



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..... : 202300869IST

Date of issue..... : 10.08.2023

Total number of pages : 46

**Name of Testing Laboratory
preparing the Report :** Intertek Test Hizmetleri A.S. Electrical Laboratory

Applicant's name : BSI Aydınlatma Elektrik Elektronik San. ve Tic. A.Ş.

Address..... : Baskent OSB, 20.Cad. B/3 Blok No:4 Maliköy, Sincan, Ankara /
Türkiye

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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Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.**

General disclaimer:

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

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Test item description :	Outdoor ceiling luminaire
Trade Mark(s)	
Manufacturer	BSI Aydınlatma Elektrik Elektronik San. ve Tic. A.Ş.
Model/Type reference	IC6321, IC6322, IC6323, IC6324, IC6325, IC6326, IC6327
Ratings	220-240V, 50-60Hz Rated power varies 9W to 54W, Class I Armature Part=IP65, Body Part=IP55, Control gear=IP67 IC6321 for Ta value 40°C, IC6327 for Ta value 60°C

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☒	CB Testing Laboratory:	Intertek Test Hizmetleri A.S. Electrical Laboratory
Testing location/ address.....:		Merkez Mahallesi Sanayi Caddesi No:23 Altındağ Plaza 34197 Yenibosna/İstanbul/Türkiye
Tested by (name, function, signature).....:		Özgür AYDIN Project Engineer
Approved by (name, function, signature)....:		İhsan HAMZAÇEBİ Senior Project Engineer
☐	Testing procedure: CTF Stage 1:	
Testing location/ address.....:		
Tested by (name, function, signature).....:		
Approved by (name, function, signature)....:		
☐	Testing procedure: CTF Stage 2:	
Testing location/ address.....:		
Tested by (name + signature)		
Witnessed by (name, function, signature) .:		
Approved by (name, function, signature)....:		
☐	Testing procedure: CTF Stage 3:	
☐	Testing procedure: CTF Stage 4:	
Testing location/ address.....:		
Tested by (name, function, signature).....:		
Witnessed by (name, function, signature) .:		
Approved by (name, function, signature)....:		
Supervised by (name, function, signature) :		

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

EN IEC 60598-2-1:2021 used in conjunction with
EN IEC 60598-1:2021 + AMD11:2022 (2 page)

Attachment II:

-Photos (6 pages)

Summary of testing: The EUT is in compliance with the requirements of the applied standards within this test report.

Tests performed (name of test and test clause):

IEC 60598-2-1:2020
IEC 60598-1:2020

EN IEC 60598-2-1:2021
EN IEC 60598-1:2021

The EN requirements listed above also added to this TRF, see appendixes at the end of this report for differences.

IC6327 model complete tested.

IC6231 model CL7.2, CL9.3, CL 10.2.2, CL10.3, CL12.4 tests have been completed.

Testing location:

Intertek Test Hizmetleri A.S. Electrical Laboratory
Merkez Mahallesi Sanayi Caddesi No:23 Altındağ
Plaza 34197 Yenibosna/İstanbul/Türkiye

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

European Group Differences, National Differences (CENELEC) except United Kingdom, Ireland and Denmark

☒ **The product fulfils the requirements of EN 60598-2-1:2021 EN 60598-1:2021**

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)

LMS-EMEATR-QC-12, 07.02.2023, ELEKTRİK LABORATUVARI DOĞRULAMA VERİFİKASYON BELİRSİZLİK HESAPLAMA PROSEDÜRÜ

LMS-EMEA-TR-FM-16, 15.11.2021, ELEKTRİK LABORATUVARI METROLOJİK İZLENEBİLİRLİK PROSEDÜRÜ

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

Information on uncertainty of measurement:

