



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..... :** 4790364071.1-1  
**Date of issue..... :** 2022-05-27  
**Total number of pages .....** 96 including attachments

**Name of Testing Laboratory  
preparing the Report .....** : UL International Italia S.r.l.

**Applicant's name .....** : NERI S.p.A.  
**Address.....** : SS Emilia, 1622 – Longiano (FC) 47020 - Italy

**Test specification:**

**Standard .....** : IEC 60598-2-3:2002, IEC 60598-2-3:2002/AMD1:2011 used in  
conjunction with IEC 60598-1:2020  
**Test procedure .....** : CB Scheme  
**Non-standard test method .....** : N/A

**TRF template used.....** : IECEE OD-2020-F1:2021, Ed.1.4  
**Test Report Form No. ....** : IEC60598\_2\_3M  
**Test Report Form(s) Originator ....** : Intertek Semko AB  
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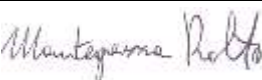


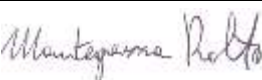
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**General disclaimer:**

The test results presented in this report relate only to the object tested.  
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<b>Test item description</b> ..... :	Luminaire for road and street lighting	
<b>Trade Mark(s)</b> ..... :	<b>NERI</b>	
<b>Manufacturer</b> .....	NERI S.p.A. SS Emilia, 1622 – Longiano (FC) 47020 - Italy	
<b>Model/Type reference</b> .....	<b>LUPOL00 48</b> (see Variants for extended models)	
<b>Ratings</b> .....	220-240V ~ 50/60Hz 94W IP66 IK09 $t_a$ 50°C Class II (see Variants for extended models)	
<b>Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):</b>		
<input checked="" type="checkbox"/>	<b>CB Testing Laboratory:</b>	<b>UL International Italia S.r.l.</b>
<b>Testing location/ address</b> ..... :		<b>Via delle Industrie, 5 &amp; 6 -20061 Carugate (MI) Italy</b>
<b>Tested by (name, function, signature)</b> .....		Marco Caroli Project Handler 
<b>Approved by (name, function, signature)</b> ...		Roberto Mantegazza Reviewer 
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 1:</b>	
<b>Testing location/ address</b> ..... :		
<b>Tested by (name, function, signature)</b> .....		
<b>Approved by (name, function, signature)</b> ...		
<input checked="" type="checkbox"/>	<b>Testing procedure: CTF Stage 2:</b>	
<b>Testing location/ address</b> ..... :		<b>NERI S.p.A.</b> <b>SS Emilia, 1622 – Longiano (FC) 47020 - Italy</b>
<b>Tested by (name + signature)</b> .....		Simone Zoffoli Tester 
<b>Witnessed by (name, function, signature) . :</b>		Marco Caroli Project Handler 
<b>Approved by (name, function, signature)</b> ...		Roberto Mantegazza Reviewer 
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 3:</b>	
<input type="checkbox"/>	<b>Testing procedure: CTF Stage 4:</b>	
<b>Testing location/ address</b> ..... :		
<b>Tested by (name, function, signature)</b> .....		
<b>Witnessed by (name, function, signature) . :</b>		
<b>Approved by (name, function, signature)</b> ...		
<b>Supervised by (name, function, signature) :</b>		

<b>List of Attachments (including a total number of pages in each attachment):</b>				
<b>Thermal tests tables of Section 12.....</b>		<b>: (Enclosure 1): 14 pages</b>		
<b>Manufacturer's Instructions.....</b>		<b>: (Enclosure 2): 34 pages</b>		
<b>Photos .....</b>		<b>: (Enclosure 3): 4 pages</b>		
<b>Equipment List .....</b>		<b>: (Enclosure 4): 1 page</b>		
<b>Summary of testing:</b>				
<b>Tests performed (name of test and test clause):</b>				<b>Testing location:</b>
3.5	Marking	Applicable	Pass	<b>NERI S.p.A.</b> <b>SS Emilia, 1622</b> <b>Longiano (FC)</b> <b>47020 Italy</b>
3.6	Construction	Applicable	Pass	
3.7	Creepage distances and clearances	Applicable	Pass	
3.8	Provision for earthing	Not Applicable	N/A	
3.9	Terminals	Applicable	Pass	
3.10	External and internal wiring	Applicable	Pass	
3.11	Protection against electric shock	Applicable	Pass	
3.12	Endurance test and thermal tests	Applicable	Pass	
3.13	Resistance to dust and moisture (IPx6)	Applicable	Pass	
3.14	Insulation resistance and electric strength	Applicable	Pass	
3.15	Resistance to heat, fire and tracking	Not Applicable	N/A	
3.13	Resistance to dust and moisture (IP6x)	Applicable	Pass	<b>UL International</b> <b>Italia S.r.l.</b> Via delle Industrie, 5 & 6 -20061 Carugate (MI) Italy
<b>TEST RESULTS WERE FAVOURABLE</b>				
The measurement uncertainties stated in this Test Report are estimated according to the Quality Procedure MP02-A1. If requested, NERI S.p.A. will be able to estimate the uncertainty contribution for all the quantities stated in this Test Report				
<b>Summary of compliance with National Differences (List of countries addressed):</b> <ul style="list-style-type: none"> <li>• All counties member of CENELEC (No National or Group Differences declared on the applied standards)</li> </ul> <input checked="" type="checkbox"/> The product fulfils the requirements of EN 60598-2-3:2003 + A1:2011 used in conjunction with EN IEC 60598-1:2021.				

**Use of uncertainty of measurement for decisions on conformity (decision rule) :**

☒ No decision rule is specified by the IEC standard, when comparing the measurement result with the applicable limit according to the specification in that standard. The decisions on conformity are made without applying the measurement uncertainty ("simple acceptance" decision rule, previously known as "accuracy method").

☐ Other:... (to be specified, for example when required by the standard or client, or if national accreditation requirements apply)

**Information on uncertainty of measurement:**

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

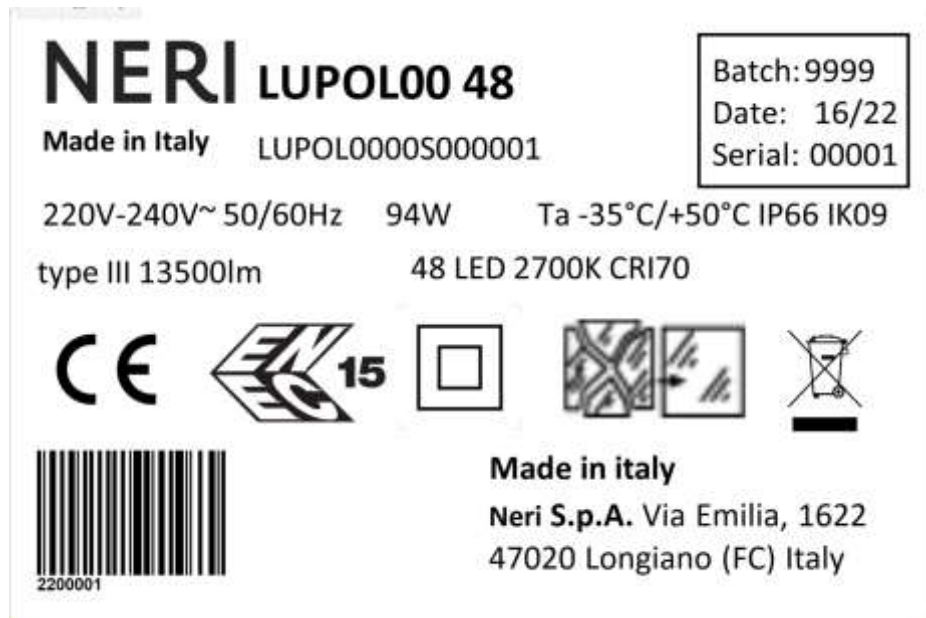
IEC Guide 115 provides guidance on the application of measurement uncertainty principles and applying the decision rule when reporting test results within IECEE scheme, noting that the reporting of the measurement uncertainty for measurements is not necessary unless required by the test standard or customer.

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

**Copy of marking plate:**

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

Main label



Some models  
(See GPI)

<b>Test item particulars .....</b>	
<b>Classification of installation and use .....</b> Road LED luminaire (suspended, on a post top or pipe and suspension wires)	
<b>Supply Connection .....</b> Terminal block or tails	
<b>Possible test case verdicts:</b> - 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)	
<b>Testing.....</b>	
<b>Date of receipt of test item .....</b> N/A (CTF 2); 2022-04-11 (UL testing)	
<b>Date (s) of performance of tests .....</b> 2022-04-11 to 2022-04-22 (CTF 2) 2022-04-12 (UL testing)	
<b>General remarks:</b>	
"(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.  <b>Throughout this report a <input checked="" type="checkbox"/> comma / <input type="checkbox"/> point is used as the decimal separator.</b>  <b>Clause numbers between brackets refer to clauses in IEC 60598-1</b>	
<b>Manufacturer's Declaration per sub-clause 4.2.5 of IEC 60598-1:</b>	
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided .....	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> Not applicable
<b>When differences exist; they shall be identified in the General product information section.</b>	
<b>Name and address of factory (ies) .....</b> NERI S.p.A. Via delle Querce 4 – Longiano (FC) 47020 - Italy	

**General product information and other remarks:**

Luminaire for road and street lighting provided with one or two LED modules as light source and with one separately approved electronic LED driver; may be provided with tails or terminals for the supply connection.

It is composed by an enclosure made of cast aluminium and a protective screen made of flat tempered glass and there are different models to suit different fixing means.

All models are provided with a LED driver declared double insulated between primary and secondary circuit and with a Uopen of max 230 Vd.c.

The tests of clause 10 and clause 11 have been performed according to Annex X of IEC 60598-1:2020 considering the requirement of a basic insulation complying with Uout as the worst condition.

Additionally, for the requirement of Clause 11, table U1 of Annex U has been applied to the measures (overcategory III considered).

**Variants:**

The main model series Polis:

Type ref.	Ratings	Mounting features
<b>LUPOL00 48</b>	220-240 V~ 50/60 Hz 94W Class II IK09 IP66 ta 50 °C	Post-top

extends the following models:

Type ref.	Ratings	Mounting features
<b>LUPOL00 32</b>	220-240 V~ 50/60 Hz 92W Class II IK09 IP66 ta 50 °C	Post-top
<b>LUPOL00 24</b>	220-240 V~ 50/60 Hz 59W Class II IK09 IP66 ta 50 °C	Post-top
<b>LUPOL00 16</b>	220-240 V~ 50/60 Hz 35W Class II IK09 IP66 ta 50 °C	Post-top
<b>LUPOL01 48</b>	220-240 V~ 50/60 Hz 94W Class II IK09 IP66 ta 50 °C	Pipe
<b>LUPOL01 32</b>	220-240 V~ 50/60 Hz 92W Class II IK09 IP66 ta 50 °C	Pipe
<b>LUPOL01 24</b>	220-240 V~ 50/60 Hz 59W Class II IK09 IP66 ta 50 °C	Pipe
<b>LUPOL01 16</b>	220-240 V~ 50/60 Hz 35W Class II IK09 IP66 ta 50 °C	Pipe
<b>LUPOL02 48</b>	220-240 V~ 50/60 Hz 94W Class II IK09 IP66 ta 50 °C	Suspended
<b>LUPOL02 32</b>	220-240 V~ 50/60 Hz 92W Class II IK09 IP66 ta 50 °C	Suspended
<b>LUPOL02 24</b>	220-240 V~ 50/60 Hz 59W Class II IK09 IP66 ta 50 °C	Suspended
<b>LUPOL02 16</b>	220-240 V~ 50/60 Hz 35W Class II IK09 IP66 ta 50 °C	Suspended
<b>LUPOL03 48</b>	220-240 V~ 50/60 Hz 94W Class II IK09 IP66 ta 50 °C	Suspension wire
<b>LUPOL03 32</b>	220-240 V~ 50/60 Hz 92W Class II IK09 IP66 ta 50 °C	Suspension wire
<b>LUPOL03 24</b>	220-240 V~ 50/60 Hz 59W Class II IK09 IP66 ta 50 °C	Suspension wire
<b>LUPOL03 16</b>	220-240 V~ 50/60 Hz 35W Class II IK09 IP66 ta 50 °C	Suspension wire

The luminaires may be marked with a rated power, lower than those listed in the table above, depending by the configured lower lumen output as a customer requirement.

All the models may have variants related to customers features; differences are not relevant for the safety of the luminaire.

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
<b>3.2 (0)</b>	<b>GENERAL TEST REQUIREMENTS</b>		<b>P</b>
3.2 (0.3)	More sections applicable..... :	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Section/s:	—
3.2 (0.5)	Components	(see Annex 1)	—
<b>3.2 (0.7)</b>	<b>Information for luminaire design in light sources standards</b>		—
3.2 (0.7.2)	Light source safety standard .....	IEC 62031:2018	—
	Luminaire design in the light source safety standard		P

<b>3.4 (2)</b>	<b>CLASSIFICATION OF LUMINAIRES</b>		<b>P</b>
3.4 (2.2)	Type of protection .....	Class II	P
3.4 (2.3)	Degree of protection .....	IP 66	—
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 checked="" type="checkbox"/> No <input 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 checked="" type="checkbox"/> No <input type="checkbox"/>	—
	e) on a wall	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	—

<b>3.5 (3)</b>	<b>MARKING</b>		<b>P</b>
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	English checked. Instructions will be provided in the language of the destination country.	P
3.5 (3.3.1)	Combination luminaires		N/A
3.5 (3.3.2)	Nominal frequency in Hz	50/60Hz	P
3.5 (3.3.3)	Operating temperature	t <sub>a</sub> 50°C	P
3.5 (3.3.5)	Wiring diagram		P
3.5 (3.3.6)	Special conditions		N/A



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.5 (3.3.7)	Metal halide lamp luminaire – warning		N/A
3.5 (3.3.8)	Limitation for semi-luminaires		N/A
3.5 (3.3.9)	Power factor and supply current		N/A
3.5 (3.3.10)	Suitability for use indoors	For outdoor use only	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		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	Class II luminaire	N/A
3.5 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
3.5 (3.3.21)	Non replaceable and non-user replaceable light sources information provided	Non user replaceable light sources	P
3.5 (3.3.22)	Controllable luminaires, classification of insulation provided		N/A
3.5 (3.3.23)	Luminaires without control gear provided with necessary information for selection of appropriate component		N/A
3.5 (3.3.24)	If not supplied with terminal block, information on the packaging		P
3.5 (3.3.25)	Luminaires employing light sources emitting UV on mains wiring, information provided		N/A
3.5 (3.3.26)	Wall mounted luminaire using external flexible cable or cord longer than 0.3 m, information 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		P
	a) Design attitude		P
	b) Weight	9,5 kg (worst condition)	P
	c) Overall dimensions	Ø 0,48 m	P

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	d) Maximum projected area if applicable	0,181 m <sup>2</sup>	P
	e) Cross-sectional area of wires if applicable		N/A
	f) Suitability for indoors use	See Annex 2	P
	g) Dimensions of the compartment		N/A
	h) Torque setting to be applied to bolts or screws	See enclosure 2	P
	i) Maximum mounting height	More than 15 m	P

<b>3.6 (4)</b>	<b>CONSTRUCTION</b>		<b>P</b>
3.6 (4.2)	Components replaceable without difficulty	No user replaceable components	N/A
3.6 (4.3)	Wireways smooth and free from sharp edges		P
<b>3.6 (4.4)</b>	<b>Lampholders</b>		<b>N/A</b>
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
<b>3.6 (4.5)</b>	<b>Starter holders</b>		<b>N/A</b>
	Starter holder in luminaires other than class II		NA
	Starter holder class II construction		N/A
<b>3.6 (4.6)</b>	<b>Terminal blocks</b>		<b>N/A</b>

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	Tails		N/A
	Unsecured blocks		N/A
<b>3.6 (4.7)</b>	<b>Terminals and supply connections</b>		<b>P</b>
3.6 (4.7.1)	Contact to metal parts	Terminal block	P
3.6 (4.7.2)	Test 8 mm live conductor		P
	Test 8 mm earth conductor		N/A
3.6 (4.7.3)	Terminals for supply conductors		P
3.6 (4.7.3.1)	Welded method and material		N/A
	- stranded or solid conductor		N/A
	- spot welding		N/A
	- welding between wires		N/A
	- Type Z attachment		N/A
	- mechanical test according to 15.6.2		N/A
	- electrical test according to 15.6.3		N/A
	- heat test according to 15.6.3.2.3 and 15.6.3.2.4		N/A
3.6 (4.7.4)	Terminals other than supply connection	See Annex 1	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
<b>3.6 (4.8)</b>	<b>Switches</b>		<b>N/A</b>
	- adequate rating		N/A
	- adequate fixing		N/A
	- polarized supply		N/A
	- compliance with IEC 61058-1 for electronic switches		N/A
<b>3.6 (4.9)</b>	<b>Insulating lining and sleeves</b>		<b>N/A</b>
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
<b>3.6 (4.10)</b>	<b>Double or reinforced insulation</b>		<b>P</b>

