



Test Report issued under the responsibility of:



TEST REPORT
IEC 60598-2-1
Luminaires
Part 2: Particular requirements
Section 1: Fixed general purpose luminaires

Report Number..... : 4397181.50

Date of issue..... : 2023-02-06

Total number of pages : 76 pages

Name of Testing Laboratory
preparing the Report : DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou Branch

Applicant's name : Cosun Technology (Shenzhen) Co., Ltd

Address..... : No. A7, Tongfuyu industry park 6th KangMing Road, Pingdi Sub-district Longgang District, Shenzhen, China

Test specification:

Standard : IEC 60598-2-1:2020 used in conjunction with IEC 60598-1:2020

Test procedure : CB Scheme

Non-standard test method : N/A

TRF template used..... : IECEE OD-2020-F1:2021, Ed.1.4

Test Report Form No. : IEC60598_2_1I

Test Report Form(s) Originator : Intertek Semko AB

Master TRF : Dated 2022-08-26

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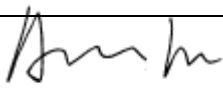
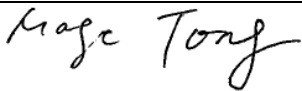
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General disclaimer:

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

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Test item description..... :	Light Panel, Magnetic crystal light box, Snap frame light box, Magnetic light box, Fabric Light box	
Trade Mark(s) :	Cosun Technology (shenzhen) Co., Ltd	
Manufacturer :	Same as applicant	
Model/Type reference :	Refers to attachment 3 model list	
Ratings :	ta: 25 °C, Class III, IP20, constant voltage input, non-replaceable LEDs; Other information refers to attachment 3 model list for details	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☒	CB Testing Laboratory:	DEKRA Testing and Certification (Shanghai) Ltd., Guangzhou Branch
Testing location/ address..... :	Block 5, No.3, Qiyun Road, Huangpu District, Guangzhou, Guangdong, China	
Tested by (name, function, signature)..... :	Alice He (Project handler)	
Approved by (name, function, signature).... :	Magic Tong (Reviewer)	

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

Attachment 1: European group differences and national differences (2 pages)

Attachment 2: Additional requirement of IEC 62031: 2018 & EN IEC 62031: 2020 + A11:2021 (2 pages)

Attachment 3: Model list (1 page)

Attachment 4: Product photos (25 pages)

Summary of testing:**Tests performed (name of test and test clause):**

CS-LPPF-RGB-120-24, CS-LPPF-RGBW-120-24, CS-LPPR-CT-80-24, CS-LYPF-CT-120-12, CS-LBPR-CCT-960-24, CS-LBPF-CCT-960-24 and CS-LBPF-RGBW-960-24 were subjected to full test.

All models were subjected to construction check.

Testing location:

DEKRA Testing and Certification (Shanghai) Ltd.
Guangzhou Branch
Block 5, No.3, Qiyun Road, Huangpu District,
Guangzhou, Guangdong, China

Summary of compliance with National Differences (List of countries addressed):

☒ EU group differences and national differences

Use of uncertainty of measurement for decisions on conformity (decision rule) :

☒ No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").

☐ Other:... (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)

Information on uncertainty of measurement:

The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECCE.

IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECCE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer.

Calculations leading to the reported values are on file with the NCB and testing laboratory that conducted the testing.

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.

Light Panel Model: CS-LPPF-CT-60-5 Input: DC5V Power:60W Max  Cosun Technology (shenzhen) Co.,Ltd. MADE IN CHINA	Light Panel Model: CS-LPPF-RGBW-120-24 Input: DC24V Power:120W Max  Cosun Technology (shenzhen) Co.,Ltd. MADE IN CHINA	Fabric Light box Model: CS-LBPR-CCT-960-24 Input: DC24V Power:960W Max  Cosun Technology (shenzhen) Co.,Ltd. MADE IN CHINA
Light Panel Model: CS-LPPF-CT-120-12 Input: DC12V Power:120W Max  Cosun Technology (shenzhen) Co.,Ltd. MADE IN CHINA	Magnetic crystal light box Model: CS-LPPR-CT-80-24 Input: DC24V Power:80W Max  Cosun Technology (shenzhen) Co.,Ltd. MADE IN CHINA	Fabric Light box Model: CS-LBPF-CCT-960-24 Input: DC24V Power:960W Max  Cosun Technology (shenzhen) Co.,Ltd. MADE IN CHINA
Light Panel Model: CS-LPPF-CCT-120-24 Input: DC24V Power:120W Max  Cosun Technology (shenzhen) Co.,Ltd. MADE IN CHINA	Snap frame light box/Magnetic light box Model: CS-LYPF-CT-120-12 Input: DC12V Power:120W Max  Cosun Technology (shenzhen) Co.,Ltd. MADE IN CHINA	Fabric Light box Model: CS-LBPF-RGBW-960-24 Input: DC24V Power:960W Max  Cosun Technology (shenzhen) Co.,Ltd. MADE IN CHINA
Light Panel Model: CS-LPPF-RGB-120-24 Input: DC24V Power:120W Max  Cosun Technology (shenzhen) Co.,Ltd. MADE IN CHINA	Snap frame light box/Magnetic light box Model: CS-LYPF-CT-120-24 Input: DC24V Power:120W Max  Cosun Technology (shenzhen) Co.,Ltd. MADE IN CHINA	Fabric Light box Model: CS-LBPF-RGBW-960-24 Input: DC24V Power:960W Max  Cosun Technology (shenzhen) Co.,Ltd. MADE IN CHINA

Location: Attached on the external surface of product enclosure, Visible during installation

Remark on above marking:

1. The height of graphical symbols is more than 5 mm.
2. The height of letters and numerals is more than 2 mm.
3. The height of rubbish bin is more than 7 mm.

Test item particulars.....:	
Classification of installation and use.....: Class III, Suitable for wall mounted	
Supply Connection Connecting leads, Screwless terminal	
Possible test case verdicts: - test case does not apply to the test object.....: N/A - test object does meet the requirement.....: P (Pass) - test object does not meet the requirement.....: F (Fail)	
Testing.....:	
Date of receipt of test item 2022-12-01	
Date (s) of performance of tests 2022-12-01 to 2023-02-01	
General remarks:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Throughout this report a ☐ comma / ☒ point is used as the decimal separator. This report will not be used for social proof function in China market.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC60598-2:	
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 applicant	

General product information and other remarks:

The submitted appliances have been tested/evaluated and found compliant with the requirement of the standards listed below:

- IEC 60598-2-1: 2020 used in conjunction with IEC 60598-1: 2020
- EN IEC 60598-2-1: 2021 used in conjunction with EN IEC 60598-1: 2021 + A11: 2022
- EN 62493: 2015

The products were considered to comply with EN 62493: 2015 without any testing according to clause 4.2.2 of EN 62493: 2015.

These Linear light/ Light Panel/ Light box are class III fixed luminaires for indoor used only, suitable for wall mounted. There are four series covered in this report: Each series models have similar mechanical and electrical construction except the dimension, power, CCT, LED types and the quantity of LEDs.

These products should be supplied by LED drivers certified according to standard EN 61347-2-13 (IP20 or better, fail-safe or short circuit proof, SELV, output parameter including "5-24 Vdc; Max. allowed output voltage: 60 Vdc").

For the blue light hazard required by IEC TR 62778: 2014, CS-LBPF-CCT-960-24 and CS-LBPF-RGBW-960-24(with blue LED light on) had been tested and classified as Risk group 1. CS-LPPF-RGB-120-24(with blue LED light on), CS-LBPF-RGBW-960-24(with white LED light on) and CS-LBPR-CCT-960-24 had been tested and classified as Risk group 0. Therefore, the products in this report need not mark d_{thr} . See test report 4397181.51 for details.

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.4 (0)	GENERAL TEST REQUIREMENTS		
1.4 (0.3)	More sections applicable..... :	Yes ☐ No ☒ Section/s:	—
1.4 (0.5)	Components	(see Annex 1)	—
1.4 (0.7)	Information for luminaire design in light sources standards		—
1.4 (0.7.2)	Light source safety standard	EN IEC 62031	—
	Luminaire design in the light source safety standard		P

1.5 (2)	CLASSIFICATION OF LUMINAIRES		
1.5 (2.2)	Type of protection	Class III	P
1.5 (2.3)	Degree of protection..... :	IP20	—
1.5 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces	Yes ☒ No ☐	—
1.5 (2.5)	Luminaire for normal use	Yes ☒ No ☐	—
	Luminaire for rough service	Yes ☐ No ☒	—

1.6 (3)	MARKING		
1.6 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text		P
1.6 (3.3)	Additional information		P
	Language of instructions	English	P
1.6 (3.3.1)	Combination luminaires		N/A
1.6 (3.3.2)	Nominal frequency in Hz		N/A
1.6 (3.3.3)	Operating temperature		N/A
1.6 (3.3.5)	Wiring diagram		N/A
1.6 (3.3.6)	Special conditions		N/A
1.6 (3.3.7)	Metal halide lamp luminaire – warning		N/A
1.6 (3.3.8)	Limitation for semi-luminaires		N/A
1.6 (3.3.9)	Power factor and supply current		N/A
1.6 (3.3.10)	Suitability for use indoors		N/A
1.6 (3.3.11)	Luminaires with remote control		N/A
1.6 (3.3.12)	Clip-mounted luminaire – warning		N/A
1.6 (3.3.13)	Specifications of protective shields		N/A
1.6 (3.3.14)	Symbol for nature of supply		N/A
1.6 (3.3.15)	Rated current of socket outlet		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.6 (3.3.16)	Rough service luminaire		N/A
1.6 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments	Type Z	P
1.6 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
1.6 (3.3.19)	Protective conductor current in instruction if applicable		N/A
1.6 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
1.6 (3.3.21)	Non replaceable and non-user replaceable light sources information provided	Non replaceable light sources	P
1.6 (3.3.22)	Controllable luminaires, classification of insulation provided		N/A
1.6 (3.3.23)	Luminaires without control gear provided with necessary information for selection of appropriate component		N/A
1.6 (3.3.24)	If not supplied with terminal block, information on the packaging		N/A
1.6 (3.3.25)	Luminaires employing light sources emitting UV on mains wiring, information provided		N/A
1.6 (3.3.26)	Wall mounted luminaire using external flexible cable or cord longer than 0.3 m, information provided		P
1.6 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test		P
	Label attached		P

