Test Report issued under the responsibility of:
Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch

TEST REPORT
IEC 60598-2-6
Luminaires
Part 2: Particular requirements:
Section Six – Luminaires with built-in transformers or convertors for filament lamps

Report Reference No.....:	GZ12060239-2
Date of issue.....:	27 Jul. 2012
Total number of pages.....	30
CB Testing Laboratory.....:	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
Address.....:	Block E, No.7-2 Guang Dong Software Science Park, Caipin Road, Guangzhou Science City, GETDD, Guangzhou, China
Applicant's name.....:	Eaglerise Electronics (Foshan) Co., Ltd.
Address.....:	No. 4, East Huanzhen Road, Beijiao, Shunde, Foshan, Guangdong, 528000, China
Test specification:	
Standard .....:	☐ IEC 60598-2-6:1994+A1:1996 used in conjunction with IEC 60598-1:2008 ☒ EN 60598-2-6:1994+A1:1997 used in conjunction with EN 60598-1:2008+A11: 2009
Test procedure.....:	Additional requirements of independent Electronic controlgear for LED
Non-standard test method……..:	N/A
Test Report Form No.....:	IEC60598_2_6A
Test Report Form(s) Originator .....:	Intertek Semko AB
Master TRF.....:	2008-12

Test item description..... :	Electronic controlgear for LED (Electronic LED driver)
Trade Mark .....:	EAGLERISE
Manufacturer.....:	Same as applicant
Model/Type reference.....:	EIP012C****LS Remark: The 1st to 4th "*" indicate the output current of LED driver; can be replaced by "0250" to "1200" and increasing in multiplies of 50. "0250" means 250 mA; "1200" means 1200 mA.
Ratings.....:	Input: 220-240 VAC; 50/60 Hz; 0,09 A; Class II; IP 20; SELV; ta 50 °C; tc 75 °C; Independent type; 110 °C thermal protection; Inherently short-circuit proof; Output: Constant current type for output; MM mark; Suitable for direct mounting on normally flammable surfaces; Other parameters refer to appendix for model list in test report GZ12060239-1.

Testing procedure and testing location:	
☒ **CB Testing Laboratory:**	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
Testing location/ address ..... :	Block E, No.7-2 Guang Dong Software Science Park, Caipin Road, Guangzhou Science City, GETDD, Guangzhou, China
☐ **Associated CB Laboratory:**	
Testing location/ address ..... :	
Tested by (name + signature)..... :	Julia Hu
Approved by (+ signature) ..... :	Shelley Ying
☐ Testing procedure: TMP	
Tested by (name + signature)..... :	—
Approved by (+ signature) ..... :	—
Testing location/ address ..... :	
☐ Testing procedure: WMT	
Tested by (name + signature)..... :	—
Witnessed by (+ signature)..... :	—
Approved by (+ signature) ..... :	—
Testing location/ address ..... :	
☐ Testing procedure: SMT	
Tested by (name + signature)..... :	—
Approved by (+ signature) ..... :	—
Supervised by (+ signature)..... :	—
Testing location/ address ..... :	
☐ Testing procedure: RMT	
Tested by (name + signature)..... :	—
Approved by (+ signature) ..... :	—
Supervised by (+ signature)..... :	—
Testing location/ address ..... :	

Summary of testing:

The tested samples fulfilled the requirements of specified standards.

All models had the same mechanical structure, output load, PCB layout; the only deference is the parameters for the components used in secondary circuit. Model EIP012C1200LS was selected to do the full tests as its maximum secondary output current.

Tests performed (name of test and test clause):	**Testing location:**
6.5 Marking 6.6 Construction 6.7 Creepage distances and clearance 6.9 Terminals 6.10 External and internal wiring 6.11 Protection against electric shock 6.12 Endurance tests and thermal tests 6.13 Resistance to dust and moisture 6.14 Insulation resistance and electric strength 6.15 Resistance to heat, fire and tracking	Block E, No.7-2 Guang Dong Software Science Park, Caipin Road, Guangzhou Science City, GETDD, Guangzhou, China

Summary of compliance with National Differences:

Not checked.

Copy of marking plate

Please refer to report: GZ12060239-1

Test item particulars.....:	
Classification of installation and use.....:	Independent; Class II; for use with LED
Supply Connection.....:	Terminal blocks
Possible test case verdicts:	
- test case does not apply to the test object.....:	N/A
- test object does meet the requirement.....:	P (Pass)
- test object does not meet the requirement.....:	F (Fail)
Testing.....:	
Date of receipt of test item.....:	05 Jun. 2012
Date (s) of performance of tests.....:	05 Jun. 2012 to 27 Jul. 2012

General remarks:

The test results presented in this report relate only to the object tested.
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.
"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.
Throughout this report a comma is used as the decimal separator.
Clause numbers between brackets refer to clauses in IEC 60598-1

When determining for test conclusion, measurement uncertainty of tests has been considered.

