



CENTRE OF TESTING SERVICE
INTERNATIONAL

OPERATE ACCORDING TO ISO/IEC 17025

LVD TEST REPORT

TEST REPORT NUMBER : **CGZ3190424-00904-L**



CTS (Ningbo) Testing Service Technology Co., Ltd.
F1.1 & 8 West, Bldg. B, No. 66, Qingyi Rd., Hi-Tech Zone, Ningbo, Zhejiang, China

Table of contents

1.	General Information	2
1.1	Notes	2
1.2	Tester	3
1.3	Testing laboratory	4
1.4	Application details	4
1.5	Test item description	5
1.6	Test standards	6
2.	Technical test	7
2.1	Summary of test results	7
2.2	Test environment	7
2.3	Conformity verification - Summary of inspection	8
3.	Test Results	9
3.1	Particulars: test item vs. test requirements	9
3.2	General requirements and results	11
3.3	Annex as stated in the standards	32
3.4	Tables	33
	Manufacturer/ Approval holder Declaration	38
	Attachments	39

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1 General Information

1.1 Notes

The purpose of conformity testing is to increase the probability of adherence to the essential requirements or conformity specifications, as appropriate.

The complexity of the technical specifications, however, means that full and thorough testing is impractical for both technical and economic reasons.

Furthermore, there is no guarantee that a test sample which has Passed all the relevant tests conforms to a specification (only telecommunication products).

Neither is there any guarantee that such a test sample will interwork with other genuinely open systems.

The existence of the tests nevertheless provides the confidence that the test sample possesses the qualities as maintained and that its performance generally conforms to representative cases of communications equipment.

The test results of this test report relate exclusively to the item tested as specified in 1.5.

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1.2 Tester

Tested by:

<u>24 April 2019</u>	<u>Kate Zhang</u>	<u>Kate</u>
Date	Name	Signature

Reviewed by:

<u>24 April 2019</u>	<u>Rock Weng</u>	<u>Rock Weng</u>
Date	Name	Signature

Approved by:

<u>24 April 2019</u>	<u>Jun Yang</u>	<u>Jun Yang</u>
Date	Name	Signature



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1.3 Testing laboratory

1.3.1 Location

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Telephone: + 86-574-87912121

Telefax : + 86-574-87907993

1.3.2 Test location, where different from CTS:

Name: ./.
Street: ./.
Town: ./.
Country: ./.
Telephone: ./.
Fax: ./.
Teletex: ./.

1.4 Client details

1.4.1 Details of applicant

Name : La Luce SNC
Street : Via Monte Nevoso 20131
Town : MILANO,
Country : ITALY
Telephone : +86-0760-87851936
Fax : +86-0760-88189499
Teletex :./.

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**1.4.2 Details of manufacturer**

Name : La Luce SNC
Street : Via Monte Nevoso 20131
Town : MILANO,
Country : ITALY
Telephone : +86-0760-87851936
Fax : +86-0760-88189499
Teletex : ./.

1.4.3 Details of factory

Name : La Luce SNC
Street : Via Monte Nevoso 20131
Town : MILANO,
Country : ITALY

1.4.4 Dates of application

Date of receipt of application : 29 March 2019
Date of receipt of test item : 29 March 2019
Date of test : 29 March – 24 April 2019

1.5 Test item Description**1.5.1 Description of test item**

Type of product : LED Recessed Downlight
Model/Type reference (Test EUT) : LL-SLR10-12W-930-65
Serial number : ---

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1.5.2 Test item particulars

Test item	LED Recessed Downlight
Trade Mark	La Luce SNC
Protection Class	<input checked="" type="checkbox"/> Class I; <input type="checkbox"/> Class II; <input type="checkbox"/> Class III.
Rated Voltage(Range)	220-240V~
Rated Frequency	<input checked="" type="checkbox"/> 50Hz; <input type="checkbox"/> 60Hz; <input type="checkbox"/> 50/60Hz; <input type="checkbox"/> DC; <input type="checkbox"/> Other:
Rated Wattage	LED 50W
IP Number	<input type="checkbox"/> IP20; <input checked="" type="checkbox"/> IP54; <input checked="" type="checkbox"/> IP65; <input type="checkbox"/> Other:
Supply Connection	<input type="checkbox"/> Type X; <input type="checkbox"/> Type Y; <input type="checkbox"/> Type Z; <input type="checkbox"/> Pins; <input type="checkbox"/> Appliance inlet; <input checked="" type="checkbox"/> Terminals; <input type="checkbox"/> connecting leads (tails); <input type="checkbox"/> Adaptors; <input type="checkbox"/> connectors; <input type="checkbox"/> Other:
Lamp(s) type	<input type="checkbox"/> Tungsten filament lamps; <input type="checkbox"/> Tungsten halogen lamps; <input type="checkbox"/> Discharge lamps; <input type="checkbox"/> Metal halide lamps; <input type="checkbox"/> High-pressure sodium vapour lamps; <input type="checkbox"/> Single-capped fluorescent lamps; <input type="checkbox"/> Double-capped fluorescent lamps; <input type="checkbox"/> Self-ballasted lamps; <input checked="" type="checkbox"/> Other: LED Lamp
Luminaire Mobility	<input checked="" type="checkbox"/> Fixed Luminaires; <input type="checkbox"/> Portable Luminaires; <input type="checkbox"/> Recessed Luminaire; <input type="checkbox"/> Track-mounted Luminaires; <input type="checkbox"/> Semi-luminaires; <input type="checkbox"/> Other:
Mass of Equipment	8.1 kg
Instructions language	<input checked="" type="checkbox"/> English; <input type="checkbox"/> French; <input type="checkbox"/> Other:
Mounting condition	<input checked="" type="checkbox"/> Luminaires suitable for direct mounting on normally flammable surfaces;  <input type="checkbox"/> ;  <input type="checkbox"/> ;  <input type="checkbox"/>
Ambient Temperature	$t_a = 50^\circ\text{C}$

(all informations was provided by the applicant or detected at the sample)

Please see also attachment

1.6 Test standards

EN 60598-1: 2015

Luminaires — Part 1: General requirements and tests
(IEC 60598-1:2014)

EN 60598-2-1: 1989

Luminaires-Part 2: Particular requirements-section 1:
Fixed general purpose Luminaires
(IEC 60598-2-1: 1979 + A1: 1987)

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2 Technical test

2.1 Summary of test results

No deviations from the technical specification(s) were ascertained in the course of the tests performed.



