



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. : P1540-44-le

Date of issue..... : 2022-04-29

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Name of Testing Laboratory SGS BELGIUM division SGS CEBEC
preparing the Report..... :

Applicant's name..... : R-TECH

Address..... : Rue de Mons, 3,B-4000 LIEGE

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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Test item description	Street lighting
Trade Mark	SCHREDER
Manufacturer	SCHREDER
Model/Type reference	VOLTANA EVO 1, VOLTANA 0, VOLTANA 1, VOLTANA 2, VOLTANA 3, VOLTANA 4.
Ratings	200-240 V, 50-60 Hz, Cl. I , IP66, LED. VOLTANA 1-4: IK08 VOLTANA 0: IK09 (PC), IK10 (Glass) VOLTANA EVO 1: IK10 Version with 32, 24, 16, 8, 6 led's Led: max 1400 mA

Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
☐	CB Testing Laboratory:	
Testing location/ address.....:		
☐	Associated CB Testing Laboratory:	
Testing location/ address.....:		
Tested by (name, function, signature).....:		
Approved by (name, function, signature)....:		
☐	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.....:		R-Tech , Rue de Mons, 3,B-4000 LIEGE
Tested by (name, function, signature).....:		Ghysens Gilles 
Witnessed by (name, function, signature)..:		Christian Maes 
Approved by (name, function, signature)....:		Cheuvart Geoffrey 
Supervised by (name, function, signature) :		

List of Attachments (including a total number of pages in each attachment): EU deviations Pictures Instructions	
Summary of testing: Additional endurance test §12.3 and IP test §9.2. IPX6 with new additional Additional optional NEMA socket JL-240 (alternative to M400) in VOLTANA 2, 3 and 4. Additional optional of LVS socket in VOLTANA EVO 1 & VOLTANA 0, 1, 2, 3, 4 Addition of EBS 40W into VOLTANA EVO 1, VOLTANA 2, 3, 4 Addition of EBS 80W into VOLTANA 4	
Tests performed (name of test and test clause): IEC 60598-2-3:2002, AMD1:2011 used in conjunction with IEC 60598-1:2014, AMD1:2017	Testing location: R-tech sa Rue de Mons, 3 B-4000 LIEGE Belgium.
Summary of compliance with National Differences: Europe List of countries addressed ☒ The product fulfils the requirements of IEC 60598-2-3:2002, AMD1:2011 used in conjunction with IEC 60598-1:2014, AMD1:2017 EN 60598-2-3:2003 + A1:2011 used in conjunction with EN 60598-1:2015+A1:2018	

Copy of marking plate:

The artwork below may be only a draft. The use of certification marks on a product must be authorized by the respective NCBs that own these marks.



Test item particulars	
Classification of installation and use.....	
Supply 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..... : November 2018	
Date (s) of performance of tests : December 2018 – February 2019	
General remarks:	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report. Throughout this report a ☒ comma / ☐ point is used as the decimal separator. This report updates previous report version d : P1540-44-Id to include the use of Additional optional NEMA socket JL-240 (alternative to M400) in VOLTANA 2, 3 and 4. Additional optional of LVS socket in VOLTANA EVO 1 & VOLTANA 0, 1, 2, 3, 4 Addition of EBS 40W into VOLTANA EVO 1, VOLTANA 2, 3, 4 Addition of EBS 80W into VOLTANA 4 The other test and criteria are covered by previous test report Test performed see summary of tests;	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60598-2-1:	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided.....	☒ Yes ☐ Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies)..... :	
	Socelec S.A. Av. de Roanne, 66 Poligono Industrial "EL HENARES" 19180 MARCHAMALO (GUADALAJARA), Spain
Schröder Iluminação S.A. Apartado, 132 2790-076 CARNAXIDE, Portugal	Schröder Hungary Plc. Tópart 2 , 2084 PILISSZENTIVAN, Hungary
Schreder TOV Vul. Mykulynetska 46B 46000 TERNOPIL, Ukraine	Schreder (China) Lighting Industrial Co., Ltd No.40 Xinye 2 Street, Tianjin Economic Technological Development Zone West Zone, 300462 Tianjin City, P.R.China, China

General product information:Rating :

	Leds count	current @ LEDs (mA)	Max Power (W)	ta (°C)	note
EVO 1	8	$0 < I \leq 1400$	39	55	
	16	$0 < I \leq 1050$	55	45	
		$1050 < I \leq 1200$	62	40	
0	6	$0 < I \leq 1050$	23	45	ta 55°C with Control gear Meanwell model PLD-40W ta 50°C with Control gear Signify model LP/FP 22W C123
		$1050 < I \leq 1400$	30	55	
	8	$0 < I \leq 1050$	29	45	
		$1050 < I \leq 1250$	37	40	ta 45°C with Control gear Meanwell model PLD-40W
		$1250 < I \leq 1400$	39	45	
1	8	$0 < I \leq 1000$	29	55	
		$1000 < I \leq 1250$	37	50	
		$1250 < I \leq 1400$	41	45	
2	16	$0 < I \leq 1050$	58	45	
3	24	$0 < I \leq 700$	55	50	
		$700 < I \leq 1000$	80	35	
4	32	$0 < I \leq 700$	73	55	
		$700 < I \leq 1000$	105	45	

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

3.2 (0)	GENERAL TEST REQUIREMENTS		
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		—
	Luminaire design in the light source safety standard		N/A

3.4 (2)	CLASSIFICATION		P
3.4 (2.2)	Type of protection	Class I	—
3.4 (2.3)	Degree of protection.....	IP 66	—
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		
3.5 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text		P
3.5 (3.3)	Additional information		P
	Language of instructions		P
3.5 (3.3.1)	Combination luminaires		N/A
3.5 (3.3.2)	Nominal frequency in Hz	50-60 Hz	P
3.5 (3.3.3)	Operating temperature		N/A
3.5 (3.3.4)	Symbol or warning notice		N/A
3.5 (3.3.5)	Wiring diagram		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.5 (3.3.6)	Special conditions		N/A
3.5 (3.3.7)	Metal halide lamp luminaire – warning		N/A
3.5 (3.3.8)	Limitation for semi-luminaires		N/A
3.5 (3.3.9)	Power factor and supply current		P
3.5 (3.3.10)	Suitability for use indoors		N/A
3.5 (3.3.11)	Luminaires with remote control		N/A
3.5 (3.3.12)	Clip-mounted luminaire – warning		N/A
3.5 (3.3.13)	Specifications of protective shields		N/A
3.5 (3.3.14)	Symbol for nature of supply		N/A
3.5 (3.3.15)	Rated current of socket outlet		N/A
3.5 (3.3.16)	Rough service luminaire		N/A
3.5 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments		P
3.5 (3.3.18)	Non-ordinary luminaires with PVC cable		N/A
3.5 (3.3.19)	Protective conductor current in instruction if applicable		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		P
	Cautionary symbol		P
3.5 (3.3.22)	Controllable luminaires, classification of insulation provided		N/A
3.5 (3.4)	Test with water		P
	Test with hexane		P
	Legible after test		P
	Label attached		P
3.5 (-)	Additional information in instruction leaflet		
	a) Design attitude	See attached Installation Notice	P
	b) Weight	See attached Installation Notice	P
	c) Overall dimensions	See attached Installation Notice	P
	d) Maximum projected area if applicable	See attached Installation Notice	P
	e) Cross-sectional area of wires if applicable		N/A
	f) Suitability for indoors use		N/A
	g) Dimensions of the compartment		N/A
	h) Torque setting to be applied to bolts or screws	See attached Installation Notice	P

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	i) Maximum mounting height	>6 m	P

3.6 (4)	CONSTRUCTION		
3.6 (4.2)	Components replaceable without difficulty		N/A
3.6 (4.3)	Wireways smooth and free from sharp edges		P
3.6 (4.4)	Lampholders		
3.6 (4.4.1)	Integral 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		
	Starter holder in luminaires other than class II		N/A
	Starter holder class II construction		N/A
3.6 (4.6)	Terminal blocks		
	Tails	Provided with internal connector	N/A
	Unsecured blocks	Fixed	N/A
3.6 (4.7)	Terminals and supply connections		
3.6 (4.7.1)	Contact to metal parts		P

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.7.2)	Test 8 mm live conductor		P
	Test 8 mm earth conductor		P
3.6 (4.7.3)	Terminals for supply conductors		P
3.6 (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 15.8.2		N/A
	- electrical test according to 15.9		N/A
	- heat test according to 15.9.2.3 and 15.9.2.4		N/A
3.6 (4.7.4)	Terminals other than supply connection		N/A
3.6 (4.7.5)	Heat-resistant wiring/sleeves		N/A
3.6 (4.7.6)	Multi-pole plug		N/A
	- test at 30 N		N/A
3.6 (4.8)	Switches		
	- adequate rating		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		
3.6 (4.9.1)	Retainment		N/A
	Method of fixing..... :		—
3.6 (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
3.6 (4.10)	Double or reinforced insulation		
3.6 (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