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
3.6 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation		P
	Safe installation fixed luminaires		P
	Capacitors and switches		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
	- unable to be replaced; luminaire inoperative		N/A
	- sleeves retained in position		N/A
	- lining in lampholder		N/A
3.6 (4.10.4)	Protective impedance device		N/A
	Basic and supplementary insulation bridged by resistor(s) or appropriate capacitor		N/A
	Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor		N/A
	Capacitors comply with IEC 60384-14		N/A
	Resistors comply with test (a) in 14.1 of IEC 60065		N/A
<b>3.6 (4.11)</b>	<b>Electrical connections and current-carrying parts</b>		<b>P</b>
3.6 (4.11.1)	Contact pressure		P
3.6 (4.11.2)	Screws:		N/A
	- self-tapping screws		N/A
	- thread-cutting screws		N/A
3.6 (4.11.3)	Screw locking:		N/A
	- spring washer		N/A
	- 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
<b>3.6 (4.12)</b>	<b>Screws and connections (mechanical) and glands</b>		<b>P</b>
3.6 (4.12.1)	Screws not made of soft metal		P
	Screws of insulating material		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	Torque test: torque (Nm); part..... :	0,5 Nm; M3 - Screws fixing lenses and PCB	P
	Torque test: torque (Nm); part..... :	1,2 Nm; M4 - Screws fixing internal components	P
	Torque test: torque (Nm); part..... :	2,5 Nm; M6 – Screws closing lid	P
	Torque test: torque (Nm); part..... :	8,0 Nm; M8 – Screws used for fixing luminaire to arm	P
3.6 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
3.6 (4.12.4)	Locked connections:		N/A
	- fixed arms; torque (Nm) .....		N/A
	- lampholder; torque (Nm) .....		N/A
	- push-button switches; torque 0,8 Nm .....		N/A
3.6 (4.12.5)	Screwed glands; force (Nm)..... :		N/A
<b>3.6 (4.13)</b>	<b>Mechanical strength</b>		<b>P</b>
3.6 (4.13.1)	Impact tests:		P
	- fragile parts; energy (Nm) .....	0,5 (Glass)	P
	- other parts; energy (Nm)..... :	0,7 (Frame)	P
	1) live parts		P
	2) linings		N/A
	3) protection		P
	4) covers		P
3.6 (4.13.2)	Metal parts have adequate mechanical strength		P
3.6 (4.13.3)	Straight test finger	30 N	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
<b>3.6 (4.14)</b>	<b>Suspensions, fixings and means of adjusting</b>		<b>P</b>
3.6 (4.14.1)	Mechanical load:		P
	A) four times the weight	8,8 kg x 4 = 35,2 kg (on model LUPOL01 48)	P
	B) torque 2,5 Nm		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
	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 <sup>2</sup> ) .....		N/A
	Mass (kg) of semi-luminaire .....		N/A
	Bending moment (Nm) of semi-luminaire .....		N/A
3.6 (4.14.3)	Adjusting devices:		N/A
	- flexing test; number of cycles..... :		NA
	- strands broken .....		NA
	- electric strength test afterwards		NA
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
<b>3.6 (4.15)</b>	<b>Flammable materials</b>		<b>P</b>
	- glow-wire test 650°C .....	See Test Table 3.15 (13.3.2)	P
	- spacing ≥30 mm		N/A
	- screen withstanding test of 13.3.1		N/A
	- screen dimensions		N/A
	- no fiercely burning material		P
	- thermal protection		N/A
	- electronic circuits exempted		N/A
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
<b>3.6 (4.16)</b>	<b>Luminaires for mounting on normally flammable surfaces</b>		<b>P</b>
	No lamp control gear .....	(compliance with Section 12)	N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Provided with adaptor for a track meet the requirements for direct mounting on normally flammable surfaces		N/A
3.6 (4.16.1)	Lamp control gear spacing:		P
	- spacing 35 mm		P
	- spacing 10 mm		N/A
3.6 (4.16.2)	Thermal protection:		P
	- in lamp control gear		N/A
	- external		N/A
	- fixed position		N/A
	- temperature marked lamp control gear	See Annex 1 for details	P
3.6 (4.16.3)	Design to satisfy the test of 12.6	(see clause 12.6)	N/A
<b>3.6 (4.17)</b>	<b>Drain holes</b>		<b>N/A</b>
	Clearance at least 5 mm		N/A
<b>3.6 (4.18)</b>	<b>Resistance to corrosion</b>		<b>P</b>
3.6 (4.18.1)	- rust-resistance	Luminaire made in Aluminium	P
3.6 (4.18.2)	- season cracking in copper		N/A
3.6 (4.18.3)	- corrosion of aluminium		P
3.6 (4.19)	Ignitors compatible with ballast		N/A
3.6 (4.20)	Rough service vibration		N/A
<b>3.6 (4.21)</b>	<b>Protective shield</b>		<b>N/A</b>
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
<b>3.6 (4.24)</b>	<b>Photobiological hazards</b>		<b>P</b>
3.6 (4.24.1)	No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P)		N/A
3.6 (4.24.2)	Retinal blue light hazard		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Class of risk group assessed according to IEC/TR 62778 ..... :	RISK GROUP 1 (unlimited)	—
	Luminaires with $E_{thr}$ :		N/A
	a) Fixed luminaires		N/A
	- distance x m, borderline between RG1 and RG2 .. :		N/A
	- marking and instruction according 3.2.23		N/A
	b) Portable and handheld luminaires		N/A
	- marking according 3.2.23 if RG1 exceeded at 200 mm according to IEC/TR 62778		N/A
	Portable luminaires for children IEC 60598-2-10 and Mains socket outlet nightlights IEC 60598-2-12 not exceed RG1 at 200 mm according to IEC/62778		N/A
<b>3.6 (4.25)</b>	<b>Mechanical hazard</b>		<b>P</b>
	No sharp point or edges		P
<b>3.6 (4.26)</b>	<b>Short-circuit protection</b>		<b>N/A</b>
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
	Supply source ES1 PSE		N/A
	Test chain not melt through		N/A
	Test sample not exceed values of Table 12.1 and 12.2		N/A
<b>3.6 (4.27)</b>	<b>Terminal blocks with integrated screwless earthing contacts</b>		<b>N/A</b>
	Test according Annex V		N/A
	Pull test of terminal fixing (20 N)		N/A
	After test, resistance < 0,05 $\Omega$		N/A
	Pull test of mechanical connection (50 N)		N/A
	After test, resistance < 0,05 $\Omega$		N/A
	Voltage drop test, resistance < 0,05 $\Omega$		N/A
<b>3.6 (4.28)</b>	<b>Fixing of thermal sensing control</b>		<b>N/A</b>
	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



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Clause	Requirement + Test	Result - Remark	Verdict
	Max. temperature on adhesive material (°C) ..... :		—
	100 cycles between t min and t max		N/A
	Temperature sensing control still in position		N/A
<b>3.6 (4.29)</b>	<b>Luminaires with non-replaceable light source</b>		<b>N/A</b>
	Not possible to replace light source		N/A
	Live part not accessible after parts have been opened by hand or tools		N/A
<b>3.6 (4.30)</b>	<b>Luminaires with non-user replaceable light source</b>		<b>P</b>
	If protective cover provide protection against electric shock and marked with “caution, electric shock risk” symbol:		P
	At least one fixing means requiring use of tool		P
<b>3.6 (4.31)</b>	<b>Insulation between circuits</b>		<b>P</b>
	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 or PELV circuits		P
	Used SELV/PELV source	Separately approved SELV LED controlgear (some models)	P
	Voltage ≤ ELV		P
	Insulating of SELV/PELV circuits from LV supply		P
	Insulating of SELV/PELV circuits from other non SELV/PELV circuits		N/A
	Insulating of SELV/PELV circuits from FELV		P
	Insulating of SELV/PELV circuits from other SELV/PELV circuits		N/A
	SELV/PELV circuits insulated from accessible parts according Table X.1		P
	Plugs not able to make any electrical contact with socket-outlets of other voltage systems		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		P
	Used FELV source		N/A
	Voltage ≤ ELV	DALI	P

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Clause	Requirement + Test	Result - Remark	Verdict
	Insulating of FELV circuits from LV supply	Basic	P
	FELV circuits insulated from accessible parts according Table X.1		P
	Plugs not able to make any electrical contact with socket-outlets of other voltage systems		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		P
	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:		P
	- conductive parts are connected together		P
	- test according 7.2.3		P
	- conductive part not cause an electric shock in case of an insulation fault		P
	- 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
<b>3.6 (4.32)</b>	<b>Overvoltage protective devices</b>		<b>P</b>
	Comply with IEC 61643-11	Optional (see Annex 1)	P
	External to controlgear and connected to earth:		N/A
	- only in fixed luminaires		N/A
	- only connected to protective earth		N/A
<b>3.6 (4.33)</b>	<b>Luminaire powered via information technology communication cabling</b>		<b>N/A</b>
	Requirements for Class III luminaire		N/A
	Rated voltage within the range of ES1 and does not exceed maximum voltage of used connector		N/A
	Luminaire does not create any hazard from overvoltage	(see Annex 2)	N/A
<b>3.6 (4.34)</b>	<b>Electromagnetic fields (EMF)</b>		<b>P</b>
	No harmful electromagnetic fields	Comply with the requirements without the need of testing	P
<b>3.6 (4.35)</b>	<b>Protection against moving fan blades</b>		<b>N/A</b>
	Test with a standard test finger		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Test with test probe acc. to Figure 13 (IEC 61032) for portable luminaire		N/A
	Blades rounded with radius $\geq 0.5$ mm and:		N/A
	-hardness less than D60 Shore		N/A
	-peripheral speed less than 15 m/s		N/A
	-input power of fan $\leq 2$ W at rated voltage		N/A
<b>3.6 (4.36)</b>	<b>Track-mounted luminaires</b>		<b>N/A</b>
	Test in accordance with Annex A of IEC60570:2003/AMD2:2019		N/A
3.6.1 (-)	At least IP X3 or X5 respectively. IP .....	IP66	P
	Column-integrated luminaires:		N/A
	- parts below 2,5 m. IP .....		N/A
	- parts above 2,5 m. IP .....		N/A
3.6.2 (-)	Suspension on span wires	LUPOL03 models	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		P
	- drag coefficient.....	1,2	P
	- loaded area (m <sup>2</sup> ).....	0,181	P
	- used load (N).....	432 N (over 15m)	P
	- measured deformation (cm/m) .....	No deformation	P
	- no rotation		P
3.6.4 (-)	Adjustable lampholders		N/A
3.6.5 (-)	Luminaires installed above 5 m, glass covers shall be:		P
	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		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	IK09	P
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		P
3.6.5.2.1 (-)	Glass covers have high mechanical strength		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Test according IEC 62262 with test apparatus according IEC 60068-2-75 with impact energy of 5J on preconditioned sample	IK09 tested	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 .....: >40		P
3.6.6 (-)	Connection compartment of column-integrated luminaire		N/A
	- 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:		N/A
	- 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:		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

<b>3.7 (11)</b>	<b>CREEPAGE DISTANCES AND CLEARANCES</b>		<b>P</b>
3.7 (11.2)	Creepage distances and clearances .....:	See Table 3.7 (11.2)	P
	Impulse withstand category (Normal category II) (Category III Annex U, Table U.1)	Category II <input type="checkbox"/> Category III <input checked="" type="checkbox"/>	—
	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

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Clause	Requirement + Test	Result - Remark	Verdict
	- 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

<b>3.8 (7)</b>	<b>PROVISION FOR EARTHING</b>		<b>N/A</b>
3.8 (7.2.1 + 7.2.3)	Accessible metal parts		N/A
	Metal parts in contact with supporting surface		N/A
	Resistance < 0,5 $\Omega$ ..... :	$\Omega$	N/A
	Self-tapping screws used		N/A
	Thread-forming screws		N/A
	Thread-forming screw used in a groove		N/A
	Protective earth makes contact first		N/A
	Terminal blocks with integrated screwless protective 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)	Protective earth continuity in joints, etc.		N/A
3.8 (7.2.4)	Locking of clamping means		N/A
	Compliance with 4.7.3		N/A
3.8 (7.2.5)	Protective earth terminal integral part of connector socket		N/A
3.8 (7.2.6)	Protective earth terminal adjacent to mains terminals		N/A
3.8 (7.2.7)	Electrolytic corrosion of the protective earth terminal		N/A
3.8 (7.2.8)	Material of protective earth terminal		N/A
	Contact surface bare metal		N/A
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)	Protective earthing core coloured green-yellow		N/A
	Length of earth conductor		N/A
3.8 (7.2.12)	PELV circuit connected to protective earth for functional purpose		N/A

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

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Clause	Requirement + Test	Result - Remark	Verdict

<b>3.9 (15)</b>	<b>SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS</b>		<b>P</b>
	Separately approved; component list..... :	(see Annex 1)	P
	Part of the luminaire ..... :	(see Annex 4)	N/A

<b>3.10 (5)</b>	<b>EXTERNAL AND INTERNAL WIRING</b>		<b>P</b>
<b>3.10 (5.2)</b>	<b>Supply connection and external wiring</b>		<b>P</b>
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/PELV circuits ≤ 25 V AC/60 V DC/25 V peak interrupted DC voltage with frequency 10Hz -200 Hz or protected from outdoor environment		N/A
3.10 (5.2.2)	Type of cable .....	H05RN-F	P
	Nominal cross-sectional area (mm <sup>2</sup> ) .....	From 2 up to 5 x 1mm <sup>2</sup>	P
	Cables equal to IEC 60227 or IEC 60245		P
3.10 (5.2.3)	Type of attachment, X, Y or Z	Y	P
3.10 (5.2.5)	Type Z not connected to screws		N/A
3.10 (5.2.6)	Cable entries:		P
	- suitable for introduction		P
	- adequate degree of protection		P
3.10 (5.2.7)	Cable entries through rigid material have rounded edges		P
3.10 (5.2.8)	Insulating bushings:		P
	- suitably fixed		P
	- material in bushings		P
	- material not likely to deteriorate		P
	- tubes or guards made of insulating material	Insulating material (PG)	P
3.10 (5.2.9)	Locking of screwed bushings		N/A
3.10 (5.2.10)	Cord anchorage:		P
	- covering protected from abrasion		P
	- clear how to be effective		P
	- no mechanical or thermal stress		P
	- no tying of cables into knots etc.		P
	- insulating material or lining		P

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Clause	Requirement + Test	Result - Remark	Verdict
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		P
3.10 (5.2.10.3)	Tests:		P
	- impossible to push cable; unsafe		P
	- pull test: 25 times; pull (N) ..... : See clause 3.10.1		P
	- torque test: torque (Nm) ..... : See clause 3.10.1		P
	- displacement $\leq 2$ mm		P
	- no movement of conductors		P
	- no damage of cable or cord		P
	- function independent of electrical connection		P
3.10 (5.2.10.4)	Luminaire with/without designed for use with supply cord with maximum current of 2A:		N/A
	- Ordinary Class III luminaire supplied with SELV $\leq 25$ V RMS/60V DC		N/A
	- Ordinary Class III luminaire supplied with PELV $\leq 12$ V RMS/30V DC		N/A
	- Other than ordinary Class III luminaire supplied with voltage $\leq 12$ V RMS/30V DC		N/A
	Pull test of 30N		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

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Clause	Requirement + Test	Result - Remark	Verdict
	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 (5.2.15)	Connectors for Class III luminaires (IEC 60603 or IEC 62680)		N/A
3.10 (5.2.16)	Appliance inlets (IEC 60320)		N/A
	Installation couplers (IEC 61535)		N/A
	Appliance inlet or connector systems (IEC 61984)		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
<b>3.10 (5.3)</b>	<b>Internal wiring</b>		<b>P</b>
3.10 (5.3.1)	Internal wiring of suitable size and type	1 x 1 mm <sup>2</sup> (primary circuit) 1 x 0,519 mm <sup>2</sup> (AWG20 in secondary circuit)	P
	Through wiring		N/A
	- 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 protective earth only		N/A
3.10 (5.3.1.1)	Internal wiring connected directly to fixed wiring		P
	Cross-sectional area (mm <sup>2</sup> ).....	1 mm <sup>2</sup>	P
	Insulation thickness	Double insulation	P
	Extra insulation added where necessary		P
3.10 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		P
	Cross-sectional area (mm <sup>2</sup> ).....	0,519 mm <sup>2</sup> (AWG20)	P
3.10 (5.3.1.3)	Double or reinforced insulation for class II	Doble insulation	P



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Clause	Requirement + Test	Result - Remark	Verdict
3.10 (5.3.1.4)	Conductors without insulation		N/A
3.10 (5.3.1.5)	SELV/PELV current-carrying parts		P
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.		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:		N/A
	- 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		N/A
<b>3.10 (5.4)</b>	<b>Test to determine suitability of conductors having a reduced cross-sectional area</b>		<b>N/A</b>
	Under test the temperature of the luminaire wiring insulation not exceed the limits stated in Table 12.2	(see Annex 2)	N/A
	No damage to luminaire wiring after test		N/A
3.10.1 (-)	Cord anchorage if applicable		P
	- pull test: 25 times; pull (N) .....:	60	P
	- torque test: torque (Nm) .....:	0,25	P
<b>3.11 (8)</b>	<b>PROTECTION AGAINST ELECTRIC SHOCK</b>		<b>P</b>
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		N/A

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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		P
	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:		P
	- basic insulated metal parts not accessible during starter or lamp replacement	No replaceable components	N/A
	- basic insulation not accessible other than during starter or lamp replacement		P
	- glass protective shields not used as supplementary insulation		P
3.11 (8.2.3.b)	BC lamp holder of metal in class I luminaires shall be connected to protective earth		N/A
3.11 (8.2.3.c)	SELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V)..... :		N/A
	- voltage under load/ no-load DC (V)..... :		N/A
	- interrupted DC voltage (V) ..... :		N/A
	- touch current if applicable (mA) ..... :		N/A
	One conductive part insulated if required		N/A
	Other than ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V)..... :		N/A
	- voltage under load/ no-load DC (V)..... :		N/A
	- interrupted DC voltage (V) ..... :		N/A
	Class III luminaire only for connection to SELV		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Class III luminaire not provided with means for protective earthing		N/A
3.11 (8.2.3.d)	PELV circuits with exposed current carrying parts:		N/A
	Ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V)..... :		N/A
	- voltage under load/ no-load DC (V)..... :		N/A
	Other than ordinary luminaire:		N/A
	- voltage under load/ no-load AC (V)..... :		N/A
	- voltage under load/ no-load DC (V)..... :		N/A
	One pole insulated if required		N/A
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)	Luminaire other than below with capacitor > 0,5 $\mu$ F not exceed 50 V 1 min after disconnection		N/A
	Portable luminaire with capacitor > 0,1 $\mu$ F (0.25) not exceed 34 V 1 s after disconnection		N/A
	Other luminaires with capacitor > 0,1 $\mu$ F (0.25) with plug and track adaptors not exceed 60 V 5 s after disconnection		N/A

<b>3.12 (12)</b>	<b>ENDURANCE TEST AND THERMAL TEST</b>		<b>P</b>
3.12 (-)	If IP > IP 20 relevant test of (12.4), (12.5), (12.6) and (12.7) after (9.2) before (9.3) as specified in 3.13		—
<b>3.12 (12.2)</b>	<b>Selection of lamps and ballasts</b>		—
	Lamp used according Annex B	(Lamp used see Annex 2)	—
	Control gear if separate and not supplied	(Control gear used see Annex 2)	—
<b>3.12 (12.3)</b>	<b>Endurance test:</b>		<b>P</b>
	a) mounting-position .....	See mounting instruction	—
	b) test temperature (°C) .....	60	—
	c) total duration (h) .....	240	—
	d) supply voltage (V) .....	1,1 x 240V = 264V	—
	d) if not equipped with control gear, constant voltage/current (V) or (A) .....	-	—

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Clause	Requirement + Test	Result - Remark	Verdict
3.12 (12.3.1d)	d) Class III luminaires powered via information technology communication cable:		N/A
	- voltage under normal operation (V).....:		—
	- voltage under abnormal operation (V).....:		—
	e) luminaire ceases to operate		—
	f) luminaire with constant light output function	End wattage=Start wattage /0,9	P
3.12 (12.3.2)	After endurance test:		P
	- no part unserviceable		P
	- luminaire not unsafe		P
	- no damage to track system		N/A
	- marking legible		P
	- no cracks, deformation etc.		P
<b>3.12 (12.4)</b>	<b>Thermal test (normal operation)</b>	(see Annex 2)	<b>P</b>
<b>3.12 (12.5)</b>	<b>Thermal test (abnormal operation)</b>	(see Annex 2)	<b>P</b>
<b>3.12 (12.6)</b>	<b>Thermal test (failed lamp control gear condition):</b>		<b>N/A</b>
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
<b>3.12 (12.7)</b>	<b>Thermal test (failed lamp control gear in plastic luminaires):</b>		<b>N/A</b>
3.12 (12.7.1)	Luminaire without temperature sensing control		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
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 .....		—
	- 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 .....		—

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Clause	Requirement + Test	Result - Remark	Verdict
	- 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	See annex 2	P
3.12.2 (-)	(See above)		—
3.12.3 (-)	Glass covers used within the thermal limits declared by the glass manufacturer	Δt measured 16°C	P

<b>3.13 (9)</b>	<b>RESISTANCE TO DUST AND MOISTURE</b>		<b>P</b>
3.13.1 (-)	If IP > IP 20 the order of tests as specified in clause 3.12		P
3.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		P
	- classification according to IP .....	IP66	—
	- mounting position during test .....	See mounting instruction	—
	- fixing screws tightened; torque (Nm) .....	-	—
	- tests according to clauses.....	9.2.2 + 9.2.7	—
	- electric strength test afterwards		P
	a) no deposit in dust-proof luminaire		N/A
	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
	c.1) For luminaires without drain holes – no water entry		P
	c.2) For luminaires with drain holes – no hazardous water entry		N/A
	d) no water in watertight, pressure watertight, high pressure and temperature water jet-proof or high pressure and cold water jet-proof luminaire		N/A
	e) no contact with live parts (IP 2X)		N/A
	e) no entry into enclosure (IP 3X and IP 4X)		N/A
	e) no contact with live parts through drain holes and ventilation slots (IP3X and IP4X)		N/A
	f) no trace of water on part of lamp requiring protection from splashing water		N/A
	g) no damage of protective shield or glass envelope		P
3.13 (9.3)	Humidity test 48 h		P

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Clause	Requirement + Test	Result - Remark	Verdict
<b>3.14 (10)</b>	<b>INSULATION RESISTANCE AND ELECTRIC STRENGTH</b>		<b>P</b>
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/PELV:		P
	- between current-carrying parts of different polarity :	For models with SELV Controlgears (See GPI): >100 MΩ (1 MΩ)	P
	- between current-carrying parts and mounting surface..... :	>100 MΩ (1 MΩ)	P
	- between current-carrying parts and metal parts of the luminaire .....	>100 MΩ (1 MΩ)	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts..... :		N/A
	- Insulation bushings as described in Section 5 .....		N/A
	Other than SELV/PELV:		P
	- between live parts of different polarity .....	>100 MΩ (2 MΩ)	P
	- between live parts and mounting surface .....	>100 MΩ (4 MΩ)	P
	- between live parts and metal parts .....	>100 MΩ (4 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..... :	>100 MΩ (2 MΩ)	P
	- 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/PELV:		P
	- between current-carrying parts of different polarity :	For models with SELV Controlgears (See GPI): 500 V	P

