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ENEC, alături de sufixul 01, așa cum este arătat mai sus, a fost eliberată pentru:

SCHREDER GROUP
RUE DE LUSAMBO, 67
B-1190 BRUXELLES (Belgia)

Pentru produsele:
Aparate pentru iluminat stradal

Nume marca:
SCHREDER

Sunt conforme cu următoarele Standarde Europene:

EN 60598-1:2015; EN 60598-2-3:2003;
EN 60598-2-3:2003/A1:2011; EN 62262:2002

Data: 01-02-2017

Semnătura
[semnătură indescifrabilă]

Nume: Avelino Brito

Poziție: CEO

Licența a fost emisă sub prezumpția și condiția faptului că licențiatul deține toate drepturile
legale necesare cu privire la produsul prezentat pentru testare și certificare.

AENOR INTERNACIONAL, S.A.U
CI. GENOVA, 6
28004, Madrid, Spania



AB

AENOR
CERTIFICAT ENEC DE PRODUS
[logo ENEC 01]

- Tip produs: aparat de iluminat public
- r1) Nr. Certificat: ENEC/001028
- r2) Data certificat: 2017-02-01
- r3) Raport de testare nr: 2016050306B1
- r4) Nume și adresă a licențiatului: SCHREDER GROUP
RUE DE LUSAMBO, 67 B-1190 BRUXELLES (Belgia)
- r5) Adresa fabricii: AV ROANNE 66 - PI EL HENARES
19130 MARCHAMALO (Guadalajara - Spania)
- r6) Standard spaniol: UNE-EN 60598-1:2015; UNE-EN 60598-2-3:2003;
UNE-EN 60598-2-3:2003/A1:2011; UNE-EN 62262:2002
- r7) Standard European: EN 60598-1:2015; EN 60598-2-3:2003;
EN 60598-2-3:2003/A1:2011; EN 62262:2002
- r8) Tip referință: vezi Anexa 1
- r9) Marca comercială: SCHREDER
- r10) Tensiune și frecvență nominală: 230 V~; 50/60 Hz
- r11) Nr. de lămpi x putere nominală: vezi Anexa 1
- r12) Tip de lămpi și soclu: modul LED; SMD
- r13) Grad de protecție (IP): IP66; IK08
- r14) Mod conexiune alimentare: terminale
- r15) Clasificare material de bază: potrivit pentru suprafețe cu grad obișnuit de flamabilitate
- r16) Protecție împotriva șocurilor electrice (clasa): clasa I
- r17) Limitări: montaj orizontal. Fixat pe stâlp sau pe braț. Ta max. = 50°C; spațiu minim pentru obiecte iluminate: 0,2 m
- r18) Date tehnice: seria AXIA 2.1. Alb neutru

Data expirării: 14.06.2021

Prezentul certificat înlocuiește certificatul 007/001028 din 2016-06-14

AENOR INTERNACIONAL
Genova 6, 28004, Madrid, Spania
Tel. 91 432 60 00 – www.aenor.es

Entitate de certificare produs acreditată de ENAC, număr 01/C-PR275



Alb

AENOR
CERTIFICAT ENEC DE PRODUS
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ANEXA 1 LA CERTIFICATUL ENEC/001028

TIP REFERINTA	NR. LAMPI x PUTERE NOMINALA
AXIA 2.1 16 LED 21 W Cl. I	16 LED; 21 W; 390 mA
AXIA 2.1 16 LED 26 W Cl. I	16 LED; 26 W; 480 mA
AXIA 2.1 16 LED 32 W Cl. I	16 LED; 32 W; 600 mA
AXIA 2.1 16 LED 36 W Cl. I	16 LED; 36 W; 690 mA
AXIA 2.1 16 LED 40 W Cl. I	16 LED; 40 W; 760 mA
AXIA 2.1 24 LED 38 W Cl. I	24 LED; 38 W; 490 mA
AXIA 2.1 24 LED 41 W Cl. I	24 LED; 41 W; 540 mA
AXIA 2.1 24 LED 48 W Cl. I	24 LED; 48 W; 630 mA
AXIA 2.1 24 LED 53 W Cl. I	24 LED; 53 W; 690 mA
AXIA 2.1 24 LED 57 W Cl. I	24 LED; 57 W; 750 mA
AXIA 2.1 24 LED 68 W Cl. I	24 LED; 68 W; 890 mA
AXIA 2.1 4 LED 10 W Cl. I	4 LED; 10 W; 680 mA
AXIA 2.1 8 LED 13 W Cl. I	8 LED; 13 W; 480 mA
AXIA 2.1 8 LED 19 W Cl. I	8 LED; 19 W; 690 mA
AXIA 2.1 8 LED 22 W Cl. I	8 LED; 22 W; 820 mA

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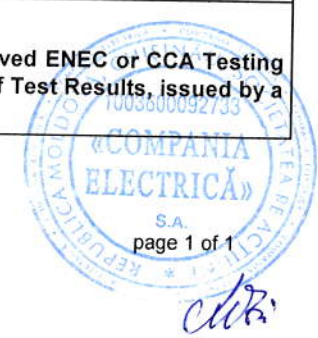
Entitate de certificare produs acreditata de ENAC, număr 01/C-PR275

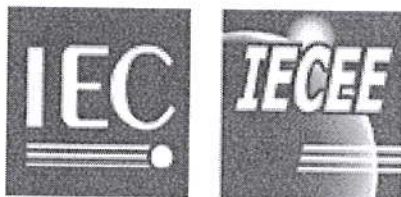


TEST REPORT SUMMARY

Report Reference No	2016050306B1-M1
Date of issue	26/09/2016
Tested by (name + signature)	ALBERTO J. CARRASCO SANTOS
Witnessed by (name + signature)	
Approved by (name + signature)	JESUS SANCHEZ PANDO
Supervised by (name + signature)	
Testing Laboratory	LABORATORIO CENTRAL OFICIAL DE ELECTROTÉCNIA
Address	C/ Eric Kandel, 1 • TECNOGETAFE • 28906 Getafe-Madrid (SPAIN)
Testing procedure	<input checked="" type="checkbox"/> ENEC/CCA-TL <input type="checkbox"/> IECCE/CBTL <input type="checkbox"/> TMP <input type="checkbox"/> WMT <input type="checkbox"/> SMT
Testing location	--
Address	--
Applicant	SCHREDER Group
Address	Rue de Lusambo 71 - 1190 Brussels (Belgium)
Manufacturer	SCHREDER Group
Address	Rue de Lusambo 71 - 1190 Brussels (Belgium)
Product	LUMINAIRES FOR ROAD AND STREET LIGHTING
Model/Type reference	Axia GEN2 Size 1 and Size 2 series – Class I
Trademark	Schröder
Ratings	230 V; 50 Hz; max 24 led – 66 W(size 1) – max 48 led – 137 W (size 2); IP66; IK08; Ta 50 °C (size 1) and 30 °C (size 2); Class I
Certification Scheme	<input checked="" type="checkbox"/> ENEC <input type="checkbox"/> CCA <input type="checkbox"/> Other: _____
Standard(s)	EN 60598-2-3:2003 + A1:2011 used in conjunction with EN 60598-1:2015
<input type="checkbox"/> The text of the a.m. European Standard was approved by CENELEC under the Unique Acceptance Procedure and is identical with the corresponding IEC Publication. <input checked="" type="checkbox"/> The text of the a.m. European Standard was approved by CENELEC with agreed common modifications and is <u>not</u> identical with the corresponding IEC Publication.	
This EN test report consists of the following parts: <input checked="" type="checkbox"/> IEC TRF No. IEC60598_2_3J: Report Reference No: 2016050306B1-M1 <input checked="" type="checkbox"/> EN Common modifications SNCs and A-deviations: Report Reference No.....: 2016050306B1-M1	
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(Faint text and signatures on the right side of the form)





Test Report issued under the responsibility of:

L.C.O.E.

