

TEST REPORT IEC 60598-2-12 Luminaires Part 2: Particular requirements Section 12: Mains socket-outlet mounted nightlights	
Report Number.....: BCTC2008003064S Date of issue.....: Sept. 15, 2020 Total number of pages.....: 38 pages	
Testing Laboratory.....: Shenzhen BCTC Testing Co., Ltd.	
Address.....: BCTC Building & 1-2F, East of B Building, Pengzhou Industrial, Fuyuan 1st Road, Qiaotou Community, Fuyong Street, Bao'an District, Shenzhen, China	
Applicant's name.....: FUZHOU ZHONGXIN ELECTRONIC CO.,LTD Address.....: 4TH FLOOR HENGFA BUILDING 861 PANYU ROAD CANGSHAN AREA FUZHOU CITY FUJIAN PROVINCE CHINA	
Test specification: Standard.....: IEC 60598-2-12:2013 used in conjunction with IEC 60598-1:2014. EN 60598-2-12:2013, EN 60598-1:2015. Test procedure.....: CE-LVD Non-standard test method.....: N/A	
Test Report Form No.....: IEC60598_2_12F Test Report Form(s) Originator.....: Intertek Semko AB Master TRF.....: 2016-09 Copyright © 2016 IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE System). All rights reserved. This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.	
Test item description.....:	LED Night Light
Trademark.....:	N/A
Manufacturer.....:	FUZHOU ZHONGXIN ELECTRONIC CO.,LTD
Address.....:	4TH FLOOR HENGFA BUILDING 861 PANYU ROAD CANGSHAN AREA FUZHOU CITY FUJIAN PROVINCE CHINA
Model/Type reference.....:	MZ303 MZ303ME,MZ303UK
Ratings.....:	220-240V~, 50/60Hz, 0.5W

Testing procedure and testing location:

Testing Laboratory.....: **Shenzhen BCTC Testing Co., Ltd.**

Address.....: 1-2F, East of B Building, Pengzhou Industrial Park,
Fuyuan 1st Road, Qiaotou, Fuyong Street, Bao'an District,
Shenzhen, Guangdong, China

Tested by (name, function, signature)....: Name
(Project Handler)

Paul Zhong

Approved by (name, function, signature).....: Name(Reviewer)



List of Attachments (including a total number of pages in each attachment):
Attachment I: 5 pages for IEC 62031:2008+A1:2012+A2:2014;
Attachment II: 3 pages for Photo documentation.
Summary of testing:
Tests performed (name of test and test clause):

-- EN 60598-2-12:2013


-- EN 60598-1:2015.

The submitted samples were found to comply with the requirements of above specification.

Testing location:

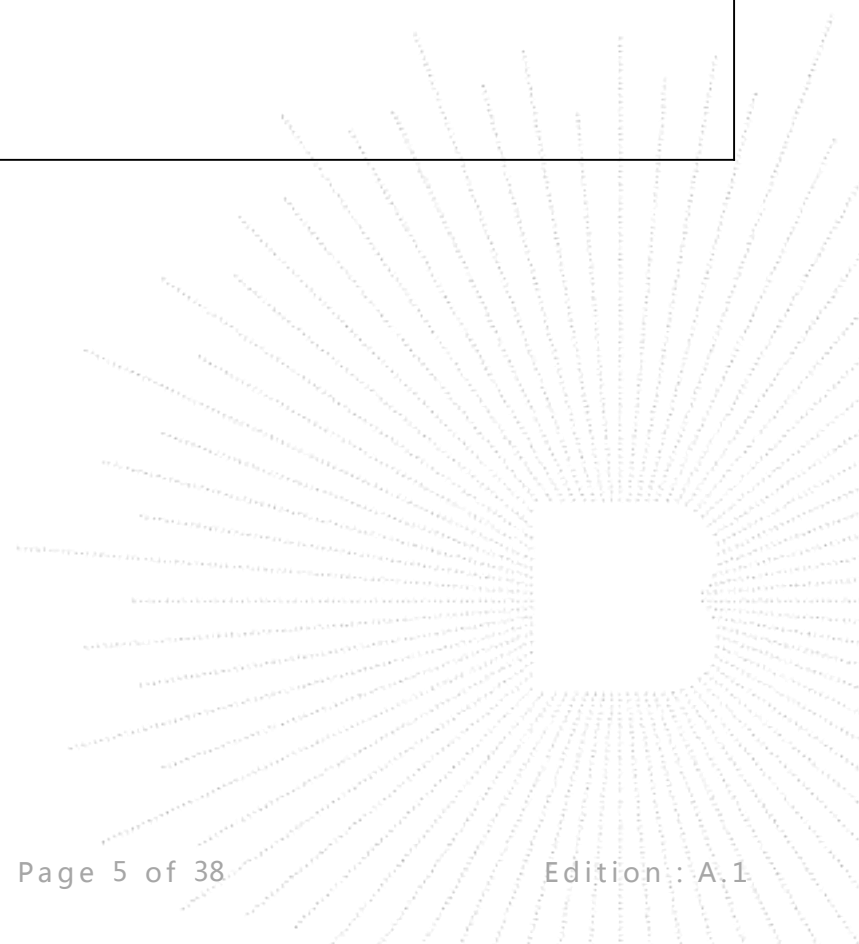
 BCTC Building & 1-2F, East of B Building,
 Pengzhou Industrial, Fuyuan 1st Road, Qiaotou
 Community, Fuyong Street, Bao'an District,
 Shenzhen, China

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.