2.2 Test environment

Temperature:	18 ... 25 °C
Relative humidity content:	20 ... 75 %
Air pressure:	86 ... 103 kPa
Details of power supply:	220...240 V, AC
Other parameters:	---

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2.3 Conformity verification - Summary of inspection

Clause	Summary of inspection	Test result		
		N.A.	Pass	Fail
3	Marking	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4	Construction	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5	External and internal wiring	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7	Provisions for earthing	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
8	Protection against electric shock	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	Resistance to dust, solid objects and moisture	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
10	Insulation resistance and electric strength, touch current and protective conductor current	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	Creepage distances and clearances	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	Endurance tests and thermal tests	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13	Resistance to heat, fire and tracking	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
14	Screw terminals	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Screwless terminals and electrical connections	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Annexes		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Test case verdicts

N.A.: Test case does not apply to the test object

Pass: Test item does meet the requirement

Fail: Test item does not meet the requirement

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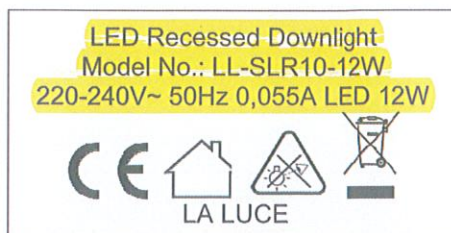
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3 Test results basic standard(s)

3.1 Particulars: test item vs. Test requirements

IEC 60598-2-1 and/or EN 60598-2-1	
Part 2: Particular requirements	
Section one –Fixed general purpose luminaires	
Possible test case verdicts:	
- test case does not apply to the test object.....:	N(N/A)
- test object does meet the requirement.....:	P(Pass)
- test object does not meet the requirement.....:	F(Fail)
Test specification:	
Standard.....:	<input type="checkbox"/> IEC 60598-2-1: 1979 + A1:1987 used in conjunction with IEC 60598-1:2014 <input checked="" type="checkbox"/> EN 60598-2-1: 1989 used in conjunction with EN 60598-1: 2015
Test procedure	LVD DOC approval.
Non-standard test method.....:	N/A
Test Report Form No.....:	IEC60598_2_1F
Test Report Form(s) Originator	Centre of Testing Service
Master TRF	Dated Nov 2015
Copyright blank test report	Centre of Testing Service
General remarks:	
“(see remark #)” refers to a remark appended to the report.	
“(see appended table)” refers to a table appended to the report.	
Throughout this report a comma is used as the decimal separator.	
The test results presented in this report relate only to the object tested.	
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Copy of marking plate:

**RISK GROUP 1**

Caution: UV emitted from this product.
Minimise exposure to eyes or skin.
Invisible radiation emitted from this product.
IR emitted from the product.

Remark:

The artwork above may be only a draft, the minimum requirements required by safety standard. For the final production, the additional markings which do not give rise to misunderstanding may be added.

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3.2 General requirements and results

IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict

1.2 (0)	GENERAL TEST REQUIREMENTS		P
1.2 (0.1)	Information for luminaire design considered	Standard Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
1.2 (0.3)	More sections applicable	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—

1.4 (2)	CLASSIFICATION		P
1.4 (2.2)	Type of protection	Class I	—
1.4 (2.3)	Degree of protection.....	IP54	—
1.4 (2.4)	Luminaires suitable for direct mounting on normally flammable surfaces	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
1.4 (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"/>	—

1.5 (3)	MARKING		P
1.5 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text	Text=2mm, symbol=5mm	P
1.5 (3.3)	Additional information		P
	Language of instructions	English	P
1.5 (3.3.1)	Combination luminaires		N
1.5 (3.3.2)	Nominal frequency in Hz	50Hz	P
1.5 (3.3.3)	Operating temperature		N
1.5 (3.3.4)	Symbol or warning notice		N
1.5 (3.3.5)	Wiring diagram		N
1.5 (3.3.6)	Special conditions		N
1.5 (3.3.7)	Metal halide lamp luminaire – warning		N
1.5 (3.3.8)	Limitation for semi-luminaires		N
1.5 (3.3.9)	Power factor and supply current		N
1.5 (3.3.10)	Suitability for use indoors		P
1.5 (3.3.11)	Luminaires with remote control		N
1.5 (3.3.12)	Clip-mounted luminaire – warning		N

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
1.5 (3.3.13)	Specifications of protective shields		N
1.5 (3.3.14)	Symbol for nature of supply	~	P
1.5 (3.3.15)	Rated current of socket outlet		N
1.5 (3.3.16)	Rough service luminaire		N
1.5 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments		N
1.5 (3.3.18)	Non-ordinary luminaires with PVC cable		N
1.5 (3.3.19)	Protective conductor current in instruction if applicable		N
1.5 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N
1.5 (3.3.21)	Non-replaceable and non-user replaceable light sources information provided		P
	Cautionary symbol		P
1.5 (3.3.22)	Controllable luminaires, classification of insulation provided		N
1.5 (3.3.101)	For luminaires not supplied with terminal block: Adequate warning on the package (EN)		N
1.5 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test		P
	Label attached		P