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

The test report only allows to be revised only within the report defined retention period unless standard or regulation was withdrawn or invalid.

The clause which indicated with * is the subcontract test item.

This report shall be used with GZ12060239-1.

This report is totally 30 pages; Page 1-28 is test report, page 29 is model list, and page 30 is product photos.

Manufacturer site: Eaglerise Electronics (Foshan) Co., Ltd.

Address: No. 4, East Huanzhen Road, Beijiao, Shunde, Foshan, Guangdong, 528000, China.

General product information:

The product covered by this report is Class II; independent; SELV; LED driver.

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict

6.2 (0)	**GENERAL TEST REQUIREMENTS**		—
6.2 (0.1)	Information for luminaire design considered	Standard EN 62471 Yes ☒ No ☐	—
64.2 (0.3)	More sections applicable.....:	Yes ☐ No ☒	—

6.4 (2)	**CLASSIFICATION**		—
6.4 (2.2)	Type of protection (Class 0 excluded) .....:	Class II	—
6.4 (2.3)	Degree of protection (Requirement: Ordinary) .....:	IP20	—
6.4 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces.....:	Yes ☒ No ☐	—
	Luminaire not suitable for direct mounting on normally flammable surfaces.....:	Yes ☐ No ☒	—
6.4 (2.5)	Luminaire for normal use .....:	Yes ☒ No ☐	—
	Luminaire for rough service .....:	Yes ☐ No ☒	—

6.5 (3)	**MARKING**		P
6.5 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text		P
6.5 (3.3)	Additional information		P
	Language of instructions		P
6.5 (3.3.1)	Combination luminaires		N/A
6.5 (3.3.2)	Nominal frequency in Hz	50/60	P
6.5 (3.3.3)	Operating temperature		P
6.5 (3.3.4)	Symbol or warning notice		N/A
6.5 (3.3.5)	Wiring diagram		N/A
6.5 (3.3.6)	Special conditions		N/A
6.5 (3.3.7)	Metal halide lamp luminaire – warning		N/A
6.5 (3.3.8)	Limitation for semi-luminaires		N/A
6.5 (3.3.9)	Power factor and supply current		P
6.5 (3.3.10)	Suitability for use indoors		N/A
6.5 (3.3.11)	Luminaires with remote control		N/A
6.5 (3.3.12)	Clip-mounted luminaire – warning		N/A
6.5 (3.3.13)	Specifications of protective shields		N/A

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
6.5 (3.3.14)	Symbol for nature of supply		N/A
6.5 (3.3.15)	Rated current of socket outlet		N/A
6.5 (3.3.16)	Rough service luminaire		N/A
6.5 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments		N/A
6.5 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
6.5 (3.3.19)	Protective conductor current in instruction if applicable		N/A
6.5 (3.3.20)	Provided with information if not intended to be mounted within arms reach		N/A
6.5 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test		P
	Label attached		P
6.5.1 (-)	Rated voltage		P
6.5.2 (-)	Output voltage visible during lamp replacement		P
6.5.3 (-)	Warning notice		N/A
6.5.4 (-)	Marking on transformer or convertor		P
6.5.5 (-)	Fuse-link rating		N/A
6.6 (4)	**CONSTRUCTION**		**P**
6.6 (4.2)	Components replaceable without difficulty	Input and output wire	P
6.6 (4.3)	Wireways smooth and free from sharp edges		P
6.6 (4.4)	Lampholders		N/A
6.6 (4.4.1)	Integral lampholder		N/A
6.6 (4.4.2)	Wiring connection		N/A
6.6 (4.4.3)	Lampholder for end-to-end mounting		N/A
6.6 (4.4.4)	Positioning		N/A
	- pressure test (N) .....:		N/A
	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) .....:		N/A
	After test the lampholder have not moved from its position and show no permanent deformation		N/A