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	Interference suppression capacitors according to IEC 60384-14		P
3.6 (4.10.2)	Assembly gaps:		
	- not coincidental		N/A
	- no straight access with test probe		N/A
3.6 (4.10.3)	Retainment of insulation:		
	- fixed		N/A
	- unable to be replaced; luminaire inoperative		N/A
	- sleeves retained in position		N/A
	- lining in lampholder		N/A
3.6 (4.11)	Electrical connections and current-carrying parts		
3.6 (4.11.1)	Contact pressure		P
3.6 (4.11.2)	Screws:		
	- self-tapping screws		N/A
	- thread-cutting screws		N/A
3.6 (4.11.3)	Screw locking:		
	- spring washer		P
	- rivets		N/A
3.6 (4.11.4)	Material of current-carrying parts		P
3.6 (4.11.5)	No contact to wood or mounting surface		P
3.6 (4.11.6)	Electro-mechanical contact systems		N/A
3.6 (4.12)	Screws and connections (mechanical) and glands		
3.6 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		N/A
	Torque test: torque (Nm); part : 2Nm (case)		P
	Torque test: torque (Nm); part : 1.2Nm (drivers)		N/A
	Torque test: torque (Nm); part : 1.2Nm (glass)		N/A
3.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
3.6 (4.12.4)	Locked connections:		
	- fixed arms; torque (Nm)..... :		P
	- lampholder; torque (Nm) :		N/A
	- push-button switches; torque 0,8 Nm :		N/A
3.6 (4.12.5)	Screwed glands; force (Nm) :		P
3.6 (4.13)	Mechanical strength		

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm)..... :	0,5 Nm	P
	- other parts; energy (Nm) :	0,7 Nm	P
	1) live parts		P
	2) linings		P
	3) protection		P
	4) covers		P
3.6 (4.13.3)	Straight test finger		P
3.6 (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
	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		
3.6 (4.14.1)	Mechanical load:		
	A) four times the weight		N/A
	B) torque 2,5 Nm		P
	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 :		—
	Bending moment (Nm) of semi-luminaire :		N/A
3.6 (4.14.3)	Adjusting devices:		
	- flexing test; number of cycles :		N/A
	- strands broken :		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- 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		
	- glow-wire test 650°C..... :	See Test Table 3.15 (13.3.2)	N/A
	- 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
3.6 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		
	a) construction		P
	b) temperature sensing control	110	P
	c) surface temperature		N/A
3.6 (4.16)	Luminaires for mounting on normally flammable surfaces		
	No lamp control gear..... :	(compliance with Section 12)	N/A
3.6 (4.16.1)	Lamp control gear spacing:		
	- spacing 35 mm		N/A
	- spacing 10 mm		N/A
3.6 (4.16.2)	Thermal protection:		
	- in lamp control gear		N/A
	- 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	(see clause 12.6)	P
3.6 (4.17)	Drain holes		
	Clearance at least 5 mm		N/A
3.6 (4.18)	Resistance to corrosion		
3.6 (4.18.1)	- rust-resistance		P
3.6 (4.18.2)	- season cracking in copper		P
3.6 (4.18.3)	- corrosion of aluminium		P

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Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.19)	Igniters compatible with ballast		N/A
3.6 (4.20)	Rough service vibration		N/A
3.6 (4.21)	Protective shield		
3.6 (4.21.1)	Shield fitted if tungsten halogen lamps or metal halide lamps		N/A
	Shield of glass if tungsten halogen lamps		N/A
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
3.6 (4.21.4)	Impact test on shield		N/A
	Glow-wire test on lamp compartment..... :	See Test Table 3.15 (13.3.2)	N/A
3.6 (4.22)	Attachments to lamps not cause overheating or damage		N/A
3.6 (4.23)	Semi-luminaires comply Class II		N/A
3.6 (4.24)	Photobiological hazards		
3.6 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		P
3.6 (4.24.2)	Retinal blue light hazard		
	Luminaires with E_{thr} :		
	a) Fixed luminaires		P
	- distance x m, borderline between RG1 and RG2 .. :	RG1@80cm	P
	- marking and instruction according 3.2.23		P
	b) Portable and handheld luminaires		
	- 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		
	No sharp point or edges		P
3.6 (4.26)	Short-circuit protection		
3.6 (4.26.1)	Adequate means of uninsulated accessible SELV parts		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		

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Clause	Requirement + Test	Result - Remark	Verdict
	Test according Annex V		N/A
	Pull test of terminal fixing (20 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Pull test of mechanical connection (50 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Voltage drop test, resistance < 0,05 Ω		N/A
3.6 (4.28)	Fixing of thermal sensing control		
	Not plug-in or easily replaceable type		N/A
	Reliably kept in position		N/A
	No adhesive fixing if UV radiations from a lamp can degrade the fixing		N/A
	Not outside the luminaire enclosure		N/A
	Test of adhesive fixing:		N/A
	Max. temperature on adhesive material (°C)..... :		—
	100 cycles between t min and t max		N/A
	Temperature sensing control still in position		N/A
3.6 (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
3.6 (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:		P
	Minimum two fixing means		P
3.6 (4.31)	Insulation between circuits		
	Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3	SELV/IEC 61347-2-13	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		P
	Voltage $\leq$ ELV		P
	Insulating of SELV circuits from LV supply	Double/reinforced	P
	Insulating of SELV circuits from other non SELV circuits		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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
3.6 (4.31.2)	FELV circuits		
	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		
	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 of above		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		
	Comply with IEC 61643-11	CB	P
	External to controlgear and connected to earth:		

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Clause	Requirement + Test	Result - Remark	Verdict
	- only in fixed luminaires		P
	- only connected to protective earth		P
3.6.1 (-)	At least IP X3 or X5 respectively. IP	IP66	P
	Column-integrated luminaires:		
	- parts below 2,5 m. IP		N/A
	- parts above 2,5 m. IP		N/A
3.6.2 (-)	Suspension on span wires		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		
	- drag coefficient	1.225Kg/m ³	P
	- loaded area (m ²)	0.34m ²	P
	- used load (N)	675.7N	P
	- measured deformation (cm/m)	1.2cm/m	P
	- no rotation		P
3.6.4 (-)	Adjustable lampholders		N/A
3.6.5 (-)	Luminaires installed above 5 m, glass covers shall be:		
	a) glass that fractures into small pieces (test according to 3.6.5.1), or	Safety Glass	P
	b) glass having a high impact shock resistance (test according to 3.6.5.2), or		P
	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		P
	- number of particles is more than 40.....	48	P
3.6.5.2 (-)	Protection by the use of high impact resistant glass		P
3.6.5.2.1 (-)	Glass covers have high mechanical strength		P
	Test according IEC 62262 with test apparatus according IEC 60068-2-75 with impact energy of 5J on preconditioned sample	VOLTANA 1-4: IK08 according IEC 62262 VOLTANA 0: IK09 (PC), IK10 (Glass) according IEC 62262 VOLTANA EVO 1: IK10 according IEC 62262	P
3.6.5.2.2 (-)	Glass covers not break into large pieces		P
	- test according 3.6.5.1, number of particles is more than 20.....	50	P

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Clause	Requirement + Test	Result - Remark	Verdict
3.6.6 (-)	Connection compartment of column-integrated luminaire		
	- provides adequate space		N/A
	- means for attachment		N/A
	- means for attachment of metal corrosion-resistant		N/A
3.6.7 (-)	Compliance with ISO standard or other		N/A
3.6.8 (-)	Doors of column-integrated luminaires:		
	- corrosion-resistant		N/A
	- opening only possible for an authorized person		N/A
	- impact test 5 Nm		N/A
	- sample show no damage		N/A
3.6.9 (-)	Column-integrated luminaire:		
	- dimension of the cable entry slot (mm)		N/A
	- cable path from the slot to the connection compartment (mm)		N/A
	- cable path free from obstruction that might cause abrasion of the cable		N/A

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	See Test Table 3.7 (11.2) II	N/A
	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347	See Test Table 3.7 (11.2) II	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	See Test Table 3.7 (11.2) II	N/A
	- Requirements according IEC 60664-4 for controlgear not covered by IEC 61347	See Test Table 3.7 (11.2) II	N/A