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Clause	Requirement + Test	Result - Remark	Verdict
	- between current-carrying parts and mounting surface..... :	500 V	P
	- between current-carrying parts and metal parts of the luminaire ..... :	500 V	P
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts..... :		N/A
	- Insulation bushings as described in Section 5 ..... :		N/A
	Other than SELV/PELV:		P
	- between live parts of different polarity ..... :	1480 V	P
	- between live parts and mounting surface ..... :	2960 V	P
	- between live parts and metal parts ..... :	2960 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..... :	1480 V	P
	- Insulation bushings as described in Section 5 ..... :		N/A
3.14 (10.3)	Touch current (mA)..... :	0,66 mA (0,7 mA)	P
	Protective conductor current (mA)..... :		N/A

<b>3.15 (13)</b>	<b>RESISTANCE TO HEAT, FIRE AND TRACKING</b>		<b>N/A</b>
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)	TABLE I: Creepage distances and clearances						P
	Minimum distances (mm) for a.c. up to 30 kHz sinusoidal voltages						P
	Applicable part of IEC 60598-1 Table 11.1.A*, 11.1.B* and 11.2*						P
	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:	B	>3,9	3,0	U.1	>3,9	3,0(#)	11.A
Working voltage (V) .....					240		—
PTI .....					< 600 ☒      ≥ 600 ☐		—
Pulse voltage or $U_P$ if applicable (kV) .....					-		—
Supplementary information: (#) 2,5 elevated to 3,0 as required by clause U.2							
Distance 2:	R	6,1	5,5	U.1	6,1	5,5(#)	11.A
Working voltage (V) .....					240		—
PTI .....					< 600 ☒      ≥ 600 ☐		—
Pulse voltage or $U_P$ if applicable (kV) .....					-		—
Supplementary information: (#) 5,0 elevated to 5,5 as required by clause U.2							
Distance 3:	B	>3,9	3,0	U.1	>3,9	3,0(#)	11.A
Working voltage (V) .....					Uout: 230Vd.c.		—
PTI .....					< 600 ☒      ≥ 600 ☐		—
Pulse voltage or $U_P$ if applicable (kV) .....					-		—
Supplementary information: (#) 2,5 elevated to 3,0 as required by clause U.2							

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

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Clause	Requirement + Test				Result - Remark		Verdict
3.7 (11.2)	TABLE II: Creepage distances and clearances						N/A
Minimum distances (mm) for a.c. higher than 30 kHz sinusoidal voltages							
Applicable part of IEC 61347-1 Table 7 and 8* or IEC 60664-4 Table 1 and 2							
Distances	Insulation type **	Measured clearance	Required		Measured creepage	Required	
			clearance	*Table		creepage	*Table
Distance 1:							
Working voltage (V) .....							—
Frequency if applicable (kHz) .....							—
PTI .....					< 600 <input type="checkbox"/> ≥ 600 <input type="checkbox"/>		—
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 <input type="checkbox"/> ≥ 600 <input type="checkbox"/>		—
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 <input type="checkbox"/> ≥ 600 <input type="checkbox"/>		—
Peak value of the working voltage $\hat{U}_{out}$ if applicable (kV) .....							—
Supplementary information:							

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

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Clause	Requirement + Test	Result - Remark	Verdict

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:				

<b>3.15 (13.3.1)</b>	<b>TABLE: Needle-flame test</b>				<b>N/A</b>
<b>Object/ Part No./ Material</b>	<b>Manufacturer/ trademark</b>	<b>Duration of application of test flame (ta); (s)</b>	<b>Ignition of specified layer Yes/No</b>	<b>Duration of burning (tb) (s)</b>	<b>Verdict</b>
Supplementary information:					

3.15 (13.3.2)	TABLE: Resistance to heat and fire - Glow wire tests						P
Object/ Part No./ Material	Manufacturer/ trademark	Glow wire test (°C)					Verdict
		650		750		850	
		te	ti	te	ti		
Plastic lenses on LED module, PMMA	LEDIL	0	0	-	-	-	P
Ignition of the specified layer placed underneath the test specimen (Yes/No)..... :							No
Supplementary information:							
Test performed for compliance with clause 4.15 only							

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

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Clause	Requirement + Test	Result - Remark	Verdict

ANNEX 1	TABLE: Critical components information						P
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>	
Supply cable	A	SALCAVI	H05RN-F	300/500V 2 to 5 x 1mm²	EN 50525-2- 21 :2011	IMQ<HAR> Cert.n° CA01.00683	
Internal wiring for primary circuit	A	SILTEK	UG4G4 / FG4G4	450/700V T180°C 1 mm²	Properties equivalent to EN 60228	CSv-IMQ Cert. N° CA01.00289	
Internal wiring for primary circuit	C/D	SALCAVI	UR7R7	300/500V T 90°C 1mm²	T13 type PVC conforming to EN 50363-3	Tested in Luminaire Also UL E132504	
Internal wiring for secondary circuit	C/D	SALCAVI	20AWG	T105°C 20 AWG 300 V UL STYLE 1569	IEC/EN 60598-1	Tested in Luminaire	
Surge protective device (optional)	B	PHILIPS	Surge Protector Class II	230V 5kA 10kV Type 3 T80°C	EN 61643- 11:2012+A11 IEC 61643-11:2011	TUV Rheinland Cert.n: R 50430202	
Main Terminal block	A	ADELS CONTACT	LK 980	16A 600V AWG 14-20 T105°C	EN60998-1:2004 EN60998-2-2:2004	VDE Cert n° 40021343	
LED controlgear (for models up to 110W)	B	PHILIPS	Xi FP 110W 0,3-1,0A SNLDAE 230V C133 sXt	220-240Vac 50/60Hz 300-1050 mA 50-160 Vdc (230 Vdc max)* 110W Tc 85°C T <sub>marked</sub> “130”	IEC/EN 61347- 1:2015+A1 IEC/EN 61347-2- 13:2014+A1	ENEC 05 Cert. n° 31-114962 REV.1	
LED controlgear (for models up to 110W)	B/D	PHILIPS	Xi LP 110W 0,3-1,0A S1 230V C133 sXt	220-240Vac 50/60Hz 300-1050 mA 50-160 Vdc (230 Vdc max)* 110W Tc 90°C T <sub>marked</sub> “130”	IEC/EN 61347- 1:2015 IEC/EN 61347-2- 13:2014+A1	ENEC 05 Cert. n° 31-105242	
LED controlgear (for models up to 110W)	B/D	PHILIPS	Xi SR 110W 0,3-1,0A SNEMP 230V C150 sXt	220-240Vac 50/60Hz 300-1050 mA 50-160 Vdc (200 Vdc max)* 110W Tc 90°C T <sub>marked</sub> “130”	IEC/EN 61347- 1:2015 IEC/EN 61347-2- 13:2014+A1	ENEC 05 Cert. n° 71-106217 REV.1	

IEC 60598-2-3						
Clause	Requirement + Test			Result - Remark		Verdict
LED controlgear (for models up to 75W)	B	PHILIPS	Xi FP 75W 0,3-1,0A SNLDAE 230V C133 sXt	220-240Vac 50/60Hz 300-1050 mA 35-108 Vdc (150 Vdc max)* 75W Tc 80°C T <sub>marked</sub> "130"	IEC/EN 61347- 1:2015+A1 IEC/EN 61347-2- 13:2014+A1	ENEC 05 Cert. n° 31-114939 REV.1
LED controlgear (for models up to 75W)	B/D	PHILIPS	Xi LP 75W 0,3-1,0A S1 230V C133 sXt	220-240Vac 50/60Hz 300-1050 mA 35-108 Vdc (150 Vdc max)* 75W Tc 80°C T <sub>marked</sub> "130"	IEC/EN 61347- 1:2015 IEC/EN 61347-2- 13:2014+A1	ENEC 05 Cert. n° 31-105242
LED controlgear (for models up to 75W)	B/D	PHILIPS	Xi SR 75W 0,3-1,0A SNEMP 230V C150 sXt	220-240Vac 50/60Hz 300-1050 mA 35-108 Vdc (150 Vdc max)* 75W Tc 90°C T <sub>marked</sub> "130"	IEC/EN 61347- 1:2015 IEC/EN 61347-2- 13:2014+A1	ENEC 05 Cert. n° 71-106125 REV.1
LED controlgear (for models up to 40W)	B	PHILIPS	Xi FP 40W 0,2-0,7A SNLDAE 230V C123 sXt	220-240Vac 50/60Hz 200-700 mA 25-77 Vdc (100 Vdc max)* 40W Tc 85°C T <sub>marked</sub> "120" SELV	IEC/EN 61347- 1:2015 IEC/EN 61347-2- 13:2014+A1	ENEC 05 Cert. n° 31-111350
LED controlgear (for models up to 40W)	B/D	PHILIPS	Xi LP 40W 0,2-0,7A S1 230V C123 sXt	220-240Vac 50/60Hz 200-700 mA 25-77 Vdc (100 Vdc max)* 40W Tc 85°C T <sub>marked</sub> "120" SELV	IEC/EN 61347- 1:2015+A1 IEC/EN 61347-2- 13:2014+A1	ENEC 05 Cert. n° 31-120711
LED controlgear (for models up to 40W)	B/D	PHILIPS	Xi SR 40W 0,2-0,7A SNEMP 230V C133 sXt	220-240Vac 50/60Hz 200-700 mA 25-77 Vdc (100 Vdc max)* 40W Tc 85°C T <sub>marked</sub> "120" SELV	IEC/EN 61347- 1:2015 IEC/EN 61347-2- 13:2014+A1	ENEC 05 Cert. n° 71-101395 REV.1
LED controlgear (for models up to 22W)	B	PHILIPS	Xi FP 22W 0,2-0,7A SNLDAE 230V C123 sXt	220-240Vac 50/60Hz 200-700 mA 16-48 Vdc (70 Vdc max)* 22W Tc 85°C T <sub>marked</sub> "120" SELV	IEC/EN 61347- 1:2015 IEC/EN 61347-2- 13:2014+A1	ENEC 05 Cert. n° 31-111350

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Clause	Requirement + Test			Result - Remark		Verdict
LED controlgear (for models up to 22W)	B/D	PHILIPS	Xi LP 22W 0,2-0,7A S1 230V C123 sXt	220-240Vac 50/60Hz 200-700 mA 16-48 Vdc (70 Vdc max)* 22W Tc 85°C T <sub>marked</sub> "120" SELV	IEC/EN 61347-1:2015+A1 IEC/EN 61347-2-13:2014+A1	ENEC 05 Cert. n° 31-120711
LED controlgear (for models up to 22W)	B/D	PHILIPS	Xi SR 22W 0,2-0,7A SNEMP 230V C123 sXt	220-240Vac 50/60Hz 200-700 mA 16-48 Vdc (70 Vdc max)* 22W Tc 85°C T <sub>marked</sub> "120" SELV	IEC/EN 61347-1:2015 IEC/EN 61347-2-13:2014+A1	ENEC 05 Cert. n° 71-101397 REV.1
(*) = Declared double insulated between primary and secondary circuits and between primary circuit and accessible parts.						
LED module	B	NERI	B5673	12+12LEDs Max 1000 mA 72 Vdc 72W Tc 85°C Vmax 300 Vdc Risk 1 unlimited	IEC 62031:2018 EN IEC 62031:2020	ENEC-03348-M1
LED module	B	NERI	B5603	8+8LEDs Max 1000 mA 48 Vdc 48W Tc 85°C Vmax 300 Vdc Risk 1 unlimited	IEC 62031:2018 EN IEC 62031:2020	ENEC-03348-M1
<p>Supplementary information:</p> <p><sup>1)</sup> Provided evidence ensures the agreed level of compliance. See OD-CB2039.</p> <p>The codes above have the following meaning:</p> <p>A - The component is replaceable with another one, also certified, with equivalent characteristics</p> <p>B - The component is replaceable if authorised by the test house</p> <p>C - Integrated component tested together with the appliance</p> <p>D - Alternative component</p>						

IEC 60598-2-3							
Clause	Requirement + Test			Result - Remark		Verdict	
<b>ANNEX 2</b>	<b>TABLE: Thermal tests of Section 12</b>						<b>P</b>
	Type reference .....					—	
	Lamp used.....					—	
	Lamp control gear used .....					—	
	Mounting position of luminaire .....					—	
	Supply wattage (W) .....					—	
	Supply current (A) .....					—	
	Temperatures in test 1 - 4 below are corrected for $t_a$ (°C) .....					—	
	- abnormal operating mode .....					—	
3.12 (12.4)	- test 1: rated voltage .....					—	
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....					—	
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage .....					—	
	Through wiring or looping-in wiring loaded by a current of A during the test .....					—	
3.12 (12.5)	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current or 130/150% of rated input voltage .....					—	
<b>Temperature measurements (°C)</b>							
Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
Supplementary information:							
<b>See Enclosure 1 for all the thermal tests of Section 12</b>							



IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
<b>ANNEX 3</b>	<b>Screw terminals (part of the luminaire)</b>		<b>N/A</b>
<b>(14)</b>	<b>SCREW TERMINALS</b>		<b>N/A</b>
(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 <sup>2</sup> )..... :		—
(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) ..... :	M	N/A
	External wiring		N/A
	No soft metal		N/A
(14.4.5)	Corrosion		N/A
(14.4.6)	Nominal diameter of thread (mm) ..... :		N/A
	Torque (Nm) ..... :		N/A
(14.4.7)	Between metal surfaces		N/A
	Lug terminal		N/A
	Mantle terminal		N/A
	Pull test; pull (N) ..... :		N/A
(14.4.8)	Without undue damage		N/A

IEC 60598-2-3			
Clause	Requirement + Test	Result - Remark	Verdict
<b>ANNEX 4</b>	<b>Screwless terminals (part of the luminaire)</b>		<b>N/A</b>
<b>(15)</b>	<b>SCREWLESS TERMINALS</b>		<b>N/A</b>
(15.2)	Type of terminal..... :		—
	Rated current (A)..... :		—
(15.3.1)	Material		N/A
(15.3.2)	Clamping		N/A
(15.3.3)	Stop		N/A
(15.3.4)	Unprepared conductors		N/A
(15.3.5)	Pressure on insulating material		N/A
(15.3.6)	Clear connection method		N/A
(15.3.7)	Clamping independently		N/A
(15.3.8)	Fixed in position		N/A
(15.3.10)	Conductor size		N/A
	Type of conductor		N/A
(15.5)	Terminals and connections for internal wiring		N/A
(15.5.1)	Mechanical tests		N/A
(15.5.1.1.1)	Pull test spring-type terminals (4 N, 4 samples) .....		N/A
(15.5.1.1.2)	Pull test pin or tab terminals (4 N, 4 samples) .....		N/A
	Insertion force not exceeding 50 N		N/A
(15.5.1.2)	Permanent connections: pull-off test (20 N)		N/A
(15.5.2)	Electrical tests		N/A
	Voltage drop (mV) after 1 h (4 samples) .....		N/A
	Voltage drop of two inseparable joints		N/A
	Number of cycles:		—
	Voltage drop (mV) after 10th alt. 25th cycle (4 samples)..... :		N/A
	Voltage drop (mV) after 50th alt. 100th cycle (4 samples)..... :		N/A
	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples) .....		N/A
	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples) .....		N/A
(15.6)	Terminals and connections for external wiring		N/A
(15.6.1)	Conductors		N/A
	Terminal size and rating		N/A

IEC 60598-2-3											
Clause	Requirement + Test								Result - Remark		Verdict
15.6.2	Mechanical tests										N/A
(15.6.2.1)	Pull test spring-type terminals or welded connections (4 samples); pull (N) .....										N/A
(15.6.2.2)	Pull test pin or tab terminals (4 samples); pull (N) .....										N/A
(15.6.3)	Electrical tests										N/A
	Tests according 15.6.3.1 + 15.6.3.2 in IEC 60598-1										N/A
<b>(15.6.3.1)</b> <b>(15.6.3.2)</b>	<b>TABLE: Contact resistance test / Heating tests</b>										<b>N/A</b>
	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)											
	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:											

<b>Enclosure 1</b>	<b>Thermal tests tables of Section 12</b>
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Clause	Requirement + Test	Result - Remark	Verdict
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(1 of 7)	TABLE: Thermal tests of Section 12		P
	Type reference .....	LUPOL02 48	—
	Lamp used.....	2 x B5673 (24+24LED) LUXEON 5050	—
	Lamp control gear used.....	PHILIPS Xi SR 110W 0,3-1,0A SNEMP 230V C150 sXt	—
	Mounting position of luminaire .....	Suspended	—
	Supply wattage (W) .....	102,3 W (240 V) 102,3 W (254 V)	—
	Supply current (A) .....	0,438 A (240 V) 0,416 A (254 V)	—
	Temperatures in test 1 - 4 below are corrected for ta (°C) .....	50	—
	- abnormal operating mode .....	Short circuit of driver output (*)	—
12.4	- test 1: rated voltage .....	240V	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....	254V	—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage .....	-	—
	Through wiring or looping-in wiring loaded by a current of A during the test .....	-	—
12.5	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....	264V	—

#### Temperature measurements (°C)

Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
LED module 1 Tc point	50,4		85		122 (**)		
Lens (LED module 1)	50,4		80		90		
LED module 2 Tc point	50,4		83		122 (**)		
Lens (LED module 2)	50,4		79		90		
T.c. point of LED controlgear Xi FP 110W 0,3-1,0A SNLDAE 230V C133 xXt (alternate)	50,4	94(#)	-		85		
T.c. point of LED controlgear Xi LP 110W 0,3-1,0A S1 230V C133 sXt (alternate)	50,4	97(#)	-		90		
T.c. point of LED controlgear	50,4	88	-		90		

<b>Enclosure 1</b>	<b>Thermal tests tables of Section 12</b>
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Clause	Requirement + Test	Result - Remark	Verdict
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Power supply under anchorage	50,4	61	75		
T.c. point of SPD	50,4	60	80		
Internal air	50,4	61	(***)		
Internal glass	50,4	68	(***)		
External glass	50,4	55	(***)		

Supplementary information:

(\*) LED controlgear short circuit protected immediately operated

(\*\*) limit calculated according to LED datasheet ( $T_j$ -max 125°C; Thermal res.: 1,4°C/W; P.LED ~ 1,76W);

$T_{sp} = 125 - (1,4 \times 1,76)$

(\*\*\*) For reference only

(#) Temperature accepted due to the deduction of 10°C according to clause 3.12.1 for outdoor products.