1.7 (4)	CONSTRUCTION		
1.7 (4.2)	Components replaceable without difficulty		N/A
1.7 (4.3)	Wireways smooth and free from sharp edges		P
1.7 (4.4)	Lamp holders		N/A
1.7 (4.4.1)	Integral lamp holder		N/A
1.7 (4.4.2)	Wiring connection		N/A
1.7 (4.4.3)	Lamp holder for end-to-end mounting		N/A
1.7 (4.4.4)	Positioning		N/A
	- pressure test (N)		—
	After test the lamp holder comply with relevant standard sheets and show no damage		N/A
	After test on single-capped lamp holder the lamp holder has not moved from its position and show no permanent deformation		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
	- bending test (N)		—
	After test the lamp holder has not moved from its position and show no permanent deformation		N/A
1.7 (4.4.5)	Peak pulse voltage		N/A
1.7 (4.4.6)	Centre contact		N/A
1.7 (4.4.7)	Parts in rough service luminaires resistant to tracking		N/A
1.7 (4.4.8)	Lamp connectors		N/A
1.7 (4.4.9)	Caps and bases correctly used		N/A
1.7 (4.4.10)	Light source for lamp holder or connection according IEC 60061 not connected another way		N/A
1.7 (4.5)	Starter holders		N/A
	Starter holder in luminaires other than class II		N/A
	Starter holder class II construction		N/A
1.7 (4.6)	Terminal blocks		N/A
	Tails		N/A
	Unsecured blocks		N/A
1.7 (4.7)	Terminals and supply connections		P
1.7 (4.7.1)	Contact to metal parts		N/A
1.7 (4.7.2)	Test 8 mm live conductor		N/A
	Test 8 mm earth conductor		N/A
1.7 (4.7.3)	Terminals for supply conductors		P
1.7 (4.7.3.1)	Welded method and material		N/A
	- stranded or solid conductor		N/A
	- spot welding		N/A
	- welding between wires		N/A
	- Type Z attachment		N/A
	- mechanical test according to 15.6.2		N/A
	- electrical test according to 15.6.3		N/A
	- heat test according to 15.6.3.2.3 and 15.6.3.2.4		N/A
1.7 (4.7.4)	Terminals other than supply connection		P
1.7 (4.7.5)	Heat-resistant wiring/sleeves		N/A
1.7 (4.7.6)	Multi-pole plug		N/A
	- test at 30 N		N/A
1.7 (4.8)	Switches		N/A
	- adequate rating		N/A
	- adequate fixing		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
	- polarized supply		N/A
	- compliance with IEC 61058-1 for electronic switches		N/A
1.7 (4.9)	Insulating lining and sleeves		N/A
1.7 (4.9.1)	Retainment		N/A
	Method of fixing :		N/A
1.7 (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
1.7 (4.10)	Double or reinforced insulation		N/A
1.7 (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
1.7 (4.10.2)	Assembly gaps:		N/A
	- not coincidental		N/A
	- no straight access with test probe		N/A
1.7 (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
	- lining in lamp holder		N/A
1.7 (4.10.4)	Protective impedance device		N/A
	Basic and supplementary insulation bridged by resistor(s) or appropriate capacitor		N/A
	Double or reinforced insulation bridged by at least two separate resistors in series or appropriate capacitor(s)		N/A
	Capacitors comply with IEC 60384-14		N/A
	Resistors comply with test (a) in 14.2 of IEC 60065		N/A
1.7 (4.11)	Electrical connections and current-carrying parts		P
1.7 (4.11.1)	Contact pressure		P
1.7 (4.11.2)	Screws:		N/A
	- self-tapping screws		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
	- thread-cutting screws		N/A
1.7 (4.11.3)	Screw locking:		N/A
	- spring washer		N/A
	- rivets		N/A
1.7 (4.11.4)	Material of current-carrying parts		P
1.7 (4.11.5)	No contact to wood or mounting surface		P
1.7 (4.11.6)	Electro-mechanical contact systems		N/A
1.7 (4.12)	Screws and connections (mechanical) and glands		P
1.7 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		N/A
	Torque test: torque (Nm); part..... :	0,5 Nm; screw fixing enclosure for CS-LPPF-RGB-120-24, CS-LPPF-RGBW-120-24, CS-LPPR-CT-80-24, CS-LYPF-CT-120-12	P
	Torque test: torque (Nm); part..... :	0,8 Nm; screw fixing enclosure for CS-LBPR-CCT-960-24, CS-LBPF-CCT-960-24, CS-LBPF-RGBW-960-24	P
	Torque test: torque (Nm); part..... :		N/A
1.7 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
1.7 (4.12.4)	Locked connections:		N/A
	- fixed arms; torque (Nm)		N/A
	- lamp holder; torque (Nm)		N/A
	- push-button switches; torque 0,8 Nm		N/A
1.7 (4.12.5)	Screwed glands; force (Nm)..... :		N/A
1.7 (4.13)	Mechanical strength		P
1.7 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm)		N/A
	- other parts; energy (Nm)..... :	Enclosure: 0,35 Nm	P
	1) live parts		P
	2) linings		N/A
	3) protection		P
	4) covers		P
1.7 (4.13.2)	Metal parts have adequate mechanical strength		P
1.7 (4.13.3)	Straight test finger		P
1.7 (4.13.4)	Rough service luminaires		N/A

IEC 60598-2-1			
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
1.7 (4.13.6)	Tumbling barrel		N/A
1.7 (4.14)	Suspensions, fixings and means of adjusting		P
1.7 (4.14.1)	Mechanical load:		P
	A) four times the weight	Model CS-LPPF-RGB-120-24: 4 x 22,1 kg Model CS-LPPF-RGBW-120-24: 4 x 22,2 kg Model CS-LPPR-CT-80-24: 4 x 34,8 kg Model CS-LYPF-CT-120-12: 4 x 37,6 kg Model CS-LBPR-CCT-960-24: 4 x 79,8 kg Model CS-LBPF-CCT-960-24: 4 x 80,1 kg Model CS-LBPF-RGBW-960-24: 4 x 80,2 kg	P
	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
1.7 (4.14.2)	Load to flexible cables		N/A
	Mass (kg) :		—
	Stress in conductors (N/mm²) :		N/A
	Mass (kg) of semi-luminaire :		N/A
	Bending moment (Nm) of semi-luminaire :		N/A
1.7 (4.14.3)	Adjusting devices:		N/A
	- flexing test; number of cycles..... :		N/A
	- strands broken :		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
	- electric strength test afterwards		N/A
1.7 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
1.7 (4.14.5)	Guide pulleys		N/A
1.7 (4.14.6)	Strain on socket-outlets		N/A
1.7 (4.15)	Flammable materials		P
	- glow-wire test 650°C :	See Test Table 1.15 (13.3.2)	P
	- spacing ≥ 30 mm		N/A
	- screen withstanding test of 13.3.1		N/A
	- screen dimensions		N/A
	- no fiercely burning material		P
	- thermal protection		N/A
	- electronic circuits exempted		N/A
1.7 (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
1.7 (4.16)	Luminaires for mounting on normally flammable surfaces		P
	No lamp control gear :	Electronic control gear will be used (Not provided)	N/A
	Provided with adaptor for a track meet the requirements for direct mounting on normally flammable surfaces		N/A
1.7 (4.16.1)	Lamp control gear spacing:		N/A
	- spacing 35 mm		N/A
	- spacing 10 mm		N/A
1.7 (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
1.7 (4.16.3)	Design to satisfy the test of 12.6	(see clause 12.6)	N/A
1.7 (4.17)	Drain holes		N/A
	Clearance at least 5 mm		N/A
1.7 (4.18)	Resistance to corrosion		N/A
1.7 (4.18.1)	- rust-resistance		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7 (4.18.2)	- season cracking in copper		N/A
1.7 (4.18.3)	- corrosion of aluminium		N/A
1.7 (4.19)	Igniters compatible with ballast		N/A
1.7 (4.20)	Rough service vibration		N/A
1.7 (4.21)	Protective shield		N/A
1.7 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps		N/A
	Shield of glass if tungsten halogen lamps		N/A
1.7 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
1.7 (4.21.3)	No direct path		N/A
1.7 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment :	See Test Table 1.15 (13.3.2)	N/A
1.7 (4.22)	Attachments to lamps not cause overheating or damage		N/A
1.7 (4.23)	Semi-luminaires comply Class II		N/A
1.7 (4.24)	Photobiological hazards		P
1.7 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		N/A
1.7 (4.24.2)	Retinal blue light hazard		P
	Class of risk group assessed according to IEC/TR 62778 :	RG0 and RG1	—
	Luminaires with E_{thr} :		N/A
	a) Fixed luminaires		N/A
	- distance x m, borderline between RG1 and RG2 .. :		N/A
	- marking and instruction according 3.2.23		N/A
	b) Portable and handheld luminaires		N/A
	- marking according 3.2.23 if RG1 exceeded at 200 mm according to IEC/TR 62778		N/A
	Portable luminaires for children IEC 60598-2-10 and Mains socket outlet nightlights IEC 60598-2-12 not exceed RG1 at 200 mm according to IEC/62778		N/A
1.7 (4.25)	Mechanical hazard		P
	No sharp point or edges		P
1.7 (4.26)	Short-circuit protection		N/A
1.7 (4.26.1)	Adequate means of uninsulated accessible SELV / PELV parts		N/A
1.7 (4.26.2)	Short-circuit test with test chain according 4.26.3:		N/A
	Supply source ES1 PSE		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
	Test chain not melt through		N/A
	Test sample not exceed values of Table 12.1 and 12.2		N/A
1.7 (4.27)	Terminal blocks with integrated screwless protective earthing contacts		N/A
	Test according Annex V		N/A
	Pull test of terminal fixing (20 N)		N/A
	After test, resistance < 0,05 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
1.7 (4.28)	Fixing of thermal sensing control		N/A
	Not plug-in or easily replaceable type		N/A
	Reliably kept in position		N/A
	No adhesive fixing if UV radiations from a lamp can degrade the fixing		N/A
	Not outside the luminaire enclosure		N/A
	Test of adhesive fixing:		N/A
	Max. temperature on adhesive material (°C) :		—
	100 cycles between t min and t max		N/A
	Temperature sensing control still in position		N/A
1.7 (4.29)	Luminaires with non-replaceable light source		P
	Not possible to replace light source		P
	Live part not accessible after parts have been opened by hand or tools		P
1.7 (4.30)	Luminaires with non-user replaceable light source		N/A
	If protective cover provide protection against electric shock and marked with “caution, electric shock risk” symbol:		N/A
	At least one fixing means requiring use of tool		N/A
1.7 (4.31)	Insulation between circuits		P
	Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3	Approved LED driver will be used	P
	Controllable luminaires requiring same level of insulation for all components, the insulation between control terminals and LV supply fulfil requirements according 4.31.1 – 4.31.3		N/A
1.7 (4.31.1)	SELV or PELV circuits		P
	Used SELV/PELV source		P
	Voltage $\leq$ ELV		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Insulating of SELV/PELV circuits from LV supply		P
	Insulating of SELV/PELV circuits from other non SELV/PELV circuits		N/A
	Insulating of SELV/PELV circuits from FELV		N/A
	Insulating of SELV/PELV circuits from other SELV/PELV circuits		N/A
	SELV/PELV circuits insulated from accessible parts according Table X.1		P
	Plugs not able to make any electrical contact with socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Plugs and socket-outlets does not have protective conductor contact		N/A
1.7 (4.31.2)	FELV circuits		N/A
	Used FELV source		N/A
	Voltage $\leq$ ELV		N/A
	Insulating of FELV circuits from LV supply		N/A
	FELV circuits insulated from accessible parts according Table X.1		N/A
	Plugs not able to make any electrical contact with socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Socket-outlets have protective conductor contact		N/A
1.7 (4.31.3)	Other circuits		N/A
	Other circuits insulated from accessible parts according Table X.1		N/A
	Class II construction with equipotential bonding for protection against indirect contacts with live parts:		N/A
	- conductive parts are connected together		N/A
	- test according 7.2.3		N/A
	- conductive part not cause an electric shock in case of an insulation fault		N/A
	- equipotential bonding in master/slave applications		N/A
	- master luminaire provided with terminal for accessible conductive parts of slave luminaires		N/A
	- slave luminaire constructed as class I		N/A
1.7 (4.32)	Overvoltage protective devices		N/A
	Comply with IEC 61643-11		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	External to controlgear and connected to earth:		N/A
	- only in fixed luminaires		N/A
	- only connected to protective earth		N/A
1.7 (4.33)	Luminaire powered via information technology communication cabling		N/A
	Requirements for Class III luminaire		N/A
	Rated voltage within the range of ES1 and does not exceed maximum voltage of used connector		N/A
	Luminaire does not create any hazard from overvoltage	(see Annex 2)	N/A
1.7 (4.34)	Electromagnetic fields (EMF)		P
	No harmful electromagnetic fields		P
1.7 (4.35)	Protection against moving fan blades		N/A
	Test with a standard test finger		N/A
	Test with test probe acc. to Figure 13 (IEC 61032) for portable luminaire		N/A
	Blades rounded with radius ≥ 0.5 mm and:		N/A
	-hardness less than D60 Shore		N/A
	-peripheral speed less than 15 m/s		N/A
	-input power of fan ≤ 2 W at rated voltage		N/A
1.7 (4.36)	Track-mounted luminaires		N/A
	Test in accordance with Annex A of IEC60570:2003/AMD2:2019		N/A