3.8 (7)	PROVISION FOR EARTHING		
3.8 (7.2.1 + 7.2.3)	Accessible metal parts		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Metal parts in contact with supporting surface		P
	Resistance < 0,5 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		P
	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		P
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		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		N/A
3.8.1 (-)	Attachment prevented from rotation		N/A

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

3.9 (15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		P
	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
3.10 (5)	EXTERNAL AND INTERNAL WIRING		
3.10 (5.2)	Supply connection and external wiring		P
3.10 (5.2.1)	Means of connection : Internal connector		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
3.10 (5.2.2)	Type of cable : H07RN-F (if provided)		P
	Nominal cross-sectional area (mm ²) : 1,5 mm ²		P
	Cables equal to IEC 60227 or IEC 60245		P
3.10 (5.2.3)	Type of attachment, X, Y or Z		N/A
3.10 (5.2.5)	Type Z not connected to screws		N/A
3.10 (5.2.6)	Cable entries:		
	- 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:		
	- 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
3.10 (5.2.9)	Locking of screwed bushings		N/A
3.10 (5.2.10)	Cord anchorage:		
	- covering protected from abrasion		P
	- clear how to be effective		P
	- no mechanical or thermal stress		P
	- no tying of cables into knots etc.		P
	- insulating material or lining		P
3.10 (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
	d) whole cable can be mounted		N/A
	e) no touching of clamping screws		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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		N/A
3.10 (5.2.10.3)	Tests:		
	- impossible to push cable; unsafe		P
	- pull test: 25 times; pull (N)..... : 60		P
	- torque test: torque (Nm) : 0.25Nm		P
	- displacement ≤ 2 mm		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		N/A
3.10 (5.2.13)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
3.10 (5.2.14)	Mains plug same protection		N/A
	Class III luminaire plug		N/A
	No unsafe compatibility		N/A
3.10 (5.2.16)	Appliance inlets (IEC 60320)		P
	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		N/A
3.10 (5.2.18)	Used plug in accordance with		
	- IEC 60083		N/A
	- other standard		N/A
3.10 (5.3)	Internal wiring		

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Clause	Requirement + Test	Result - Remark	Verdict
3.10 (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)	N/A
	Green-yellow for earth only		N/A
3.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring		
	Cross-sectional area (mm ²)..... :		P
	Insulation thickness		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		
	Adequate cross-sectional area and insulation thickness		N/A
3.10 (5.3.1.3)	Double or reinforced insulation for class II		N/A
3.10 (5.3.1.4)	Conductors without insulation		N/A
3.10 (5.3.1.5)	SELV current-carrying parts		P
3.10 (5.3.1.6)	Insulation thickness other than PVC or rubber		P
3.10 (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
3.10 (5.3.3)	Insulating bushings:		
	- suitable fixed		N/A
	- material in bushings		N/A
	- material not likely to deteriorate		N/A
	- cables with protective sheath		N/A
3.10 (5.3.4)	Joints and junctions effectively insulated		N/A
3.10 (5.3.5)	Strain on internal wiring		P
3.10 (5.3.6)	Wire carriers		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
3.10 (5.3.7)	Wire ends not tinned		P
	Wire ends tinned: no cold flow		N/A
3.10.1 (-)	Cord anchorage if applicable		P
	- pull test: 25 times; pull (N).....:	60 N	P
	- torque test: torque (Nm)	0.25 Nm	P

3.11 (8)	PROTECTION AGAINST ELECTRIC SHOCK		
3.11 (8.2.1)	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		P
	Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires		P
	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		N/A
	Double-ended tungsten filament lamp		N/A
	Insulation lacquer not reliable		N/A
	Double-ended high pressure discharge lamp		N/A
	Relevant warning according to 3.2.18 fitted to the luminaire		N/A
3.11 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N/A
3.11 (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
3.11 (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
3.11 (8.2.3.c)	SELV circuits with exposed current carrying parts:		
	Ordinary luminaire:		
	- touch current		N/A
	- no-load voltage		N/A
	Other than ordinary luminaire:		
	- nominal voltage		N/A
3.11 (8.2.4)	Portable luminaire have protection independent of supporting surface		N/A
3.11 (8.2.5)	Compliance with the standard test finger or relevant probe		P
3.11 (8.2.6)	Covers reliably secured		P
3.11 (8.2.7)	Discharging of capacitors $\geq 0,5 \mu\text{F}$		N/A
	Portable plug connected luminaire with capacitor		N/A
	Other plug connected luminaire with capacitor		N/A
	Discharge device on or within capacitor		N/A
	Discharge device mounted separately		N/A

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)	—
	Controlgear if separate and not supplied	(Controlgear used see Annex 2)	—
3.12 (12.3)	Endurance test		P
	a) mounting-position	Post-Top	—
	b) test temperature (°C)	55°C	—
	c) total duration (h)	240H	—
	d) supply voltage (V)	250V	—
	d) if not equipped with controlgear, constant voltage/current (V) or (A)	N/A	—
	e) luminaire ceases to operate	N/A	—
3.12 (12.3.2)	After endurance test:		P
	- no part unserviceable		P
	- luminaire not unsafe		P

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Clause	Requirement + Test	Result - Remark	Verdict
	- no damage to track system		N/A
	- marking legible		N/A
	- no cracks, deformation etc.		N/A
3.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
3.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	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
	- 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 $\leq 70W$		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

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Clause	Requirement + Test	Result - Remark	Verdict
	- case of abnormal conditions..... :		—
	- measured winding temperature (°C): at 1,1 Un..... :		—
	- measured temperature of fixing point/exposed part (°C): at 1,1 Un..... :		—
	- calculated temperature of fixing point/exposed part (°C)..... :		—
	Ball-pressure test..... :	See Test Table 3.15 (13.2.1)	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..... :	See Test Table 3.15 (13.2.1)	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
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:..... :	See Test Table 3.15 (13.2.1)	N/A
3.12.1 (-)	Temperature reduction if for outdoor use only		N/A
3.12.2 (-)	(See above)		—
3.12.3 (-)	Glass covers used within the thermal limits declared by the glass manufacturer		N/A

3.13 (9)	RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE	P
3.13.1 (-)	If IP > IP 20 the order of tests as specified in clause 3.12	P

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Clause	Requirement + Test	Result - Remark	Verdict
3.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		—
	- classification according to IP :	IP66	—
	- mounting position during test..... :	Acc. to mounting instruction	—
	- fixing screws tightened; torque (Nm) :	Acc. to mounting instruction	—
	- tests according to clauses :		—
	- electric strength test afterwards		P
	a) no deposit in dust-proof luminaire		P
	b) no talcum in dust-tight luminaire		P
	c) no trace of water on current-carrying parts or on insulation where it could become a hazard		P
	d) i) For luminaires without drain holes – no water entry		P
	d) ii) For luminaires with drain holes – no hazardous water entry		N/A
	e) no water in watertight luminaire		P
	f) no contact with live parts (IP 2X)		P
	f) no entry into enclosure (IP 3X and IP 4X)		P
	f) no contact with live parts (IP3X and IP4X)		P
	g) no trace of water on part of lamp requiring protection from splashing water		N/A
	h) no damage of protective shield or glass envelope		N/A
3.13 (9.3)	Humidity test 48 h		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 :		—
	Insulation resistance (MΩ)..... :		—
	SELV		
	- between current-carrying parts of different polarity :		N/A
	- between current-carrying parts and mounting surface..... :		N/A
	- between current-carrying parts and metal parts of the luminaire :		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
	Other than SELV		
	- between live parts of different polarity :	>2,6 MΩ	P
	- between live parts and mounting surface..... :		N/A
	- between live parts and metal parts :	>2,6 MΩ	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
3.14 (10.2.2)	Electric strength test		P
	Dummy lamp		N/A
	Luminaires with ignitors after 24 h test		N/A
	Luminaires with manual ignitors		N/A
	Test voltage (V)..... :		P
	SELV		
	- between current-carrying parts of different polarity :		N/A
	- between current-carrying parts and mounting surface..... :		N/A
	- between current-carrying parts and metal parts of the luminaire :		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts..... :		N/A
	- Insulation bushings as described in Section 5 :		N/A
	Other than SELV		
	- between live parts of different polarity :	1480V	P
	- between live parts and mounting surface..... :		N/A
	- between live parts and metal parts :	1480V	P
	- between live parts of different polarity through action of a switch :		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts..... :		N/A

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Clause	Requirement + Test	Result - Remark	Verdict

	- Insulation bushings as described in Section 5 :		N/A
3.14 (10.3)	Touch current or protective conductor current (mA) :	<0,5	P