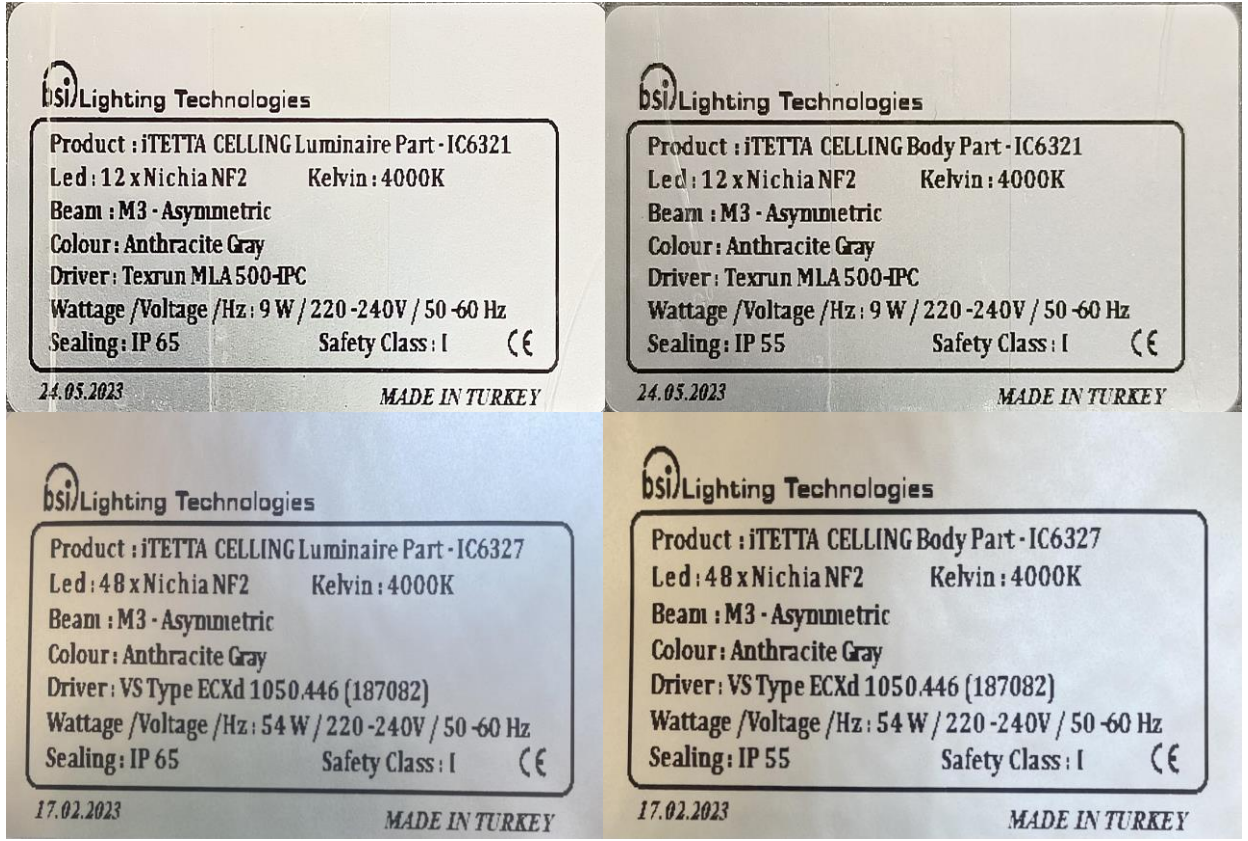
The uncertainties of measurement are calculated by the laboratory based on application of criteria given by OD-5014 for test equipment and application of test methods, decision sheets and operational procedures of IECEE.

IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE 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.



Test item particulars.....:	Outdoor ceiling luminaire
Classification of installation and use.....:	Class I luminaire for outdoor use
Supply Connection	Type Y attachment, connection for permanent connection
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	23.02.2023
Date (s) of performance of tests	23.03.2023-03.07.2023
General remarks:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. The whole and/or the part of this report shall not be reproduced and shall not be shared with third parties, nor to be used for juridical – official and PR activities without the written permission of Intertek Test Hizmetleri A.S. The results given herein apply to the submitted sample only. Reports are invalid without signature / seal. The Intertek Turkey Electrical Laboratory applies the shared risk decision rule. The results are reported with an expanded uncertainty calculated using a coverage factor k of 2 which gives a level of confidence of approximately 95%. The product or test method requires a declaration of conformity in the laboratory report. However, if there is no information about the effects of confidence level and measurement uncertainty in evaluating the conformity with the relevant standards or legislation, the laboratory can evaluate whether the obtained test result is within the specified limits or not as appropriate or not, without considering the level of confidence and measurement uncertainty. Throughout this report a ☐ comma / ☒ point is used as the decimal separator.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60598-2-1:	
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 Only one factory
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies)	BSI Aydınlatma Elektrik Elektronik San. ve Tic. A.Ş. Başkent OSB, 20.Caddesi B/3 Blok No:4 Maliköy, Sincan, Ankara / Türkiye

General product information and other remarks:

The luminaire tested is an outdoor ceiling luminaire and has IP55 ingress protection against dust and water.

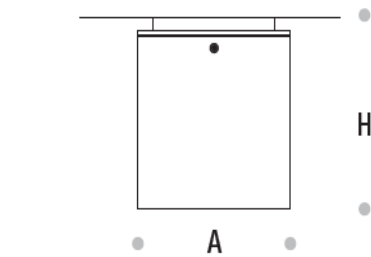
The IC6327 tested is the highest model, with 220-240VAC 50-60Hz and 54W electrical ratings. The other model tested IC6321, is the lowest model and has 220-240VAC 50-60Hz and 9W electrical ratings. Rated power varies 9W to 54W, Class I

The tested luminaire includes the LED driver, the LED module, the supply cable and the connecting device for the supply cable.

This test report also covers the models listed below:

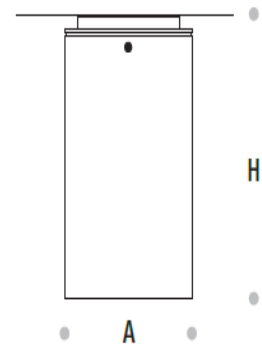
CODE	POWER CONSUMPTION 350mA	LUMEN OUTPUT (lm) 3000K / 4000K	COLOUR TEMPERATURE	A (mm)	H (mm)
IC6321	9W	1215 / 1278	3000K / 4000K	100	165
IC6322	12W	1620 / 1704	3000K / 4000K	100	167
IC6323	16W	2160 / 2272	3000K / 4000K	150	167
IC6324	19W	2565 / 2698	3000K / 4000K	150	167
IC6325	27W	3645 / 3834	3000K / 4000K	150	167
IC6326	41W	5535 / 5822	3000K / 4000K	150	167
IC6327	54W	7290 / 7668	3000K / 4000K	150	167

-Differences between models are rated power, dimensions and LED modules.



