Test Report

On Behalf of

NINGBO HIGHLITE ILLUMINATION CO., LTD.

MYCRO 500 Plus Headlamp

Model : NEB-HLP-1005-G, NEB-HLP-1006-G, NEB-HLP-7000-G, NB7000, NB7000-SH

Prepared for :

NINGBO HIGHLITE ILLUMINATION CO., LTD.
Room 2202, 22F, Bank of China Mansion, Commercial Center NO. 318, He Yuan Road, Yinzhou Dist., Ningbo, 315000, China

Prepared By :

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TEST REPORT
EN 60598-2-4
Luminaires
Part 2: Particular requirements –
Section 4: Portable general purpose luminaires

Report Number.....:	TMC220722128-S
Date of issue.....:	August 2, 2022
Total number of pages.....	39 pages
Name of Testing Laboratory preparing the Report.....:	**TMC Testing Services(Shenzhen) Co., Ltd.**
Applicant's name.....:	**NINGBO HIGHLITE ILLUMINATION CO., LTD.**
Address.....:	Room 2202, 22F, Bank of China Mansion, Commercial Center NO. 318, He Yuan Road, Yinzhou Dist., Ningbo, 315000, China
Test specification:	
Standard.....:	EN 60598-2-4:2018; EN IEC 60598-1:2021
Test procedure.....:	Type test
Non-standard test method.....:	N/A
Test Report Form No.....:	IEC60598_2_4G
Test Report Form(s) Originator.....:	UL (US)
Master TRF.....:	2021-03

General disclaimer:

The test results presented in this report relate only to the object tested.

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Test item description.....:	MYCRO 500 Plus Headlamp
Trade Mark.....:	NEBO
Manufacturer.....:	NINGBO HIGHLITE ILLUMINATION CO., LTD.
Address.....:	Room 2202, 22F, Bank of China Mansion, Commercial Center NO. 318, He Yuan Road, Yinzhou Dist., Ningbo, 315000, China
Model/Type reference.....:	NEB-HLP-1005-G, NEB-HLP-1006-G, NEB-HLP-7000-G, NB7000, NB7000-SH
Ratings.....:	3V⎓, 2A, 6W

☒	**Testing Laboratory:**		
Testing location/ address.....:		TMC Testing Services(Shenzhen) Co., Ltd. 1st Floor, Block A1, Zone A, Xinshidai Gongrong Industrial Park, No. 2, Shihuan Road, Shiyan Street, Baoan District, Shenzhen, China	
Tested by (name, function, signature).....:		Bart Deng	Bart Deng
Approved by (name, function, signature).:		Seven Liu	Seven Liu

List of Attachments (including a total number of pages in each attachment):

Attachment No. 1: 2 pages of European group differences and national differences according to EN 60598-2-4:2018 used in conjunction with EN IEC60598-1:2021

Attachment No. 2: 2 pages of photo documentation.

Summary of testing:

Tests performed (name of test and test clause):	**Testing location:**
IEC 60598-2-4:2017 IEC 60598-1:2020	TMC Testing Services(Shenzhen) Co., Ltd. 1st Floor, Block A1, Zone A, Xinshidai Gongrong Industrial Park, No. 2, Shihuan Road, Shiyan Street, Baoan District, Shenzhen, China

Summary of compliance with National Differences:

List of countries addressed

☒ The product fulfils the requirements of Germany and European Group differences

EN 60598-2-4:2018;

EN IEC 60598-1:2021

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.

Remarks:

1. Representative markings of NEB-HLP-1005-G, markings of all models are identical except for the model name and rating.

2. Height of CE mark at least 5mm, height of WEEE symbol should not less than 7mm, height of other marks at least 5mm, height of letters and numerals at least 2mm.

Test item particulars..... :	
Classification of installation and use.....:	Portable general purpose luminaires
Supply Connection.....:	DC Inlet
Protection Class.....:	Class III
Degree of Protection.....:	IP20
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.....:	July 22, 2022
Date (s) of performance of tests.....:	July 22, 2022 - August 2, 2022

General remarks:

This report shall not be reproduced except in full without the written approval of the testing laboratory.
The test results presented in this report relate only to the item tested.
"(See Enclosure #)" refers to additional information appended to the report.
"(See appended table)" refers to a table appended to the report.
Clause numbers between brackets refer to clauses in IEC/EN 60598-1.

Throughout this report a ☒ comma / ☐ point is used as the decimal separator.

According to the EU directives which have been aligned with EU NLF (new legislative framework), both of manufacturer and importer's name and address shall be affixed on the product or, where that is not possible, on its packaging or in a document accompanying the product before the product is placed on the EU market.

Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 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.....:	☐ **Yes** ☒ **Not applicable**

When differences exist; they shall be identified in the General product information section.

Name and address of factory (ies).....: Same as manufacturer

General product information:

- All models have similar appearance except size and power are difference.
- Unless otherwise specified, the model NEB-HLP-1005-G was chosen as representative model to perform all test.

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

4.2 (0)	**GENERAL TEST REQUIREMENTS**		P
4.2 (0.1)	Information for luminaire design considered..... :	Standard Yes ☒ No ☐	—
4.2 (0.3)	More sections applicable..... :	Yes ☐ No ☒	—
4.4 (0.7)	**Information for luminaire design in light sources standards**		—
4.4 (0.7.2)	Light source safety standard ..... :		—
	Luminaire design in the light source safety standard		N/A

4.5 (2)	**CLASSIFICATION**		P
4.5 (2.2)	Type of protection ..... :	Class III	—
4.5 (2.3)	Degree of protection..... :	IP20	—
4.5 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces..... :	Yes ☒ No ☐	—
4.5 (2.5)	Luminaire for normal use ..... :	Yes ☒ No ☐	—
	Luminaire for rough service ..... :	Yes ☐ No ☒	—
4.5.1 (-)	Ordinary luminaire..... :	Yes ☒ No ☐	—
4.5.2 (-)	Portable luminaire for outdoor use..... :	Yes ☐ No ☒	—