1.6 (4)	CONSTRUCTION		P
1.6 (4.2)	Components replaceable without difficulty		P
1.6 (4.3)	Wireways smooth and free from sharp edges		P
1.6 (4.4)	Lampholders		P
1.6 (4.4.1)	Integral lampholder		N
1.6 (4.4.2)	Wiring connection		N
1.6 (4.4.3)	Lampholder for end-to-end mounting		N
1.6 (4.4.4)	Positioning		N
	- pressure test (N)		N
	After test the lampholder comply with relevant standard sheets and show no damage		N
	After test on single-capped lampholder the lampholder have not moved from its position and show no permanent deformation		N

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
	- bending test (Nm)		N
	After test the lampholder have not moved from its position and show no permanent deformation		N
1.6 (4.4.5)	Peak pulse voltage		N
1.6 (4.4.6)	Centre contact		N
1.6 (4.4.7)	Parts in rough service luminaires resistant to tracking		N
1.6 (4.4.8)	Lamp connectors	LED	P
1.6 (4.4.9)	Caps and bases correctly used		N
1.6 (4.4.10)	Light source for lampholder or connection according IEC 60061 not connected another way		N
1.6 (4.5)	Starter holders		N
	Starter holder in luminaires other than class II	No such parts	N
	Starter holder class II construction		N
1.6 (4.6)	Terminal blocks		N
	Tails		N
	Unsecured blocks		N
1.6 (4.7)	Terminals and supply connections		P
1.6 (4.7.1)	Contact to metal parts		P
1.6 (4.7.2)	Test 8 mm live conductor		P
	Test 8 mm earth conductor		P
1.6 (4.7.3)	Terminals for supply conductors		P
1.6 (4.7.3.1)	Welded connections:		N
	- stranded or solid conductor		N
	- spot welding		N
	- welding between wires		N
	- Type Z attachment		N
	- mechanical test according to 15.8.2		N
	- electrical test according to 15.9		N
	- heat test according to 15.9.2.3 and 15.9.2.4		N
1.6 (4.7.4)	Terminals other than supply connection		P
1.6 (4.7.5)	Heat-resistant wiring/sleeves		N
1.6 (4.7.6)	Multi-pole plug		N
	- test at 30 N		N
1.6 (4.8)	Switches:		N

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
	- adequate rating		N
	- adequate fixing		N
	- polarized supply		N
	- compliance with IEC 61058-1 for electronic switches		N
1.6 (4.9)	Insulating lining and sleeves		P
1.6 (4.9.1)	Retainment		P
	Method of fixing: Reliably retained in position		P
1.6 (4.9.2)	Insulated linings and sleeves		N
	Resistant to a temperature > 20 °C to the wire temperature or		N
	a) & c) Insulation resistance and electric strength		N
	b) Ageing test. Temperature (°C).....:		N
1.6 (4.10)	Insulation of Class II luminaires		N
1.6 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation		N
	Safe installation fixed luminaires		N
	Capacitors and switches		N
	Interference suppression capacitors according to IEC 60384-14		N
1.6 (4.10.2)	Assembly gaps:		N
	- not coincidental		N
	- no straight access with test probe		N
1.6 (4.10.3)	Retainment of insulation:		N
	- fixed		N
	- unable to be replaced; luminaire inoperative		N
	- sleeves retained in position		N
	- lining in lampholder		N
1.6 (4.11)	Electrical connections and current-carrying parts		P
1.6 (4.11.1)	Contact pressure		P
1.6 (4.11.2)	Screws:		N
	- self-tapping screws		N
	- thread-cutting screws		N
1.6 (4.11.3)	Screw locking:		N
	- spring washer		N

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
	- rivets		N
1.6 (4.11.4)	Material of current-carrying parts		P
1.6 (4.11.5)	No contact to wood or mounting surface		P
1.6 (4.11.6)	Electro-mechanical contact systems		N
1.6 (4.12)	Screws and connections (mechanical) and glands		P
1.6 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		N
	Torque test: torque (Nm); part: Screws fixed the earth connecting; 0,5Nm		P
	Torque test: torque (Nm); part:		N
	Torque test: torque (Nm); part:		N
1.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N
1.6 (4.12.4)	Locked connections:		N
	- fixed arms; torque (Nm):		N
	- lampholder; torque (Nm).....:		N
	- push-button switches; torque 0,8 Nm:		N
1.6 (4.12.5)	Screwed glands; torque (Nm):		N
1.6 (4.13)	Mechanical strength		P
1.6 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm):		N
	- other parts; energy (Nm).....: Body; 0,35Nm		P
	1) live parts		P
	2) linings		N
	3) protection		P
	4) covers		P
1.6 (4.13.3)	Straight test finger		P
1.6 (4.13.4)	Rough service luminaires		N
	- IP54 or higher		N
	a) fixed		N
	b) hand-held		N
	c) delivered with a stand		N
	d) for temporary installations and suitable for mounting on a stand		N
1.6 (4.13.6)	Tumbling barrel		N
1.6 (4.14)	Suspensions, fixings and means of adjusting		P

