

Test Verification of Conformity

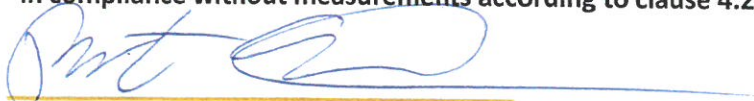
Verification Number: 1806244

On the basis of the referenced test report(s), sample(s) tested of the below product have been found to comply with the standards harmonized with the directives listed on this verification at the time the tests were carried out. Other standards and Directives may be relevant to the product. This verification is part of the full test report(s) and should be read in conjunction with it <them>.

Once compliance with all product relevant **CE** mark directives are verified, including any relevant e.g. risk assessment and production control, the manufacturer may indicate compliance by signing a Declaration of Conformity themselves and applying the mark to products identical to the tested sample(s).

Applicant Name & Address:	Skånebeslag AB Santessons väg 24 SE-232 61 ARLÖV SWEDEN
Product Description:	Luminaire for bathroom furniture with LED
Ratings & Principle Characteristics:	230V, Max 15W LED, IP44, 50Hz, Class I 230V, Max 29W LED, IP44, 50Hz, Class I
Models/Type References:	2013050, 2013055, 2013064, 2013065, 2013066 and 2013067 2015050, 2015055, 2015064, 2015065, 2015066 and 2015067
Brand Name(s):	Skånebeslag AB
Standard(s)/Directive(s):	EN 60598-1:2015 EN 60598-2-1:1989 EN 62493:2015
Verification Issuing Office Name & Address:	Intertek Semko AB Torshamnsgatan 43, Box 1103 SE-164 22 Kista SWEDEN
Test Report Number(s):	1806224STO-001

Additional information: **The EMF requirements according to EN 62493:2015 have been deemed to be in compliance without measurements according to clause 4.2.2.**



Signature

Name: Robert Lennqvist

Position: Manager Lighting Products

Date: 19 April 2018

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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. : 1806224STO-001

Date of issue : 18 April 2018

Total number of pages : 37

**Name of Testing Laboratory
preparing the Report** : Intertek Semko AB

Applicant's name : Skånebeslag AB

Address : Santessons väg 24 SE-232 61 ARLÖV SWEDEN

Test specification:

Standard : EN 60598-2-1:1989 used in conjunction with
EN 60598-1:2015

Test procedure..... : Test for LVD verification

Non-standard test method..... : N/A

Test Report Form No...... : IEC60598_2_1E

Test Report Form(s) Originator.... : Intertek Semko AB

Master TRF : 2016-02

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General disclaimer:

The test results presented in this report relate only to the object tested.
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Test item description	Luminaire for bathroom furniture with LED
Trade Mark	Skånebeslag AB
Manufacturer.....	Same as Applicant
Model/Type reference	2015050 and 2013050 see General product information
Ratings	230V, Max 15W LED, IP44, 50Hz, Class I
Model/Type reference	2015055, 2015064, 2015065, 2015066, 2015067, 2013055, 2013064, 2013065, 2013066 and 2013067 see General product information
Ratings	230V, Max 29W LED, IP44, 50Hz, Class I


Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):	
<input checked="" type="checkbox"/> CB Testing Laboratory:	
Testing location/ address	Intertek Semko AB Torshamnsgatan 43, Box 1103 SE-164 22 Kista SWEDEN
<input type="checkbox"/> Associated CB Testing Laboratory:	
Testing location/ address	
Tested by (name, function, signature)	Maria Lenell Project Engineer <i>Maria Lenell</i>
Approved by (name, function, signature) ..	Mats Ros Project Engineer <i>Mats Ros</i>
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) :	


<p>List of Attachments (including a total number of pages in each attachment): 22 Photos Max overall uncertainty, 1 page</p>	
<p>Summary of testing: No remarks have been found</p>	
<p>Tests performed (name of test and test clause): All applicable tests performed at the CBTL</p>	<p>Testing location: Intertek Semko AB Torshamnsgatan 43, Box 1103 SE-164 22 Kista, SWEDEN</p>
<p>Summary of compliance with National Differences: List of countries addressed</p> <p><input checked="" type="checkbox"/> CENELEC Common Modifications (EN) and Special National Conditions (EN) are verified. National Deviations (EN) are not checked.</p>	


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.


SKÅFORM 232 61 Arlöv 
 by SKÅNEBESLAG
Typ no. 2015050
6441100
3000K
Max Power 15W
230V 50Hz IP44
Batch nr. 707070



SKÅFORM 232 61 Arlöv 
 by SKÅNEBESLAG
Typ no. 2013050
6441101
3000K
Max Power 15W
230V 50Hz IP44
Batch nr. 707070





SKÅFORM 232 61 Arlöv 
 by SKÅNEBESLAG
Typ no. 2015055
6441200
3000K
Max Power 29W
230V 50Hz IP44
Batch nr. 707070





SKÅFORM 232 61 Arlöv 
 by SKÅNEBESLAG
Typ no. 2013055
6441201
3000K
Max Power 29W
230V 50Hz IP44
Batch nr. 707070





SKÅFORM 232 61 Arlöv 
 by SKÅNEBESLAG
Typ no. 2015064
6441300
3000K
Max Power 29W
230V 50Hz IP44
Batch nr. 707070



SKÅFORM 232 61 Arlöv 
 by SKÅNEBESLAG
Typ no. 2013064
6441301
3000K
Max Power 29W
230V 50Hz IP44
Batch nr. 707070



SKÅFORM 232 61 Arlöv 
 by SKÅNEBESLAG
Typ no. 2015065
6441400
3000K
Max Power 29W
230V 50Hz IP44
Batch nr. 707070



SKÅFORM 232 61 Arlöv 
 by SKÅNEBESLAG
Typ no. 2013065
6441401
3000K
Max Power 29W
230V 50Hz IP44
Batch nr. 707070



SKÅFORM 232 61 Arlöv 
by SKÅNEBESLAG
Typ no. 2015066
6441500
3000K
Max Power 29W
230V 50Hz IP44
Batch nr. 707070 

SKÅFORM 232 61 Arlöv 
by SKÅNEBESLAG
Typ no. 2013066
6441501
3000K
Max Power 29W
230V 50Hz IP44
Batch nr. 707070 

SKÅFORM 232 61 Arlöv 
by SKÅNEBESLAG
Typ no. 2015067
6441600
3000K
Max Power 29W
230V 50Hz IP44
Batch nr. 707070 

SKÅFORM 232 61 Arlöv 
by SKÅNEBESLAG
Typ no. 2013067
6441601
3000K
Max Power 29W
230V 50Hz IP44
Batch nr. 707070 

Test item particulars : -	
Classification of installation and use : Normal use	
Supply Connection : Terminal block :	
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 : Full type testing	
Date of receipt of test item : 5 February 2018	
Date (s) of performance of tests : 2 March – 17 April 2018	
General remarks:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.	
Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> 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 :	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies) : -	

General product information:

The EMF requirements according to EN 62493:2015 have been deemed to be in compliance without measurements according to clause 4.2.2.

Difference between included types:

Rating: 230V, Max 15W LED, IP44, 50Hz, Class I

Type designation	Length	Color of upper/front edges
2015050	400mm	White
2013050	400mm	Black

Rating: 230V, Max 29W LED, IP44, 50Hz, Class I

Type designation	Length	Color of upper/front edges
2015055	550mm	White
2015064	600mm	White
2015065	650mm	White
2015066	800mm	White
2015067	850mm	White
2013055	550mm	Black
2013064	600mm	Black
2013065	650mm	Black
2013066	800mm	Black
2013067	850mm	Black

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

1.2 (0)	GENERAL TEST REQUIREMENTS		
1.2 (0.1)	Information for luminaire design considered	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Lamp standard:	—
1.2 (0.3)	More sections applicable	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Section/s:	—

1.4 (2)	CLASSIFICATION OF LUMINAIRES		
1.4 (2.2)	Type of protection	Class I	—
1.4 (2.3)	Degree of protection	IP 44	—
1.4 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
1.4 (2.5)	Luminaire for normal use	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
	Luminaire for rough service	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—

1.5 (3)	MARKING		
1.5 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text		P
1.5 (3.3)	Additional information		P
	Language of instructions		P
1.5 (3.3.1)	Combination luminaires		N/A
1.5 (3.3.2)	Nominal frequency in Hz		P
1.5 (3.3.3)	Operating temperature		N/A
1.5 (3.3.4)	Symbol or warning notice		N/A
1.5 (3.3.5)	Wiring diagram		N/A
1.5 (3.3.6)	Special conditions		N/A
1.5 (3.3.7)	Metal halide lamp luminaire – warning		N/A
1.5 (3.3.8)	Limitation for semi-luminaires		N/A
1.5 (3.3.9)	Power factor and supply current		N/A
1.5 (3.3.10)	Suitability for use indoors		N/A
1.5 (3.3.11)	Luminaires with remote control		N/A
1.5 (3.3.12)	Clip-mounted luminaire – warning		N/A
1.5 (3.3.13)	Specifications of protective shields		N/A
1.5 (3.3.14)	Symbol for nature of supply		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.5 (3.3.15)	Rated current of socket outlet		N/A
1.5 (3.3.16)	Rough service luminaire		N/A
1.5 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments		N/A
1.5 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
1.5 (3.3.19)	Protective conductor current in instruction if applicable		N/A
1.5 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
1.5 (3.3.21)	Non replaceable and non-user replaceable light sources information provided	Only non-user replaceable light sources	P
	Cautionary symbol		N/A
1.5 (3.3.22)	Controllable luminaires, classification of insulation provided		N/A
1.5 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test		P
	Label attached		P