TOP VIEW

IC6321 / IC6322



TOP VIEW

IC6323 / IC6324 / IC6325 / IC6326 / IC6327

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

1.4 (0)	GENERAL TEST REQUIREMENTS		P
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	IEC 62031	—
	Luminaire design in the light source safety standard		P
1.5 (2)	CLASSIFICATION OF LUMINAIRES		P
1.5 (2.2)	Type of protection	Class I	P
1.5 (2.3)	Degree of protection..... :	Luminaire Part=IP65 Body Part=IP55 Control gear=IP67	—
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		P
1.6 (3.2)	Mandatory markings		P
	Position of the marking	On the base plate	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	No combination of luminaire	N/A
1.6 (3.3.2)	Nominal frequency in Hz	50-60Hz	P
1.6 (3.3.3)	Operating temperature	-40°C / +55°C	P
1.6 (3.3.5)	Wiring diagram	Provided in installation guide	P
1.6 (3.3.6)	Special conditions	No special condition	N/A
1.6 (3.3.7)	Metal halide lamp luminaire – warning	No metal halide lamp	N/A
1.6 (3.3.8)	Limitation for semi-luminaires	No semi-luminaire	N/A
1.6 (3.3.9)	Power factor and supply current	>0.95	P
1.6 (3.3.10)	Suitability for use indoors	Outdoor use	N/A
1.6 (3.3.11)	Luminaires with remote control	No remote control	N/A
1.6 (3.3.12)	Clip-mounted luminaire – warning	No clip-mounted luminaire	N/A
1.6 (3.3.13)	Specifications of protective shields	No protective shield	N/A
1.6 (3.3.14)	Symbol for nature of supply	220-240V 50-60Hz	P
1.6 (3.3.15)	Rated current of socket outlet	No socket outlet incorporated in the luminaire	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	Y type connection	P
1.6 (3.3.18)	Non-ordinary luminaires with PVC cable		P
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		P
1.6 (3.3.22)	Controllable luminaires, classification of insulation provided	No controllable luminaire	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		P
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		N/A
1.6 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test	Legible after the tests	P
	Label attached		P
1.7 (4)	CONSTRUCTION		P
1.7 (4.2)	Components replaceable without difficulty		P
1.7 (4.3)	Wireways smooth and free from sharp edges	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)	No lamp holder	—
	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
	- bending test (N)	No lamp holder	—
	After test 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
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	No starter holder	N/A
	Starter holder class II construction		N/A
1.7 (4.6)	Terminal blocks		N/A
	Tails	No supply lead	N/A
	Unsecured blocks		N/A
1.7 (4.7)	Terminals and supply connections		P
1.7 (4.7.1)	Contact to metal parts	No frequently adjusted luminaire	N/A
1.7 (4.7.2)	Test 8 mm live conductor	Live conductor is enclosed by connecting device.	P
	Test 8 mm earth conductor		P
1.7 (4.7.3)	Terminals for supply conductors	Certified connecting device is in use	P
1.7 (4.7.3.1)	Welded method and material		P
	- stranded or solid conductor	No such construction	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		N/A
1.7 (4.7.5)	Heat-resistant wiring/sleeves	Suitable	N/A
1.7 (4.7.6)	Multi-pole plug	No plug	N/A
	- test at 30 N		N/A
1.7 (4.8)	Switches		N/A
	- adequate rating	No switch	N/A
	- adequate fixing		N/A
	- polarized supply		N/A
	- compliance with IEC 61058-1 for electronic switches		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7 (4.9)	Insulating lining and sleeves		N/A
1.7 (4.9.1)	Retainment		N/A
	Method of fixing :	No sleeve or lining	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		P
1.7 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation	Class I luminaire	N/A
	Safe installation fixed luminaires		N/A
	Capacitors and switches		N/A
1.7 (4.10.2)	Assembly gaps:		P
	- not coincidental		P
	- no straight access with test probe	No straight access to live part	P
1.7 (4.10.3)	Retainment of insulation:		N/A
	- fixed	Class I luminaire	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)	No protective impedance	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:		P
	- self-tapping screws		P
	- thread-cutting screws		N/A
1.7 (4.11.3)	Screw locking:		N/A
	- spring washer	No spring washer	N/A
	- rivets	No rivet	N/A
1.7 (4.11.4)	Material of current-carrying parts	Copper	P

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
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	No screw of insulating material	P
	Torque test: torque (Nm); part..... :	A 3.82mm screw is used in the grounding connection.1.2Nm torque is applied to this screw.	P
	Torque test: torque (Nm); part..... :	A 3.92mm screw is used for the connection to the outer cabinet.1.2Nm torque is applied to this screw.	P
	Torque test: torque (Nm); part..... :		P
1.7 (4.12.2)	Screws with diameter < 3 mm screwed into metal		P
1.7 (4.12.4)	Locked connections:		P
	- fixed arms; torque (Nm)	1.2 Nm	P
	- lamp holder; torque (Nm)	No lamp holder	N/A
	- push-button switches; torque 0,8 Nm	No switch	N/A
1.7 (4.12.5)	Screwed glands; force (Nm)..... :	Plastic gland, 7.5Nm	P
1.7 (4.13)	Mechanical strength		P
1.7 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm)	0.5	P
	- other parts; energy (Nm)	0.7	P
	1) live parts	Not accessible after the test	P
	2) linings	No lining	N/A
	3) protection	No damage observed that could impair IP65	P
	4) covers	No damage on the enclosure or glass cover on the front side	P
1.7 (4.13.2)	Metal parts have adequate mechanical strength	Pressed with 30N against the metal surface	P
1.7 (4.13.3)	Straight test finger	In compliance	P
1.7 (4.13.4)	Rough service luminaires		N/A
	- IP54 or higher	No rough service luminaire	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