<b>Enclosure 1</b>	<b>Thermal tests tables of Section 12</b>
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Clause	Requirement + Test	Result - Remark	Verdict
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<b>(2 of 7)</b>	<b>TABLE: Thermal tests of Section 12</b>		<b>P</b>
	Type reference .....	LUPOL02 24	—
	Lamp used .....	B5673 (24LED) LUXEON 5050	—
	Lamp control gear used .....	PHILIPS Xi FP 75W 0,3-1,0A SNLDAE 230V C133 sXt	—
	Mounting position of luminaire .....	Suspended	—
	Supply wattage (W) .....	59,0 W (240 V) 59,0 W (254 V)	—
	Supply current (A) .....	0,252 A (240 V) 0,238 A (254 V)	—
	Temperatures in test 1 - 4 below are corrected for ta (°C) .....	50	—
	- abnormal operating mode .....	Short circuit of driver output (*)	—
12.4	- test 1: rated voltage .....	240 V	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....	254 V	—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage .....	-	—
	Through wiring or looping-in wiring loaded by a current of A during the test .....	-	—
12.5	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....	264 V	—

#### Temperature measurements (°C)

Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
LED module Tc point	50,9		76		121 (**)		
Lens	50,9		71		90		
T.c. point of LED controlgear	50,9	74	-		80		
T.c. point of LED controlgear Xi LP 75W 0,3-1,0A S1 230V C133 sXt (alternate)	50,9	75	-		80		
T.c. point of LED controlgear Xi SR 75W 0,3-1,0A SNEMP C150 sXt (alternate)	50,9	73	-		90		
Power supply under anchorage	50,9		57		75		
T.c. point of SPD	50,9		57		80		

<b>Enclosure 1</b>	<b>Thermal tests tables of Section 12</b>
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Clause	Requirement + Test	Result - Remark	Verdict
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Internal air	50,9	57	(**)		
Internal glass	50,9	67	(**)		
External glass	50,9	53	(**)		

Supplementary information:

(\*) LED controlgear short circuit protected immediately operated

(\*\*) limit calculated according to LED datasheet ( $T_{j-max}$  125°C; Thermal res.: 1,4°C/W; P.LED ~ 2,24W);

$T_{sp} = 125 - (1,4 \times 2,24)$

(\*\*\*) For reference only

<b>Enclosure 1</b>	<b>Thermal tests tables of Section 12</b>
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Clause	Requirement + Test	Result - Remark	Verdict
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<b>(3 of 7)</b>	<b>TABLE: Thermal tests of Section 12</b>		<b>P</b>
	Type reference .....	LUPOL02 24	—
	Lamp used.....	B5673 (24LED) LUXEON 5050	—
	Lamp control gear used.....	PHILIPS Xi FP 40W 0,2-0,7A SNLDAE 230V C123 sXt	—
	Mounting position of luminaire .....	Suspended	—
	Supply wattage (W) .....	45,6 W (240 V) 45,6 W (254 V)	—
	Supply current (A) .....	0,194 A (240 V) 0,185 A (254 V)	—
	Temperatures in test 1 - 4 below are corrected for ta (°C) .....	50	—
	- abnormal operating mode .....	Short circuit of output (*)	—
12.4	- test 1: rated voltage .....	240 V	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....	254 V	—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage .....	-	—
	Through wiring or looping-in wiring loaded by a current of A during the test .....	-	—
12.5	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....	264 V	—

#### Temperature measurements (°C)

Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
LED module Tc point	50,7		67		122 (**)		
Lens	50,7		63		90		
T.c. point of LED controlgear	50,7	78	-		85		
T.c. point of LED controlgear Xi LP 40W 0,2-0,7A S1 230V C123 sXt (alternate)	50,7	86	-		85		
T.c. point of LED controlgear Xi SR 40W 0,2-0,7A SNEMP C133 sXt (alternate)	50,7	74	-		85		
Power supply under anchorage	50,7		54		75		
T.c. point of SPD	50,7		54		80		



<b>Enclosure 1</b>	<b>Thermal tests tables of Section 12</b>
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Clause	Requirement + Test	Result - Remark	Verdict
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Internal air	50,7	53	(**)		
Internal glass	50,7	61	(**)		
External glass	50,7	51	(**)		

Supplementary information:

(\*) LED controlgear short circuit protected immediately operated

(\*\*) limit calculated according to LED datasheet ( $T_{j-max}$  125°C; Thermal res.: 1,4°C/W; P.LED ~ 1,56W);

$T_{sp} = 125 - (1,4 \times 1,56)$

(\*\*\*) For reference only

<b>Enclosure 1</b>	<b>Thermal tests tables of Section 12</b>
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Clause	Requirement + Test	Result - Remark	Verdict
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<b>(4 of 7)</b>	<b>TABLE: Thermal tests of Section 12</b>		<b>P</b>
	Type reference .....	LUPOL02 32	—
	Lamp used.....	2 x B5603 (16+16LED) LUXEON 5050	—
	Lamp control gear used.....	PHILIPS Xi FP 110W 0,3-1,0A SNLDAE 230V C133 sXt	—
	Mounting position of luminaire .....	Suspended	—
	Supply wattage (W) .....	92,3 W (240 V) 92,2 W (254 V)	—
	Supply current (A) .....	0,390 A (240 V) 0,368 A (254 V)	—
	Temperatures in test 1 - 4 below are corrected for ta (°C) .....	50	—
	- abnormal operating mode .....	Short circuit of output (*)	—
12.4	- test 1: rated voltage .....	240 V	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....	254 V	—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage .....	-	—
	Through wiring or looping-in wiring loaded by a current of A during the test .....	-	—
12.5	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....	264 V	—

#### Temperature measurements (°C)

Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
LED module 1 Tc point	51,0		81		121 (**)		
Lens (LED module 1)	51,0		74		90		
LED module 2 Tc point	51,0		81		121 (**)		
Lens (LED module 2)	51,0		76		90		
T.c. point of LED controlgear	51,0	84	-		85		
T.c. point of LED controlgear Xi LP 110W 0,3-1,0A S1 230V C133 sXt (alternate)	51,0	87	-		90		
T.c. point of LED controlgear Xi SR 110W 0,3-1,0A SNEMP C150 sXt (alternate)	51,0	83	-		90		

<b>Enclosure 1</b>	<b>Thermal tests tables of Section 12</b>
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Clause	Requirement + Test	Result - Remark	Verdict
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Power supply under anchorage	51,0	61	75		
T.c. point of SPD	51,0	60	80		
Internal air	51,0	60	(***)		
Internal glass	51,0	71	(***)		
External glass	51,0	54	(***)		

Supplementary information:

(\*) LED controlgear short circuit protected immediately operated

(\*\*) limit calculated according to LED datasheet ( $T_{j-max}$  125°C; Thermal res.: 1,4°C/W; P.LED ~ 2,65W);

$T_{sp} = 125 - (1,4 \times 2,65)$

(\*\*\*) For reference only

<b>Enclosure 1</b>	<b>Thermal tests tables of Section 12</b>
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Clause	Requirement + Test	Result - Remark	Verdict
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(5 of 7)	TABLE: Thermal tests of Section 12		P
	Type reference .....	LUPOL02 32	—
	Lamp used.....	2 x B5603 (16+16LED) LUXEON 5050	—
	Lamp control gear used.....	PHILIPS Xi SR 75W 0,3-1,0A SNEMP 230V C150 sXt	—
	Mounting position of luminaire .....	Suspended	—
	Supply wattage (W) .....	81,1 W (240 V) 81,1 W (254 V)	—
	Supply current (A) .....	0,347 A (240 V) 0,329 A (254 V)	—
	Temperatures in test 1 - 4 below are corrected for ta (°C) .....	50	—
	- abnormal operating mode .....	Short circuit of output (*)	—
12.4	- test 1: rated voltage .....	240 V	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....	254 V	—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage .....	-	—
	Through wiring or looping-in wiring loaded by a current of A during the test .....	-	—
12.5	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....	264 V	—

#### Temperature measurements (°C)

Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
LED module 1 Tc point	50,6		74		122 (**)		
Lens (LED module 1)	50,6		69		90		
LED module 2 Tc point	50,6		74		122 (**)		
Lens (LED module 2)	50,6		70		90		
T.c. point of LED controlgear Xi FP 75W 0,3-1,0A SNLDAE 230V C133 sXt (alternate)	50,6	83(#)	-		80		
T.c. point of LED controlgear Xi LP 75W 0,3-1,0A S1 230V C133 sXt (alternate)	50,6	84(#)	-		80		
T.c. point of LED controlgear	50,6	83	-		90		

<b>Enclosure 1</b>	<b>Thermal tests tables of Section 12</b>
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Clause	Requirement + Test	Result - Remark	Verdict
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Power supply under anchorage	50,6	59	75		
T.c. point of SPD	50,6	58	80		
Internal air	50,6	59	(***)		
Internal glass	50,6	67	(***)		
External glass	50,6	54	(***)		

Supplementary information:

(\*) LED controlgear short circuit protected immediately operated

(\*\*) limit calculated according to LED datasheet ( $T_j$ -max 125°C; Thermal res.: 1,4°C/W; P.LED ~ 2,1W);

$T_{sp} = 125 - (1,4 \times 2,1)$

(\*\*\*) For reference only

(#) Temperature accepted due to the deduction of 10°C according to clause 3.12.1 for outdoor products.

<b>Enclosure 1</b>	<b>Thermal tests tables of Section 12</b>
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Clause	Requirement + Test	Result - Remark	Verdict
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(6 of 7)	TABLE: Thermal tests of Section 12		P
	Type reference .....	LUPOL02 16	—
	Lamp used.....	B5603 (16LED) LUXEON 5050	—
	Lamp control gear used.....	PHILIPS Xi FP 40W 0,2-0,7A SNLDAE 230V C123 sXt	—
	Mounting position of luminaire .....	Suspended	—
	Supply wattage (W) .....	34,8 W (240 V) 34,8 W (254 V)	—
	Supply current (A) .....	0,150 A (240 V) 0,142 A (254 V)	—
	Temperatures in test 1 - 4 below are corrected for ta (°C) .....	50	—
	- abnormal operating mode .....	Short circuit of output (*)	—
12.4	- test 1: rated voltage .....	240 V	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....	254 V	—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage .....	-	—
	Through wiring or looping-in wiring loaded by a current of A during the test .....	-	—
12.5	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....	264 V	—

#### Temperature measurements (°C)

Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
LED module Tc point	50,0		65,9		122 (**)		
Lens	50,0		64,8		90		
T.c. point of LED controlgear	50,0	72,7	-		85		
T.c. point of LED controlgear Xi LP 40W 0,2-0,7A S1 230V C123 sXt (alternate)	50,0	76,7	-		85		
T.c. point of LED controlgear 40W 0,2-0,7A SNEMP C133 sXt (alternate)	50,0	70,8	-		85		
Power supply under anchorage	50,0		52,9		75		
T.c. point of SPD	50,0		53,5		80		

<b>Enclosure 1</b>	<b>Thermal tests tables of Section 12</b>
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Clause	Requirement + Test	Result - Remark	Verdict
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Internal air	50,0	52,5	(**)		
Internal glass	50,0	61,4	(**)		
External glass	50,0	50,6	(**)		

Supplementary information:

(\*) LED controlgear short circuit protected immediately operated

(\*\*) limit calculated according to LED datasheet ( $T_{j-max}$  125°C; Thermal res.: 1,4°C/W; P.LED ~ 1,94W);

$T_{sp} = 125 - (1,4 \times 1,94)$

(\*\*\*) For reference only

<b>Enclosure 1</b>	<b>Thermal tests tables of Section 12</b>
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Clause	Requirement + Test	Result - Remark	Verdict
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<b>(7 of 7)</b>	<b>TABLE: Thermal tests of Section 12</b>		<b>P</b>
	Type reference .....	LUPOL02 16	—
	Lamp used.....	B5603 (16LED) LUXEON 5050	—
	Lamp control gear used.....	PHILIPS Xi LP 22W 0,2-0,7A S1 230V C123 sXt	—
	Mounting position of luminaire .....	Suspended	—
	Supply wattage (W) .....	27,4 W (240 V) 27,4 W (254 V)	—
	Supply current (A) .....	0,118 A (240 V) 0,112 A (254 V)	—
	Temperatures in test 1 - 4 below are corrected for ta (°C) .....	50	—
	- abnormal operating mode .....	Short circuit of output (*)	—
12.4	- test 1: rated voltage .....	240 V	—
	- test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....	254 V	—
	- test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage .....	-	—
	Through wiring or looping-in wiring loaded by a current of A during the test .....	-	—
12.5	- test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current .....	264 V	—

#### Temperature measurements (°C)

Part	Ambient	Cl. 12.4 – normal				Cl. 12.5 – abnormal	
		test 1	test 2	test 3	limit	test 4	limit
LED module Tc point	50,5		60,5		122 (**)		
Lens	50,5		57,0		90		
T.c. point of LED controlgear Xi FP 22W 0,2-0,7A SNLDAE 230V C123 sXt (alternate)	50,5	71,0	-		85		
T.c. point of LED controlgear	50,5	79,8	-		85		
T.c. point of LED controlgear Xi SR 22W 0,2-0,7A SNEMP C133 sXt (alternate)	50,5	72,0	-		85		
Power supply under anchorage	50,5		50,9		75		
T.c. point of SPD	50,5		51,7		80		



<b>Enclosure 1</b>	<b>Thermal tests tables of Section 12</b>
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Clause	Requirement + Test	Result - Remark	Verdict
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Internal air	50,5	51,2	(**)		
Internal glass	50,5	57,8	(**)		
External glass	50,5	50,8	(**)		

Supplementary information:

(\*) LED controlgear short circuit protected immediately operated

(\*\*) limit calculated according to LED datasheet ( $T_{j-max}$  125°C; Thermal res.: 1,4°C/W; P.LED ~ 1,48W);

$T_{sp} = 125 - (1,4 \times 1,48)$

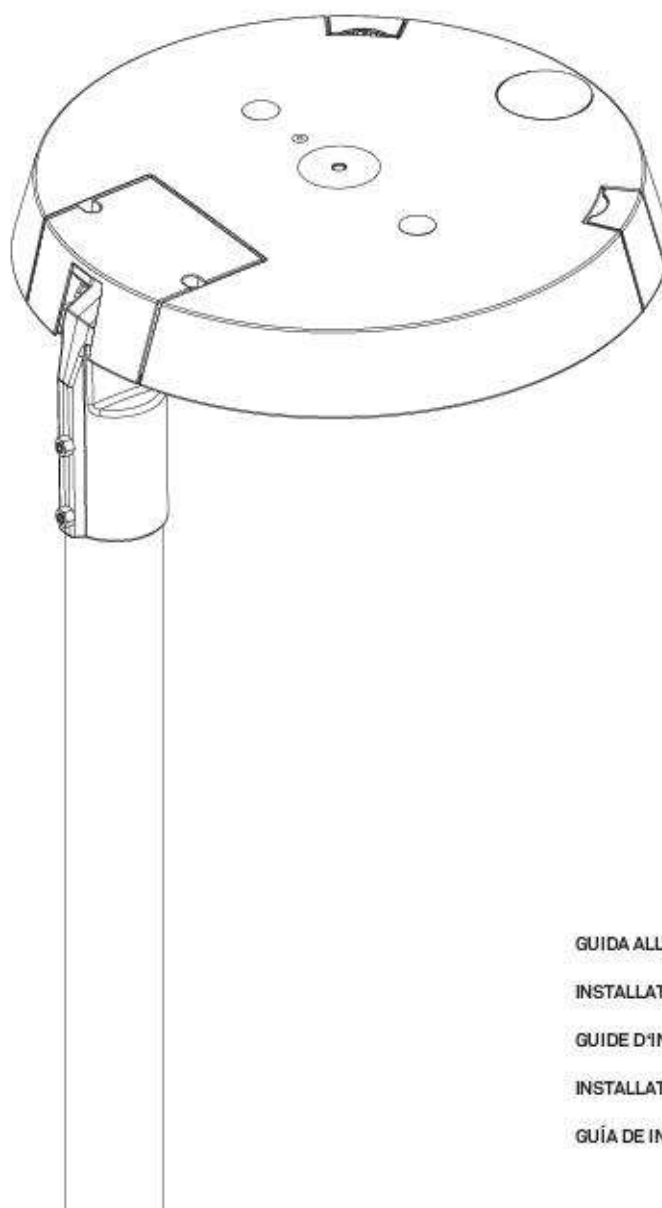
(\*\*\*) For reference only

## Enclosure 2

## Manufacturer's Instructions

# NERI

**POLIS**  
LED  
Z013.0107  
REV.00 - 2022/05/25



GUIDA ALL'INSTALLAZIONE

INSTALLATION GUIDES

GUIDE D'INSTALLATION

INSTALLATIONSANLEITUNG

GUÍA DE INSTALACIÓN

**Enclosure 2****Manufacturer's Instructions**

**IT** – Questa manuale va letto e conservato con molta attenzione.  
**EN** – This manual should be read with attention and kept with great care.  
**FR** – Ce manuel doit être lu très attentivement et soigneusement conservé.  
**DE** – Die Anleitung sollte mit großer Aufmerksamkeit gelesen und aufbewahrt werden.  
**ES** – Este manual se debe leer con detenimiento y conservar cuidadosamente.

## Enclosure 2 Manufacturer's Instructions

**INTRODUZIONE**  
**INTRODUCTION**  
**INTRODUCTION**  
**EINLEITUNG**  
**INTRODUCCIÓN**

**IT** – Neri SpA è impegnata costantemente nella ricerca e progettazione di prodotti di alta qualità, lunga durata e sicurezza. Questo manuale intende presentare le metodiche di installazione corrette dei corpi illuminanti, ponendosi come guida nei confronti di installatori professionali. A tale scopo questo manuale va letto con molta attenzione.

**EN** – Neri SpA is constantly committed to research and design for products of high quality, durability and safety. This manual aims to present correct installation procedures for light fixtures as a guide for professional installers. To this end the manual should be read with extreme attention.

**FR** – Neri SpA a toujours eu pour objectif la recherche et la conception de produits de haute qualité, offrant longévité et sécurité. Ce manuel, qui présente les modes d'installation corrects des armatures d'éclairage, est un guide à l'adresse des installateurs professionnels. Il doit donc être lu très attentivement.

**DE** – Die Neri SpA ist konstant um Forschung und Entwicklung zeitbeständiger und sicherer Produkte von hoher Qualität bemüht. Dieses Handbuch stellt die korrekten Installationsmethoden für die Leuchtkörper bereit und bietet sich gegenüber professionellen Installateuren als ein Ratgeber an. Deswegen sollte dies Handbuch sehr aufmerksam gelesen werden.

**ES** – Neri SpA trabaja de continuo en el estudio y proyección de productos de alta calidad, larga duración y seguridad. Este manual presentará los métodos de instalación correcta de los cuerpos de iluminación, siendo una guía para instaladores profesionales. Por ello, este manual debe leerse con gran detenimiento.

**SIMBOLI**  
**SYMBOLS**  
**SYMBLES**  
**SYMBOLE**  
**SÍMBOLOS**

**IT** – 1. Abbigliamento da lavoro/ 2. Scarpe antinfortunistiche/ 3. Casco obbligatorio/ 4. Guanti da lavoro/ 5. Danni ai componenti/ 6. Inquinamento ambientale/ 7. Nota informativa/ 8. Verifica tecnica/ 9. Pericolo per l'operatore/ 10. Rischio fotobiologico/ 11. Rischio di shock elettrico.

**EN** – 1. Work apparel/ 2. Safety shoes/ 3. Obligatory helmet/ 4. Work gloves/ 5. Damage to components/ 6. Environmental pollution/ 7. Informative note/ 8. Technical check/ 9. Danger for the operator/ 10. Photobiological risk/ 11. Risk of electric shock.

**FR** – 1. Vêtements de travail/ 2. Chaussures de sécurité/ 3. Casque obligatoire/ 4. Gants de travail/ 5. Dommages aux composants/ 6. Pollution de l'environnement/ 7. Note d'information/ 8. Vérification technique/ 9. Danger pour l'opérateur/ 10. Risque photobiologique/ 11. Risque de choc électrique.

**DE** – 1. Arbeitskleidung/ 2. Schutzschuhe/ 3. Helmpflicht/ 4. Arbeitshandschuhe/ 5. Schäden an den Komponenten/ 6. Umweltverschmutzung/ 7. Informationsblatt/ 8. Technische Kontrolle/ 9. Gefahr für den Techniker/ 10. Photobiologische Risiko/ 11. Stromschlaggefahr.

**ES** – 1. Ropa de trabajo obligatoria/ 2. Calzado de seguridad obligatorio/ 3. Casco de seguridad obligatorio/ 4. Guantes de seguridad obligatorios/ 5. Daños a los componentes/ 6. Contaminación del medio ambiente/ 7. Nota informativa/ 8. Comprobación técnica/ 9. Peligro para el operador/ 10. Riesgo fotobiológico/ 11. Riesgo de descarga eléctrica.



## Enclosure 2

## Manufacturer's Instructions

**ETICHETTE  
ADHESIVE  
ÉTIQUETTES  
AUFKLEBER  
ETIQUETAS**


**IT** – Etichette adesive di avvertimento e indicazione sono poste sull'apparecchio e l'installatore deve scrupolosamente seguirne le indicazioni. Vi possono essere richiami di attenzione sulle caratteristiche o altre indicazioni di particolare importanza.

**EN** – Adhesive warning and indication labels are affixed to the luminaire and the installer must adhere strictly to the indications given therein. These may highlight characteristics or other indications of particular importance.

**FR** – Des étiquettes adhésives d'avertissement et d'indication sont positionnées sur l'appareil et l'installateur doit en respecter scrupuleusement les consignes. Ces étiquettes peuvent reporter des rappels d'attention sur les caractéristiques ou d'autres indications de grande importance.