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
6.6 (4.4.5)	Peak pulse voltage		N/A
6.6 (4.4.6)	Centre contact		N/A
6.4.6 (4.4.7)	Parts in rough service luminaires resistant to tracking		N/A
6.6 (4.4.8)	Lamp connectors		N/A
6.6 (4.4.9)	Caps and bases correctly used		N/A
6.6 (4.5)	Starter holders		N/A
	Starter holder in luminaires other than class II		N/A
	Starter holder class II construction		N/A
6.6 (4.6)	Terminal blocks		N/A
	Tails		N/A
	Unsecured blocks		N/A
6.6 (4.7)	Terminals and supply connections		P
6.6 (4.7.1)	Contact to metal parts		P
6.6 (4.7.2)	Test 8 mm live conductor		P
	Test 8 mm earth conductor		N/A
6.6 (4.7.3)	Terminals for supply conductors		P
6.6 (4.7.3.1)	Welded connections:		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 15.8.2		N/A
	- electrical test according to 15.9		N/A
	- heat test according to 15.9.2.3 and 15.9.2.4		N/A
6.6 (4.7.4)	Terminals other than supply connection		P
6.6 (4.7.5)	Heat-resistant wiring/sleeves		N/A
6.6 (4.7.6)	Multi-pole plug		N/A
	- test at 30 N		N/A
6.6 (4.8)	Switches:		N/A
	- adequate rating		N/A
	- adequate fixing		N/A
	- polarized supply		N/A
	- compliance with 61058-1 for electronic switches		N/A

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
6.6 (4.9)	Insulating lining and sleeves		P
6.6 (4.9.1)	Retainement		P
	Method of fixing.....:	Insulation tape; fixed by structure	P
6.6 (4.9.2)	Insulated linings and sleeves		P
	Resistant to a temperature > 20 °C to the wire temperature or		N/A
	a) & c) Insulation resistance and electric strength		P
	b) Ageing test. Temperature (°C).....:		N/A
6.6 (4.10)	Insulation of Class II luminaires		P
6.6 (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
6.6 (4.10.2)	Assembly gaps:		P
	- not coincidental		P
	- no straight access with test probe		P
6.6 (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
6.6 (4.11)	Electrical connections		P
6.6 (4.11.1)	Contact pressure		P
6.6 (4.11.2)	Screws:		N/A
	- self-tapping screws		N/A
	- thread-cutting screws		N/A
6.6 (4.11.3)	Screw locking:		N/A
	- spring washer		N/A
	- rivets		N/A
6.6 (4.11.4)	Material of current-carrying parts		P
6.6 (4.11.5)	No contact to wood or mounting surface		P
6.6 (4.11.6)	Electro-mechanical contact systems		N/A

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
6.6 (4.12)	Mechanical connections and glands		P
6.6 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		N/A
	Torque test: torque (Nm); part .....:	Fixed enclosure screw: 0,5 Nm;	P
	Torque test: torque (Nm); part .....:		N/A
	Torque test: torque (Nm); part .....:		N/A
6.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
6.6 (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
6.6 (4.12.5)	Screwed glands; force (Nm) .....:		N/A
6.6 (4.13)	Mechanical strength		P
6.6 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm) .....:		N/A
	- other parts; energy (Nm).....:	Enclosure: 0,5 Nm	P
	1) live parts		P
	2) linings		N/A
	3) protection		P
	4) covers		P
6.6 (4.13.3)	Straight test finger		P
6.6 (4.13.4)	Rough service luminaires		N/A
	- IP54 or higher		N/A
	a) fixed		N/A
	b) hand-held		N/A
	c) delivered with a stand		N/A
	d) for temporary installations and suitable for mounting on a stand		N/A
6.6 (4.13.6)	Tumbling barrel		N/A
6.6 (4.14)	Suspensions and adjusting devices		N/A
6.6 (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

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
	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
6.6 (4.14.2)	Load to flexible cables		N/A
	Mass (kg) .....:		N/A
	Stress in conductors (N/mm²) .....:		N/A
	Mass (kg) of semi-luminaire .....:		N/A
	Bending moment (Nm) of semi-luminaire .....:		N/A
6.6 (4.14.3)	Adjusting devices:		N/A
	- flexing test; number of cycles .....:		N/A
	- strands broken		N/A
	- electric strength test afterwards		N/A
6.6 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
6.6 (4.14.5)	Guide pulleys		N/A
6.6 (4.14.6)	Strain on socket-outlets		N/A
6.6 (4.15)	Flammable materials:		P
	- glow-wire test 650 °C	Enclosure	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
6.6 (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
6.6 (4.16)	Luminaires for mounting on normally flammable surfaces		P
	No lamp control gear	(compliance with Section 12)	P
6.6 (4.16.1)	Lamp control gear spacing:		N/A
	- spacing 35 mm		N/A

