)	Joints and junctions effectively insulated		N/A
4.11 (5.3.5)	Strain on internal wiring		N/A
4.11 (5.3.6)	Wire carriers		N/A
4.11 (5.3.7)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		P
4.11 (5.4)	Test to determine suitability of conductors having a reduced cross-sectional area		P
	Under test the temperature of the luminaire wiring insulation does not exceed the limits stated in Table 12.2	(82°C (limit 105°C)	P
	No damage to luminaire wiring after test		P
4.11.1 (-)	Cord anchorage of luminaire for indoor use made of glass or ceramic not fixed or integral		--
4.11.2 (-)	For Class I and Class II luminaires for indoor use, if:		N/A
	- mass < 1 kg (kg)..... :		N/A
	- rated current ≤ 2,5 A (A)..... :		N/A
	- cable length ≤ 2 m (m)..... :		N/A
	- the nominal cross-sectional area of copper conductor ≥ 0,5 mm ² (mm ²)..... :		N/A
4.11.3 (-)	Terminals, cord anchorage and inlet opening provided for luminaire for outdoor use delivered without a flexible cable or cord and a plug.		N/A
4.11.4 (-)	Non-detachable flexible cables or cords not lighter than type 245 IEC 57 for Class I and Class II luminaires for outdoor use.		N/A

4.12 (8)	PROTECTION AGAINST ELECTRIC SHOCK		P
4.12 (8.2.1)	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		P
	Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires		P
	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	Lamp and starterholders in portable and adjustable luminaires comply with double or reinforced insulation requirements		N/A
	Basic insulation only accessible under lamp or starter replacement		N/A
	Protection in any position		P
	Double-ended tungsten filament lamp		N/A
	Insulation lacquer not reliable		N/A
	Double-ended high-pressure discharge lamp		N/A
	Relevant warning according to 3.2.18 fitted to the luminaire		N/A
4.12 (8.2.2)	Portable luminaire adjusted in most unfavourable position		P
4.12 (8.2.3.a)	Class II luminaire:		N/A
	- basic insulated metal parts not accessible		N/A
	- required insulation from live parts in compliance with Table X.1		N/A
	- glass protective shields not used as supplementary insulation		N/A
4.12 (8.2.3.b)	Metal BC lampholder in class I luminaires connected to protective earth		N/A
4.12 (8.2.3.c)	SELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V).....:		N/A
	- voltage under load/ no-load DC (V).....:		N/A
	- interrupted DC voltage (V).....:		N/A
	- touch current if applicable (mA)		N/A
	One conductive part insulated		N/A
	Other than ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V).....:		N/A
	- voltage under load/ no-load DC (V).....:		N/A
	- interrupted DC voltage (V).....:		N/A
4.12 (8.2.3.d)	PELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V).....:		N/A
	- voltage under load/ no-load DC (V).....:		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	Other than ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V).....:		N/A
	- voltage under load/ no-load DC (V).....:		N/A
	Pole not connected to earth insulated		N/A
	Class III luminaire only for connection to SELV or PELV		N/A
4.12 (8.2.4)	Portable luminaire has protection independent of supporting surface		P
4.12 (8.2.5)	Compliance with the standard test finger or relevant probe		P
4.12 (8.2.6)	Covers reliably secured		P
4.12 (8.2.7)	Luminaire other than below with capacitor $\leq 0,5 \mu\text{F}$ not exceed 50 V 1 min after disconnection		N/A
	Portable luminaire with capacitor $\leq 0,1 \mu\text{F}$ (0,25) not exceed 34 V 1 s after disconnection		P
	Other luminaires with capacitor $\leq 0,1 \mu\text{F}$ (0,25) with plug and track adaptors not exceed 60 V 5 s after disconnection		N/A
4.12 (-)	Class I luminaire with bayonet lampholder:		N/A
	1) cap not accessible with test finger		N/A
	2) metal lampholder is earthed		N/A

