



Test Report issued under the responsibility of:



**TEST REPORT**  
**IEC 60598-2-1**  
**Luminaires**  
**Part 2: Particular requirements**  
**Section 1: Fixed general purpose luminaires**

**Report Number** ..... : 4788712719-2  
**Date of issue** ..... : 2019-11-28; Amendment 1 2021-08-03  
**Total number of pages** ..... 20 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 60598-2-1:1979, AMD1:1987 used in conjunction with  
IEC 60598-1:2014, AMD1:2017  
**Test procedure** ..... : CB Scheme  
**Non-standard test method** ..... : N/A

**Test Report Form No.** ..... : IEC60598\_2\_1F  
**Test Report Form(s) Originator** .... : Intertek Semko AB  
**Master TRF** ..... : Dated 2017-10

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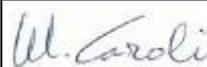
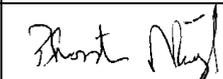
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and appended to a CB Test Certificate issued by an NCB in accordance with IECEE 02.**

**General disclaimer:**

The test results presented in this report relate only to the object tested.  
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<b>Test item description</b> .....:	LED Luminaire	
<b>Trade Mark</b> .....:	<b>NERI</b>	
<b>Manufacturer</b> .....	NERI S.p.A. SS Emilia, 1622 – Longiano (FC) 47020 - Italy	
<b>Model/Type reference</b> .....:	<b>RNC20L263I402 – N</b> (see page 7 for explanation and variants)	
<b>Ratings</b> .....:	220-240 V ~ 50/60 Hz 60 W Class II IP66-67 IK09 t <sub>a</sub> 55°C (see page 7 for variants)	
<b>Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):</b>		
<input checked="" type="checkbox"/>	<b>CB Testing Laboratory:</b>	UL International Italia S.r.l.
	<b>Testing location/ address</b> .....:	Via delle Industrie, 5 & 6 -20061 Carugate (MI) Italy
	<b>Tested by (name, function, signature)</b> .....:	
	<b>Approved by (name, function, signature)</b> ...:	
<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>NERI S.p.A.</b>
	<b>Testing location/ address</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> ...:	Thorsten Nägler 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>Photos</b> .....		:	(Enclosure 3): 3 pages	
<b>Equipment list</b> .....		:	(Enclosure 4): 1 page	
<b>Summary of testing:</b>				
<b>Tests performed (name of test and test clause):</b>				<b>Testing location:</b>
1.5	Marking		Not Applicable	N/A
1.6	Construction		Not Applicable	N/A
1.7	Creepage distances and clearances		Not Applicable	N/A
1.8	Provision for earthing		Not Applicable	N/A
1.9	Screw terminals and screwless terminals and electrical connection		Not Applicable	N/A
1.10	External and internal wiring		Not Applicable	N/A
1.11	Protection against electric shock		Not Applicable	N/A
1.12	Endurance test and thermal test		Applicable	Pass
1.13	Resistance to dust and moisture (IPx6)		Applicable	Pass
1.14	Insulation resistance and electric strength		Applicable	Pass
1.15	Resistance to heat, fire and tracking		Not Applicable	N/A
<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:</b>				
<b>List of countries addressed:</b>				
<ul style="list-style-type: none"> <li>• All countries member of CENELEC (see Enclosure 1 of the original report)</li> </ul>				
<input checked="" type="checkbox"/> The product fulfils the requirements of EN 60598-2-1:1989 used in conjunction with EN 60598-1:2015 + A1:2018.				

**NERI S.p.A.**  
**SS Emilia, 1622**  
**Longiano (FC)**  
**47020 Italy**

**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.

**NERI** RNC20L263I402 - N

Lotto  
47/19  
00001

220-240v ~ 50/60Hz      ta 55°C IP66-67 IK09

4000K      7500lm      60W      type II

modello brevettato

made in Italy



neri S.p.A.  
Via Emilia, 1622  
41020 (FC)  
Bologna - Italy

\* 0 0 0 0 1 1 9 0 0 0 0 1 \*



**Terminal block not included.  
Installation must be performed  
by a qualified person.**

On the package

<b>Test item particulars .....</b> :	
<b>Classification of installation and use .....</b> : Class II fixed LED luminaire	
<b>Supply Connection.....</b> : 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 stage 2)	
<b>Date (s) of performance of tests.....</b> : 2021-05-31 to 2021-06-15	
<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>	
Clause numbers between brackets refer to clauses in IEC 60598-1	
<b>Manufacturer's Declaration per sub-clause 4.2.5 of IEC 02:</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"/> <b>Yes</b> <input checked="" type="checkbox"/> <b>Not applicable</b>
<b>When differences exist; they shall be identified in the General product information section.</b>	
<b>Name and address of factory (ies).....</b> : <b>NERI S.p.A.</b> Via delle Querce 4 – Longiano (FC) 47020 - Italy	

**General product information:**

Fixed luminaire for installation as independent luminaire or encased into aesthetic bodies or recessed (only "A" models listed in Variants).