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
	- spacing 10 mm		N/A
6.6 (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
6.6 (4.16.3)	Design to satisfy the test of 12.6	(see 12.6)	N/A
6.6 (4.17)	Drain holes		N/A
	Clearance at least 5 mm		N/A
6.6 (4.18)	Resistance to corrosion:		P
6.6 (4.18.1)	- rust-resistance		N/A
6.6 (4.18.2)	- season cracking in copper		P
6.6 (4.18.3)	- corrosion of aluminium		N/A
6.6 (4.19)	Ignitors compatible with ballast		N/A
6.6 (4.20)	Rough service vibration		N/A
6.6 (4.21)	Protective shield:		N/A
6.6 (4.21.1)	Shield fitted		N/A
	Shield of glass if tungsten halogen lamps		N/A
6.6 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
6.6 (4.21.3)	No direct path		N/A
6.6 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment		N/A
6.6 (4.22)	Attachments to lamps		N/A
6.6 (4.23)	Semi-luminaires comply Class II		N/A
6.6 (4.24)	UV radiation for tungsten halogen lamps and metal halide lamps (Annex P)		N/A
6.6 (4.25)	No sharp point or edges		P
6.6 (4.26)	Short-circuit protection:		N/A
6.6 (4.26.1)	Uninsulated accessible SELV parts		N/A
6.6 (4.26.2)	Short-circuit test		N/A
6.6 (4.26.3)	Test chain according to Figure 29		N/A
6.6.1-3 (-)	Electrical safety output circuit		P

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict

6.7 (11)	**CREEPAGE DISTANCES AND CLEARANCES**			**P**
	Working voltage (V).....:	220-240		—
	Voltage form	Sinusoidal ☒ Non-sinusoidal ☐		—
	PTI	< 600 ☒ ≥ 600 ☐		—
	Impulse withstand category (Normal category II) (Category III Annex U)	Category II ☒ Category III ☐		—
	Rated pulse voltage (kV).....:	—		—
	Measured circuit.....:	Primary	Secondary (Max. 52 VDC)	—
	(1) Current-carrying parts of different polarity: cr (mm); cl (mm).....:	Approval terminal block Current-carrying parts of different polarity in PCB: Cr. 6,0 mm (limit: 2,5 mm); Cl. 6,0 mm (limit: 1,5 mm)	Approval terminal block	P
	(2) Current-carrying parts and accessible parts: cr (mm); cl (mm).....:	Live parts in PCB and accessible parts: Cr. >=6,1 mm (limit: 5,0 mm); Cl. >=6,1 mm (limit: 3,0 mm)	Live parts in PCB and accessible parts: Cr. >=6,1 mm (limit: 3,2,mm); Cl. >=6,1 mm (limit: 1,6 mm)	P
	(3) Parts becoming live due to breakdown of basic insulation and metal parts: cr (mm); cl (mm).....:	---	---	N/A

IEC 60598-2-6				
Clause	Requirement + Test	Result - Remark		Verdict
	(4) Outer surface of cable where it is clamped and metal parts: cr (mm); cl (mm).....:	Input wire clamped by cord anchorage to metal screw: Cr. >= 5,0 mm (limit: 2,5 mm); Cl. >= 5,0 mm (limit: 1,5 mm)	Output wire clamped by cord anchorage to metal screw: Cr. >= 5,0 mm (limit: 1,6 mm); Cl. >= 5,0 mm (limit: 0,8 mm)	P
	(5) Not used	---	---	N/A
	(6) Current-carrying parts and supporting surface: cr (mm); cl (mm).....:	Live parts in PCB and supporting surface: Cr. >=6,1 mm (limit: 5,0 mm); Cl. >=6,1 mm (limit: 3,0 mm);	Live parts in PCB and supporting surface: Cr. >=6,1 mm (limit: 3,2 mm); Cl. >=6,1 mm (limit: 1,6 mm);	P
	Between transformer windings: cr (mm); cl (mm) .:			N/A

6.8 (7)	**PROVISION FOR EARTHING**		N/A
6.8 (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 grove		N/A
	Earth makes contact first		N/A
6.8 (7.2.2 + 7.2.3)	Earth continuity in joints etc.		N/A
6.8 (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
6.8 (7.2.5)	Earth terminal integral part of connector socket		N/A
6.8 (7.2.6)	Earth terminal adjacent to mains terminals		N/A