1.6 (4)	CONSTRUCTION		
1.6 (4.2)	Components replaceable without difficulty		N/A
1.6 (4.3)	Wireways smooth and free from sharp edges		P
1.6 (4.4)	Lampholders		
1.6 (4.4.1)	Integral lampholder		N/A
1.6 (4.4.2)	Wiring connection		N/A
1.6 (4.4.3)	Lampholder for end-to-end mounting		N/A
1.6 (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
1.6 (4.4.5)	Peak pulse voltage		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.6 (4.4.6)	Centre contact		N/A
1.6 (4.4.7)	Parts in rough service luminaires resistant to tracking		N/A
1.6 (4.4.8)	Lamp connectors		N/A
1.6 (4.4.9)	Caps and bases correctly used		N/A
1.6 (4.4.10)	Light source for lampholder or connection according IEC 60061 not connected another way		N/A
1.6 (4.5)	Starter holders		
	Starter holder in luminaires other than class II		N/A
	Starter holder class II construction		N/A
1.6 (4.6)	Terminal blocks		
	Tails		N/A
	Unsecured blocks		N/A
1.6 (4.7)	Terminals and supply connections		
1.6 (4.7.1)	Contact to metal parts		N/A
1.6 (4.7.2)	Test 8 mm live conductor		P
	Test 8 mm earth conductor		P
1.6 (4.7.3)	Terminals for supply conductors		P
1.6 (4.7.3.1)	Welded method and material		
	- stranded or solid conductor		N/A
	- spot welding		N/A
	- welding between wires		N/A
	- Type Z attachment		N/A
	- mechanical test according to 15.6.2		N/A
	- electrical test according to 15.6.3		N/A
	- heat test according to 15.6.3.2.3 and 15.6.3.2.4		N/A
1.6 (4.7.4)	Terminals other than supply connection		N/A
1.6 (4.7.5)	Heat-resistant wiring/sleeves		N/A
1.6 (4.7.6)	Multi-pole plug		N/A
	- test at 30 N		N/A
1.6 (4.8)	Switches		
	- adequate rating		N/A
	- adequate fixing		N/A
	- polarized supply		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
	- compliance with IEC 61058-1 for electronic switches		N/A
1.6 (4.9)	Insulating lining and sleeves		
1.6 (4.9.1)	Retention		N/A
	Method of fixing		N/A
1.6 (4.9.2)	Insulated linings and sleeves:		
	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
1.6 (4.10)	Double or reinforced insulation		
1.6 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation		N/A
	Safe installation fixed luminaires		N/A
	Capacitors and switches		N/A
	Interference suppression capacitors according to IEC 60384-14		N/A
1.6 (4.10.2)	Assembly gaps:		
	- not coincidental		N/A
	- no straight access with test probe		N/A
1.6 (4.10.3)	Retention of insulation:		
	- fixed		N/A
	- unable to be replaced; luminaire inoperative		N/A
	- sleeves retained in position		N/A
	- lining in lampholder		N/A
1.6 (4.10.4)	Protective impedance device		
	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor		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
1.6 (4.11)	Electrical connections and current-carrying parts		
1.6 (4.11.1)	Contact pressure		P
1.6 (4.11.2)	Screws:		
	- self-tapping screws		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
	- thread-cutting screws		N/A
1.6 (4.11.3)	Screw locking:		
	- spring washer		N/A
	- rivets		N/A
1.6 (4.11.4)	Material of current-carrying parts		P
1.6 (4.11.5)	No contact to wood or mounting surface		P
1.6 (4.11.6)	Electro-mechanical contact systems		N/A
1.6 (4.12)	Screws and connections (mechanical) and glands		
1.6 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		N/A
	Torque test: torque (Nm); part.....:	0,5; Fixing screws for cover plastic	P
	Torque test: torque (Nm); part.....:		N/A
	Torque test: torque (Nm); part.....:		N/A
1.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
1.6 (4.12.4)	Locked connections:		
	- fixed arms; torque (Nm).....:		N/A
	- lampholder; torque (Nm)		N/A
	- push-button switches; torque 0,8 Nm.....:		N/A
1.6 (4.12.5)	Screwed glands; force (Nm).....:		N/A
1.6 (4.13)	Mechanical strength		
1.6 (4.13.1)	Impact tests:		
	- fragile parts; energy (Nm).....:	0,2 / Translucent cover	P
	- other parts; energy (Nm)	0,35 / Luminaire body	P
	1) live parts		P
	2) linings		N/A
	3) protection		P
	4) covers		P
1.6 (4.13.3)	Straight test finger		N/A
1.6 (4.13.4)	Rough service luminaires		
	- IP54 or higher		N/A
	a) fixed		N/A
	b) hand-held		N/A
	c) delivered with a stand		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
	d) for temporary installations and suitable for mounting on a stand		N/A
1.6 (4.13.6)	Tumbling barrel		N/A
1.6 (4.14)	Suspensions, fixings and means of adjusting		
1.6 (4.14.1)	Mechanical load:		
	A) four times the weight		N/A
	B) torque 2,5 Nm		N/A
	C) bracket arm; bending moment (Nm).....:		N/A
	D) load track-mounted luminaires		N/A
	E) clip-mounted luminaires, glass-shelve. Thickness (mm)		N/A
	Metal rod. diameter (mm)		N/A
	Fixed luminaire or independent control gear without fixing devices		N/A
1.6 (4.14.2)	Load to flexible cables		
	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
1.6 (4.14.3)	Adjusting devices:		
	- flexing test; number of cycles		N/A
	- strands broken.....:		N/A
	- electric strength test afterwards		N/A
1.6 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
1.6 (4.14.5)	Guide pulleys		N/A
1.6 (4.14.6)	Strain on socket-outlets		N/A
1.6 (4.15)	Flammable materials		
	- glow-wire test 650°C	See Test Table 1.15 (13.3.2)	P
	- spacing ≥30 mm		N/A
	- screen withstanding test of 13.3.1		N/A
	- screen dimensions		N/A
	- no fiercely burning material		P
	- thermal protection		N/A
	- electronic circuits exempted		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.6 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		
	a) construction		N/A
	b) temperature sensing control		N/A
	c) surface temperature		N/A
1.6 (4.16)	Luminaires for mounting on normally flammable surfaces		
	No lamp control gear: (compliance with Section 12)		N/A
1.6 (4.16.1)	Lamp control gear spacing:		
	- spacing 35 mm		N/A
	- spacing 10 mm		N/A
1.6 (4.16.2)	Thermal protection:		
	- in lamp control gear		N/A
	- external		N/A
	- fixed position		N/A
	- temperature marked lamp control gear		N/A
1.6 (4.16.3)	Design to satisfy the test of 12.6	(see clause 12.6)	N/A
1.6 (4.17)	Drain holes		
	Clearance at least 5 mm		N/A
1.6 (4.18)	Resistance to corrosion		
1.6 (4.18.1)	- rust-resistance		P
1.6 (4.18.2)	- season cracking in copper		N/A
1.6 (4.18.3)	- corrosion of aluminium		N/A
1.6 (4.19)	Ignitors compatible with ballast		N/A
1.6 (4.20)	Rough service vibration		N/A
1.6 (4.21)	Protective shield		
1.6 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps		N/A
	Shield of glass if tungsten halogen lamps		N/A
1.6 (4.21.2)	Particles from a shattering lamp not impair safety		N/A
1.6 (4.21.3)	No direct path		N/A
1.6 (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
1.6 (4.22)	Attachments to lamps not cause overheating or damage		N/A
1.6 (4.23)	Semi-luminaires comply Class II		N/A

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
1.6 (4.24)	Photobiological hazards		
1.6 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		N/A
1.6 (4.24.2)	Retinal blue light hazard		
	Class of risk group assessed according to IEC/TR 62778	Risk group 1	—
	Luminaires with E_{thr} :		
	a) Fixed luminaires		N/A
	- distance x m, borderline between RG1 and RG2...:		N/A
	- marking and instruction according 3.2.23		N/A
	b) Portable and handheld luminaires		N/A
	- marking according 3.2.23 if RG1 exceeded at 200 mm according to IEC/TR 62778		N/A
	Portable luminaires for children IEC 60598-2-10 and Mains socket outlet nightlights IEC 60598-2-12 not exceed RG1 at 200 mm according to IEC/62778		N/A
1.6 (4.25)	Mechanical hazard		
	No sharp point or edges		P
1.6 (4.26)	Short-circuit protection		
1.6 (4.26.1)	Adequate means of uninsulated accessible SELV parts		N/A
1.6 (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
1.6 (4.27)	Terminal blocks with integrated screwless earthing contacts		
	Test according Annex V		P
	Pull test of terminal fixing (20 N)		P
	After test, resistance < 0,05 Ω		P
	Pull test of mechanical connection (50 N)		P
	After test, resistance < 0,05 Ω		P
	Voltage drop test, resistance < 0,05 Ω		P
1.6 (4.28)	Fixing of thermal sensing control		
	Not plug-in or easily replaceable type		N/A
	Reliably kept in position		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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:		
	Max. temperature on adhesive material (°C)		—
	100 cycles between t min and t max		N/A
	Temperature sensing control still in position		N/A
1.6 (4.29)	Luminaires with non-replaceable light source		
	Not possible to replace light source		N/A
	Live part not accessible after parts have been opened by hand or tools		N/A
1.6 (4.30)	Luminaires with non-user replaceable light source		
	If protective cover provide protection against electric shock and marked with “caution, electric shock risk” symbol:		
	Minimum two fixing means		N/A
1.6 (4.31)	Insulation between circuits		
	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
1.6 (4.31.1)	SELV circuits		
	Used SELV source		P
	Voltage ≤ ELV		P
	Insulating of SELV circuits from LV supply		P
	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
	SELV circuits insulated from accessible parts according Table X.1		P
	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
	Plugs and socket-outlets does not have protective conductor contact		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

1.6 (4.31.2)	FELV circuits		
	Used FELV source		N/A
	Voltage ≤ 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
1.6 (4.31.3)	Other circuits		
	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:		
	- 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
1.6 (4.32)	Overvoltage protective devices		
	Comply with IEC 61643-11		N/A
	External to controlgear and connected to earth:		
	- only in fixed luminaires		N/A
	- only connected to protective earth		N/A

1.7 (11)	CREEPAGE DISTANCES AND CLEARANCES		
1.7 (11.2)	Creepage distances and clearances	See Table 1.7 (11.2)	P
	Impulse withstand category (Normal category II) (Category III Annex U, Table U.1)	Category II <input checked="" type="checkbox"/> Category III <input type="checkbox"/>	—

1.8 (7)	PROVISION FOR EARTHING		
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Clause	Requirement + Test	Result - Remark	Verdict
1.8 (7.2.1 + 7.2.3)	Accessible metal parts		P
	Metal parts in contact with supporting surface		P
	Resistance < 0,5 Ω	< 0.1 Ω	P
	Self-tapping screws used		N/A
	Thread-forming screws		N/A
	Thread-forming screw used in a groove		N/A
	Earth makes contact first		N/A
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		P
	Protective earthing of the luminaire not via built-in control gear		P
1.8 (7.2.2 + 7.2.3)	Earth continuity in joints, etc.		N/A
1.8 (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		P
1.8 (7.2.5)	Earth terminal integral part of connector socket		N/A
1.8 (7.2.6)	Earth terminal adjacent to mains terminals		P
1.8 (7.2.7)	Electrolytic corrosion of the earth terminal		P
1.8 (7.2.8)	Material of earth terminal		P
	Contact surface bare metal		P
1.8 (7.2.10)	Class II luminaire for looping-in		N/A
	Double or reinforced insulation to functional earth		N/A
1.8 (7.2.11)	Earthing core coloured green-yellow		P
	Length of earth conductor		N/A

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

1.9 (15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		
	Separately approved; component list	(see Annex 1)	P
	Part of the luminaire	(see Annex 4)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict

1.10 (5)	EXTERNAL AND INTERNAL WIRING		
1.10 (5.2)	Supply connection and external wiring		
1.10 (5.2.1)	Means of connection	Fixed connection (terminal block)	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		N/A
1.10 (5.2.2)	Type of cable		N/A
	Nominal cross-sectional area (mm ²).....		N/A
	Cables equal to IEC 60227 or IEC 60245		N/A
1.10 (5.2.3)	Type of attachment, X, Y or Z		N/A
1.10 (5.2.5)	Type Z not connected to screws		N/A
1.10 (5.2.6)	Cable entries:		
	- suitable for introduction		P
	- adequate degree of protection		P
1.10 (5.2.7)	Cable entries through rigid material have rounded edges		P
1.10 (5.2.8)	Insulating bushings:		
	- suitably fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- tubes or guards made of insulating material		N/A
1.10 (5.2.9)	Locking of screwed bushings		N/A
1.10 (5.2.10)	Cord anchorage:		
	- covering protected from abrasion		N/A
	- clear how to be effective		N/A
	- no mechanical or thermal stress		N/A
	- no tying of cables into knots etc.		N/A
	- insulating material or lining		N/A
1.10 (5.2.10.1)	Cord anchorage for type X attachment:		
	a) at least one part fixed		N/A
	b) types of cable		N/A
	c) no damaging of the cable		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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
1.10 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment		N/A
1.10 (5.2.10.3)	Tests:		
	- impossible to push cable; unsafe		N/A
	- pull test: 25 times; pull (N).....:		N/A
	- torque test: torque (Nm)		N/A
	- displacement ≤ 2 mm		N/A
	- no movement of conductors		N/A
	- no damage of cable or cord		N/A
	- function independent of electrical connection		N/A
1.10 (5.2.11)	External wiring passing into luminaire		P
1.10 (5.2.12)	Looping-in terminals		N/A
1.10 (5.2.13)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
1.10 (5.2.14)	Mains plug same protection		N/A
	Class III luminaire plug		N/A
	No unsafe compatibility		N/A
1.10 (5.2.16)	Appliance inlets (IEC 60320)		N/A
	Installation couplers (IEC 61535)		N/A
	Other appliance inlet or connector according relevant IEC standard		N/A
1.10 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
1.10 (5.2.18)	Used plug in accordance with		

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Clause	Requirement + Test	Result - Remark	Verdict
	- IEC 60083		N/A
	- other standard		N/A
1.10 (5.3)	Internal wiring		
1.10 (5.3.1)	Internal wiring of suitable size and type		P
	Through wiring		
	- 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
1.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring		
	Cross-sectional area (mm ²).....:	0,75	P
	Insulation thickness		P
	Extra insulation added where necessary		N/A
1.10 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		
	Adequate cross-sectional area and insulation thickness		P
1.10 (5.3.1.3)	Double or reinforced insulation for class II		N/A
1.10 (5.3.1.4)	Conductors without insulation		N/A
1.10 (5.3.1.5)	SELV current-carrying parts		P
1.10 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A
1.10 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		N/A
	Joints, raising/lowering devices		N/A
	Telescopic tubes etc.		N/A
	No twisting over 360°		N/A
1.10 (5.3.3)	Insulating bushings:		
	- suitable fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

	- cables with protective sheath		N/A
1.10 (5.3.4)	Joints and junctions effectively insulated		N/A
1.10 (5.3.5)	Strain on internal wiring		N/A
1.10 (5.3.6)	Wire carriers		N/A
1.10 (5.3.7)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A

1.11 (8)	PROTECTION AGAINST ELECTRIC SHOCK		
1.11 (8.2.1)	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		N/A
	Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires		N/A
	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires		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		N/A
	Double-ended high pressure discharge lamp		N/A
	Relevant warning according to 3.2.18 fitted to the luminaire		N/A
1.11 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N/A
1.11 (8.2.3.a)	Class II luminaire:		
	- basic insulated metal parts not accessible during starter or lamp replacement		N/A
	- basic insulation not accessible other than during starter or lamp replacement		N/A
	- glass protective shields not used as supplementary insulation		N/A
1.11 (8.2.3.b)	BC lampholder of metal in class I luminaires shall be earthed		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

1.11 (8.2.3.c)	SELV circuits with exposed current carrying parts:		
	Ordinary luminaire:		
	- voltage under load (V)		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:		
	- 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
1.11 (8.2.4)	Portable luminaire have protection independent of supporting surface		N/A
1.11 (8.2.5)	Compliance with the standard test finger or relevant probe		N/A
1.11 (8.2.6)	Covers reliably secured		N/A
1.11 (8.2.7)	Luminaire other than below with capacitor > 0,5 µF not exceed 50 V 1 min after disconnection		N/A
	Portable luminaire with capacitor > 0,1 µF (0.25) not exceed 34 V 1 s after disconnection		N/A
	Other luminaires with capacitor > 0,1 µF (0.25) with plug and track adaptors not exceed 60 V 5 s after disconnection		N/A

1.12 (12)	ENDURANCE TEST AND THERMAL TEST		
1.12 (-)	If IP > IP 20 relevant test of (12.4), (12.5) and (12.6) after (9.2) before (9.3) specified in 1.13		—
1.12 (12.3)	Endurance test:		
	- mounting-position	Mounted on top of mounting surface (bathroom cabinet) and with rearside against wall.	—
	- test temperature (°C)	35	—
	- total duration (h)	240	—
	- supply voltage: Un factor; calculated voltage (V) ...:	1,1 x 240V = 264V	—
	- lamp used	2 x 12,5W LED modules built-in.	—
1.12 (12.3.2)	After endurance test:		

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Clause	Requirement + Test	Result - Remark	Verdict
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N/A
	- marking legible		P
	- no cracks, deformation etc.		P
1.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
1.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	P
1.12 (12.6)	Thermal test (failed lamp control gear condition):		
1.12 (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
1.12 (12.6.2)	Temperature sensing control		
	- case of abnormal conditions.....		—
	- thermal link		N/A
	- manual reset cut-out		N/A
	- auto reset cut-out		N/A
	- measured mounting surface temperature (°C).....		N/A
	- track-mounted luminaires		N/A
1.12 (12.7)	Thermal test (failed lamp control gear in plastic luminaires):		
1.12 (12.7.1)	Luminaire without temperature sensing control		
1.12 (12.7.1.1)	Luminaire with fluorescent lamp ≤ 70W		
	Test method 12.7.1.1 or Annex W		—
	Test according to 12.7.1.1:		
	- case of abnormal conditions.....		—
	- Ballast failure at supply voltage (V)		—
	- Components retained in place after the test		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- Test with standard test finger after the test		N/A
	Test according to Annex W:		
	- case of abnormal conditions.....:		—
	- measured winding temperature (°C): at 1,1 Un.....:		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un.....:		—
	- calculated temperature of fixing point/exposed part (°C)		—
	Ball-pressure test.....:	See Table 1.15 (13.2.1)	N/A
1.12 (12.7.1.2)	Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA		
	- case of abnormal conditions.....:		—
	- measured winding temperature (°C): at 1,1 Un.....:		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un.....:		—
	- calculated temperature of fixing point/exposed part (°C)		—
	Ball-pressure test.....:	See Table 1.15 (13.2.1)	N/A
1.12 (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
1.12 (12.7.2)	Luminaire with temperature sensing control		
	- thermal link	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- manual reset cut-out.....:	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- auto reset cut-out.....:	Yes <input type="checkbox"/> No <input type="checkbox"/>	—
	- case of abnormal conditions.....:		—
	- highest measured temperature of fixing point/exposed part (°C):		—
	Ball-pressure test.....:	See Table 1.15 (13.2.1)	N/A
1.13 (9)	RESISTANCE TO DUST AND MOISTURE		
1.13 (-)	If IP > IP 20 the order of tests as specified in clause 1.12		P
1.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		P

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Clause	Requirement + Test	Result - Remark	Verdict

	- classification according to IP	IP 44	—
	- mounting position during test	Mounted on top of mounting surface (bathroom cabinet) and with rearside against wall.	—
	- fixing screws tightened; torque (Nm).....	0,33	—
	- tests according to clauses	9.2.0 and 9.2.5	—
	- electric strength test afterwards		P
	a) no deposit in dust-proof luminaire		N/A
	b) no talcum in dust-tight luminaire		N/A
	c) no trace of water on current-carrying parts or on insulation where it could become a hazard		P
	c.1) For luminaires without drain holes – no water entry		P
	c.2) For luminaires with drain holes – no hazardous water entry		N/A
	d) no water in watertight or pressure watertight luminaire		N/A
	e) no contact with live parts (IP 2X)		N/A
	e) no entry into enclosure (IP 3X and IP 4X)		P
	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		P
1.13 (9.3)	Humidity test 48 h		P

1.14 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		
1.14 (10.2.1)	Insulation resistance test		P
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø		—
	Insulation resistance (MΩ).....		—
	SELV		
	- between current-carrying parts of different polarity :	LED module	N/A
	- between current-carrying parts and mounting surface	> 10 (Required min. 1)	P
	- between current-carrying parts and metal parts of the luminaire	> 10 (Required min. 1)	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		N/A
	- Insulation bushings as described in Section 5		N/A
	Other than SELV		
	- between live parts of different polarity.....	LED driver	N/A
	- between live parts and mounting surface.....	> 20 (Required min. 2)	P
	- between live parts and metal parts.....	> 20 (Required min. 2)	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		N/A
	- Insulation bushings as described in Section 5		N/A
1.14 (10.2.2)	Electric strength test		N/A
	Dummy lamp		N/A
	Luminaires with ignitors after 24 h test		N/A
	Luminaires with manual ignitors		N/A
	Test voltage (V)		N/A
	SELV		
	- between current-carrying parts of different polarity :	LED module	N/A
	- between current-carrying parts and mounting surface	500V	P
	- between current-carrying parts and metal parts of the luminaire	500V	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts		N/A
	- Insulation bushings as described in Section 5		N/A
	Other than SELV		
	- between live parts of different polarity.....	LED driver	N/A
	- between live parts and mounting surface.....	1460V	P
	- between live parts and metal parts.....	1460V	P
	- between live parts of different polarity through action of a switch		N/A

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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		N/A
	- Insulation bushings as described in Section 5		N/A
1.14 (10.3)	Touch current or protective conductor current (mA):	<0,1 (Required max: 3,5)	P

1.15 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		
1.15 (13.2.1)	Ball-pressure test.....	See Test Table 1.15 (13.2.1)	N/A
1.15 (13.3.1)	Needle-flame test (10 s)	See Test Table 1.15 (13.3.1)	N/A
1.15 (13.3.2)	Glow-wire test (650°C)	See Test Table 1.15 (13.3.2)	P
1.15 (13.4)	Proof tracking test (IEC 60112)	See Test Table 1.15 (13.4)	P