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
V1.7 (4.13.6)	Tumbling barrel		N/A
1.7 (4.14)	Suspensions, fixings and means of adjusting		N/A
1.7 (4.14.1)	Mechanical load:		N/A
	A) four times the weight		N/A
	B) torque 2,5 Nm	No rigid suspension luminaire	N/A
	C) bracket arm; bending moment (Nm)..... :		N/A
	D) load track-mounted luminaires	No track mounted luminaire	N/A
	E) clip-mounted luminaires, glass-shelve. Thickness (mm)	No clip-mounted luminaire	N/A
	Metal rod. diameter (mm)	Same as above	N/A
	Fixed luminaire or independent control gear without fixing devices		N/A
1.7 (4.14.2)	Load to flexible cables		N/A
	Stress in conductors (N/mm ²)		N/A
	Mass (kg) of semi-luminaire		N/A
	Bending moment (Nm) of semi-luminaire	No telescopic tube	N/A
1.7 (4.14.3)	Adjusting devices:		N/A
	- flexing test; number of cycles..... :		N/A
	- strands broken..... :		N/A
	- electric strength test afterwards		N/A
1.7 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors	No telescopic tube	N/A
1.7 (4.14.5)	Guide pulleys	No pulley	N/A
1.7 (4.14.6)	Strain on socket-outlets	No socket-outlet	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	Plastic covers withstand the 650°C GWT	N/A
	- screen withstanding test of 13.3.1		N/A
	- screen dimensions		N/A
	- no fiercely burning material		P
	- thermal protection	LED driver	P
	- electronic circuits exempted		N/A
1.7 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		N/A
	a) construction	No luminaire made of thermoplastic material	N/A
	b) temperature sensing control		N/A
	c) surface temperature		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7 (4.16)	Luminaires for mounting on normally flammable surfaces		P
	No lamp control gear :	Controlgear is provided with luminaire	P
	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:		P
	- in lamp control gear	 On controlgear	P
	- external		N/A
	- fixed position		N/A
	- temperature marked lamp control gear	Marked on the control gear	P
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		P
1.7 (4.18.1)	- rust-resistance	No sign of rust	P
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)	Ignitors 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	No protective shield	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

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.7 (4.24.2)	Retinal blue light hazard		P
	Class of risk group assessed according to IEC/TR 62778		—
	Luminaires with E_{thr} :		P
	a) Fixed luminaires		N/A
	- distance x m, borderline between RG1 and RG2 .. :	Risk Group 2	P
	- marking and instruction according 3.2.23		P
	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
	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 ($^{\circ}\text{C}$)		—
	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
1.7 (4.29)	Luminaires with non-replaceable light source		N/A
	Not possible to replace light source	Non-user replaceable light source	N/A
	Live part not accessible after parts have been opened by hand or tools		N/A
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	Control gear for IC6327; -Vossloh-Schwabe Type ECXd 1050.446 Control gear for IC6321; -Texrun MLA 500-IPC	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	No controllable luminaire	N/A
1.7 (4.31.1)	SELV or PELV circuits		P
	Used SELV/PELV source	Control gear for IC6327; -Vossloh-Schwabe Type ECXd 1050.446 Control gear for IC6321; -Texrun MLA 500-IPC	P
	Voltage $\leq$ ELV		P
	Insulating of SELV/PELV circuits from LV supply		N/A
	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	No plug	N/A
	Socket outlets does not admit plugs of other voltage systems	No socket outlet	N/A
	Plugs and socket-outlets does not have protective conductor contact		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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	No overvoltage protective device	N/A
	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		N/A
1.7 (4.34)	Electromagnetic fields (EMF)		N/A
	No harmful electromagnetic fields		N/A
1.7 (4.35)	Protection against moving fan blades		N/A
	Test with a standard test finger		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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		P
1.8 (11.2.1)	Impulse withstand category (Normal category II)	Category II ☒ Category III ☐	—
	Category III according Annex U		P
	Protected against pollution, reduced creepage and clearance according Annex P of IEC 61347-1		P
1.8 (11.2.2)	Creepage distances for frequency up to 30 kHz	See Test Table 1.8 (11.2) I	P
	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
1.8 (11.2.3)	Clearances for frequency up to 30 kHz	See Test Table 1.8 (11.2) I	P
	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
1.9 (7)	PROVISION FOR EARTHING		P
1.9 (7.2.1 + 7.2.3)	Accessible metal parts		P
	Metal parts in contact with supporting surface		P
	Resistance $< 0,5 \Omega$:	IC 6321 for 0.24Ω , IC 6327 for 0.39Ω Maximum measured	P
	Self-tapping screws used	Not in use	N/A
	Thread-forming screws	Not in use	N/A
	Thread-forming screw used in a grove		N/A
	Protective earth makes contact first	No such construction	N/A
	Terminal blocks with integrated screwless protective earthing contacts tested according Annex V	No such component is in use	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Protective earthing of the luminaire not via built-in control gear	Control gear enclosure is earthed, protective earthing is not provided through control-gear	P
1.9 (7.2.2 + 7.2.3)	Protective earth continuity in joints, etc.		P
1.9 (7.2.4)	Locking of clamping means		N/A
	Compliance with 4.7.3	Base plate of control gear is fixed by two screws to the cooling fins of the LED module, metal frame for LED module is also fixed to the metal enclosure by four set screws	P
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		P
1.9 (7.2.7)	Electrolytic corrosion of the protective earth terminal		P
1.9 (7.2.8)	Material of protective earth terminal		P
	Contact surface bare metal		P
1.9 (7.2.10)	Class II luminaire for looping-in	Class I luminaire	P
	Double or reinforced insulation to functional earth		N/A
1.9 (7.2.11)	Protective earthing core coloured green-yellow	Green-yellow coloured	P
	Length of protective earthing conductor		P
1.9 (7.2.12)	PELV circuit connected to protective earth for functional purpose		P
1.10 (14)	SCREW TERMINALS		P
	Separately approved; component list	(see Annex 1)	P
	Part of the luminaire	(see Annex 3)	P
1.10 (15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		P
	Separately approved; component list..... :	(see Annex 1)	P
	Part of the luminaire		N/A
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	Supply cord for permanent connection	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	No PVC insulated external wiring	N/A
1.11 (5.2.2)	Type of cable	H05RN-F	P
	Nominal cross-sectional area (mm ²)	0.75	P
	Cables equal to IEC 60227 or IEC 60245	60245 IEC 57	P

