



Test Report issued under the responsibility of:



TEST REPORT
IEC 60598-2-3
Luminaires
Part 2: Particular requirements
Section 3: Luminaires for road and street lighting

Report Number..... : 202000743TUR-001

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

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

Address : Konutkent Mah. 3029 Cad. No:3/91 Azel Turhan Tower 06810
Çankaya/Ankara/TURKEY

Test specification:

Standard..... : IEC 60598-2-3:2002, AMD1:2011 used in conjunction with
IEC 60598-1:2014, AMD1:2017

Test procedure : CB Scheme

Non-standard test method : N/A

Test Report Form No. : IEC60598_2_3L

Test Report Form(s) Originator : Intertek Semko AB

Master TRF..... : Dated 2018-03-09

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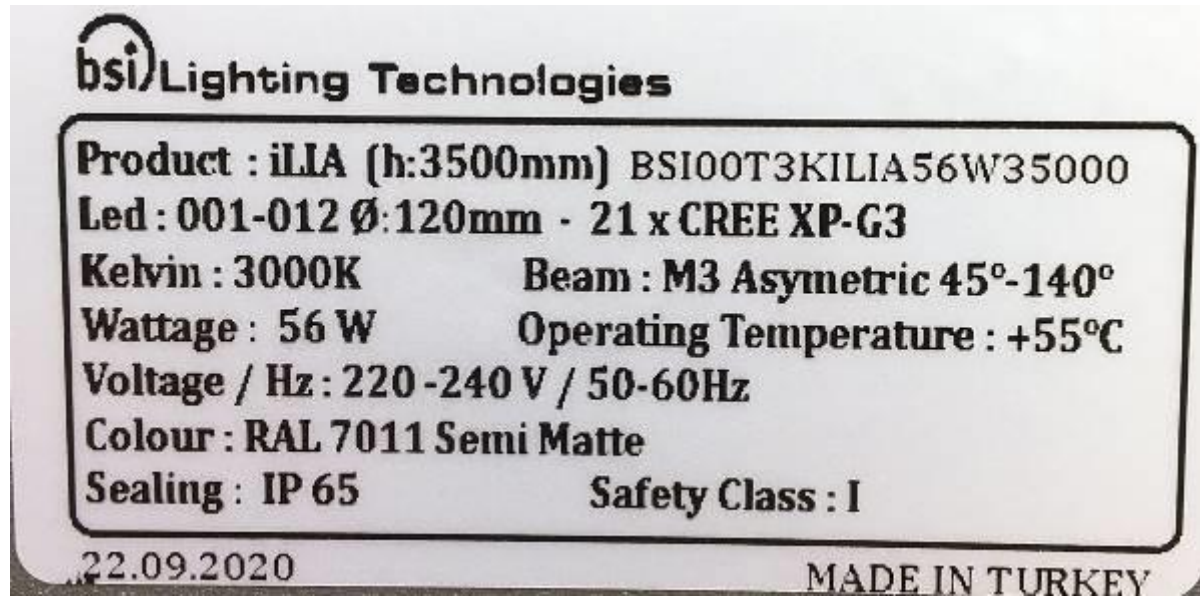
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Test item description..... :	Column integrated luminaire
Trade Mark..... :	
Manufacturer	BSI Aydınlatma Elektrik Elektronik San. ve Tic. A.Ş.
Model/Type reference	BSI00T3KILIA56W35000
Ratings	220-240V 50-60Hz 56W IP65 Ta:55°C

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☒	CB Testing Laboratory:	Intertek Test Hizmetleri A.Ş. Electrical Laboratory
Testing location/ address.....:		Merkez Mah. Sanayi Cad. No:23 Altındağ Plaza 34197 Yenibosna/İstanbul/TURKEY
Tested by (name, function, signature).....:		Lokman TUNÇ Senior Project Engineer 
Approved by (name, function, signature)....:		Zafer YÜCESOY Laboratory Manager
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: - EN 60598-2-3:2003, AMD1:2011 used in conjunction with EN 60598-1:2015, AMD1:2018 (1 page) - Measurement equipment list (1 page) - Photos (8 Pages)	
Summary of testing: The EUT is in compliance with the requirements of the applied standards within this test report.	
Tests performed: IEC 60598-1:2014, AMD1:2017 IEC 60598-2-3:2002, AMD1:2011 EN 60598-1:2015, AMD1:2018 EN 60598-2-3:2003, AMD1:2011 The EN requirements listed above also added to this TRF, see appendixes at the end of this report for differences. Model of BSI00T3KILIA56W35000 was tested completely.	Testing location: Intertek Test Hizmetleri A.Ş. Electrical Laboratory Merkez Mah. Sanayi Cad. No:23 Altındağ Plaza 34197 Yenibosna/İstanbul/TURKEY
Summary of compliance with National Differences: All CCA national differences except Denmark	

Copy of marking plate:



Test item particulars.....:	Column integrated luminaire
Classification of installation and use.....:	Class I luminaire for outdoor use
Supply Connection	Supply cord 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	28.09.2020,08.10.2020
Test item serial number	Engineering samples
Test item receipt number.....:	S20.847, S20.848, S20.927
Date (s) of performance of tests	12.10.2020-27.10.2020
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. Clause numbers between brackets refer to clauses in IEC 60598-1	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60598-1:	
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. Konutkent Mah. 3029 Cad. No:3/91 Azel Turhan Tower 06810 Çankaya/Ankara/TURKEY	

General product information:

Tested product is a column integrated luminaire for outdoor use.

Tested model is BSI00T3KILIA56W35000 and electrical ratings are 220-240V, 50-60Hz and 56W.

Luminaire is also marked with Ta:55°C.

Luminaire is class I and marked with IP65 against ingress of dust and water.

Tested luminaire incorporates constant voltage LED driver, LED module, connection box for supply connection (fixed to luminaire internally) which also incorporates two terminal blocks for to make necessary connections and a supply cord. LED module is mounted on a cooling fin.