12 (14)	FAULT CONDITIONS (IEC 62031)		P
12.2	Overpower condition		P
	Module withstands overpower condition >15 min.		P
	Module with automatic protective device or power limiter, test performed 15 min. at limit.		N/A
	No fire, smoke or flammable gas is produced		P
	Molten material does not ignite tissue paper, spread below the module		P

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

3.7 (11.2)	TABLE I: Creepage distances and clearances						P
	Minimum distances (mm) for a.c. up to 30 kHz sinusoidal voltages						
	Applicable part of IEC 60598-1 Table 11.1.A*, 11.1.B* and 11.2*						
	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:	B	>0.7	0.5	11.1.B	>1.7	1.3	11.1.A
Working voltage (V)					250		—
PTI.....					< 600 ☐ ≥ 600 ☒		—
Pulse voltage or U_P if applicable (kV)					N/A		—
Supplementary information: Primary circuit							
Distance 2:	B	>0.7	0.5	11.1.B	>1.7	1.3	11.1.A
Working voltage (V)					250		—
PTI.....					< 600 ☐ ≥ 600 ☒		—

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Clause	Requirement + Test				Result - Remark		Verdict
Pulse voltage or U_P if applicable (kV)					N/A		—
Supplementary information: Secondary circuit							
Distance 3:	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Working voltage (V)					N/A		—
PTI.....					$< 600 \square \quad \geq 600 \square$		—
Pulse voltage or U_P if applicable (kV)					N/A		—
Supplementary information: N/A							

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

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)					250		—
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:							

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

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

3.15 (13.2.1)	TABLE: Ball Pressure Test of Thermoplastics			N/A
Allowed impression diameter (mm):		2		—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
Supplementary information:				

3.15 (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:					

3.15 (13.3.2)	TABLE: Glow-wire test (IEC 60695-2-11)				N/A
Glow wire temperature :		650°C			—
Object/ Part No./ Material	Manufacturer/ trademark		Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
Supplementary information:					

3.15 (13.4)	TABLE: Proof tracking test (IEC 60112)			N/A
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IEC 60598-2-3					
Clause	Requirement + Test			Result - Remark	Verdict
Test voltage PTI		175 V			—
Object/ Part No./ Material	Manufacturer/ trademark	Withstand 50 drops without failure on three places or on three specimens			Verdict
Supplementary information:					

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

ANNEX 1		TABLE: Critical components information					
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity ¹⁾	
Drivers	B	Meanwell	APC-8E Series	8W 50-60Hz 0,25-0,7A 200-240V Tc=75°C	IEC 61347-2-13	CB	
Drivers	B	Meanwell	PLM-12 Series	12W 50-60Hz 0,35-1,05A 110-240V Tc=75°C	IEC 61347 IEC 62384	TUV	
Drivers	B	Meanwell	PLM-25 Series	25W 50-60Hz 0,35-1,05A 110-240V Tc=80°C	IEC 61347 IEC 62384	TUV	
Drivers	B	Meanwell	PLM-25E series	25W 50-60Hz 0.35/0.7/1.05A 220-240Vac Tc=85°C	IEC 61347-2-13	CB	
Drivers	B	Meanwell	PLM-40-x series	40W 50-60Hz 0.35/0.5/0.7/1.05/1.4/ 1.75A 220-240Vac Tc=90°C	IEC 61347-2-13	ENEC CB	
Drivers	B	Meanwell	PLM-40E-x series	40W 50-60Hz 0.35/0.5/0.7/1.05/1.4/ 1.75A 220-240Vac Tc=90°C	IEC 61347-2-13	ENEC CB	
Drivers	B	Meanwell	PLD-16-.B series	16W 50-60Hz 0.35/0.7/1.05/1.4A 200-240Vac Tc=70°C	IEC 61347-2-13	CB	
Drivers	B	Meanwell	PLD-25-. series	25W 50-60Hz 0.35/0.7/1.05/1.4A 100-240Vac Tc=70°C	IEC 61347-2-13	CB	
Drivers	B	Meanwell	P.D-40- .B series	40W 50-60Hz 0,35/0,5/0,7/1,05/1,4A 200-240Vac Tc=90°C	IEC 61347-2-13	CB	
Drivers	B	Meanwell	P.D-60- .B series	60W 50-60Hz 0,5/0,7/1,05/1,4/1,75/ 2,0/2,4A 200-240Vac Tc=90°C	IEC 61347-2-13	CB	
Driver	B	LG	PISE-A027M	27W 0,2-1A 120-277V 50-60Hz Tc=80°C	IEC 61347-2-13	CB / UL	
Driver	B	LG	PISE-A027A	27W 1A 120-277V 50-60Hz Tc=80°C	IEC 61347-2-13	CB / UL	
Drivers	B	Moons	PU025H Series	25W 50-60Hz 0,35-2,1A 100-240V Tc=90°C	IEC 61347-2-13	TUV	
Drivers	B	TRIDONIC	LCI 27W	27W 50-60Hz 1A 220-240V Tc=70°C	IEC 61347-2-13	OVE	
Drivers	B	LG Innotek	LLP 110W 1A (LG PISE A110A) 68-110V	V in 120-277V AC Max 110W Vout:68-110Vdc tc:80°C	IEC/ EN 613472-13	CB	
Drivers	B	LG Innotek	LLP 55W 1A (LG PISE A55A) 44-55V	V in 120-277V AC Max 55W Vout:44-55-Vdc tc:80°C	IEC/ EN 613472-13	CB	

IEC 60598-2-3						
Clause	Requirement + Test			Result - Remark		Verdict
Drivers	B	LG Innotek	LG PISE A027A	V in 120-277V AC Max 27W Vout:22-27-Vdc tc:80°C	IEC/ EN 613472-13	CB
Drivers	B	Tridonic	LCI 27W 1-10V	220-240V 50/60Hz tc 70°C	IEC/ EN 613472-13	CB
Driver	B	LG	PISE-A040D	40W 0.35-0.7A 120-277V 50-60Hz Tc=80°C	IEC 61347-2-13	CB / UL
Driver	B	LG	PISE-A040A	40W 0.35/0.5/0.7 120-277V 50-60Hz Tc=80°C	IEC 61347-2-13	CB / UL
Driver	B	LG	PISE-A075A	75W 0.35/0.5/0.7 120-277V 50-60Hz Tc=80°C	IEC 61347-2-13	CB / UL
Driver	B	LG	PISE-A075D	75W 0.35-0.7A 120-277V 50-60Hz Tc=80°C	IEC 61347-2-13	CB / UL
Drivers	B	LG	PISE-A150D	150W 50/60Hz 0.35-0.7A 120-277V Tc=80°C	IEC 61347-2-13	CB / UL
Drivers	B	LG	PISE-A150A	150W 50/60Hz 0.35/0.5/0.7 120-277V Tc=80°C	IEC 61347-2-13	CB / UL
Drivers	B	LG	PISE-A040X	40W 0.2-0.6A 220-240V 50-60Hz Tc=80°C Ta = -40 to 55°C	IEC 61347-2-13	CB
Drivers	B	LG	PISE-A040Y	40W 0.3-1.0A 220-240V 50-60Hz Tc=80°C Ta = -40 to 55°C	IEC 61347-2-13	CB
Drivers	B	LG	PISE-A075X	75W 0.2-0.6A 220-240V 50-60Hz Tc=80°C Ta = -40 to 55°C	IEC 61347-2-13	CB
Drivers	B	LG	PISE-A075Y	75W 0.3-1.0A 220-240V 50-60Hz Tc=80°C Ta = -40 to 55°C	IEC 61347-2-13	CB
Drivers	B	LG	PISE-A110X	110W 0.2-0.7A 220-240V 50-60Hz Tc=80°C Ta = -40 to 55°C	IEC 61347-2-13	CB
Drivers	B	LG	PISE-A110Y	110W 0.3-1.0A 220-240V 50-60Hz Tc=80°C Ta = -40 to 55°C	IEC 61347-2-13	CB
Dongle	B	LG	TWBU-C302D	Dongle for Bluetooth	EN 60950-1	CoC
Driver	B	OSRAM	OT 40/170-240/1A0 4DIMLT2 G2 CE	40 W – 0.2-1.05A 220-240 V 50/60 Hz, Tc80°C	IEC 61347-2-13	CB
Driver	B	OSRAM	OT 40/120-277/1A0 4DIMLT2 E	40 W – 0.2-1.05A 220-240 V 50/60 Hz, Tc80°C	IEC 61347-2-13	CB
Driver	B	OSRAM	OT 50/120-277/800 2DIMLT2 P	50 W – 0.35-0.8A 120-277 V 50-60 Hz, Tc85°C	IEC 61347-2-13	CB / UL / CCC
Driver	B	OSRAM	OT 50/120-277/1A2 2DIMLT2 P	50 W – 0.6-1.25A 120-277 V 50-60 Hz Tc80°C	IEC 61347-2-13	CB / UL / CCC
Drivers	B	PHILIPS/SIGNIFY	Xi FP 22W 0,3-1,0A SNLDAE 230V C123 sXt	22W 50-60Hz 0,3-1,05A 198-264V Tc=85°C	IEC 61347-2-13	CB