Provided with a separately approved LED module (IP66) as light source and with a separately approved independent electronic LED control gear (IP67).

Rated 220-240 V~, 50/60 Hz, 60W, degrees of protection IP66-67 and IK09, construction in insulation Class II.

The main model is provided with a LED driver declared double insulated between primary and secondary circuit and with a Uopen of max 160 Vd.c., some extended models are provided with LED drivers SELV.

The tests of clause 10 have been performed according to Annex X of IEC 60598-1:2014 considering the requirement of a basic insulation complying with Uout as the worst condition.

The tests of clause 11 have been considered Not Applicable since the luminaire is composed by two separately approved components and no creepage and clearance distances have been considered critical.

Tests for the IP degree have been performed for both the indexes IP66 and IP67 with favourable results; since the degree x7 did not cover the degree x6, both the value have been stated in luminaire ratings.

Endurance test and thermal test have been performed with the luminaire in a test recess according to Annex D, with the test recess in contact with the luminaire body (worst condition).

Since no critical values have been found during the temperature tests, the luminaire has been declared  $t_a$  55°C (as conservative value of the real surrounding temperature measured).

**Additional Information:**

The LED module and the product configuration are the same of the Luminaire that has been evaluated to check the photobiological effects in accordance with the standard IEC TR 62778:2014.

The results are laid down in the test reports No.:

- 4789233262.2 issued by UL International Italia S.r.l. on 2019-11-05.

The radiation hazard complies with the limit level for the group Risk 1 at a Dthr 2,7 m.

**Amendment 1:**

The original test report 4788712719-2 issued on 2019-11-28 by UL International Italia S.r.l., has been modified on 2021-08-03 to insert the following changes that have been considered technical modifications:

- Addition of alternate LED Controlgear; Annex 1 and Annex 2 have been updated (**in bold**) and Photograph No. 5 has been added in Enclosure 3.

Due to the nature of these modifications, the following tests have been repeated and reported in this amendment; no additional test were considered necessary:

- Endurance test of clause 12.3;
- IPx6 test of clause 9.2.7;
- Thermal test of clause 12.4
- Electrical tests of clauses 10.2.1 and 10.2.2

**This Amendment report shall be read in conjunction with the original report.**

## Variants

The main model:

All models are rated 220V-240V~ 50/60Hz ta 55°C IP66-67 IK09

The main model RNC20L263I402 - N extends also the model series of RNC20 identified with the following speaking codes:

RNC20sooxyzz[aaa] – i where:

“s” – specifies LED module screen finishing (\*)

“oo” – specifies optical distribution (\*)

“x” – specifies the correlated colour temperature of the source; limited up to 4000K

“yy” – luminous flux output, correlated to LED module and LED driver as follow:

- IA = 1500lm; provided with LECCE 16 LED module and 40W LED driver;
- I0 = 2500lm; provided with LECCE 16 LED module and 40W LED driver;
- I1 = 3500lm; provided with LECCE 16 LED module and 40W LED driver;
- I2 = 4500lm; provided with LECCE LED module and 40W LED driver;
- I3 = 6000lm; provided with LECCE LED module and 75W LED driver;
- I4 = 7500lm; provided with LECCE LED module and 75W LED driver

“zz” – specifies which energy saving driver functions are active (\*)

“[aaa]” optionally used to specify customer related options like colour (\*)

“i” specifies the type of installation:

- “A” for independent installation or for installation recessed into structures or luminaire bodies with a volume not less than  $5,8 \times 10^{-3} \text{ m}^3$  (5,8 litres)
- “N” for independent installation or for installation recessed into Neri’s luminaire bodies of:
  - Square luminaires series 800, 801, 804;
  - Hexagonal luminaires series 700, 701;
  - Round luminaires series 400, 500, 600, 104, 106;
  - Lampara or “egg” shape luminaires series from 210 to 213, from 220 to 223, from 310 to 313, from 320 to 323;
  - Morfomatic Luminaires series from 230 to 233, from 240 to 243, from 330 to 333, from 340 to 343, from 350 to 353, from 370 to 373.