1.8 (11)	CREEPAGE DISTANCES AND CLEARANCES		
1.8 (11.2.1)	Impulse withstand category (Normal category II)	Category II ☒ Category III ☐	—
	Category III according Annex U		N/A
	Protected against pollution, reduced creepage and clearance according Annex P of IEC 61347-1		N/A
1.8 (11.2.2)	Creepage distances for frequency up to 30 kHz	See Test Table 1.8 (11.2) I	N/A
	Creepage distances for frequency over 30 kHz:		N/A
	- Controlgear marked with $\hat{U}_{OUT}$ and f_{UOUT} according IEC 61347-1, clause 7.1, item w	See Test Table 1.8 (11.2) II	N/A
	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347	See Test Table 1.8 (11.2) II	N/A
1.8 (11.2.3)	Clearances for frequency up to 30 kHz	See Test Table 1.8 (11.2) I	N/A
	Clearances distances for frequency over 30 kHz:		N/A
	- Controlgear marked with U_P	See Test Table 1.8 (11.2) II	N/A
	- Requirements according IEC 60664-4 for	See Test Table 1.8 (11.2) II	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	controlgear not covered by IEC 61347		

1.9 (7)	PROVISION FOR EARTHING		
1.9 (7.2.1 + 7.2.3)	Accessible metal parts		N/A
	Metal parts in contact with supporting surface		N/A
	Resistance < 0,5 Ω :		N/A
	Self-tapping screws used		N/A
	Thread-forming screws		N/A
	Thread-forming screw used in a groove		N/A
	Protective earth makes contact first		N/A
	Terminal blocks with integrated screwless protective earthing contacts tested according Annex V		N/A
	Protective earthing of the luminaire not via built-in control gear		N/A
1.9 (7.2.2 + 7.2.3)	Protective earth continuity in joints, etc.		N/A
1.9 (7.2.4)	Locking of clamping means		N/A
	Compliance with 4.7.3		N/A
1.9 (7.2.5)	Protective earth terminal integral part of connector socket		N/A
1.9 (7.2.6)	Protective earth terminal adjacent to mains terminals		N/A
1.9 (7.2.7)	Electrolytic corrosion of the protective earth terminal		N/A
1.9 (7.2.8)	Material of protective earth terminal		N/A
	Contact surface bare metal		N/A
1.9 (7.2.10)	Class II luminaire for looping-in		N/A
	Double or reinforced insulation to functional earth		N/A
1.9 (7.2.11)	Protective earthing core coloured green-yellow		N/A
	Length of protective earthing conductor		N/A
1.9 (7.2.12)	PELV circuit connected to protective earth for functional purpose		N/A

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

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Clause	Requirement + Test	Result - Remark	Verdict
1.10 (15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		
	Separately approved; component list..... :	(see Annex 1)	N/A
	Part of the luminaire :	(see Annex 4)	P
1.11 (5)	EXTERNAL AND INTERNAL WIRING		P
1.11 (5.2)	Supply connection and external wiring		P
1.11 (5.2.1)	Means of connection :	Connecting leads, Screwless terminal	P
	Outdoor luminaire has not PVC insulated external wiring if not Class III or SELV/PELV circuits ≤ 25 V AC/60 V DC/25 V peak interrupted DC voltage with frequency 10Hz -200 Hz or protected from outdoor environment		N/A
1.11 (5.2.2)	Type of cable :		N/A
	Nominal cross-sectional area (mm ²) :		N/A
	Cables equal to IEC 60227 or IEC 60245		N/A
1.11 (5.2.3)	Type of attachment, X, Y or Z		N/A
1.11 (5.2.5)	Type Z not connected to screws		N/A
1.11 (5.2.6)	Cable entries:		P
	- suitable for introduction		P
	- adequate degree of protection		P
1.11 (5.2.7)	Cable entries through rigid material have rounded edges		P
1.11 (5.2.8)	Insulating bushings:		P
	- suitably fixed		P
	- material in bushings		P
	- material not likely to deteriorate		P
	- tubes or guards made of insulating material		P
1.11 (5.2.9)	Locking of screwed bushings		N/A
1.11 (5.2.10)	Cord anchorage:		P
	- covering protected from abrasion		P
	- clear how to be effective		P
	- no mechanical or thermal stress		P
	- no tying of cables into knots etc.		P
	- insulating material or lining		P
1.11 (5.2.10.1)	Cord anchorage for type X attachment:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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
1.11 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment	Complying with type Z's test	P
1.11 (5.2.10.3)	Tests:		P
	- impossible to push cable; unsafe		P
	- pull test: 25 times; pull (N) :	60 N	P
	- torque test: torque (Nm) :	0,15/0,25	P
	- displacement ≤ 2 mm		P
	- no movement of conductors		P
	- no damage of cable or cord		P
	- function independent of electrical connection		P
1.11 (5.2.10.4)	Luminaire with/designed for use with supply cord with maximum current of 2A:		N/A
	- Ordinary Class III luminaire supplied with SELV ≤ 25 V RMS/60V DC		N/A
	- Ordinary Class III luminaire supplied with PELV ≤ 12 V RMS/30V DC		N/A
	- Other than ordinary Class III luminaire supplied with voltage ≤ 12 V RMS/30V DC		N/A
	Pull test of 30N		N/A
1.11 (5.2.11)	External wiring passing into luminaire		P
1.11 (5.2.12)	Looping-in terminals		N/A
1.11 (5.2.13)	Wire ends not tinned		P
	Wire ends tinned: no cold flow		P
1.11 (5.2.14)	Mains plug same protection		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Class III luminaire plug		P
	No unsafe compatibility		P
1.11 (5.2.15)	Connectors for Class III luminaires (IEC 60603 or IEC 62680)		N/A
1.11 (5.2.16)	Appliance inlets (IEC 60320)		N/A
	Installation couplers (IEC 61535)		N/A
	Appliance inlet or connector systems (IEC 61984)		N/A
1.11 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
1.11 (5.2.18)	Used plug in accordance with		N/A
	- IEC 60083		N/A
	- other standard		N/A
1.11 (5.3)	Internal wiring		P
1.11 (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 protective earth only		N/A
1.11 (5.3.1.1)	Internal wiring connected directly to fixed wiring		P
	Cross-sectional area (mm ²).....	(see Annex 1)	P
	Insulation thickness (mm)	(see Annex 1)	P
	Extra insulation added where necessary		N/A
1.11 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		P
	Cross-sectional area (mm ²).....	See Annex 1	P
1.11 (5.3.1.3)	Double or reinforced insulation for class II		N/A
1.11 (5.3.1.4)	Conductors without insulation		N/A
1.11 (5.3.1.5)	SELV/PELV current-carrying parts		P
1.11 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.11 (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
1.11 (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
1.11 (5.3.4)	Joints and junctions effectively insulated		N/A
1.11 (5.3.5)	Strain on internal wiring		P
1.11 (5.3.6)	Wire carriers		N/A
1.11 (5.3.7)	Wire ends not tinned		P
	Wire ends tinned: no cold flow		N/A
1.11 (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

1.12 (8)	PROTECTION AGAINST ELECTRIC SHOCK		P
1.12 (8.2.1)	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		P
	Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires		N/A
	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires		P
	Lamp and starter holders 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

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Clause	Requirement + Test	Result - Remark	Verdict
	Double-ended high-pressure discharge lamp		N/A
	Relevant warning according to 3.2.18 fitted to the luminaire		N/A
1.12 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N/A
1.12 (8.2.3.a)	Class II luminaire:		N/A
	- basic insulated metal parts not accessible		N/A
	- required insulation from live parts in compliance with Table X.1		N/A
	- glass protective shields not used as supplementary insulation		N/A
1.12 (8.2.3.b)	BC lamp holder of metal in class I luminaires shall be connected to protective earth		N/A
1.12 (8.2.3.c)	SELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V)..... :		N/A
	- voltage under load/ no-load DC (V)..... :		N/A
	- interrupted DC voltage (V)		N/A
	- touch current if applicable (mA)		N/A
	One conductive part insulated if required		N/A
	Other than ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V)..... :		N/A
	- voltage under load/ no-load DC (V)..... :		N/A
	- interrupted DC voltage (V)		N/A
	Class III luminaire only for connection to SELV/PELV		N/A
1.12 (8.2.3.d)	PELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V)..... :		N/A
	- voltage under load/ no-load DC (V)..... :		N/A
	Other than ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V)..... :		N/A
	- voltage under load/ no-load DC (V)..... :		N/A
	One pole insulated if required		N/A
1.12 (8.2.4)	Portable luminaire has protection independent of supporting surface		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
1.12 (8.2.5)	Compliance with the standard test finger or relevant probe		P
1.12 (8.2.6)	Covers reliably secured		P
1.12 (8.2.7)	Luminaire other than below with capacitor > 0,5 μ F not exceed 50 V 1 min after disconnection		N/A
	Portable luminaire with capacitor > 0,1 μ F (0.25) not exceed 34 V 1 s after disconnection		N/A
	Other luminaires with capacitor > 0,1 μ F (0.25) with plug and track adaptors not exceed 60 V 5 s after disconnection		N/A
1.13 (12)	ENDURANCE TEST AND THERMAL TEST		
1.13 (-)	If IP > IP 20 relevant test of (12.4), (12.5), (12.6) and (12.7) after (9.2) before (9.3) as specified in 1.14		—
1.13 (12.2)	Selection of lamps and ballasts		—
	Lamp used according Annex B	(Lamp used see Annex 2)	—
	Control gear if separate and not supplied	(Control gear used see Annex 2)	—
1.13 (12.3)	Endurance test		P
	a) mounting-position	Wall mounted	—
	b) test temperature (°C)	35 °C	—
	c) total duration (h)	240	—
	d) supply voltage (V)	1,1 times of 5 Vdc/12 Vdc/24 Vdc	—
	d) if not equipped with control gear, constant voltage/current (V) or (A)	--	—
1.13 (12.3.1d)	d) Class III luminaires powered via information technology communication cable:		N/A
	- voltage under normal operation (V).....		—
	- voltage under abnormal operation (V).....		—
	e) luminaire ceases to operate		—
	f) luminaire with constant light output function		N/A
1.13 (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

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Clause	Requirement + Test	Result - Remark	Verdict
1.13 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
1.13 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	N/A
1.13 (12.6)	Thermal test (failed lamp control gear condition):		N/A
1.13 (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
1.13 (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
1.13 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		N/A
1.13 (12.7.1)	Luminaire without temperature sensing control		N/A
1.13 (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		—

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Clause	Requirement + Test	Result - Remark	Verdict
	(°C)		
	Ball-pressure test	See Test Table 1.15 (13.2.1)	N/A
1.13 (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 Test Table 1.15 (13.2.1)	N/A
1.13 (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
1.13 (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 Test Table 1.15 (13.2.1)	N/A