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Clause	Requirement - Test		Verdict
1.6 (4.14.1)	Mechanical load:		P
(-)	A) Four times the weight	4X8,1 kg =32,4 kg	P
	B) torque 2,5 Nm		P
	C) bracket arm; bending moment (Nm)		N
	D) load track-mounted luminaires		N
	E) clip-mounted luminaires, glass-shelve. Thickness (mm)		N
	metal rod. diameter (mm)		N
	Fixed luminaire or independent control gear without fixing devices		N
1.6 (4.14.2)	Load to flexible cable		N
	Mass (kg)		N
	Stress in conductors (N/mm ²)		N
	Mass (kg) of semi-luminaire		N
	Bending moment (Nm) of semi-luminaire		N
1.6 (4.14.3 a)	Adjusting devices:		N
	- flexing test; number of cycles		N
	- strands broken		N
	- electric strength test afterwards		N
1.6 (4.14.3 b)	Luminaires with a means of adjustment intended to be installed within arm's reach, shall allow the operation of its intended function without impairing the stability of the luminaire or causing deformation of any part of the construction, nor cause injury due to temperatures above those specified in Table 12.1.	Out of arms reach	N
1.6 (4.14.3 c)	For luminaires intended to be mounted within arm's reach, the space surrounding any means of adjustment, except the light beam aperture, up to 5 cm away from the means of adjustment in any direction, shall comply with the temperature limits for the means of adjustment, as specified in Table 12.1.		N
1.6 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N
1.6 (4.14.5)	Guide pulleys		N
1.6 (4.14.6)	Strain on socket-outlets		N
1.6 (4.15)	Flammable materials:		P

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
	- glow-wire test 850 °C		N
	- spacing ≥ 30 mm		N
	- screen withstanding test of 13.3.1		N
	- screen dimensions		N
	- no fiercely burning material		P
	- thermal protection		N
	- electronic circuits exempted		N
1.6 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		N
	a) construction		N
	b) temperature sensing control		N
	c) surface temperature		N
1.6 (4.16)	Luminaires for mounting on normally flammable surfaces		P
	No lamp control gear	(compliance with Section 12)	N
1.6 (4.16.1)	Lamp control gear spacing:		N
	- spacing 35 mm		N
	- spacing 10 mm		N
1.6 (4.16.2)	Thermal protection:		N
	- in lamp control gear		N
	- external		N
	- fixed position		N
	- temperature marked lamp control gear		N
1.6 (4.16.3)	Design to satisfy the test of 12.6	(see 12.6)	N
1.6 (4.17)	Drain holes		N
	Clearance at least 5 mm		N
1.6 (4.18)	Resistance to corrosion:		N
1.6 (4.18.1)	- rust-resistance		N
1.6 (4.18.2)	- season cracking in copper		N
1.6 (4.18.3)	- corrosion of aluminium		N
1.6 (4.19)	Igniters compatible with ballast		N
1.6 (4.20)	Rough service vibration		N
1.6 (4.21)	Protective shield:		N
1.6 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps		N
	Shield of glass if tungsten halogen lamps		N
1.6 (4.21.2)	Particles from a shattering lamp not impair safety		N

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
1.6 (4.21.3)	No direct path		N
1.6 (4.21.4)	Impact test on shield		N
	Glow-wire test on lamp compartment		N
1.6 (4.22)	Attachments to lamps not cause overheating or damage		N
1.6 (4.23)	Semi-luminaires comply Class II		N
1.6 (4.24)	Photobiological hazards		P
1.6 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		N
1.6 (4.24.2)	Retinal blue light hazard		P
	Luminaires with Ethr :		P
	a) Fixed luminaires		P
	- distance x m, borderline between RG1 and RG2.. :		P
	- marking and instruction according 3.2.23		P
	b) Portable and handheld luminaires		N
	- marking according 3.2.23 if RG1 exceeded at 200 mm according to IEC/TR 62778		N
	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
1.6 (4.25)	Mechanical hazard		P
	No sharp point or edges		P
1.6 (4.26)	Short-circuit protection:		N
1.6 (4.26.1)	Adequate means of uninsulated accessible SELV parts		N
1.6 (4.26.2)	Short-circuit test with test chain according 4.26.3		N
	Test chain not melt through		N
	Test sample not exceed values of Table 12.1 and 12.2		N
1.6 (4.27)	Terminal blocks with integrated screwless earthing contacts		N
	Test according Annex V		N
	Pull test of terminal fixing (20 N)		N
	After test, resistance < 0,05 Ω		N
	Pull test of mechanical connection (50 N)		N
	After test, resistance < 0,05 Ω		N

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
	Voltage drop test, resistance < 0,05 Ω		N
1.6 (4.28)	Fixing of thermal sensing control		N
	Not plug-in or easily replaceable type		N
	Reliably kept in position		N
	No adhesive fixing if UV radiations from a lamp can degrade the fixing		N
	Not outside the luminaire enclosure		N
	Test of adhesive fixing:		N
	Max. temperature on adhesive material ($^{\circ}\text{C}$)		N
	100 cycles between t min and t max		N
	Temperature sensing control still in position		N
1.6 (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
1.6 (4.30)	Luminaires with non-user replaceable light source		N
	If protective cover provide protection against electric shock and marked with "caution, electric shock risk" symbol:		N
	Minimum two fixing means		N
1.6 (4.31)	Insulation between circuits		N
	Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3		N
	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
1.6 (4.31.1)	SELV circuits		N
	Used SELV source		N
	Voltage \leq ELV		N
	Insulating of SELV circuits from LV supply		N
	Insulating of SELV circuits from other non SELV circuits		N
	Insulating of SELV circuits from FELV		N
	Insulating of SELV circuits from other SELV circuits		N
	SELV circuits insulated from accessible parts according Table X.1		N