(\*) parameters not affecting safety (Each model may also have other variants which are internally identified, related to customers features and not affecting safety).

IEC 60598-2-1			
Clause	Requirement + Test	Result - Remark	Verdict
<b>1.12 (12)</b>	<b>ENDURANCE TEST AND THERMAL TEST</b>		<b>P</b>
1.12 (-)	If IP > IP 20 relevant test of (12.4), (12.5) and (12.6) after (9.2) before (9.3) specified in 1.13		—
<b>1.12 (12.2)</b>	<b>Selection of lamps and ballasts</b>		<b>—</b>
	Lamp used according Annex B	(Lamp used see Annex 2)	—
	Controlgear if separate and not supplied	(Controlgear used see Annex 2)	—
<b>1.12 (12.3)</b>	<b>Endurance test</b>		<b>P</b>
	a) mounting-position .....	Ceiling (recessed) See GPI for details	—
	b) test temperature (°C) .....	35	—
	c) total duration (h) .....	240	—
	d) supply voltage (V) .....	1,1 x Vnom	—
	d) if not equipped with controlgear, constant voltage/current (V) or (A) .....	—	—
	e) luminaire ceases to operate	—	—
1.12 (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>1.12 (12.4)</b>	<b>Thermal test (normal operation)</b>	(see Annex 2)	<b>P</b>
<b>1.12 (12.5)</b>	<b>Thermal test (abnormal operation)</b>	(see Annex 2)	<b>N/A</b>
<b>1.12 (12.6)</b>	<b>Thermal test (failed lamp control gear condition):</b>		<b>N/A</b>
1.12 (12.6.1)	Through wiring or looping-in wiring loaded by a current of (A) .....		—
	- case of abnormal conditions .....		—
	- electronic lamp control gear		N/A
	- measured winding temperature (°C): at 1,1 Un .....		—
	- measured mounting surface temperature (°C) at 1,1 Un .....		N/A
	- calculated mounting surface temperature (°C) .....		N/A
	- track-mounted luminaires		N/A
1.12 (12.6.2)	Temperature sensing control		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	- 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>1.12 (12.7)</b>	<b>Thermal test (failed lamp control gear in plastic luminaires):</b>		<b>N/A</b>

<b>1.13 (9)</b>	<b>RESISTANCE TO DUST AND MOISTURE</b>		<b>P</b>
1.13 (-)	If IP > IP 20 the order of tests as specified in clause 1.12		P
1.13 (9.2)	Tests for ingress of dust, solid objects and moisture:		P
	- classification according to IP .....	IP66-67	—
	- mounting position during test.....:	Ceiling suspended	—
	- fixing screws tightened; torque (Nm).....:	—	—
	- tests according to clauses .....	9.2.7	—
	- electric strength test afterwards		P
	a) no deposit in dust-proof luminaire		N/A
	b) no talcum in dust-tight luminaire		N/A
	c) no trace of water on current-carrying parts or on insulation where it could become a hazard		N/A
	c.1) For luminaires without drain holes – no water entry		P
	c.2) For luminaires with drain holes – no hazardous water entry		N/A
	d) no water in watertight or pressure watertight luminaire		N/A
	e) no contact with live parts (IP 2X)		N/A
	e) no entry into enclosure (IP 3X and IP 4X)		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
1.13 (9.3)	Humidity test 48 h		P

<b>1.14 (10)</b>	<b>INSULATION RESISTANCE AND ELECTRIC STRENGTH</b>		<b>P</b>
1.14 (10.2.1)	Insulation resistance test		P

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Clause	Requirement + Test	Result - Remark	Verdict
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø .....	—	—
	Insulation resistance (MΩ) .....	—	—
	SELV		P
	- between current-carrying parts of different polarity :		N/A
	- between current-carrying parts and mounting surface .....		N/A
	- between current-carrying parts and metal parts of the luminaire .....		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts .....	> 100 MΩ (1 MΩ)	P
	- Insulation bushings as described in Section 5 .....		N/A
	Other than SELV		P
	- between live parts of different polarity .....		N/A
	- 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
1.14 (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		P
	- between current-carrying parts of different polarity :		N/A
	- between current-carrying parts and mounting surface .....		N/A
	- between current-carrying parts and metal parts of the luminaire .....		N/A
	- between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts .....	500 V	P
	- Insulation bushings as described in Section 5 .....		N/A