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Clause	Requirement + Test	Result - Remark	Verdict

1.7 (11.2)	TABLE: Creepage distances and clearances							
	Minimum distances (mm) for a.c. (50/60 Hz) sinusoidal voltages							P
	Applicable part of IEC 60598-1 Table 11.1* and 11.2*							
	Insulation type **	Measured clearance	Required		Measured creepage	Required		
			clearance	*Table		creepage	*Table	
Distance 1a:	B	>2	1,5	11.1	>3,25	2,5	11.1	
Working voltage (V)					Input: 230VAC		—	
PTI					< 600 <input checked="" type="checkbox"/> ≥ 600 <input type="checkbox"/>		—	
Pulse voltage if applicable (kV)							—	
Supplementary information: Current-carrying parts and accessible metal parts								
Distance 1b:	B	>1,7	0,3	11.1	>1,7	1,3	11.1	
Working voltage (V)					Output :75VDC		—	
PTI					< 600 <input checked="" type="checkbox"/> ≥ 600 <input type="checkbox"/>		—	
Pulse voltage if applicable (kV)							—	
Supplementary information: Current-carrying parts and accessible metal parts								
Distance 2a:	B	>2	1,5	11.1	>3,25	2,5	11.1	
Working voltage (V)					Input: 230VAC		—	
PTI					< 600 <input checked="" type="checkbox"/> ≥ 600 <input type="checkbox"/>		—	
Pulse voltage if applicable (kV)							—	
Supplementary information: Current-carrying parts and supporting surface								
Distance 2b:	B	>1,7	0,3	11.1	>1,7	1,3	11.1	
Working voltage (V)					Output :75VDC		—	
PTI					< 600 <input checked="" type="checkbox"/> ≥ 600 <input type="checkbox"/>		—	
Pulse voltage if applicable (kV)							—	
Supplementary information: Current-carrying parts and supporting surface								

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Clause	Requirement + Test	Result - Remark	Verdict

Distance 3a:	B	>2	1,5	11.1	>3,25	2,5	11.1
Working voltage (V)						Input: 230VAC	—
PTI						< 600 <input checked="" type="checkbox"/> ≥ 600 <input type="checkbox"/>	—
Pulse voltage if applicable (kV)							—
Supplementary information: Current-carrying parts of different polarity							
Distance 3b:	B	>1,7	0,3	11.1	>1,7	1,3	11.1
Working voltage (V)						Output :75VDC	—
PTI						< 600 <input checked="" type="checkbox"/> ≥ 600 <input type="checkbox"/>	—
Pulse voltage if applicable (kV)							—
Supplementary information: Current-carrying parts of different polarity							

Supplementary information: -.

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

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Clause	Requirement + Test	Result - Remark	Verdict

1.15 (13.2.1)	TABLE: Ball Pressure Test of Thermoplastics			N/A
Allowed impression diameter (mm)				—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	Verdict
-	-	-	-	-
Supplementary information:-				

1.15 (13.3.1)	TABLE: Needle-flame test (IEC 60695-11-5)				N/A
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
-	-	-	-	-	-
-	-	-	-	-	-
Supplementary information:-					

1.15 (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	
Translucent cover (transparent)	-	No	0	P	
Translucent cover (semi-transparent)	-	No	0	P	
Any flame or glowing of the sample extinguished within 30 s of withdrawing the glow-wire, and any burning or molten drop did not ignite the underlying parts (Yes/No)				Yes	
Supplementary information:-					

1.15 (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	
Screwless terminal female (part of LED module)	-	50	50	50	P
-	-	-	-	-	-
Supplementary information:-					

IEC 60598-2-1			
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⁾	
Description:							
LED-Driver	B	SELF	SLD30-500IL-Es	Input: 220-240V. Output: 500mA (CC), 30-60VDC, Uout=75VDCmax tc-point 75°C, SELV , Class II	IEC/EN 61347	ENEC 18	
LED-Driver	B	TCI	MINI MD 500	Input: 220-240V. Output: 500mA (CC), Max 21W, Uout Max=59VDC tc-point 75°C, SELV, Class II	IEC/EN 61347	ENEC 05	
LED-module	B	TCI	LM280/20R32 128083/830SP 7150227	500mA, 12,5W, tc-point 85°C	IEC 62031	ENEC 15	
Terminal	A	BJB	46.414	450V, 16A, T85	IEC/EN 60998	VDE	
Internal wire (Between LED-driver and terminal), (Between LED-driver and LED module),	A	-	-	0,5mm, PVC isolated, Solid wire	IEC/EN 60598	Tested together with luminaire	
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: Temperature measurements, thermal tests of Section 12		
	Type reference.....:	2015050	—
	Lamp used	1x 12,5W LED modules built-in.	—
	Lamp control gear used	SELF, type SLD30-500IL-Es	—
	Mounting position of luminaire.....:	Mounted on top of mounting surface (bathroom cabinet) and with rearside against wall.	—
	Supply wattage (W)	27,6W	—
	Supply current (A).....:	0,127A	—
	Calculated power factor	0,94	—
	Table: measured temperatures corrected for ta = 25 °C:		
	- abnormal operating mode	LED-driver, secondary side (output) short circuited (*)	—
	- test 1: rated voltage	230V	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage	244V	—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage.....:		—
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage	253V	—
	Through wiring or looping-in wiring loaded by a current of A during the test	-	—

Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
LED-module, tc-point	25	57	-	-	85	-	-
LED-driver, tc-point	25	61	-	-	75	-	-
Wire at LED-driver	25	-	42	-	90	-	-
Wire at LED-module	25	-	36	-	90	-	-
Supply cable at terminal	25	-	36	-	90	-	-
Mounting surface, wall	25	-	30	-	90	(*)	130

Supplementary information: (*) LED-driver immediately turns down to safety level, no hazard.

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

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12		
	Type reference.....:	2015055	—
	Lamp used	2x 12,5W LED modules built-in.	—
	Lamp control gear used	SELF, type SLD30-500IL-Es	—
	Mounting position of luminaire	Mounted on top of mounting surface (bathroom cabinet) and with rearside against wall.	—
	Supply wattage (W)	27,6W	—
	Supply current (A).....:	0,127A	—
	Calculated power factor	0,94	—
	Table: measured temperatures corrected for ta = 25 °C:		
	- abnormal operating mode	LED-driver, secondary side (output) short circuited (*)	—
	- test 1: rated voltage	230V	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage	244V	—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage.....:		—
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage	253V	—
	Through wiring or looping-in wiring loaded by a current of A during the test	-	—

Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
LED-module, tc-point	25	59	-	-	85	-	-
LED-driver, tc-point	25	63	-	-	75	-	-
Wire at LED-driver	25	-	44	-	90	-	-
Wire at LED-module	25	-	38	-	90	-	-
Supply cable at terminal	25	-	38	-	90	-	-
Mounting surface, wall	25	-	30	-	90	(*)	130

Supplementary information: (*) LED-driver immediately turns down to safety level, no hazard.

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

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 60598-2-1:1989 used in conjunction with EN 60598-1:2015			
Annex Form No. : EU_GD_IEC60598_2_1D			
Annex Form Originator : OVE			
Master Annex Form : 2014-11			
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CENELEC COMMON MODIFICATIONS (EN)		
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1.5 (3)	MARKING		
1.5 (3.3.101)	For luminaires not supplied with terminal block: Adequate warning on the package		N/A

1.6 (4)	CONSTRUCTION		
1.6 (4.11.6)	Electro-mechanical contact systems		N/A

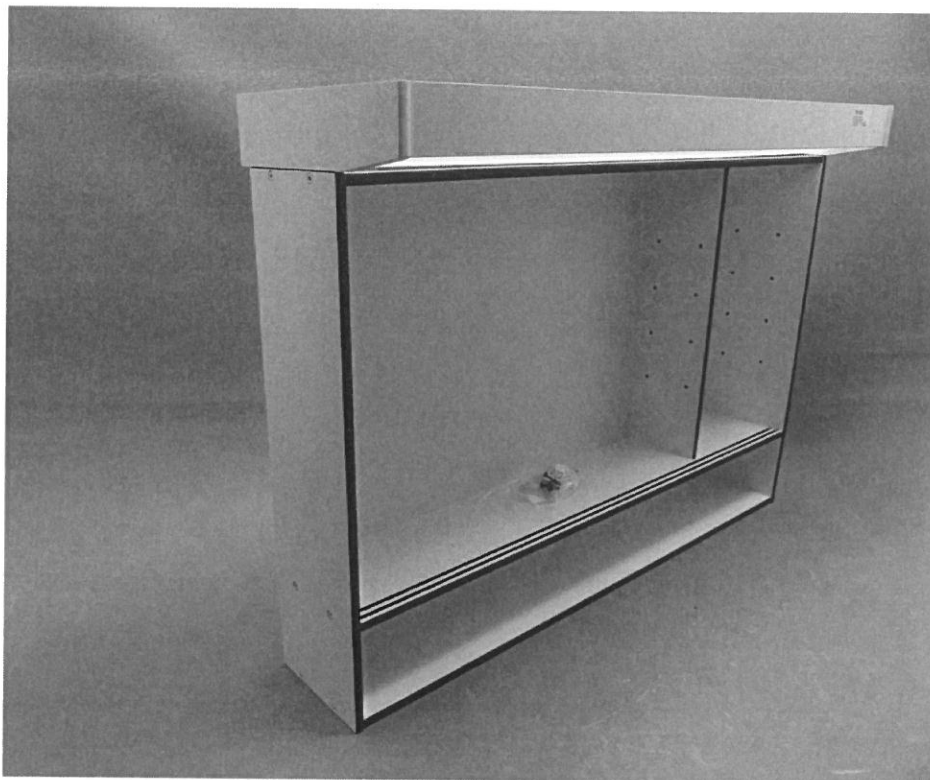
1.10 (5)	EXTERNAL AND INTERNAL WIRING		
1.10 (5.2.1)	Connecting leads		N/A
	- without a means for connection to the supply		N/A
	- terminal block specified		N/A
	- relevant information provided		N/A
	- compliance with 4.6, 4.7.1, 4.7.2, 4.10.1, 11.2, 12 and 13.2 of Part 1		N/A
1.10 (5.2.2)	Cables equal to EN 50525		N/A
	Replace table 5.1 – Supply cord		N/A

1.12 (12)	ENDURANCE TESTS AND THERMAL TESTS		
1.12 (12.4.2c)	Thermal test (normal operation) see footnote c to table 12.2 relating to unsleeved fixed wiring		N/A