**DE** – Auf dem Gerät sind selbstklebende Warn- und Hinweisschilder angebracht. Der Installateur muss die darin enthaltenen Anweisungen strikt befolgen. Sie können auf besondere Eigenschaften oder auf besonders wichtige Angaben hinweisen.

**ES** – Las etiquetas adhesivas de advertencia e información están aplicadas en el aparato y el instalador debe respetarlas escrupulosamente. Pueden contener advertencias sobre las características o información importante.

**ORIENTAMENTO  
ORIENTATION  
ORIENTATION  
ORIENTIERUNG  
ORIENTACIÓN**


**IT** – Il corretto orientamento si ottiene posizionando il corpo illuminante seguendo le indicazioni riportate internamente al prodotto.

**EN** – The correct orientation is achieved by positioning the lighting fixture following the instructions inside the product.

**FR** – Pour obtenir une orientation correcte il est nécessaire de positionner le luminaire suivant les instructions à l'intérieur du produit.

**DE** – Die richtige Orientierung wird durch die Positionierung der Leuchte gemäß den Anweisungen im Inneren des Produkts erreicht.

**ES** – Para que el cuerpo de iluminación esté bien orientado debe seguir las instrucciones dentro del producto.

Enclosure 2	Manufacturer's Instructions
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**DESTINAZIONE D'USO**  
**INTENDED USE**  
**UTILISATION DES LUMINAIRES**  
**ZWECKBESTIMMUNG**  
**UTILIZACIÓN**

**IT** – L'apparecchio è stato realizzato a regola d'arte. Questo apparecchio deve essere destinato solo all'uso per il quale è stato progettato, e cioè l'illuminazione di ambienti esterni. Ogni altro uso è considerato improprio e pericoloso, ed il costruttore non può essere considerato responsabile per danni derivanti da un uso improprio e irragionevole.

**EN** – The luminaire has been manufactured in compliance with correct practice. This luminaire must be installed only for the use for which it was designed, namely for the illumination of outdoor spaces. Any other use must be considered to be improper and dangerous, and the manufacturer cannot be held liable for any damage caused by improper and unreasonable use.

**FR** – L'appareil a été réalisé dans les règles de l'art. Cet appareil ne doit être destiné qu'à l'utilisation pour laquelle il a été conçu, à savoir, l'éclairage de milieux extérieurs. Toute autre utilisation étant considérée comme improprie et dangereuse, le constructeur décline toute responsabilité en cas de dommages dérivant d'une utilisation improprie et irraisonnable de l'appareil.

**DE** – Der Apparat ist fachgerecht hergestellt worden. Diese Vorrichtung darf nur für den Zweck verwendet werden, für den diese konzipiert wurde, nämlich für die Außenbeleuchtung. Jede andere Verwendung ist als unsachgemäß und gefährlich anzusehen, und der Hersteller kann nicht verantwortlich für Schäden gemacht werden, die aus einem unsachgemäßen und unvernünftigen Gebrauch hervorgehen.

**ES** – El aparato ha sido fabricado perfectamente. Este aparato debe ser destinado exclusivamente al uso para el cual ha sido concebido, es decir: para alumbrar entornos externos. Cualquier otro empleo se considera inadecuado y peligroso, y el constructor no puede ser considerado responsable de ello.

**MANUTENZIONE**  
**MAINTENANCE**  
**ENTRETIEN**  
**WARTUNG**  
**MANTENIMIENTO**

**IT – ATTENZIONE!** Disinserire l'apparecchio dalla rete elettrica.

Le operazioni di manutenzione vanno eseguite solo da personale specializzato, e riguardano:

- Pulizia schermo di protezione e struttura esterna per la rimozione di eventuali materiali che ne potrebbero alterare il funzionamento: (ad apparecchio chiuso) solo con acqua e spugna (non utilizzare idropulitrici a pressione e altri prodotti per la pulizia).
- Verifica del serraggio dell'apparecchio al supporto (una volta l'anno).

In occasione della verifica annuale, controllare che le superfici verniciate non presentino alterazioni come rigonfiamenti o screpolature, in questo caso intervenire urgentemente per ripristinare le parti. Rivolgersi a Neri SpA per le indicazioni e i materiali da utilizzare per i ritocchi.

Per maggiori informazioni, si invita a consultare le istruzioni supplementari presenti sul sito alla pagina [www.neri.biz/it/corpi-illuminanti/uso-e-manutenzione](http://www.neri.biz/it/corpi-illuminanti/uso-e-manutenzione)



**EN – WARNING!** Disconnect the light fixture from the power supply system.

Maintenance operations must be carried out by expert personnel only. These operations involve:

- Cleaning the safety shield and external structure to remove any material which could negatively affect performance: (with the appliance closed) use only clean water and a sponge (do not use high-pressure water jets or other cleaning products).
- Checking that the appliance is securely fastened to the support (once a year).

During annual inspection operations, check the painted surfaces for signs of damage such as blistering or cracking. Should any such damage be found, intervene immediately to restore the paintwork. Contact Neri SpA for indications and materials to be used for retouching the paintwork.

For more information, please see the supplementary instructions on the website at

[www.neri.biz/en/luminaires/use-and-maintenance](http://www.neri.biz/en/luminaires/use-and-maintenance)



## Enclosure 2

## Manufacturer's Instructions

**MANUTENZIONE  
MAINTENANCE  
ENTRETIEN  
WARTUNG  
MANTENIMIENTO**



**FR – ATTENTION!** Débrancher l'appareil du réseau électrique.  
Les opérations d'entretien doivent être effectuées uniquement par un personnel spécialisé, et concernent notamment:

- Nettoyage de l'écran de protection et de la structure externe pour l'élimination de tout éventuel matériel qui pourrait en altérer le fonctionnement (avec l'appareil fermé) uniquement avec de l'eau et une éponge (ne pas utiliser d'hydro-nettoyeuses à pression et d'autres produits pour le nettoyage).
- Vérification du serrage de l'appareil au support (une fois par an).

À l'occasion du contrôle annuel, vérifier que les surfaces vernies ne présentent pas d'altérations telles que gonflements ou craquelures; dans ce cas il est nécessaire d'intervenir avec urgence pour rétablir les différents composants. Contacter Neri SpA pour les indications et les matériaux à utiliser pour les retouches.

Pour en savoir plus, veuillez consulter les instructions supplémentaires publiées sur le site Internet à la page [www.neri.biz/en/luminaires/use-and-maintenance](http://www.neri.biz/en/luminaires/use-and-maintenance)



**DE – ACHTUNG!** Trennen Sie das Gerät vom Stromnetz. Die Wartungsarbeiten dürfen nur von Fachpersonal ausgeführt werden und betreffen:

- Reinigung des Schutzschirms und des äußeren Gehäuses zum Entfernen von Verunreinigungen, die die Funktionsfähigkeit beeinträchtigen könnten: (bei geschlossenem Gerät) nur mit Schwamm und Wasser (keinen Hochdruckreiniger und keine Reinigungsmittel verwenden).
- Kontrolle der sicheren Befestigung des Geräts am Halter (einmal jährlich).

Bei der jährlichen Kontrolle auch sicherstellen, dass die lackierten Oberflächen keine Veränderungen wie Blasen oder Risse aufweisen; andernfalls müssen die betroffenen Teile unverzüglich instandgesetzt werden. Wenden Sie sich bitte an die Firma Neri SpA für Informationen zu der Verfahrensweise und zu den Materialien für Ausbesserungsarbeiten.  
Für weitere Informationen lesen Sie bitte in den zusätzlichen Anweisungen nach, die Sie auf der Webseite

[www.neri.biz/en/luminaires/use-and-maintenance](http://www.neri.biz/en/luminaires/use-and-maintenance)



**ES – ATENCIÓN!** Desconecten el aparato de la red de alimentación eléctrica.

Las siguientes operaciones de mantenimiento solo pueden ser realizadas por personal especializado:

- Limpieza de la pantalla de protección y de la estructura externa para eliminar los eventuales materiales que pueden alterar el funcionamiento: (con aparato cerrado) sólo con agua y esponja (no utilizar hidrolimpiadoras a presión ni otros productos de limpieza).
- Comprobar si el aparato está fijado correctamente al soporte (una vez al año).

Durante la revisión anual, comprobar que las superficies pintadas no estén hinchadas ni agrietadas. Si lo están, intervenir inmediatamente para restablecer su estado original. Contactar con Neri SpA para obtener más información sobre los materiales de retoque que se han de utilizar.

Para obtener más información, consulte las instrucciones adicionales en el sitio en

[www.neri.biz/en/luminaires/use-and-maintenance](http://www.neri.biz/en/luminaires/use-and-maintenance)





## Enclosure 2

## Manufacturer's Instructions

**RICAMBI**  
**SPARE PARTS**  
**PIÈCES DE RECHANGE**  
**ERSATZTEILE**  
**RECAMBIOS**



**IT** – Le sostituzioni di componenti danneggiati con ricambi originali deve essere fatta solo da personale specializzato autorizzato da Neri SpA. Rivolgersi direttamente a Neri SpA per la manutenzione.

**ATTENZIONE!** La sorgente luminosa LED deve essere sostituita solo dal costruttore o dal suo servizio di assistenza o da personale altrettanto qualificato.

**EN** – The replacement of damaged parts with original spares must be carried out exclusively by expert personnel authorized by Neri SpA. Please contact Neri SpA directly for maintenance needs.

**WARNING!** The LED light source must be replaced only by the manufacturer or his customer service or by equally qualified.

**FR** – Le remplacement de composants endommagés, avec des pièces de rechange originales, doit être effectué uniquement par un personnel spécialisé, autorisé par Neri SpA. S'adresser directement à Neri SpA pour l'entretien.

**ATTENTION!** La source de lumière LED doit être remplacée que par le fabricant ou son service à la clientèle ou par tout aussi qualifié.

**DE** – Austausch von defekten Komponenten durch Originalersatzteile nur von Fachpersonal ausgeführt werden, das von der Firma Neri SpA autorisiert. Wenden Sie sich bitte für die Wartung direkt an die Firma Neri SpA.

**ACHTUNG!** Die LED-Lichtquelle hat nur durch den Hersteller oder seinen Kundendienst oder gleich qualifizierte ersetzt werden.

**ES** – Los componentes dañados deben ser sustituidos con recambios originales, exclusivamente por personal especializado y autorizado por Neri SpA. Contactar directamente con Neri SpA para realizar el mantenimiento.

**ATENCIÓN!** La fuente de luz LED debe ser reemplazado únicamente por el fabricante o su servicio al cliente o por las mismas calificaciones.

**EFFICIENZA ENERGETICA**  
**ENERGY-EFFICIENCY CLASS**  
**ÉFFICACITÉ ÉNERGÉTIQUE**  
**ENERGIEEFFIZIENZKLASSE**  
**EFICIENCIA ENERGÉTICA**



**IT** – Questo prodotto contiene sorgenti luminose di classe di efficienza energetica "C", "D", "E".

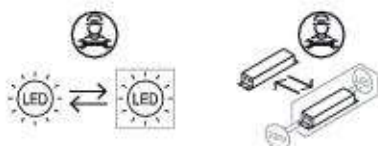
**EN** – This product contains an energy-efficiency class light sources "C", "D", "E".

**FR** – Ce produit est équipé de sources lumineuses classées en termes d'efficacité énergétique "C", "D", "E".

**DE** – Dieses Produkt enthält eine Lichtquelle der Energieeffizienzklasse "C", "D", "E".

**ES** – Este producto contiene fuentes de luz de clase de eficiencia energética "C", "D", "E".

CCT	CRI	Classe / Class / Classe / Klasse / Clase
2200K	70	E
2700K	70	D
3000K	70	D
4000K	70	C
2200K	80	E
2700K	80	E
3000K	80	D
4000K	80	D





## Enclosure 2

## Manufacturer's Instructions

**SMALTIMENTO  
DISPOSAL  
MISE AU REBUT  
ENTSORGUNG  
RECICLADO**



**IT** – Apparecchio contrassegnato in conformità alla Direttiva Europea 2002/96/CE; 2003/108/CE; 2012/19/UE (WEEE). Il simbolo sul prodotto o sulla documentazione, indica che il prodotto non va trattato come rifiuto domestico, ma deve essere consegnato presso specifici punti di raccolta per il riciclaggio di apparecchiature elettriche o elettroniche. Assicurandosi che questo prodotto sia smaltito in modo corretto, l'utente contribuisce a prevenire le potenziali conseguenze negative per l'ambiente e la salute. Lo smaltimento abusivo o inadeguato comporta sanzioni economiche e/o amministrative, stabilite a norma di legge. Per informazioni sui centri di raccolta e sul corretto smaltimento del prodotto, contattare l'autorità locale.

**EN** – This product is marked according to the European directive 2002/96/CE; 2003/108/CE; 2012/19/UE (WEEE). The symbol on the product, or on the documents, indicates that this appliance may not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. Make sure that this product is disposed in corrected way, the customer contributes to prevent the negative potential consequences for the environment and the health. The illicit disposal or inadequate involves economic and/or administrative sanctions, established according to the law. For information about the centers of collection and the corrected disposal of the product, contact the local authority.

**FR** – Cet appareil porte le symbole du recyclage conformément à la Directive Européenne 2002/96/CE; 2003/108/CE; 2012/19/UE concernant les Déchets d'Equipements Électriques et Électroniques (WEEE). Le symbole présent sur l'appareil ou sur la documentation indique que ce produit ne peut en aucun cas être traité comme déchet ménager. Il doit par conséquent être remis à un centre de collecte des déchets chargé du recyclage des équipement électrique et électroniques. Assurez-vous que ce produit est disposé de la manière correcte, le client contribue à empêcher les possibles conséquences négatives pour l'environnement et la santé. La disposition illicite ou inadéquate implique des approbations économiques et/ou administratives, établies selon la loi. Pour informations é propos des centres de collection et des la correcte disposition du produit, contactez l'autorité locale.

**DE** – In Übereinstimmung mit den Anforderungen der Europäischen Richtlinie 2002/96/EG; 2003/108/EG; 2012/19/EG über Elektro- und Elektronik- Altgeräte (WEEE) ist vorliegendes Gerät mit einer Markierung versehen. Auf den Produkt oder der beiliegend Produktdokumentation ist folgendes Symbol einer durchgestrichenen Abfalltonne abgebildet. Es weist darauf hin, dass eine Entsorgung im normalen Haushaltsabfall nicht zulässig ist. Entsorgen Sie dieses Produkt im Recyclinghof mit einer getrennten Sammlung für Elektro- und Elektronikgeräte. Überprüfen Sie ob dieses Produkt wird in behobener Weise abgeschafft, der Kunde beiträgt, um die Minuspotentialkonsequenzen für das Klima und die Gesundheit zu verhindern. Die unerlaubte oder unpassende Beseitigung bezieht die ökonomischen und/oder administrativen Aufschriften mit ein, entsprechend dem Gesetz. Zu Information über die Mitten der Ansammlung und die behobene Beseitigung des Produktes, treten Sie der lokalen Berechtigung.

**ES** – Este aparato lleva el marcado en conformidad con la Directiva 2002/96/EC; 2003/108/EC; 2012/19/EC del Parlamento Europeo y del Consejo sobre residuos de aparatos eléctricos y electrónicos (RAEE). El símbolo en el producto o en los documentos, indica que no se puede tratar como residuo doméstico. Es necesario entregarlo en un punto de recogida para reciclar aparatos eléctricos y electrónicos. Recicle los productos de manera correcta. La disposición ilícita o inadecuada implica los endosos económicos y/o administrativos, establecidos según la ley. Para la información sobre los centros de colección y la disposición correcta del producto, entre en contacto con la autoridad local.



Enclosure 2	Manufacturer's Instructions
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CONFORMITÀ  
COMPLIANCE  
CONFORMITÉ  
KONFORMITÄT  
CUMPLIMIENTO DE NORMAS

**IT** – Apparecchio per illuminazione stradale conforme alle norme riportate in tabella, con marchio di sicurezza ENEC15.

**NOTA:** Solo i prodotti riportanti il marchio ENEC devono essere considerati a marchio e sottoposti al controllo di produzione. Controllare sempre il marchio sul prodotto! Le caratteristiche elettriche specifiche sono riportate sull'etichetta dati posta sull'apparecchio.

**EN** – Street lighting appliance in compliance with the standards indicated in the table, with ENEC15 safety mark.

**NOTE:** Only those products bearing the ENEC mark should be considered to be listed and covered under follow-up service. Always look for the mark on the product! Specific electrical characteristics are indicated on the data label affixed to the appliance.

**FR** – Appareil pour éclairage routier conforme aux normes reportées dans le tableau, avec marquage de sécurité ENEC15.

**NOTE:** Seuls les produits comportant le marquage ENEC doivent être considérés comme marqués et soumis à un contrôle de production. Toujours contrôler le marquage sur le produit! Les caractéristiques spécifiques sont reportées sur l'étiquette de données apposée sur l'appareil.

**DE** – Die Vorrichtung zur Straßenbeleuchtung entspricht den in der Tabelle beschriebenen Normen mit dem Sicherheitszeichen ENEC15.

**HINWEIS:** Nur die Produkte mit dem ENEC-Zeichen dürfen als solche berücksichtigt werden und einer Produktionskontrolle unterzogen werden. Überprüfen Sie immer die Kennzeichnung auf dem Produkt! Die elektrischen Spezifikationen finden Sie auf dem Typenschild, das sich auf der Vorrichtung befindet.

**ES** – Aparato para iluminación vía conforme a las normas que figuran en la tabla, con marca de seguridad ENEC15.

**NOTA:** Solo los productos con el sello ENEC deben considerarse marcados y sometidos al control de producción. ¡Controlar siempre que el producto cuenta con la marca! Las características eléctricas específicas se recogen en la etiqueta de datos fijada al aparato.