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
6.8 (7.2.7)	Electrolytic corrosion of the earth terminal		N/A
6.8 (7.2.8)	Material of earth terminal		N/A
	Contact surface bare metal		N/A
6.8 (7.2.10)	Class II luminaire for looping-in		N/A
	Double or reinforced insulation to functional earth		N/A
6.8 (7.2.11)	Earthing core coloured green-yellow		N/A
	Length of earth conductor		N/A
6.8.1 (-)	Metal shell of lampholders		N/A
6.8.2 (-)	Earthing of secondary circuit		N/A
6.8.3 (-)	Current path during operation		N/A
6.9 (14)	**SCREW TERMINALS**		**P**
	Separately approved; component list	Approval terminal block (see Annex 1)	P
	Part of the luminaire	(see Annex 3)	N/A
6.9 (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
6.10 (5)	**EXTERNAL AND INTERNAL WIRING**		**P**
6.10 (5.2)	Supply connection and external wiring		P
6.10 (5.2.1)	Means of connection.....:	Terminal blocks	P
6.10 (5.2.2)	Type of cable.....:		N/A
	Nominal cross-sectional area (mm²).....:		N/A
	Cables equal to IEC 60227 or IEC 60245		N/A
6.10 (5.2.3)	Type of attachment, X, Y or Z		N/A
6.10 (5.2.5)	Type Z not connected to screws		N/A
6.10 (5.2.6)	Cable entries:		P
	- suitable for introduction		P
	- adequate degree of protection		P
6.10 (5.2.7)	Cable entries through rigid material have rounded edges		P
6.10 (5.2.8)	Insulating bushings:		N/A
	- suitably fixed		N/A

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- tubes or guards made of insulating material		N/A
6.10 (5.2.9)	Locking of screwed bushings		N/A
6.10 (5.2.10)	Cord anchorage:		P
	- covering protected from abrasion		P
	- clear how to be effective		P
	- no mechanical or thermal stress		P
	- no tying of cables into knots etc.		P
	- insulating material or lining		P
6.10 (5.2.10.1)	Cord anchorage for type X attachment:		N/A
	a) at least one part fixed		N/A
	b) types of cable		N/A
	c) no damaging of the cable		N/A
	d) whole cable can be mounted		N/A
	e) no touching of clamping screws		N/A
	f) metal screw not directly on cable		N/A
	g) replacement without special tool		N/A
	Glands not used as anchorage		N/A
	Labyrinth type anchorages		N/A
6.10 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment		N/A
6.10 (5.2.10.3)	Tests:		P
	- impossible to push cable; unsafe		P
	- pull test: 25 times; pull (N) .....:	Input: H03VVH2-F; 2 X 0,5~0,75 mm^2; 60 N; Output: 3173; 2 X 0,5~1,5 mm^2; 60 N	P
	- torque test: torque (Nm).....:	Input: H03VVH2-F; 2 X 0,5~0,75 mm^2; 0,15 Nm; Output: 3173; 2 X 0,5~1,5 mm^2; 0,25 Nm	P
	- displacement ≤ 2 mm		P
	- no movement of conductors		P
	- no damage of cable or cord		P

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
6.10 (5.2.11)	External wiring passing into luminaire		N/A
6.10 (5.2.12)	Looping-in terminals		N/A
6.10 (5.2.13)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
6.10 (5.2.14)	Mains plug same protection		N/A
	Class III luminaire plug		N/A
6.10 (5.2.16)	Appliance inlets (IEC 60320)		N/A
	Appliance couplers of class II type		N/A
6.10 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
6.10 (5.2.18)	Used plug in accordance with		N/A
	- IEC 60083		N/A
	- other standard		N/A
6.10 (5.3)	Internal wiring		N/A
6.10 (5.3.1)	Internal wiring of suitable size and type		N/A
	Through wiring		N/A
	- not delivered/ mounting instruction		N/A
	- factory assembled		N/A
	- socket outlet loaded (A) .....:		N/A
	- temperatures .....:	(see Annex 2)	N/A
	Green-yellow for earth only		N/A
6.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring		N/A
	Cross-sectional area (mm²) .....:		N/A
	Insulation thickness		N/A
	Extra insulation added where necessary		N/A
6.10 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		N/A
	Adequate cross-sectional area and insulation thickness		N/A
6.10 (5.3.1.3)	Double or reinforced insulation for class II		N/A
6.10 (5.3.1.4)	Conductors without insulation		N/A
6.10 (5.3.1.5)	SELV current-carrying parts		N/A
6.10 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A
6.10 (5.3.2)	Sharp edges etc.		N/A
	No moving parts of switches etc.		N/A
	Joints, raising/lowering devices		N/A