1.14 (9)	RESISTANCE TO DUST AND MOISTURE	P
1.14 (-)	If IP > IP 20 the order of tests as specified in clause 1.12	N/A
1.14 (9.2)	Tests for ingress of dust, solid objects and moisture:	P
	- classification according to IP	IP20
	- mounting position during test	Wall mounted
	- fixing screws tightened; torque (Nm)	--
	- tests according to clauses	Clause 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 on	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	insulation where it could become a hazard		
	c.1) For luminaires without drain holes – no water entry		N/A
	c.2) For luminaires with drain holes – no hazardous water entry		N/A
	d) no water in watertight, pressure watertight, high pressure and temperature water jet-proof or high pressure and cold water jet-proof luminaire		N/A
	e) no contact with live parts (IP 2X)		P
	e) no entry into enclosure (IP 3X and IP 4X)		N/A
	e) no contact with live parts through drain holes and ventilation slots (IP3X and IP4X)		N/A
	f) no trace of water on part of lamp requiring protection from splashing water		N/A
	g) no damage of protective shield or glass envelope		N/A
1.14 (9.3)	Humidity test 48 h		P

1.15 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		
1.15 (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):		P
	SELV/PELV:		P
	- between current-carrying parts of different polarity :		N/A
	- between current-carrying parts and mounting surface..... :	>100 MΩ	P
	- between current-carrying parts and metal parts of the luminaire :	>100 MΩ	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts..... :		N/A
	- Insulation bushings as described in Section 5 :		N/A
	Other than SELV/PELV:		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		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	where it is clamped in a cord anchorage and accessible metal parts..... :		
	- Insulation bushings as described in Section 5 :		N/A
1.15 (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):		P
	SELV/PELV:		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
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts..... :		N/A
	- Insulation bushings as described in Section 5 :		N/A
	Other than SELV/PELV:		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
1.15 (10.3)	Touch current (mA)..... :		N/A
	Protective conductor current (mA)..... :		N/A

1.16 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		
1.16 (13.2.1)	Ball-pressure test :	See Test Table 1.16 (13.2.1)	P
1.16 (13.3.1)	Needle-flame test (10 s) :	See Test Table 1.16 (13.3.1)	P
1.16 (13.3.2)	Glow-wire test (650°C) :	See Test Table 1.16 (13.3.2)	P

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.16 (13.4)	Proof tracking test (IEC 60112)..... :	See Test Table 1.16 (13.4)	N/A

IEC 60598-2-1							
Clause	Requirement + Test				Result - Remark		Verdict
1.8 (11.2)	TABLE I: Creepage distances and clearances (No values are specified for working voltages below 25 V RMS and 60 V DC)						N/A
	Minimum distances (mm) for a.c. up to 30 kHz sinusoidal voltages						
	Applicable part of IEC 60598-1 Table 11.1.A*, 11.1.B* and 11.2*						
	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:	--	--	--	11.1.B	--	--	11.1.A
Working voltage (V)							—
PTI					< 600 ☐ ≥ 600 ☐		—
Pulse voltage or U_P if applicable (kV)							—
Supplementary information:--							
Distance 2:	--	--	--	11.1.B	--	--	11.1.A
Working voltage (V)							—
PTI					< 600 ☐ ≥ 600 ☐		—
Pulse voltage or U_P if applicable (kV)							—
Supplementary information:--							
Distance 3:	--	--	--	11.1.B	--	--	11.1.A
Working voltage (V)							—
PTI					< 600 ☐ ≥ 600 ☐		—
Pulse voltage or U_P if applicable (kV)							—
Supplementary information:--							

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

IEC 60598-2-1							
Clause	Requirement + Test				Result - Remark		Verdict
1.8 (11.2)	TABLE II: Creepage distances and clearances						N/A
Minimum distances (mm) for a.c. higher than 30 kHz sinusoidal voltages							
Applicable part of IEC 61347-1 Table 7 and 8* or IEC 60664-4 Table 1 and 2							
Distances	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:							
Working voltage (V)							—
Frequency if applicable (kHz)							—
PTI					< 600 ☐ ≥ 600 ☐		—
Peak value of the working voltage $\hat{U}_{out}$ if applicable (kV)							—
Supplementary information:							
Distance 2:							
Working voltage (V)							—
Frequency if applicable (kHz)							—
PTI					< 600 ☐ ≥ 600 ☐		—
Peak value of the working voltage $\hat{U}_{out}$ if applicable (kV)							—
Supplementary information:							
Distance 3:							
Working voltage (V)							—
Frequency if applicable (kHz)							—
PTI					< 600 ☐ ≥ 600 ☐		—
Peak value of the working voltage $\hat{U}_{out}$ if applicable (kV)							—
Supplementary information:							

** Insulation type: B – Basic; S – Supplementary; R – Reinforced.

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.16 (13.2.1)	TABLE: Ball Pressure Test of Thermoplastics		P
Allowed impression diameter (mm)		2,0	—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)
LED PCB	Huizhou HongQi Electronic Technology Co. Ltd	125	0,82
LED PCB	KINGBOARD LAMINATES HOLDINGS LTD	125	0,89
LED cover (LED lens)	See annex 1	92,8	1,05
Diffuser	See annex 1	77	0,86
Supplementary information:--			

1.16 (13.3.1)	TABLE: Needle-flame test				P
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
LED PCB	Huizhou HongQi Electronic Technology Co. Ltd	10	No	0	P
LED PCB	KINGBOARD LAMINATES HOLDINGS LTD	10	No	0	P
Supplementary information:--					

1.16 (13.3.2)	TABLE: Resistance to heat and fire - Glow wire tests				P
Object/Part No./Material	Manufacturer/ trademark	GWT (°C) : 650			Verdict
		t _E (s)	t _I (s)	t _R (s)	
LED cover (LED lens)	See annex 1	0	0	0	P
Diffuser	See annex 1	0	0	0	P
Ignition of the specified layer placed underneath the test specimen (Yes/No)					No
Supplementary information:--					

1.16 (13.4)	TABLE: Proof tracking test				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
--	--	--	--	--	--

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
Supplementary information:--			

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	TABLE: Critical components information	
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Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
Power cord	A	DONG GUAN CHUANG XU WIRE CO.LTD	2464, 2468	300 V, 80 °C, 16-18 AWG	IEC 60598-2-1: 2020 IEC 60598-1: 2020	Tested in appliance and UL E483471
Alternative	D	DONGGUAN TAIXIN WIRE CO LTD	2464, 2468	300 V, 80 °C, 16-18 AWG	IEC 60598-2-1: 2020 IEC 60598-1: 2020	UL E478848
LED PCB (Single layer flexible material) for all models except CS-LBPR-CCT-960-24	A	Huizhou HongQi Electronic Technology Co. Ltd	HQ-D	V-0, 130 °C	IEC 60598-2-1: 2020 IEC 60598-1: 2020	Tested in appliance and UL E477885
Alternative	D	KINGBOARD LAMINATES HOLDINGS LTD	KB-6160A	V-0, 130 °C	IEC 60598-2-1: 2020 IEC 60598-1: 2020	UL E123995
LED PCB (Aluminium base) for model CS-LBPR-CCT-960-24	B	Goldenmax International Technology (Hangzhou) Ltd	GL12, GL22, GL-P1@	V-0, 90 °C	IEC 60598-2-1: 2020 IEC 60598-1: 2020	Tested in appliance and UL E134893
LED chip 1	C	Shenzhen Master Optonics Co., Ltd	MS-PF2835H4W0 20-08-R3	V _F : 3,0-3,2 Vdc, I _F : 60 mA, 10000-12000 K	IEC 60598-2-1: 2020 IEC 62031: 2018 IEC/TR 62778: 2014	Tested in appliance
LED chip 2	C	Shenzhen Liangan Photoelectricity TechnologyCo., Ltd	LA-D2835A831-3E1-00366	V _F : 2,8-3,0 Vdc, I _F : 60 mA, 3000-3500 K	IEC 60598-2-1: 2020 IEC 62031: 2018 IEC/TR 62778: 2014	Tested in appliance
LED chip 3	C	Sunse Electronic Technology Co., Ltd	SS-RGB3528A6P -N9	Red: 620-625 nm V _F : 2,0-2,4 Vdc, I _F : 20 mA, Green: 520-525 nm V _F : 2,8-3,2 Vdc, I _F : 20 mA,	IEC 60598-2-1: 2020 IEC 62031: 2018 IEC/TR 62778: 2014	Tested in appliance

IEC 60598-2-1						
Clause	Requirement + Test			Result - Remark		Verdict
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾
				Blue: 460-465 nm V _F : 2,8-3,2 Vdc, I _F : 20 mA		
LED chip 4	C	Shenzhen Zhilong Core Optoelectronic Technology Co., Ltd	ZLX-65RGB50502 802-A04-4080	Red: 620-625 nm V _F : 2,0-2,2 Vdc, I _F : 20 mA, Green: 520-525 nm V _F : 2,8-3,0 Vdc, I _F : 20 mA, Blue: 460-465 nm V _F : 3,0-3,2 Vdc, I _F : 20 mA White: V _F : 2,8-3,0 Vdc, I _F : 20 mA 6000-6500 K	IEC 60598-2-1: 2020 IEC 62031: 2018 IEC/TR 62778: 2014	Tested in appliance
Diffuser for model CS-LBPR-CCT-960-24	B	Mitsubishi Chemical Polymer Nantong Co Ltd	VH(ww)(f1), VH(f1), VHM(f1), VHS(f1)	HB, 50 °C	IEC 60598-2-1: 2020 IEC 60598-1: 2020	Tested in appliance and UL E256044
LED cover (LED lens)	B	Mitsubishi Chemical Polymer Nantong Co Ltd	LX	HB, 50 °C	IEC 60598-2-1: 2020 IEC 60598-1: 2020	Tested in appliance and UL E256044
Supplementary information: ¹⁾ Provided evidence ensures the agreed level of compliance. See OD-CB2039. The codes above have the following meaning: A - The component is replaceable with another one, also certified, with equivalent characteristics B - The component is replaceable if authorised by the test house C - Integrated component tested together with the appliance D - Alternative component						

IEC 60598-2-1							
Clause	Requirement + Test				Result - Remark		Verdict
ANNEX 2	TABLE: Thermal tests of Section 12						
	Type reference				CS-LPPF-RGB-120-24		—
	Lamp used.....				Non-replaceable LEDs		—
	Lamp control gear used				--		—
	Mounting position of luminaire				Wall mounted		—
	Supply wattage (W)				119,8		—
	Supply current (A)				4,54		—
	Temperatures in test 1 - 4 below are corrected for ta (°C)				25		—
	- abnormal operating mode				--		—
1.13 (12.4)	- test 1: rated voltage				--		—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current				1,1 times constant voltage, 26,4 Vdc		—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage				--		—
	Through wiring or looping-in wiring loaded by a current of A during the test				--		—
1.13 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current or 130/150% of rated input voltage				--		—
Temperature measurements (°C)							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Lead wire near LEDs	25	--	43,7	--	80	--	--
LED PCB	25	--	48,7	--	130	--	--
LED lens	25	--	33,9	--	Ref.	--	--
Mounting surface	25	--	29,2	--	90	--	--
Object lighted (0,1 m)	25	--	26,7	--	90	--	--
Supplementary information:--							

IEC 60598-2-1								
Clause	Requirement + Test				Result - Remark		Verdict	
ANNEX 2	TABLE: Thermal tests of Section 12							
	Type reference				CS-LPPF-RGBW-120-24		—	
	Lamp used.....				Non-replaceable LEDs		—	
	Lamp control gear used				--		—	
	Mounting position of luminaire				Wall mounted		—	
	Supply wattage (W)				120,1		—	
	Supply current (A)				4,55		—	
	Temperatures in test 1 - 4 below are corrected for ta (°C)				25		—	
	- abnormal operating mode				--		—	
1.13 (12.4)	- test 1: rated voltage				--		—	
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current				1,1 times constant voltage, 26,4 Vdc		—	
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage				--		—	
	Through wiring or looping-in wiring loaded by a current of A during the test				--		—	
1.13 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current or 130/150% of rated input voltage				--		—	
Temperature measurements (°C)								
Part		Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
			test 1	test 2	test 3	limit	test 4	limit
Lead wire near LEDs		25	--	45,7	--	105	--	--
LED PCB		25	--	51,0	--	130	--	--
LED lens		25	--	35,5	--	Ref.	--	--
Mounting surface		25	--	30,5	--	90	--	--
Object lighted (0,1 m)		25	--	26,6	--	90	--	--
Supplementary information:--								