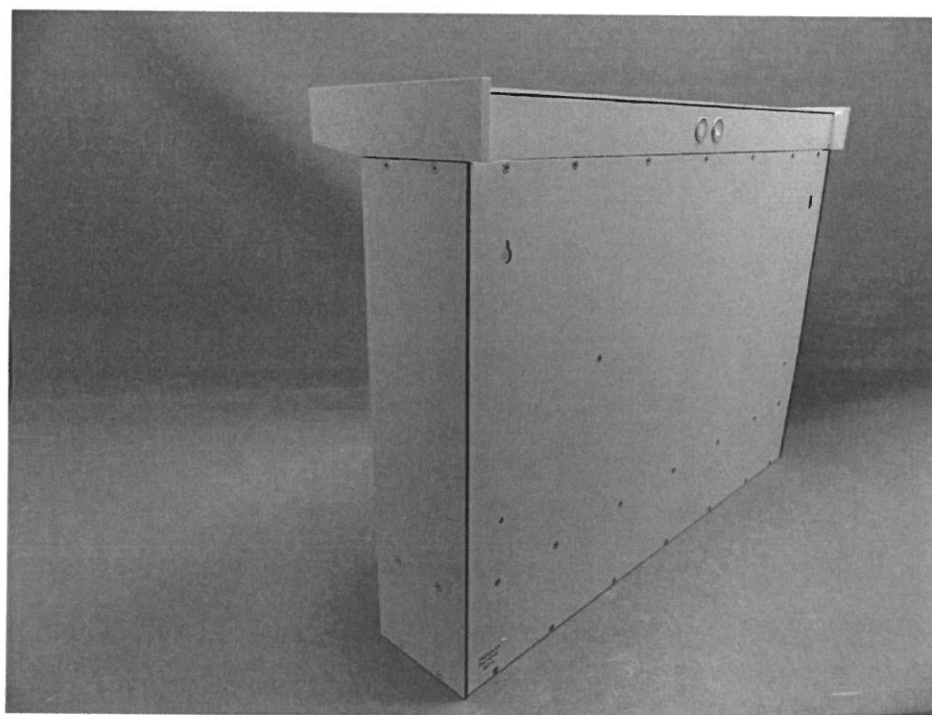
IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict

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

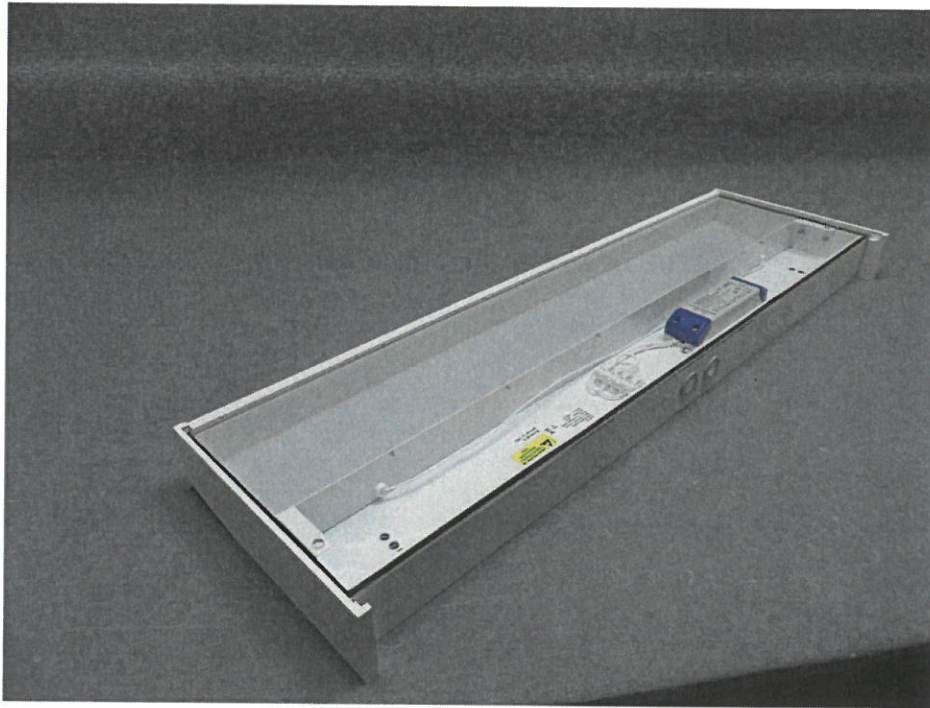
ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)		
(4 & 5)	FR: Shuttered socket-outlets 10/16A		Not checked
	GB: Requirements according to United Kingdom Building Regulation		Not checked



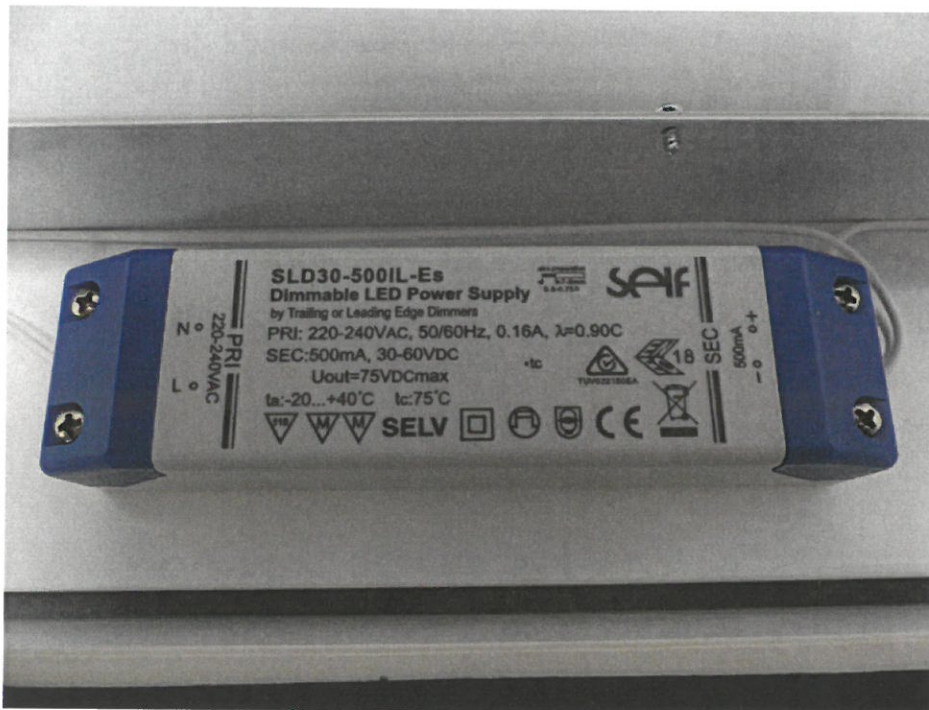
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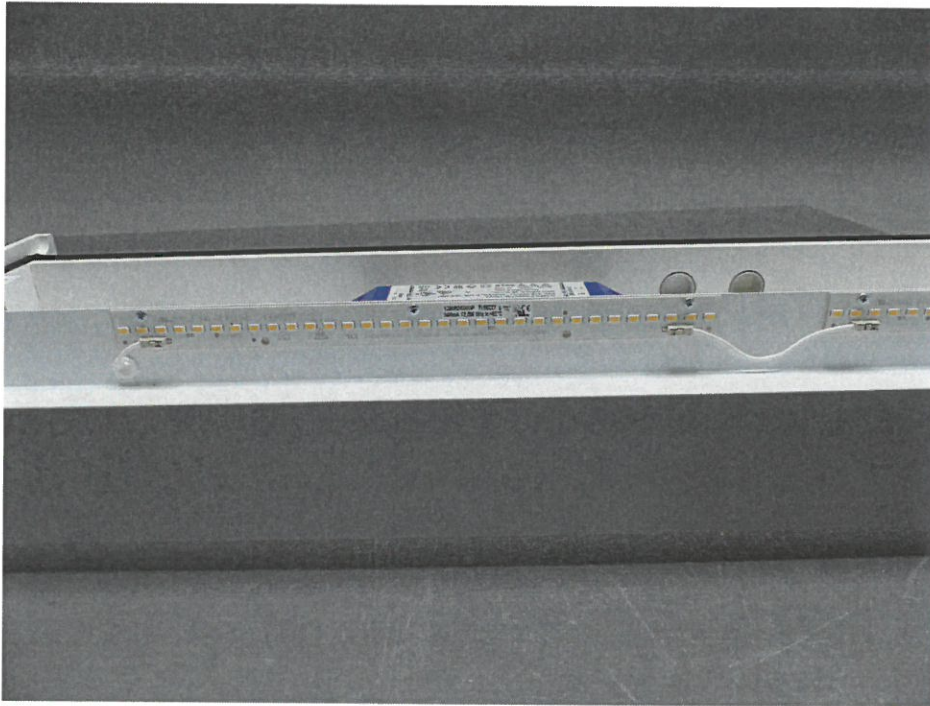
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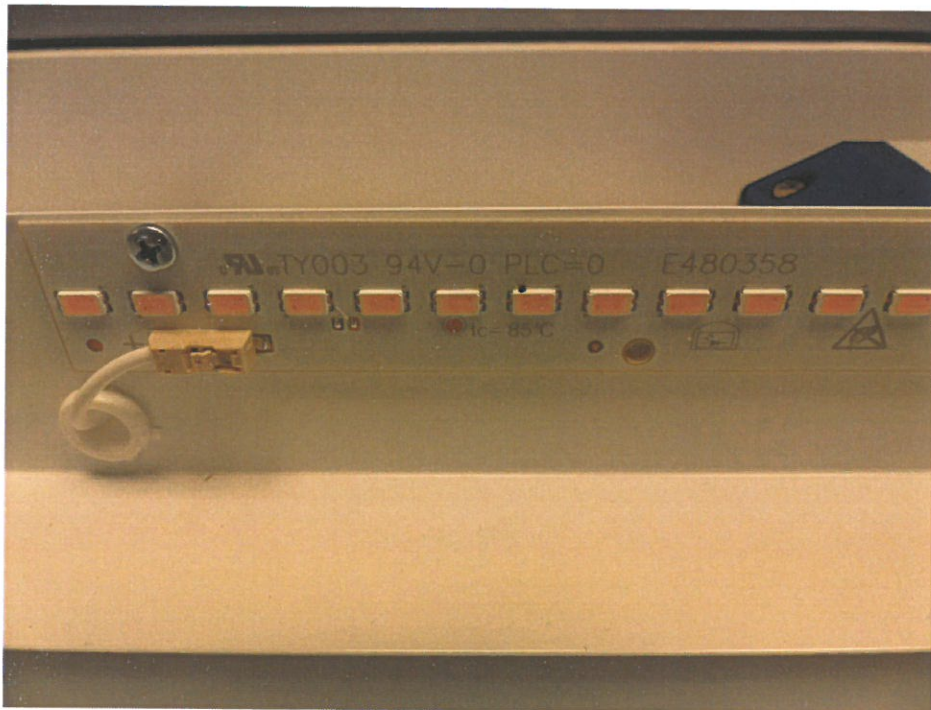
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1806224STO-001 (2013066)