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
	Plugs not able to enter socket-outlets of other voltage systems		N
	Socket outlets does not admit plugs of other voltage systems		N
	Plugs and socket-outlets does not have protective conductor contact		N
1.6 (4.31.2)	FELV circuits		N
	Used FELV source		N
	Voltage \leq ELV		N
	Insulating of FELV circuits from LV supply		N
	FELV circuits insulated from accessible parts according Table X.1		N
	Plugs not able to enter socket-outlets of other voltage systems		N
	Socket outlets does not admit plugs of other voltage systems		N
	Socket-outlets does not have protective conductor contact		N
1.6 (4.31.3)	Other circuits		N
	Other circuits insulated from accessible parts according Table X.1		N
	Class II construction with equipotential bonding for protection against indirect contacts with live parts:		N
	- conductive parts are connected together		N
	- test according 7.2.3 of above		N
	- conductive part not cause an electric shock in case of an insulation fault		N
	- equipotential bonding in master/slave applications		N
	- master luminaire provided with terminal for accessible conductive parts of slave luminaires		N
	- slave luminaire constructed as class I		N
1.6 (4.32)	Overvoltage protective devices		N
	Comply with IEC 61643-11		N
	External to control gear and connected to earth:		N
	- only in fixed luminaires		N
	- only connected to protective earth		N

1.7 (11)	CREEPAGE DISTANCES AND CLEARANCES	P
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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
	Working voltage (V).....	240V~	—
	Voltage form	Sinusoidal <input checked="" type="checkbox"/> Non-sinusoidal <input type="checkbox"/>	—
	PTI	< 600 <input checked="" type="checkbox"/> ≥ 600 <input type="checkbox"/>	—
	Rated pulse voltage (kV).....	---	—
	Impulse withstand category (Normal category II) (Category III Annex U)	Category II <input checked="" type="checkbox"/> Category III <input type="checkbox"/>	—
	(1) Current-carrying parts of different polarity: cr (mm); cl (mm).....	Cr>3,5mm, Cl>2,5mm (limit: Cr:2,5, Cl:1,5mm)	P
	(2) Current-carrying parts and accessible parts: cr (mm); cl (mm).....	Cr>3,5mm, Cl>2,5mm (limit: Cr:2,5, Cl:1,5mm)	P
	(3) Parts becoming live due to breakdown of basic insulation and metal parts: cr (mm); cl (mm).....		N
	(4) Outer surface of cable where it is clamped and metal parts: cr (mm); cl (mm).....		N
	(5) Not used		—
	(6) Current-carrying parts and supporting surface: cr (mm); cl (mm).....	Cr>3,5mm, Cl>2,5mm (limit: Cr:2,5, Cl:1,5mm)	P

1.8 (7)	PROVISION FOR EARTHING		P
1.8 (7.2.1 + 7.2.3)	Accessible metal parts		P
	Metal parts in contact with supporting surface		P
	Resistance < 0,5 Ω.....	0,042Ω	P
	Two self-tapping screws used		N
	Thread-forming screws		N
	Thread-forming screw used in a grove		N
	Earth makes contact first		P
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N
	Protective earthing of the luminaire not via built-in control gear		N
1.8 (7.2.2 + 7.2.3)	Earth continuity in joints etc.		N
1.8 (7.2.4)	Locking of clamping means		P

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
	Compliance with 4.7.3		P
	For terminal blocks with integrated screwless earthing contacts, the additional tests of Annex V apply		N
1.8 (7.2.5)	Earth terminal integral part of connector socket		N
1.8 (7.2.6)	Earth terminal adjacent to mains terminals		P
1.8 (7.2.7)	Electrolytic corrosion of the earth terminal		P
1.8 (7.2.8)	Material of earth terminal		P
	Contact surface bare metal		P
1.8 (7.2.10)	Class II luminaire for looping-in		N
	Double or reinforced insulation to functional earth		N
1.8 (7.2.11)	Earthing core coloured green-yellow		P
	Length of earth conductor		P
1.9 (14)	SCREW TERMINALS		P
	Separately approved; component list	(see Annex 1)	P
	Part of the luminaire	(see Annex 3)	N
1.9 (15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		N
	Separately approved; component list	(see Annex 1)	N
	Part of the luminaire	(see Annex 4)	N
1.10 (5)	EXTERNAL AND INTERNAL WIRING		P
1.10 (5.2)	Supply connection and external wiring		P
1.10 (5.2.1)	Means of connection: Terminal		P
	Outdoor luminaire has not PVC insulated external wiring if not class III or SELV ≤ 25 V a.c./60 V d.c. or protected from outdoor environment		N
	Connecting leads (EN)		N
	- without a means for connection to the supply		N
	- terminal block specified		N
	- relevant information provided		N
	- compliance with 4.6, 4.7.1, 4.7.2, 4.10.1, 11.2, 12 and 13.2 of Part 1		N
1.10 (5.2.2)	Type of cable.....:		N
	Nominal cross-sectional area (mm ²).....:		N

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
	Cables equal to IEC 60227 or IEC 60245		N
	Cables equal to EN 50525 (EN)		N
	Replace table 5.1 – Supply cord		N
1.10 (5.2.3)	Type of attachment, X, Y or Z		N
1.10 (5.2.5)	Type Z not connected to screws		N
1.10 (5.2.6)	Cable entries:		N
	- suitable for introduction		N
	- adequate degree of protection		N
1.10 (5.2.7)	Cable entries through rigid material have rounded edges		N
1.10 (5.2.8)	Insulating bushings:		N
	- suitably fixed		N
	- material in bushings		N
	- material not likely to deteriorate		N
	- tubes or guards made of insulating material		N
1.10 (5.2.9)	Locking of screwed bushings		N
1.10 (5.2.10)	Cord anchorage:		N
	- covering protected from abrasion		N
	- clear how to be effective		N
	- no mechanical or thermal stress		N
	- no tying of cables into knots etc.		N
	- insulating material or lining		N
1.10 (5.2.10.1)	Cord anchorage for type X attachment:		N
	a) at least one part fixed		N
	b) types of cable		N
	c) no damaging of the cable		N
	d) whole cable can be mounted		N
	e) no touching of clamping screws		N
	f) metal screw not directly on cable		N
	g) replacement without special tool		N
	Glands not used as anchorage		N
	Labyrinth type anchorages		N
1.10 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment		N