LABORATORIO CENTRAL OFICIAL DE ELECTROTECNIA

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

Report Number.....: 2016050306B1-M1
Date of issue.....: 26/09/2016
Total number of pages..... 68

Name of Testing Laboratory preparing the Report.....: LABORATORIO CENTRAL OFICIAL DE ELECTROTECNIA (LCOE)

Applicant's name.....: SCHREDER Group

Address.....: Rue de Lusambo 71 - 1190 Brussels (Belgium)

Test specification:

Standard.....: IEC 60598-2-3:2002 (Third Edition) + A1:2011 used in conjunction with IEC 60598-1:2014 (Eighth Edition)
EN 60598-2-3:2003 + A1:2011 used in conjunction with EN 60598-1:2015

Test procedure.....: CB Scheme

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

Test Report Form No.....: IEC60598_2_3J

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

Master TRF.....: 2014-09

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This report is not valid as a CB Test Report unless signed by an approved CB Testing Laboratory and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.

General disclaimer:

The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing CB Testing Laboratory. The authenticity of this Test Report and its contents can be verified by contacting the NCB, responsible for this Test Report.



Test item description..... :	Luminaires for road and street lighting	
Trade Mark..... :	Schröder	
Manufacturer..... :	SCHRÉDER SOCELEC S.A.	
Model/Type reference..... :	Axia GEN2 Size 1 and Size 2 series – Class I	
Ratings..... :	230 V; 50 Hz; max 24 led – 66 W(size 1) – max 48 led – 137 W (size 2); IP66; IK08; Ta 50 °C (size 1) and 30 °C (size 2); Class I	
Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):		
<input checked="" type="checkbox"/> CB Testing Laboratory:	LABORATORIO CENTRAL OFICIAL DE ELECTROTECNIA (LCOE)	
Testing location/ address..... :	C/ Eric Kandel, 1 – 28906 Getafe (Madrid)	
<input type="checkbox"/> Associated CB Testing Laboratory:		
Testing location/ address..... :		
Tested by (name, function, signature)..... :	ALBERTO J. CARRASCO SANTOS	 <p>Firmado digitalmente por Alberto Javier Carrasco Santos Nombre de reconocimiento (DN): c=ES, cn=Alberto Javier Carrasco Santos, email=acarrasco@coe.etsii.upm.es, serialNumber=02283228V, ou=Carrasco Santos, givenName=Alberto Javier, 1.3.6.1.4.1.17326.30.3+680455231, o=FUNDACION PARA EL FOMENTO DE LA INNOVACION INDUSTRIAL, ou=LCOE BAJA TENSION, title=ANALISTA, 2.5.4.13=Qualified Certificate: CAM-PF-SW-KPSC Motivo: Ensayado Fecha: 2016.09.26 12:33:58 +0200'</p>
Approved by (name, function, signature).... :	JESÚS SÁNCHEZ PANDO (Technical responsible)	 <p>Firmado digitalmente por Jesús Sánchez Pando Nombre de reconocimiento (DN): c=ES, cn=Jesús Sánchez Pando, email=jsplcoe.etsii.upm.es, serialNumber=080294995, sn=Sánchez Pando, givenName=Jesús, 1.3.6.1.4.1.17326.30.3+680455231, o=FUNDACION PARA EL FOMENTO DE LA INNOVACION INDUSTRIAL, ou=LCOE- TECNOLOGIA BAJA TENSION, title=RESPONSABLE TECNICO, 2.5.4.13=Qualified Certificate: CAM-PF-SW-KPSC Fecha: 2016.09.27 09:28:54 +0200'</p>



<p>List of Attachments (including a total number of pages in each attachment):</p> <p>Annex 1: Components Annex 5: Additional documentation Annex 6: Photographs of the test sample</p>	
<p>Summary of testing:</p>	
<p>Tests performed (name of test and test clause):</p> <p>All tests have been carried out on the representative model and most onerous of the serie.</p> <p>The tests carried out including on the present report are conformity with the Standard applied.</p>	<p>Testing location:</p> <p>LABORATORIO CENTRAL OFICIAL DE ELECTROTECNIA (LCOE) C/ Eric Kandel, 1 – 28906 Getafe (Madrid)</p>
<p>Summary of compliance with National Differences:</p> <p>List of countries addressed</p> <p><input type="checkbox"/> The product fulfils the requirements of _____ (insert standard number and edition and delete the text in parenthesis, leave it blank or delete the whole sentence, if not applicable)</p>	



Test item particulars.....:	
Classification of installation and use.....: According to the instructions of the manufacturer	
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.....:	
Date of receipt of test item 17/02/2016 (M1 – 19/07/2016)	
Date (s) of performance of tests 23/02/2016 to 30/05/2016 (M1- 20/07/2016 to 13/09/2016)	
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.	
Manufacturer's Declaration per sub-clause 4.2.5 of IEC60068-2-1:	
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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> Not applicable
When differences exist; they shall be identified in the General product information section.	
Name and address of factory (ies) : SCHREDER SOCELEC S.A. AV Roanne 66 - P.I. El Henares 19180 Marchamalo (Guadalajara)	



General product information:**Amendment 1 Report:**

The original Test Report Ref. No. 2016050306B1, dated 2014 May 21 was modified on July 6, 2016 to include the following changes and/or additions, which were considered technical modifications and representative additional models on the family of products:

New models added:

Axia Gen 2 size 2. The mains differences are the size of the luminaire and the power of the led modules. For the new model is necessary carried out the followings test on the new model included:

- Cl. 3 – Marking
- Cl. 9 – Resistance to dust, solid objects and moisture
- Cl. 10 - Insulation resistance and electric strength
- Cl. 12 - Endurance test and thermal test

General Type reference: Axia Gen 2 size 1 and size 2.

This is the product code reference.. (See additional information on Annex 5 to "Axia Gen 2 size 1/2 – SYNOPTIC TABLE WITH STRUCTURED DESCRIPTION")

MODEL LIST:**Axia Gen 2 size 1**

Nº led	Power (W)	Current (mA)
4	8	612
8	11	432
8	15	621
8	18	738
16	17	351
16	21	432
16	27	540
16	31	621
16	34	684
24	33	441
24	36	486
24	42	567
24	46	621
24	50	675
24	60	801



Axia Gen 2 size 2

N° led	Power (W)	Current (mA)
32	51	690
32	60	860
32	116	960
40	69	370
40	85	410
40	98	450
40	47	480
40	68	760
40	87	920
40	110	1000
48	56	460
48	96	530
48	127	590
48	79	660
48	98	730
48	120	800
48	137	890

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

3.2 (0)	GENERAL TEST REQUIREMENTS		-
3.2 (0.1)	Information for luminaire design considered	Standard Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
3.2 (0.3)	More sections applicable.....	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—

3.4 (2)	CLASSIFICATION		-
3.4 (2.2)	Type of protection	Class I	—
3.4 (2.3)	Degree of protection.....	IP66 (IK08)	—
3.4 (2.4)	Luminaire suitable for direct mounting on normally flammable surfaces	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
3.4 (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"/>	—
3.4 (-)	Modes of installation of road or street lighting		—
	a) on a pipe	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
	b) on a mast arm	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
	c) on a post top	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	—
	d) on span or suspension wires	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—
	e) on a wall	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—

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 Hz	P
3.5 (3.3.3)	Operating temperature	50 °C; 30 °C	P
3.5 (3.3.4)	Symbol or warning notice		N/A
3.5 (3.3.5)	Wiring diagram		P
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	On led control gear	P

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IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
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		P
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		N/A
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		N/A
3.5 (3.3.22)	Controllable luminaires, classification of insulation provided	Basic insulation	P
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		P
	a) Design attitude	5 – 8 m	P
	b) Weight	6,7 kg (size 1); 9,5 kg (size 2)	P
	c) Overall dimensions		P
	d) Maximum projected area if applicable	0,054(size1); 0,071 (size 2)	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		P
	i) Maximum mounting height		P
3.6 (4)	CONSTRUCTION		
3.6 (4.2)	Components replaceable without difficulty		P