General view of model BSI00T3KILIA56W35000

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.2 (0)	GENERAL TEST REQUIREMENTS		P
3.2 (0.3)	More sections applicable..... :	Yes ☐ No ☒ Section/s:	—
3.2 (0.5)	Components	(see Annex 1)	—
3.2 (0.7)	Information for luminaire design in light sources standards		—
3.2 (0.7.2)	Light source safety standard	IEC 62031	—
	Luminaire design in the light source safety standard		P

3.4 (2)	CLASSIFICATION OF LUMINAIRES		P
3.4 (2.2)	Type of protection	Class I	P
3.4 (2.3)	Degree of protection..... :	IP 65	—
3.4 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces	Yes ☒ No ☐	—
3.4 (2.5)	Luminaire for normal use	Yes ☒ No ☐	—
	Luminaire for rough service	Yes ☐ No ☒	—
3.4 (-)	Modes of installation of road or street lighting		—
	a) on a pipe	Yes ☐ No ☐	—
	b) on a mast arm	Yes ☒ No ☐	—
	c) on a post top	Yes ☐ No ☐	—
	d) on span or suspension wires	Yes ☐ No ☐	—
	e) on a wall	Yes ☐ No ☐	—

3.5 (3)	MARKING		P
3.5 (3.2)	Mandatory markings	See marking plate	P
	Position of the marking	Above door opening	P
	Format of symbols/text		P
3.5 (3.3)	Additional information		P
	Language of instructions	English version is checked	P
3.5 (3.3.1)	Combination luminaires	No combination of luminaire	N/A
3.5 (3.3.2)	Nominal frequency in Hz	50-60	P
3.5 (3.3.3)	Operating temperature	55°C	P
3.5 (3.3.5)	Wiring diagram	Provided with installation instructions	P
3.5 (3.3.6)	Special conditions		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.5 (3.3.7)	Metal halide lamp luminaire – warning	No metal halide lamp	N/A
3.5 (3.3.8)	Limitation for semi-luminaires	No semi-luminaire	N/A
3.5 (3.3.9)	Power factor and supply current		P
3.5 (3.3.10)	Suitability for use indoors	Outdoor use	N/A
3.5 (3.3.11)	Luminaires with remote control	No remote control	N/A
3.5 (3.3.12)	Clip-mounted luminaire – warning	No clip-mounted luminaire	N/A
3.5 (3.3.13)	Specifications of protective shields	No protective shield	N/A
3.5 (3.3.14)	Symbol for nature of supply	50-60Hz	N/A
3.5 (3.3.15)	Rated current of socket outlet	No socket outlet	N/A
3.5 (3.3.16)	Rough service luminaire	No rough service luminaire	N/A
3.5 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments	Instruction for type Y attachment is provided	P
3.5 (3.3.18)	Non-ordinary luminaires with PVC cable		P
3.5 (3.3.19)	Protective conductor current in instruction if applicable	Supply current <20A	N/A
3.5 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
3.5 (3.3.21)	Non-replaceable and non-user replaceable light sources information provided	Non-user replaceable light source	P
3.5 (3.3.22)	Controllable luminaires, classification of insulation provided		N/A
3.5 (3.3.23)	Luminaire without controlgear provided with necessary information for selection of appropriate component	Delivered with controlgear	N/A
3.5 (3.3.24)	If not supplied with terminal block, information on the packaging	Supplied with luminaire	N/A
3.5 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test		P
	Label attached	Markings are legible after the tests	P
3.5 (-)	Additional information in instruction leaflet		P
	a) Design attitude	Provided with installation instructions	P
	b) Weight		P
	c) Overall dimensions		P

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	d) Maximum projected area if applicable	Not intended to be mounted 8m above ground level	N/A
	e) Cross-sectional area of wires if applicable	Not intended to be suspended	N/A
	f) Suitability for indoors use		N/A
	g) Dimensions of the compartment		P
	h) Torque setting to be applied to bolts or screws		P
	i) Maximum mounting height	No glass cover	N/A
3.6 (4)	CONSTRUCTION		P
3.6 (4.2)	Components replaceable without difficulty		P
3.6 (4.3)	Wireways smooth and free from sharp edges	Free from sharp edges	P
3.6 (4.4)	Lampholders		N/A
3.6 (4.4.1)	Integral lampholder	No lampholder	N/A
3.6 (4.4.2)	Wiring connection		N/A
3.6 (4.4.3)	Lampholder for end-to-end mounting		N/A
3.6 (4.4.4)	Positioning		N/A
	- pressure test (N)		—
	After test the lampholder comply with relevant standard sheets and show no damage		N/A
	After test on single-capped lampholder the lampholder have not moved from its position and show no permanent deformation		N/A
	- bending test (N)		—
	After test the lampholder have not moved from its position and show no permanent deformation		N/A
3.6 (4.4.5)	Peak pulse voltage		N/A
3.6 (4.4.6)	Centre contact		N/A
3.6 (4.4.7)	Parts in rough service luminaires resistant to tracking		N/A
3.6 (4.4.8)	Lamp connectors		N/A
3.6 (4.4.9)	Caps and bases correctly used		N/A
3.6 (4.4.10)	Light source for lampholder or connection according IEC 60061 not connected another way		N/A
3.6 (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
3.6 (4.6)	Terminal blocks		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	Tails	Terminal block provided in the connection box	N/A
	Unsecured blocks		N/A
3.6 (4.7)	Terminals and supply connections		
3.6 (4.7.1)	Contact to metal parts	Not intended to be adjusted	N/A
3.6 (4.7.2)	Test 8 mm live conductor	Terminal blocks are enclosed with a plastic connection box	P
	Test 8 mm earth conductor		P
3.6 (4.7.3)	Terminals for supply conductors	Suitable for to make necessary connections	P
3.6 (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
3.6 (4.7.4)	Terminals other than supply connection	Approved terminal blocks are used	N/A
3.6 (4.7.5)	Heat-resistant wiring/sleeves	Suitable for the temperatures reached inside the luminaire	N/A
3.6 (4.7.6)	Multi-pole plug	No plug	N/A
	- test at 30 N		N/A
3.6 (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
3.6 (4.9)	Insulating lining and sleeves		P
3.6 (4.9.1)	Retainment	Reliably retained	P
	Method of fixing :	Self-hardening	P
3.6 (4.9.2)	Insulated linings and sleeves:		P
	Resistant to a temperature > 20 °C to the wire temperature or		P