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Clause	Requirement + Test	Result - Remark	Verdict
	Other than SELV		P
	- between live parts of different polarity .....		N/A
	- 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
1.14 (10.3)	Touch current or protective conductor current (mA):	0,07 mA (lim. : 0,7 mA)	P

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

ANNEX 1	TABLE: Critical components information						—
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity <sup>1)</sup>	
LED controlgear	B	ELT	LC40/200...10 50-XR-IP67- DALI-0...10V	180-277 Vac 50/60 Hz 70-1050 mA 15-80 Vdc SELV 40 W Tc 80°C T <sub>marked</sub> „110“ IP67	IEC/EN 61347-1: 2016 IEC/EN 61347-2- 13: 2015+A1	ENEC 01 Cert.n° ENEC/001115	
LED controlgear	B	ELT	iLC75/200...14 00-XR-IP67- DALI-0...10V	180-277 Vac 50/60 Hz 70-1400 mA 21-108 Vdc U <sub>out</sub> max 160 75 W Tc 80°C T <sub>marked</sub> „110“ (*) IP67	IEC/EN 61347- 1:2016 IEC/EN 61347-2- 13:2015+A1	ENEC 01 Cert.n° ENEC/001115	
LED controlgear	B/D	OSRAM	OT 60/220- 240/1A4 1DIMA P7	220-240 Vac 50/60 Hz 700-1400 mA 43-86 Vdc U <sub>out</sub> max 110 60 W Tc 85°C T <sub>marked</sub> „120“ (*) IP67 SELV	IEC/EN 61347- 1:2015 IEC/EN 61347-2- 13:2014+A1	ENEC 25 Cert.n° U6 084177 0035 Rev.01	
LED controlgear	B/D	TCI LED	MILANOinLE D 60W/400- 140 1PN	220-240 Vac 50/60 Hz 700-1400 mA 43-86 Vdc U <sub>out</sub> max 110 60 W Tc 85°C T <sub>marked</sub> „120“ (*) IP67 SELV	IEC/EN 61347- 1:2015 IEC/EN 61347-2- 13:2014+A1	ENEC 25 Cert.n° U6 106943 0003 Rev.00	
(*) = declared double insulated between primary and secondary circuits and between primary circuit and accessible parts.							
LED MODULE	B	NERI	LECCE	Max 900mA 72V 65W Tc 95°C (IP66 IK09)	IEC/EN 62031:2008+A1+ A2	ENEC 15 Cert n° ENEC-01706- A3	
LED MODULE	B/D	NERI	LECCE 16	Max 900mA 48V 44W Tc 95°C (IP66 IK09)	IEC/EN 62031:2008+A1+ A2	ENEC 15 Cert n° ENEC-01706- A3	

IEC 60598-2-1						
Clause	Requirement + Test			Result - Remark		Verdict
Main Terminal block (optional)	A	Techno	THB.391.A4A. L.R	450V 32A 0.5 mm <sup>2</sup> - 4.0 mm <sup>2</sup> Tc 85°C	IEC/EN60998-1: 2004 IEC/EN60998-2-2: 2004 IEC/EN60998-2-3: 2004	ENEC 03 Cert.n° CA02.05249
<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 60598-2-1							
Clause	Requirement + Test				Result - Remark		Verdict
<b>ANNEX 2</b>	<b>TABLE: Thermal tests of Section 12 (1 of 3)</b>						—
	Type reference .....	RNC20L263I402 – N					—
	Lamp used .....	LED module LECCE					—
	Lamp control gear used .....	ELT – iLC75/200...1400-XR-IP67-DALI-0...10V					—
	Mounting position of luminaire .....	Recessed into Light 804					—
	Supply wattage (W).....	59,9 W (240 V) 59,0 W (254 V)					—
	Supply current (A) .....	0,263 A (240 V) 0,239 A (254 V)					—
	Temperatures in test 1 - 4 below are corrected for ta (°C) .....	40					—
	- abnormal operating mode.....	Short circuit of secondary (*)					—
1.12 (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 .....	254,4 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 .....	—					—
1.12 (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
Tc point of LED Controlgear	40,0	81,9	-		80		
LED module supply cable (under anchorage)	40,0		75,3		75		
Internal air	40,0		60,5		55 (**)		
T.c.. LED module	40,0	81,6	-		95		
<b>Tc point of LED Controlgear (#)</b>	<b>40,0</b>	<b>84,4</b>	-		<b>85</b>		
Supplementary information:							
(*) Led control-gear short circuit protected immediately operated							
(**) For reference only							
<b>(#) Alternate LED controlgear OSRAM OT60/220-240/1A4 1DIMA P7 (Iout set @800mA)</b>							