4.6 (3)	**MARKING**		P
4.6 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text		P
4.6 (3.3)	Additional information		P
	Language of instructions	English	P
4.6 (3.3.1)	Combination luminaires		N/A
4.6 (3.3.2)	Nominal frequency in Hz		N/A
4.6 (3.3.3)	Operating temperature		P
4.6 (3.3.4)	Symbol or warning notice		N/A
4.6 (3.3.5)	Wiring diagram		N/A
4.6 (3.3.6)	Special conditions		N/A
4.6 (3.3.7)	Metal halide lamp luminaire – warning		N/A
4.6 (3.3.8)	Limitation for semi-luminaires		N/A
4.6 (3.3.9)	Power factor and supply current		P
4.6 (3.3.10)	Suitability for use indoors		P

EN 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
4.6 (3.3.11)	Luminaires with remote control		N/A
4.6 (3.3.12)	Clip-mounted luminaire – warning		N/A
4.6 (3.3.13)	Specifications of protective shields		N/A
4.6 (3.3.14)	Symbol for nature of supply	⎓	P
4.6 (3.3.15)	Rated current of socket outlet		N/A
4.6 (3.3.16)	Rough service luminaire		N/A
4.6 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments		N/A
4.6 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
4.6 (3.3.19)	Protective conductor current in instruction if applicable		N/A
4.6 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
4.6 (3.3.21)	Non replaceable and non-user replaceable light sources information provided	Non replaceable	P
	Cautionary symbol		N/A
4.6 (3.3.22)	Controllable luminaires, insulation		N/A
4.6 (3.3.22)	Controllable luminaires, classification of insulation provided		N/A
4.6 (3.3.23)	Luminaire without controlgear provided with necessary information for selection of appropriate component		N/A
4.6 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test		P
	Label attached		P
4.6.1 (-)	Luminaire not suitable for outdoor application		N/A
	Required symbol		N/A
	Information in the instructions		N/A
4.6.2 (-)	Outdoor use, socket outlet incorporated in the luminaire		N/A
	Maximum current rating marked		N/A
	Position of the marking		N/A
4.7 (4)	**CONSTRUCTION**		P
4.7 (4.2)	Components replaceable without difficulty		P
4.7 (4.3)	Wireways smooth and free from sharp edges		P

EN 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
4.7 (4.4)	Lampholders		N/A
4.7 (4.4.1)	Integral lampholder		N/A
4.7 (4.4.2)	Wiring connection		N/A
4.7 (4.4.3)	Lampholder for end-to-end mounting		N/A
4.7 (4.4.4)	Positioning		N/A
	- pressure test (N) ..... :		—
	After test the lampholder comply with relevant standard sheets and show no damage		N/A
	After test on single-capped lampholder the lampholder have not moved from its position and show no permanent deformation		N/A
	- bending test (N) .....:		—
	After test the lampholder have not moved from its position and show no permanent deformation		N/A
4.7 (4.4.5)	Peak pulse voltage		N/A
4.7 (4.4.6)	Centre contact		N/A
4.7 (4.4.7)	Parts in rough service luminaires resistant to tracking		N/A
4.7 (4.4.8)	Lamp connectors		N/A
4.7 (4.4.9)	Caps and bases correctly used		N/A
4.7 (4.5)	Starter holders		
	Starter holder in luminaires other than class II		N/A
	Starter holder class II construction		N/A
4.7 (4.6)	Terminal blocks		N/A
	Tails		N/A
	Unsecured blocks		N/A
4.7 (4.7)	Terminals and supply connections		P
4.7 (4.7.1)	Contact to metal parts		N/A
4.7 (4.7.2)	Test 8 mm live conductor		N/A
	Test 8 mm earth conductor		N/A
4.7 (4.7.3)	Terminals for supply conductors		N/A
4.7 (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

EN 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
	- 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
4.7 (4.7.4)	Terminals other than supply connection		N/A
4.7 (4.7.5)	Heat-resistant wiring/sleeves		N/A
4.7 (4.7.6)	Multi-pole plug		N/A
	- test at 30 N		N/A
4.7 (4.8)	Switches:		P
	- adequate rating		P
	- adequate fixing		P
	- polarized supply		P
	- compliance with IEC 61058-1 for electronic switches		P
4.7 (4.9)	Insulating lining and sleeves		N/A
4.7 (4.9.1)	Retainment		N/A
	Method of fixing.....:		—
4.7 (4.9.2)	Insulated linings and sleeves		N/A
	Resistant to a temperature > 20 °C to the wire temperature or		N/A
	a) & c) Insulation resistance and electric strength		N/A
	b) Ageing test. Temperature (°C).....:		N/A
4.7 (4.10)	Insulation of Class II luminaires		N/A
4.7 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation		N/A
	Safe installation fixed luminaires		N/A
	Capacitors and switches		N/A
	Interference suppression capacitors according to IEC 60384-14		N/A
4.7 (4.10.2)	Assembly gaps:		N/A
	- not coincidental		N/A
	- no straight access with test probe		N/A
4.7 (4.10.3)	Retainment of insulation:		N/A
	- fixed		N/A
	- unable to be replaced; luminaire inoperative		N/A
	- sleeves retained in position		N/A