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Clause	Requirement + Test	Result - Remark	Verdict
1.11 (5.2.3)	Type of attachment, X, Y or Z	Type Y attachment	P
1.11 (5.2.5)	Type Z not connected to screws	No Type Z attachment	N/A
1.11 (5.2.6)	Cable entries:		P
	- suitable for introduction		P
	- adequate degree of protection	Luminaire Part=IP65 Body Part=IP55 Control gear=IP67	P
1.11 (5.2.7)	Cable entries through rigid material have rounded edges	Rounded edges	P
1.11 (5.2.8)	Insulating bushings:		N/A
	- suitably fixed	Class I luminaire	N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- tubes or guards made of insulating material		N/A
1.11 (5.2.9)	Locking of screwed bushings	No screwed bushing	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
	a) at least one part fixed	No Type X attachment	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	Type Y, adequate anchorage for supply cord	P
1.11 (5.2.10.3)	Tests:		P
	- impossible to push cable; unsafe		P
	- pull test: 25 times; pull (N)..... :	120N	P

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Clause	Requirement + Test	Result - Remark	Verdict
	- torque test: torque (Nm) :	0.25	P
	- displacement ≤ 2 mm	1.81	P
	- no movement of conductors		P
	- no damage of cable or cord		P
	- function independent of electrical connection		N/A
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		P
1.11 (5.2.11)	External wiring passing into luminaire	No external wiring	N/A
1.11 (5.2.12)	Looping-in terminals		N/A
1.11 (5.2.13)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow	Considered for supply cord, no cold flow	P
1.11 (5.2.14)	Mains plug same protection	No plug	N/A
	Class III luminaire plug	Class I luminaire	N/A
	No unsafe compatibility		N/A
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)	No appliance coupler	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	No interconnecting cable	N/A
1.11 (5.2.18)	Used plug in accordance with		N/A
	- IEC 60083	Not intended to be connected to the supply mains via socket outlet	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

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Clause	Requirement + Test	Result - Remark	Verdict
	Through wiring		P
	- not delivered/ mounting instruction		N/A
	- factory assembled		N/A
	- socket outlet loaded (A)		N/A
	- temperatures	(see Annex 2)	P
	Green-yellow for protective earth only		P
1.11 (5.3.1.1)	Internal wiring connected directly to fixed wiring		N/A
	Cross-sectional area (mm ²)	No internal wiring connected directly to the fixed wiring	N/A
	Insulation thickness (mm)		N/A
	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)	Considered for supply cord conductors, 1.0 mm, control gear is considered as current limiting device	P
1.11 (5.3.1.3)	Double or reinforced insulation for class II	Class I luminaire	N/A
1.11 (5.3.1.4)	Conductors without insulation	No conductor without insulation	N/A
1.11 (5.3.1.5)	SELV/PELV current-carrying parts	Insulated and tested according to section 10	N/A
1.11 (5.3.1.6)	Insulation thickness other than PVC or rubber		P
1.11 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.	No moving part locates inside the enclosure	N/A
	Joints, raising/lowering devices		P
	Telescopic tubes etc.	No telescopic tube	N/A
	No twisting over 360°		N/A
1.11 (5.3.3)	Insulating bushings:		N/A
	- suitable fixed	Class I luminaire	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	Insulated adequately	P
1.11 (5.3.5)	Strain on internal wiring	No strain on wiring	P
1.11 (5.3.6)	Wire carriers	No wire carries	N/A
1.11 (5.3.7)	Wire ends not tinned		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Wire ends tinned: no cold flow	No cold flow	P
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	No basic insulated part on outer surface	P
	Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires	Basic insulation is not accessible. Adjustable luminaire	P
	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	No lampholder/starterholder	N/A
	Basic insulation only accessible under lamp or starter replacement		N/A
	Protection in any position		P
	Double-ended tungsten filament lamp	No filament lamp	N/A
	Insulation lacquer not reliable	No insulation lacquer	N/A
	Double-ended high-pressure discharge lamp	No discharge lamp	N/A
	Relevant warning according to 3.2.18 fitted to the luminaire	No ignitor	N/A
1.12 (8.2.2)	Portable luminaire adjusted in most unfavourable position	No portable luminaire	N/A
1.12 (8.2.3.a)	Class II luminaire:		N/A
	- basic insulated metal parts not accessible	Class I luminaire	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	No lampholder	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).....:	No SELV circuit with exposed current carrying part	N/A
	- voltage under load/ no-load DC (V).....:		N/A
	- interrupted DC voltage (V)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- 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	No portable luminaire	N/A
1.12 (8.2.5)	Compliance with the standard test finger or relevant probe	No access to live parts	P
1.12 (8.2.6)	Covers reliably secured	Adequate mechanical strength and 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	No portable luminaire	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	No plug or track adaptor	N/A
1.13 (12)	ENDURANCE TEST AND THERMAL TEST		P
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	Mounted on supporting surface as in normal use	—
	b) test temperature (°C).....	30	—