IEC 60598-2-3						
Clause	Requirement + Test			Result - Remark		Verdict
Drivers	B	PHILIPS/SIGNIFY	Xi FP 22W 0,2-0,7A SNLDAE 230V C123 sXt	22W 50-60Hz 0,3-1,05A 198-264V Tc=85°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi LP 22W 0,3-1,0A S1 230V C123 sXt	22W 50-60Hz 0,3-1,05A Uoc 50Vdc Tc=85°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi LP 22W 0,2-0,7A S1 230V C123 sXt	22W 50-60Hz 0,3-1,05A Uoc 70Vdc Tc=85°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi FP 40W 0,3-1,0A SNLDAE 230V S175 sXt	40W 50-60Hz 0,3-1,05A 198-264V Tc=90°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi FP 40W 0,2-0,7A SNLDAE 230V S175 sXt	40W 50-60Hz 0,2-0,7A 198-264V Tc=90°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi LP 40W 0,3-1,0A S1 230V S175 sXt	40W 50-60Hz 0,3-1,05A 198-264V Tc=90°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi LP 40W 0,2-0,7A S1 230V S175 sXt	40W 50-60Hz 0,2-0,7A 198-264V Tc=90°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi FP 40W 0,2-0,7A SNLDAE 230V C123 sXt	40W 50-60Hz 0,2-0,7A 220-240V Tc=85°C Ta= -40 to 55°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi FP 40W 0,3-1,0A SNLDAE 230V C123 sXt	40W 50-60Hz 0,2-1,05A 220-240V Tc=85°C Ta= -40 to 55°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi LP 40W 0,2-0,7A S1 230V C123 sXt	40W 50-60Hz 0,2-0,7A 220-240V Tc=85°C Ta= -40 to 55°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi LP 40W 0,3-1,0A S1 230V C123 sXt	40W 50-60Hz 0,3-1,05A 220-240V Tc=85°C Ta= -40 to 55°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi LP/FP 70W 0,2-0,7A 230V C150 sXt	70W 50-60Hz 0,2-0,7A 198-264V Tc=85°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi FP 75W 0,2-0,7A SNLDAE 230V S240 sXt	75W 50-60Hz 0,2-0,7A 198-264V Tc=85°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi FP 75W 0,3-1,0A SNLDAE 230V S240 sXt	75W 50-60Hz 0,3-1,05A 198-264V Tc=85°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi LP 75W 0,3-1,0A S1 230V S240 sXt	75W 50-60Hz 0,3-1,05A 198-264V Tc=85°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi LP 75W 0,2-0,7A S1 230V S240 sXt	75W 50-60Hz 0,2-0,7A 198-264V Tc=85°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi FP 75W 0,3-1,0A SNLDAE 230V C133 sXt	75W 50-60Hz 0,3-1,0A 220-240V Tc=85°C	IEC 61347-2-13	Drivers
Drivers	B	PHILIPS/SIGNIFY	Xi FP 75W 0,2-0,7A SNLDAE 230V C133 sXt	75W 50-60Hz 0,2-0,7A 220-240V Tc=85°C	IEC 61347-2-13	Drivers
Drivers	B	PHILIPS/SIGNIFY	Xi LP 75W 0,3-1,0A S1 230V C133 sXt	75W 50-60Hz 0,3-1,0A 220-240V Tc=80°C	IEC 61347-2-13	Drivers
Drivers	B	PHILIPS/SIGNIFY	Xi LP 75W 0,2-0,7A S1 230V C133 sXt	75W 50-60Hz 0,2-0,7A 220-240V Tc=80°C	IEC 61347-2-13	Drivers

IEC 60598-2-3						
Clause	Requirement + Test			Result - Remark		Verdict
Drivers	B	PHILIPS/SIGNIFY	Xi FP 75W 0,5-1,5A SNLDAE 230V C133 sXt	75W 50-60Hz 0,5-1,5A 220-240V Tc=85°C	IEC 61347-2-13	Drivers
Drivers	B	PHILIPS/SIGNIFY	Xi LP 150W 0,3-1,0A SL 230V S240 sXt	150W 50-60Hz 0,3-1,05A 198-264V Tc=90°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi FP 150W 0,3-1,0A SNLDAE 230V S240 sXt	150W 50-60Hz 0,3-1,05A 198-264V Tc=90°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi LP 150W 0,2-0,7AA SL 230V S240 sXt	150W 50-60Hz 0,2-0,7A 198-264V Tc=90°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi FP 150W 0,2-0,7A SNLDAE 230V S240 sXt	150W 50-60Hz 0,2-0,7A 198-264V Tc=90°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi FP 22W 0,3-1,0A SNLDAE 230V S175 sXt	22W 50-60Hz 0,3-1,05A 198-264V Tc=85°C	IEC 61347-2-13	CB
Drivers	B	PHILIPS/SIGNIFY	Xi LP 22W 0,3-1,0A S1 230V S175 sXt	22W 50-60Hz 0,3-1,05A 198-264V Tc=85°C	IEC 61347-2-13	CB
EMI filter	B	TE connectivity	Corcom 2FB3	Imax 2A Vmax = 250Vac/d Tc 50°C	IEC 61000	VDE
Driver	B	INVENTRONICS	EBS-040SyBT2xxxx	40W 200-240V 50/60Hz tc 90°C y=045 :Iout 0,45A y=070 :Iout 0,7A y=105 :Iout 1,05A	IEC 61347-1 & 2-13	ENEC
Driver	B	INVENTRONICS	EBS-080SyBT2xxxx	80W 200-240V 50/60Hz tc 90°C y=070 :Iout 0,7A y=105 :Iout 1,05A y=150 :Iout 1,5A	IEC 61347-1 & 2-13	ENEC
Control Device	B	Owlet	LuCo ADP	110-277V 50/60 Hz Tmax = 80°C	IEC/EN 61347	CB / UL
Control Device	B	Owlet	LuCo NXP	110-277V 50/60 Hz Tmax = 80°C	IEC/EN 61347	CB / UL
Control Device	A	Owlet	LuCo P7	110-277V 50/60 Hz Tmax = 75°C	IEC/EN 61347	CB / UL
Control Device	A	TGV Limited	SCIP 66	Shorting Cap IP66	IEC/EN 61347	COC
Connection Device	B	TE	TE NEMA Socket 7-pin	Power contacts: 15A 480V Dimming contacts: 0.10A 10V	IEC 61347-1 IEC 61347-2-11	COC
Connection Device	B	SCHREDER	NEMA Socket M400	Power contacts: 110-277Vac 50/60 Hz Max 5A Dimming contacts: 0.10A 10V	IEC 60598-1 IEC 60598-2-3	COC
Connection Device	B	Shanghai Long-Join Electronics	JL-240	Power contacts: 0-480Vac 50/60 Hz Max 10A Dimming contacts: 0.25A 30Vdc	EN 61984	COC
Connection Device	B	TE Connectivity	Lumawise	30 V _{AC/DC} 50/60 Hz 1,5A	IEC 61984	VDE