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	a) & c) Insulation resistance and electric strength		N/A
	b) Ageing test. Temperature (°C)		N/A
3.6 (4.10)	Double or reinforced insulation		N/A
3.6 (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
	Interference suppression capacitors according to IEC 60384-14		N/A
3.6 (4.10.2)	Assembly gaps:		P
	- not coincidental		P
	- no straight access with test probe	No access to the live parts from openings	P
3.6 (4.10.3)	Retention 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 lampholder		N/A
3.6 (4.10.4)	Protective impedance device		N/A
	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor	No protective impedance	N/A
	Y1 or Y2 capacitors comply with IEC 60384-14		N/A
	Resistors comply with test (a) in 14.1 of IEC 60065		N/A
3.6 (4.11)	Electrical connections and current-carrying parts		P
3.6 (4.11.1)	Contact pressure		P
3.6 (4.11.2)	Screws:		P
	- self-tapping screws	Not used	P
	- thread-cutting screws	Not used	P
3.6 (4.11.3)	Screw locking:		P
	- spring washer	For earthing connection	P
	- rivets		N/A
3.6 (4.11.4)	Material of current-carrying parts	Copper	P
3.6 (4.11.5)	No contact to wood or mounting surface	Not in contact with wood or mounting surface	P

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.11.6)	Electro-mechanical contact systems	No electro-mechanical contact system	N/A
3.6 (4.12)	Screws and connections (mechanical) and glands		P
3.6 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		P
	Torque test: torque (Nm); part..... :	0.8 Nm, 3.4mm screw on connection box	P
	Torque test: torque (Nm); part..... :	1.2 Nm, 3.8mm screw on door opening	P
	Torque test: torque (Nm); part..... :	0.4 Nm, 2.75mm fixing screw for terminal block	P
3.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal		P
3.6 (4.12.4)	Locked connections:		N/A
	- fixed arms; torque (Nm)		N/A
	- lampholder; torque (Nm)		N/A
	- push-button switches; torque 0,8 Nm		N/A
3.6 (4.12.5)	Screwed glands; force (Nm)..... :	5 Nm applied for cable glands on connection box. Diameters for glands 12.37mm and 15.36mm	P
3.6 (4.13)	Mechanical strength		P
3.6 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm)	0.5 Nm for transparent plastic	P
	- other parts; energy (Nm)..... :	0.7 Nm Enclosure and door opening	P
	1) live parts	Not accessible	P
	2) linings	Effective and not impaired	P
	3) protection	IP65	P
	4) covers	Considered for cover on door	P
3.6 (4.13.2)	Metal parts have adequate mechanical strength		P
3.6 (4.13.3)	Straight test finger	30N, no access to live part	P
3.6 (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

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	d) for temporary installations and suitable for mounting on a stand		N/A
3.6 (4.13.6)	Tumbling barrel		N/A
3.6 (4.14)	Suspensions, fixings and means of adjusting		N/A
3.6 (4.14.1)	Mechanical load:		N/A
	A) four times the weight	Luminaire is fixed to the ground	N/A
	B) torque 2,5 Nm		N/A
	C) bracket arm; bending moment (Nm)..... :		N/A
	D) load track-mounted luminaires		N/A
	E) clip-mounted luminaires, glass-shelve. Thickness (mm)		N/A
	Metal rod. diameter (mm)		N/A
	Fixed luminaire or independent control gear without fixing devices		N/A
3.6 (4.14.2)	Load to flexible cables		N/A
	Mass (kg)		—
	Stress in conductors (N/mm ²)		N/A
	Mass (kg) of semi-luminaire		N/A
	Bending moment (Nm) of semi-luminaire		N/A
3.6 (4.14.3)	Adjusting devices:		N/A
	- flexing test; number of cycles..... :		N/A
	- strands broken		N/A
	- electric strength test afterwards		N/A
3.6 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
3.6 (4.14.5)	Guide pulleys		N/A
3.6 (4.14.6)	Strain on socket-outlets		N/A
3.6 (4.15)	Flammable materials		P
	- glow-wire test 650°C	See Test Table 3.15 (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		N/A
	- electronic circuits exempted		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		N/A
	a) construction		N/A
	b) temperature sensing control		N/A
	c) surface temperature		N/A
3.6 (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
3.6 (4.16.1)	Lamp control gear spacing:		P
	- spacing 35 mm	>70mm	P
	- spacing 10 mm		N/A
3.6 (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		P
3.6 (4.16.3)	Design to satisfy the test of 12.6	In compliance with 4.16.1 and 4.16.2	N/A
3.6 (4.17)	Drain holes		P
	Clearance at least 5 mm	Jet-proof (IP65), >10mm	P
3.6 (4.18)	Resistance to corrosion		P
3.6 (4.18.1)	- rust-resistance		P
3.6 (4.18.2)	- season cracking in copper	No copper/copper alloy is used	N/A
3.6 (4.18.3)	- corrosion of aluminium	No such material is used	N/A
3.6 (4.19)	Ignitors compatible with ballast	No ignitor	N/A
3.6 (4.20)	Rough service vibration	No rough service luminaire	N/A
3.6 (4.21)	Protective shield		N/A
3.6 (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
3.6 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
3.6 (4.21.3)	No direct path		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment..... :		N/A
3.6 (4.22)	Attachments to lamps not cause overheating or damage	No attachment	N/A
3.6 (4.23)	Semi-luminaires comply Class II	No semi-luminaire	N/A
3.6 (4.24)	Photobiological hazards		P
3.6 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		N/A
3.6 (4.24.2)	Retinal blue light hazard		P
	Class of risk group assessed according to IEC/TR 62778	Risk Group 2 Reference test report: DEKRA 3189124.50P	—
	Luminaires with E_{thr} :		P
	a) Fixed luminaires		P
	- distance x m, borderline between RG1 and RG2 .. :	For E_{thr} :511 lux, D_{min} :651mm	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
3.6 (4.25)	Mechanical hazard		P
	No sharp point or edges		P
3.6 (4.26)	Short-circuit protection		N/A
3.6 (4.26.1)	Adequate means of uninsulated accessible SELV parts	No uninsulated accessible SELV part	N/A
3.6 (4.26.2)	Short-circuit test with test chain according 4.26.3		N/A
	Test chain not melt through		N/A
	Test sample not exceed values of Table 12.1 and 12.2		N/A
3.6 (4.27)	Terminal blocks with integrated screwless earthing contacts		N/A
	Test according Annex V	No terminal block with integrated screwless earthing contact	N/A
	Pull test of terminal fixing (20 N)		N/A
	After test, resistance < 0,05 Ω		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	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
3.6 (4.28)	Fixing of thermal sensing control		N/A
	Not plug-in or easily replaceable type	No temperature sensing control external to controlgear	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
	Temperature sensing control still in position		N/A
3.6 (4.29)	Luminaires with non-replaceable light source		N/A
	Not possible to replace light source	Luminaire with non-user replaceable light source	N/A
	Live part not accessible after parts have been opened by hand or tools		N/A
3.6 (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
	Minimum two fixing means	No protective cover	N/A
3.6 (4.31)	Insulation between circuits		P
	Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3		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
3.6 (4.31.1)	SELV circuits		P
	Used SELV source	LED driver: ELG-100-C1050A	P
	Voltage $\leq$ ELV		P
	Insulating of SELV circuits from LV supply		N/A
	Insulating of SELV circuits from other non SELV circuits		N/A
	Insulating of SELV circuits from FELV		N/A
	Insulating of SELV circuits from other SELV circuits		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	SELV circuits insulated from accessible parts according Table X.1		P
	Plugs not able to enter 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
3.6 (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 enter socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Socket-outlets does not have protective conductor contact		N/A
3.6 (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	No equipotential bonding	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
3.6 (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