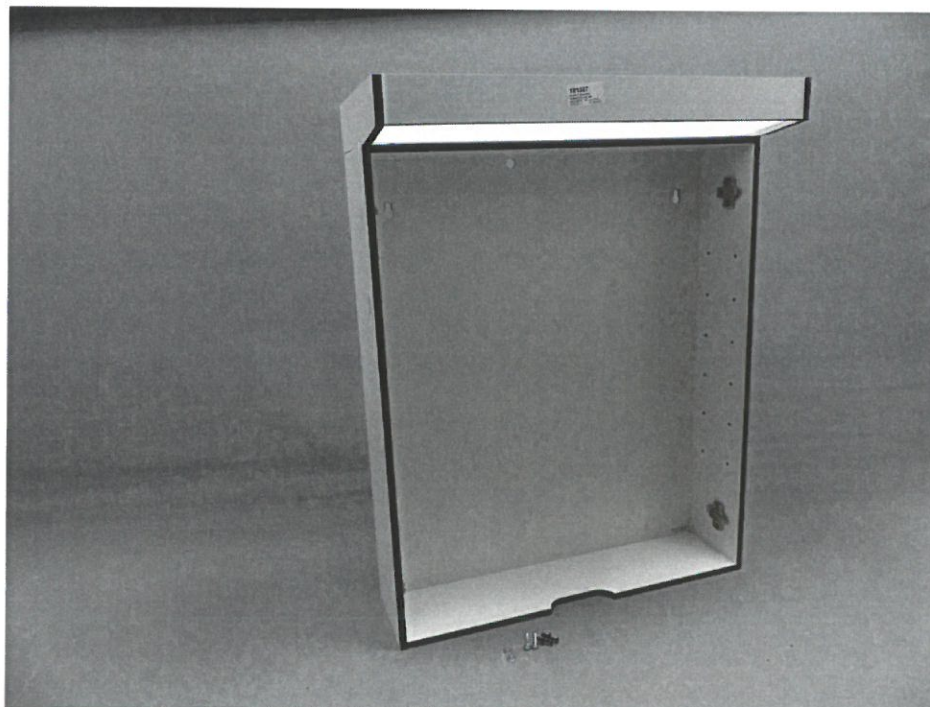
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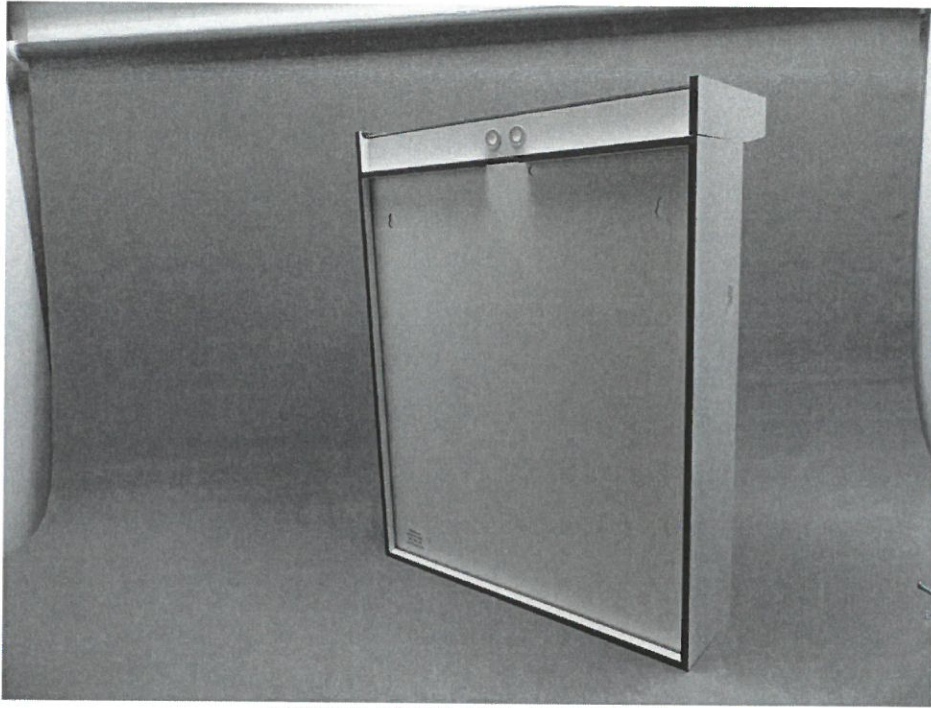
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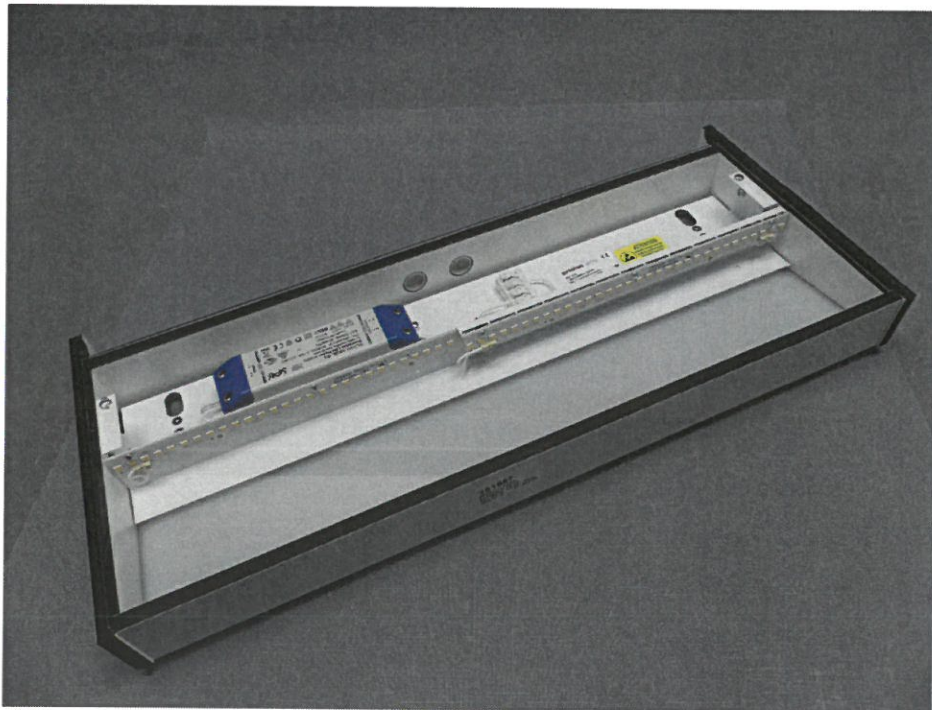
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1806224STO-001 (2013055)