IEC 60598-2-1							
Clause	Requirement + Test				Result - Remark		Verdict
ANNEX 2	TABLE: Thermal tests of Section 12						
	Type reference				CS-LPPR-CT-80-24		—
	Lamp used.....				Non-replaceable LEDs		—
	Lamp control gear used				--		—
	Mounting position of luminaire				Wall mounted		—
	Supply wattage (W)				80,2		—
	Supply current (A)				3,34		—
	Temperatures in test 1 - 4 below are corrected for ta (°C)				25		—
	- abnormal operating mode				--		—
1.13 (12.4)	- test 1: rated voltage				--		—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current				1,1 times constant voltage, 26,4 Vdc		—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage				--		—
	Through wiring or looping-in wiring loaded by a current of A during the test				--		—
1.13 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current or 130/150% of rated input voltage				--		—
Temperature measurements (°C)							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Test piece in terminal hole	25	--	43,8	--	90	--	--
Lead wire near LEDs	25	--	62,2	--	80	--	--
LED PCB	25	--	78,9	--	130	--	--
LED cover (LED lens)	25	--	67,8	--	Ref.	--	--
Mounting surface	25	--	29,4	--	90	--	--
Object lighted (0,1 m)	25	--	25,6	--	90	--	--
Supplementary information:--							

IEC 60598-2-1							
Clause	Requirement + Test				Result - Remark		Verdict
ANNEX 2	TABLE: Thermal tests of Section 12						
	Type reference				CS-LYPF-CT-120-12		—
	Lamp used.....				Non-replaceable LEDs		—
	Lamp control gear used				--		—
	Mounting position of luminaire				Wall mounted		—
	Supply wattage (W)				119,6		—
	Supply current (A)				9,06		—
	Temperatures in test 1 - 4 below are corrected for ta (°C)				25		—
	- abnormal operating mode				--		—
1.13 (12.4)	- test 1: rated voltage				--		—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current				1,1 times constant voltage, 13,2 Vdc		—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage				--		—
	Through wiring or looping-in wiring loaded by a current of A during the test				--		—
1.13 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current or 130/150% of rated input voltage				--		—
Temperature measurements (°C)							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Lead wire near LEDs	25	--	37,3	--	105	--	--
LED PCB	25	--	43,4	--	130	--	--
LED lens	25	--	39,7	--	Ref.	--	--
Mounting surface	25	--	32,4	--	90	--	--
Object lighted (0,1 m)	25	--	27,0	--	90	--	--
Supplementary information:--							

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IEC 60598-2-1								
Clause	Requirement + Test			Result - Remark		Verdict		
ANNEX 2	TABLE: Thermal tests of Section 12						P	
	Type reference			CS-LBPR-CCT-960-24		—		
	Lamp used.....			Non-replaceable LEDs		—		
	Lamp control gear used			--		—		
	Mounting position of luminaire			Wall mounted		—		
	Supply wattage (W)			956,3		—		
	Supply current (A)			36,22		—		
	Temperatures in test 1 - 4 below are corrected for ta (°C)			25		—		
	- abnormal operating mode			--		—		
1.13 (12.4)	- test 1: rated voltage			--		—		
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current			1,1 times constant voltage, 26,4 Vdc		—		
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage			--		—		
	Through wiring or looping-in wiring loaded by a current of A during the test			--		—		
1.13 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current or 130/150% of rated input voltage			--		—		
Temperature measurements (°C)								
Part		Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
			test 1	test 2	test 3	limit	test 4	limit
Lead wire near LEDs		25	--	44,0	--	80	--	--
LED PCB		25	--	55,9	--	130	--	--
LED lens		25	--	51,5	--	Ref.	--	--
Mounting surface		25	--	27,3	--	90	--	--
Object lighted(0,1 m)		25	--	32,2	--	90	--	--
Supplementary information:--								

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IEC 60598-2-1							
Clause	Requirement + Test				Result - Remark		Verdict
ANNEX 2	TABLE: Thermal tests of Section 12						P
	Type reference				CS-LBPF-CCT-960-24		—
	Lamp used.....				Non-replaceable LEDs		—
	Lamp control gear used				--		—
	Mounting position of luminaire				Wall mounted		—
	Supply wattage (W)				955,8		—
	Supply current (A)				36,2		—
	Temperatures in test 1 - 4 below are corrected for ta (°C)				25		—
	- abnormal operating mode				--		—
1.13 (12.4)	- test 1: rated voltage				--		—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current				1,1 times constant voltage, 26,4Vdc		—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage				--		—
	Through wiring or looping-in wiring loaded by a current of A during the test				--		—
1.13 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current or 130/150% of rated input voltage				--		—
Temperature measurements (°C)							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Lead wire near LEDs	25	--	44,1	--	80	--	--
LED PCB	25	--	54,1	--	130	--	--
Mounting surface	25	--	26,9	--	90	--	--
Object lighted (0,1 m)	25	--	31,8	--	90	--	--
Supplementary information:--							

IEC 60598-2-1							
Clause	Requirement + Test				Result - Remark		Verdict
ANNEX 2	TABLE: Thermal tests of Section 12						P
	Type reference				CS-LBPF-RGBW-960-24		—
	Lamp used.....				Non-replaceable LEDs		—
	Lamp control gear used				--		—
	Mounting position of luminaire				Wall mounted		—
	Supply wattage (W)				953,8		—
	Supply current (A)				36,13		—
	Temperatures in test 1 - 4 below are corrected for ta (°C)				25		—
	- abnormal operating mode				--		—
1.13 (12.4)	- test 1: rated voltage				--		—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current				1,1 times constant voltage, 26,4 Vdc		—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage				--		—
	Through wiring or looping-in wiring loaded by a current of A during the test				--		—
1.13 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current or 130/150% of rated input voltage				--		—
Temperature measurements (°C)							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Lead wire near LEDs	25	--	43,2	--	80	--	--
LED PCB	25	--	53,3	--	130	--	--
Mounting surface	25	--	27,6	--	90	--	--
Object lighted (0,1 m)	25	--	31,1	--	90	--	--
Supplementary information:--							

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 3	Screw terminals (part of the luminaire)		N/A
(14)	SCREW TERMINALS		N/A
(14.2)	Type of terminal..... :		—
	Rated current (A)..... :		—
(14.3.2.1)	One or more conductors		N/A
(14.3.2.2)	Special preparation		N/A
(14.3.2.3)	Terminal size		N/A
	Cross-sectional area (mm ²)..... :		—
(14.3.3)	Conductor space (mm)..... :		N/A
(14.4)	Mechanical tests		N/A
(14.4.1)	Minimum distance		N/A
(14.4.2)	Cannot slip out		N/A
(14.4.3)	Special preparation		N/A
(14.4.4)	Nominal diameter of thread (metric ISO thread) :	M	N/A
	External wiring		N/A
	No soft metal		N/A
(14.4.5)	Corrosion		N/A
(14.4.6)	Nominal diameter of thread (mm) :		N/A
	Torque (Nm) :		N/A
(14.4.7)	Between metal surfaces		N/A
	Lug terminal		N/A
	Mantle terminal		N/A
	Pull test; pull (N) :		N/A
(14.4.8)	Without undue damage		N/A

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

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Clause	Requirement + Test	Result - Remark	Verdict
(15.6.2.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N)		N/A
(15.6.2.2)	Pull test pin or tab terminals (4 samples); pull (N)		N/A
(15.6.3)	Electrical tests		N/A
	Tests according 15.6.3.1 + 15.6.3.2 in IEC 60598-1		N/A

(15.6.3.1) (15.6.3.2)	TABLE: Contact resistance test / Heating tests										N/A
	Voltage drop (mV) after 1 h										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Voltage drop of two inseparable joints										
	Voltage drop after 10th alt. 25th cycle										
	Max. allowed voltage drop (mV) :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Voltage drop after 50th alt. 100th cycle										
	Max. allowed voltage drop (mV) :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Continued ageing: voltage drop after 10th alt. 25th cycle										
	Max. allowed voltage drop (mV) :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Continued ageing: voltage drop after 50th alt. 100th cycle										
	Max. allowed voltage drop (mV) :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
Supplementary information:--											

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Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT 1: TO TEST REPORT			
IEC 60598-2-1			
EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES			
Luminaires			
Part 2: Particular requirements			
Section 1: Fixed general purpose luminaires			
Differences according to.....:		EN IEC 60598-2-1:2021 used in conjunction with EN IEC 60598-1:2021 + AMD11:2022	
TRF template used		IECEE OD-2020-F2:2020, Ed. 1.1	
Attachment Form No.....:		EU_GD_IEC60598_2_1I	
Attachment Originator		UL(Demko)	
Master Attachment		2022-05-13	
Copyright © 2022 IEC System for Conformity Testing and Certification of Electrical Equipment (IECEE), Geneva, Switzerland. All rights reserved.			
	CENELEC COMMON MODIFICATIONS (EN)		
1.6 (3)	MARKING		N/A
1.6 (3.2.12)	Note 4 deleted		N/A
1.7 (4)	CONSTRUCTION		N/A
1.7 (4.11.6)	Electro-mechanical contact systems: electric strength test at 1 500 V		N/A
1.11 (5)	EXTERNAL AND INTERNAL WIRING”		N/A
1.11 (5.2.2)	Cables equal to EN 50525 (all parts)		N/A
	Paragraph 2 deleted		N/A
	Replace table 5.1 – Supply cord		N/A
1.13 (12)	ENDURANCE TESTS AND THERMAL TESTS		N/A
1.13 (12.4.2c)	Thermal test (normal operation) see footnote c to table 12.2 relating to unsleeved fixed wiring		N/A
ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)		N/A
(3.3)	DK: power supply cords of class I luminaires with label		N/A
(5.2.1)	CY, DK, FI, UK: type of plug		N/A
(5.2.18)	DK: socket-outlets		N/A
ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		N/A
(4 & 5)	FR: Shuttered socket-outlets 10/16A		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	FR: Safety requirements for high buildings (Decree of 30 December 2011 on safety regulations for the construction of high-rise buildings and their protection against fire and panic risks; Section VIII; Article GH 48, Lighting) 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
	UK: Requirements according to United Kingdom Building Regulation		N/A

IEC 60598-2-1			
Clause	Requirement + Test		Verdict
	Attachment 2: Additional requirement of IEC 62031: 2018 and EN IEC 62031: 2020 + A11: 2021		P
4.2	CLASSIFICATION		P
	built-in; independent; integral	Integral	P
6	Marking		N/A
6.1	Overview		N/A
6.2	Contents of marking for built-in and for independent LED modules		N/A
6.3	Location of marking for built-in LED modules		N/A
6.4	Location of marking for independent LED modules		N/A
6.5	Marking of integral LED modules		N/A
6.6	Durability and legibility of marking		N/A
7	Terminals		N/A
7.1	Integral terminals		N/A
7.2	Terminals other than integral terminals		N/A
8	Earthing		N/A
9	Protection against accidental contact with live parts		N/A
	see 1.12 (8) of this test report		N/A
10	Moisture resistance and insulation		P
	see 1.14 (9.3) and 1.15 (10.2.1) of this report		P
11	Electric strength		P
	see 1.15 (10.2.2) of this report		P
12	Fault conditions		P
12.1	Fault conditions acc. IEC 61347-1, cl. 14		P
12.2	Overpower conditions	1,5 x P _n	P
13	Conformity testing during manufacture		N/A
14	Construction		P
	no wood , cotton, silk, paper used as insulation		P
15	Creepage distances and clearances		P
	see 1.8 (11) of this report		P
16	Screws, current-carrying parts and connections		P
17	Resistance to heat, fire and tracking		P
	see 1.16 (13) of this report		P