EN 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
	- lining in lampholder		N/A
4.7 (4.11)	Electrical connections		P
4.7 (4.11.1)	Contact pressure		P
4.7 (4.11.2)	Screws:		N/A
	- self-tapping screws		N/A
	- thread- cutting screws		N/A
4.7 (4.11.3)	Screw locking:		N/A
	- spring washer		N/A
	- rivets		N/A
4.7 (4.11.4)	Material of current-carrying parts		P
4.7 (4.11.5)	No contact to wood or mounting surface		P
4.7 (4.11.6)	Electro-mechanical contact systems		N/A
4.7 (4.12)	Mechanical connections and glands		N/A
4.7 (4.12.1)	Screws not made of soft metal		N/A
	Screws of insulating material		N/A
	Torque test: torque (Nm); part.....:		N/A
	Torque test: torque (Nm); part.....:		N/A
	Torque test: torque (Nm); part.....:		N/A
4.7 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
4.7 (4.12.4)	Locked connections:		N/A
	- fixed arms; torque (Nm)..... :		N/A
	- lampholder; torque (Nm).....:		N/A
	- push-button switches; torque 0,8 Nm..... :		N/A
4.7 (4.12.5)	Screwed glands; force (Nm)..... :		N/A
4.7 (4.13)	Mechanical strength		P
4.7 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm)..... :		N/A
	- other parts; energy (Nm).....:	0,35Nm, no damage	P
	1) live parts		P
	2) linings		P
	3) protection		P
	4) covers		P
4.7 (4.13.3)	Straight test finger		N/A
4.7 (4.13.4)	Rough service luminaires		N/A

EN 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
	- IP54 or higher		N/A
	a) fixed		N/A
	b) hand-held		N/A
	c) delivered with a stand		N/A
	d) for temporary installations and suitable for mounting on a stand		N/A
4.7 (4.13.6)	Tumbling barrel		N/A
4.7 (4.14)	Suspensions and adjusting devices		N/A
4.7 (4.14.1)	Mechanical load:		N/A
	A) four times the weight		N/A
	B) torque 2,5 Nm		N/A
	C) bracket arm; bending moment (Nm)..... :		N/A
	D) load track- mounted luminaires		N/A
	E) clip-mounted luminaires, glass-shelve. Thickness (mm) ..... :		N/A
	Metal rod. diameter (mm) .....:		N/A
	Fixed luminaire or independent control gear without fixing devices		N/A
4.7 (4.14.2)	Load to flexible cables		N/A
	Mass (kg) .....:		—
	Stress in conductors (N/mm²) .....:		N/A
	Mass (kg) of semi-luminaire .....:		—
	Bending moment (Nm) of semi-luminaire .....:		N/A
4.7 (4.14.3)	Adjusting devices:		N/A
	- flexing test; number of cycles..... :		N/A
	- strands broken..... :		N/A
	- electric strength test afterwards		N/A
4.7 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
4.7 (4.14.5)	Guide pulleys		N/A
4.7 (4.14.6)	Strain on socket-outlets		N/A
4.7 (4.15)	Flammable materials:		P
	- glow- wire test 650°C..... :	See Test Table 4.16 (13.3.2)	P
	- spacing ≥30 mm		N/A
	- screen withstanding test of 13.3.1		N/A

EN 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
	- screen dimensions		N/A
	- no fiercely burning material		N/A
	- thermal protection		N/A
	- electronic circuits exempted		N/A
4.7 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		N/A
	a) construction		N/A
	b) temperature sensing control		N/A
	c) surface temperature		N/A
4.7 (4.16)	Luminaires for mounting on normally flammable surfaces		N/A
	No lamp control gear.....:	(compliance with Section 12)	N/A
4.7 (4.16.1)	Lamp control gear spacing:		N/A
	- spacing 35 mm		N/A
	- spacing 10 mm		N/A
4.7 (4.16.2)	Thermal protection:		N/A
	- in lamp control gear		N/A
	- external		N/A
	- fixed position		N/A
	- temperature marked lamp control gear		N/A
4.7 (4.16.3)	Design to satisfy the test of 12.6	(see clause 12.6)	N/A
4.7 (4.17)	Drain holes		N/A
	Clearance at least 5 mm		N/A
4.7 (4.18)	Resistance to corrosion:		N/A
4.7 (4.18.1)	- rust- resistance		N/A
4.7 (4.18.2)	- season cracking in copper		N/A
4.7 (4.18.3)	- corrosion of aluminium		N/A
4.7 (4.19)	Igniters compatible with ballast		N/A
4.7 (4.20)	Rough service vibration		N/A
4.7 (4.21)	Protective shield:		N/A
4.7 (4.21.1)	Shield fitted		N/A
	Shield of glass if tungsten halogen lamps		N/A
4.7 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
4.7 (4.21.3)	No direct path		N/A
4.7 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment.....:	See Test Table 4.16 (13.3.2)	N/A

EN 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
4.7 (4.22)	Attachments to lamps		N/A
4.7 (4.23)	Semi-luminaires comply Class II		N/A
4.7 (4.24)	**Photobiological hazards**	See Test Table 4.7 (4.24)	N/A
4.7 (4.24.1)	UV radiation for tungsten halogen lamps and metal halide lamps (Annex P)		N/A
4.7 (4.24.2)	Retinal blue light hazard		N/A
	Luminaires with E_{thr}		N/A
	a) Fixed luminaires		N/A
	Distance x m, borderline between RG1 and RG2.....:		N/A
	Marking and instruction		N/A
	b) Portable and handheld luminaires		N/A
	RG1 exceeded at 200 mm according to IEC/TR 62778		N/A
	Marking		N/A
	Portable luminaires for children IEC 60598-2-10 and Mains socket outlet nightlights IEC 60598-2-12		N/A
	RG at 200 mm according to IEC/62778		N/A
4.7 (4.25)	No sharp point or edges		P
4.7 (4.26)	Short-circuit protection:		N/A
4.7 (4.26.1)	Uninsulated accessible SELV parts		N/A
4.7 (4.26.2)	Short-circuit test		N/A
4.7 (4.26.3)	Test chain according to Figure 29		N/A
4.7 (4.27)	Terminal blocks with integrated screwless earthing contacts tested 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
4.7 (4.28)	Fixing of thermal sensing control		N/A
	External to lamp control gear		N/A
	Plug-in or easily replaceable type		N/A
	Adhesive fixing		N/A
	Positioning		N/A
	Temperature (°C).....:		N/A
	100 cycles between t min and t max		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Temperature sensing control still in position		N/A
4.7 (4.29)	Luminaires with non-replaceable light source		P
	Replacement not possible		P
	Live part not accessible		P
	Breaking of the luminaire or its parts		P
	Removal of parts		P
	Compliance with test probe		P
	Access to live parts		N/A
4.7 (4.30)	Luminaires with non-user replaceable light source		N/A
	Protective cover		N/A
	Fixing means		N/A
	Cautionary symbol		N/A
4.7 (4.31)	Insulation between circuits		N/A
	Transformer or control gears		N/A
	Insulation between circuits		N/A
	Circuits insulated from LV supply		N/A
	Insulation provided		N/A
	Controllable luminaires		N/A
	Control terminals		N/A
	Insulation		N/A
	Control gear U-OUT		N/A
4.7 (4.31.1)	SELV circuits		N/A
	Source		N/A
	Insulation between circuits		N/A
	Control gear U-OUT		N/A
	Plug and socket outlet		N/A
4.7 (4.31.2)	FELV circuits		N/A
	Source		N/A
	Insulation between circuits		N/A
	Plug and socket outlet		N/A
4.7 (4.31.3)	Other circuits		N/A
	Cl II		N/A
	Equipotential bonding		N/A
	All conductive part connected		N/A