IEC 60598-2-3						
Clause	Requirement + Test			Result - Remark		Verdict
Surge protection Device	A	Vossloh	SPC3/230/10K/i	100-277V 50/60Hz 10kA 20kV (DM) 120kV (CM) Tc=80°C	IEC 61643-11	DEKRA
Surge protection Device(alt)	A	Cirprotec	NSS-10-C12-P NSS-10/230-D-LCF-P	max 320V 50-60 Hz 5kA; max 10kA 20kV (DM) 120kV (CM) Tc = 80°C	IEC 61643-11	DEKRA
Surge protection Device	A	CITEL	MLPC1-230L-R	277 V, T85 10kA 20kV (DM) 120kV (CM)	IEC 61643-11	ENEC
Surge protection Device	A	Vossloh	SP3/230/10K/i	Uc 305Vac Uoc 10kV Up L-N < 1,5kV, L-PE < 1,8 kV, N-PE < 1,8 kV I _L 16A I _{SCCR} 1kA T 80°C	IEC 61643-11	DEKRA
FUSE HOLDER	B	Mersen	10x38mm CCR8-10 Series	20-32A 400V	IEC 60269-1 & -2	ENEC
FUSE HOLDER	B	CAMDENBOSS	CFTBN 5x20mm	13A 250V	IEC 60269-1 & -2	VDE / UL
FUSE	B	Mersen	FR10 10x38mm	0.5-32A 400-500V	IEC 60269-1 & -2	ENEC
FUSE	B	Littlefuse	5x20mm 213 Series	0.2-6.3A 250V	IEC 60269-1 & -2	VDE
VDR	A	Littlefuse	TM0V	275 Vac 10kA 20kV (DM)	IECQ-CECC E 1274/F	VDE
Terminal	A	WIELAND	ST18, GST18I	12-16A 250V 0,75-2,5mm ²	EN 60998-1&2-2	VDE / UL
Terminal	A	ADELS	LK980-01	2.5mm ² , 450V 24A	EN 60998-1&2-2	VDE / UL
Terminal	A	ADELS	500 Series	0.5-4mm ² 450V	EN 60998-1&2-2	VDE
Terminal	A	ADELS	503 Si series	16A t 85°C	IEC 60598-1	VDE
Terminal	A	ADELS	900-07/Q	0.5-4mm ² 450V	EN 60998-1&2-2	VDE / UL
Terminal	A	ADELS	AC-166 ST(D)/3	0.5-2,5mm ² 250-400V	EN 60998-1&2-2	VDE / UL
Terminal	A	ADELS	1000 K series	25A t 85°C	EN 60998-1 & -2-1	VDE
Terminal	A	WAGO	222 Series	0.08-2.5mm ² 20A/400V	EN 60998-1&2-2	ENEC / UL
Terminal	A	WAGO	221 Series	0.2-4mm ² 32A/450V	EN 60998-1&2-2	ENEC / UL
Terminal	A	WAGO	Connector 2 pole 294 model	24A/500V 0.5-2.5mm ²	EN 60998-1&2-2	ENEC
Terminal	A	TEKOX	1104	Vmax 450 V Imax 32A 4mm ² Tc 110°C	EN 60998-1&2-2	VDE / UL
Capacitor	A	Murata	KY	250Vac, X1 300Vac, Y2	EN 60384-14	VDE
Led Modules	A	Schröder	VOLTANA Led type: 3535 G4L 6, 8, 16, 24, 32 leds module I: 1400mA	ts = 150°C	IEC/EN 62031-60598	Tested in appliance

IEC 60598-2-3						
Clause	Requirement + Test			Result - Remark		Verdict
Led Modules	A	Schröder	VOLTANA Led type: XP-G3 6, 8, 16, 24, 32 leds module I: 1400mA	ts = 150°C	IEC/EN 62031-60598	Tested in appliance
Led Modules	A	Schröder	VOLTANA Led type: LH351C 6, 8, 16, 24, 32 leds module I: 1400mA	ts = 150°C	IEC/EN 62031-60598	Tested in appliance
Led Modules	A	Schröder	AXIA G3 Led type: OSLO 8, 16 leds module I: 1400mA	ts = 150°C	IEC/EN 62031-60598	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: Temperature measurements, thermal tests of Section 12						
	Type reference	VOLTANA EVO 1	—				
	Lamp used	16 leds @ 1050mA	—				
	Lamp control gear used	PLD-60W 1050	—				
	Mounting position of luminaire.....	Horizontal	—				
	Supply wattage (W)	55,8	—				
	Supply current (A).....	0,249	—				
	Calculated power factor	0,97	—				
	Table: measured temperatures corrected for ta = 45 °C:						
	- abnormal operating mode		—				
	- test 1: rated voltage	230V	—				
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage		—				
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage		—				
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage		—				
	Through wiring or looping-in wiring loaded by a current of A during the test		—				
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Control Gear	45	97,8			90+10		
SPD	45	65,3			80		
Supply wiring	45	66,0			90		
Led Module ts	45	94,4			150		
Led Module optics	45	94,4			110		
Fuse	45	77,1			90		
Supplementary information: Temperature correction of 10°C as suitable for outdoor installation.							

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

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						
	Type reference	VOLTANA EVO 1	—				
	Lamp used	16 leds @ 1000mA	—				
	Lamp control gear used	OT50/120-277/1A2 2DIM LT2 P	—				
	Mounting position of luminaire.....	Horizontal	—				
	Supply wattage (W)	53,0	—				
	Supply current (A).....	0,236	—				
	Calculated power factor	0,98	—				
	Table: measured temperatures corrected for ta = 45 °C:						
	- abnormal operating mode		—				
	- test 1: rated voltage	230V	—				
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage		—				
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage		—				
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage		—				
	Through wiring or looping-in wiring loaded by a current of A during the test		—				
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Control Gear	45	89,4			80+10		
SPD	45	63,8			80		
Supply wiring	45	67,6			90		
Led Module ts	45	91,8			150		
Led Module optics	45	91,8			110		
Fuse	45	72,0			90		
Supplementary information: Temperature correction of 10°C as suitable for outdoor installation.							

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

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						
	Type reference	VOLTANA EVO 1	—				
	Lamp used	16 leds @ 1200mA	—				
	Lamp control gear used	Xi FP 75W 0.5-1.5A SNLDAE 230V C133 sXt	—				
	Mounting position of luminaire.....	Horizontal	—				
	Supply wattage (W)	62,2	—				
	Supply current (A).....	0,274	—				
	Calculated power factor	0,99	—				
	Table: measured temperatures corrected for ta = 40 °C:						
	- abnormal operating mode		—				
	- test 1: rated voltage	230V	—				
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage		—				
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage		—				
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage		—				
	Through wiring or looping-in wiring loaded by a current of A during the test		—				
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Control Gear	40	87,3			80+10		
SPD	40	62,7			80		
Supply wiring	40	67,5			90		
Led Module ts	40	99,8			150		
Led Module optics	40	99,8			110		
Supplementary information: Temperature correction of 10°C as suitable for outdoor installation.							

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

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						
	Type reference	VOLTANA EVO 1			—		
	Lamp used	8 leds @ 1400mA			—		
	Lamp control gear used	PLD-40W 1400			—		
	Mounting position of luminaire.....	Horizontal			—		
	Supply wattage (W)	39,2			—		
	Supply current (A).....	0,176			—		
	Calculated power factor	0,97			—		
	Table: measured temperatures corrected for ta = 55 °C:						
	- abnormal operating mode				—		
	- test 1: rated voltage	230V			—		
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage				—		
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage				—		
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage				—		
	Through wiring or looping-in wiring loaded by a current of A during the test				—		
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Control Gear	55	97,8			90+10		
Supply wiring	55	70,2			90		
Led Module ts	55	105,4			150		
Led Module optics	55	105,4			110		
Supplementary information: Temperature correction of 10°C as suitable for outdoor installation.							

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

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						
	Type reference	VOLTANA 0		—			
	Lamp used	8 leds @ 1400mA		—			
	Lamp control gear used	PLD-40W 1400		—			
	Mounting position of luminaire.....	Horizontal		—			
	Supply wattage (W)	40,1		—			
	Supply current (A).....	0,180		—			
	Calculated power factor	0,97		—			
	Table: measured temperatures corrected for ta = 45 °C:						
	- abnormal operating mode			—			
	- test 1: rated voltage	230V		—			
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage			—			
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage			—			
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage			—			
	Through wiring or looping-in wiring loaded by a current of A during the test			—			
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Control Gear	45	97,8			90+10		
SPD	45	69,1			80		
Supply wiring	45	67,0			90		
Led Module ts	45	108,0			150		
Led Module optics	45	108,0			99+10		
Supplementary information: Temperature correction of 10°C as suitable for outdoor installation.							

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

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						
	Type reference	VOLTANA 0				—	
	Lamp used	8 leds @ 1250mA				—	
	Lamp control gear used	OT50/120-277/1A2 2DIM LT2 P				—	
	Mounting position of luminaire.....	Horizontal				—	
	Supply wattage (W)	37,6				—	
	Supply current (A).....	0,170				—	
	Calculated power factor	0,96				—	
	Table: measured temperatures corrected for ta = 40 °C:						
	- abnormal operating mode					—	
	- test 1: rated voltage	230V				—	
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage					—	
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage					—	
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage					—	
	Through wiring or looping-in wiring loaded by a current of A during the test					—	
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Control Gear	40	85,7			80+10		
SPD	40	60,8			80		
Supply wiring	40	61,4			90		
Led Module ts	40	95,5			150		
Led Module optics	40	95,5			99		
Supplementary information: Temperature correction of 10°C as suitable for outdoor installation.							