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Clause	Requirement + Test	Result - Remark	Verdict
3.6.1 (-)	At least IP X3 or X5 respectively. IP	65	P
	Column-integrated luminaires:		P
	- parts below 2,5 m. IP	65	P
	- parts above 2,5 m. IP	65	P
3.6.2 (-)	Suspension on span wires	Not for suspension on span wire	N/A
3.6.3 (-)	Means for attaching the luminaire or external parts to its support appropriate to the weight		P
3.6.3.1 (-)	Static load test		P
	- drag coefficient.....	1.2	P
	- loaded area (m²).....	0.7	P
	- used load (N).....	$F=0.5 \times 1.225 \times 0.7 \times 1.2 \times 45^2 = 1041.86$	P
	- measured deformation (cm/m)	1.1	P
	- no rotation		P
3.6.4 (-)	Adjustable lampholders		N/A
3.6.5 (-)	Luminaires installed above 5 m, glass covers shall be:		N/A
	a) glass that fractures into small pieces (test according to 3.6.5.1), or	No glass cover	N/A
	b) glass having a high impact shock resistance (test according to 3.6.5.2), or		N/A
	c) protected by any means to retain glass fragments		N/A
	For tunnel luminaires 3.6.5.1 apply		N/A
	Method of protection declared by the manufacturer		N/A
3.6.5.1 (-)	Protection by the use of glass that fractures into small pieces		N/A
	- number of particles is more than 40.....		N/A
3.6.5.2 (-)	Protection by the use of high impact resistant glass		N/A
3.6.5.2.1 (-)	Glass covers have high mechanical strength		N/A
	Test according IEC 62262 with test apparatus according IEC 60068-2-75 with impact energy of 5J on preconditioned sample		N/A
3.6.5.2.2 (-)	Glass covers not break into large pieces		N/A
	- test according 3.6.5.1, number of particles is more than 20		N/A
3.6.6 (-)	Connection compartment of column-integrated luminaire		P
	- provides adequate space	Adequate space is provided	P
	- means for attachment		P

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Clause	Requirement + Test	Result - Remark	Verdict
	- means for attachment of metal corrosion-resistant		P
3.6.7 (-)	Compliance with ISO standard or other	In compliance with EN 40-3-1	P
3.6.8 (-)	Doors of column-integrated luminaires:		P
	- corrosion-resistant	Tested for Cl.4.18.1	P
	- opening only possible for an authorized person		P
	- impact test 5 Nm	Pendulum hammer	P
	- sample show no damage		P
3.6.9 (-)	Column-integrated luminaire:		P
	- dimension of the cable entry slot (mm)	200mmx200mm	P
	- cable path from the slot to the connection compartment (mm)	>100	P
	- cable path free from obstruction that might cause abrasion of the cable	Free from obstruction, sharp edge, burr and the like	P

3.7 (11)	CREEPAGE DISTANCES AND CLEARANCES		P
3.7 (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
3.7 (11.2.2)	Creepage distances for frequency up to 30 kHz	See Test Table 3.7 (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
3.7 (11.2.3)	Clearances for frequency up to 30 kHz	See Test Table 3.7 (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