EN 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
	Resistance < 0,5 Ω.....:		N/A
	Insulation fault: accessible part cause electric shock		N/A
	Master/slave applications		N/A
4.7 (4.32)	Overvoltage protective devices		N/A
	External to lamp control gear, connected to earth		N/A
	Fixed luminaires connected to a protective earth		N/A
4.7.1 (-)	Insulation not damaged when placing on support		P
4.7.2 (-)	Wiring fixed, to avoid rubbing		N/A
4.7.3 (-)	Stability (6°)		P
	Outdoor use luminaire not overturn at an angle 15°		N/A
4.7.4 (-)	Candlestick luminaires with E5 or E10 lampholders provided with a switch		N/A
	Switch part of the luminaire or within 300 mm of the luminaire if with cord		N/A
4.7.5 (-)	Voltage not exceed 25 V for E5 lampholders		N/A
	E10 lampholder voltage not exceed as noted		N/A
	60 V for series connection) or		N/A
	250 V for parallel connections		N/A
	Maximum rated wattage not exceed 100 W		N/A
4.7.6 (-)	Portable luminaires for outdoor use tails not provided		N/A
4.7.7 (-)	Portable luminaires for outdoor use, cable entries		N/A
4.7.8 (-)	Portable luminaires for outdoor use, socket-outlet degree of protection at least IPX4.		N/A
	Degree of protection maintained with or without a plug inserted into the socket-outlet.		N/A
	Class II luminaires, mains socket-outlets, connection only to Class II luminaires.		N/A
	Class I luminaires, mains socket-outlets, connection only to Class I luminaires.		N/A
4.7.9 (-)	Portable luminaires for outdoor use, lampholders and plugs are of material resistant to tracking		N/A
	Compliance to clause 13.4		N/A
4.8 (11)	**CREEPAGE DISTANCES AND CLEARANCES**		N/A
4.8 (11.2)	Creepage distances and clearances.....:	See Table 4.8 (11.2)	N/A
	Working voltage (V).....:		—

EN 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
	Rated pulse voltage (kV)....:		—
	Voltage form....:	Sinusoidal ☒ Non-sinusoidal ☐	—
	PTI....:	< 600 ☐ ≥ 600 ☒	—
	Impulse withstand category (Normal category II) (Category III Annex U)	Category II ☒ Category III ☐	—
4.8 (11.2.1)	Category III according Annex U		N/A
	Protected against pollution, reduced creepage and clearance according Annex P of IEC 61347-1		N/A
4.8 (11.2.2)	Creepage distances for frequency up to 30 kHz... :		N/A
	Creepage distances for frequency over 30 kHz:		N/A
	- Controlgear marked with $\hat{U}_{OUT}$ and f_{UOUT} according IEC 61347-1, clause 7.1, item w)....:		N/A
	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347..... :		N/A
4.8 (11.2.3)	Clearances for frequency up to 30 kHz....:		N/A
	Clearances distances for frequency over 30 kHz:		N/A
	- Controlgear marked with U_P....:		N/A
	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347..... :		N/A

4.9 (7)	**PROVISION FOR EARTHING**		**N/A**
4.9 (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 grove		N/A
	Earth makes contact first		N/A
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
	Built-in control gear		N/A
4.9 (7.2.2 + 7.2.3)	Earth continuity in joints, etc.		N/A
4.9 (7.2.4)	Locking of clamping means		N/A
	Compliance with 4.7.3		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
4.9 (7.2.5)	Earth terminal integral part of connector socket		N/A
4.9 (7.2.6)	Earth terminal adjacent to mains terminals		N/A
4.9 (7.2.7)	Electrolytic corrosion of the earth terminal		N/A
4.9 (7.2.8)	Material of earth terminal		N/A
	Contact surface bare metal		N/A
4.9 (7.2.10)	Class II luminaire for looping-in		N/A
	Double or reinforced insulation to functional earth		N/A
4.9 (7.2.11)	Earthing core coloured green-yellow		N/A
	Length of earth conductor		N/A
4.10 (14)	**SCREW TERMINALS**		N/A
	Separately approved; component list.....:	(see Annex 1)	N/A
	Part of the luminaire.....:	(see Annex 3)	N/A
4.10 (15)	**SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS**		N/A
	Separately approved; component list.....:	(see Annex 1)	N/A
	Part of the luminaire.....:	(see Annex 4)	N/A
4.11 (5)	**EXTERNAL AND INTERNAL WIRING**		P
4.11 (5.2)	Supply connection and external wiring		N/A
4.11 (5.2.1)	Means of connection.....:		N/A
4.11 (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
4.11 (5.2.3)	Type of attachment, X, Y or Z		N/A
4.11 (5.2.5)	Type Z not connected to screws		N/A
4.11 (5.2.6)	Cable entries:		N/A
	- suitable for introduction		N/A
	- adequate degree of protection		N/A
4.11 (5.2.7)	Cable entries through rigid material have rounded edges		N/A
4.11 (5.2.8)	Insulating bushings:		N/A
	- suitably fixed		N/A