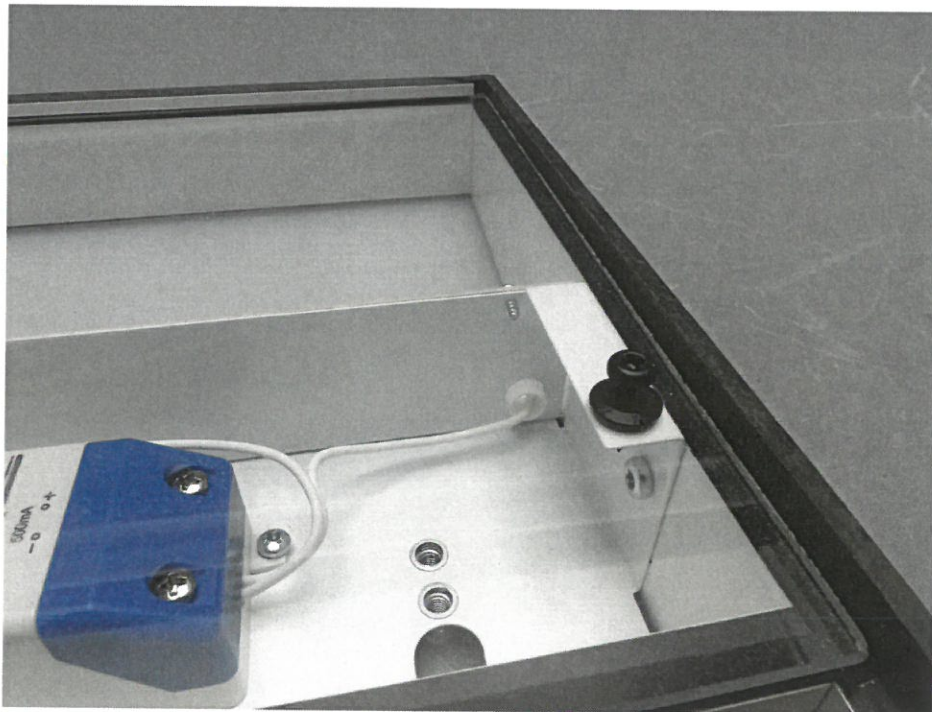
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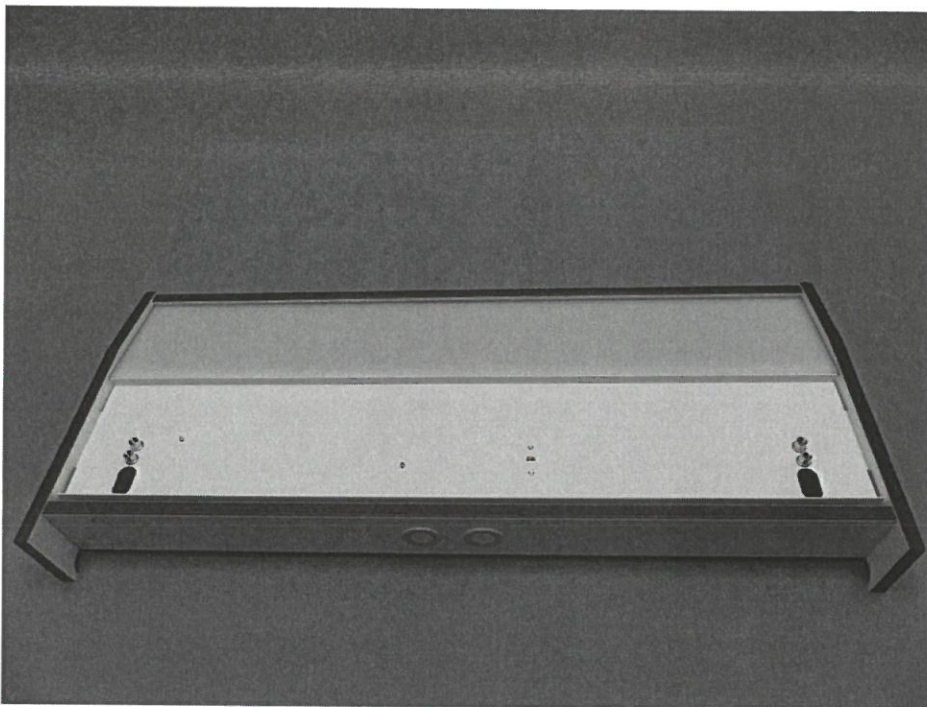
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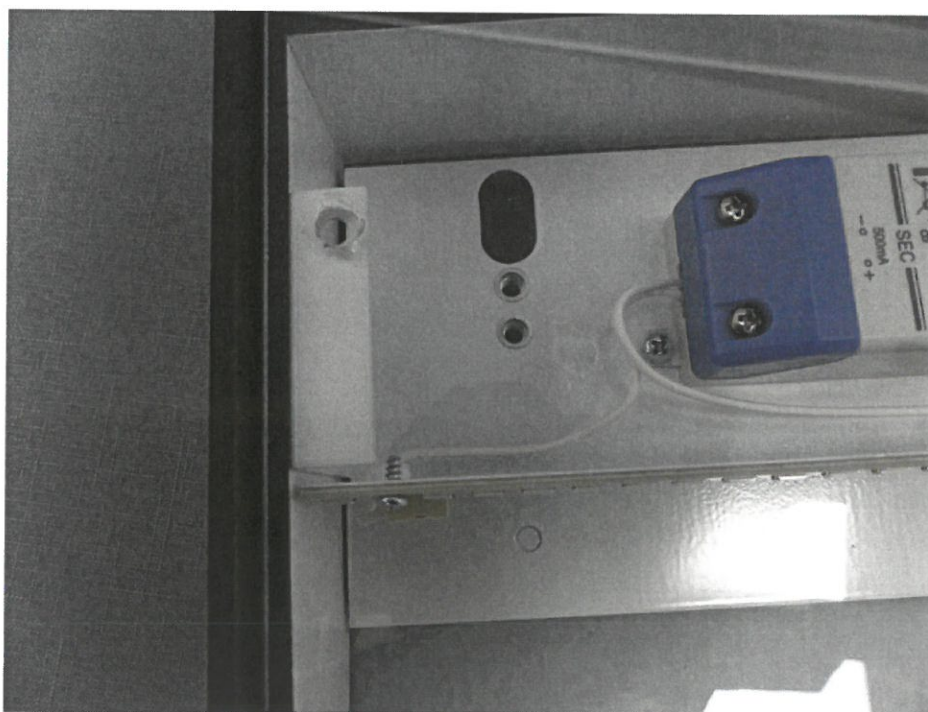
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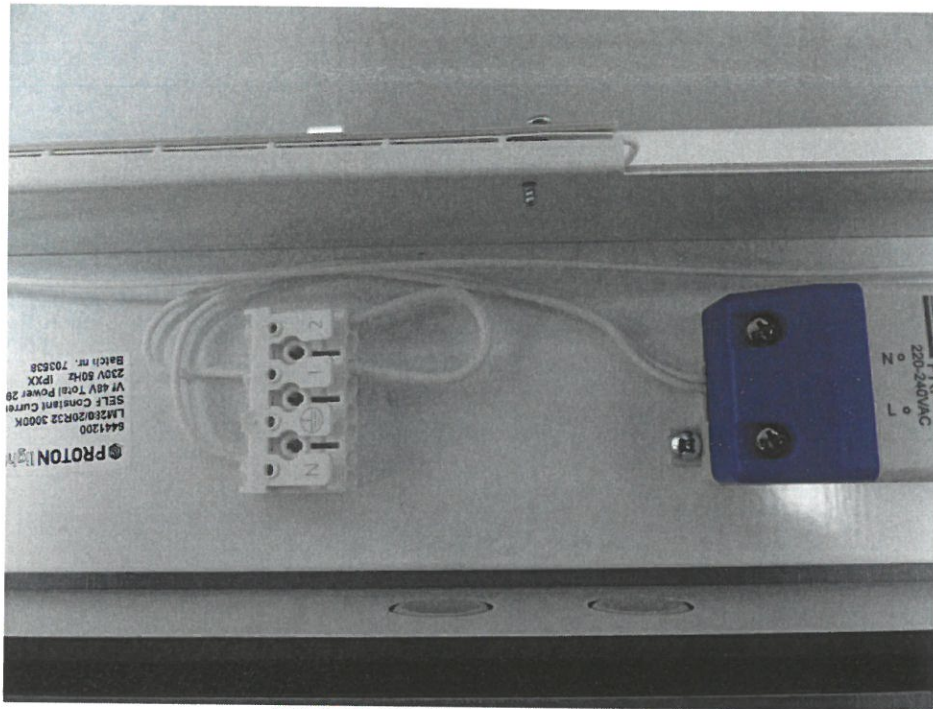
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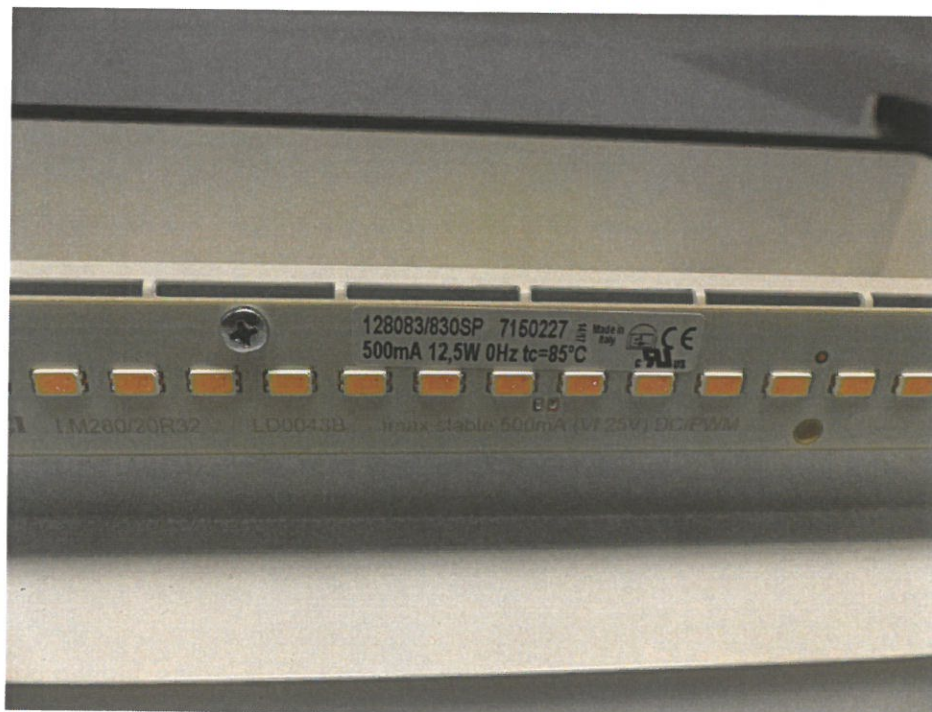
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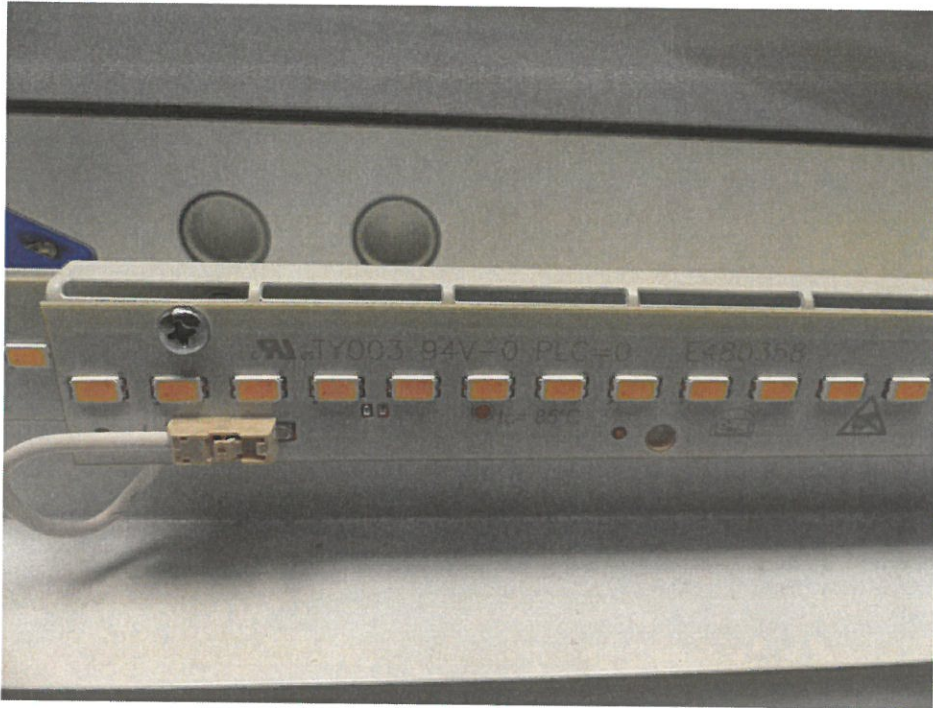
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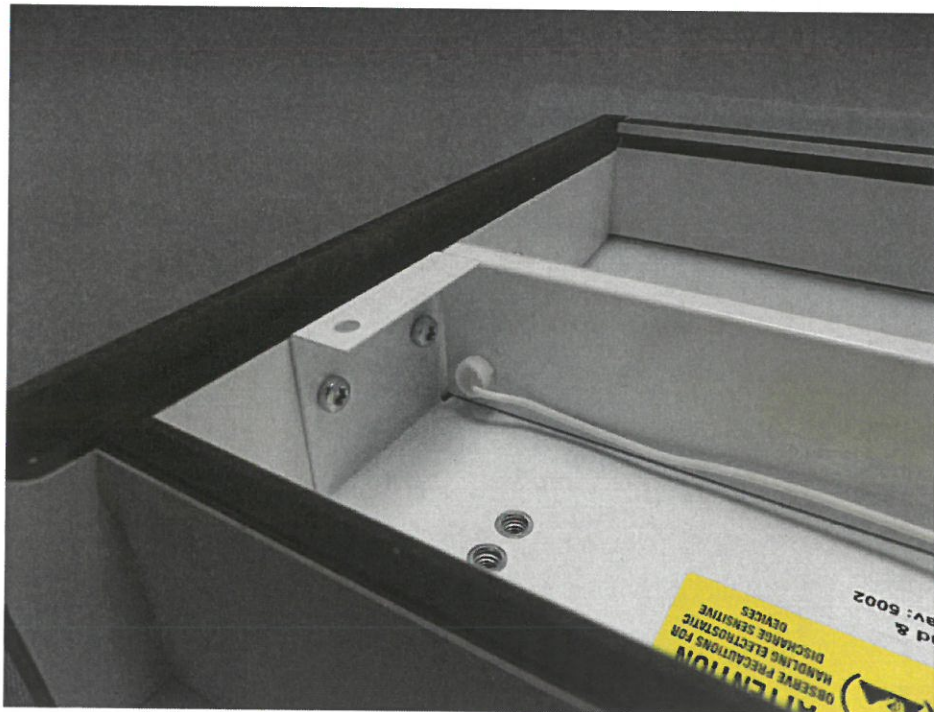
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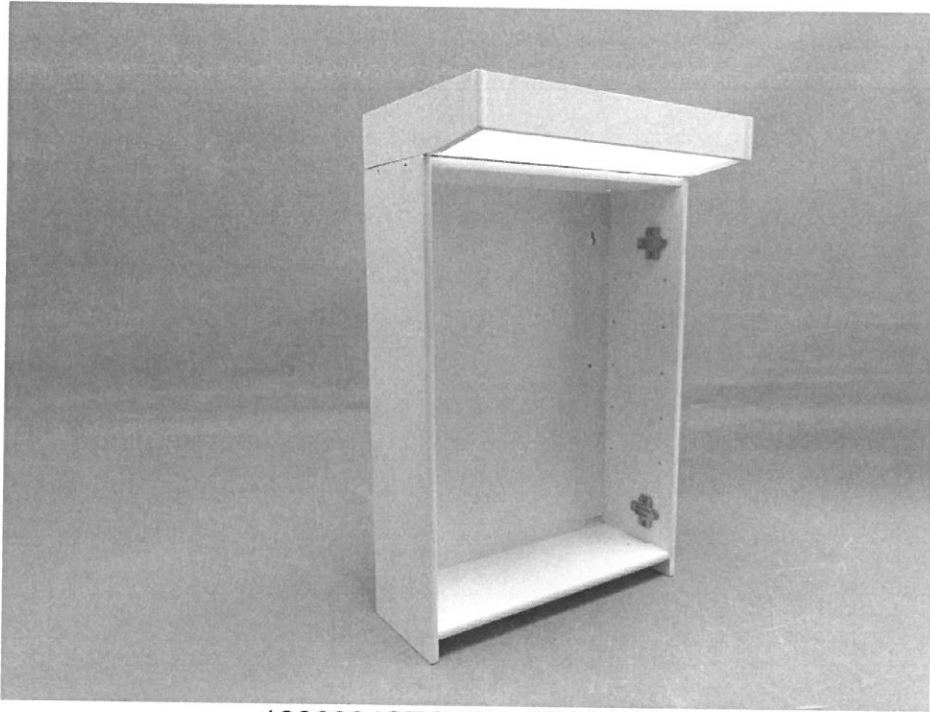
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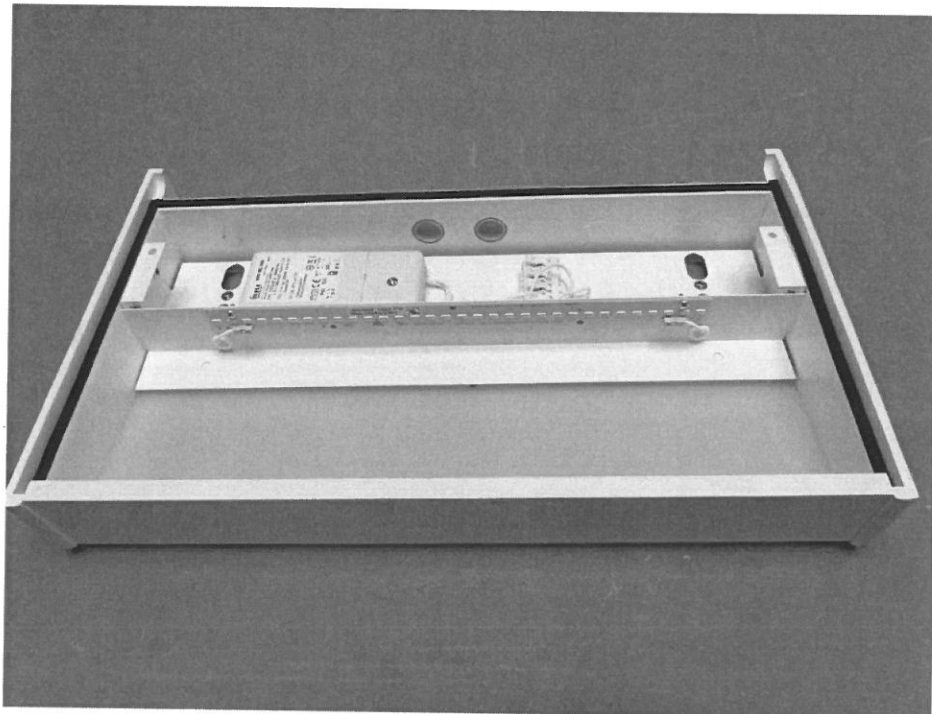
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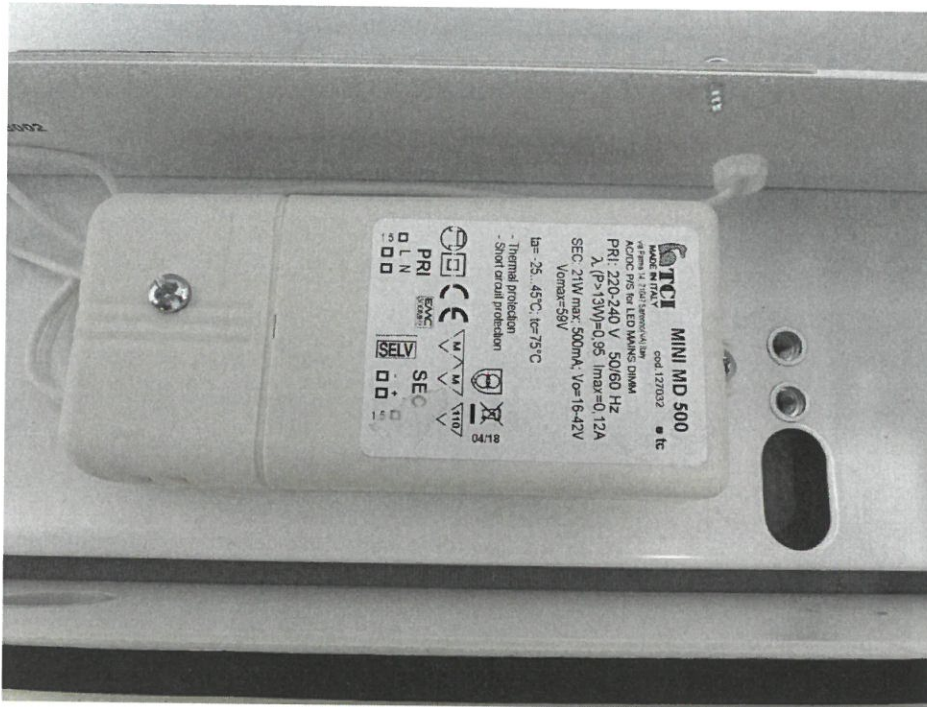
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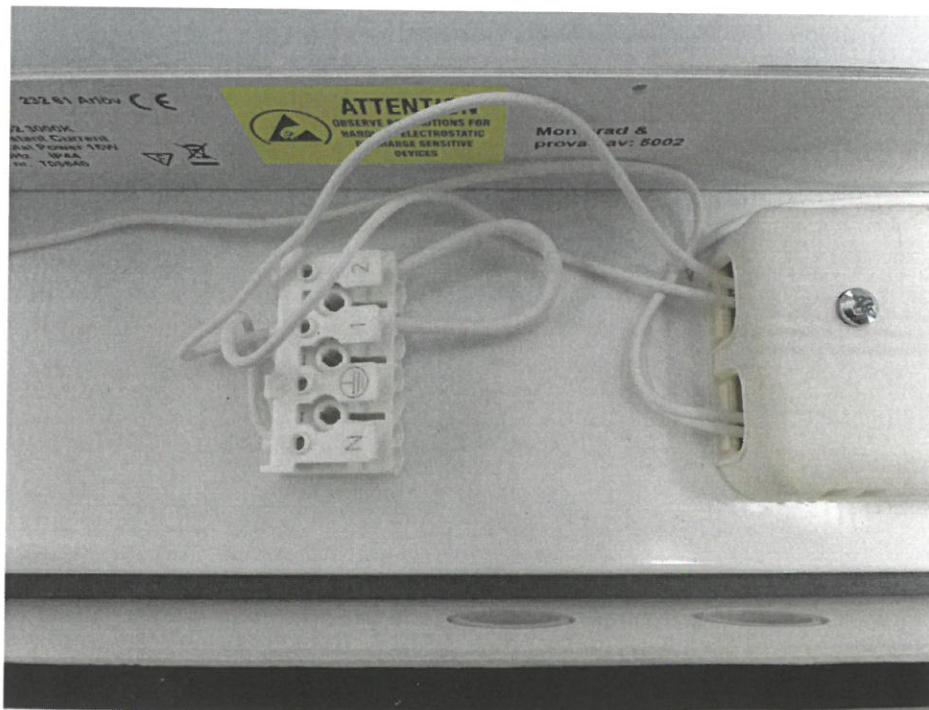