3.8 (7)	PROVISION FOR EARTHING		P
3.8 (7.2.1 + 7.2.3)	Accessible metal parts		P
	Metal parts in contact with supporting surface		P
	Resistance < 0,5 Ω :	0.051 Ω max measured	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Self-tapping screws used	Not used	N/A
	Thread-forming screws		N/A
	Thread-forming screw used in a groove		N/A
	Earth makes contact first	No such construction	N/A
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
	Protective earthing of the luminaire not via built-in control gear		P
3.8 (7.2.2 + 7.2.3)	Earth continuity in joints, etc.		P
3.8 (7.2.4)	Locking of clamping means		P
	Compliance with 4.7.3		P
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
3.8 (7.2.5)	Earth terminal integral part of connector socket		N/A
3.8 (7.2.6)	Earth terminal adjacent to mains terminals		P
3.8 (7.2.7)	Electrolytic corrosion of the earth terminal		P
3.8 (7.2.8)	Material of earth terminal		P
	Contact surface bare metal		P
3.8 (7.2.10)	Class II luminaire for looping-in	Class I luminaire	N/A
	Double or reinforced insulation to functional earth		N/A
3.8 (7.2.11)	Earthing core coloured green-yellow		P
	Length of earth conductor		P
3.8.1 (-)	Attachment prevented from rotation		P
3.9 (14)	SCREW TERMINALS		P
	Separately approved; component list	(see Annex 1)	P
	Part of the luminaire		N/A
3.9 (15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		N/A
	Separately approved; component list..... :		N/A
	Part of the luminaire :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.10 (5)	EXTERNAL AND INTERNAL WIRING		P
3.10 (5.2)	Supply connection and external wiring		P
3.10 (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 ≤ 25 V a.c./60 V d.c. or protected from outdoor environment	No external PVC insulated wiring	P
3.10 (5.2.2)	Type of cable	H05VV-F	P
	Nominal cross-sectional area (mm ²)	0.75	P
	Cables equal to IEC 60227 or IEC 60245	60227 IEC 53	P
3.10 (5.2.3)	Type of attachment, X, Y or Z	Type Y attachment	P
3.10 (5.2.5)	Type Z not connected to screws		N/A
3.10 (5.2.6)	Cable entries:		P
	- suitable for introduction		P
	- adequate degree of protection		P
3.10 (5.2.7)	Cable entries through rigid material have rounded edges		P
3.10 (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
3.10 (5.2.9)	Locking of screwed bushings		N/A
3.10 (5.2.10)	Cord anchorage:		P
	- covering protected from abrasion		P
	- clear how to be effective		P
	- no mechanical or thermal stress		P
	- no tying of cables into knots etc.		P
	- insulating material or lining	Insulating material	P
3.10 (5.2.10.1)	Cord anchorage for type X attachment:		N/A
	a) at least one part fixed		N/A
	b) types of cable		N/A
	c) no damaging of the cable		N/A
	d) whole cable can be mounted		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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
3.10 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment	Type Y	P
3.10 (5.2.10.3)	Tests:		P
	- impossible to push cable; unsafe		P
	- pull test: 25 times; pull (N) :	60	P
	- torque test: torque (Nm) :	0.25	P
	- displacement ≤ 2 mm	1.23	P
	- no movement of conductors		P
	- no damage of cable or cord		P
	- function independent of electrical connection		N/A
3.10 (5.2.11)	External wiring passing into luminaire		N/A
3.10 (5.2.12)	Looping-in terminals	No looping-in	N/A
3.10 (5.2.13)	Wire ends not tinned		P
	Wire ends tinned: no cold flow		N/A
3.10 (5.2.14)	Mains plug same protection	No plug	N/A
	Class III luminaire plug		N/A
	No unsafe compatibility		N/A
3.10 (5.2.16)	Appliance inlets (IEC 60320)	No such construction	N/A
	Installation couplers (IEC 61535)		N/A
	Other appliance inlet or connector according relevant IEC standard		N/A
3.10 (5.2.17)	No standardized interconnecting cables properly assembled	No interconnecting cable	N/A
3.10 (5.2.18)	Used plug in accordance with		N/A
	- IEC 60083	Not intended to be connected to supply via socket-outlet	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- other standard		N/A
3.10 (5.3)	Internal wiring		P
3.10 (5.3.1)	Internal wiring of suitable size and type		P
	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 earth only		P
3.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring		P
	Cross-sectional area (mm ²).....	0.75mm ² , permanent connection is provided with supply cord	P
	Insulation thickness (mm)	1.2	P
	Extra insulation added where necessary		N/A
3.10 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		N/A
	Cross-sectional area (mm ²).....		N/A
3.10 (5.3.1.3)	Double or reinforced insulation for class II	Class I luminaire	N/A
3.10 (5.3.1.4)	Conductors without insulation	No conductor without insulation	N/A
3.10 (5.3.1.5)	SELV current-carrying parts	Insulated	P
3.10 (5.3.1.6)	Insulation thickness other than PVC or rubber	PVC	N/A
3.10 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.	No switch	N/A
	Joints, raising/lowering devices		P
	Telescopic tubes etc.	No telescopic tube	N/A
	No twisting over 360°		P
3.10 (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

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Clause	Requirement + Test	Result - Remark	Verdict
3.10 (5.3.4)	Joints and junctions effectively insulated		P
3.10 (5.3.5)	Strain on internal wiring	No such wiring	N/A
3.10 (5.3.6)	Wire carriers		N/A
3.10 (5.3.7)	Wire ends not tinned		P
	Wire ends tinned: no cold flow		N/A
3.10 (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
3.10.1 (-)	Cord anchorage if applicable		P
	- pull test: 25 times; pull (N):	60	P
	- torque test: torque (Nm):	0.25	P
3.11 (8)	PROTECTION AGAINST ELECTRIC SHOCK		P
3.11 (8.2.1)	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection	Not used	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	Basic insulation is not accessible	P
	Lamp and starterholders in portable and adjustable luminaires comply with double or reinforced insulation requirements		N/A
	Basic insulation only accessible under lamp or starter replacement		N/A
	Protection in any position		P
	Double-ended tungsten filament lamp		N/A
	Insulation lacquer not reliable	Insulation does not depend on lacquer nor similar material	P
	Double-ended high-pressure discharge lamp		N/A
	Relevant warning according to 3.2.18 fitted to the luminaire	No ignitor	N/A
3.11 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N/A
3.11 (8.2.3.a)	Class II luminaire:		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- basic insulated metal parts not accessible during starter or lamp replacement	Class I luminaire	N/A
	- basic insulation not accessible other than during starter or lamp replacement		N/A
	- glass protective shields not used as supplementary insulation		N/A
3.11 (8.2.3.b)	BC lampholder of metal in class I luminaires shall be earthed	No lampholder	N/A
3.11 (8.2.3.c)	SELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- voltage under load (V)..... :	No SELV circuit with exposed current carrying part	N/A
	- no-load 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
	- nominal voltage (V) :		N/A
	Class III luminaire only for connection to SELV		N/A
	Class III luminaire not provided with means for protective earthing		N/A
3.11 (8.2.4)	Portable luminaire has protection independent of supporting surface	Not portable	N/A
3.11 (8.2.5)	Compliance with the standard test finger or relevant probe	No contact with live parts	P
3.11 (8.2.6)	Covers reliably secured	Reliably secured	P
3.11 (8.2.7)	Luminaire other than below with capacitor > 0,5 μ F not exceed 50 V 1 min after disconnection	No capacitor	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

3.12 (12)	ENDURANCE TEST AND THERMAL TEST		P
3.12.2 (-)	If IP > IP 20 relevant test of (12.4), (12.5) and (12.6) after (9.2) before (9.3) specified in 3.13		—
3.12 (12.2)	Selection of lamps and ballasts		—
	Lamp used according Annex B	(Lamp used see Annex 2)	—