4.13 (12)	ENDURANCE TEST AND THERMAL TEST		P
4.13 (-)	If IP > IP 20 relevant test of (12.4), (12.5), (12.6) and (12.7) after (9.2) but before (9.3) specified in 4.14		<input type="checkbox"/>
4.13 (12.2)	Selection of lamps and ballasts		<input type="checkbox"/>
	Lamp used according Annex B	(Lamp used see Annex 2)	<input type="checkbox"/>
	Controlgear if separate and not supplied	(Controlgear used see Annex 2)	<input type="checkbox"/>
4.13 (12.3)	Endurance test		P
	a) mounting-position	As normal use	<input type="checkbox"/>
	b) test temperature ($^{\circ}\text{C}$).....	40 $^{\circ}\text{C}$	<input type="checkbox"/>
	c) total duration (h)	240H	<input type="checkbox"/>
	d) supply voltage (V).....	5V	<input type="checkbox"/>
	d) if not equipped with controlgear, constant voltage/current (V) or (A)		<input type="checkbox"/>
1.13 (12.3.1d)	d) Class III luminaires powered via information technology communication cable:		<input type="checkbox"/>
	- voltage under normal operation (V).....:		<input type="checkbox"/>



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Clause	Requirement + Test	Result - Remark	Verdict
	- voltage under abnormal operation (V)..... :		
	e) luminaire ceases to operate		☐
	f) luminaire with a constant light output function		N/A
4.13 (12.3.2)	After endurance test:		P
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N/A
	- marking legible		P
	- no cracks, deformation etc.		P
4.13 (12.4)	Thermal test (normal operation)	(Annex 2)	P
4.13 (12.5)	Thermal test (abnormal operation)	(Annex 2)	P
4.13 (12.6)	Thermal test (failed lamp control gear condition):		N/A
4.13 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A) :		☐
	- case of abnormal conditions..... :		☐
	- electronic lamp control gear		N/A
	- measured winding temperature (°C): at 1,1 Un :		☐
	- measured mounting surface temperature (°C) at 1,1 Un :		N/A
	- calculated mounting surface temperature (°C) :		N/A
	- track-mounted luminaires		N/A
4.13 (12.6.2)	Temperature sensing control		N/A
	- case of abnormal conditions..... :		☐
	- thermal link		N/A
	- manual reset cut-out		N/A
	- auto reset cut-out		N/A
	- measured mounting surface temperature (°C) :		N/A
	- track-mounted luminaires		N/A
4.13 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		N/A
4.13 (12.7.1)	Luminaire without temperature sensing control		N/A
4.13 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		N/A
	Test method 12.7.1.1 or Annex W :		☐
	Test according to 12.7.1.1:		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	- case of abnormal conditions.....:		<input type="checkbox"/>
	- Ballast failure at supply voltage (V)		<input type="checkbox"/>
	- 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.....:		<input type="checkbox"/>
	- measured winding temperature (°C): at 1,1 Un.....:		<input type="checkbox"/>
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un.....:		<input type="checkbox"/>
	- calculated temperature of fixing point/exposed part (°C).....:		<input type="checkbox"/>
	Ball-pressure test.....:	See Test Table 1.15 (13.2.1)	N/A
4.13 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		N/A
	- case of abnormal conditions.....:		<input type="checkbox"/>
	- measured winding temperature (°C): at 1,1 Un.....:		<input type="checkbox"/>
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un.....:		<input type="checkbox"/>
	- calculated temperature of fixing point/exposed part (°C).....:		<input type="checkbox"/>
	Ball-pressure test.....:	See Test Table 1.15 (13.2.1)	N/A
4.13 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA		N/A
	- case of abnormal conditions.....:		<input type="checkbox"/>
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
4.13 (12.7.2)	Luminaire with temperature sensing control		N/A
	- thermal link.....:	Yes <input type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>
	- manual reset cut-out.....:	Yes <input type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>
	- auto reset cut-out.....:	Yes <input type="checkbox"/> No <input type="checkbox"/>	<input type="checkbox"/>
	- case of abnormal conditions.....:		<input type="checkbox"/>
	- highest measured temperature of fixing point/exposed part (°C):.....:		<input type="checkbox"/>
	Ball-pressure test:.....:	See Test Table 4.15 (13.2.1)	N/A
4.13 (-)	Luminaire for indoor use tested in overturned position (overturns < 15°)	Not overturn	P