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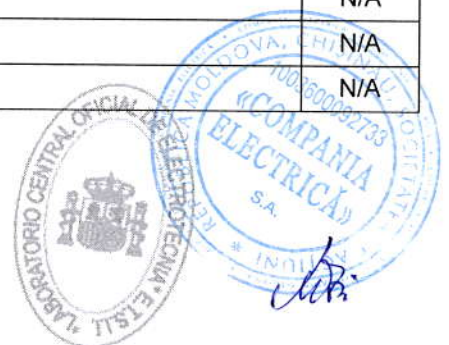


IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.3)	Wireways smooth and free from sharp edges		P
3.6 (4.4)	Lampholders		N/A
3.6 (4.4.1)	Integral lampholder		N/A
3.6 (4.4.2)	Wiring connection		N/A
3.6 (4.4.3)	Lampholder for end-to-end mounting		N/A
3.6 (4.4.4)	Positioning		N/A
	- 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		N/A
	Starter holder in luminaires other than class II		N/A
	Starter holder class II construction		N/A
3.6 (4.6)	Terminal blocks		-
	Tails		N/A
	Unsecured blocks		N/A
3.6 (4.7)	Terminals and supply connections		-
3.6 (4.7.1)	Contact to metal parts		P
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



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- 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		P
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		N/A
	- 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		N/A
3.6 (4.9.1)	Retainment		N/A
	Method of fixing		—
3.6 (4.9.2)	Insulated linings and sleeves:		N/A
	Resistant to a temperature > 20 °C to the wire temperature or		N/A
	a) & c) Insulation resistance and electric strength		N/A
	b) Ageing test. Temperature (°C)		N/A
3.6 (4.10)	Double or reinforced insulation		N/A
3.6 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation		N/A
	Safe installation fixed luminaires		N/A
	Capacitors and switches		N/A
	Interference suppression capacitors according to IEC 60384-14		N/A
3.6 (4.10.2)	Assembly gaps:		N/A
	- not coincidental		N/A
	- no straight access with test probe		N/A
3.6 (4.10.3)	Retainment of insulation:		N/A
	- fixed		N/A

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IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- 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		P
	- thread-cutting screws		P
3.6 (4.11.3)	Screw locking:		P
	- spring washer		P
	- rivets		P
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		P
	Torque test: torque (Nm); part..... : 5 Nm; External part fixing		P
	Torque test: torque (Nm); part..... :		N/A
	Torque test: torque (Nm); part..... :		N/A
3.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal		P
3.6 (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
3.6 (4.12.5)	Screwed glands; force (Nm)..... :		N/A
3.6 (4.13)	Mechanical strength (IK08 according to EN 62262)		P
3.6 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm)	5J	P
	- other parts; energy (Nm)..... :	5J	P
	1) live parts		P
	2) linings		P
	3) protection		P
	4) covers		P

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IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.13.3)	Straight test finger		P
3.6 (4.13.4)	Rough service luminaires		N/A
	- 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	26,8kg size 1; 38 kg (size 2)	P
	B) torque 2,5 Nm		N/A
	C) bracket arm; bending moment (Nm)..... :		N/A
	D) load track-mounted luminaires		N/A
	E) clip-mounted luminaires, glass-shelve. Thickness (mm)		N/A
	Metal rod. diameter (mm)		N/A
	Fixed luminaire or independent control gear without fixing devices		N/A
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:		N/A
	- flexing test; number of cycles..... :		N/A
	- strands broken		N/A
	- electric strength test afterwards		N/A
3.6 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
3.6 (4.14.5)	Guide pulleys		N/A
3.6 (4.14.6)	Strain on socket-outlets		N/A
3.6 (4.15)	Flammable materials		-
	- glow-wire test 650°C	See Test Table 3.15 (13.3.2)	N/A

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IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- spacing ≥ 30 mm		N/A
	- screen withstanding test of 13.3.1		N/A
	- screen dimensions		N/A
	- no fiercely burning material		N/A
	- thermal protection		N/A
	- electronic circuits exempted		N/A
3.6 (4.15.2)	Luminaires made of thermoplastic material with lamp control gear		N/A
	a) construction		N/A
	b) temperature sensing control		N/A
	c) surface temperature		N/A
3.6 (4.16)	Luminaires for mounting on normally flammable surfaces		-
	No lamp control gear : (compliance with Section 12)		N/A
3.6 (4.16.1)	Lamp control gear spacing:		-
	- spacing 35 mm		P
	- spacing 10 mm		N/A
3.6 (4.16.2)	Thermal protection:		N/A
	- in lamp control gear	120	P
	- external		N/A
	- fixed position		N/A
	- temperature marked lamp control gear		N/A
3.6 (4.16.3)	Design to satisfy the test of 12.6	(see clause 12.6)	N/A
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
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



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
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)		N/A
3.6 (4.24.2)	Retinal blue light hazard		-
	Luminaires with E_{thr} :		-
	a) Fixed luminaires		N/A
	- distance x m, borderline between RG1 and RG2 ... :	0,215 m; RG2 See TRF N° LBE 04 112160-3.0 (LABORELEC)	P
	- marking and instruction according 3.2.23		P
	b) Portable and handheld luminaires		N/A
	- marking according 3.2.23 if RG1 exceeded at 200 mm according to IEC/TR 62778		N/A
	Portable luminaires for children IEC 60598-2-10 and Mains socket outlet nightlights IEC 60598-2-12 not exceed RG1 at 200 mm according to IEC/62778		N/A
3.6 (4.25)	Mechanical hazard		-
	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		N/A
	Test according Annex V		N/A
	Pull test of terminal fixing (20 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Pull test of mechanical connection (50 N)		N/A
	After test, resistance < 0,05 Ω		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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:		-
	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		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		-
	Used SELV source		N/A
	Voltage ≤ ELV		N/A
	Insulating of SELV circuits from LV supply		N/A
	Insulating of SELV circuits from other non SELV circuits		N/A
	Insulating of SELV circuits from FELV		N/A
	Insulating of SELV circuits from other SELV circuits		N/A
	SELV circuits insulated from accessible parts according Table X.1		N/A
	Plugs not able to enter socket-outlets of other voltage systems		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	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		P
	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		P
3.6 (4.32)	Overtoltage protective devices		-
	Comply with IEC 61643-11		P
	External to controlgear and connected to earth:		-
	- only in fixed luminaires		N/A
	- only connected to protective earth		N/A
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



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Clause	Requirement + Test	Result - Remark	Verdict
3.6.2 (-)	Suspension on span wires		P
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.....:	1,2	P
	- loaded area (m ²).....:	0,054 (size 1); 0,071 (size 2)	P
	- used load (N).....:	67 N (size 1); 105 N (size 2)	P
	- measured deformation (cm/m)	< 2 cm/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		N/A
	b) glass having a high impact shock resistance (test according to 3.6.5.2), or	IK 08	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		N/A
	- number of particles is more than 40.....:		N/A
3.6.5.2 (-)	Protection by the use of high impact resistant glass		N/A
3.6.5.2.1 (-)	Glass covers have high mechanical strength		N/A
	Test according IEC 62262 with test apparatus according IEC 60068-2-75 with impact energy of 5J on preconditioned sample		N/A
3.6.5.2.2 (-)	Glass covers not break into large pieces		N/A
	- test according 3.6.5.1, number of particles is more than 20		N/A
3.6.6 (-)	Connection compartment of column-integrated luminaire		-
	- 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



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Clause	Requirement + Test	Result - Remark	Verdict
	- impact test 5 Nm		N/A
	- sample show no damage		N/A
3.6.9 (-)	Column-integrated luminaire:		N/A
	- 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		-
3.7 (11.2)	Creepage distances and clearances	See Table 3.7 (11.2)	P
	Working voltage (V)	230 V	—
	Rated pulse voltage (kV)	-	—
	Voltage form	Sinusoidal <input checked="" type="checkbox"/> Non-sinusoidal <input type="checkbox"/>	—
	PTI	< 600 <input checked="" type="checkbox"/> ≥ 600 <input type="checkbox"/>	—
	Impulse withstand category (Normal category II) (Category III Annex U)	Category II <input checked="" type="checkbox"/> Category III <input type="checkbox"/>	—