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Clause	Requirement + Test	Result - Remark	Verdict
	Controlgear if separate and not supplied	(Controlgear used see Annex 2)	—
3.12 (12.3)	Endurance test		P
	a) mounting-position	Operating position	—
	b) test temperature (°C)	65 (Ta+10)	—
	c) total duration (h)	240	—
	d) supply voltage (V)	1.10x240=264.4	—
	d) if not equipped with controlgear, constant voltage/current (V) or (A)	Equipped with controlgear	—
	e) luminaire ceases to operate	Still functional and operates	—
3.12 (12.3.2)	After endurance test:		P
	- no part unserviceable		P
	- luminaire not unsafe	safe	P
	- no damage to track system	No track system	N/A
	- marking legible	legible	P
	- no cracks, deformation etc.		P
3.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
3.12 (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
3.12 (12.6)	Thermal test (failed lamp control gear condition):		N/A
3.12 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A)		—
	- case of abnormal conditions		—
	- electronic lamp control gear		N/A
	- measured winding temperature (°C): at 1,1 Un		—
	- measured mounting surface temperature (°C) at 1,1 Un		N/A
	- calculated mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
3.12 (12.6.2)	Temperature sensing control		N/A
	- case of abnormal conditions		—
	- thermal link		N/A
	- manual reset cut-out		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- auto reset cut-out		N/A
	- measured mounting surface temperature (°C) :		N/A
	- track-mounted luminaires		N/A
3.12 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		N/A
3.12 (12.7.1)	Luminaire without temperature sensing control		N/A
3.12 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		N/A
	Test method 12.7.1.1 or Annex W :		—
	Test according to 12.7.1.1:		N/A
	- case of abnormal conditions :		—
	- Ballast failure at supply voltage (V) :		—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A
	Test according to Annex W:		N/A
	- case of abnormal conditions :		—
	- measured winding temperature (°C): at 1,1 Un :		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un :		—
	- calculated temperature of fixing point/exposed part (°C) :		—
	Ball-pressure test :		N/A
3.12 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		N/A
	- case of abnormal conditions :		—
	- measured winding temperature (°C): at 1,1 Un :		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un :		—
	- calculated temperature of fixing point/exposed part (°C) :		—
	Ball-pressure test :		N/A
3.12 (12.7.1.3)	Luminaire with short circuit proof transformers ≤ 10 VA		N/A
	- case of abnormal conditions :		—
	- Components retained in place after the test		N/A
	- Test with standard test finger after the test		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.12 (12.7.2)	Luminaire with temperature sensing control		N/A
	- thermal link..... :	Yes ☐ No ☐	—
	- manual reset cut-out :	Yes ☐ No ☐	—
	- auto reset cut-out :	Yes ☐ No ☐	—
	- case of abnormal conditions :		—
	- highest measured temperature of fixing point/ exposed part (°C): :		—
	Ball-pressure test: :		N/A
3.12.1 (-)	Temperature reduction if for outdoor use only		P
3.12.2 (-)	(See above)		—
3.12.3 (-)	Glass covers used within the thermal limits declared by the glass manufacturer	No glass cover is used	N/A

3.13 (9)	RESISTANCE TO DUST AND MOISTURE		P
3.13.1 (-)	If IP > IP 20 the order of tests as specified in clause 3.12		P
3.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		P
	- classification according to IP..... :	IP65	—
	- mounting position during test :	As in normal use	—
	- fixing screws tightened; torque (Nm) :	0.6 Nm, 3.4mm screw on connection box 0.8 Nm, 3.8mm screw on door opening 0.3 Nm, 2.75mm fixing screw for terminal block 3.3 Nm for cable gland on connection box	—
	- tests according to clauses..... :	9.2.1, 9.2.2, 9.2.6	—
	- electric strength test afterwards	No breakdown	P
	a) no deposit in dust-proof luminaire		N/A
	b) no talcum in dust-tight luminaire	IP65, dust-tight luminaire	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

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Clause	Requirement + Test	Result - Remark	Verdict
	d) no water in watertight or pressure watertight luminaire	IP65, jet-proof luminaire	N/A
	e) no contact with live parts (IP 2X)	IP65	N/A
	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
3.13 (9.3)	Humidity test 48 h	25°C , 93% relative humidity	P

3.14 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		P
3.14 (10.2.1)	Insulation resistance test		P
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø :	Covered by metal foil, test voltage is applied for 1 minute	—
	Insulation resistance (MΩ) :	>4 MΩ	—
	SELV		P
	- between current-carrying parts of different polarity :	100V, >4 MΩ	P
	- between current-carrying parts and mounting surface..... :	100V, >4 MΩ	P
	- between current-carrying parts and metal parts of the luminaire :	100V, >4 MΩ	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts..... :	100V, >4 MΩ	P
	- Insulation bushings as described in Section 5 :	No bushing	N/A
	Other than SELV		P
	- between live parts of different polarity :	500V, >4 MΩ	P
	- between live parts and mounting surface :	500V, >4 MΩ	P
	- between live parts and metal parts :	500V, >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..... :	500V, >4 MΩ	P
	- Insulation bushings as described in Section 5 :		N/A
3.14 (10.2.2)	Electric strength test		P

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Clause	Requirement + Test	Result - Remark	Verdict
	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, 1480V and 2960V for other parts	P
	SELV		P
	- between current-carrying parts of different polarity :	500V for 1 minute	P
	- between current-carrying parts and mounting surface	500V for 1 minute	P
	- between current-carrying parts and metal parts of the luminaire	500V for 1 minute	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	500V for 1 minute	P
	- Insulation bushings as described in Section 5		N/A
	Other than SELV		P
	- between live parts of different polarity	1480V for 1 minute	P
	- between live parts and mounting surface	2960V for 1 minute	P
	- between live parts and metal parts	2960V for 1 minute	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	2960V for 1 minute	P
	- Insulation bushings as described in Section 5		N/A
3.14 (10.3)	Touch current or protective conductor current (mA):	0.05mA (max) where limit is 0.7mA	P

3.15 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		P
3.15 (13.2.1)	Ball-pressure test	See Test Table 3.15 (13.2.1)	P
3.15 (13.3.1)	Needle-flame test (10 s)	See Test Table 3.15 (13.3.1)	P
3.15 (13.3.2)	Glow-wire test (650°C)	See Test Table 3.15 (13.3.2)	P
3.15 (13.4)	Proof tracking test (IEC 60112)	See Test Table 3.15 (13.4)	P

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

3.7 (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	6.7mm	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)							—
Supplementary information:							
Distance 2:	S	5.6mm	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)							—
Supplementary information:							
Distance 3:	R	17.7mm	3mm	11.1.B	>10mm	5mm	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 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

3.7 (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 60598-2-3				
Clause	Requirement + Test		Result - Remark	Verdict
3.15 (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)
Connection box		LG Chem	125	1.42
Fuse holder		Adels	125	1.37
Terminal block		Gökermak	125	1.1
Gland		Ortaçlar	75	1.04
Transparent plastic cover		Sabic	75	0.85
Supplementary information: LED driver is metal enclosed and approved according to IEC 61347-1				

3.15 (13.3.1)	TABLE: Needle-flame test (IEC 60695-11-5)				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
Connection box	LG Chem	10	No	No burning	P
Fuse holder	Adels	10	No	6s (Ti:4, Te:10)	P
Terminal block	Gökermak	10	No	No burning	P
Supplementary information: LED driver is metal enclosed and approved according to IEC 61347-1					