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Clause	Requirement + Test	Result - Remark	Verdict

4.14 (9)	RESISTANCE TO DUST AND MOISTURE		P
4.14 (-)	If IP > IP 20 the order of tests as specified in clause 4.13		N/A
4.14 (9.2)	Tests for ingress of dust, solid objects and moisture:		P
	- classification according to IP..... :	IP20	<input type="checkbox"/>
	- mounting position during test..... :		<input type="checkbox"/>
	- fixing screws tightened; torque (Nm)..... :		<input type="checkbox"/>
	- tests according to clauses..... :		<input type="checkbox"/>
	- electric strength test afterwards		N/A
	a) no deposit in dust-proof luminaire		N/A
	b) no talcum in dust-tight luminaire		N/A
	c) no trace of water on current-carrying parts or on insulation where it could become a hazard		N/A
	c.1) For luminaires without drain holes – no water entry		N/A
	c.2) For luminaires with drain holes – no hazardous water entry		N/A
	d) no water in watertight, pressure watertight, high pressure and temperature water jet-proof or high pressure and cold-water jet-proof luminaire		N/A
	e) no contact with live parts (IP 2X)	IP20	P
	e) no entry into enclosure (IP 3X and IP 4X)		N/A
	e) no contact with live parts through drain holes and ventilation slots (IP3X and IP4X)		N/A
	f) no trace of water on part of lamp requiring protection from splashing water		N/A
	g) no damage of protective shield or glass envelope		N/A
4.14 (9.3)	Humidity test 48 h	25°C, 93%R.H.	N/A

4.15 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		P
4.15 (10.2.1)	Insulation resistance test		P
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø :		P
	Insulation resistance (MΩ):		P
	SELV or PELV:		P
	- between current-carrying parts of different polarity:		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	- between current-carrying parts and mounting surface..... :	100M \square (required: 1M \square)	P
	- between current-carrying parts and metal parts of the luminaire..... :	100M \square (required: 1M \square)	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 or PELV:		P
	- between live parts of different polarity..... :		N/A
	- between live parts and mounting surface..... :	100M \square (required: 4M \square)	P
	- between live parts and metal parts..... :	100M \square (required: 4M \square)	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		P
4.15 (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
	Luminaires with ignitors provided with ballasts conforming to IEC 61347-2-9		N/A
	SELV or PELV:		P
	- between current-carrying parts of different polarity:		N/A
	- between current-carrying parts and mounting surface..... :	500V	P
	- between current-carrying parts and metal parts of the luminaire..... :	500V	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..... :		N/A
	- between live parts and mounting surface..... :	2400V	P
	- between live parts and metal parts..... :	2400V	P



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Clause	Requirement + Test	Result - Remark	Verdict
	- 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
4.15 (10.3)	Touch current (mA)..... :		N/A
	Protective conductor current (mA)..... :		N/A

4.16 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		P
4.16 (13.2.1)	Ball-pressure test..... :	See Test Table 4.16 (13.2.1)	P
4.16 (13.3.1)	Needle-flame test (10 s)..... :	See Test Table 4.16 (13.3.1)	P
4.16 (13.3.2)	Glow-wire test (650°C)..... :	See Test Table 4.16 (13.3.2)	P
4.16 (13.4)	Proof tracking test (IEC 60112)..... :	See Test Table 4.16 (13.4)	P



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Clause	Requirement + Test	Result - Remark	Verdict