LED Night Light Model: MZ303 220-240V~, 50/60Hz, 0.5W  Importer :XXXXXX Address :XXXXXX Manufacturer: FUZHOU ZHONGXIN ELECTRONIC CO.,LTD Address: 4TH FLOOR HENGFA BUILDING 861 PANYU ROAD CANGSHAN AREA FUZHOU CITY FUJIAN PROVINCE CHINA Made in China

Remark on above marking:
1, The height of CE symbols is more than 5 mm;
2, The height of WEEE symbols is more than 7 mm;

Test item particulars :	
Classification of installation and use : Direct plug-in	
Supply Connection : Pluggable equipment	
..... :	
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)	
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 <input type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator. Clause numbers between brackets refer to clauses in IEC 60598-1	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 02:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided..... :	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
General product information:	
EUT is a LED Night Light manufactured by FUZHOU ZHONGXIN ELECTRONIC CO.,LTD according to the Mains socket-outlet mounted nightlights.	



IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
12.3 (0)	GENERAL TEST REQUIREMENTS		P
12.3 (0.1)	Information for luminaire design considered..... :	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Lamp standard:	—
12.3 (0.3)	More sections applicable..... :	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Section/s:	—

12.5 (2)	CLASSIFICATION OF LUMINAIRES		P
12.5 (2.2)	Type of protection	Class II	P
12.5 (2.3)	Degree of protection..... :	IP20	P
12.5 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces..... :	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
12.5 (2.5)	Luminaire for normal use	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
	Luminaire for rough service	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
12.5 (-)	Ordinary and suitable for direct mounting on normally flammable surfaces		P

12.6 (3)	MARKING		P
12.6 (3.2)	Mandatory markings	(See marking plate)	P
	Position of the marking	On the enclosure	P
	Format of symbols/text		P
12.6 (3.3)	Additional information	User manual provided	P
	Language of instructions	English	P
12.6 (3.3.1)	Combination luminaires	Not combination luminaire	N/A
12.6 (3.3.2)	Nominal frequency in Hz	50/60Hz	P
12.6 (3.3.3)	Operating temperature		N/A
12.6 (3.3.4)	Symbol or warning notice		N/A
12.6 (3.3.5)	Wiring diagram		N/A
12.6 (3.3.6)	Special conditions		N/A
12.6 (3.3.7)	Metal halide lamp luminaire – warning		N/A
12.6 (3.3.8)	Limitation for semi-luminaires		N/A
12.6 (3.3.9)	Power factor and supply current		N/A
12.6 (3.3.10)	Suitability for use indoors		P
12.6 (3.3.11)	Luminaires with remote control	No remote control	N/A
12.6 (3.3.12)	Clip-mounted luminaire – warning		N/A
12.6 (3.3.13)	Specifications of protective shields		N/A

IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
12.6 (3.3.14)	Symbol for nature of supply	~	P
12.6 (3.3.15)	Rated current of socket outlet		N/A
12.6 (3.3.16)	Rough service luminaire		N/A
12.6 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments		N/A
12.6 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
12.6 (3.3.19)	Protective conductor current in instruction if applicable		N/A
12.6 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
12.6 (3.3.21)	Non replaceable and non-user replaceable light sources information provided	Non replaceable	P
	Cautionary symbol		N/A
12.6 (3.3.22)	Controllable luminaires, classification of insulation provided		N/A
12.6 (3.4)	Test with water	15s with water	P
	Test with hexane	15s with hexane	P
	Legible after test	The marking is legible	P
	Label attached	Label was not be easily removable and show no curling after test	P

12.7 (4)	CONSTRUCTION		P
12.7 (4.2)	Components replaceable without difficulty		N/A
12.7 (4.3)	Wireways smooth and free from sharp edges		P
12.7 (4.4)	Lampholders		N/A
12.7 (4.4.1)	Integral lampholder		N/A
12.7 (4.4.2)	Wiring connection		N/A
12.7 (4.4.3)	Lampholder for end-to-end mounting		N/A
12.7 (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 have not moved from its position and show no permanent deformation		N/A

IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
12.7 (4.4.5)	Peak pulse voltage		N/A
12.7 (4.4.6)	Centre contact		N/A
12.7 (4.4.7)	Parts in rough service luminaires resistant to tracking		N/A
12.7 (4.4.8)	Lamp connectors		N/A
12.7 (4.4.9)	Caps and bases correctly used		N/A
12.7 (4.4.10)	Light source for lampholder or connection according IEC 60061 not connected another way		N/A
12.7 (4.5)	Starter holders		N/A
	Starter holder in luminaires other than class II		N/A
	Starter holder class II construction		N/A
12.7 (4.6)	Terminal blocks		N/A
	Tails		N/A
	Unsecured blocks		N/A
12.7 (4.7)	Terminals and supply connections		N/A
12.7 (4.7.1)	Contact to metal parts		N/A
12.7 (4.7.2)	Test 8 mm live conductor		N/A
	Test 8 mm earth conductor		N/A
12.7 (4.7.3)	Terminals for supply conductors		N/A
12.7 (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
12.7 (4.7.4)	Terminals other than supply connection		N/A
12.7 (4.7.5)	Heat-resistant wiring/sleeves		N/A
12.7 (4.7.6)	Multi-pole plug		N/A
	- test at 30 N		N/A
12.7 (4.8)	Switches		P
	- adequate rating		P
	- adequate fixing		P
	- polarized supply		N/A
	- compliance with IEC 61058-1 for electronic switches		N/A
12.7 (4.9)	Insulating lining and sleeves		N/A

IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
12.7 (4.9.1)	Retainment		N/A
	Method of fixing.....:		N/A
12.7 (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
12.7 (4.10)	Double or reinforced insulation		P
12.7 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation		P
	Safe installation fixed luminaires		N/A
	Capacitors and switches		N/A
	Interference suppression capacitors according to IEC 60384-14		N/A
12.7 (4.10.2)	Assembly gaps:		N/A
	- not coincidental		N/A
	- no straight access with test probe		N/A
12.7 (4.10.3)	Retainment of insulation:		P
	- fixed		P
	- unable to be replaced; luminaire inoperative		P
	- sleeves retained in position		P
	- lining in lampholder		N/A
12.7 (4.10.4)	Protective impedance device		N/A
	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor		N/A
	Y1 or Y2 capacitors comply with IEC 60384-14		N/A
	Resistors comply with test (a) in 14.1 of IEC 60065		N/A
12.7 (4.11)	Electrical connections and current-carrying parts		P
12.7 (4.11.1)	Contact pressure		N/A
12.7 (4.11.2)	Screws:		N/A
	- self-tapping screws		N/A
	- thread-cutting screws		N/A
12.7 (4.11.3)	Screw locking:		N/A
	- spring washer		N/A

IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
	- rivets		N/A
12.7 (4.11.4)	Material of current-carrying parts		N/A
12.7 (4.11.5)	No contact to wood or mounting surface		P
12.7 (4.11.6)	Electro-mechanical contact systems		P
12.7 (4.12)	Screws and connections (mechanical) and glands		P
12.7 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		P
	Torque test: torque (Nm); part..... :	Fixed enclosure screw made of metal materials: test on torque 0.5Nm	P
	Torque test: torque (Nm); part..... :		N/A
	Torque test: torque (Nm); part..... :		N/A
12.7 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
12.7 (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
12.7 (4.12.5)	Screwed glands; force (Nm)..... :		N/A
12.7 (4.13)	Mechanical strength		P
12.7 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm)..... :		N/A
	- other parts; energy (Nm)..... :	0.7Nm	P
	1) live parts		P
	2) linings		N/A
	3) protection		P
	4) covers		P
12.7 (4.13.3)	Straight test finger	30N	P
12.7 (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

IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
	d) for temporary installations and suitable for mounting on a stand		N/A
12.7 (4.13.6)	Tumbling barrel		N/A
12.7 (4.14)	Suspensions, fixings and means of adjusting		N/A
12.7 (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
12.7 (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
12.7 (4.14.3)	Adjusting devices:		N/A
	- flexing test; number of cycles..... :		N/A
	- strands broken..... :		N/A
	- electric strength test afterwards		N/A
12.7 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
12.7 (4.14.5)	Guide pulleys		N/A
12.7 (4.14.6)	Strain on socket-outlets		N/A
12.7 (4.15)	Flammable materials		P
	- glow-wire test 650°C..... :	See Test Table 12.15 (13.3.2)	P
	- spacing ≥30 mm		N/A
	- screen withstanding test of 13.3.1		N/A
	- screen dimensions		N/A
	- no fiercely burning material		P
	- thermal protection		N/A
	- electronic circuits exempted		N/A

IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
12.7 (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
12.7 (4.16)	Luminaires for mounting on normally flammable surfaces		N/A
	No lamp control gear.....:	(compliance with Section 12)	N/A
12.7 (4.16.1)	Lamp control gear spacing:		N/A
	- spacing 35 mm		N/A
	- spacing 10 mm		N/A
12.7 (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
12.7 (4.16.3)	Design to satisfy the test of 12.6	(see clause 12.6)	N/A
12.7 (4.17)	Drain holes		N/A
	Clearance at least 5 mm		N/A
12.7 (4.18)	Resistance to corrosion		N/A
12.7 (4.18.1)	- rust-resistance		N/A
12.7 (4.18.2)	- season cracking in copper		N/A
12.7 (4.18.3)	- corrosion of aluminium		N/A
12.7 (4.19)	Ignitors compatible with ballast		N/A
12.7 (4.20)	Rough service vibration		N/A
12.7 (4.21)	Protective shield		N/A
12.7 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps		N/A
	Shield of glass if tungsten halogen lamps		N/A
12.7 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
12.7 (4.21.3)	No direct path		N/A
12.7 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment.....:	See Test Table 12.15 (13.3.2)	N/A

IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
12.7 (4.22)	Attachments to lamps not cause overheating or damage		N/A
12.7 (4.23)	Semi-luminaires comply Class II		N/A
12.7 (4.24)	Photobiological hazards		P
12.7 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		N/A
12.7 (4.24.2)	Retinal blue light hazard		P
	Class of risk group assessed according to IEC/TR 62778		—
	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
12.7 (4.25)	Mechanical hazard		P
	No sharp point or edges		P
12.7 (4.26)	Short-circuit protection		N/A
12.7 (4.26.1)	Adequate means of uninsulated accessible SELV parts		N/A
12.7 (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
12.7 (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
12.7 (4.28)	Fixing of thermal sensing control		N/A
	Not plug-in or easily replaceable type		N/A
	Reliably kept in position		N/A

IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
	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:		
	Max. temperature on adhesive material (°C)		—
	100 cycles between t min and t max		N/A
	Temperature sensing control still in position		N/A
12.7 (4.29)	Luminaires with non-replaceable light source		P
	Not possible to replace light source		P
	Live part not accessible after parts have been opened by hand or tools		P
12.7 (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
	Minimum two fixing means		N/A
12.7 (4.31)	Insulation between circuits		N/A
	Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3		N/A
	Controllable luminaires requiring same level of insulation for all components, the insulation between control terminals and LV supply fulfil requirements according 4.31.1 – 4.31.3		N/A
12.7 (4.31.1)	SELV circuits		N/A
	Used SELV source		N/A
	Voltage ≤ ELV		N/A
	Insulating of SELV circuits from LV supply		N/A
	Insulating of SELV circuits from other non SELV circuits		N/A
	Insulating of SELV circuits from FELV		N/A
	Insulating of SELV circuits from other SELV circuits		N/A
	SELV circuits insulated from accessible parts according Table X.1		N/A
	Plugs not able to enter socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Plugs and socket-outlets does not have protective conductor contact		N/A
12.7 (4.31.2)	FELV circuits		N/A
	Used FELV source		N/A

IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
	Voltage ≤ ELV		N/A
	Insulating of FELV circuits from LV supply		N/A
	FELV circuits insulated from accessible parts according Table X.1		N/A
	Plugs not able to enter socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Socket-outlets does not have protective conductor contact		N/A
12.7 (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
12.7 (4.32)	Overvoltage protective devices		N/A
	Comply with IEC 61643-11		N/A
	External to controlgear and connected to earth:		N/A
	- only in fixed luminaires		N/A
	- only connected to protective earth		N/A
12.7.1 (-)	The plug comply with appropriate national standard sheets of IEC/TR 60083		P
12.7.2 (-)	The plug comply in all other respects with appropriate constructional requirements of IEC 60884-1 or applicable national standard		P
12.7.3 (-)	Mechanical strength test of 4.13.1 of IEC 60598-1 with forces in table 4.3 of IEC 60598-1 for portable luminaires for children		P
12.7.4 (-)	Covers resist penetration		N/A
	Temperatures of the places where the possibility of failure exist (°C).....:		N/A
	Test with test probe 19 of IEC 61032 with 30 N at these temperatures		N/A

IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
12.7.5 (-)	Not possible to change lamp whilst connected to the supply		N/A
12.7.6 (-)	Base and cover firmly secured to each other		P
	Pull force with 90 N on cover fixing screw		P
	Pull force with 90 N on means other than screws		N/A
	Internal live parts not touchable with test probe 19 of IEC 61032 with 5 N at the end of test		P
12.7.7 (-)	The torque on an appropriate socket-outlet not greater than 0,25 Nm		N/A
12.7.8 (-)	Not likely to be treated as a toy by children		P
12.7.9 (-)	Incorporate a suitable fuse if the plug is of the type incorporate with fuse		N/A
12.7.10 (-)	Series resistors for neon lamps not of "composition" or "carbon film" type		N/A
12.7.11 (-)	Electroluminescent panel withstand voltage surge impulse test		N/A
12.7.12 (-)	Strain on socket-outlets according (4.14.6) if the nightlights incorporate a socket outlet		N/A

12.8 (-)	EXTERNAL AND INTERNAL WIRING		P
12.8 (-)	Provided with integral plug-pins		P
	Socket outlet comply with IEC 60884-1		P
	Compliance with the requirements of 12.7.1 and 12.7.2		N/A
	Not incorporate means for connection of external wiring		N/A

12.9 (7)	PROVISION FOR EARTHING		N/A
12.9 (7.2.1 + 7.2.3)	Accessible metal parts		N/A
	Metal parts in contact with supporting surface		N/A
	Resistance < 0,5 Ω.....:		N/A
	Self-tapping screws used		N/A
	Thread-forming screws		N/A
	Thread-forming screw used in a groove		N/A
	Earth makes contact first		N/A
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
	Protective earthing of the luminaire not via built-in control gear		N/A
12.9 (7.2.2 + 7.2.3)	Earth continuity in joints, etc.		N/A



IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
12.9 (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 Annex V		N/A
12.9 (7.2.5)	Earth terminal integral part of connector socket		N/A
12.9 (7.2.6)	Earth terminal adjacent to mains terminals		N/A
12.9 (7.2.7)	Electrolytic corrosion of the earth terminal		N/A
12.9 (7.2.8)	Material of earth terminal		N/A
	Contact surface bare metal		N/A
12.9 (7.2.10)	Class II luminaire for looping-in		N/A
	Double or reinforced insulation to functional earth		N/A
12.9 (7.2.11)	Earthing core coloured green-yellow		N/A
	Length of earth conductor		N/A

12.10 (8)	PROTECTION AGAINST ELECTRIC SHOCK		P
12.10 (8.2.1)	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		P
	Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires		P
	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires		N/A
	Lamp and starterholders in portable and adjustable luminaires comply with double or reinforced insulation requirements		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
12.10 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N/A
12.10 (8.2.3.a)	Class II luminaire:		P
	- basic insulated metal parts not accessible during starter or lamp replacement		N/A

IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
	- basic insulation not accessible other than during starter or lamp replacement		P
	- glass protective shields not used as supplementary insulation		N/A
12.10 (8.2.3.b)	BC lampholder of metal in class I luminaires shall be earthed		N/A
12.10 (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
12.10 (8.2.4)	Portable luminaire have protection independent of supporting surface		N/A
12.10 (8.2.5)	Compliance with the standard test finger or relevant probe		P
12.10 (8.2.6)	Covers reliably secured		P
12.10 (8.2.7)	Luminaire other than below with capacitor > 0,5 μ F not exceed 50 V 1 min after disconnection		N/A
	Portable luminaire with capacitor > 0,1 μ F (0.25) not exceed 34 V 1 s after disconnection		N/A
	Other luminaires with capacitor > 0,1 μ F (0.25) with plug and track adaptors not exceed 60 V 5 s after disconnection		N/A
12.10 (-)	Not possible to gain access to the lampholder or other internal live parts when inserted in socket-outlet		N/A

12.11 (9)	RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE		P
12.11 (9.3)	Humidity test 48 h	25°C,48H,93%RH	P

12.12 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		P
12.12 (10.2.1)	Insulation resistance test		P
	Cable or cord covered by metal foil or replaced by a metal rod of mm \varnothing		—
	Insulation resistance (M Ω).....:		—



IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
	SELV		N/A
	- between current-carrying parts of different polarity:		N/A
	- between current-carrying parts and mounting surface.....:		N/A
	- between current-carrying parts and metal parts of the luminaire.....:		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts.....:		N/A
	- Insulation bushings as described in Section 5		N/A
	Other than SELV		P
	- between live parts of different polarity.....:	>100MΩ	P
	- between live parts and mounting surface.....:	>100 M	P
	- between live parts and metal parts.....:		N/A
	- 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
12.12 (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		N/A
	- between current-carrying parts of different polarity:		N/A
	- between current-carrying parts and mounting surface.....:		N/A
	- between current-carrying parts and metal parts of the luminaire.....:		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts.....:		N/A
	- Insulation bushings as described in Section 5		N/A
	Other than SELV		P
	- between live parts of different polarity.....:	1480V	P
	- between live parts and mounting surface.....:	2960V	P
	- between live parts and metal parts.....:		N/A
	- between live parts of different polarity through action of a switch.....:		N/A

IEC 60598-2-12			
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
12.12 (10.3)	Touch current or protective conductor current (mA):	0.05mA	P

12.13 (11)	CREEPAGE DISTANCES AND CLEARANCES		P
12.13 (11.2)	Creepage distances and clearances..... :	See Table 12.13 (11.2)	P
	Impulse withstand category (Normal category II) (Category III Annex U, Table U.1)	Category II <input checked="" type="checkbox"/> Category III <input type="checkbox"/>	—
12.13 (-)	Metal part exposed on the engagement face in contact with live parts is recessed at least 3 mm below the engagement surface		N/A

12.14 (12)	ENDURANCE TEST AND THERMAL TEST		P
12.14 (12.3)	Endurance test:		P
	- mounting- position..... :	Normal use	—
	- test temperature (°C)..... :	35	—
	- total duration (h)..... :	240	—
	- supply voltage: Un factor; calculated voltage (V).... :	1.1X240V=264V	—
	- lamp used..... :	LED	—
12.14 (12.3.2)	After endurance test:		P
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N/A
	- marking legible	Marking still legible and shows no curing	P
	- no cracks, deformation etc.		P
12.14 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
12.14 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	N/A
12.14 (12.6)	Thermal test (failed lamp control gear condition):		N/A
12.14 (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		—



IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
	- measured mounting surface temperature (°C) at 1,1 Un.....:		N/A
	- calculated mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
12.14 (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
12.14 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		N/A
12.14 (12.7.1)	Luminaire without temperature sensing control		N/A
12.14 (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:		
	- case of abnormal conditions.....:		—
	- measured winding temperature (°C): at 1,1 Un.....:		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un.....:		—
	- calculated temperature of fixing point/exposed part (°C).....:		—
	Ball-pressure test.....:	See Table 12.15 (13.2.1)	N/A
12.14 (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).....:		—

IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
	Ball-pressure test.....:	See Table 12.15 (13.2.1)	N/A
12.14 (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
12.14 (12.7.2)	Luminaire with temperature sensing control		N/A
	- thermal link.....:	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- manual reset cut-out.....:	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- auto reset cut-out.....:	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- case of abnormal conditions.....:		—
	- highest measured temperature of fixing point/ exposed part (°C):.....:		—
	Ball-pressure test.....:	See Table 12.15 (13.2.1)	N/A
12.14.1 (-)	Maximum temperature of plug-pins according to IEC/TR 60083		N/A
	Temperature of socket-outlet engagement face not exceed 65 °C		N/A
12.14.2 (-)	a) Temperature of accessible metal parts not exceed 55 °C		N/A
	b) Temperature of accessible parts other than of metal not exceed 65 °C		N/A
12.14.3 (-)	Abnormal thermal test for 7 h or until failure occurs Covered with one layer of cotton and one of blanket together		N/A
	After test the nightlight comply with (12.5)		N/A
	After test no deformation and no scorching or ignition of the cotton		N/A