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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
4.11 (5.2.9)	Locking of screwed bushings		N/A
4.11 (5.2.10)	Cord anchorage:		N/A
	- covering protected from abrasion		N/A
	- clear how to be effective		N/A
	- no mechanical or thermal stress		N/A
	- no tying of cables into knots etc.		N/A
	- insulating material or lining		N/A
4.11 (5.2.10.1)	Cord anchorage for type X attachment:		N/A
	a) at least one part fixed		N/A
	b) types of cable		N/A
	c) no damaging of the cable		N/A
	d) whole cable can be mounted		N/A
	e) no touching of clamping screws		N/A
	f) metal screw not directly on cable		N/A
	g) replacement without special tool		N/A
	Glands not used as anchorage		N/A
	Labyrinth type anchorages		N/A
4.11 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment		N/A
4.11 (5.2.10.3)	Tests:		N/A
	- impossible to push cable; unsafe		N/A
	- pull test: 25 times; pull (N)..... :		N/A
	- torque test: torque (Nm)..... :		N/A
	- displacement ≤ 2 mm		N/A
	- no movement of conductors		N/A
	- no damage of cable or cord		N/A
4.11 (5.2.11)	External wiring passing into luminaire		N/A
4.11 (5.2.12)	Looping-in terminals		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.11 (5.2.13)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
4.11 (5.2.14)	Mains plug same protection		N/A
	Class III luminaire plug		N/A
	No unsafe compatibility		N/A
4.11 (5.2.16)	Appliance inlets (IEC 60320)		N/A
	Installation couplers (IEC 61535)		N/A
	Other appliance inlet or connector		N/A
	Relevant IEC standard		N/A
4.11 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
4.11 (5.2.18)	Used plug in accordance with		N/A
	- IEC 60083		N/A
	- other standard		N/A
4.11 (5.3)	Internal wiring		P
4.11 (5.3.1)	Internal wiring of suitable size and type		P
	Through wiring		N/A
	- not delivered/ mounting instruction		N/A
	- factory assembled		N/A
	- socket outlet loaded (A)..... :		N/A
	- temperatures.....:	(see Annex 2)	N/A
	Green- yellow for earth only		N/A
4.11 (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
4.11 (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
4.11 (5.3.1.3)	Double or reinforced insulation for class II		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.11 (5.3.1.4)	Conductors without insulation		N/A
4.11 (5.3.1.5)	SELV current-carrying parts		P
4.11 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A
4.11 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		N/A
	Joints, raising/lowering devices		N/A
	Telescopic tubes etc.		N/A
	No twisting over 360°		P
4.11 (5.3.3)	Insulating bushings:		N/A
	- suitable fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- cables with protective sheath		N/A
4.11 (5.3.4)	Joints and junctions effectively insulated		N/A
4.11 (5.3.5)	Strain on internal wiring		N/A
4.11 (5.3.6)	Wire carriers		N/A
4.11 (5.3.7)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
4.11 (5.4)	Test to determine suitability of conductors having a reduced cross-sectional area		N/A
	Under test the temperature of the luminaire wiring insulation not exceed the limits stated in Table 12.2		N/A
	No damage to luminaire wiring after test		N/A
4.11.1 (-)	Indoor use luminaire The requirement of one part of cord anchorage to be fixed to the luminaire not applied for table lamps of glass or ceramic		N/A
4.11.2 (-)	Class I and class II indoor use Luminaire with a mass less than 1 kg the current ≤ 2,5 A and cable ≤ 2 m and conductor ≥ 0,5 mm²		N/A
4.11.3 (-)	Portable luminaire for outdoor use delivered without a flexible cable or cord and a plug		N/A
	Terminals, a cord anchorage and an inlet opening for the proper connection of the flexible cable or cord.		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.11.4 (-)	Portable luminaires for outdoor use Insulation class I and class II, non-detachable flexible cables or cords at least type 245 IEC 57.		N/A
4.12 (8)	**PROTECTION AGAINST ELECTRIC SHOCK**		P
4.12 (8.2.1)	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		N/A
	Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires		N/A
	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires		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		N/A
	Double-ended tungsten filament lamp		N/A
	Insulation lacquer not reliable		N/A
	Double-ended high pressure discharge lamp		N/A
	Relevant warning according to 3.2.18 fitted to the luminaire		N/A
4.12 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N/A
4.12 (8.2.3.a)	Class II luminaire:		N/A
	- basic insulated metal parts not accessible during starter or lamp replacement		N/A
	- basic insulation not accessible other than during starter or lamp replacement		N/A
	- glass protective shields not used as supplementary insulation		N/A
4.12 (8.2.3.b)	BC lampholder of metal in class I luminaires shall be earthed		N/A
4.12 (8.2.3.c)	Class III luminaires with exposed SELV parts:		P
	Ordinary luminaire:		P
	- touch current .....:		P