4.8 (11.2)	TABLE I: Creepage distances and clearances						N/A
	Minimum distances (mm) for a.c. up to 30 kHz sinusoidal voltages						
	Applicable part of IEC 60598-1 Table 11.1.A*, 11.1.B* and 11.2* and Table U.1*						
Distances	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:	R	5.0	1.5	11.1.B	5.0	3.2	11.1.A
Working voltage (V)..... :					100V		<input type="checkbox"/>
PTI..... :					< 600 <input checked="" type="checkbox"/> ≥ 600 <input type="checkbox"/>		<input type="checkbox"/>
Pulse voltage or U_P if applicable (kV)					--		<input type="checkbox"/>
Supplementary information:							
** Insulation type: B – Basic; S – Supplementary; R – Reinforced. See also IEC 60598-1 Annex M.							
Approved built in SELV LED driver was used.							
For Class III construction (output of LED driver), no values are specified for working voltages below 60 VDC as the test voltage 500V of electric strength is considered sufficient.							
Distance 2:	--	--	--	--	--	--	--
Working voltage (V)..... :					--		<input type="checkbox"/>
PTI..... :					< 600 <input type="checkbox"/> ≥ 600 <input type="checkbox"/>		<input type="checkbox"/>
Pulse voltage or U_P if applicable (kV)					--		<input type="checkbox"/>
Supplementary information:--							
Distance 3:	--	--	--	--	--	--	--
Working voltage (V)..... :							<input type="checkbox"/>
PTI..... :					< 600 <input type="checkbox"/> ≥ 600 <input type="checkbox"/>		<input type="checkbox"/>
Pulse voltage or U_P if applicable (kV)							<input type="checkbox"/>
Supplementary information:--							
** Insulation type: B – Basic; S – Supplementary; R – Reinforced. See also IEC 60598-1 Annex M.							



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Clause	Requirement + Test	Result - Remark	Verdict

4.8 (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)..... :							<input type="checkbox"/>
Frequency if applicable (kHz)..... :							<input type="checkbox"/>
PTI..... :					< 600 <input type="checkbox"/>	≥ 600 <input type="checkbox"/>	<input type="checkbox"/>
Peak value of the working voltage \hat{U}_{out} if applicable (kV)							<input type="checkbox"/>
Supplementary information:							
Distance 2:							
Working voltage (V)..... :							<input type="checkbox"/>
Frequency if applicable (kHz)..... :							<input type="checkbox"/>
PTI..... :					< 600 <input type="checkbox"/>	≥ 600 <input type="checkbox"/>	<input type="checkbox"/>
Peak value of the working voltage \hat{U}_{out} if applicable (kV)							<input type="checkbox"/>
Supplementary information:							
Distance 3:							
Working voltage (V)..... :							<input type="checkbox"/>
Frequency if applicable (kHz)..... :							<input type="checkbox"/>
PTI..... :					< 600 <input type="checkbox"/>	≥ 600 <input type="checkbox"/>	<input type="checkbox"/>
Peak value of the working voltage \hat{U}_{out} if applicable (kV)							<input type="checkbox"/>
Supplementary information:							
** Insulation type: B – Basic; S – Supplementary; R – Reinforced.							



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Clause	Requirement + Test	Result - Remark	Verdict

4.16 (13.2.1)	TABLE: Ball Pressure Test of Thermoplastics			N/A
Allowed impression diameter (mm)			2	<input type="checkbox"/>
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
--	--	--	--	
Supplementary information:				

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

4.16 (13.3.2)	TABLE: Glow-wire test (IEC 60695-2-11)				P
Glow wire temperature			650°C	<input type="checkbox"/>	
Object/ Part No./ Material	Manufacturer/ trademark	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict	
LED cover	See table ANNEX 1	No	0	PASS	
Enclosure	See table ANNEX 1	No	0	PASS	
Supplementary information:					



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Clause	Requirement + Test	Result - Remark	Verdict