12.15 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		P
12.15 (13.2.1)	Ball-pressure test.....:	See Test Table 12.15 (13.2.1)	P
12.15 (13.3.1)	Needle-flame test (10 s).....:	See Test Table 12.15 (13.3.1)	P
12.15 (13.3.2)	Glow-wire test (650°C).....:	See Test Table 12.15 (13.3.2)	P
12.15 (13.4)	Proof tracking test (IEC 60112).....:	See Test Table 12.15 (13.4)	N/A

12.16 (14)	SCREW TERMINALS		N/A
	Separately approved; component list.....:	(see Annex 1)	N/A

IEC 60598-2-12			
Clause	Requirement + Test	Result - Remark	Verdict
	Part of the luminaire.....:	(see Annex 3)	N/A
12.16 (-)	No screw terminals in sealed nightlights		N/A

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

12.13 (11.2)	TABLE: Creepage distances and clearances						P
	Minimum distances (mm) for a.c. (50/60 Hz) sinusoidal voltages						
	Applicable part of IEC 60598-1 Table 11.1* and 11.2*						
	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:	B	>1.5mm	1.5mm	11.1	>2.5mm	2.5mm	11.1
Working voltage (V).....:					240V	—	
PTI.....:					< 600 <input checked="" type="checkbox"/>	≥ 600 <input type="checkbox"/>	
Pulse voltage if applicable (kV)					2.5kV	—	
Supplementary information: between live parts of different polarity							
Distance 2:	R	>5mm	3mm	11.1	>5mm	5mm	11.1
Working voltage (V).....:					240V	—	
PTI.....:					< 600 <input checked="" type="checkbox"/>	≥ 600 <input type="checkbox"/>	
Pulse voltage if applicable (kV)					2.5kV	—	
Supplementary information: between live parts and accessible part							
Distance 3:							
Working voltage (V).....:						—	
PTI.....:					< 600 <input type="checkbox"/>	≥ 600 <input type="checkbox"/>	
Pulse voltage if applicable (kV)						—	
Supplementary information:							

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

12.15 (13.2.1)	TABLE: Ball Pressure Test of Thermoplastics			P
Allowed impression diameter (mm)				—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
Plug holder	See Annex1	125	0.6	
PCB	See Annex1	125	0.8	

Plastic enclosure	See Annex1	75	0.4
Supplementary information:			

12.15 (13.3.1)	TABLE: Needle-flame test (IEC 60695-11-5)				P
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
PCB	See Annex1	10	No	0	P
Plug holder	See annex 1	10	No	0	P
Supplementary information:					

12.15 (13.3.2)	TABLE: Glow-wire test (IEC 60695-2-11)				P
Glow wire temperature		650°C			—
Object/ Part No./ Material	Manufacturer/ trademark	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict	
Plastic enclosure	See annex 1	No	0	P	
Any flame or glowing of the sample extinguished within 30 s of withdrawing the glow-wire, and any burning or molten drop did not ignite the underlying parts (Yes/No).....				Yes	
Supplementary information:					

12.15 (13.4)	TABLE: Proof tracking test (IEC 60112)				N/A
Test voltage PTI		175 V			—
Object/ Part No./ Material	Manufacturer/ trademark	Withstand 50 drops without failure on three places or on three specimens			Verdict
Supplementary information:					

ANNEX 1		TABLE: Critical components information				
Object / part No.	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾	
PCB	Interchangeable	Interchangeable	94V-0, 130°C	UL 94 UL 796	UL	
FUSE	DONGGUAN BETTER ELECTRONIC TECHNOLOGY CO LTD	RXF (RX21)	2W/47R 11.5mm*4.5mm	UL 1412	UL	
Enclosure	SABIC INNOVATIVE	SE1X	V-1 or Better, 105°C min. 2.0mm	UL 94	UL	
Supplementary information:						



ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12		P				
	Type reference.....	MZ303	—				
	Lamp used.....	LED	—				
	Lamp control gear used.....	---	—				
	Mounting position of luminaire.....	As in normal Mounting	—				
	Supply wattage (W).....	0.54	—				
	Supply current (A).....	0.025	—				
	Calculated power factor.....	0.084	—				
Table: measured temperatures corrected for $t_a = 25\text{ }^\circ\text{C}$:							
	- abnormal operating mode.....		—				
	- test 1: rated voltage.....		—				
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage.....	254.4	—				
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage.....		—				
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage.....		—				
	Through wiring or looping-in wiring loaded by a current of A during the test		—				
Temperature measurements, ($^\circ\text{C}$)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Enclosure outside	25.0	--	29.4	--	Ref.	--	--
Plug holder	25.0	--	27.6	--	Ref.	--	--
PCB near U2	25.0	--	35.2	--	130	--	--
C2 body	25.0	--	36.8	--	105	--	--
PCB near LED	25.0	--	42.4	--	130	--	--
Mounting surface	25.0	--	37.8	--	90	--	--
Supplementary information:							