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Clause	Requirement + Test	Result - Remark	Verdict
	- no-load voltage.....:		P
	Other than ordinary luminaire:		N/A
	- nominal voltage .....:		N/A
4.12 (8.2.4)	Portable luminaire have protection independent of supporting surface		P
4.12 (8.2.5)	Compliance with the standard test finger or relevant probe		N/A
4.12 (8.2.6)	Covers reliably secured		P
4.12 (8.2.7)	Discharging of capacitors ≥ 0,5 µF		N/A
	Portable plug connected luminaire with capacitor		N/A
	Other plug connected luminaire with capacitor		N/A
	Discharge device on or within capacitor		N/A
	Discharge device mounted separately		N/A
4.12.1 (-)	Class I luminaire with bayonet lampholder:		N/A
	- cap not accessible with test finger		N/A
	- metal lampholder is earthed		N/A
4.13 (12)	**ENDURANCE TEST AND THERMAL TEST**		P
4.13 (-)	If IP > IP 20 relevant test of (12.4), (12.5) and (12.6) after (9.2) before (9.3) specified in 4.13		—
4.13 (12.3)	Endurance test:		P
	- mounting- position.....:	As normal used	—
	- test temperature (°C).....:	25°C+10	—
	- total duration (h).....:	240h	—
	- supply voltage: Un factor; calculated voltage (V)...:		—
	- lamp used.....:		—
4.13 (12.3.2)	After endurance test:		P
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N/A
	- marking legible		P
	- no cracks, deformation etc.		P
4.13 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
4.13 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
4.13 (12.6)	Thermal test (failed lamp control gear condition):		N/A
4.13 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A) ..... :		—
	- case of abnormal conditions.....:		—
	- electronic lamp control gear		N/A
	- measured winding temperature (°C): at 1,1 Un .....:		—
	- measured mounting surface temperature (°C) at 1,1 Un.....:		N/A
	- calculated mounting surface temperature (°C) .....:		N/A
	- track-mounted luminaires		N/A
4.13 (12.6.2)	Temperature sensing control		N/A
	- case of abnormal conditions.....:		—
	- thermal link		N/A
	- manual reset cut-out		N/A
	- auto reset cut-out		N/A
	- measured mounting surface temperature (°C).....:		N/A
	- track-mounted luminaires		N/A
4.13 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		N/A
4.13 (12.7.1)	Luminaire without temperature sensing control		N/A
4.13 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		N/A
	Test method 12.7.1.1 or Annex W .....:		—
	Test according to 12.7.1.1:		N/A
	- case of abnormal conditions.....:		—
	- Ballast failure at supply voltage (V) .....:		—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
	Test according to Annex W:		N/A
	- case of abnormal conditions.....:		—
	- measured winding temperature (°C): at 1,1 Un.....:		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un..... :		—
	- calculated temperature of fixing point/exposed part (°C).....:		—

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Clause	Requirement + Test	Result - Remark	Verdict
	Ball-pressure test.....:	See Table 4.16 (13.2.1)	N/A
4.13 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		N/A
	- case of abnormal conditions.....:		—
	- 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 4.16 (13.2.1)	N/A
4.13 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA		N/A
	- case of abnormal conditions.....:		—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
4.13 (12.7.2)	Luminaire with temperature sensing control		N/A
	- thermal link.....:	Yes ☐ No ☐	—
	- manual reset cut-out.....:	Yes ☐ No ☐	—
	- auto reset cut-out..... :	Yes ☐ No ☐	—
	- case of abnormal conditions.....:		—
	- highest measured temperature of fixing point/ exposed part (°C):..... :		—
	Ball-pressure test:.....:	See Table 4.16 (13.2.1)	N/A
4.13 (-)	Test overturned position (overturns < 15°)		N/A

4.14 (9)	**RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE**		P
4.14 (-)	If IP > IP 20 the order of tests as specified in clause 4.12		N/A
4.14 (9.2)	Tests for ingress of dust, solid objects and moisture:		—
	- classification according to IP..... :	IP20	—
	- mounting position during test.....:		—
	- fixing screws tightened; torque (Nm).....:		—
	- tests according to clauses.....:		—
	- electric strength test afterwards		P
	a) no deposit in dust-proof luminaire		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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
4.14 (9.3)	Humidity test 48 h	25°C, 93%RH	P
4.14 (-)	Portable luminaire for outdoor use tested in the most unfavourable of the overturned positions likely to occur		N/A

4.15 (10)	**INSULATION RESISTANCE AND ELECTRIC STRENGTH**		P
4.15 (10.2.1)	Insulation resistance test		P
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø .....:		—
	Insulation resistance (MΩ)..... :		—
	SELV		P
	- between current-carrying parts of different polarity:		N/A
	- between current-carrying parts and mounting surface.....:	>100MΩ	P
	- between current-carrying parts and metal parts of the luminaire.....:	>100MΩ	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts..... :		N/A
	- Insulation bushings as described in Section 5 ..... :		N/A
	Other than SELV		N/A
	- between live parts of different polarity..... :		N/A
	- between live parts and mounting surface.....:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- 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
4.15 (10.2.2)	Electric strength test		P
	Dummy lamp		N/A
	Luminaires with ignitors after 24 h test		N/A
	Luminaires with manual ignitors		N/A
	Test voltage (V).....:		N/A
	SELV		P
	- between current-carrying parts of different polarity:		N/A
	- between current-carrying parts and mounting surface.....:	500V	P
	- between current-carrying parts and metal parts of the luminaire.....:	500V	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts.....:		N/A
	- Insulation bushings as described in Section 5 .....:		N/A
	Other than SELV		N/A
	- between live parts of different polarity.....:		N/A
	- between live parts and mounting surface.....:		N/A
	- 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
4.15 (10.3)	Touch current or protective conductor current (mA).:		N/A
4.16 (13)	**RESISTANCE TO HEAT, FIRE AND TRACKING**		P
4.16 (13.2.1)	Ball-pressure test.....:	See Test Table 4.16 (13.2.1)	P

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Clause	Requirement + Test	Result - Remark	Verdict
4.16 (13.3.1)	Needle-flame test (10 s).....:	See Test Table 4.16 (13.3.1)	N/A
4.16 (13.3.2)	Glow- wire test (650°C).....:	See Test Table 4.16 (13.3.2)	P
4.16 (13.4.1)	Proof tracking test (IEC 60112).....:		N/A
	- part tested..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