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Clause	Requirement + Test	Result - Remark	Verdict
	c) total duration (h)	240	—
	d) supply voltage (V)	264	—
	d) if not equipped with control gear, constant voltage/current (V) or (A)	Equipped with control gear	—
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	Functional and operates after the test	—
	f) luminaire with constant light output function		P
1.13 (12.3.2)	After endurance test:		P
	- no part unserviceable	All parts are still functional	P
	- luminaire not unsafe	No unsafe condition is observed	P
	- no damage to track system	No track system	N/A
	- marking legible	Legible	P
	- no cracks, deformation etc.	No deformation on luminaire	P
1.13 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
1.13 (12.5)	Thermal test (abnormal operation)	Approved LED driver considered to meet requirements of abnormal condition according to Cl.14 of IEC 61347-1	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)	Compliance provided with Cl.4.16.2	—
	- 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

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Clause	Requirement + Test	Result - Remark	Verdict
	- 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 $\leq 70W$		N/A
	Test method 12.7.1.1 or Annex W	No plastic luminaire	—
	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)		—
	Ball-pressure test.....		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.....		N/A
1.13 (12.7.1.3)	Luminaire with short circuit proof transformers $\leq 10 VA$		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 ☐	—

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Clause	Requirement + Test	Result - Remark	Verdict
	- case of abnormal conditions		—
	- highest measured temperature of fixing point/ exposed part (°C):		—
	Ball-pressure test:		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		P
1.14 (9.2)	Tests for ingress of dust, solid objects and moisture:		P
	- classification according to IP	Luminaire Part=IP65, Body Part=IP55, Control gear=IP67	—
	- mounting position during test	Mounts to ceiling as in normal use	—
	- fixing screws tightened; torque (Nm)	3.82mm screw is used in the grounding connection.1.2Nm torque is applied to this screw. 3.92mm screw is used for the connection to the outer cabinet.1.2Nm torque is applied to this screw.	—
	- tests according to clauses	9.2.0, 9.2.1, 9.2.2, 9.2.7	—
	- electric strength test afterwards	No breakdown	P
	a) no deposit in dust-proof luminaire		N/A
	b) no talcum in dust-tight luminaire	There is a talcum powder deposit inside the housing	P
	c) no trace of water on current-carrying parts or on insulation where it could become a hazard		P
	c.1) For luminaires without drain holes – no water entry		N/A
	c.2) For luminaires with drain holes – no hazardous water entry		P
	d) no water in watertight, pressure watertight, high pressure and temperature water jet-proof or high pressure and cold water jet-proof luminaire	Powerful water jet-proof luminaire	P
	e) no contact with live parts (IP 2X)	IP55, no contact with live part	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	Body Part=IP55 Luminaire Part=IP65	P
	g) no damage of protective shield or glass envelope		P
1.14 (9.3)	Humidity test 48 h	25°C and 93% RH	P

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.15 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		P
1.15 (10.2.1)	Insulation resistance test	100V 1 minute for SELV 500V 1 minute for other parts	P
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø	Covered with metal foil	—
	Insulation resistance (MΩ): Measurement result for model IC6321 0.24Ω Measurement result for model IC6327 0.39Ω		P
	SELV/PELV:		N/A
	- between current-carrying parts of different polarity :	No bushing	N/A
	- between current-carrying parts and mounting surface		N/A
	- between current-carrying parts and metal parts of the luminaire		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts		N/A
	- Insulation bushings as described in Section 5		N/A
	Other than SELV/PELV:		P
	- between live parts of different polarity	>4 MΩ	P
	- between live parts and mounting surface	>4 MΩ	P
	- between live parts and metal parts	>4 MΩ	P
	- between live parts of different polarity through action of a switch	No 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	>4 MΩ	P
	- Insulation bushings as described in Section 5	No bushing	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):	500V for SELV part 1500V for other parts	P
	SELV/PELV:		P
	- between current-carrying parts of different polarity :	500V	P
	- between current-carrying parts and mounting surface	500V	P
	- between current-carrying parts and metal parts of the luminaire	500V	P

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Clause	Requirement + Test	Result - Remark	Verdict

	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	500V	P
	- Insulation bushings as described in Section 5	No bushing	N/A
	Other than SELV/PELV:		
	- between live parts of different polarity	1480V	P
	- between live parts and mounting surface	1480V	P
	- between live parts and metal parts	1480V	P
	- 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	1480V	P
	- Insulation bushings as described in Section 5	No bushing	N/A
1.15 (10.3)	Touch current (mA).....	IC6321 for:0,10mA - 0.05mA IC6327 for:0.3mA - 0.05mA	P
	Protective conductor current (mA).....		P
1.16 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		P
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
1.16 (13.4)	Proof tracking test (IEC 60112)	See Test Table 1.16 (13.4)	P