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

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

Attachment II
EN 62031

Clause	Requirement + Test	Result - Remark	Verdict
4	GENERAL REQUIREMENTS		—
4.4	Integral modules tested assembled in the luminaire		P
4.5	Independent modules complies with requirements in IEC 60598-1		N/A
5	GENERAL TEST REQUIREMENTS		—
5.5	SELV-operated LED modules comply with Annex I of IEC 61347-2-13	(see Annex 1)	N/A
	General conditions for tests in Annex A	(see Annex A)	P
6	CLASSIFICATION		—
	Built-in module	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
	Independent module.....	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
	Integral module	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
	For Integral module; Note to 1.2.1 in IEC 60598-1 applies.		—
7	MARKING		N/A
	Requirements not applicable to the evaluated product.		—
8	TERMINALS		N/A
	Screw terminals according section 14 of IEC 60598-1:		N/A
	Separately approved; component list	(see Annex 2)	N/A
	Part of the luminaire	(see Annex 3)	N/A
	Screwless terminals according section 15 of IEC 60598-1:		N/A
	Separately approved; component list	(see Annex 2)	N/A
	Part of the luminaire	(see Annex 4)	N/A
	Connectors according IEC 60838-2-2:		N/A
	Separately approved; component list	(see Annex 2)	N/A
9 (9)	PROVISION FOR PROTECTIVE EARTHING		N/A
	Requirements not applicable to the evaluated product.		—
10 (10)	PROTECTION AGAINST ACCIDENTAL CONTACT WITH LIVE PARTS		N/A
	Requirements not applicable to the evaluated product.		—
11 (11)	MOISTURE RESISTANCE AND INSULATION		—
	After storage 48 h at 91-95% relative humidity and 20-30 °C measuring of insulation resistance with d.c. 500 V (MΩ):		P



	For basic insulation $\geq 2 \text{ M}\Omega$		N/A
	For double or reinforced insulation $\geq 4 \text{ M}\Omega$	$> 100\text{M}\Omega$	P
	Between primary and secondary circuits in controlgear providing SELV, values in Annex L in IEC 61347-1		N/A

12 (12)	ELECTRIC STRENGTH		—
	Immediately after clause 11 electric strength test for 1 min		P
	Basic insulation for SELV, test voltage 500 V		N/A
	Working voltage $\leq 50 \text{ V}$, test voltage 500 V		N/A
	Working voltage $> 50 \text{ V} \leq 1000 \text{ V}$, test voltage (V):		N/A
	Basic insulation, $2U + 1000 \text{ V}$		N/A
	Supplementary insulation, $2U + 1000 \text{ V}$		N/A
	Double or reinforced insulation, $4U + 2000 \text{ V}$		P
	No flashover or breakdown		P
	Solid or thin sheet insulation for double or reinforced insulation fulfil the requirements in Annex N in IEC 61347-1		N/A

13 (14)	FAULT CONDITIONS		—
- (14)	When operated under fault conditions the controlgear:		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	(see appended table)	N/A
- (14.1)	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)	(see appended table)	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
- (14.2)	Short-circuit or interruption of semiconductor devices	(see appended table)	N/A
- (14.3)	Short-circuit across insulation consisting of lacquer, enamel or textile	(see appended table)	N/A
- (14.4)	Short-circuit across electrolytic capacitors	(see appended table)	N/A
- (14.5)	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
- (14.6)	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

15	CONSTRUCTION		—
	Wood, cotton, silk, paper and similar fibrous material not used as insulation		P

16 (16)	CREEPAGE DISTANCES AND CLEARANCES		—
- (16)	Creepage and distances and clearances in compliance with IEC 61347-1		N/A
	Insulating lining of metallic enclosures		N/A
	Basic insulation on printed boards tested according to clause 14		N/A
	Distances subjected to both sinusoidal voltage as non-sinusoidal pulses not less than value in Table 16		N/A
	Creepage distances not less than minimum clearance		N/A
16 (-)	Conductive accessible parts in compliance with applicable parts of IEC 60598-1		N/A

17 (17)	SCREWS, CURRENT-CARRYING PARTS AND CONNECTIONS		—
	Cl. 17 refer to Cl. 17 of IEC 61347-1 which refer to Cl. 4.11 and 4.12 of IEC 60598-1 (clause numbers between parentheses refer to IEC 60598-1)		P
(4.11)	Electrical connections		P
(4.11.1)	Contact pressure		N/A
(4.11.2)	Screws:		N/A
	- self-tapping screws		N/A
	- thread-cutting screws		N/A
(4.11.3)	Screw locking:		N/A
	- spring washer		N/A
	- rivets		N/A
(4.11.4)	Material of current-carrying parts		P
(4.11.5)	No contact to wood or mounting surface		P
(4.11.6)	Electro-mechanical contact systems		N/A
(4.12)	Mechanical connections and glands		N/A