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
	Telescopic tubes etc.		N/A
	No twisting over 360°		N/A
6.10 (5.3.3)	Insulating bushings:		N/A
	- suitable fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- cables with protective sheath		N/A
6.10 (5.3.4)	Joints and junctions effectively insulated		N/A
6.10 (5.3.5)	Strain on internal wiring		N/A
6.10 (5.3.6)	Wire carriers		N/A
6.10 (5.3.7)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
6.11 (8)	**PROTECTION AGAINST ELECTRIC SHOCK**		**P**
6.11 (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 and adjustable luminaires		P
	Basic insulated parts not accessible with Ø 50 mm probe from outside, within arms reach, on wall-mounted luminaires		N/A
	Lampholder 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
6.11 (8.2.2)	Portable luminaire adjusted in most unfavourable position		P
6.11 (8.2.3.a)	Class II luminaire:		P
	- basic insulated metal parts not accessible during starter or lamp replacement		N/A

IEC 60598-2-6			
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
6.11 (8.2.3.b)	BC lampholder of metal in class I luminaires shall be earthed		N/A
6.11 (8.2.3.c)	Class III luminaires with exposed SELV parts:		N/A
	Ordinary luminaire:		N/A
	- touch current .....:		N/A
	- no-load voltage .....:		N/A
	Other than ordinary luminaire:		N/A
	- nominal voltage .....:		N/A
6.11 (8.2.4)	Portable luminaire:		P
	- protection independent of supporting surface		P
	- terminal block completely covered		P
6.11 (8.2.5)	Compliance with the standard test finger or relevant probe		P
6.11 (8.2.6)	Covers reliably secured		P
6.11 (8.2.7)	Discharging of capacitors ≥ 0,5 μF	Max. 0,148 μF Measured max. 8,9 V peak discharged voltage after 1 second.	P
	Portable plug connected luminaire with capacitor		N/A
	Other plug connected luminaire with capacitor		N/A
	Discharge device on or within capacitor		P
	Discharge device mounted separately		N/A

6.12 (12)	**ENDURANCE TEST AND THERMAL TEST**		**P**
6.12 (12.3)	Endurance test:		P
6.12a (-)	- test voltage 1,1 Un (V) ..... :	264 V	—
6.12 (12.3)	- mounting-position.....:	As normal use	—
	- test temperature (°C) .....:	60	—
	- total duration (h).....:	240	—
	- supply voltage: Un factor; calculated voltage (V):	240 V x 1,1 = 264 V	—
	- lamp used .....:	Simulated diode	—
6.12 (12.3.2)	After endurance test:		P

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N/A
	- marking legible		P
	- no cracks, deformation etc.		P
6.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
6.12b (-)	- test voltage 1,06 Un (V) ..... :	1,06 x 240 = 254,4	—
6.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	P
6.12 (12.6)	Thermal test (failed lamp control gear condition):		N/A
6.12 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A) .....:		—
	- case of abnormal conditions .....:		—
	- electronic lamp control gear		N/A
	- measured winding temperature (°C): at 1,1 Un .:		—
	- measured mounting surface temperature (°C) at 1,1 Un.....:		N/A
	- calculated mounting surface temperature (°C) ..:		N/A
	- track-mounted luminaires		N/A
6.12 (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
6.12 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		N/A
6.12 (12.7.1)	Luminaire without temperature sensing control		N/A
6.12 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		N/A
	Test method 12.7.1.1 or Annex V .....:		—
	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

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
	Test according to Annex V:		N/A
	- case of abnormal conditions		—
	- measured winding temperature (°C): at 1,1 Un ..:		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un .....:		—
	- calculated temperature of fixing point/exposed part (°C).....:		—
	Ball-pressure test:		N/A
	- part tested; temperature (°C) .....:		N/A
	- part tested; temperature (°C) .....:		N/A
6.12 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		N/A
	- case of abnormal conditions		—
	- measured winding temperature (°C): at 1,1 Un ..:		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un .....:		—
	- calculated temperature of fixing point/exposed part (°C).....:		—
	Ball-pressure test:		N/A
	- part tested; temperature (°C) .....:		N/A
	- part tested; temperature (°C) .....:		N/A
6.12 (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
6.12 (12.7.2)	Luminaire with temperature sensing control		N/A
	- thermal link	Yes ☐ No ☐	—
	- manual reset cut-out	Yes ☐ No ☐	—
	- auto reset cut-out	Yes ☐ No ☐	—
	- case of abnormal conditions		—
	- highest measured temperature of fixing point/exposed part (°C): .....:		—
	Ball-pressure test:		N/A
	- part tested; temperature (°C) .....:		N/A
	- part tested; temperature (°C) .....:		N/A