4.16 (13.4)	TABLE: Proof tracking test (IEC 60112)			N/A
Test voltage PTI	175 V			<input type="checkbox"/>
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				
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
LED driver	B	Huizhou Guoatong Technology Co., Ltd	GA-0501000V	Input: 100-240V~50/6Hz; 0.6A; Output: 5VDC, 1A	EN 62368-1	EN test report
Lead wire		DONGGUAN FENGJIN ELECTRONICS CO LTD	2464, 2468	300V, 80°C, min. 22AWG	UL 758, IEC 60598-1/ -2-4	UL Tested with appliance#
Alternative	B	Interchangeable	Interchangeable	30V, 80°C, min. 22AWG	UL 758, IEC 60598-1/ -2-4	UL Tested with appliance#
LED module lead wire	B	SUMITOMO ELECTRIC INDUSTRIES LTD	10368	300V, 80°C, min. 26AWG	UL 758, IEC 60598-1/ -2-4	UL Tested with appliance#
Alternative	B	DONGGUAN WENCHANG ELECTRONIC CO LTD	3302	30V, 80°C, min. 26AWG	UL 758, IEC 60598-1/ -2-4	UL Tested with appliance#
Alternative	B	Interchangeable	Interchangeable	30V, 80°C, min. 26AWG	UL 758, IEC 60598-1/ -2-4	UL Tested with appliance#
LED	B	DONGGUAN Ledestar	SMD3535	395-400nm	IEC TR 62778	Tested with appliance#
LED PCB	B	Dongguan Pengchangbo Precision Circuit Tech Co Ltd	ADL LED P3	Al base, min. 1.0mm thickness	IEC 60598-1/-2-4	Tested with appliance#
Alternative	B	Interchangeable	Interchangeable	130°C, V-0	UL 796, IEC 60598-1/ -2-4	UL Tested with appliance#
LED cover	B	CHI MEI CORPORATION	CM-211	PMMA, HB	UL 94, IEC 60598-1/ -2-4	UL E56070*+ Tested with appliance#



IEC 60598-2-4						
Clause	Requirement + Test			Result - Remark		Verdict
Enclosure	B	CHI MEI CORPORATION	PA-757	ABS, HB	UL 94, IEC 60598-1/ -2-4	UL E56070*+ Tested with appliance#
Supplementary information: 1) Provided evidence ensures the agreed level of compliance. See OD-CB2039. The codes above have the following meaning: A - The component is replaceable with another one, also certified, with equivalent characteristics B - The component is replaceable if authorised by the test house C - Integrated component tested together with the appliance D - Alternative component						



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

ANNEX 2	TABLE: Thermal tests of Section 12		P
	Type reference..... :	PL001	<input type="checkbox"/>
	Lamp used..... :	LED	<input type="checkbox"/>
	Lamp control gear used..... :	GA-0501000V	<input type="checkbox"/>
	Mounting position of luminaire..... :	As in normal use	<input type="checkbox"/>
	Supply wattage (W) :	5.0	<input type="checkbox"/>
	Supply current (A) :	1.0	<input type="checkbox"/>
	Temperatures in test 1 - 4 below are corrected for ta (°C) :	40°C	<input type="checkbox"/>
	- abnormal operating mode..... :	short circuit output of LED driver, the unit shut down immediately, no temperature data was recorded.	<input type="checkbox"/>
4.13 (12.4)	- test 1: rated voltage	100V	P
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current :	106V	P
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage..... :		N/A
	Through wiring or looping-in wiring loaded by a current of A during the test :		N/A
4.13 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current or 130/150% of rated input voltage..... :	110V	P

Temperature measurements (°C)

Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnor.	
		test 1	test 2	test 3	limit	test 4	limit
LED driver	40	–	40.6	--	90		
tc of driver	40	61.6	--	--	75		
Adjust plastic enclosure	40	–	31.5	--	75		
Mounting surface	40	–	31.8	--	90		
Lead wire	40	–	65.7	--	105		
LED PCB	40	–	69.2	--	REF.		
PCB near IC1(control board)	40	–	49.3	--	130		
LED cover	40	–	56.8	--	REF.		