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
18	Resistance to corrosion		N/A
19	Information for luminaire design		N/A
20	Heat management		N/A
21	Photobiological safety		N/A

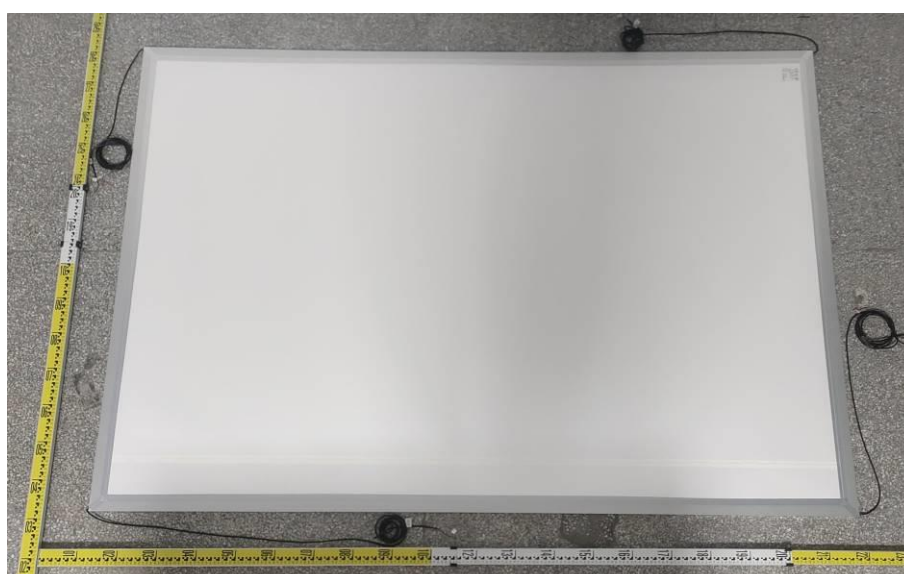
IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict

Attachment 3: Model list

Code	Product Name	Model no.	Input Voltage	Max. Power	Weight (kg)	Max. Size L*W(mm)	LED chip type*
1	Light Panel	CS-LPPF-CT-60-5	5 Vdc	60 W	21,5	2000*1380	LED chip 1
2	Light Panel	CS-LPPF-CT-120-12	12 Vdc	120 W	22,3	2440*1380	LED chip 1
3	Light Panel	CS-LPPF-CCT-120-12	12 Vdc	120 W	22,3	2440*1380	LED chip 1, LED chip 2
4	Light Panel	CS-LPPF-RGB-120-12	12 Vdc	120 W	22,3	2440*1380	LED chip 3
5	Light Panel	CS-LPPF-RGBW-120-12	12 Vdc	120 W	22,3	2440*1380	LED chip 4
6	Light Panel	CS-LPPF-CT-120-24	24 Vdc	120 W	22,3	2440*1380	LED chip 1
7	Light Panel	CS-LPPF-CCT-120-24	24 Vdc	120 W	22,3	2440*1380	LED chip 1
8	Light Panel	CS-LPPF-RGB-120-24	24 Vdc	120 W	22,3	2440*1380	LED chip 3
9	Light Panel	CS-LPPF-RGBW-120-24	24 Vdc	120 W	22,3	2440*1380	LED chip 4
10	Magnetic crystal light box	CS-LPPR-CT-80-24	24 Vdc	80 W	35,2	1437*1037	LED chip 1
11	Snap frame light box/ Magnetic light box	CS-LYPF-CT-120-12	12 Vdc	120 W	39,4	2440*1200	LED chip 1
12	Snap frame light box/ Magnetic light box	CS-LYPF-CT-120-24	24 Vdc	120 W	38,8	2400*1200	LED chip 1
13	Fabric Light box	CS-LBPR-CT-960-24	24 Vdc	960 W	80,3	4000*2400	LED chip 1
14	Fabric Light box	CS-LBPR-CCT-960-24	24 Vdc	960 W	80,3	4000*2400	LED chip 1, LED chip 2
15	Fabric Light box	CS-LBPF-CCT-960-24	24 Vdc	960 W	80,3	4000*2400	LED chip 1, LED chip 2
16	Fabric Light box	CS-LBPF-RGBW-960-24	24 Vdc	960 W	80,3	4000*2400	LED chip 4
Remark: The asterisk (*) indicates all model use the different type LED chips, detailing information see Annex 1.							

Attachment 4: Product photo

Overview of CS-LPPF-CT-60-5



Bottom view of CS-LPPF-CT-60-5

Attachment 4: Product photo

Overview of CS-LPPF-CT-120-12, CS-LPPF-CCT-120-12, CS-LPPF-RGB-120-12, CS-LPPF-RGBW-120-12
Note: CS-LPPF-CT-120-12 is an example.



Bottom view of CS-LPPF-CT-120-12

Attachment 4: Product photo

Overview of CS-LPPF-CCT-120-24, CS-LPPF-CT-120-24



Bottom view of CS-LPPF-CCT-120-24

Attachment 4: Product photo

Overview of CS-LPPF-RGB-120-24



Bottom view of CS-LPPF-RGB-120-24

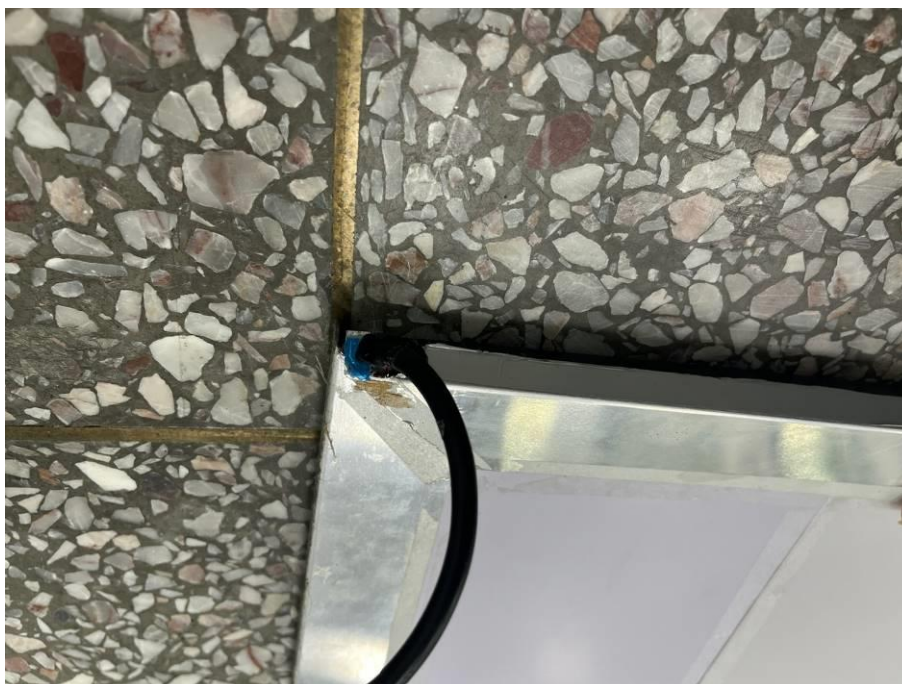
IEC 60598-2-1

Attachment 4: Product photo

Overview of CS-LPPF-RGBW-120-24



Bottom view of CS-LPPF-RGBW-120-24

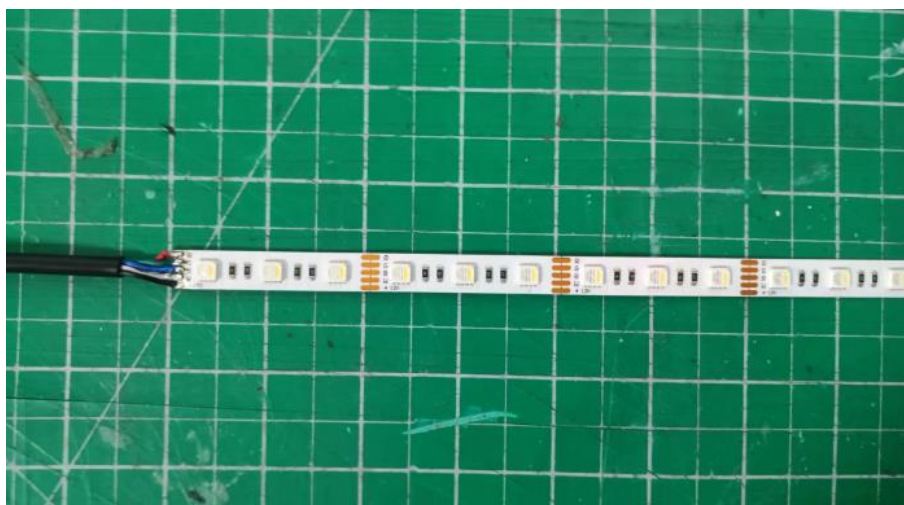
Attachment 4: Product photo

Wire entry view of CS-LPPF series

Internal view of CS-LPPF series
(CS-LPPF-RGBW-120-24 is an example)