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

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						
	Type reference	VOLTANA 0		—			
	Lamp used	8 leds @ 1050mA		—			
	Lamp control gear used	Xi FP 40W 0.3-1.05A SNLDAE 230V C123 sXt		—			
	Mounting position of luminaire.....	Horizontal		—			
	Supply wattage (W)	30,3		—			
	Supply current (A).....	0,135		—			
	Calculated power factor	0,98		—			
	Table: measured temperatures corrected for ta = 45 °C:						
	- abnormal operating mode			—			
	- test 1: rated voltage	230V		—			
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage			—			
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage			—			
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage			—			
	Through wiring or looping-in wiring loaded by a current of A during the test			—			
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Control Gear	45	92,0			85+10		
SPD	45	60,5			80		
Supply wiring	45	63,5			90		
Led Module ts	45	89,3			150		
Led Module optics	45	89,3			99		
Supplementary information: Temperature correction of 10°C as suitable for outdoor installation.							

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

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						
	Type reference	VOLTANA 0		—			
	Lamp used	6 leds @ 1400mA		—			
	Lamp control gear used	PLD-40W 1400		—			
	Mounting position of luminaire.....	Horizontal		—			
	Supply wattage (W)	30,8		—			
	Supply current (A).....	0,140		—			
	Calculated power factor	0,96		—			
	Table: measured temperatures corrected for ta = 55 °C:						
	- abnormal operating mode			—			
	- test 1: rated voltage	230V		—			
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage			—			
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage			—			
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage			—			
	Through wiring or looping-in wiring loaded by a current of A during the test			—			
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Control Gear	55	98,4			90+10		
SPD	55	73,1			80		
Supply wiring	55	71,6			90		
Led Module ts	55	103,1			150		
Led Module optics	55	103,1			110+10		
Supplementary information: Temperature correction of 10°C as suitable for outdoor installation.							

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

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						
	Type reference	VOLTANA 0		—			
	Lamp used	6 leds @ 1050mA		—			
	Lamp control gear used	Xi FP 22W 0.3-1.05A SNLDAE 230V C123 sXt		—			
	Mounting position of luminaire.....	Horizontal		—			
	Supply wattage (W)	23,3		—			
	Supply current (A).....	0,102		—			
	Calculated power factor	0,99		—			
	Table: measured temperatures corrected for ta = 50 °C:						
	- abnormal operating mode			—			
	- test 1: rated voltage	230V		—			
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage			—			
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage			—			
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage			—			
	Through wiring or looping-in wiring loaded by a current of A during the test			—			
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Control Gear	50	94,2			85+10		
SPD	50	60,9			80		
Supply wiring	50	62,8			90		
Led Module ts	50	89,7			150		
Led Module optics	50	89,7			110		
Supplementary information: Temperature correction of 10°C as suitable for outdoor installation.							

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

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						
	Type reference	VOLTANA 0	—				
	Lamp used.....	8 leds	—				
	Lamp control gear used	OT50 (Meanwell 40W)	—				
	Mounting position of luminaire.....	Horizontal	—				
	Supply wattage (W)	37,9W (30,3W)	—				
	Supply current (A).....	1250mA (1050mA)	—				
	Calculated power factor	0,96 (0,95)	—				
	Table: measured temperatures corrected for ta = 40 (45) °C:						
	- abnormal operating mode		—				
	- test 1: rated voltage	230V	—				
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage.....		—				
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage		—				
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage.....		—				
	Through wiring or looping-in wiring loaded by a current of A during the test		—				
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Convertor Tc	40 (45)	88 (80)			80+10 (90+10)		
SPD Tc	40 (45)	70 (70)			70+10		
Supply wiring	40 (45)	63 (63)			90+10		
Led Module	40 (45)	108 (94)			99+10		
Terminal	40 (45)	63 (63)			110+10		
Internal wiring	40 (45)	63 (63)			90+10		
Supplementary information: Temperature correction of 10°C as suitable for outdoor installation.							

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

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						
	Type reference	VOLTANA 0	—				
	Lamp used.....	6 leds	—				
	Lamp control gear used	Meanwell 25W	—				
	Mounting position of luminaire.....	Horizontal	—				
	Supply wattage (W)	22,5W	—				
	Supply current (A).....	1050mA	—				
	Calculated power factor	0,99	—				
	Table: measured temperatures corrected for ta = 45 °C:						
	- abnormal operating mode		—				
	- test 1: rated voltage	230V	—				
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage.....		—				
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage		—				
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage.....		—				
	Through wiring or looping-in wiring loaded by a current of A during the test		—				
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Convertor Tc	45	88			80+10		
SPD Tc	45	63			80+10		
Supply wiring	45	56			90+10		
Led Module	45	83			105+10		
Terminal	45	56			110+10		
Internal wiring	45	56			90+10		
Supplementary information: Temperature correction of 10°C as suitable for outdoor installation.							

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

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						
	Type reference	VOLTANA 1	—				
	Lamp used.....	8 leds	—				
	Lamp control gear used	Meanwell 40W (Philips 40W) [OT50]	—				
	Mounting position of luminaire.....	Horizontal	—				
	Supply wattage (W)	41,2W (29,0W) [38,1W]	—				
	Supply current (A).....	1400mA (1000mA) [1250mA]	—				
	Calculated power factor	0,96	—				
	Table: measured temperatures corrected for ta = 45 (55) [50] °C:						
	- abnormal operating mode		—				
	- test 1: rated voltage	230V	—				
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage.....		—				
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage		—				
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage.....		—				
	Through wiring or looping-in wiring loaded by a current of A during the test		—				
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Convertor Tc	45 (55) [50]	81 (95) [88]			90+10 (90+10) [80+10]		
SPD Tc	45 (55) [50]	70 (68) [68]			80+10		
Supply wiring	45 (55) [50]	59 (64) [66]			90+10		
Led Module (ts)	45 (55) [50]	87 (84) [87]			105+10		
Lenses	45 (55) [50]	105 (96) [102]			99+10		
Terminal	45 (55) [50]	59 (64) [66]			110+10		
Internal wiring	45 (55) [50]	59 (64) [66]			90+10		
Supplementary information: Temperature correction of 10°C as suitable for outdoor installation.							

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

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						
	Type reference	VOLTANA 2				—	
	Lamp used.....	16 leds				—	
	Lamp control gear used	OT50				—	
	Mounting position of luminaire.....	Horizontal				—	
	Supply wattage (W)	56.1W				—	
	Supply current (A).....	1000mA				—	
	Calculated power factor	0,98				—	
	Table: measured temperatures corrected for ta = 45 °C:						
	- abnormal operating mode					—	
	- test 1: rated voltage	230V				—	
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage.....					—	
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage					—	
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage.....					—	
	Through wiring or looping-in wiring loaded by a current of A during the test					—	
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Convertor Tc	45	86			80+10		
SPD Tc	45	63			80+10		
Supply wiring	45	61			90+10		
Led Module (ts)	45	85			105+10		
Lenses	45	103			99+10		
Terminal	45	61			110+10		
Internal wiring	45	61			90+10		
Supplementary information: Temperature correction of 10°C as suitable for outdoor installation.							

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

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						
	Type reference	VOLTANA 3				—	
	Lamp used.....	24 leds				—	
	Lamp control gear used	LG 75W				—	
	Mounting position of luminaire.....	Horizontal				—	
	Supply wattage (W)	56.1W (54,6W)				—	
	Supply current (A).....	1000mA (700mA)				—	
	Calculated power factor	0,99				—	
	Table: measured temperatures corrected for ta = 35 (50) °C:						
	- abnormal operating mode					—	
	- test 1: rated voltage	230V				—	
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage.....					—	
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage					—	
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage.....					—	
	Through wiring or looping-in wiring loaded by a current of A during the test					—	
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Convertor Tc	35 (50)	87 (90)			80+10		
SPD Tc	35 (50)	55 (65)			80+10		
Supply wiring	35 (50)	46 (57)			90+10		
Led Module (ts)	35 (50)	79 (80)			105+10		
Lenses	35 (50)	91 (88)			99+10		
Terminal	35 (50)	46 (57)			110+10		
Internal wiring	35 (50)	46 (57)			90+10		
Supplementary information: Temperature correction of 10°C as suitable for outdoor installation.							