3.8 (7)	PROVISION FOR EARTHING		
3.8 (7.2.1 + 7.2.3)	Accessible metal parts		P
	Metal parts in contact with supporting surface		P
	Resistance < 0,5 Ω	0,140 Ω (size1); 0,147 (size 2)	P
	Self-tapping screws used		P
	Thread-forming screws		P
	Thread-forming screw used in a grove		P
	Earth makes contact first		N/A
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
	Protective earthing of the luminaire not via built-in control gear		N/A
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

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Clause	Requirement + Test	Result - Remark	Verdict
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
3.8 (7.2.5)	Earth terminal integral part of connector socket		N/A
3.8 (7.2.6)	Earth terminal adjacent to mains terminals		N/A
3.8 (7.2.7)	Electrolytic corrosion of the earth terminal		N/A
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		P
3.8 (7.2.11)	Earthing core coloured green-yellow		P
	Length of earth conductor		P
3.8.1 (-)	Attachment prevented from rotation		P

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

3.9 (15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		-
	Separately approved; component list..... :	(see Annex 1)	P
	Part of the luminaire	(see Annex 4)	-

3.10 (5)	EXTERNAL AND INTERNAL WIRING		-
3.10 (5.2)	Supply connection and external wiring		-
3.10 (5.2.1)	Means of 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		P
3.10 (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
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:		N/A
	- suitable for introduction		N/A
	- adequate degree of protection		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
3.10 (5.2.7)	Cable entries through rigid material have rounded edges		N/A
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:		N/A
	- 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
3.10 (5.2.10.1)	Cord anchorage for type X attachment:		N/A
	a) at least one part fixed		N/A
	b) types of cable		N/A
	c) no damaging of the cable		N/A
	d) whole cable can be mounted		N/A
	e) no touching of clamping screws		N/A
	f) metal screw not directly on cable		N/A
	g) replacement without special tool		N/A
	Glands not used as anchorage		N/A
	Labyrinth type anchorages		N/A
3.10 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment		N/A
3.10 (5.2.10.3)	Tests:		N/A
	- 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

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IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	- function independent of electrical connection		N/A
3.10 (5.2.11)	External wiring passing into luminaire		P
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)		N/A
	Installation couplers (IEC 61535)		N/A
	Other appliance inlet or connector according relevant IEC standard		N/A
3.10 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
3.10 (5.2.18)	Used plug in accordance with		N/A
	- IEC 60083		N/A
	- other standard		N/A
3.10 (5.3)	Internal wiring		-
3.10 (5.3.1)	Internal wiring of suitable size and type		P
	Through wiring		P
	- not delivered/ mounting instruction		P
	- factory assembled		P
	- socket outlet loaded (A)		N/A
	- temperatures	(see Annex 2)	P
	Green-yellow for earth only		P
3.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring		-
	Cross-sectional area (mm ²).....	1	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		-

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Clause	Requirement + Test	Result - Remark	Verdict
	Adequate cross-sectional area and insulation thickness		P
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		N/A
3.10 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A
3.10 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		P
	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		N/A
3.10 (5.3.6)	Wire carriers		N/A
3.10 (5.3.7)	Wire ends not tinned		P
	Wire ends tinned: no cold flow		P
3.10.1 (-)	Cord anchorage if applicable		P
	- pull test: 25 times; pull (N)	60	P
	- torque test: torque (Nm)	0,25	P

3.11 (8)	PROTECTION AGAINST ELECTRIC SHOCK		-
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

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Clause	Requirement + Test	Result - Remark	Verdict
	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
3.11 (8.2.2)	Portable luminaire adjusted in most unfavourable position		N/A
3.11 (8.2.3.a)	Class II luminaire:		N/A
	- 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
3.11 (8.2.3.c)	SELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- touch current		N/A
	- no-load voltage.....		N/A
	Other than ordinary luminaire:		N/A
	- 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		N/A
3.11 (8.2.6)	Covers reliably secured		N/A
3.11 (8.2.7)	Discharging of capacitors $\geq 0,5 \mu\text{F}$		N/A
	Portable plug connected luminaire with capacitor		N/A



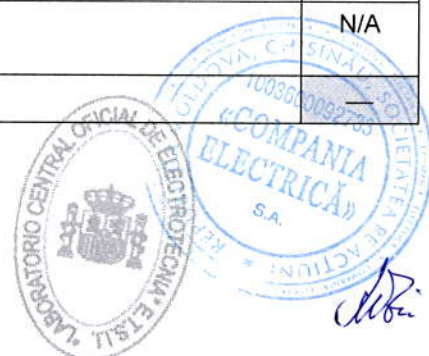
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Clause	Requirement + Test	Result - Remark	Verdict
	Other plug connected luminaire with capacitor		N/A
	Discharge device on or within capacitor		N/A
	Discharge device mounted separately		N/A

3.12 (12)	ENDURANCE TEST AND THERMAL TEST		-
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 (12.3)	Endurance test:		-
	- mounting-position	ON POST	—
	- test temperature (°C)	60/40 ± 2 °C	—
	- total duration (h)	240 h	—
	- supply voltage: Un factor; calculated voltage (V)....	253 V	—
	- lamp used.....	Integrated led module	—
3.12 (12.3.2)	After endurance test:		-
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N/A
	- marking legible		P
	- no cracks, deformation etc.		P
3.12 (12.4)	Thermal test (normal operation)	(see Annex 2)	P
3.12 (12.5)	Thermal test (abnormal operation)	(see Annex 2)	N/A
3.12 (12.6)	Thermal test (failed lamp control gear condition):		-
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		—



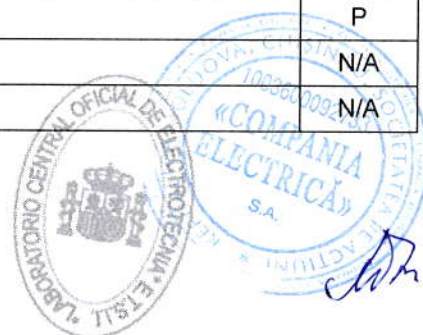
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Clause	Requirement + Test	Result - Remark	Verdict
	- thermal link		N/A
	- manual reset cut-out		N/A
	- auto reset cut-out		N/A
	- measured mounting surface temperature (°C)		N/A
	- track-mounted luminaires		N/A
3.12 (12.7)	Thermal test (failed lamp 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
	- 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 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 Table 3.15 (13.2.1)	N/A
3.12 (12.7.1.3)	Luminaire with short circuit proof transformers $\leq 10 VA$		N/A
	- case of abnormal conditions		—



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Clause	Requirement + Test	Result - Remark	Verdict
	- 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 <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 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
3.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		—
	- classification according to IP..... :	IP66	—
	- mounting position during test..... :	On post	—
	- fixing screws tightened; torque (Nm)	Acc instructions sheet	—
	- tests according to clauses..... :	9.2.2 and 9.2.7	—
	- 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)		N/A
	f) no contact with live parts (IP3X and IP4X)		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	g) no trace of water on part of lamp requiring protection from splashing water		P
	h) no damage of protective shield or glass envelope		P
3.13 (9.3)	Humidity test 48 h		P

3.14 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		-
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
	- 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	>> 200GΩ	P
	- between live parts and mounting surface	130GΩ	P
	- between live parts and metal parts	130GΩ	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)		N/A
	SELV		N/A



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Clause	Requirement + Test	Result - Remark	Verdict
	- 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		P
	- between live parts of different polarity :	1500 V	P
	- between live parts and mounting surface :	1500 V	P
	- between live parts and metal parts :	1500 V	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 (10.3)	Touch current or protective conductor current (mA) :	< 0,2 mA	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



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Clause	Requirement + Test	Result - Remark	Verdict