Supplementary information:



IEC 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 3	Screw terminals (part of the luminaire)		N/A
(14)	SCREW TERMINALS		N/A
(14.2)	Type of terminal..... :		<input type="checkbox"/>
	Rated current (A)..... :		<input type="checkbox"/>
(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)..... :		<input type="checkbox"/>
(14.3.3)	Conductor space (mm)..... :		N/A
(14.4)	Mechanical tests		N/A
(14.4.1)	Minimum distance		N/A
(14.4.2)	Cannot slip out		N/A
(14.4.3)	Special preparation		N/A
(14.4.4)	Nominal diameter of thread (metric ISO thread)..... :	M	N/A
	External wiring		N/A
	No soft metal		N/A
(14.4.5)	Corrosion		N/A
(14.4.6)	Nominal diameter of thread (mm)..... :		N/A
	Torque (Nm)..... :		N/A
(14.4.7)	Between metal surfaces		N/A
	Lug terminal		N/A
	Mantle terminal		N/A
	Pull test; pull (N)..... :		N/A
(14.4.8)	Without undue damage		N/A



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

ANNEX 4	Screwless terminals (part of the luminaire)		N/A
(15)	SCREWLESS TERMINALS		N/A
(15.2)	Type of terminal..... :		<input type="checkbox"/>
	Rated current (A)..... :		<input type="checkbox"/>
(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:		<input type="checkbox"/>
	Voltage drop (mV) after 10th alt. 25th cycle (4 samples)..... :		N/A
	Voltage drop (mV) after 50th alt. 100th cycle (4 samples)..... :		N/A
	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples)..... :		N/A
	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples)..... :		N/A
(15.6)	Terminals and connections for external wiring		N/A
(15.6.1)	Conductors		N/A
	Terminal size and rating		N/A



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

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)	--	--	--	--	--	--	--	--	--	--	--
Supplementary information:--											



IEC60598_2_4I - ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
ATTACHMENT TO TEST REPORT IEC 60598-2-4 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES LUMINAIRES PART 2: PARTICULAR REQUIREMENTS SECTION 4: PORTABLE GENERAL PURPOSE LUMINAIRES			
Differences according to.....:		EN 60598-2-4:2018 used in conjunction with EN IEC 60598-1:2021 + A11:2022	
TRF template used.....:		IECEE OD-2020-F2:2020, Ed. 1.1	
Attachment Form No.....:		EU_GD_IEC60598_2_4I_II	
Attachment Originator.....:		IMQ S.p.A.	
Master Attachment.....:		Dated 2022-07-01	
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	CENELEC COMMON MODIFICATIONS (EN)	P
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4.6 (3)	MARKING	P
(3.2.12)	Delete the note 4	P

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

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



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

ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		N/A
(3.3)	DK: power supply cords of class I luminaires with label		N/A
(5.2.18)	DK: socket-outlets		N/A
(5.2.1)	CY, DK, FI, GB: type of plug		N/A
4.4.4 (-)	DK: luminaires for outdoor use classified as class II or class III		N/A

ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		N/A
(4 & 5)	FR: Shuttered socket-outlets 10/16A		N/A
	FR: Safety requirements for high buildings (Arrêté du 30 décembre 2011 portant règlement de sécurité pour la construction des immeubles de grande hauteur et leur protection contre les risques d'incendie et de panique; Section VIII; Article GH 48, Eclairage) Glow-wire test for outer parts of luminaires:		N/A
	- 850°C for luminaires in stairways and horizontal travel paths		N/A
	- 650°C for indoor luminaires		N/A
	GB: Requirements according to United Kingdom Building Regulation		N/A

Description: Overall view of EUT



Description: Overall view of EUT



Description: Internal view of EUT



※※※※※END OF THE REPORT※※※※※