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Electrical quantities			Max overall uncertainty k=2
Voltage	≤ 1000V	DC	± 1,2%
	≤ 1000VRMS	45Hz - 5kHz	± 2,8%
Current	≤ 10A	DC	± 1,3%
	≤ 10A	45Hz - < 5kHz	± 1,6%
Resistance	< 100mΩ		± 1%
	100mΩ - 2MΩ		± 0,1%
	> 2MΩ		± 0,2%
Electric power	100mW - 10kW	DC, 40Hz - 10kHz	± 2,7%
Oscilloscopes	peak value		± 0,4%
Earth continuity meters	10A – 25A		± 0,6%
Leakage current	≤ 30mA	50 - 5000Hz	± 2,8%
Non Electrical quantities			Max overall uncertainty k=2
Temperature	≤ 300°C		± 3°C
	Calculation of temp raise > 300°C		± 4,5°C
Linear dimensions			
	Caliper	2 - 150mm	± 0,14mm
Micrometer	0 - 25mm	± 0,07mm	
Gauge rods	≤2mm		± 0,02mm
Mass	< 10g		± 0,5%
	10g - 100g		± 1%
	> 100g		± 2%
Relative humidity	10-95%RH		± 3%
Timers	1s - 1min		± 1s
	> 1min		± 1s
Corrosion testing, saltmist downfall	ml/h		±0,15ml/h
Salt concentration	5g		± 0,1%
Ph value	6,5-7,2pH		± 0,002pH
Flow	l/min		± 5%
Pressure	Pa		± 5%
Acceleration	m/s ²		± 10%