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict

6.13 (9)	**RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE**		**P**
6.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		P
	- classification according to IP .....:	IP20	—
	- mounting position during test.....:	As normal use	—
	- fixing screws tightened; torque (Nm) .....:	0,33	—
	- tests according to clauses .....:	Cl. 9.2.0	—
	- electric strength test afterwards		P
	a) no deposit in dust-proof luminaire		N/A
	b) no talcum in dust-tight luminaire		N/A
	c) no trace of water on current-carrying parts or SELV parts or where it could become a hazard		N/A
	d) i) For luminaires without drain holes – no water entry		N/A
	d) ii) For luminaires with drain holes – no hazardous water entry		N/A
	e) no water in watertight luminaire		N/A
	f) no contact with live parts (IP 2X)		P
	f) no entry into enclosure (IP 3X and IP 4X)		N/A
	f) no contact with live parts (IP3X and IP4X)		N/A
	g) no trace of water on part of lamp requiring protection from splashing water		N/A
	h) no damage of protective shield or glass envelope		N/A
6.13 (9.3)	Humidity test 48 h	25 °C; 93% Rh	P

6.14 (10)	**INSULATION RESISTANCE AND ELECTRIC STRENGTH**		**P**
6.14 (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:		P
	- between current-carrying parts of different polarity.....:		N/A
	- between current-carrying parts and mounting surface .....:	> 100 MΩ	P

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
	- between current-carrying parts and metal parts of the luminaire.....:	> 100 MΩ	P
	Other than SELV:		P
	- between live parts of different polarity .....:	> 100 MΩ	P
	- between live parts and mounting surface .....:	> 100 MΩ	P
	- between live parts and metal parts .....:	> 100 MΩ	P
	- between live parts of different polarity through action of a switch.....:		N/A
6.14 (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):		P
	SELV:		P
	- between current-carrying parts of different polarity.....:		N/A
	- between current-carrying parts and mounting surface .....:	500 V	P
	- between current-carrying parts and metal parts of the luminaire.....:	500 V	P
	Other than SELV:		P
	- between live parts of different polarity .....:	1480 V	P
	- between live parts and mounting surface .....:	2960 V	P
	- between live parts and metal parts .....:	2960 V	P
	- between live parts of different polarity through action of a switch.....:		N/A
6.14 (10.3)	Touch current (mA) .....:	0,01 mA peak (Limit: 0,7 mA peak)	P

6.15 (13)	**RESISTANCE TO HEAT, FIRE AND TRACKING**		**P**
6.15 (13.2.1)	Ball-pressure test:		P
	- part tested; temperature (°C) .....:	Refer to report GZ12060239-1	P
	- part tested; temperature (°C) .....:		N/A
6.15 (13.3.1)	Needle flame test (10 s):		P
	- part tested .....:	Refer to report GZ12060239-1	P
	- part tested .....:		N/A
6.15 (13.3.2)	Glow-wire test (650°C):		P

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
	- part tested .....:	Refer to report GZ12060239-1	P
	- part tested .....:		N/A
6.15 (13.4.1)	Tracking test: part tested.....:		N/A

	ANNEX 1: components (Refer to report GZ12060239-1)	P

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict

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

	Type reference..... :	EIP012C1200LS	—
	Lamp used..... :	Simulated diode	—
	Lamp control gear used..... :	EIP012C1200LS	—
	Mounting position of luminaire..... :	Fixed as normal use in oven	—
	Supply wattage (W) ..... :	14,7	—
	Supply current (A)..... :	0,072	—
	Calculated power factor..... :	0,806	—
	Table: measured temperatures corrected for ta = 50 °C:		P
	- abnormal operating mode ..... :	Short circuited output	—
	- test 1: rated voltage..... :	1) 1,0 x 240 = 240 V	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage..... :	2) 1,06 x 240 = 254,4 V	—
	- 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..... :	3) 1,1 x 240=264 V	—
	Through wiring or looping-in wiring loaded by a current of A during the test ..... :	—	—