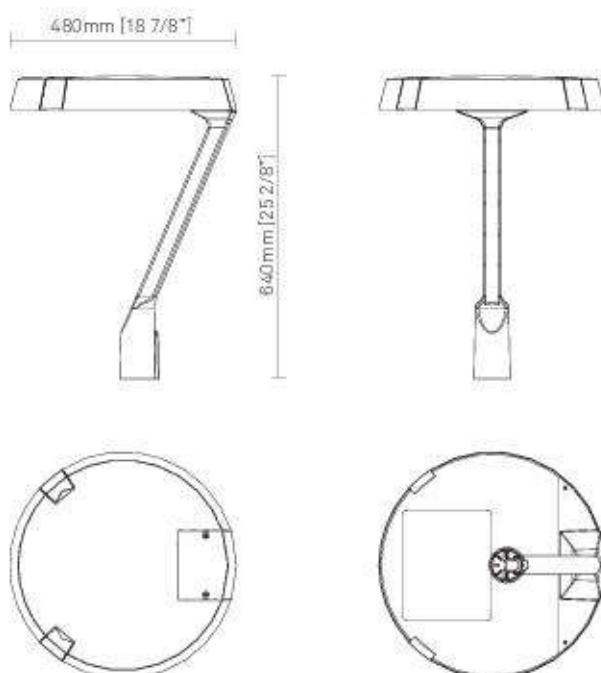


<b>LVD</b>	Directive 2014/35/EU Low Voltage Directive (LVD)
<b>EN 60598-1</b>	Luminaires - Part 1: General requirements and tests
<b>EN 60598-2-3</b>	Luminaires - Part 2-3: Particular requirements - Luminaires for road and street lighting
<b>EMC</b>	Directive 2014/53/EU Electromagnetic Compatibility
<b>EN 61547</b>	Equipment for general lighting purposes - EMC immunity requirements
<b>EN 55015</b>	Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment
<b>EN 61000-3-2</b>	Electromagnetic compatibility (EMC) - Part 3-2: Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)
<b>EN 61000-3-3</b>	Electromagnetic compatibility (EMC) - Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection
<b>ErP</b>	Directive 2009/125/CE Energy Related Product (ErP)
<b>RoHS</b>	Directive 2011/65/EU Restriction of the use of certain hazardous substances (RoHS)

Enclosure 2	Manufacturer's Instructions
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POLIS  
LED

LUPOL00



Superficie esposta al vento / Surface exposed to wind / Surfaces exposées au vent /  
Windangriffsfläche / Superficie expuesta al viento

Area laterale / Side area / Zone latérale / Seitlicher Bereich / Área lateral	0,062m² [0,66 ft²]
Area frontale / Frontal area / Área frontal / Vorder Bereich / Área frontal	-
Area superiore / Top area / Área superior / Oberer Bereich / Oberer Bereich	0,180m² [1,93 ft²]
EPA	0,70 ft²

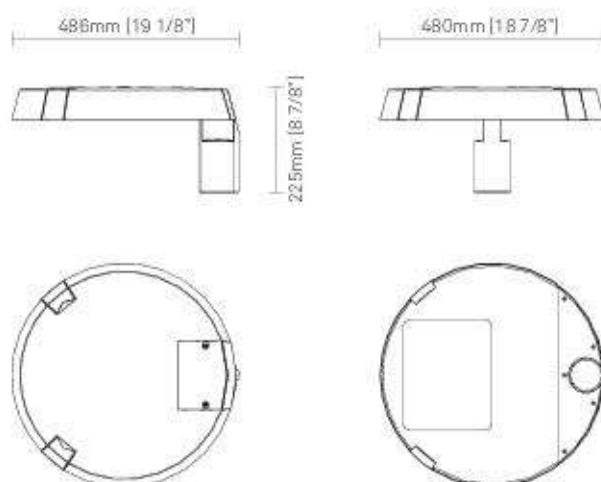
Peso / Weight / Poids / Gewicht / Peso	9,5kg [20,94lb]
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H installazione / H installation / H installation / H installation / H instalación	
H max.	> 15m [49ft]

Enclosure 2	Manufacturer's Instructions
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POLIS  
LED

LUPOL01



Superficie exposta al viento / Surface exposed to wind / Surfaces exposées au vent /  
Windangriffsfläche / Superficie expuesta al viento

Area laterale / Side area / Zone latérale / Seitlicher Bereich / Área lateral	0.06m <sup>2</sup> (0.48ft <sup>2</sup> )
Area frontale / Frontal area / Área frontal / Vorder Bereich / Área frontal	-
Area superiore / Top area / Área superior / Oberer Bereich / Oberer Bereich	0.180m <sup>2</sup> (1.93ft <sup>2</sup> )
EPA	0.57ft <sup>2</sup>

Peso / Weight / Poids / Gewicht / Peso	8.8kg (19.4lb)
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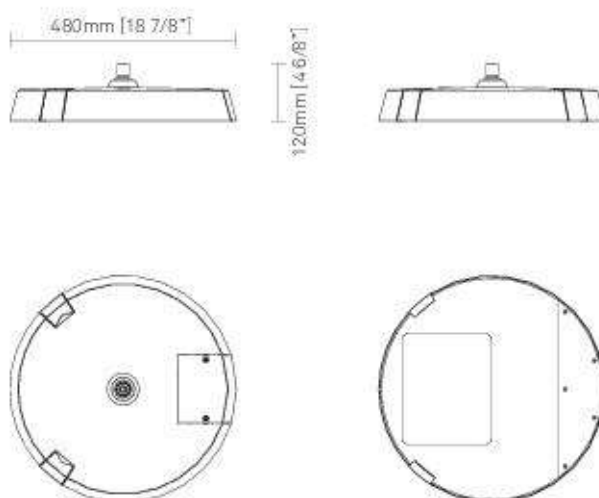
H installazione / H installation / H installation / H installation / H instalación

H max.	> 15m (> 49ft)
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Enclosure 2	Manufacturer's Instructions
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POLIS  
LED

LUPOL02



Superficie esposta al vento / Surface exposed to wind / Surfaces exposées au vent /  
Windangriffsfläche / Superficie expuesta al viento

Area laterale / Side area / Zone latérale / Seitlicher Bereich / Área lateral	0,035m <sup>2</sup> (0,37ft <sup>2</sup> )
Area frontale / Frontal area / Área frontal / Vorder Bereich / Área frontal	-
Area superiore / Top area / Área superior / Oberer Bereich / Oberer Bereich	0,180m <sup>2</sup> (1,93ft <sup>2</sup> )
EPA	0,44ft <sup>2</sup>

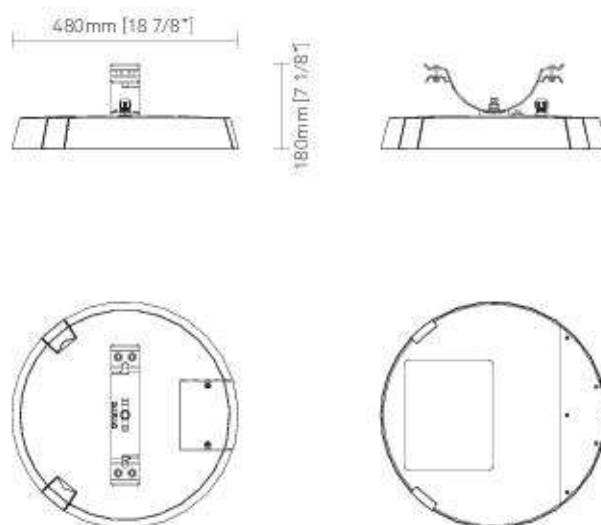
Peso / Weight / Poids / Gewicht / Peso	8,0kg (17,63lb)
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H installazione / H installation / H installation / H installation / H instalación	
H max.	> 15m (> 49ft)

Enclosure 2	Manufacturer's Instructions
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POLIS  
LED

LUPOL03



Superficie esposta al vento / Surface exposed to wind / Surfaces exposées au vent /  
Windangriffsfläche / Superficie expuesta al viento

Area laterale / Side area / Zone latérale / Seitlicher Bereich / Área lateral	0,035m² [0,37ft²]
Area frontale / Frontal area / Área frontal / Vorder Bereich / Área frontal	-
Area superiore / Top area / Área superior / Oberer Bereich / Oberer Bereich	0,180m² [1,93ft²]
EPA	0,44ft²

Peso / Weight / Poids / Gewicht / Peso	8,0kg [17,63lb]
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H installazione / H installation / H installation / H installation / H instalación	
H max.	> 15m [49ft]

## Enclosure 2

## Manufacturer's Instructions

## GUIDA ALL'INSTALLAZIONE - LUPOL00

IT

**AVVERTENZE PER L'INSTALLAZIONE**

Eseguire l'installazione secondo le norme in vigore nel paese d'installazione.

L'apparecchio deve essere utilizzato solo se completo dello schermo di protezione.

Se lo schermo risulta danneggiato o rotto, l'apparecchio non va utilizzato.

Ripristinare le condizioni originali prima di riutilizzarlo.

L'apparecchio è in CL II (o CL I) d'isolamento elettrico, fare attenzione che durante l'installazione, parti metalliche esposte non vadano in contatto elettrico con parti dell'installazione elettrica collegate ad un conduttore di protezione. Questo apparecchio deve essere destinato solo all'uso per il quale è stato progettato, e cioè illuminazione di ambienti esterni. Ogni altro uso è considerato improprio e pericoloso, ed il costruttore non può essere considerato responsabile per danni derivanti da un uso improprio e irragionevole.

**Installazione**

Svitare le due viti (M6) dal telaio superiore (Fig. 1-2) e sollevare la cover (Fig. 3-4).

Svitare le due viti (M8) e le due rondelle dall'attacco presente sul telaio superiore (Fig. 5). Avvicinare la forcella (Fig. 6), accoppiarla con l'attacco del telaio superiore e avvitare le due viti (M8) e le due rondelle (Fig. 7).

**Collegamento elettrico**

Allentare la vite (M4) (Fig. 8) e aprire la lamiera posta nella parte interna della forcella (Fig. 9). Inserire il cavo di alimentazione all'interno dell'attacco palo (Fig. 10) e far scorrere il cavo all'interno della forcella (Fig. 11).

Richiudere la lamiera (Fig. 12) e collegare il cavo di alimentazione (Fig. 13-14).

Se il cavo flessibile esterno di questo apparecchio risultasse danneggiato deve essere sostituito esclusivamente dal produttore, dal suo agente di servizio

o da una persona qualificata per evitare pericoli.

**Fissaggio del corpo illuminante al supporto**

Inserire l'apparecchio, completo di cavi già collegati, all'interno del supporto (Fig. 15). Riporre la cover sul telaio superiore e avvitare le due viti (M6) (Fig. 16). Orientare l'apparecchio correttamente rispetto all'asse stradale (Fig. 17). Stringere i due grani (M8) sull'attacco dell'apparecchio e bloccare i grani con i dadi (Fig. 18).

Enclosure 2	Manufacturer's Instructions
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**INSTALLATION GUIDES- LUPOL00**
**EN****INSTALLATION INFORMATION**

Installation must be carried out in accordance with national standards. The fixture must only be used when complete with safety screen. If the screen is damaged or broken, the fixture must not be used. Restore the original conditions before reusing. The fixture is installed under CL II (or CL I) protection standards; particular care must be taken while assembling to ensure that exposed metal parts do not come into electrical contact with parts of the electrical installation connected to a protection conductor. This light fixture must be installed only for the use for which it was designed, namely for the illumination of outdoor spaces. Any other use must be considered to be improper and dangerous, and the manufacturer cannot be held liable for any damage caused by improper and unreasonable use.

**Installation**

Unscrew the two screws (M6) from the upper frame (Fig. 1-2) and lift the cover (Fig. 3-4). Unscrew the two screws (M8) and the two washers from the connection present on the upper frame (Fig. 5). Move the fork closer (Fig. 6), couple it with the upper frame connection and tighten the two screws (M8) and two washers (Fig. 7).

**Electrical connection**

Loosen the screw (M4) (Fig. 8) and open the plate on the inside of the fork (Fig. 9). Insert the power cable into the pole attachment (Fig. 10) and slide the cable inside the fork (Fig. 11). Close the plate (Fig. 12) and connect the power cable (Fig. 13-14). If the external flexible cable of this appliance is damaged, it must only be replaced by the manufacturer, its service agent or a qualified person to avoid danger.

**Attaching the luminaire to the support**

Insert the device, complete with already connected cables, into the holder (Fig. 15). Place the cover back on the upper frame and tighten the two screws (M6) (Fig. 16). Orient the device correctly in relation to the road axis (Fig. 17). Tighten the two grub screws (M8) on the device connection and lock the grub screws with nuts. (Fig. 18).



Enclosure 2	Manufacturer's Instructions
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## GUIDE D'INSTALLATION- LUPOL00

FR

**AVERTISSEMENTS POUR L'INSTALLATION**

Effectuer l'installation selon les normes en vigueur dans le pays d'installation.

L'appareil doit être utilisé uniquement s'il est complété de l'écran de protection.

Si l'écran est endommagé ou cassé, l'appareil ne doit pas être utilisé.

Restaurer les conditions d'origine avant de l'utiliser à nouveau. L'appareil est en CL II (ou CL I) d'isolation électrique ; s'assurer que, durant l'installation, les pièces métalliques exposées n'entrent pas en contact électrique avec les parties de l'installation électrique reliées à un conducteur de protection. Cet appareil doit être destiné uniquement à l'usage pour lequel il a été conçu, c'est-à-dire l'éclairage d'environnements extérieurs. Toute autre utilisation est considérée impropre et dangereuse, et le fabricant ne peut être tenu responsable des dommages causés par une utilisation incorrecte et déraisonnable.

**Installation**

Dévissez les deux vis (M6) du support supérieur (Fig. 1-2) et soulevez le couvercle (Fig. 3-4). Dévissez les deux vis (M8) et les deux rondelles de connexion présentes sur le support supérieur (Fig. 5). Rapprochez la fourche (Fig. 6), placez-la sur la connexion du support supérieur et serrez les deux vis (M8) et les deux rondelles (Fig. 7).

**Branchement électrique**

Desserrez la vis (M4) (Fig. 8) et ouvrez la plaque située dans la partie interne de la fourche (Fig. 9). Insérez le câble d'alimentation à l'intérieur de l'attache poteau (Fig. 10) et faites glisser le câble à l'intérieur de la fourche (Fig. 11).

Fermez la plaque (Fig. 12) et connectez le câble d'alimentation (Fig. 13-14). Si le câble flexible externe de cet appareil est endommagé, il doit être remplacé uniquement par le fabricant, son agent

de service ou une personne qualifiée pour éviter tout danger.

**Fixation de l'appareil au support**

Insérez l'appareil, avec les câbles déjà connectés, dans le support (Fig. 15).

Replacez le couvercle sur le support supérieur et serrez les deux vis (M6) (Fig. 16). Orientez correctement le dispositif par rapport à l'axe de la route (Fig. 17).

Serrez les deux vis sans tête (M8) sur la connexion de l'appareil et verrouillez les vis avec les écrous (Fig. 18).

## Enclosure 2

## Manufacturer's Instructions

## INSTALLATIONSANLEITUNG- LUPOL00

DE

**INSTALLATIONSANLEITUNG**

Führen Sie die Installation gemäß den geltenden Normen im Einsatzland durch. Die Vorrichtung darf nur einschließend der Schutzabdeckung verwendet werden. Wenn die Schutzabdeckung beschädigt oder nicht funktionstüchtig ist, darf die Vorrichtung nicht verwendet werden. Stellen Sie den ursprünglichen Zustand vor der erneuten Verwendung wieder her. Die Vorrichtung entspricht der Schutzklasse II (und I) (Schutz durch doppelte oder verstärkte Isolierung). achten Sie während der Installation drauf, dass freiliegenden Metallteile nicht in elektrischem Kontakt mit Teilen der elektrischen Anlage gelangen, die mit einem Schutzleiter verbunden sind. Diese Vorrichtung darf nur für den Zweck verwendet werden, für den diese konzipiert wurde, nämlich für die Außenbeleuchtung. Jede andere Verwendung gilt als unsachgemäß und gefährlich, der Hersteller haftet nicht für Schäden, die durch unsachgemäße und unvernünftige Verwendung verursacht werden.

**Installation**

Lösen Sie die beiden Schrauben (M6) vom oberen Rahmen (Abb. 1-2) und heben Sie die Abdeckung an (Abb. 3-4). Schrauben Sie die beiden Schrauben (M8) und die beiden Unterlegscheiben von der Kupplung am oberen Rahmen ab (Abb. 5). Führen Sie die Gabel näher heran (Abb. 6), verbinden Sie sie mit der Kupplung am oberen Rahmen und ziehen Sie die beiden Schrauben (M8) und die beiden Unterlegscheiben fest (Abb. 7).

**Elektrischer Anschluss**

Lösen Sie die Schraube (M4) (Abb. 8) und öffnen Sie die Abdeckplatte an der Innenseite der Gabel (Abb. 9). Führen Sie das Stromkabel in das Rohr ein (Abb. 10)

und lassen Sie das Kabel in die Gabel gleiten (Abb. 11).

Schließen Sie die Abdeckung (Abb. 12) und schließen Sie das Netzkabel an (Abb. 13-14). Um Gefahren zu vermeiden, darf das externe flexible Kabel dieses Geräts im Schadenfall nur durch den Hersteller, seinen Servicedienst oder eine qualifizierte Person ersetzt werden.

**Befestigung der Vorrichtung an der Halterung**

Führen Sie das Gerät inklusive aller bereits angeschlossener Kabel in die Halterungen ein (Abb. 15). Bringen Sie die Abdeckung wieder am oberen Rahmen an und ziehen Sie die beiden Schrauben (M6) fest (Abb. 16). Richten Sie das Gerät zur Straßenachse hin aus (Abb. 17).

Ziehen Sie die beiden Gewindestifte (M8) an der Kupplung des Geräts fest und befestigen Sie diese mithilfe der Muttern (Abb. 18).

## Enclosure 2

## Manufacturer's Instructions

## GUÍA DE INSTALACIÓN- LUPOL00

ES

**ADVERTENCIAS PARA LA INSTALACIÓN**

Llevar a cabo la instalación de acuerdo con las normas vigentes en el país de instalación. El aparato debe utilizarse únicamente si incluye la pantalla de protección. Si la pantalla se encuentra dañada o rota, el aparato no debe ser utilizado. Restablecer las condiciones originales antes de su reutilización. El aparato es de CL II (o CL I) en lo que respecta a su aislamiento eléctrico; durante la instalación debe prestarse atención para que las partes metálicas expuestas no entren en contacto eléctrico con partes de la instalación eléctrica conectadas a un conductor de protección. Este aparato debe utilizarse exclusivamente para el uso para el que fue diseñado, es decir, la iluminación de ambientes externos. Cualquier otro uso es considerado inadecuado y peligroso, y el fabricante no puede ser considerado responsable de daños derivados de un uso indebido o inapropiado.

**Instalación**

Desenrosque los dos tornillos (M6) del bastidor superior (Fig. 1-2) y levante la tapa (Fig. 3-4). Desenrosque los dos tornillos (M8) y las dos arandelas de la conexión del bastidor superior (Fig. 5). Acerque la horquilla (Fig. 6), acóplela con la conexión del bastidor superior y apriete los dos tornillos (M8) y las dos arandelas (Fig. 7).

**Conexión eléctrica**

Aloja el tornillo (M4) (Fig. 8) y abra la placa situada en el interior de la horquilla (Fig. 9). Inserte el cable de alimentación del interior de la conexión con la columna (Fig. 10) y deslice el cable dentro de la horquilla (Fig. 11). Cierre la placa (Fig. 12) y conecte el cable de alimentación (Fig. 13-14). Si el cable flexible externo de este dispositivo está dañado, solo debe ser sustituido por el fabricante, su agente de servicio

o una persona cualificada para evitar peligros.

**Fijación del aparato al soporte**

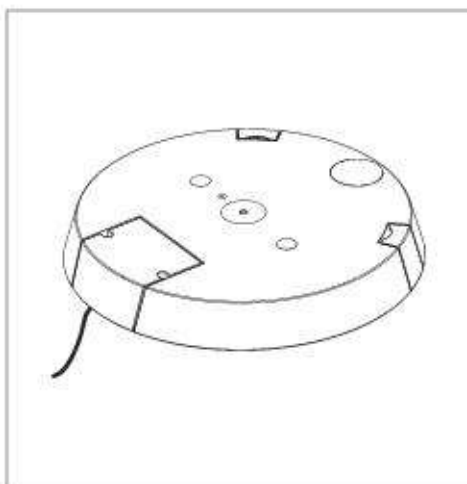
Introducir el aparato con los cables ya conectados en el interior del soporte (Fig. 15). Vuelva a colocar la tapa en el bastidor superior y apriete los dos tornillos (M6) (Fig. 16). Oriente el dispositivo correctamente respecto al eje visual (Fig. 17). Apriete los dos tornillos prisioneros (M8) en la conexión del dispositivo y bloquee los tornillos con las tuercas. (Fig. 18).