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
1.10 (5.2.10.3)	Tests:		N
	- impossible to push cable; unsafe		N
	- pull test: 25 times; pull (N)		N
	- torque test: torque (Nm).....		N
	- displacement ≤ 2 mm		N
	- no movement of conductors		N
	- no damage of cable or cord		N
	- function independent of electrical connection		N
1.10 (5.2.11)	External wiring passing into luminaire		N
1.10 (5.2.12)	Looping-in terminals		N
1.10 (5.2.13)	Wire ends not tinned		N
	Wire ends tinned: no cold flow		N
1.10 (5.2.14)	Mains plug same protection		N
	Class III luminaire plug		N
	No unsafe compatibility		N
1.10 (5.2.16)	Appliance inlets (IEC 60320)		N
	Installation couplers (IEC 61535)		N
	Other appliance inlet or connector according relevant IEC standard		N
1.10 (5.2.17)	Non standardized interconnecting cables properly assembled		N
1.10 (5.2.18)	Used plug in accordance with:		N
	- IEC 60083		N
	- other standard		N
1.10 (5.3)	Internal wiring		P
1.10 (5.3.1)	Internal wiring of suitable size and type	20AWG	P
	Through wiring		N
	- not delivered/ mounting instruction		N
	- factory assembled		N
	- socket outlet loaded (A)		N
	- temperatures.....	(see Annex 2)	N
	Green-yellow for earth only		P
1.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring		N
	Cross-sectional area (mm ²)		N

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
	Insulation thickness		N
	Extra insulation added where necessary		N
1.10 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		P
	Adequate cross-sectional area and insulation thickness		P
1.10 (5.3.1.3)	Double or reinforced insulation for class II		N
1.10 (5.3.1.4)	Conductors without insulation		N
1.10 (5.3.1.5)	SELV current-carrying parts		N
1.10 (5.3.1.6)	Insulation thickness other than PVC or rubber		N
1.10 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		N
	Joints, raising/lowering devices		N
	Telescopic tubes etc.		N
	No twisting over 360°		P
1.10 (5.3.3)	Insulating bushings:		N
	- suitable fixed		N
	- material in bushings		N
	- material not likely to deteriorate		N
	- cables with protective sheath		N
1.10 (5.3.4)	Joints and junctions effectively insulated		P
1.10 (5.3.5)	Strain on internal wiring		N
1.10 (5.3.6)	Wire carriers		N
1.10 (5.3.7)	Wire ends not tinned		P
	Wire ends tinned: no cold flow		N
1.11 (8)	PROTECTION AGAINST ELECTRIC SHOCK		P
1.11 (8.2.1)	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		P
	Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires		P

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires		N
	Lamp and starterholders in portable and adjustable luminaires comply with double or reinforced insulation requirements		P
	Basic insulation only accessible under lamp or starter replacement		P
	Protection in any position		P
	Double-ended tungsten filament lamp		N
	Insulation lacquer not reliable		N
	Double-ended high pressure discharge lamp		N
	Relevant warning according to 3.2.18 fitted to the luminaire		N
1.11 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N
1.11 (8.2.3 a)	Class II luminaire:		N
	- basic insulated metal parts not accessible during starter or lamp replacement		N
	- basic insulation not accessible other than during starter or lamp replacement		N
	- glass protective shields not used as supplementary insulation		N
1.11 (8.2.3 b)	BC lampholder of metal in class I luminaires shall be earthed		N
1.11 (8.2.3 c)	SELV circuits with exposed current carrying parts:		N
	Ordinary luminaire:		N
	- touch current		N
	- no-load voltage		N
	Other than ordinary luminaire:		N
	- nominal voltage		N
1.11 (8.2.4)	Portable luminaire have protection independent of supporting surface		N
1.11 (8.2.5)	Compliance with the standard test finger or relevant probe		P
1.11 (8.2.6)	Covers reliably secured		P
1.11 (8.2.7)	Discharging of capacitors $\geq 0,5 \mu\text{F}$		N

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
	Portable plug connected luminaire with capacitor		N
	Other plug connected luminaire with capacitor		N
	Discharge device on or within capacitor		N
	Discharge device mounted separately		N
1.12 (12)	ENDURANCE TEST AND THERMAL TEST		P
1.12.1 (-)	If IP > IP 20 relevant test of (12.4), (12.5) and (12.6) after (9.2) before (9.3) specified in 4.13		N
1.12 (12.3)	Endurance test:		P
	- mounting-position.....: As in normal used		—
	- test temperature (°C): 35°C		—
	- total duration (h).....: 240h		—
	- supply voltage: Un factor; calculated voltage (V): 264V		—
	- lamp used.....: See data sheet		—
1.12 (12.3.2)	After endurance test:		P
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N
	- marking legible		P
	- no cracks, deformation etc.		P
1.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
1.12 (12.4.2c)	Thermal test (normal operation) see footnote c to table 12.2 relating to unsleeved fixed wiring (EN)		P
1.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	P
1.12 (12.6)	Thermal test (failed lamp control gear condition):		N
1.12 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A):		—
	- case of abnormal conditions:		—
	- electronic lamp control gear		N
	- measured winding temperature (°C): at 1,1 Un....:		—
	- measured mounting surface temperature (°C) at 1,1 Un.....:		N
	- calculated mounting surface temperature (°C):		N