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict

temperature (°C) of part	Clause 12.4 – normal				Clause 12.5 – abnormal	
	test 1	test 2	test 3	limit	test 4^	limit
PVC insulation of wiring (input)	—	58	—	75	—	—
PVC insulation of wiring (output)	—	62	—	75	—	—
Terminal block (output)	—	68	—	T110	—	—
External enclosure (side, near T2 and D3)	67	67	—	T75	—	—
External enclosure (near C8)	59	59	—	T75	—	—
tc point	63	64	—	T75	—	—
Supports	—	76	—	90	—	130
X2 capacitor (C1)	—	70	—	T100	—	110
Electrolyte capacitor (C3)	—	92	—	T105	—	115
Y1 capacitor (CY1)	—	78	—	T125	—	135
Electrolyte capacitor (C8)	—	81	—	T105	—	115
Primary winding of transformer (T2)	—	98	—	120	—	175
Secondary winding of transformer (T2)	—	96	—	120	—	175
Bobbin of transformer (T2)	—	89	—	Ref.	—	—
Inner surface of enclosure (near T2)	—	70	—	Ref.	—	—

^ Remark: Temperature for all monitored positions in tested sample was dropped to ambient temperature sharply when abnormal operating mode (short circuited output) was conducted to the tested sample.

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
	ANNEX 3: screw terminals (part of the luminaire)		N/A
(14)	**SCREW TERMINALS**		N/A
	ANNEX 4: screwless terminals (part of the luminaire)		N/A
(15)	**SCREWLESS TERMINALS**		N/A
	CENELEC COMMON MODIFICATIONS (EN)		N/A
6.5 (3)	**MARKING**		N/A
6.5 (3.3.101)	Adequate warning on the package		N/A
6.10 (5)	**EXTERNAL AND INTERNAL WIRING**		N/A
6.10 (5.2.1)	Connecting leads		N/A
	- without a means for connection to the supply		N/A
	- terminal block specified		N/A
	- relevant information provided		N/A
	- compliance with 4.6, 4.7.1, 4.7.2, 4.10.1, 11.2, 12 and 13.2 of Part 1		N/A
6.10 (5.2.2)	Cables equal to HD21 S2 or HD22 S2		N/A
ZB	**ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)**		Not checked
(3.3)	DK: power supply cord with label		Not checked
	IT: warning label on Class 0 luminaire		Not checked
(4.5.1)	DK: socket-outlets		Not checked
(5.2.1)	CY, DK, FI, SE, GB: type of plug		Not checked
ZC	**ANNEX ZC, NATIONAL DEVIATIONS (EN)**		Not checked
(4 & 5)	FR: Shuttered socket-outlets 10/16A		Not checked
(13.3)	GB: Requirements according to United Kingdom Building Regulation		Not checked

IEC 60598-2-6			
Clause	Requirement + Test	Result - Remark	Verdict
(13.3.2)	FR: Glow-wire test 850°C alt. 750°C for luminaires in premises open to public or 960°C for luminaires in emergency exits		Not checked

IEC 60598-2-6

Appendix I: model list

Model	Rated input voltage	Frequency	Output voltage range	Max. output voltage
EIP012C0250LS	220-240VAC	50/60Hz	24V-48VDC	52VDC
EIP012C0300LS	220-240VAC	50/60Hz	20V-40VDC	45VDC
EIP012C0350LS	220-240VAC	50/60Hz	17V-34VDC	40VDC
EIP012C0400LS	220-240VAC	50/60Hz	15V-30VDC	35VDC
EIP012C0450LS	220-240VAC	50/60Hz	13.3V-26.7VDC	32VDC
EIP012C0500LS	220-240VAC	50/60Hz	12V-24VDC	28VDC
EIP012C0550LS	220-240VAC	50/60Hz	11V-22VDC	26VDC
EIP012C0600LS	220-240VAC	50/60Hz	10V-20VDC	24VDC
EIP012C0650LS	220-240VAC	50/60Hz	9V-18.5VDC	23VDC
EIP012C0700LS	220-240VAC	50/60Hz	9V-17VDC	21VDC
EIP012C0750LS	220-240VAC	50/60Hz	8V-16VDC	20VDC
EIP012C0800LS	220-240VAC	50/60Hz	7.5V-15VDC	19VDC
EIP012C0850LS	220-240VAC	50/60Hz	7V-14.1VDC	18VDC
EIP012C0900LS	220-240VAC	50/60Hz	6.6V-13.3VDC	17VDC
EIP012C0950LS	220-240VAC	50/60Hz	6.3V-12.6VDC	16VDC
EIP012C1000LS	220-240VAC	50/60Hz	6V-12VDC	16VDC
EIP012C1050LS	220-240VAC	50/60Hz	5.7V-11.4VDC	15VDC
EIP012C1100LS	220-240VAC	50/60Hz	5.5V-11VDC	15VDC
EIP012C1150LS	220-240VAC	50/60Hz	5.2V-10.4VDC	14VDC
EIP012C1200LS	220-240VAC	50/60Hz	5V-10VDC	13VDC