3.7 (11.2)	TABLES: Creepage distances and clearances							
Table 11.1	Minimum distances (mm) for a.c. (50/60 Hz) sinusoidal voltages							
RMS working voltage (V) not exceeding	50	150	250	500	750	1000		
Creepage distances								
Required basic insulation, PTI ≥ 600	0,6	0,8	1,5	3	4	5,5		
Measured								
Required basic insulation, PTI < 600	1,2	1,6	2,5	5	8	10		
Measured			>> 2,5					
Required supplementary insulation PTI ≥ 600	-	0,8	1,5	3	4	5,5		
Measured								
Required supplementary insulation PTI < 600	-	1,6	2,5	5	8	10		
Measured								
Required reinforced insulation	-	3,2	5	6	8	11		
Measured								
Clearances								
Required basic insulation	0,2	0,8	1,5	3	4	5,5		
Measured			>> 2,5					
Required supplementary insulation	-	0,8	1,5	3	4	5,5		
Measured								
Required reinforced insulation	-	1,6	3	6	8	11		
Measured								
Table 11.2	Minimum distances (mm) for non-sinusoidal pulse voltages							
Rated pulse voltage (peak kV)	2,0	2,5	3,0	4,0	5,0	6,0	8,0	
Required clearances	1,0	1,5	2	3	4	5,5	8	
Measured								
Rated pulse voltage (peak kV)	10	12	15	20	25	30	40	
Required clearances	11	14	18	25	33	40	60	
Measured								
Rated pulse voltage (peak kV)	50	60	80	100	-	-	-	
Required clearances	75	90	130	170	-	-	-	
Measured								

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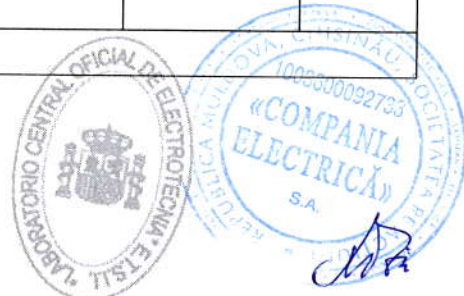
3.15 (13.2.1)	TABLE: Ball Pressure Test of Thermoplastics			N/A
Allowed impression diameter (mm)				—
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	Verdict
Terminal block	Adels	125	< 2 mm	
Terminal block	Wieland	125	< 2 mm	
Supplementary information:				

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
Terminal block	Adels	10	No	0	P
Terminal block	Wieland	10	NO	0	P
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	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict
Terminal block	Adels	0	No	0	P
Terminal block	Wieland	0	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)					
Supplementary information:					

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

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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⁾
Led control gear	A	PHILIPS	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	DEKRA 2184474.01
Led control gear	A	PHILIPS	Xi FP 40W 0,3-1,0A SNLDAE 230V S175 sXt	40W 50-60Hz 0,3-1,05A 198-264V Tc=80°C	IEC 61347-2-13	DEKRA 2184474.01
Led control gear	A	PHILIPS	Xi FP 70W 0,3-1,0A SNLDAE 230V C150 sXt	70W 50-60Hz 0,3-1,05A 198-264V Tc=90°C	IEC 61347-2-13	DEKRA NL-36917
Led control gear	A	PHILIPS	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	DEKRA NL-30274
Led control gear	A	PHILIPS	Xi LP 40W 0,3-1,0A S1 230V S175 sXt	40W 50-60Hz 0,3-1,05A 198-264V Tc=80°C	IEC 61347-2-13	DEKRA NL-36274
Led control gear	A	PHILIPS	Xi LP 70W 0,3-1,0A SL 230V C150 sXt	70W 50-60Hz 0,3-1,05A 198-264V Tc=85°C	IEC 61347-2-13	DEKRA 2183860.01
Led control gear	A	PHILIPS	Xi FP 110 W 0,3-1,0 A SNLDAE 230 V C 150 sXt	110W 50-60Hz 0,3-1,05A 198-264V Tc=90°C	IEC 61347-2-13	DEKRA 2184600.01
Led control gear	A	PHILIPS	Xi LP 110 W 0,3-1,0 A SL 230 V C 150 sXt	110W 50-60Hz 0,3-1,05A 198-264V Tc=85°C	IEC 61347-2-13	DEKRA 2185572.02
Led control gear	A	PHILIPS	Xi LP 110 W 0,2-0,7 A SL 230 V C 150 sXt	110W 50-60Hz 0,2-0,7 A 198-264V Tc=85°C	IEC 61347-2-13	DEKRA 2185572.01
Led control gear	A	PHILIPS	Xi LP 150 W 0,3-1,0 A SL 230 V S 240sXt	150W 50-60Hz 0,3-1,05 A 198-264V Tc=90°C	IEC 61347-2-13	DEKRA 2183860.01
Led control gear	A	PHILIPS	Xi FP 150 W 0,3-1,0 A SNLDAE 230 V S 240sXt	150W 50-60Hz 0,3-1,05 A 198-264V Tc=90°C	IEC 61347-2-13	DEKRA 2183840.01
Led control gear	A	PHILIPS	Xi LP 150 W 0,2-0,7 A SL 230 V S 240sXt	150W 50-60Hz 0,2-0,7 A 198-264V Tc=90°C	IEC 61347-2-13	DEKRA 2183860.01
Led control gear	A	PHILIPS	Xi FP 150 W 0,2-0,7 A SNLDAE 230 V S 240sXt	150W 50-60Hz 0,2-0,7 A 198-264V Tc=90°C	IEC 61347-2-13	DEKRA 2183840.01
Led control gear	A	OSRAM	OT 40/120-277/1A0 4DIMLT2 E	40W 50-60Hz 120-277V 0,35-1,05A Tc=80°C	IEC 61347-2-13	VDE 40022622
Led control gear	A	OSRAM	OT 60/170-240/1A0 4DIMLT2 E	60W 50-60Hz 170-240V 0,35-1,05A Tc=85°C	IEC 61347-2-13	VDE 40022622
Led control gear	A	OSRAM	OT 90/170-240/1A0 4DIMLT2 E	90W 50-60Hz 170-240V 0,35-1,05A Tc=90°C	IEC 61347-2-13	VDE 40022622
Led control gear	A	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	UL-DEMKO ENEC-01112
Led control gear	A	OSRAM	OT 165/170 240/1A0 4DIMLT2 E	165 W; 170-240 V 50-60 Hz; 0,35 – 1,05 A Tc85°C	IEC 61347-2-13	VDE 40022622

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Clause	Requirement + Test			Result - Remark		Verdict
Led control gear	A	LG	PISE-A027M	27W 0,2-1A 120-277V 50-60Hz Tc=80°C	IEC 61347-2-13	TUV Rheiland JPTUV-069219
Led control gear	A	LG	PISE-A150 D	150W; 0,35-0,7 A 120-277V 50-60Hz Tc=80°C	IEC 61347-2-13	TUV Rheiland ENEC18 HN 69246191
Surge protection Device	A	CITEL	MLPC1-230L-R	277/Uo10kV, T85	IEC 61643-11	TUV Rheiland R 50307743
Supply connector	A	WIELAND	GST18i3 SB1 Serie	250-400 V; 5 poles; 1- 2,5mm2; T70	EN 61984 EN 61535	VDE 3927 40018414
Terminal block	A	ADELS	LK980-01	2.5mm², 450V 24A	EN 60998-1&2-2	VDE 40021343
Terminal block	A	ADELS	900-07/Q	0.5-4mm² 450V	EN 60998-1&2-2	VDE 40027360
Terminal block	A	ADELS	AC-166 ST(D)/3	0.5-2,5mm² 250-400V	EN 61535	VDE 40036416
Control Device	A	Owlet	LuCo ADP	110-277V 50/60 Hz Tmax = 80°C	IEC/EN 61347	EUROFINS DE-6-G5150184 DE-6-G5130046 DE-6-G5130047
Control Device	A	Owlet	LuCo NXP	110-277V 50/60 Hz Tmax = 80°C	IEC/EN 61347	
Control Device	A	Owlet	LuCo P7	110-277V 50/60 Hz Tmax = 75°C	IEC/EN 61347	
Internal connector led	A	TE Connectivity	TE NEMA Socket 7-pin	Power contacts: 15A 480V Dimming contacts: 0.10A 10V	-	UL 28476
Cable	A	Auxicom	H07RN-F 3G	Rubber 1,5-2,5mm² OD 10-12mm	EN 50525-2-21	HAR
Cable	A	Auxicom	H07RN-F 5G	Rubber 1,5-2,5mm² OD 12-14mm	EN 50525-2-21	HAR
Led Modules (Axia)	A	Zöllner	4 Leds 219C NW 4000K@680mA	RG02@ 200mm RG01@ 215mm RG0@ 2200mm	EN 62031	Checked in the appliance
					EN 62471	R-Tech LBE04112160- 3.0
Led Modules (Axia)	A	Zöllner	8 Leds 219C NW 4000K@ 820mA	RG02@ 200mm RG01@ 215mm RG0@ 2200mm	EN 62031	Checked in the appliance
					EN 62471	R-Tech LBE04112160- 3.0
Led Modules (Axia)	A	Zöllner	16 Leds 219C NW 4000K@ 760mA	RG02@ 200mm RG01@ 215mm RG0@ 2200mm	EN 62031	Checked in the appliance
					EN 62471	R-Tech LBE04112160- 3.0