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
	- track-mounted luminaires		N
1.12 (12.6.2)	Temperature sensing control		N
	- case of abnormal conditions		—
	- thermal link		N
	- manual reset cut-out		N
	- auto reset cut-out		N
	- measured mounting surface temperature (°C)		N
	- track-mounted luminaires		N
1.12 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		N
1.12 (12.7.1)	Luminaire without temperature sensing control		N
1.12 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		N
	Test method 12.7.1.1 or Annex W		—
	Test according to 12.7.1.1:		N
	- case of abnormal conditions		—
	- Ballast failure at supply voltage (V)		—
	- Components retained in place after the test		N
	- Test with standard test finger after the test		N
	Test according to Annex W:		N
	- 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		N
1.12 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		—
	- case of abnormal conditions		—
	- measured winding temperature (°C): at 1,1 Un		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un		—
	- calculated temperature of fixing point/exposed part (°C)		—
	Ball-pressure test		N

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
1.12 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA		N
	- case of abnormal conditions		—
	- Components retained in place after the test		N
	- Test with standard test finger after the test		N
1.12 (12.7.2)	Luminaire with temperature sensing control		N
	- thermal link.....: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		—
	- manual reset cut-out	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
	- auto reset cut-out	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
	- case of abnormal conditions		N
	- highest measured temperature of fixing point/ exposed part (°C):		N
	Ball-pressure test:		N
1.13 (9)	RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE		P
1.13 (-)	If IP > IP 20 the order of tests as specified in clause 1.12		N
1.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		P
	- classification according to IP	IP 65	—
	- mounting position during test.....	As in normal used	—
	- fixing screws tightened; torque (Nm)	---	—
	- tests according to clauses	Cl. 9.2.0 of EN 60598-1	—
	- electric strength test afterwards		P
	a) no deposit in dust-proof luminaire		N
	b) no talcum in dust-tight luminaire		N
	c) no trace of water on current-carrying parts or where it could become a hazard		N
	d) i) For luminaires without drain holes – no water entry		N
	d) ii) For luminaires with drain holes – no hazardous water entry		N
	e) no water in watertight luminaire		N
	f) no contact with live parts (IP 2X)		P
	f) no entry into enclosure (IP 3X and IP 4X)		N
	f) no contact with live parts (IP 3X and IP 4X)		N
	g) no trace of water on any part of a lamp		N

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict

	h) no damage		N
1.13 (9.3)	Humidity test 48 h	30°C,95%Humidity	P

1.14 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		P
1.14 (10.2.1)	Insulation resistance test		P
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø		—
	Insulation resistance (MΩ)		—
	SELV:		N
	- between current-carrying parts of different polarity		N
	- between current-carrying parts and mounting surface.....		N
	- between current-carrying parts and metal parts of the luminaire.....		N
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts.....		N
	- insulating bushings as described in Section 5.....		N
	Other than SELV:		P
	- between live parts of different polarity	>50 MΩ	P
	- between live parts and mounting surface	>50 MΩ	P
	- between live parts and metal parts	>50 MΩ	P
	- between live parts of different polarity through action of a switch.....		N
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts.....		N
	- insulating bushings as described in Section 5.....		N
1.14 (10.2.2)	Electric strength test		P
	Dummy lamp		N
	Luminaires with ignitors after 24 h test		N
	Luminaires with manual ignitors		N
	Test voltage (V):		P
	SELV:		N
	- between current-carrying parts of different polarity		N

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
	- between current-carrying parts and mounting surface.....:		N
	- between current-carrying parts and metal parts of the luminaire.....:		N
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts.....:		N
	- insulating bushings as described in Section 5.....:		N
	Other than SELV:		P
	- between live parts of different polarity	1480V/MIN	P
	- between live parts and mounting surface	1480V/MIN	P
	- between live parts and metal parts	1480V/MIN	P
	- between live parts of different polarity through action of a switch.....:		N
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts.....:		N
	- insulating bushings as described in Section 5.....:		N
1.14 (10.3.1)	Touch current or protective conductor current (mA)	Touch current: 0,022mA	P

1.15 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		P
1.15 (13.2.1)	Ball-pressure test:		P
	- part tested; temperature (°C)	Terminal; 125°C; 1,0mm	P
	- part tested; temperature (°C)		N
1.15 (13.3.1)	Needle flame test (10 s):		P
	- part tested	Terminal	P
	- part tested		N
1.15 (13.3.2)	Glow-wire test (850°C):		N
	- part tested		N
	- part tested		N
1.15 (13.4)	Proof tracking test (IEC 60112).....:		N

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3.3 Annex as stated in the standards

IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict

W	ANNEX W, Alternative thermal test for thermoplastic luminaires		N
W.1	Thermal test in regard to fault conditions in lamp controlgear or electronic devices without temperature sensing controls in thermoplastic luminaires for fluorescent lamps $\leq 70W$		—
	Thermal test (failed lamp control gear in plastic luminaires):		N
	Through wiring or looping-in wiring loaded by a current of (A).....:		—
	- case of abnormal conditions.....:		—
	- measured winding temperature ($^{\circ}C$): at 1,1 Un...:		—
	- measured temperature of fixing point/ exposed part ($^{\circ}C$): at 1,1 Un.....:		N
	- calculated temperature of fixing point/ exposed part ($^{\circ}C$).....:		N

ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		P
(3.3)	DK: power supply cords of class I luminaires with label		N
(4.5.1)	DK: socket-outlets		N
(5.2.1)	CY, DK, FI, GB: type of plug		N

ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		N
(4 & 5)	FR: Shuttered socket-outlets 10/16A		N
	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
	- 850 $^{\circ}C$ for luminaires in stairways and horizontal travel paths		N
	- 850 $^{\circ}C$ for indoor luminaires		N
	GB: Requirements according to United Kingdom Building Regulation		N