(4.12.1)	Screws not made of soft metal		N/A
	Screws of insulating material		N/A
	Torque test: torque (Nm); part.....:		N/A
(4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
(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
(4.12.5)	Screwed glands; force (Nm).....:		N/A
18 (18)	RESISTANCE TO HEAT, FIRE AND TRACKING		—
- (18.1)	Ball-pressure test	See Test Table 18 (18.1)	N/A
- (18.3)	Glow-wire test (650°C)	See Test Table 18 (18.3)	N/A
- (18.4)	Needle-flame test (10 s)	See Test Table 18 (18.4)	N/A
- (18.5)	Proof tracking test	See Test Table 18 (18.5)	N/A
19 (19)	RESISTANCE TO CORROSION		—
	- test according 4.18.1 of IEC 60598-1		N/A
	- adequate varnish on the outer surface		N/A
20	INFORMATION FOR LUMINAIRE DESIGN		—
	Information in Annex D (informative)		—
21	HEAT MANAGEMENT		—
21.1	General		N/A
	Exchangeability is safeguarded by cap or base		N/A
21.2	Heat-conducting foil and paste		N/A
	Heat-conducting foil delivered with the module if necessary		N/A
22	PHOTOBIOLOGICAL SAFETY		—
22.1	UV radiation		N/A
	Luminous radiation not exceed 2mW/klm		N/A
22.2	Blue light hazard		P
	Assessed according to IEC TR 62778		P
22.3	Infrared radiation		N/A
	Requirements for infrared radiation when required		N/A
A	ANNEX A - TESTS		—
	All tests performed in accordance with the advice given in Annex H of IEC 61347-1, if applicable		P

ANNEX 1	SELV-operated LED modules	—
	Requirements not applicable to the evaluated product.	N/A



Attachment II
Photo documentation

EUT Photo 1



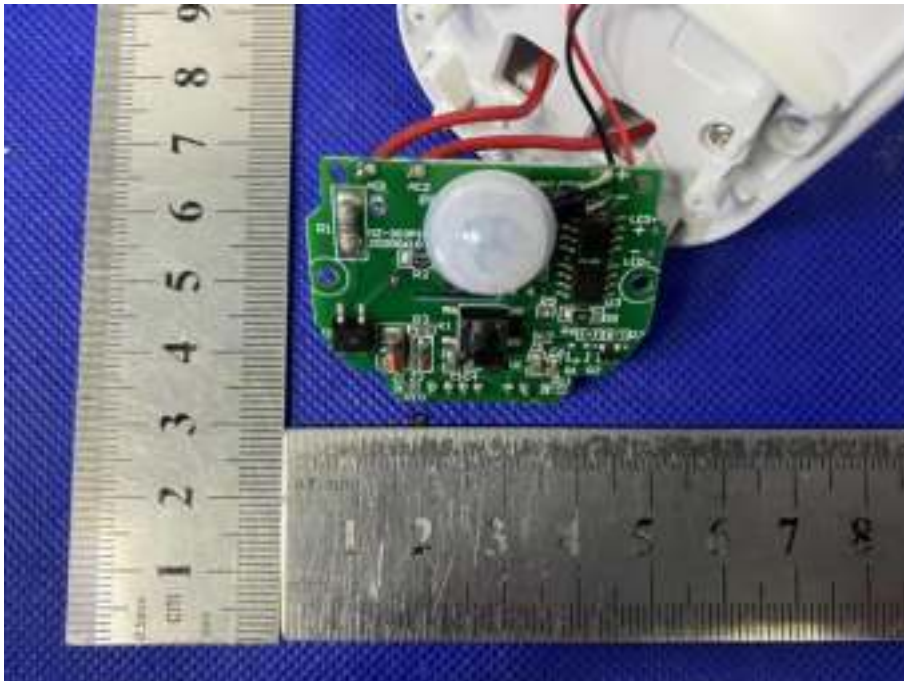
EUT Photo 2



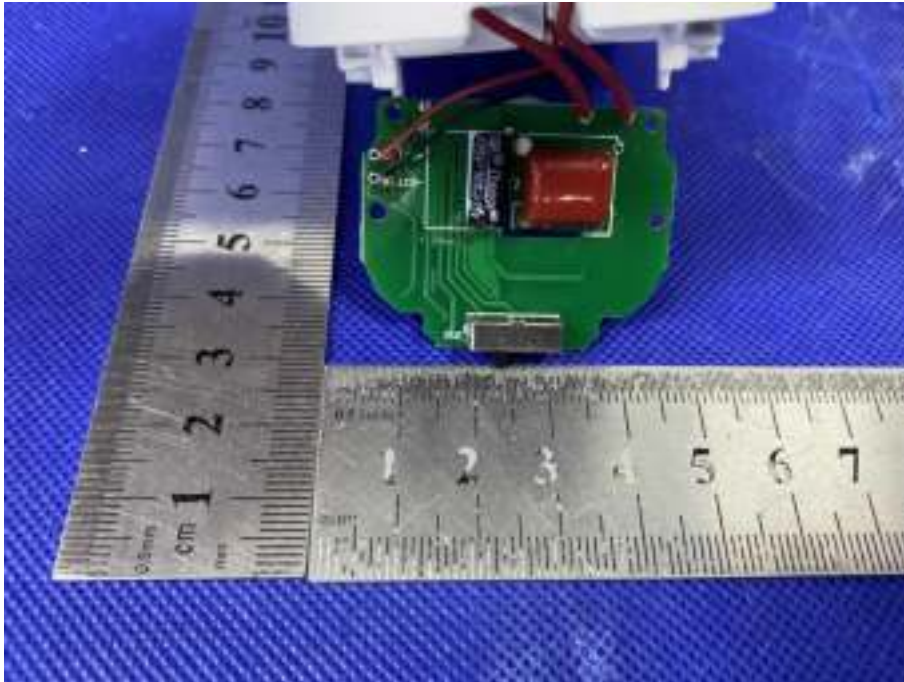
EUT Photo 3



EUT Photo 4



EUT Photo 5



EUT Photo 6



EUT Photo 7



EUT Photo 8



***** END OF REPORT *****