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Clause	Requirement + Test			Result - Remark		Verdict
Led Modules (Axia)	A	Zöllner	24 Leds 219C NW 4000K@ 890mA	RG02@ 200mm RG01@ 215mm RG0@ 2200mm	EN 62031	Checked in the appliance
					EN 62471	R-Tech LBE04112160- 3.0
Led Modules (Axia)	A	Zöllner	32 Leds 219C NW 4000K@ 960mA	RG02@ 200mm RG01@ 215mm RG0@ 2200mm	EN 62031	Checked in the appliance
					EN 62471	R-Tech LBE04112160- 3.0
Led Modules (Axia)	A	Zöllner	40 Leds 219C NW 4000K@ 1000mA	RG02@ 200mm RG01@ 215mm RG0@ 2200mm	EN 62031	Checked in the appliance
					EN 62471	R-Tech LBE04112160- 3.0
Led Modules (Axia)	A	Zöllner	48 Leds 219C NW 4000K@ 1000mA	RG02@ 200mm RG01@ 215mm RG0@ 2200mm	EN 62031	Checked in the appliance
					EN 62471	R-Tech LBE04112160- 3.0
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						



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Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12		
	Type reference	P1546 – Axia Gen 2 size 1	—
	Lamp used	Integrated led module (24 leds – 30 W)	—
	Lamp control gear used.....	Osram – OT 60/170-240/1A0 DIML-T2 E	—
	Mounting position of luminaire	On post	—
	Supply wattage (W)	-	—
	Supply current (A)	-	—
	Calculated power factor.....	-	—
	Table: measured temperatures corrected for ta = 50 °C:		P
	- abnormal operating mode	N/A	—
	- test 1: rated voltage.....	230 V	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage	243,8 V	—
	- 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
Tc led control gear	49,8	70.3	-	-	85/90	-	-
Controller luminaire		-	53,9	-	-	-	-
Connetor		-	53,5	-	110	-	-
Internal wiring		-	55,4	-	90	-	-
Terminal block		-	54,8	-	70	-	-
Surge protection device		-	55,3	-	70	-	-
TC led module		-	62,1	-	85	-	-

Supplementary information:



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Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 2	TABLE: Temperature measurements, thermal tests of Section 12		
	Type reference	P1546 – Axia Gen 2 size 2	—
	Lamp used.....	Integrated led module (48 leds – 137 W)	—
	Lamp control gear used.....	Osram – OT 165/170-240/1A0 4DIMLT2 E	—
	Mounting position of luminaire	On post	—
	Supply wattage (W)	-	—
	Supply current (A)	-	—
	Calculated power factor.....	-	—
	Table: measured temperatures corrected for ta = 50 °C:		P
	- abnormal operating mode	N/A	—
	- test 1: rated voltage.....	230 V	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage	243,8 V	—
	- 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	-	—

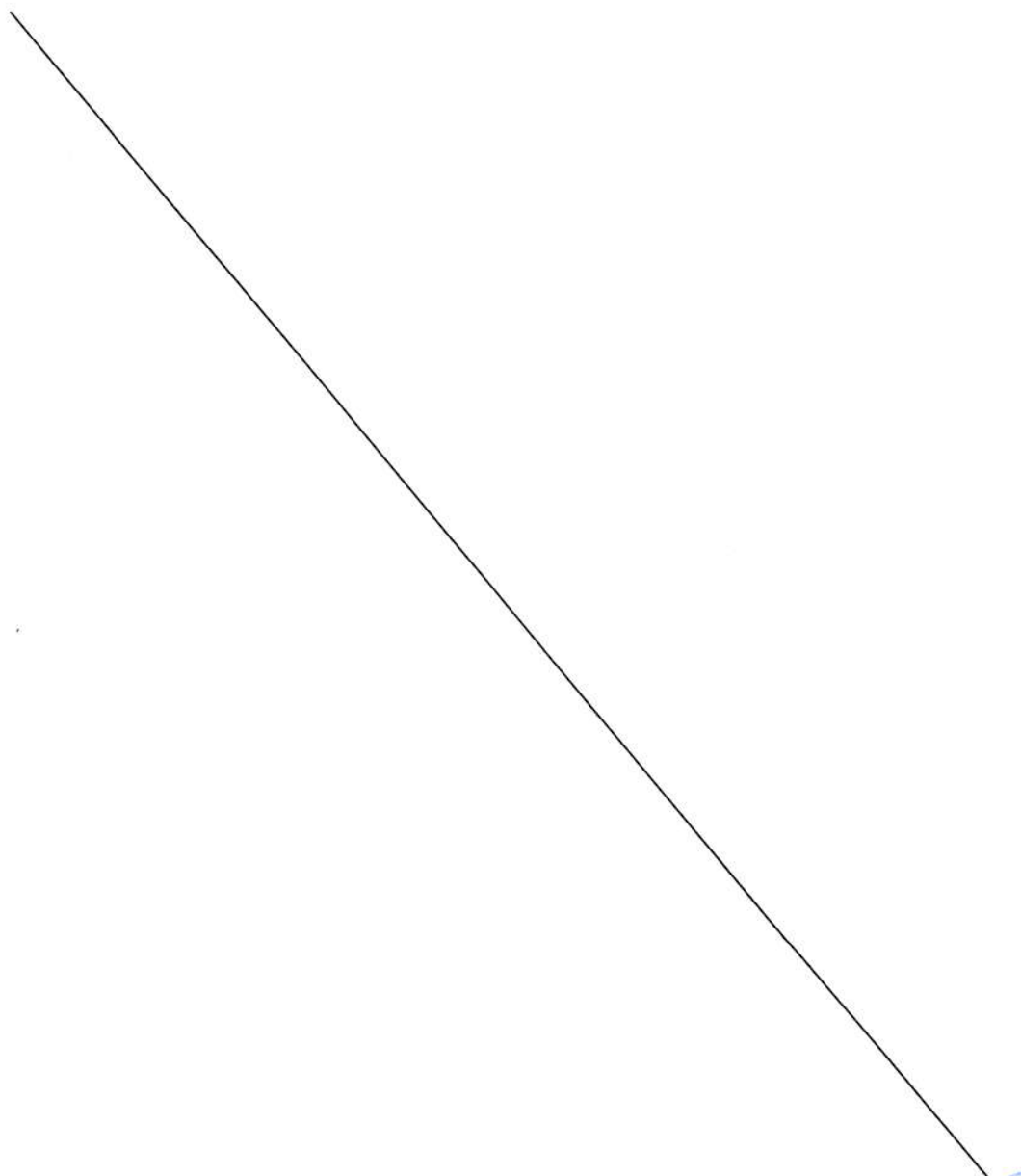
Temperature measurements, (°C)

Part	Ambient	Clause 12.4 – normal				Clause 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Tc led control gear	30,1	60,1	-	-	85/90	-	-
Controller luminaire		-	37,1	-	-	-	-
Connector		-	37,0	-	110	-	-
Internal wiring		-	40,8	-	90	-	-
Terminal block		-	37,8	-	70	-	-
Surge protection device		-	38,1	-	70	-	-
TC led module		-	47,5	-	85	-	-

Supplementary information:



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Clause	Requirement + Test	Result - Remark	Verdict
ANNEX 3	Screw terminals (part of the luminaire)		N/A
ANNEX 4	Screwless terminals (part of the luminaire)		N/A