## Enclosure 2

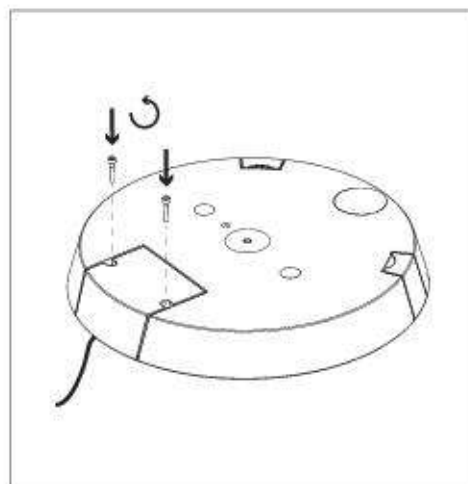
## Manufacturer's Instructions

GUIDA ALL'INSTALLAZIONE  
INSTALLATION GUIDES  
GUIDE D'INSTALLATION  
INSTALLATIONSANLEITUNG  
GUÍA DE INSTALACIÓN

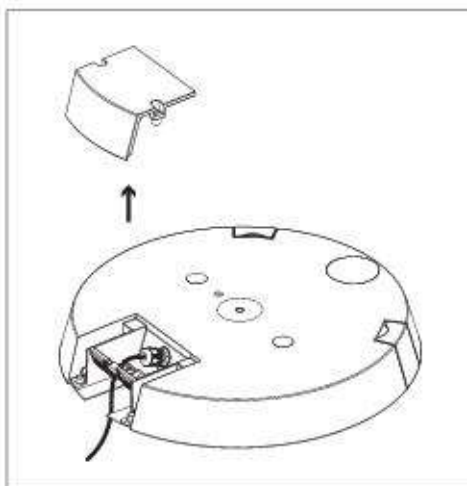
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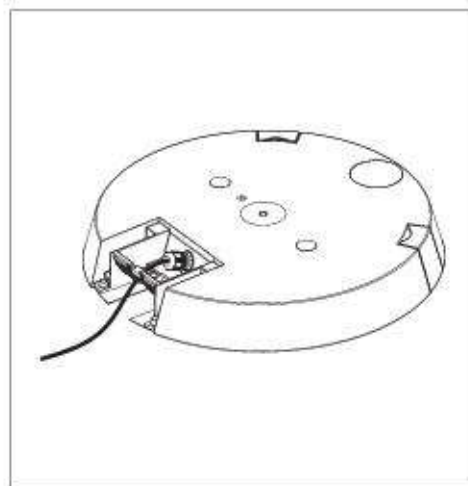
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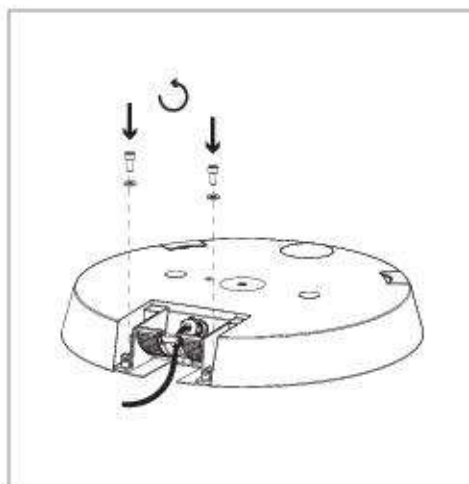


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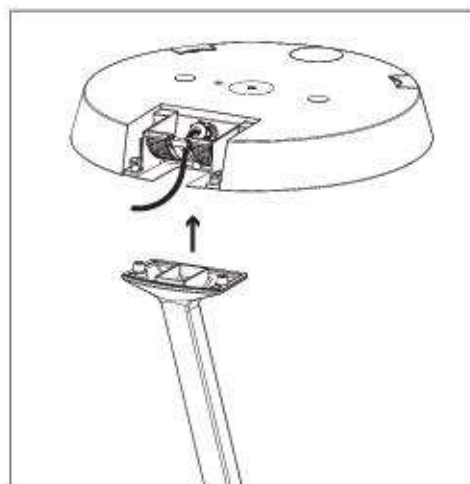
## Enclosure 2

## Manufacturer's Instructions

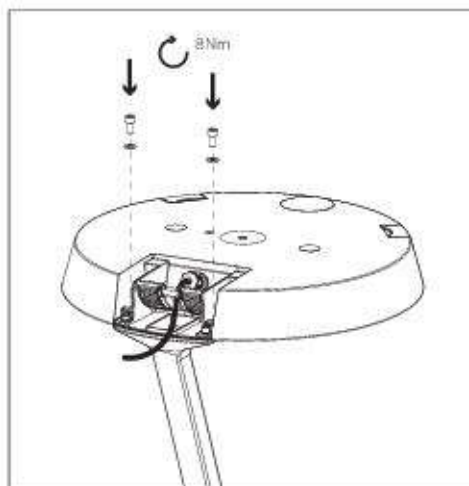
GUIDA ALL'INSTALLAZIONE  
INSTALLATION GUIDES  
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GUÍA DE INSTALACIÓN



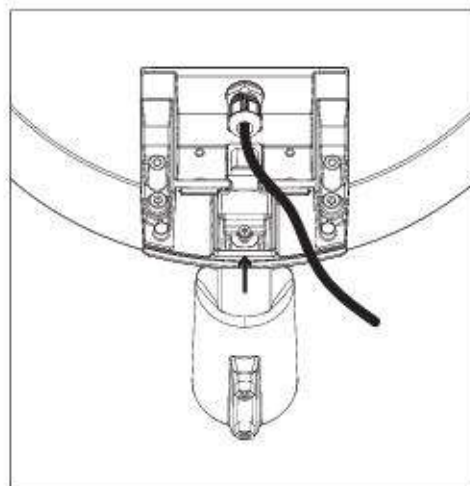
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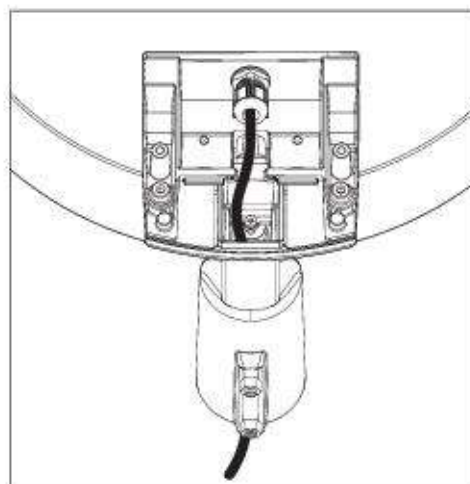
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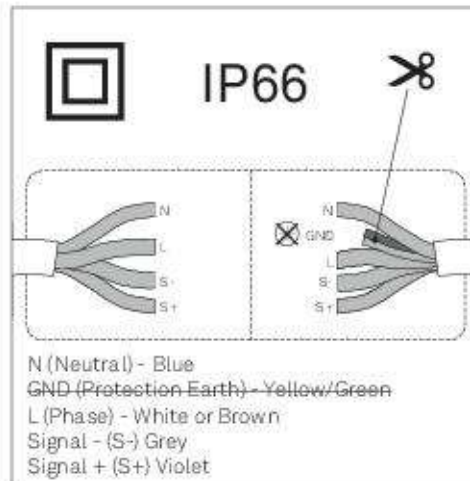
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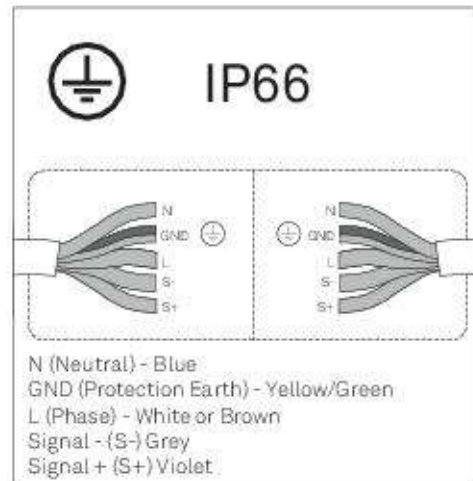
12

Enclosure 2	Manufacturer's Instructions
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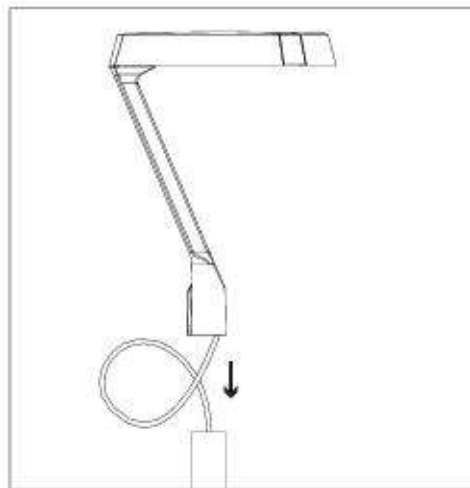
GUIDA ALL'INSTALLAZIONE  
 INSTALLATION GUIDES  
 GUIDE D'INSTALLATION  
 INSTALLATIONSANLEITUNG  
 GUÍA DE INSTALACIÓN



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14



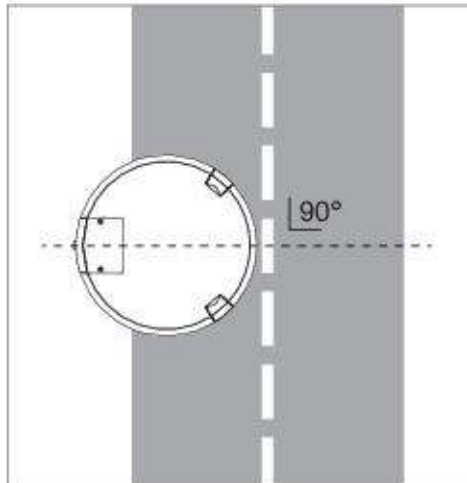
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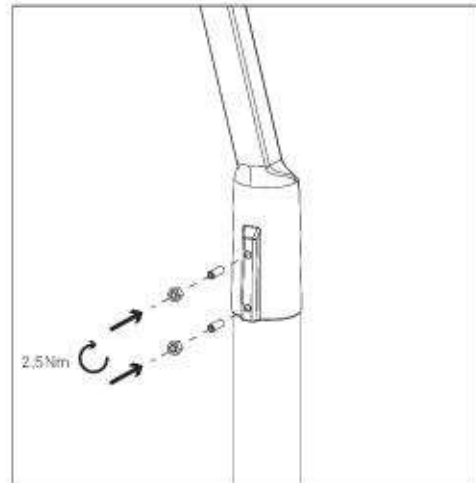
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## Enclosure 2

## Manufacturer's Instructions

## GUIDA ALL'INSTALLAZIONE - LUPOL01

IT

## AVVERTENZE PER L'INSTALLAZIONE

Eseguire l'installazione secondo le norme in vigore nel paese d'installazione.

L'apparecchio deve essere utilizzato solo se completo dello schermo di protezione. Se lo schermo risulta danneggiato o rotto, l'apparecchio non va utilizzato.

Ripristinare le condizioni originali prima di riutilizzarlo.

L'apparecchio è in CL II (o CL I) d'isolamento elettrico, fare attenzione che durante l'installazione, parti metalliche esposte non vadano in contatto elettrico con parti dell'installazione elettrica collegate ad un conduttore di protezione. Questo apparecchio deve essere destinato solo all'uso per il quale è stato progettato, e cioè illuminazione di ambienti esterni. Ogni altro uso è considerato improprio e pericoloso, ed il costruttore non può essere considerato responsabile per danni derivanti da un uso improprio e irragionevole.



## Installazione

Svitare le due viti (M6) dal telaio superiore (Fig. 1-2) e sollevare la cover (Fig. 3-4). Svitare le due viti (M8), i due dadi e le quattro rondelle dall'attacco presente sul telaio superiore (Fig. 5). Avvicinare l'attacco palo (Fig. 6) e verificare la regolazione dell'angolo di inclinazione che si vuole ottenere:  $0^\circ/+20^\circ$  o  $0^\circ/-20^\circ$  con step di  $5^\circ$  (Fig. 7-8-9). Accoppiare l'attacco con la parte dentellata all'apparecchio e avvitarle le due viti (M8), i due dadi e le quattro rondelle (Fig. 10).

## Collegamento elettrico

Inserire il cavo all'interno dell'attacco palo (Fig. 11) e collegare il cavo di alimentazione (Fig. 12-13).

Se il cavo flessibile esterno di questo apparecchio risultasse danneggiato, deve essere sostituito esclusivamente dal produttore, dal suo agente di

servizio o da una persona qualificata per evitare pericoli.

## Fissaggio del corpo illuminante al supporto

Inserire l'apparecchio, completo di cavi già collegati, all'interno del supporto (Fig. 14). Riporre la cover sul telaio superiore e avvitare le due viti (M6) (Fig. 15). Orientare l'apparecchio correttamente rispetto all'asse stradale (Fig. 16).

Stringere i due grani (M8) sull'attacco dell'apparecchio e bloccare i grani con i dadi (Fig. 17).

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**INSTALLATION GUIDES- LUPOL01**
**EN****INSTALLATION INFORMATION**

Installation must be carried out in accordance with national standards. The fixture must only be used when complete with safety screen. If the screen is damaged or broken, the fixture must not be used. Restore the original conditions before reusing. The fixture is installed under CL II (or CL I) protection standards; particular care must be taken while assembling to ensure that exposed metal parts do not come into electrical contact with parts of the electrical installation connected to a protection conductor. This light fixture must be installed only for the use for which it was designed, namely for the illumination of outdoor spaces. Any other use must be considered to be improper and dangerous, and the manufacturer cannot be held liable for any damage caused by improper and unreasonable use.

**Installation**

Unscrew the two screws (M6) from the upper frame (Fig. 1-2) and lift the cover (Fig. 3-4). Unscrew the two screws (M8), the two nuts and the four washers from the attachment on the upper frame (Fig. 5). Bring the pole attachment closer (Fig. 6) and check the desired tilt angle adjustment ( $0^\circ/+20^\circ$  or  $0^\circ/-20^\circ$  in  $5^\circ$  steps) (Fig. 7-8-9). Attach the coupling with the notched part to the device and screw in the two screws (M8), the two nuts and the four washers (Fig. 10).

**Electrical connection**

Insert the cable into the pole connection (Fig. 11) and connect the power cable (Fig. 12-13). If the external flexible cable of this appliance is damaged, it must only be replaced by the manufacturer, its service agent or a qualified person to avoid danger.

**Attaching the luminaire to the support**

Insert the device, complete with already connected cables, into the holder (Fig. 14). Place the cover back on the upper frame and screw in the two screws (M6) (Fig. 15). Orient the device correctly in relation to the road axis (Fig. 16). Tighten the two grub screws (M8) on the device connection and secure the grub screws with the nuts (Fig. 17).

Enclosure 2	Manufacturer's Instructions
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## GUIDE D'INSTALLATION - LUPOL01

FR

**AVERTISSEMENTS POUR L'INSTALLATION**

Effectuer l'installation selon les normes en vigueur dans le pays d'installation. L'appareil doit être utilisé uniquement s'il est complété de l'écran de protection. Si l'écran est endommagé ou cassé, l'appareil ne doit pas être utilisé. Restaurer les conditions d'origine avant de l'utiliser à nouveau. L'appareil est en CL II (ou CL I) d'isolation électrique ; s'assurer que, durant l'installation, les pièces métalliques exposées n'entrent pas en contact électrique avec les parties de l'installation électrique reliées à un conducteur de protection. Cet appareil doit être destiné uniquement à l'usage pour lequel il a été conçu, c'est-à-dire l'éclairage d'environnements extérieurs. Toute autre utilisation est considérée impropre et dangereuse, et le fabricant ne peut être tenu responsable des dommages causés par une utilisation incorrecte et déraisonnable.

**Installation**

Installation

Dévissez les deux vis (M6) du support supérieur (Fig. 1-2) et soulevez le couvercle (Fig. 3-4). Dévissez les deux vis (M8), les deux écrous et les quatre rondelles de la connexion du support supérieur (Fig. 5).

Approchez la fixation du poteau (Fig. 6) et vérifiez le réglage de l'angle d'inclinaison souhaité ( $0^\circ/+20^\circ$  ou  $0^\circ/-20^\circ$  par pas de  $5^\circ$ ) (Fig. 7-8-9).

Fixez l'attache avec la partie crantée au dispositif et vissez les deux vis (M8), les deux écrous et les quatre rondelles (Fig. 10).

**Branchement électrique**

Insérez le câble dans l'attache poteau (Fig. 11) et connectez le câble d'alimentation (Fig. 12-13). Si le câble flexible externe de cet appareil est endommagé, il doit être remplacé.

uniquement par le fabricant, son agent de service ou une personne qualifiée pour éviter tout danger.

**Fixation de l'appareil au support**

Insérez l'appareil, avec les câbles déjà connectés, dans le support (Fig. 14).

Replacez le couvercle sur le support supérieur et vissez les deux vis (M6) (Fig. 15). Orientez correctement le dispositif par rapport à l'axe de la route (Fig. 16).

Serrez les deux vis sans tête (M8) sur la connexion du dispositif et fixez les vis sans tête avec les écrous (Fig. 17).

## Enclosure 2

## Manufacturer's Instructions

## INSTALLATIONSANLEITUNG- LUPOL01

DE

**INSTALLATIONSANLEITUNG**

Führen Sie die Installation gemäß den geltenden Normen im Einsatzland durch. Die Vorrichtung darf nur einschließend der Schutzabdeckung verwendet werden. Wenn die Schutzabdeckung beschädigt oder nicht funktionstüchtig ist, darf die Vorrichtung nicht verwendet werden. Stellen Sie den ursprünglichen Zustand vor der erneuten Verwendung wieder her. Die Vorrichtung entspricht der Schutzklasse II (und I) (Schutz durch doppelte oder verstärkte Isolierung). achten Sie während der Installation drauf, dass freiliegenden Metallteile nicht in elektrischem Kontakt mit Teilen der elektrischen Anlage gelangen, die mit einem Schutzleiter verbunden sind. Diese Vorrichtung darf nur für den Zweck verwendet werden, für den diese konzipiert wurde, nämlich für die Außenbeleuchtung. Jede andere Verwendung gilt als unsachgemäß und gefährlich, der Hersteller haftet nicht für Schäden, die durch unsachgemäße und unvernünftige Verwendung verursacht werden.

**Installation**

Lösen Sie die beiden Schrauben (M6) vom oberen Rahmen (Abb. 1-2) und heben Sie die Abdeckung an (Abb. 3-4). Schrauben Sie die beiden Schrauben (M8), die beiden Muttern und die vier Unterlegscheiben von der Kupplung am oberen Rahmen ab (Abb. 5). Führen Sie die Kupplung des Arms näher heran (Abb. 6) und überprüfen Sie den gewünschten Neigungswinkel ( $0^\circ$  /  $+20^\circ$  oder  $0^\circ$  /  $-20^\circ$  in  $5^\circ$ -Schritten) (Abb. 7-8-9). Verbinden Sie die Kupplung mit dem eingekerbten Teil am Gerät und schrauben Sie die beiden Schrauben (M8), die beiden Muttern und die vier Unterlegscheiben an (Abb. 10).

**Elektrischer Anschluss**

Führen Sie das Kabel in die Kupplung am Arm ein (Abb. 11) und schließen Sie das Netzkabel an (Abb. 12-13). Um Gefahren zu vermeiden, darf das externe flexible Kabel dieses Geräts im Schadensfall nur durch den Hersteller, seinen Serviceeinsteller oder eine qualifizierte Person ersetzt werden.

**Befestigung der Vorrichtung an der Halterung**

Führen Sie das Gerät inklusive aller bereits angeschlossener Kabel in die Halterungen (Abb. 14). Bringen Sie die Abdeckung wieder am oberen Rahmen an und ziehen Sie die beiden Schrauben fest (M6) (Abb. 15). Richten Sie das Gerät zur Straßenseite hin aus (Abb. 16). Ziehen Sie die beiden Gewindestifte (M8) an der Kupplung des Geräts fest und befestigen Sie diese mithilfe der Muttern (Abb. 17).

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## GUÍA DE INSTALACIÓN- LUPOL01

ES

### ADVERTENCIAS PARA LA INSTALACIÓN

Llevar a cabo la instalación de acuerdo con las normas vigentes en el país de instalación. El aparato debe utilizarse únicamente si incluye la pantalla de protección. Si la pantalla se encuentra dañada o rota, el aparato no debe ser utilizado. Restablecer las condiciones originales antes de su reutilización. El aparato es de CL II (o CL I) en lo que respecta a su aislamiento eléctrico; durante la instalación debe prestarse atención para que las partes metálicas expuestas no entren en contacto eléctrico con partes de la instalación eléctrica conectadas a un conductor de protección. Este aparato debe utilizarse exclusivamente para el uso para el que fue diseñado, es decir, la iluminación de ambientes externos. Cualquier otro uso es considerado inadecuado y peligroso, y el fabricante no puede ser considerado responsable de daños derivados de un uso indebido o inapropiado.



### Instalación

Desenrosque los dos tornillos (M6) del bastidor superior (Fig. 1-2) y levante la tapa (Fig. 3-4). Desenrosque los dos tornillos (M8), las dos tuercas y las cuatro arandelas de la conexión del marco superior (Fig. 5).

Ajuste la conexión con la columna (Fig. 6) y compruebe el ajuste del ángulo de inclinación deseado ( $0^\circ/+20^\circ$  o  $0^\circ/-20^\circ$  con pasos de  $5^\circ$ ) (Fig. 7-8-9).