Attachment 4: Product photo

LEDs view of CS-LPPF-RGBW-120-24



LEDs view of CS-LPPF-RGBW-120-12

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Attachment 4: Product photo

LEDs view of CS-LPPF-CT-60-5



LEDs view of CS-LPPF-CT-120-12

IEC 60598-2-1

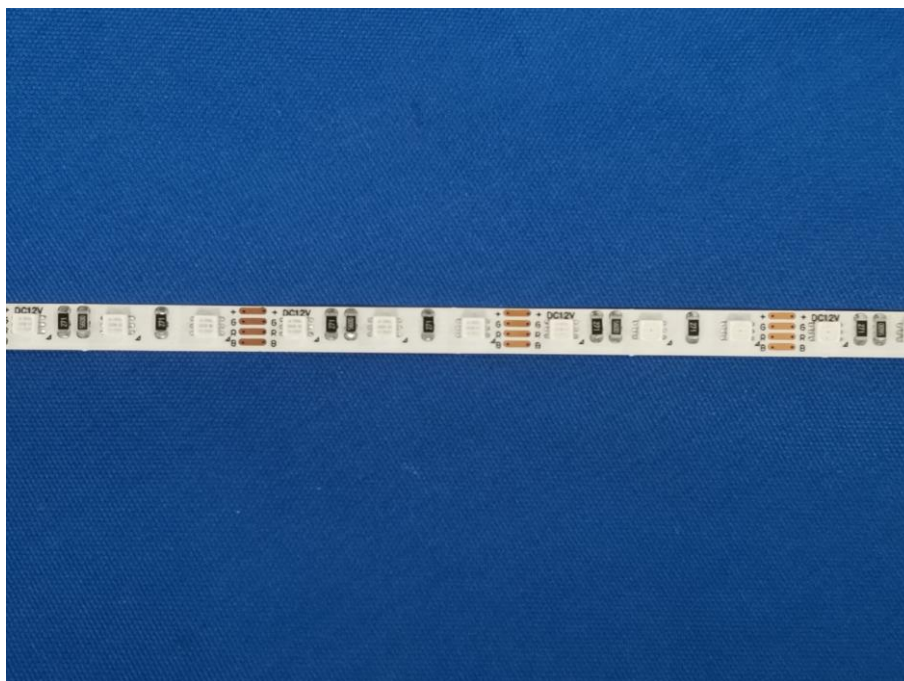
Attachment 4: Product photo

LEDs view of CS-LPPF-CCT-120-12



LEDs view of CS-LPPF-RGB-120-24

IEC 60598-2-1

Attachment 4: Product photo

LEDs view of CS-LPPF-RGB-120-12



Overview of CS-LPPR-CT-80-24

IEC 60598-2-1

Attachment 4: Product photo

Internal view of CS-LPPR-CT-80-24



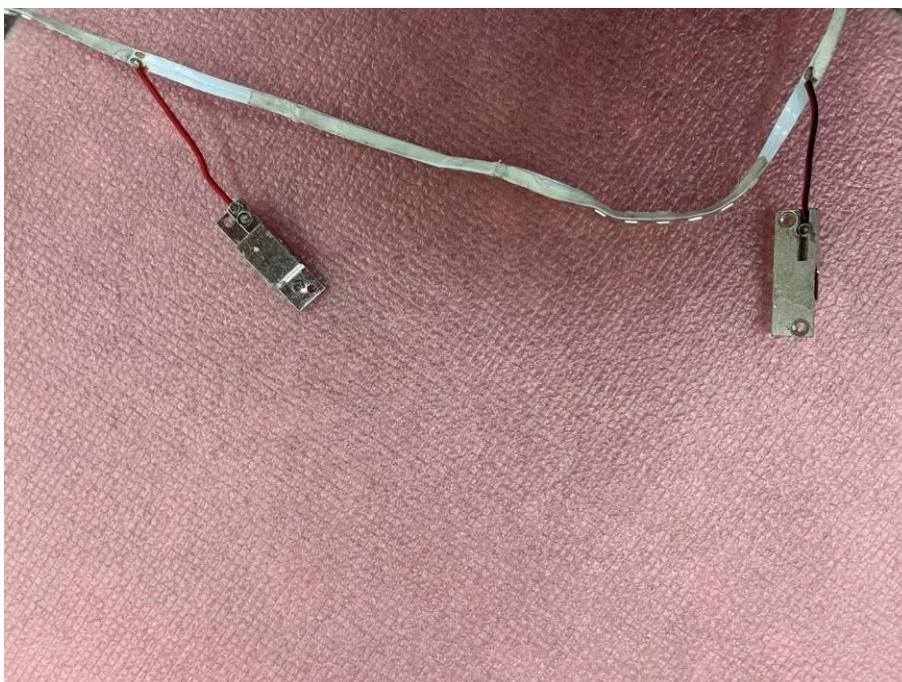
Screwless terminal view of CS-LPPR-CT-80-24