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

ANNEX 2	TABLE: Thermal tests of Section 12	(2 of 3)	—
	Type reference .....	RNC20L263I202 – N	—
	Lamp used .....	LED module LECCE	—
	Lamp control gear used .....	ELT – LC40/200...1050-XR-IP67-DALI-0...10V	—
	Mounting position of luminaire .....	Recessed	—
	Supply wattage (W).....	42,3W (240 V) 42,2 W (254 V)	—
	Supply current (A) .....	0,182 A (240 V) 0,173 A (254 V)	—
	Temperatures in test 1 - 4 below are corrected for ta (°C) .....	40	—
	- abnormal operating mode.....	Short circuit of secondary (*)	—
1.12 (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 .....	254,4 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 .....	—	—
1.12 (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
Tc point of LED Controlgear	41,8	71,6	-		80		
LED module supply cable (under anchorage)	41,8		73,2		75		
Internal air	41,8		55,3		55 (**)		
T.c.. LED module	41,8	74,0	-		95		

Supplementary information:

(\*) Led control-gear short circuit protected immediately operated

(\*\*) For reference only

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

ANNEX 2	TABLE: Thermal tests of Section 12	(3 of 3)	—
	Type reference .....	RNC20L263I202 – T	—
	Lamp used .....	LED module LECCE	—
	Lamp control gear used .....	ELT – LC40/200...1050-XR-IP67-DALI-0...10V	—
	Mounting position of luminaire .....	Recessed into test recess according to Annex D	—
	Supply wattage (W).....	44,7W (240 V) 44,5 W (254 V)	—
	Supply current (A) .....	0,198 A (240 V) 0,188 A (254 V)	—
	Temperatures in test 1 - 4 below are corrected for ta (°C) .....	25	—
	- abnormal operating mode.....	Short circuit of secondary (*)	—
1.12 (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 .....	254,4 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 .....	—	—
1.12 (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
Tc point of LED Controlgear	25,0	75,9	-		80		
LED module supply cable (under anchorage)	25,0		74,3		75		
Internal air	25,0		62,0		55 (**)		
T.c.. LED module	25,0	77,5	-		95		

Supplementary information:

(\*) Led control-gear short circuit protected immediately operated

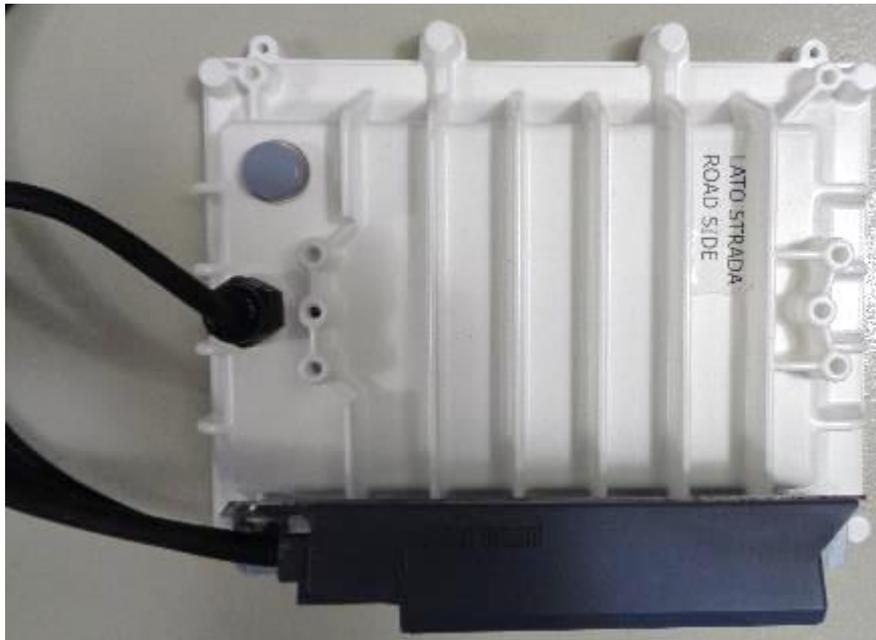
(\*\*) For reference only

**Enclosure 3** | **Photos**

**Photograph No. 1 Luminaire overview (front side, LED module)**



**Photograph No. 2 Luminaire overview (back side, LED module and Driver)**

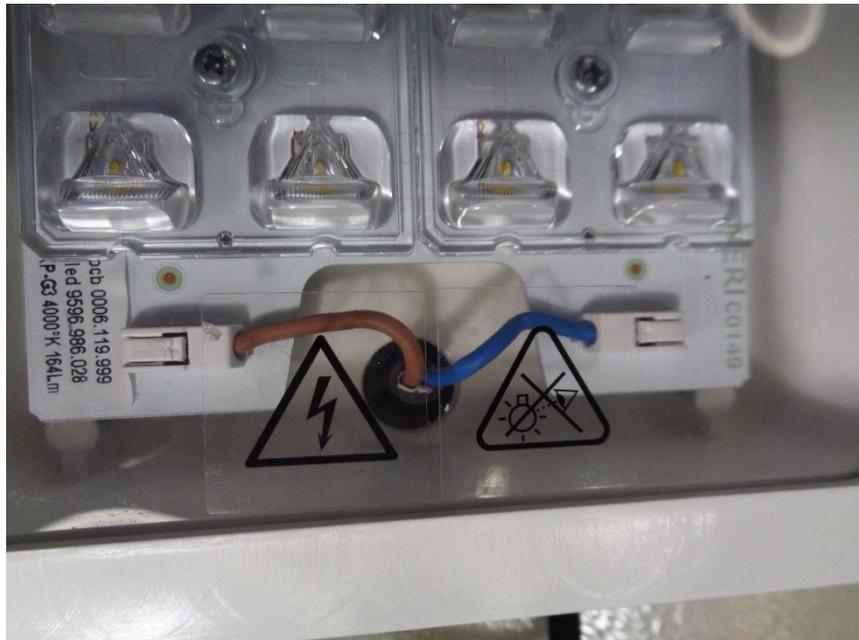


Enclosure 3 Photos

Photograph No. 3 Luminaire overview (side view, LED Driver's details)

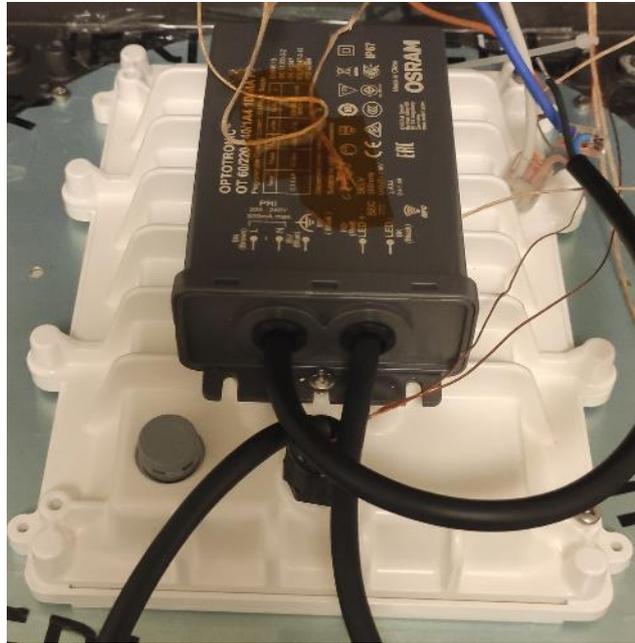


Photograph No. 4 Detail of LED module connections and markings



**Enclosure 3** | **Photos**

**Photograph No. 5 Luminaire overview (side view, LED Driver's details)**



<b>Enclosure 4</b>	<b>Equipment List</b>
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Clause	Measurement	Testing / measuring equipment / materials used	Range used	Calibration Date [Year-Month-Day]	
				Last	Due
12	Endurance test and thermal test	LAB030 – Digital power meter WT-230 YOKOGAWA	0-300V ac/dc 0-2A ac/dc 0-300W ac/dc 0-60Hz	2020-11-05	2021-11-05
12.4	Endurance test and thermal tests	LAB018 – Thermal test room and acquisition system	0-300 °C	2020-12-09	2021-12-09
12.3	Endurance test and thermal tests	LAB019 – Endurance test room and acquisition system	0-300 °C	2020-12-09	2021-12-09
10	Insulation resistance and electric strength	LAB017 – Electrical safety tester GLP-2e (2051)	0-5 kV 0-100 mA 0-10 MΩ	2020-12-14	2021-12-14
9	Construction	LAB001 - Dynamometric wrench	0-12 Nm	2021-03-24	2022-03-24
9.2.7	Resistance to dust, solid objects and moisture	LAB053 – Flow meter	10-120 l/m	2019-07-08	2021-07-08