3.15 (13.3.2)	TABLE: Glow-wire test (IEC 60695-2-11)				P
Glow wire temperature :		650°C			—
Object/ Part No./ Material	Manufacturer/ trademark	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict	
Connection box	LG Chem	No	No burning	P	
Fuse holder	Adels	No	No burning	P	
Terminal block	Gökermak	No	No burning	P	
Gland	Ortaçlar	No	No burning	P	
Transparent plastic cover	Sabic	No	No burning	P	
Supplementary information: LED driver is metal enclosed and approved according to IEC 61347-1					

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

3.15 (13.4)	TABLE: Proof tracking test (IEC 60112)					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
Connection box		LG Chem	50	50	50	Pass
Supplementary information: Terminal blocks located inside the connection box are considered as protected against dust and moisture						

IEC 60598-2-3			
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	B	Cree	XPGDWT	If:2000mA Vf:2.73-3.07 Vdc RG2	IEC 62471 IEC TR 62778	DEKRA (CB) NL-42214 Report nr: 3189124.50P	
LED module	B	BSI Aydınlatma	PCB 001-012	0.82A, 67V 55W Aluminium MCPCB	IEC 62031 IEC 60598-1 IEC 60598-2-3	Intertek Report nr: 202000808TU R-001 Tested in appliance	
LED driver	B	Mean Well	ELG-100-C1050A	Constant voltage Input:100-240V 50/60 Hz Output:46- 95Vdc 1050mA IP65 110°C thermal protection SELV Ta:60°C Tc:90°C	IEC 61347-1 IEC 61347-2-13	DEKRA CB Certif. No. NL-51354	
Connection box	B	LG Chem	HR5007A	PC/ABS Min. thickness: 3mm	IEC 60598-1 IEC 60598-2-3	Tested in appliance	
Fuse	B	Littelfuse	370	250V 3.15A	IEC/EN 60127-1 IEC/EN 60127-3	VDE 098941	
Fuse holder	B	Adels	503 SI	400V 10A 2.5W with connection terminal plate according to DIN 60998-2-1 Polyamide	IEC 60127-1 IEC 60125-6	VDE 139514	
Terminal block	B	Gökermak	KS 112	2.5mm ² , 450V T85	EN 60998-1, EN 60998-2-1	VDE 40024015	

IEC 60598-2-3						
Clause	Requirement + Test			Result - Remark		Verdict
Supply cord	B	Pamukkale	H05VV-F	3x0.75mm ²	EN 50525-2-11	TSE 001025-TSE- 08/01
Internal wiring	B	Klas	YSLY-JZ	300/500V PVC insulated 2x0.75mm ²	IEC 60598-1 IEC 60598-2-3	Tested in appliance
Transparent plastic cover	B	Sabic	PC0703R	PC Min. thickness: 3mm	IEC 60598-1 IEC 60598-2-3	Tested in appliance
Gland	B	Ortaçlar	PG9 and PG7	PA6 IP65 T80	IEC 60598-1 IEC 60598-2-3	Tested in appliance
Heat-shrinkable tube	B	Shenzhen Woer	RSFR-H	T125 Min. thickness: 1mm	IEC 60598-1 IEC 60598-2-3	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 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 2	TABLE: Thermal tests of Section 12			P			
	Type reference	BSI00T3KILIA56W35000	—				
	Lamp used.....	LED (Cree XPGDWT)	—				
	Lamp control gear used.....	Mean well ELG-100-C1050A	—				
	Mounting position of luminaire	As in normal use	—				
	Supply wattage (W)	63W	—				
	Supply current (A)	0.24A	—				
	Temperatures in test 1 - 4 below are corrected for ta (°C)	55°C	—				
	- abnormal operating mode	No abnormal condition was applied. LED driver is approved according to IEC 61347-1 and was considered to meet requirements for fault conditions and abnormal operating conditions due to thermal protection	—				
1.12 (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	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	--	—				
1.12 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current	--	—				
Temperature measurements (°C)							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Insulation of supply cord	55	--	55	--	90	--	--
LED driver Ta	55	--	57.4	--	60	--	--
LED driver Tc	55	--	57.9	--	90	--	--
Fuse holder	55	--	55	--	120*	--	--
Terminal block	55	--	55	--	120*	--	--
Connection box	55	--	55	--	130**	--	--
Internal wiring (where it touches to cooling fin)	55	--	85.3	--	90	--	--

IEC 60598-2-3							
Clause	Requirement + Test			Result - Remark			Verdict
PCB for LED module	55	--	100	--	120	--	--
Gland	55	--	55	--	120*	--	--
Transparent plastic cover	55	--	59.2	--	130**	--	--
External metal enclosure	55	--	60.6	--	Info	--	--
Supplementary information: *Limit for Polyamide thermoplastic **Limit for Polycarbonate thermoplastic							

IEC 60598-2-3			
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

IEC 60598-2-3			
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

IEC 60598-2-3										
Clause	Requirement + Test					Result - Remark				Verdict
	Terminal size and rating									N/A
15.6.2	Mechanical tests									N/A
(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:										

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict

ATTACHMENT TO TEST REPORT IEC 60598-2-3 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES Luminaires Part 2: Particular requirements Section 3: Luminaires for road and street lighting			
Differences according to: EN 60598-2-3:2003, AMD1:2011 used in conjunction with EN 60598-1:2015, AMD1:2018			
Annex Form No: EU_GD_IEC60598_2_3L Annex Form Originator: Intertek Semko AB Master Annex Form: 2018-12-07			
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	CENELEC COMMON MODIFICATIONS (EN)		
3.6 (4)	CONSTRUCTION		N/A
3.6 (4.11.6)	Electro-mechanical contact systems		N/A
3.10 (5)	EXTERNAL AND INTERNAL WIRING		P
3.10 (5.2.2)	Cables equal to EN 50525		P
	Replace table 5.1 – Supply cord		P
3.12 (12)	ENDURANCE TESTS AND THERMAL TESTS		N/A
3.12 (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)		
(3.3)	DK: power supply cords of class I luminaires with label		N/A
(4.5.1)	DK: socket-outlets		N/A
(5.2.1)	CY, DK, FI, GB: type of plug		N/A
ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		
(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		N/A
	- 650°C for indoor luminaires		N/A
	GB: Requirements according to United Kingdom Building Regulation		N/A