1.8 (11.2)	TABLE I: Creepage distances and clearances						P
	Minimum distances (mm) for a.c. up to 30 kHz sinusoidal voltages						P
	Applicable part of IEC 60598-1 Table 11.1.A*, 11.1.B* and 11.2*						P
	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:	B	>2mm	1.5mm	11.1.B	>5mm	2.5mm	11.1.A
Working voltage (V)					240		—
PTI					< 600 ☒ ≥ 600 ☐		—
Pulse voltage or U_P if applicable (kV)							—
Supplementary information:							
Distance 2:	S	>3mm	1.5mm	11.1.B	>5mm	2.5mm	11.1.A
Working voltage (V)							—
PTI					< 600 ☒ ≥ 600 ☐		—
Pulse voltage or U_P if applicable (kV)							—

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Clause	Requirement + Test	Result - Remark	Verdict

Supplementary information:							
Distance 3:	R	>6mm	3mm	11.1.B	>10mm	5mm	11.1.A
Working voltage (V)					240		—
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.

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		—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
Cable Gland	REKSAN	75	0.773	
Cable Gland	REKSAN	125	1.338	
Terminal Cover	THR.390.S3D	125	0.663	
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
PCB for LED module	Msm Aydınlatma	30	No	0	Pass
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)	
Inner terminal	THR.390.S3D	X (No Flame)	X (No Flame)	--	P
Cable gland	REKSAN	X (No Flame)	X (No Flame)	--	P
Outer Plastic	THR.390.S3D	X (No Flame)	X (No Flame)	--	P
Ignition of the specified layer placed underneath the test specimen (Yes/No)..... :					No
Supplementary information: No burning was observed.					

1.16 (13.4)	TABLE: Proof tracking test				P
Test voltage PTI		175 V			—
Object/ Part No./ Material	Manufacturer/ trademark	Withstand 50 drops without failure on three places or on three specimens			Verdict
PCB for LED module	Msm Aydınlatma	30	No	0	Pass
Supplementary information:					

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Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	TABLE: Critical components information						P
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾	
LED Driver	C	Vossloh Schwabe	Type ECXd 1050.446 Ref No: 187082	Constant voltage Input: 100-200Vac Ta:50°C 200-240Vac Ta:60°C Output: 54-108Vdc IP67 Tc:90°C SELV	EN 61347-1 EN 61347-2-13 EN 61547 EN 62384 EN 55015 EN 61000-3-2	CB Certf. DE 2-029013-M2 TÜVRheinland 2022-03-03	
LED Module	C	Msm Aydınlatma	MSM-001 V-1.0	60mmx50mm x1.50mm There are a total of 12 smd LEDs on the card	IEC 62031 IEC 60598-1 IEC 60598-2-1	Report No: Intertek 202300870IST T Tested in appliance	
LED	C	Nichia	NF2L757DRT-V1	7.1 V Surface Mount White 150mA 3 x 3 x 0.52mm RG2	IEC/EN 62471	NICHIA Test Report No: SQETB18110 201L	
Cable Gland	C	REKSAN	PG7	MS 58 IP68 -40°C +80°C	IEC 60598-1 IEC 60598-2-1	Tested in appliance	
Supply Cord	C	PAMUKKALE	H05VV-F	3 X 0.75 mm ²	EN 50525-2-11	001025-TSE-08/01	
Connector	C	TECHNO	THR.390.S3D	IP68	IEC 60598-1 IEC 60598-2-1	Tested in appliance	
Lens	C	LIMBUS	TLS-12NI-STL-ME3	ASYM 50x50x4.79 mm	IEC 60598-1 IEC 60598-2-1	Tested in appliance	

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		P
	Type reference	IC6327, IC6321	—
	Lamp used.....	NICHIA NF2 series	—
	Lamp control gear used	IC6327; Vossloh-Schwabe Type ECXd 1050.446 IC6321; Texrun MLA 500-IPC	—
	Mounting position of luminaire	Mounted on horizontal support as in normal use	—
	Supply wattage (W)	IC6327 for 59.76W IC6321 for 10.50W	—
	Supply current (A)	IC6327 = 0.27A IC6321 = 0.054A	—
	Temperatures in test 1 - 4 below are corrected for ta (°C)	IC6327 for 60°C IC6321 for 40°C	—
	- abnormal operating mode	No abnormal test performed for the electronic board. Certified LED driver for the standards EN 61000-3-2, EN 61347-1, EN 61347-2-13, EN 61547, EN 62384 and EN 55015. It is considered that Led driver meets the requirements for fault conditions and abnormal operating conditions due to thermal protection.	—
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	1.06x240V=254.4V	—
	- 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		—

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Clause	Requirement + Test	Result - Remark	Verdict

Temperature measurements (°C)							
IC6327	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Connection of the gland surface	25	48.5	--	--	85		
LED back plate surface	25	57.4	--	--	120		
Cooler surface	25	57.3	--	--	105		
TC Point	25	45.9	--	--	90		
Inner surface	25	32.7	--	--	90		
The driver surface	25	41.5	--	--	90		
Internal cable	25	27.7	--	--	105		
External surface	25	31.7	--	--	90		
The glass on the led surface	25	44.5	--	--	90		
Supplementary information: No adverse increase in temperatures was observed.							
Temperature measurements (°C)							
IC6321	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Connection of the gland	25	43.5	--	--	85		
Cooler	25	47.6	--	--	105		
TC Point	25	53	--	--	85		
Inner surface	25	32.7	--	--	90		
Internal cable	25	39.4	--	--	105		
External surface	25	31.4	--	--	90		
The glass on the led	25	47.9	--	--	90		
Supplementary information: No adverse increase in temperatures was observed.							