4.8 (11.2)	**TABLES: Creepage distances and clearances**	N/A
Table 11.1	**Minimum distances (mm) for a.c. (50/60 Hz) sinusoidal voltages**	N/A

RMS working voltage (V) not exceeding	50	150	250	500	750	1000
Creepage distances						
Required basic insulation, PTI ≥ 600	0,6	0,8	1,5	3	4	5,5
Measured						
Required basic insulation, PTI < 600	1,2	1,6	2,5	5	8	10
Measured						
Required supplementary insulation PTI ≥ 600	-	0,8	1,5	3	4	5,5
Measured						
Required supplementary insulation PTI < 600	-	1,6	2,5	5	8	10
Measured						
Required reinforced insulation	-	3,2	5	6	8	11
Measured						
Clearances						
Required basic insulation	0,2	0,8	1,5	3	4	5,5
Measured						
Required supplementary insulation	-	0,8	1,5	3	4	5,5
Measured						
Required reinforced insulation	-	1,6	3	6	8	11
Measured						

Table 11.2	**Minimum distances (mm) for non-sinusoidal pulse voltages**	**N/A**

Rated pulse voltage (peak kV)	2,0	2,5	3,0	4,0	5,0	6,0	8,0
Required clearances	1,0	1,5	2	3	4	5,5	8
Measured							
Rated pulse voltage (peak kV)	10	12	15	20	25	30	40
Required clearances	11	14	18	25	33	40	60
Measured							
Rated pulse voltage (peak kV)	50	60	80	100	-	-	-
Required clearances	75	90	130	170	-	-	-
Measured							

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Clause	Requirement + Test	Result - Remark	Verdict

4.8 (11.2)	TABLES: Creepage distances and clearances					N/A
Test Location	Working voltage	Measured cl (mm)	Required cl (mm)	Measured cr (mm)	Required cr (mm)	Verdict
--	--	--	--	--	--	--

4.16 (13.2.1)	TABLE: Ball Pressure Test of Thermoplastics			P
Allowed impression diameter (mm) .....:		2,0mm		—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
Cover	--	75°C	0,8mm	
Supplementary information:--				

4.16 (13.3.1)	TABLE: Needle-flame test (IEC 60695-11-5)					N/A
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	
--	--	--	--	--	--	
Supplementary information:--						

4.16 (13.3.2)	TABLE: Glow-wire test (IEC 60695-2-11)				P
Glow wire temperature .....:		650°C			—
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
Cover	--	30s	No	0s	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:--					

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Clause	Requirement + Test	Result - Remark	Verdict

4.16 (13.4)	**TABLE: Proof tracking test (IEC 60112)**					**N/A**
Test voltage PTI ..... :		175 V				—
Object/ Part No./ Material	Manufacturer/ trademark	Withstand 50 drops without failure on three places or on three specimens				Verdict
--	--	--	--	--	--	--
Supplementary information:--						

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Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	TABLE: Critical components information					--
Object / part No.	**Code**	**Manufacturer/ trademark**	**Type / model**	**Technical data**	**Standard**	**Mark(s) of conformity[1)]**
Input wire of LED module	A	Various	Various	1x0,5mm	--	--
Translucent cover	B	Various	Various	V-2, 80℃	--	--
LED PCB	A	Various	Various	V-0, 130℃	--	--

Supplementary information:

[1)] Provided evidence ensures the agreed level of compliance. See OD-CB2039.

The codes above have the following meaning:

A - The component is replaceable with another one, also certified, with equivalent characteristics

B - The component is replaceable if authorised by the test house

C - Integrated component tested together with the appliance

D - Alternative component

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Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 2	**TABLE: Temperature measurements, thermal tests of Section 12**		P
	Type reference.....:	NEB-HLP-1005-G	—
	Lamp used.....:	LED lamp	—
	Lamp control gear used.....:		—
	Mounting position of luminaire.....:	See product manual	—
	Supply wattage (W).....:	6W	—
	Supply current (A)..... :		—
	Calculated power factor.....:		—
	Table: measured temperatures corrected for ta = 25 °C:		P
	- abnormal operating mode.....:		—
	- test 1: rated voltage..... :		—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage.....:		—
	- 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, (°C)

Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
LED PCB	25℃	--	48.4	--	110	--	--
Enclosure	25℃	--	29.1	--	55	--	--
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

EN 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
	Cross-sectional area (mm²)..... :		—
(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
(15.5.1)	Terminals internal wiring		N/A

EN 60598-2-4			
Clause	Requirement + Test	Result - Remark	Verdict
(15.5.1.1)	Pull test spring-type terminals (4 N, 4 samples).....:		N/A
(15.5.1.2)	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 external wiring		N/A
	Terminal size and rating		N/A
(15.6.2.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N) ..... :		N/A
	Pull test pin or tab terminals (4 samples); pull (N) .....:		N/A

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

(15.6.3.1)	**TABLE: Contact resistance test**									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 No.1

IEC 60598_2_4C-ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60598-2-4
EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES
LUMINAIRES

PART 2: PARTICULAR REQUIREMENTS

SECTION 4: PORTABLE GENERAL PURPOSE LUMINAIRES

Differences according to..... :	EN 60598-2-4:2018 used in conjunction with EN IEC 60598-1:2021
Annex Form No.....:	EU_GD_IEC60598_2_4C
Annex Form Originator.....:	OVE
Master Annex Form..... :	2021-03

	CENELEC COMMON MODIFICATIONS (EN)		P

4.6 (3)	**MARKING**		**P**
4.6 (3.3.101)	For luminaires not supplied with terminal block: Adequate warning on the package		P

4.7 (4)	**CONSTRUCTION**		**P**
4.7 (4.11.6)	Electro-mechanical contact systems		P

4.11 (5)	**EXTERNAL AND INTERNAL WIRING**		**P**
4.11 (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
4.11 (5.2.2)	Cables equal to EN 50525		N/A
	Replace table 5.1 – Supply cord		P