Acople la conexión con la parte dentada al dispositivo y atornille los dos tornillos (M8), las dos tuercas y las cuatro arandelas (Fig. 10).

### Conexión eléctrica

Inserte el cable del interior de la conexión con la columna (Fig. 11) y conecte el cable de alimentación (Fig. 12-13). Si el cable flexible externo de este dispositivo está dañado, solo debe ser sustituido por el fabricante, su agente de servicio

o una persona cualificada para evitar peligros.

### Fijación del aparato al soporte

Introducir el aparato con los cables ya conectados en el interior del soporte (Fig. 14). Vuelva a colocar la tapa en el bastidor superior y atornille los dos tornillos (M6) (Fig. 15).

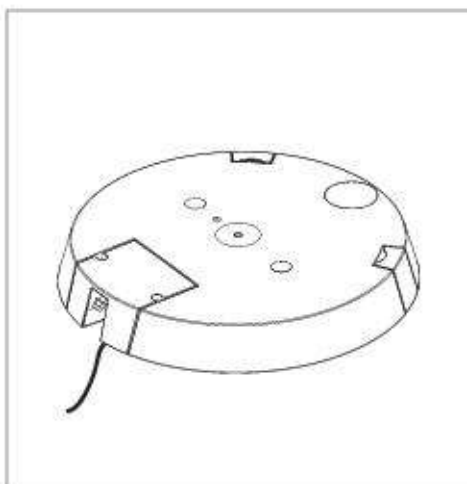
Orientar el dispositivo correctamente respecto al eje visual (Fig. 16).

Apriete los dos tornillos prisioneros (M8) en la conexión del dispositivo y bloquee los tornillos con las tuercas (Fig. 17).

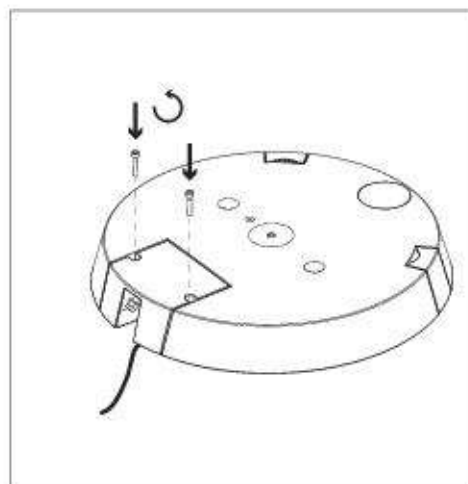
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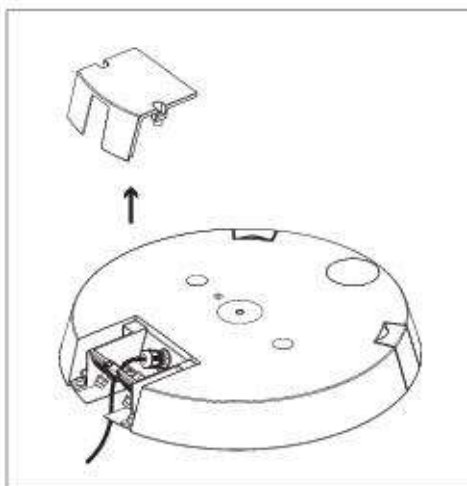
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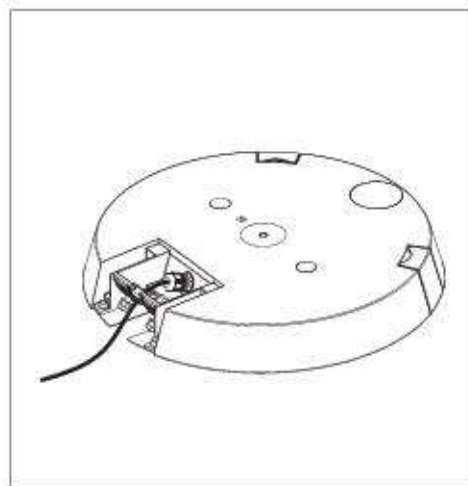
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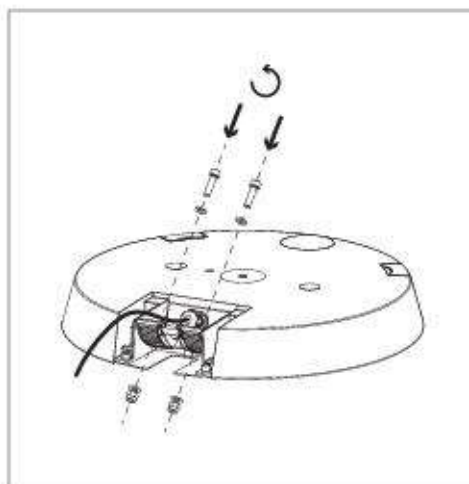


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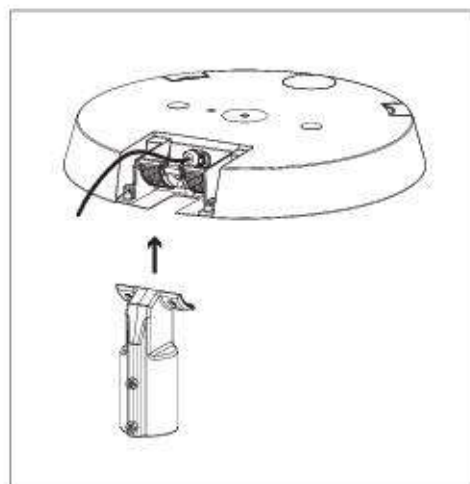
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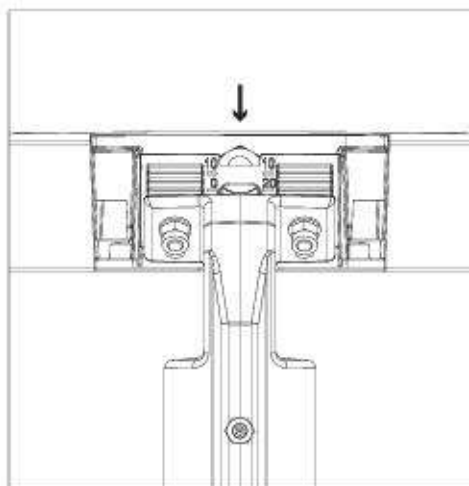
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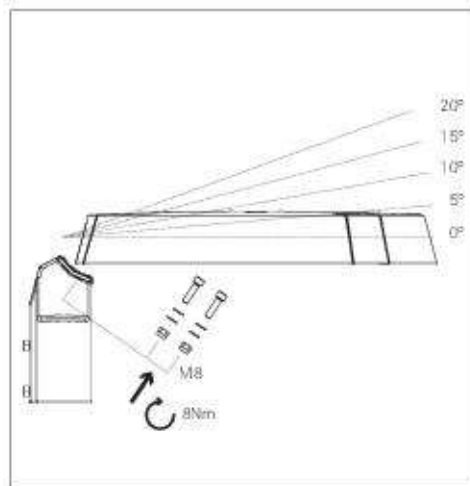
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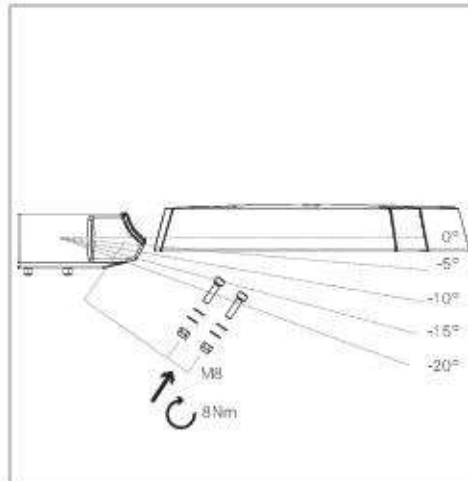
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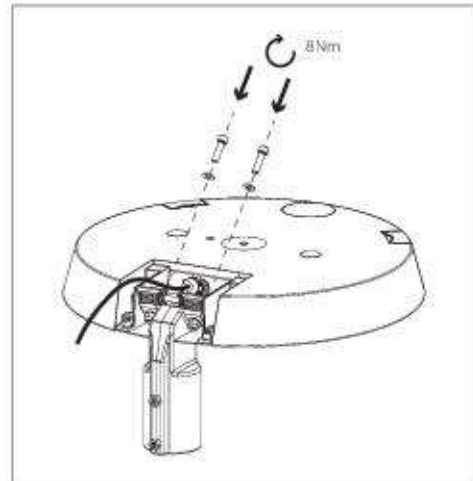
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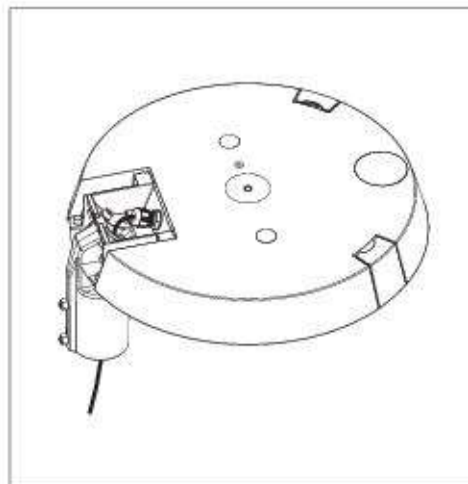
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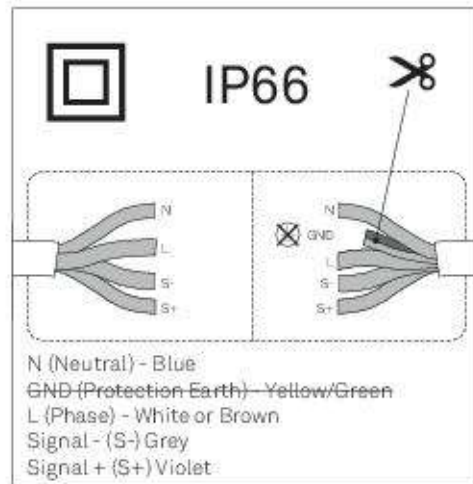
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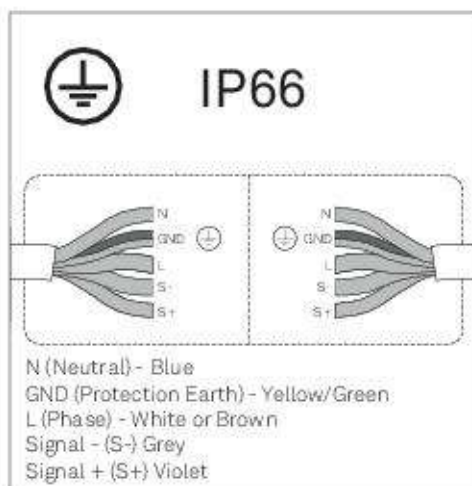


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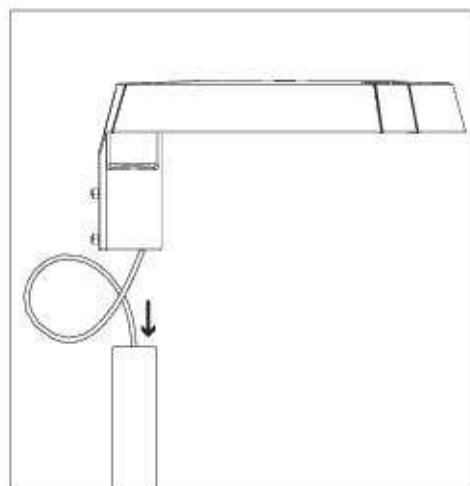


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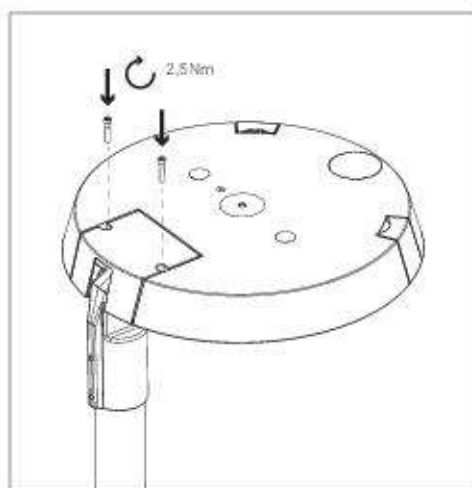
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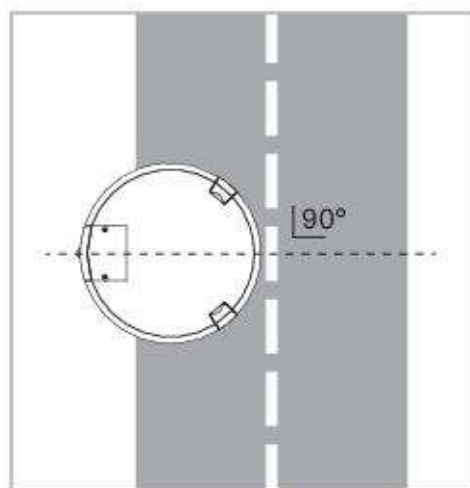
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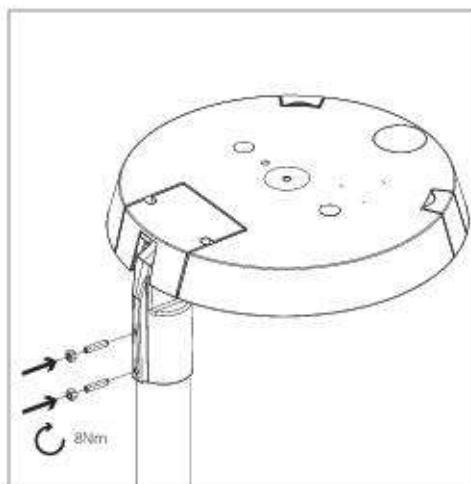
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**Neri S.p.A.**  
**S.S. Emilia 1622**  
**47020 Longiano (FC) - Italy**  
**T+39 0547 862111**  
**F+39 0547 54074**  
**E [neri@neri.biz](mailto:neri@neri.biz)**  
**[www.neri.biz](http://www.neri.biz)**

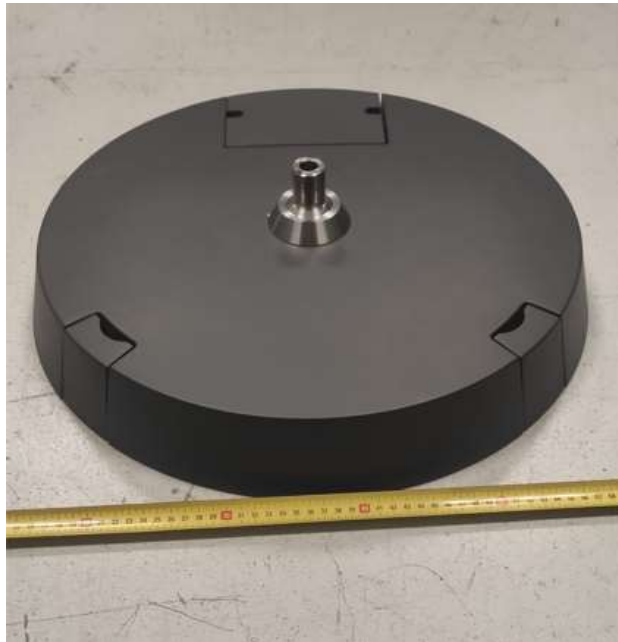
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Enclosure 3	Photos
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**Photograph No. 1** Side view of the luminaire (on a post top)



**Photograph No. 2** Upper view of the luminaire (Suspended)



Enclosure 3	Photos
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**Photograph No. 3** Side view of the luminaire (on span or suspension wires)



**Photograph No. 4** Bottom view of luminaire



Enclosure 3	Photos
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**Photograph No. 5** View of internal luminaire



**Photograph No. 6** Upper view of LED module

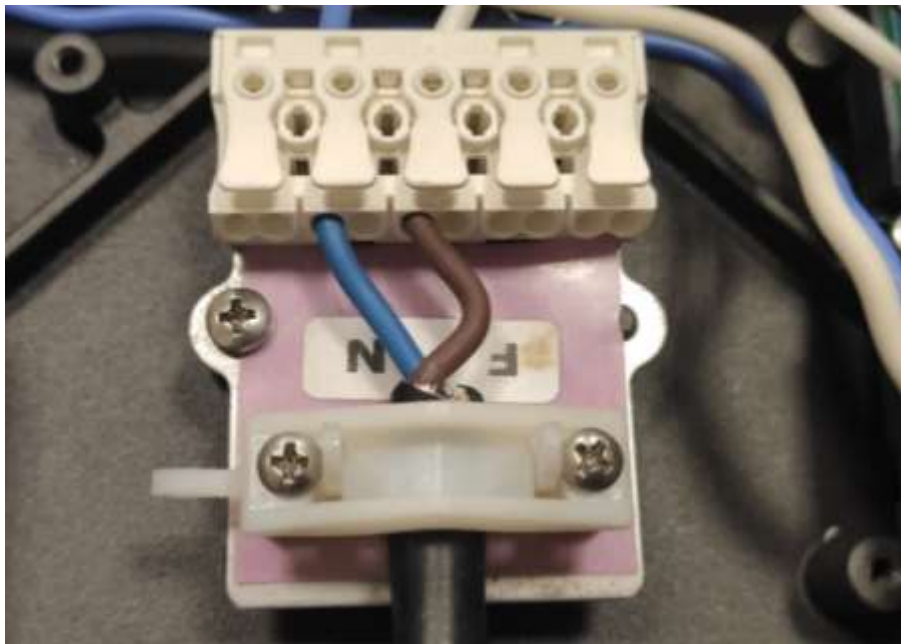


Enclosure 3	Photos
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**Photograph No. 7** Lenses over LED module



**Photograph No. 8** Terminal block and cord anchorage



Enclosure 4		Equipment List			
Clause	Measurement / testing	Testing / measuring equipment / material used, (Equipment ID)	Range used	Last Calibration date	Calibration due date
3.6	Construction	LAB001 - Dynamometric wrench	0-12 Nm	2021-12-02	2023-12-02
3.6	Construction	LAB002 - Dynamometric driver	100-500 cNm	2020-09-23	2022-09-23
3.6	Construction	LAB003 – Dynamometric screwdriver	20-120 cNm	2020-09-23	2022-09-23
3.11	Protection against electric shock	LAB004 – Test finger	Ø 50 mm (max)	2021-07-27	2023-07-27
3.13	Solid-object-proof luminaire test	LAB007 - Test probe	Ø 1 mm	2021-07-27	2023-07-27
3.13	Solid-object-proof luminaire test	LAB008 - Test probe	Ø 2,5 mm	2021-07-27	2023-07-27
3.12	Endurance test and thermal test	LAB010- DMM Yokogawa 7552	0-1000mA 0-200Vdc	2022-01-20	2023-01-20
3.6	Construction	LAB012 – Digital scale	0-30 kg	2022-03-21	2023-03-21
3.12	Endurance test and thermal tests	LAB018 – Thermal test room and acquisition system	0-300 °C	2021-12-02	2022-12-02
3.12	Endurance test and thermal tests	LAB019 – Endurance test room and acquisition system	0-300 °C	2021-12-02	2022-12-02
3.15	Resistance to heat, fire and tracking	LAB020 - Ball pressure apparatus	20N - Ø 5mm	2021-07-14	2023-07-14
3.6	Construction	LAB022 - Set IK mass (n°5)	1J – 20J	2021-07-14	2023-07-14
3.14	Insulation resistance and electric strength	LAB017 – Electrical safety tester GLP-2e (2051)	0-5 kV 0-100 mA 0-10 MΩ	2022-01-21	2023-01-21
3.6	Construction	LAB026 – Caliper	0-200 mm	2021-07-13	2022-07-13
3.6	Construction	LAB033 – Hammer spring	0,2 – 1 Nm	2021-04-01	2023-04-01
3.12	thermal tests and input-test	LAB030 - Wattmeter	0-300V ac/dc 0-2A ac/dc 0-300W ac/dc 0-60Hz	2021-11-08	2022-11-08
3.13	Resistance to dust, solid objects and moisture	LAB053 – Flow meter	10-120 l/m	2021-07-14	2023-07-14
ALL	Time	LAB023 - Chronometer	0-3600s	2021-10-04	2022-10-04