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3.4 Tables

IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict

ANNEX 1: components			P
---------------------	--	--	---

object/part No.	code	manufacturer/ trademark	type/model	technical data	standard	mark(s) of conformity
Terminal	B	WAGO	224	400V	---	KEMA
Internal wire	B	Various	(N)6YAF	20AWG 180°C	---	VDE
Earth wire	B	Various	H05S-K	0.75mm ²	---	VDE
LED Driver	B	KEQT POWER	KEDH050S1 200NR24A8	Input: 220-240V 50-60Hz Output: Constant Current 1200mA 52V Tc:85°C SELV	---	ENEC 17

The codes above have the following meaning:

- A - The component is replaceable with another one, also certified, with equivalent characteristics
- B - The component is replaceable if authorised by the test house
- C - Integrated component tested together with the appliance
- D - Alternative component

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict

	ANNEX 2: temperature measurements, thermal tests of Section 12	P
--	---	----------

Type reference.....	LL-SLR10-12W-930-65	—				
Lamp used	LED 12W	—				
Lamp control gear used	APC-25-700	—				
Mounting position of luminaire	As in normal used	—				
Supply wattage (W)	12.2W	—				
Supply current (A)	0,055	—				
Calculated power factor	0,926	—				
Table: measured temperatures corrected for ta = 50 °C:		P				
- abnormal operating mode	Short circuit LED lamp	—				
- test 1: rated voltage	240V	—				
- test 2: 1,06 times rated voltage or 1,05 times rated wattage	254,4V (1,06 times rated voltage)	—				
- 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	264V (1,1 times rated voltage)	—				
Through wiring or looping-in wiring loaded by a current of A during the test	---	—				
Part	Clause 12.4 – normal				Clause 12.5 – abnormal	
	test 1	test 2	test 3	limit	test 4	limit
Terminal	---	41,8	---	For Cl. 13	---	---
Internal wire	---	37,9	---	180	---	---
LED Driver surface	49,7	---	---	85	---	---
Mounting surface	---	34,6	---	90	35,5	130

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict

	ANNEX 3: screw terminals (part of the luminaire)		N
--	---	--	----------

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

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict

	ANNEX 4: screwless terminals (part of the luminaire)		N
--	---	--	----------

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

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IEC 60598-2-1 and/or EN 60598-2-1			
Clause	Requirement - Test	Result	Verdict
(15.6.2.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N)		N
	Pull test pin or tab terminals (4 samples); pull (N)		N

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

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Manufacturer/ Approval holder Declaration

The following identical model(s):

LL-DL03
LL-PINSPOT01
LL-SLR08
LL-SLR07
LL-SLR05
LL-DL01
LL-SLR09
LL-SLR10

belong to the tested device:

Product description: **LED Recessed Downlight**
Model name: **LL-SLR10**

No additional models were tested.

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Attachments

- ☒ Photo document
- ☐ BOM
- ☐ CDF (critical data form)
- ☐ Copies of certificates of certified components
- ☐ Instruction manual
- ☐ Circuit diagram
- ☐ Explosion block
- ☐ Other if necessary

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Type Designation:
Report Number:

LED Recessed Downlight, LL-SLR10
CGZ3190424-00904-L

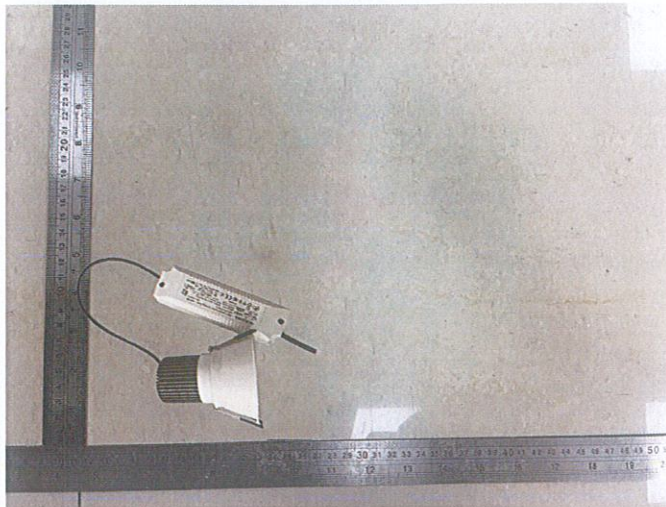


Figure 1 (External view – side 1)

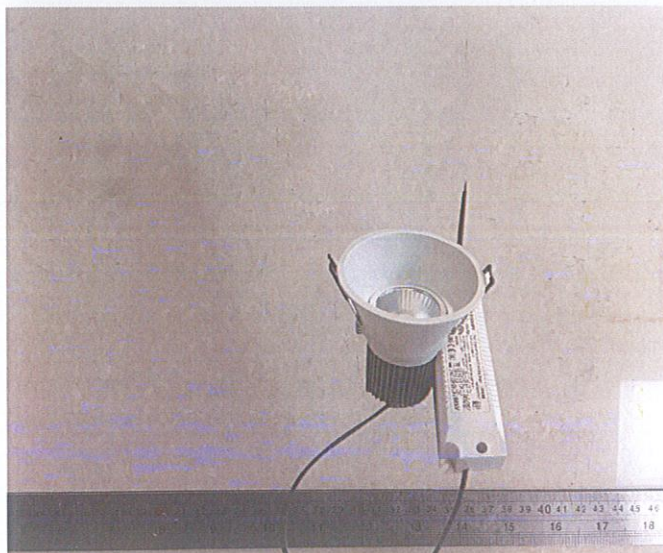


Figure 2 (External view – side 2)