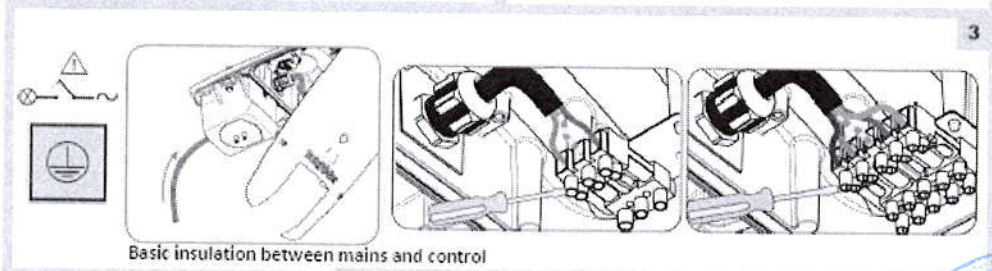
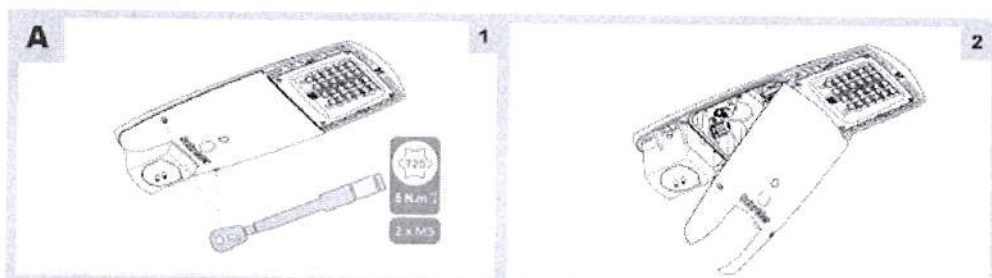
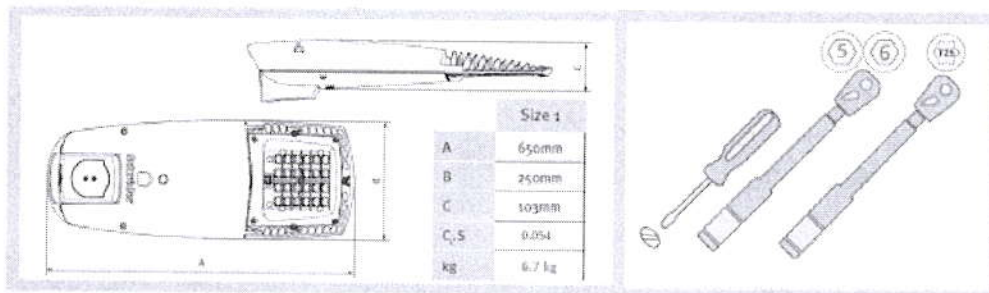
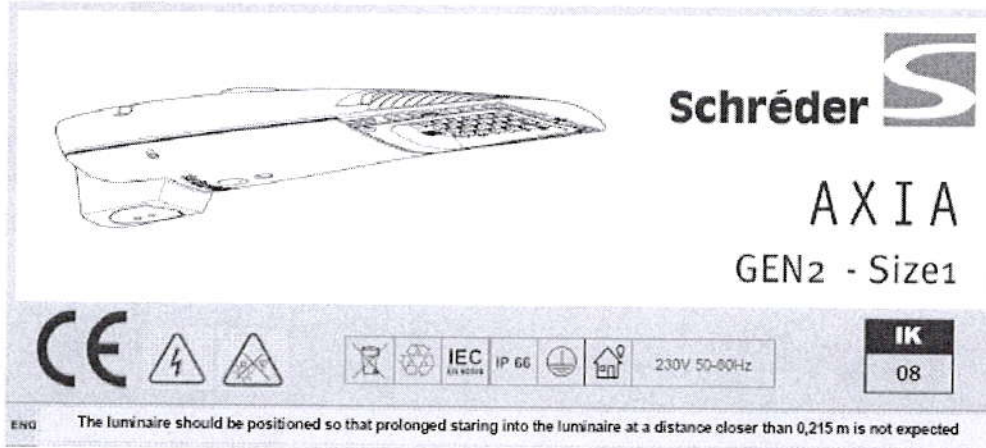


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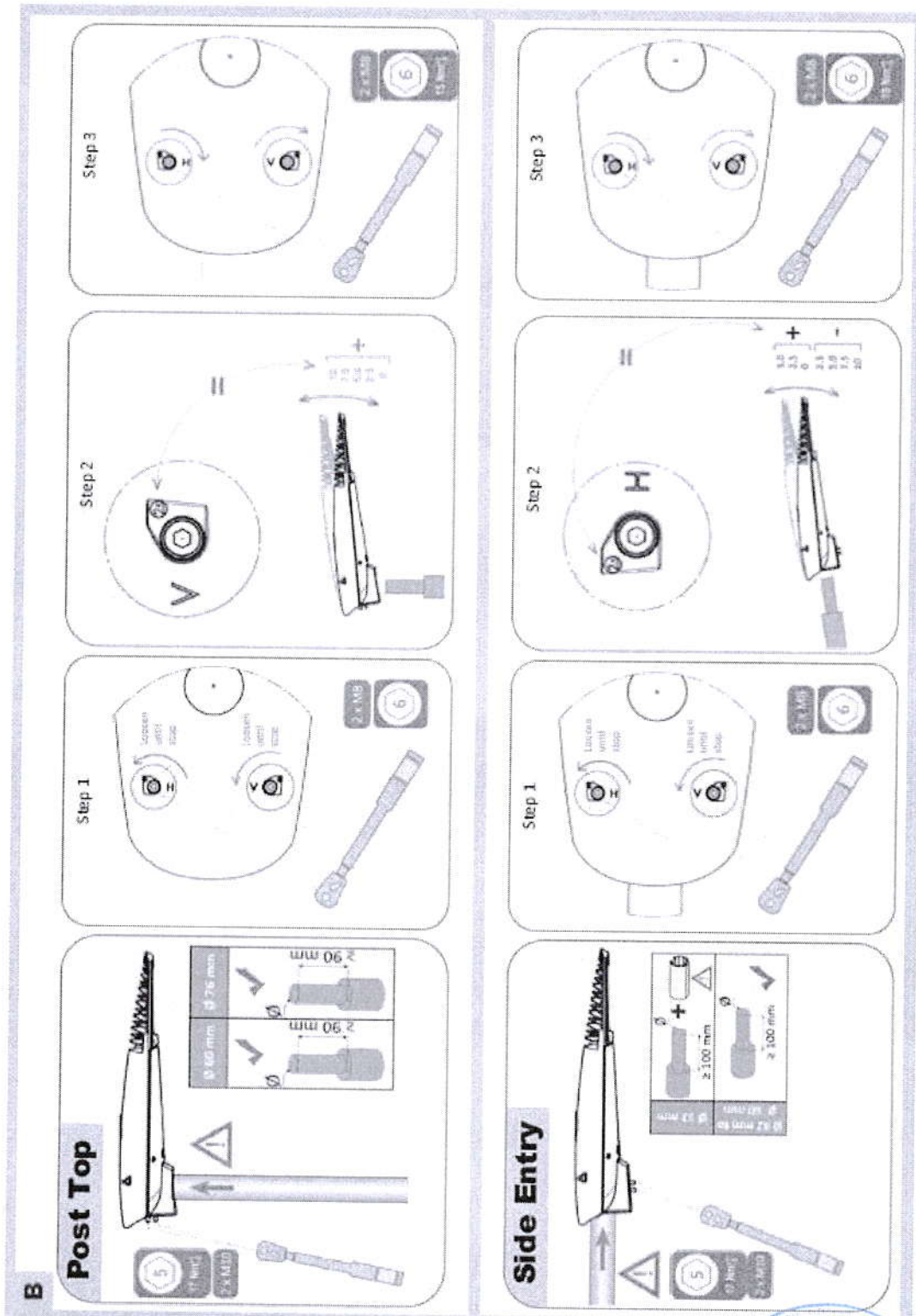
ANNEX 5: additional documentation