Attachment 4: Product photo

Screwless terminal view of CS-LPPR-CT-80-24



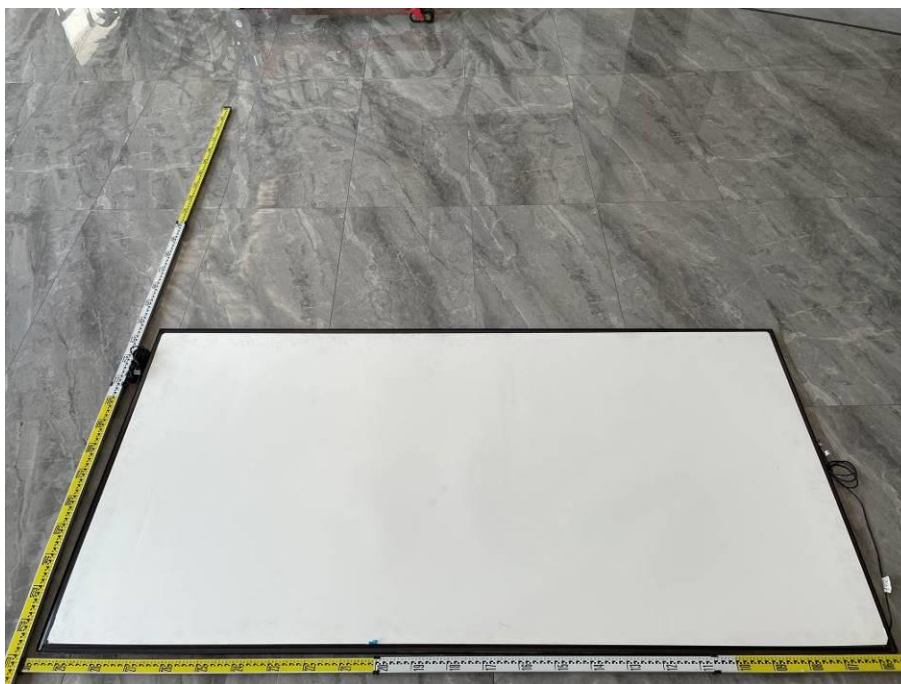
Internal view of CS-LPPR-CT-80-24

Attachment 4: Product photo

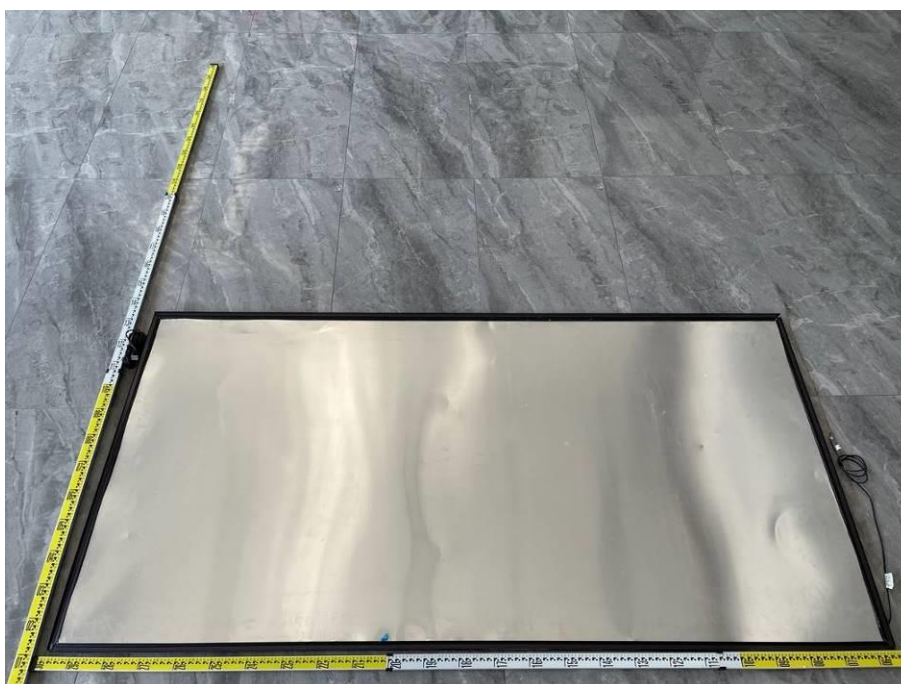
Internal view of CS-LPPR-CT-80-24



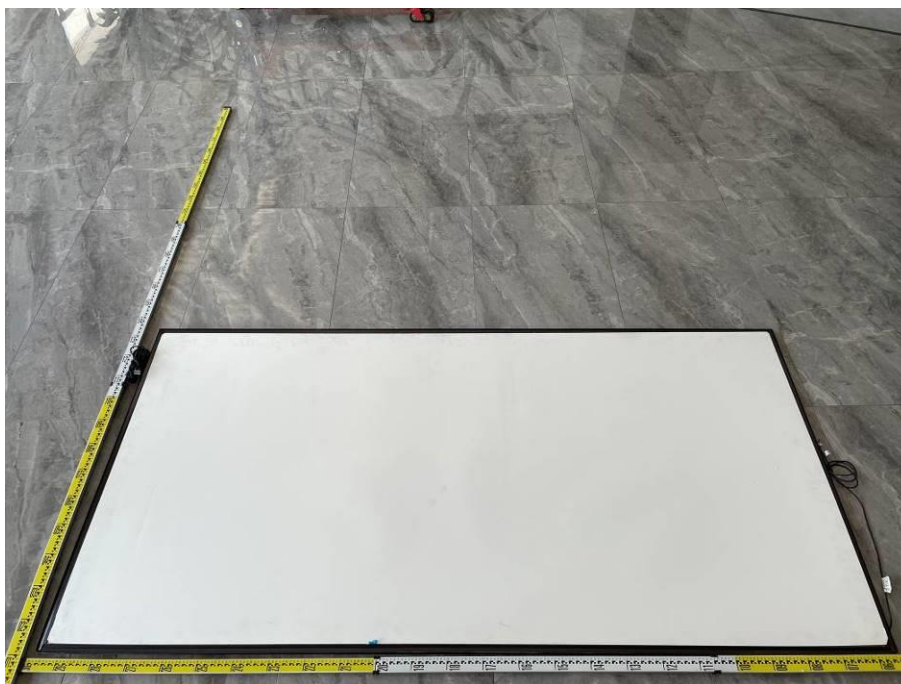
LEDs view of CS-LPPR-CT-80-24

Attachment 4: Product photo

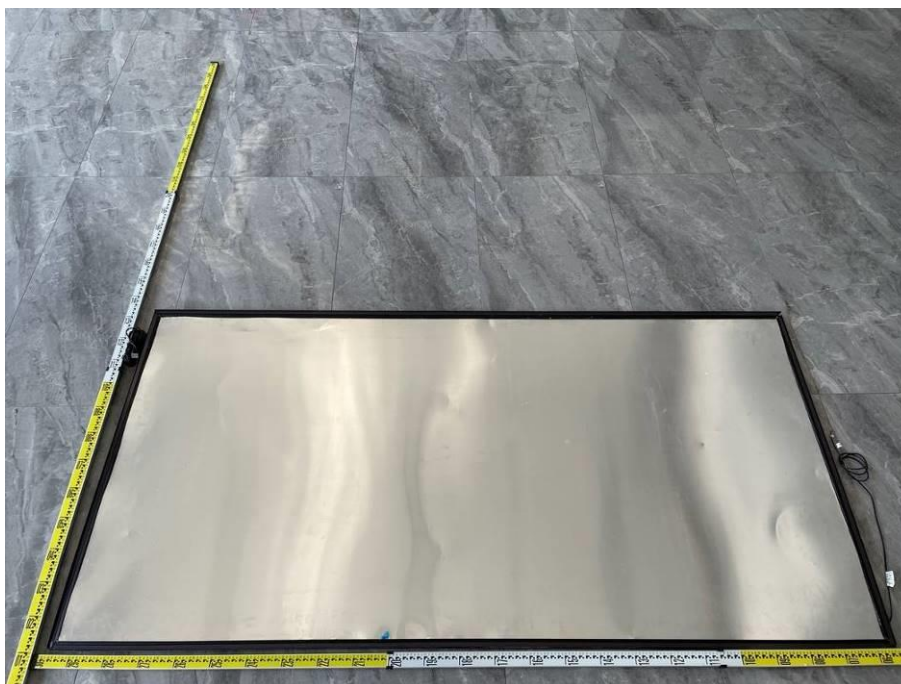
Overview of CS-LYPF-CT-120-12



Bottom view of CS-LYPF-CT-120-12

Attachment 4: Product photo

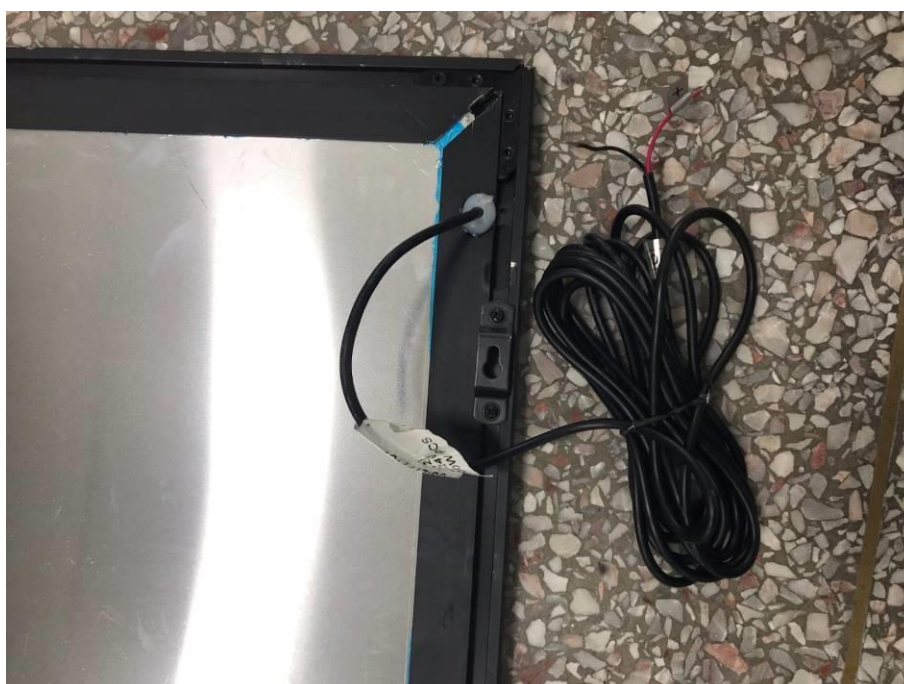
Overview of CS-LYPF-CT-120-24



Bottom view of CS-LYPF-CT-120-24

Attachment 4: Product photo

Wire entry view of CS-LYPF-CT-120-24, CS-LYPF-CT-120-12



Internal view of CS-LYPF-CT-120-24, CS-LYPF-CT-120-12

Attachment 4: Product photo

Internal view of CS-LYPF-CT-120-24, CS-LYPF-CT-120-12



LEDs view of CS-LYPF-CT-120-24, CS-LYPF-CT-120-12

Attachment 4: Product photo



Overview of CS-LBPR-CCT-960-24



Bottom view of CS-LBPR-CCT-960-24

Attachment 4: Product photo

Wire entry view of CS-LBPR series



Internal view of CS-LBPR-CCT-960-24

IEC 60598-2-1

Attachment 4: Product photo

Internal view of CS-LBPR-CCT-960-24



LEDs view of CS-LBPR-CCT-960-24

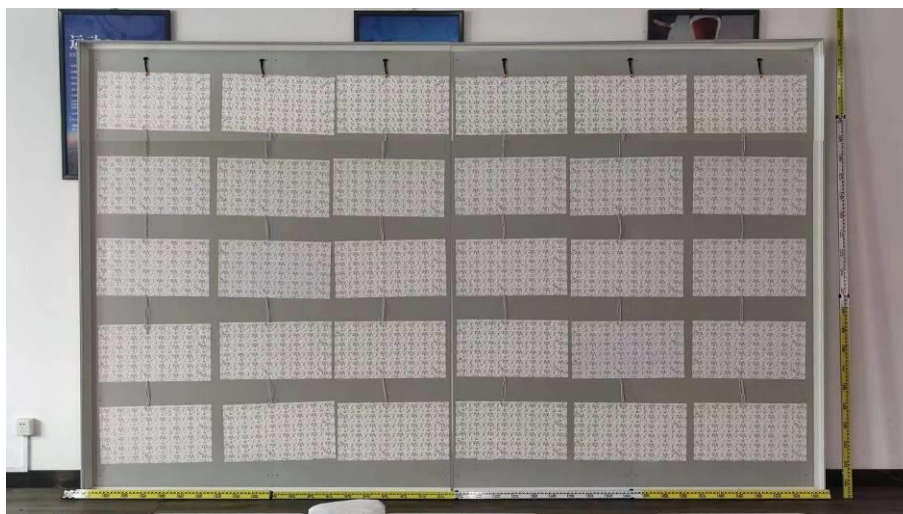
Attachment 4: Product photo



Overview of CS-LBPF-CCT-960-24



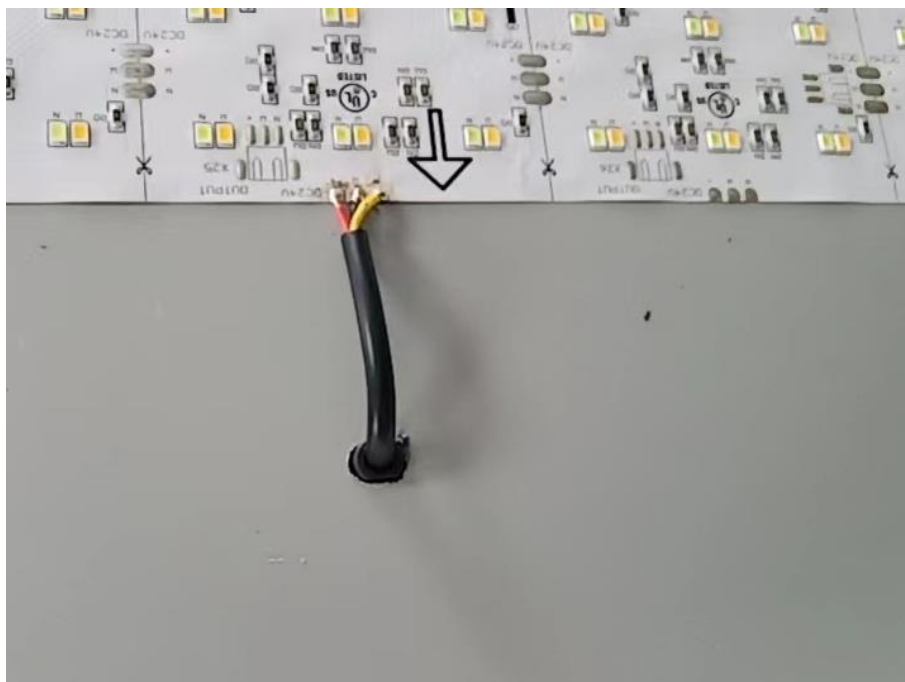
Bottom view of CS-LBPF-CCT-960-24

Attachment 4: Product photo

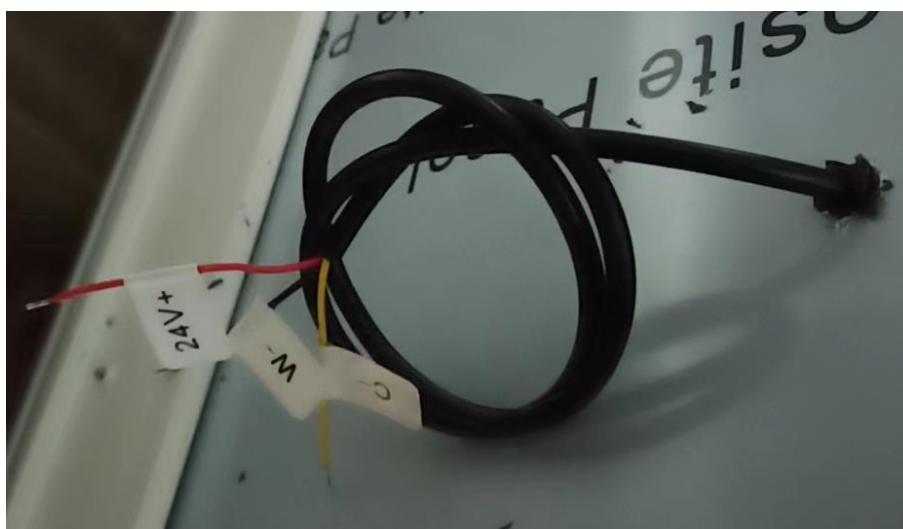
Internal view of CS-LBPF-CCT-960-24



LEDs view of CS-LBPF-CCT-960-24

Attachment 4: Product photo

Internal view of CS-LBPF-CCT-960-24



Wire entry view of CS-LBPF-CCT-960-24

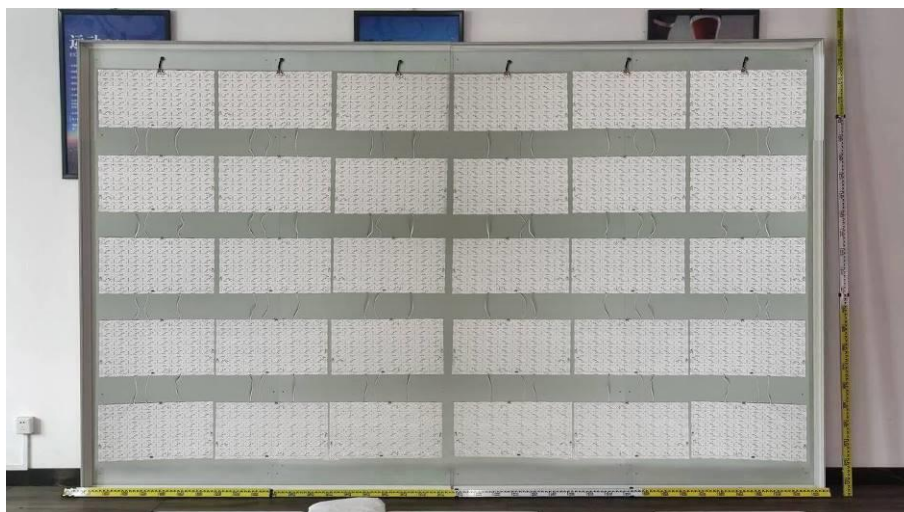
Attachment 4: Product photo



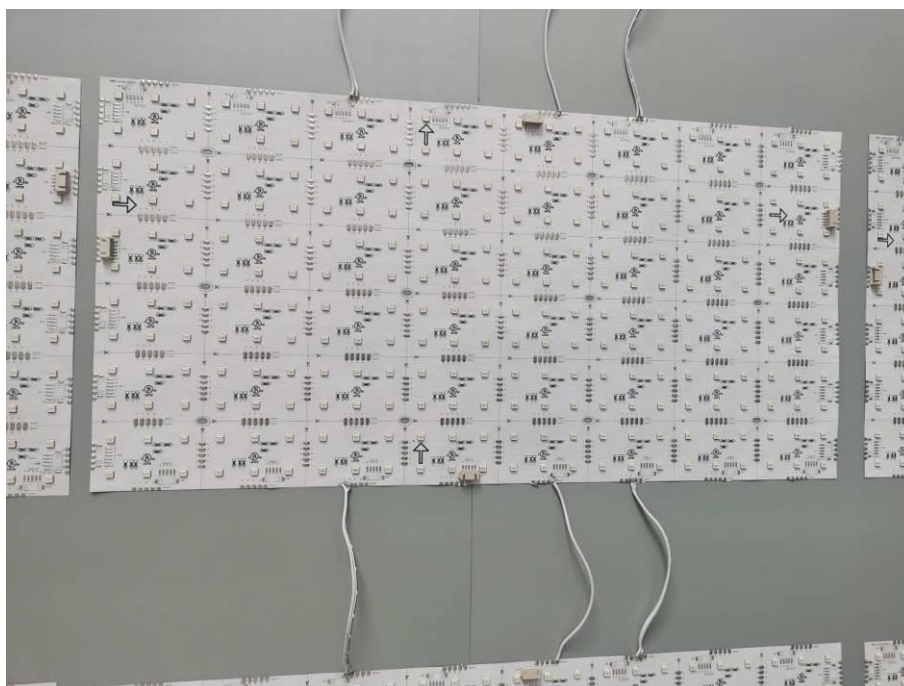
Overview of CS-LBPF-RGBW-960-24



Bottom view of CS-LBPF-RGBW-960-24

Attachment 4: Product photo

Internal view of CS-LBPF-RGBW-960-24



LEDs view of CS-LBPF-RGBW-960-24

-END-