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

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12						
	Type reference	VOLTANA 4		—			
	Lamp used.....	32 Led		—			
	Lamp control gear used	Philips 150W		—			
	Mounting position of luminaire.....	Horizontal		—			
	Supply wattage (W)	107,6W (73,3W)		—			
	Supply current (A).....	1000mA (700mA)		—			
	Calculated power factor	0,96		—			
	Table: measured temperatures corrected for ta = 45 (55) °C:						
	- abnormal operating mode			—			
	- test 1: rated voltage			—			
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage.....			—			
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage			—			
	- test 4: 1,1 times rated voltage or 1,05 times rated wattage.....			—			
	Through wiring or looping-in wiring loaded by a current of A during the test			—			
Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Convertor Tc	45 (55)	93 (81)			90+10		
SPD Tc	45 (55)	65 (71)			80+10		
Supply wiring	45 (55)	59 (66)			90+10		
Led Module (ts)	45 (55)	86 (83)			105+10		
Lenses	45 (55)	105 (96)			99+10		
Terminal	45 (55)	59 (66)			110+10		
Internal wiring	45 (55)	59 (66)			90+10		
Supplementary information: Temperature correction of 10°C as suitable for outdoor installation.							

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Clause	Requirement + Test	Result - Remark	Verdict

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

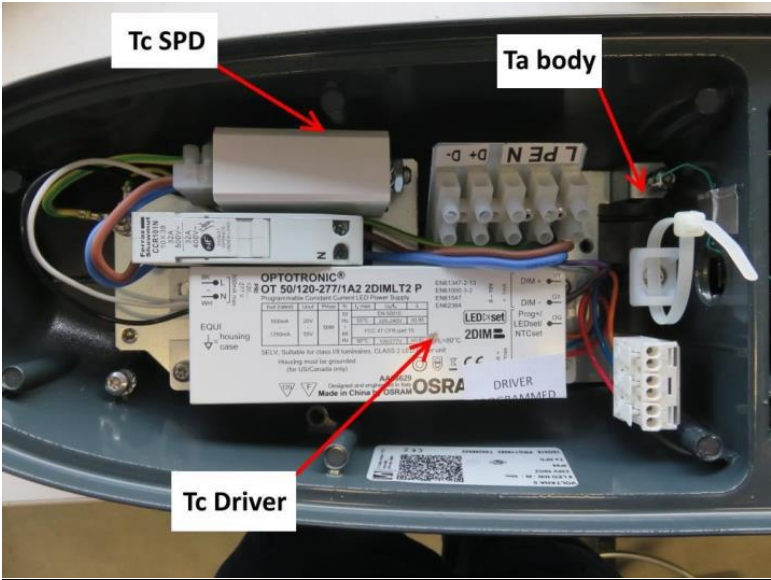
ANNEX 4	Screwless terminals (part of the luminaire)		N/A
(15)	SCREWLESS TERMINALS		N/A
(15.2)	Type of terminal.....:		—
	Rated current (A).....:		—
(15.3.1)	Material		N/A
(15.3.2)	Clamping		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
(15.3.3)	Stop		N/A
(15.3.4)	Unprepared conductors		N/A
(15.3.5)	Pressure on insulating material		N/A
(15.3.6)	Clear connection method		N/A
(15.3.7)	Clamping independently		N/A
(15.3.8)	Fixed in position		N/A
(15.3.10)	Conductor size		N/A
	Type of conductor		N/A
(15.5.1)	Terminals internal wiring		N/A
(15.5.1.1)	Pull test spring-type terminals (4 N, 4 samples).....:		N/A
(15.5.1.2)	Pull test pin or tab terminals (4 N, 4 samples)		N/A
	Insertion force not exceeding 50 N		N/A
(15.5.1.2)	Permanent connections: pull-off test (20 N)		N/A
(15.5.2)	Electrical tests		N/A
	Voltage drop (mV) after 1 h (4 samples).....:		N/A
	Voltage drop of two inseparable joints		N/A
	Number of cycles:		—
	Voltage drop (mV) after 10th alt. 25th cycle (4 samples)		N/A
	Voltage drop (mV) after 50th alt. 100th cycle (4 samples)		N/A
	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples).....:		N/A
	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples).....:		N/A
(15.6)	Terminals external wiring		N/A
	Terminal size and rating		N/A
(15.6.2.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N)		N/A
	Pull test pin or tab terminals (4 samples); pull (N)		N/A

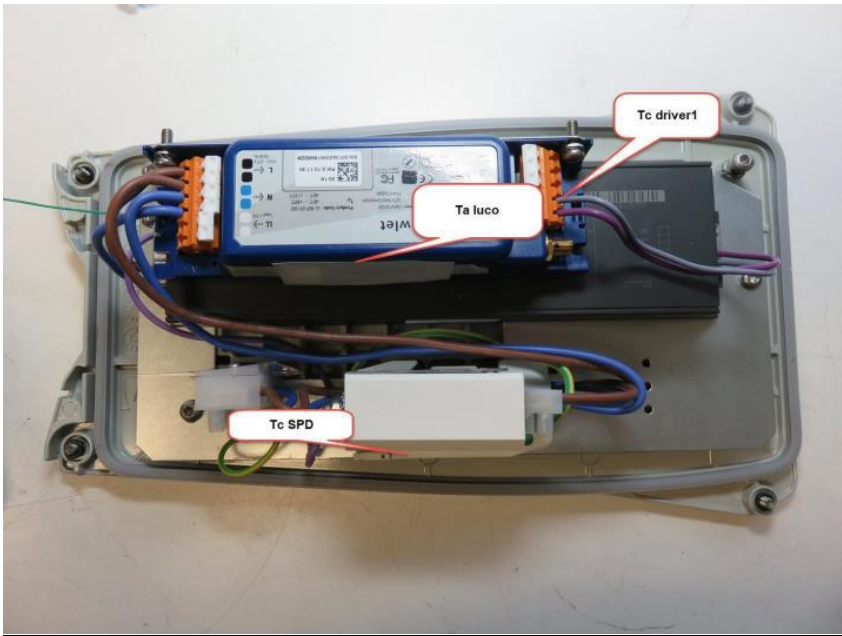
IEC 60598-2-3											
Clause	Requirement + Test						Result - Remark				Verdict
(15.6.3.1)	TABLE: Contact resistance test										N/A
	Voltage drop (mV) after 1 h										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Voltage drop of two inseparable joints										N/A
	Voltage drop after 10th alt. 25th cycle										N/A
	Max. allowed voltage drop (mV)..... :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Voltage drop after 50th alt. 100th cycle										N/A
	Max. allowed voltage drop (mV)..... :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Voltage drop after 10th alt. 25th cycle										N/A
	Max. allowed voltage drop (mV)..... :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Continued ageing: voltage drop after 10th alt. 25th cycle										N/A
	Max. allowed voltage drop (mV)..... :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
	Continued ageing: voltage drop after 50th alt. 100th cycle										N/A
	Max. allowed voltage drop (mV)..... :										—
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
Supplementary information:											

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Clause	Requirement + Test	Result - Remark	Verdict

Pictures



Example of Geartray Voltana 0



Example of Geartray Voltana 3

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



Voltana EVO 1 (8 or 16 leds)

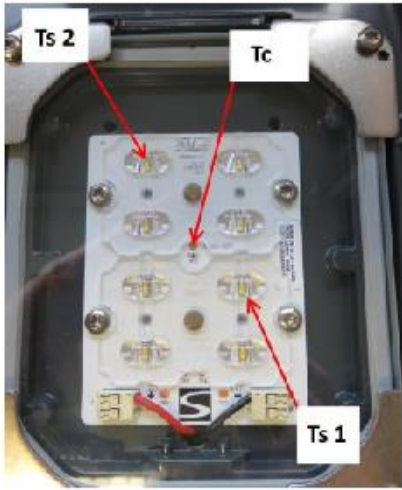
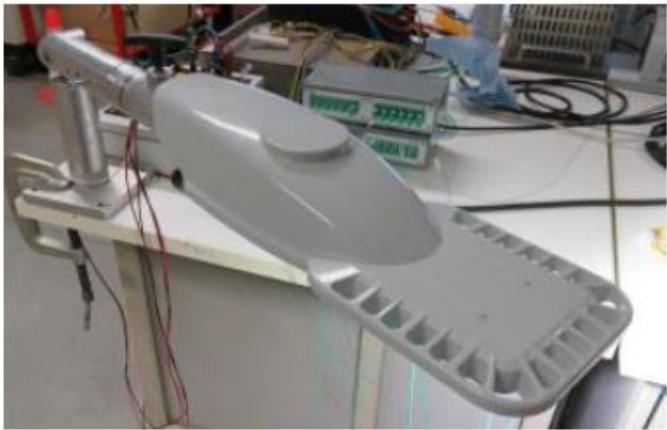


Voltana 0 (6 leds)

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



Voltana 0 (8 leds)



- Voltana 1 (8 leds)
- Voltana 2 (16 leds)
- Voltana 3 (24 leds)
- Voltana 4 (32 leds)

IEC60598_2_3L ATTACHMENT			
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)		P
3.6 (4)	CONSTRUCTION		P
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		N/A
	Replace table 5.1 – Supply cord		N/A
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