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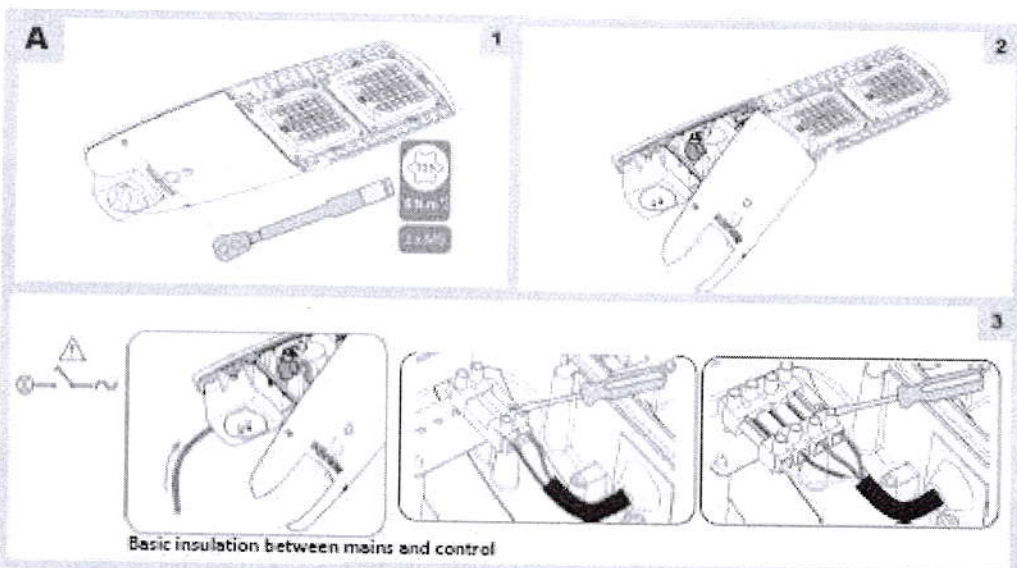
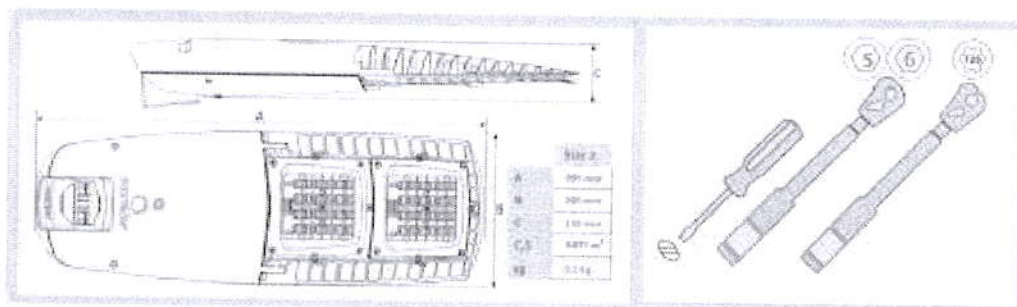
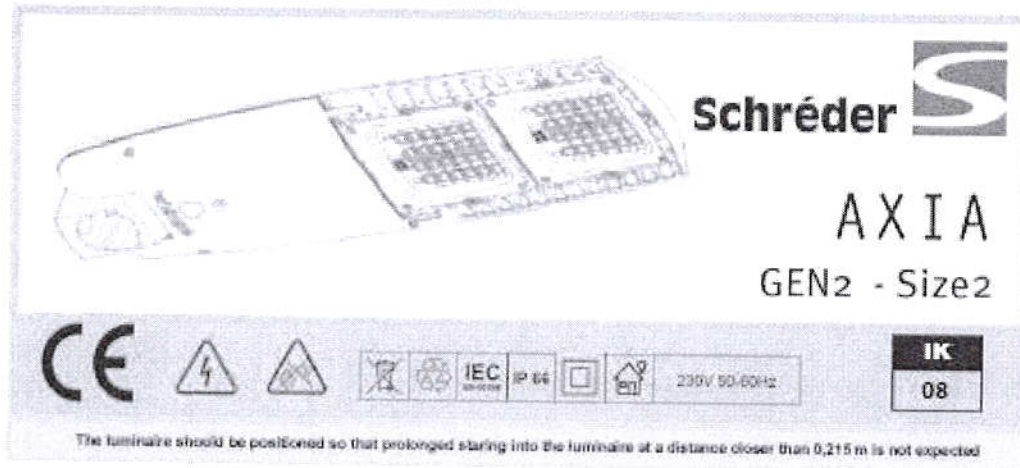
IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict



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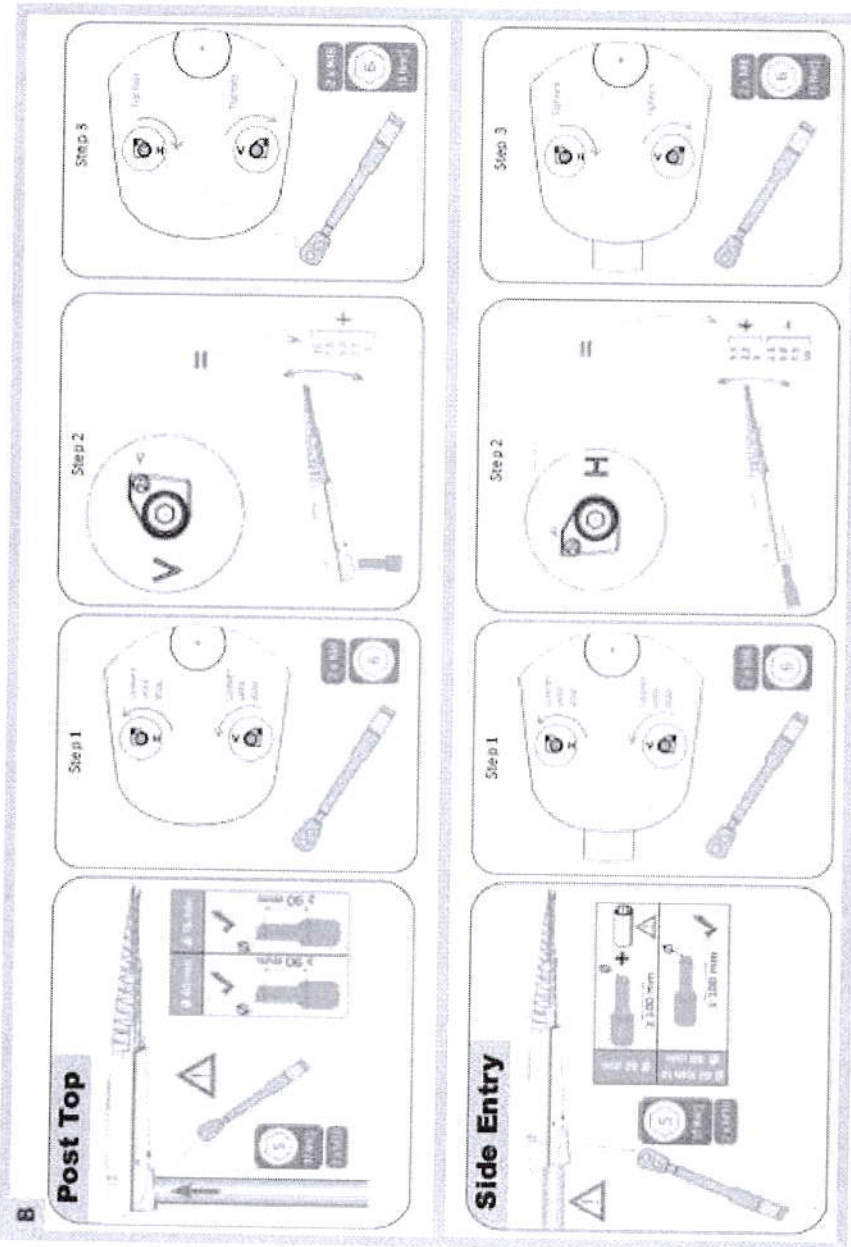
IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict



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



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