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) :		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..... :	No screwless 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

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Clause	Requirement + Test	Result - Remark	Verdict
(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		
	Terminal size and rating		N/A
15.6.2	Mechanical tests		
(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		
	Tests according 15.6.3.1 + 15.6.3.2 in IEC 60598-1		N/A

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

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

IEC60598_2_1I ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict

Attachment I:

ATTACHMENT 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
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IEC60598_2_1I ATTACHMENT			
Clause	Requirement + Test	Result - Remark	Verdict
	CENELEC COMMON MODIFICATIONS (EN)		P
1.6 (3)	MARKING		P
1.6 (3.2.12)	Note 4 deleted		P
1.7 (4)	CONSTRUCTION		N/A
1.7 (4.11.6)	Electro-mechanical contact systems: electric strength test at 1 500 V	No such construction	N/A
1.11 (5)	EXTERNAL AND INTERNAL WIRING		P
1.11 (5.2.2)	Cables equal to EN 50525 (all parts)	Suitable	P
	Paragraph 2 deleted		N/A
	Replace table 5.1 – Supply cord		P
1.13 (12)	ENDURANCE TESTS AND THERMAL TESTS		P
1.13 (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)		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
	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	Metal enclosure	N/A
	- 650°C for indoor luminaires		N/A
	UK: Requirements according to United Kingdom Building Regulation		N/A

Attachment II:
Photos:

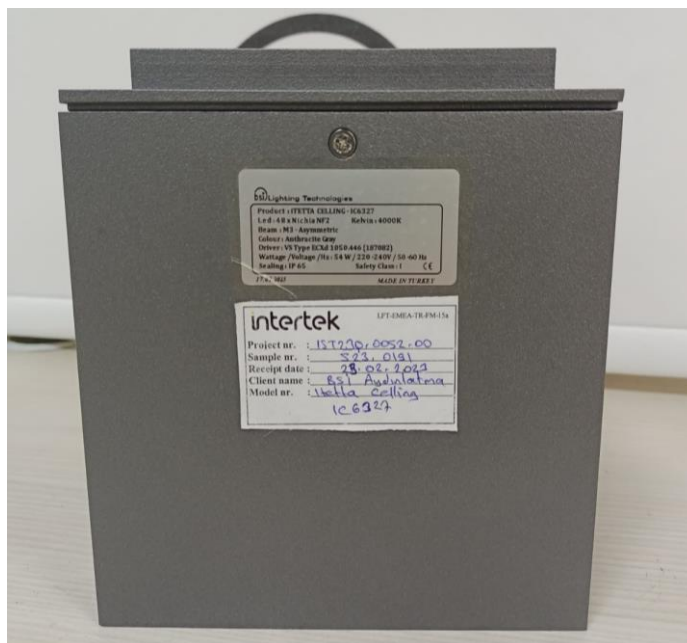


Photo 1. General view of model IC6327



Photo 2. Top view of the product



Photo 3. Lighting surface



Photo 4. Led module.



Photo 5. The internal structure of the lighting

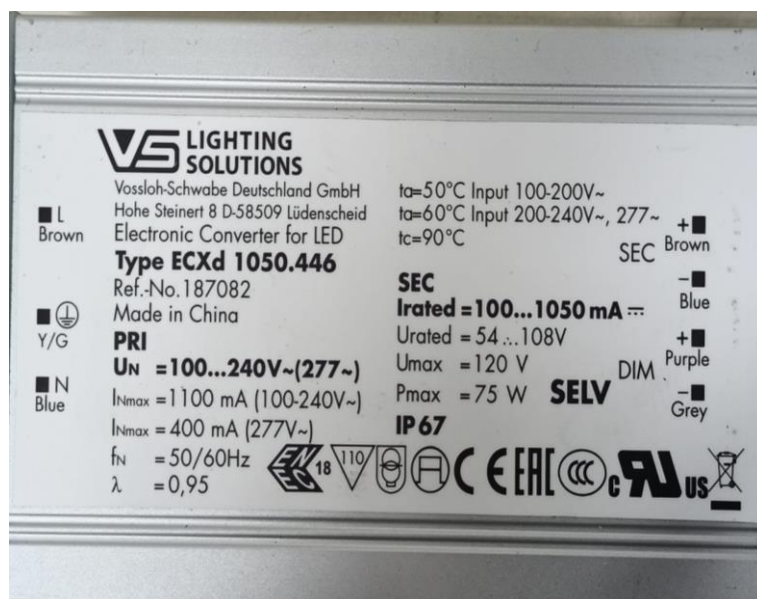


Photo 6. The label on the driver



Photo 7. Ground wire connection



Photo 8. The back surface of the led driver



Photo 9. General view of model IC6327



Photo 10. The label on the driver



Photo 11. Overview of models IC6327 and IC6321



Photo 12. Overview of models IC6327 and IC6321