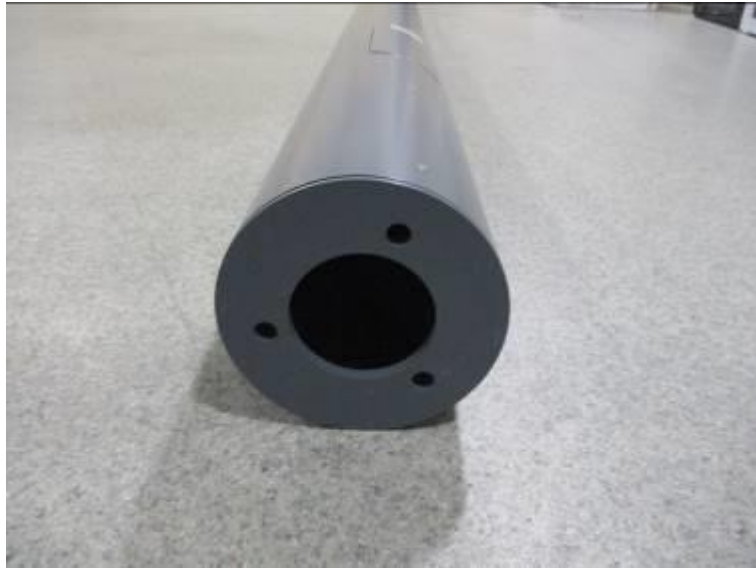
List of measurement equipment:

Measurement / testing	Testing / measuring equipment / material used,	Equipment ID	Last Calibration date	Calibration due date
Variable Stabilized Power Source	CHROMA 61612	EN 23	initial calibration	initial calibration
Mono-Phase Power Meter	YOKOGAWA WT310	EN 033	12.2019	12.2020
Temperature Recorder	YOKOGAWA MV2040	EN 34	12.2019	12.2020
Hand-held Thermometer	FLUKE 52-II	EN008	09.2020	09.2021
Hand-held Multimeter	FLUKE 289	EN 05	09.2020	09.2021
Force Gauge	IMADA DS2-110	EN 20	08.2020	08.2021
Electrical Safety Analyzer	CHROMA 19032-P	EN 21	09.2020	09.2021
Glow Wire Test Apparatus	TESTING EUROPE T4-08	EN 45	02.2020	02.2021
Test Nail	TESTING EUROPE T5-76	EN 53	09.2020	09.2021
Chronometer	CASIO HS-80TW	EN 114	01.2020	01.2021
Torque Screwdriver	Imada	EN 18	09.2020	09.2021
Calliper	MITUTOYO 573-635	EN 37	09.2020	09.2021
Angle meter	MITUTOYO 950-317	EN 36	09.2020	09.2021
Probe B	TESTING EUROPE T5-75	EN 50	09.2020	09.2021
Probe 11	TESTING EUROPE T5-41	EN 56	09.2020	09.2021
Probe 13	TESTING EUROPE T5-47	EN 58	09.2020	09.2021
Climatic chamber	ANGELANTONI DY 1200	EN 001	01.2020	01.2021
Impact hammer	PTL F 22.50	EN 041	09.2020	09.2021
Probe 18	Testing Europe T5 77	EN 059	09.2020	09.2021
Tape	Ceta Form P05-0316	EN 193	11.2019	11.2020
Oven	Testing Europe SP120E	EN 45	02.2020	02.2021
Apparatus for circ. / ang. Move.	Testing Europe T3 10	EN 063	05.2020	05.2021
Weight	Hüroy 2kg	EN 104	12.2019	12.2020
Becher	Lab 312 Boro 3.3	EN 90	02.2020	02.2021
Ball pressure test mass	Hüroy M	EN 120	01.2020	01.2021
Apparatus for wind force test	Güney Elektrik	EN 249	--	--

Photos:



1) General view of tested model BSI00T3KILIA56W35000



2) Bottom view



3) Cover for electrical compartment



4) LED module and cooling fin



5) LED driver and connection box



6) Gland



7) Internal view of connection box



8) Internal wiring where it enters to cooling fin and connected to LED module



9) Top view of cooling fin



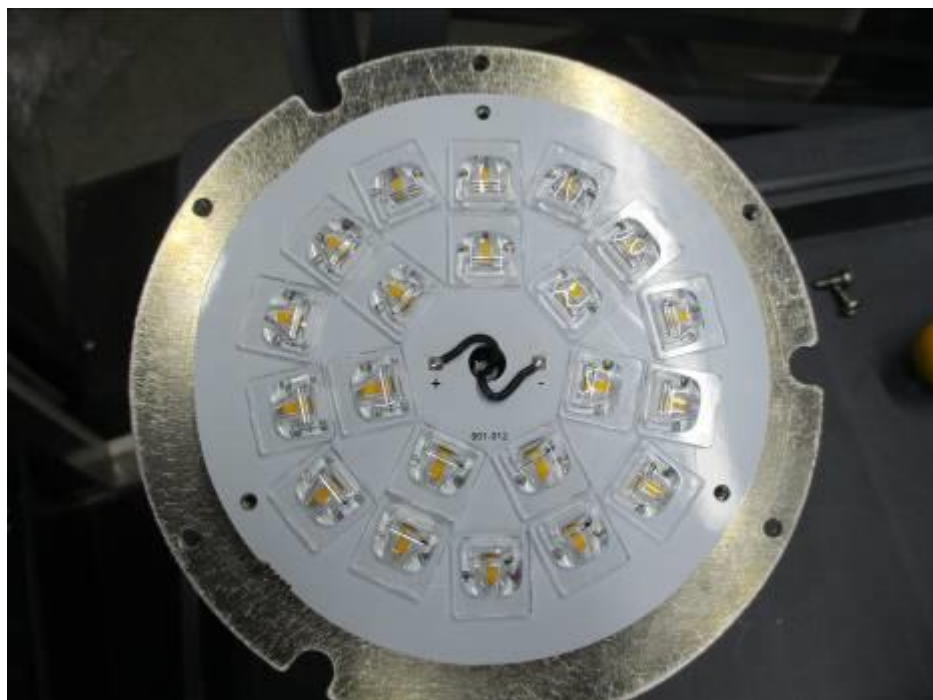
10) Earthing connection for LED driver enclosure



11) Earthing symbol where supply cord connected to luminaire



12) Fuse-holder



13) LED module top view



14) Path for internal wiring



15) Internal wiring where it passes to top side of luminaire and reflector