Attachment No.1

IEC 60598_2_4C-ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
4.13 (12)	**ENDURANCE TESTS AND THERMAL TESTS**		**P**
4.13 (12.4.2c)	Thermal test (normal operation) see footnote c to table 12.2 relating to unsleeved fixed wiring		P
ZB	**ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)**		P
(3.3)	DK: power supply cords of class I luminaires with label		N/A
(4.5.1)	DK: socket- outlets		N/A
(5.2.1)	CY, DK, FI, GB: type of plug		P
ZC	**ANNEX ZC, NATIONAL DEVIATIONS (EN)**		N/A
(4 & 5)	FR: Shuttered socket-outlets 10/16A		N/A
	FR: Safety requirements for high buildings (Arrêté du 30 décembre 2011 portant règlement de sécurité pour la construction des immeubles de grande hauteur et leur protection contre les risques d'incendie et de panique; Section VIII; Article GH 48, Eclairage) Glow-wire test for outer parts of luminaires:		N/A
	- 850°C for luminaires in stairways and horizontal travel paths		N/A
	- 650°C for indoor luminaires		N/A
(13.3)	GB: Requirements according to United Kingdom Building Regulation		N/A

Attachment No.2

Photo Documentation

View:

[X]General
[ ]Front
[ ]Rear
[ ]Internal
[ ]Top
[ ]Bottom
[ ]PWB

Figure 1

View:

[X]General
[ ]Front
[ ]Rear
[ ]Internal
[ ]Top
[ ]Bottom
[ ]PWB

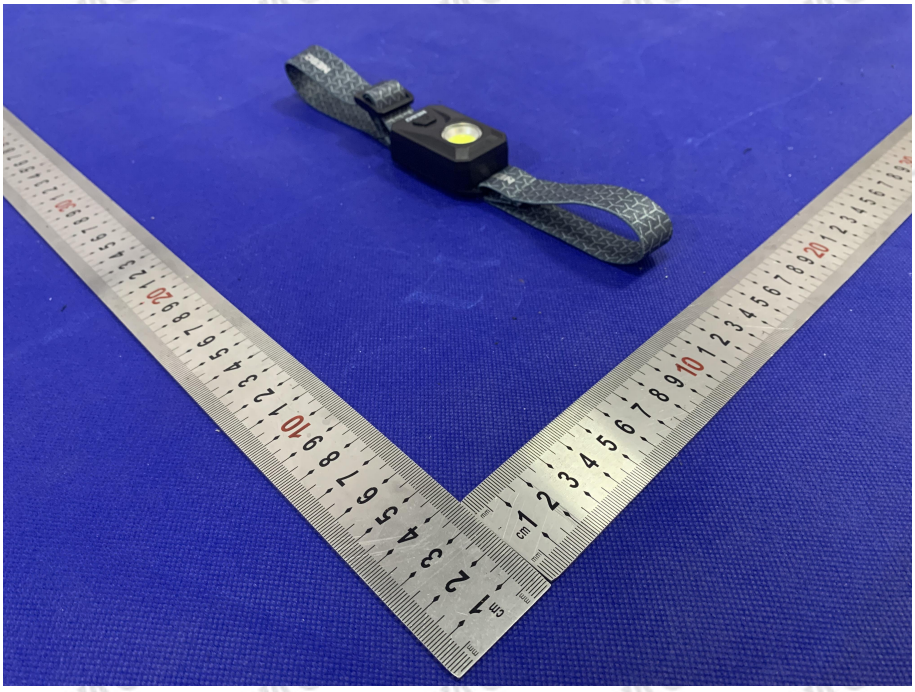

Figure 2

Attachment No.2

Photo Documentation

View:

[X]General
[ ]Front
[ ]Rear
[ ]Internal
[ ]Top
[ ]Bottom
[ ]PWB

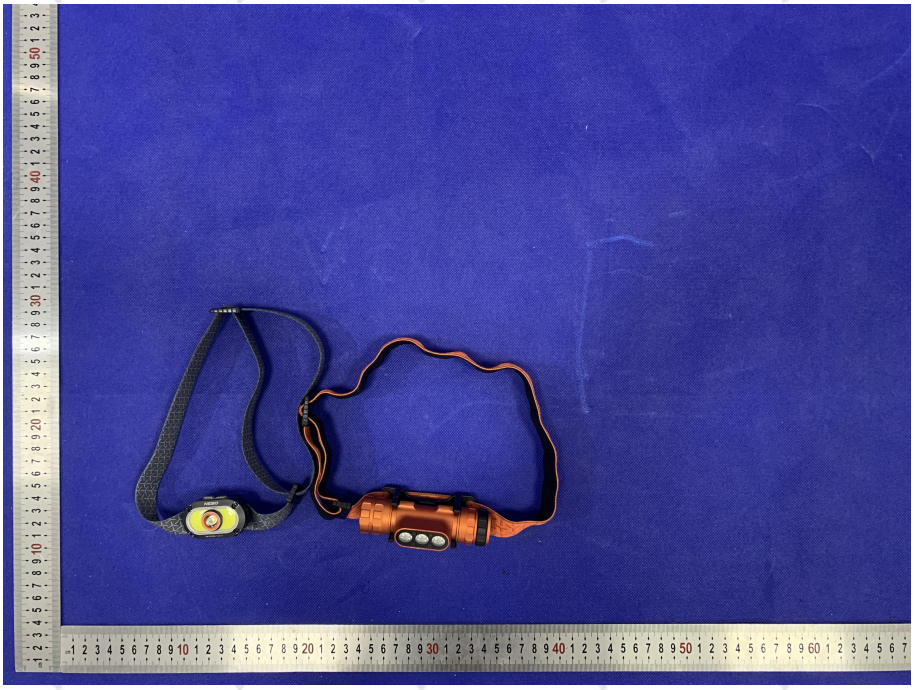

Figure 3

----------End of Test Report----------