

TEST REPORT

| Reference No | WTU22N10211827L |
|--------------------------|---|
| Applicant | LUMATEK LTD. |
| Address : | Ewropa Business centre Level 3 – 701 Dun Karm Street Birkirkara BKR 9034 MALTA |
| Manufacturer | Same as applicant |
| Address : | Same as applicant |
| Product Name : | Lumatek Control Panel |
| Model No | LUMM0019 |
| Test specification | BS EN 61347-1:2015+A1:2021 BS EN 61347-2-11:2001+A1:2019 BS EN 62493:2015 |
| Date of Receipt sample : | 2022-10-25 |
| Date of Test : | 2022-10-25 to 2022-11-29 |
| Date of Issue | 2022-12-08 |
| Test Report Form No : | IEC61347_2_11F |
| Test Result | Pass |

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of approver.

Prepared By:

Waltek Testing Group (Ningbo) Co., Ltd.

Address: Zone 3, 1/F., No.6, Building 011; Zone 1, 5/F., No.1, Building 007, No.1177, Lingyun Road, Ningbo Hi-Tech Zone, Yinzhou District, Ningbo, Zhejiang, China

Tel: +86-574-8749 3888 Fax: +86-574-8386 8018 Email: nb@waltek.com.cn

Tested by:

Ven

Dorren Wang / Project Engineer

Approved by:

Jianzhong Mao / Manager

Waltek Testing Group (Ningbo) Co., Ltd. http://www.waltek.com.cn

Page 1 of 36

WT-510-201-12-A

Page 2 of 36



TEST REPORT IEC 61347-2-11 Part 2: Particular requirements Section 11: Miscellaneous electronic circuits used with luminaires WTU22N10211827L Report Number.: Date of issue: See cover page Total number of pages: 36 pages Name of Testing Laboratory Waltek Testing Group (Ningbo) Co., Ltd. preparing the Report: Applicant's name.....: See cover page Address See cover page Test specification: Standard: IEC 61347-2-11:2001, AMD1:2017 used in conjunction with IEC 61347-1:2015, AMD1:2017 Test procedure Test report Non-standard test method: N/A Test Report Form No.....: IEC61347 2 11F Test Report Form(s) Originator....: Intertek Semko AB Master TRF Dated 2018-11-09 Copyright © 2018 IEC System of Conformity Assessment Schemes for Electrotechnical Equipment

and Components (IECEE System). All rights reserved.

This publication may be reproduced in whole or in part for non-commercial purposes as long as the IECEE is acknowledged as copyright owner and source of the material. IECEE takes no responsibility for and will not assume liability for damages resulting from the reader's interpretation of the reproduced material due to its placement and context.

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

General disclaimer:

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

Page 3 of 36



| Test item description: | Miscellaneous electronic circuits used with luminaires |
|------------------------------------|--|
| Trade Mark: | LUMATEK |
| Manufacturer: | See cover page |
| Model/Type reference: | LUMM0019 |
| Ratings: | Power supply: Input 100-240V~, 50/60Hz, 0.45A, Class II; Output 5VDC, 2A, 10W; |
| watter watter watter watter watter | Control Panel: 5VDC, 2A, 10W, Class III, IP20, ta:40°C, independent. |

| \square | Testing Laboratory: | Waltek Testing Group (Ningbo) Co., Ltd. Zone 3, 1/F., No.6, Building 011; Zone 1, 5/F., No.1, Building 007, No.1177, Lingyun Road, Ningbo Hi-Tech Zone, Yinzhou District, Ningbo, Zhejiang, China | |
|-------------|---|--|--|
| Tes | ting location/ address | | |
| Tes | ted by (name, function, signature) : | See cover page | |
| App | proved by (name, function, signature) : | See cover page | |
| | Testing procedure: CTF Stage 1: | and the set of the | |
| Tes | ting location/ address: | with with the solution of the | |
| Tes | ted by (name, function, signature) : | tet itet aller of the watch watch watch | |
| App | proved by (name, function, signature): | when we are at at at at | |
| | Testing procedure: CTF Stage 2: | white when when all the | |
| Tes | ting location/ address: | wifet whitet whitet white white white white | |
| Tes | ted by (name + signature) | at the left state state white | |
| Wit | nessed by (name, function, signature). : | LITE WALL WALL WE WANT THE THE | |
| App | proved by (name, function, signature) : | at at at a transformer and a second second | |
| | Testing procedure: CTF Stage 3: | W W A A A A A A A | |
| \exists_h | Testing procedure: CTF Stage 4: | NITER MALTE WALT WALL WALL WALL WALL | |
| Tes | ting location/ address: | Tet wet with anter and white | |
| Tes | ted by (name, function, signature) : | in the set of the | |
| Wit | nessed by (name, function, signature). : | Tet stret stret of a super water | |
| App | proved by (name, function, signature) : | | |
| Sup | pervised by (name, function, signature) : | to the state with which which which which | |



Page 4 of 36

List of Attachments (including a total number of pages in each attachment):

- Attachment 1: Acceptance test report for IEC 60598-1:2014+A1:2017 (20 pages)
- Attachment 2: Photo documentation (9 pages)

Tests performed (name of test and test clause):

All tests were conducted with resistive load.

Summary of testing:

1.

Testing location:

China

Waltek Testing Group (Ningbo) Co., Ltd.

Zone 3, 1/F., No.6, Building 011; Zone 1, 5/F., No.1,

Building 007, No.1177, Lingyun Road, Ningbo Hi-

Tech Zone, Yinzhou District, Ningbo, Zhejiang,

- According to the standard IEC 62493:2015, the DUT belongs to unintentional radiating part of lighting equipment.Due to the reason that the DUT fulfils the inherent-compliance condition " It is an independent auxiliary", the DUT is deemed to comply with requirements of this standard without testing.
- 3. Only the most unfavourable results are recorded in this report.

Summary of compliance with National Differences:

List of countries addressed:

British national differences

The Internal Standards IEC 61347-1:2015+A1:2017, IEC 61347-2-11:2001+A1:2017, IEC 60598-1:2014+A1:2017 and IEC 62493:2015 were identical with corresponding British Standards.

The product fulfils the requirements of BS EN 61347-1:2015+A1:2021, BS EN 61347-2-11:2001+A1:2019, BS EN 60598-1:2015+A1:2018 and BS EN 62493:2015.



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.



- 1. On the exterior surface after installation;
- 2. The height of graphical symbols shall not be less than 5 mm, the height of letters and numerals shall not be less than 2 mm;
- 3. Manufacturer shall ensure product bears label requirements in article 4(manufacturer), or article 5 (authorised representatives), or article 6 (importer) of the Electrical Equipment (Safety) Regulations 2016 relate to name, batch number, post address prior place the product into Great Britain market.



Page 6 of 36

| Test item particulars: | a start of the set of |
|--|---|
| Classification of installation and use: | Independent, indoor use |
| Supply Connection: | Power supply |
| | |
| Possible test case verdicts: | a state set set set when we |
| - test case does not apply to the test object: | N/A |
| - test object does meet the requirement:: | P (Pass) |
| - test object does not meet the requirement: | F (Fail) |
| Testing: | at at let the whet will and |
| Date of receipt of test item: | See cover page |
| Date (s) of performance of tests: | See cover page |
| General remarks: | W A A A A |
| Clause numbers between brackets refer to clauses Manufacturer's Declaration per sub-clause 4.2.5 of | |
| | |
| The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided | Yes ➢ Not applicable |
| When differences exist; they shall be identified in t | he General product information section. |
| Name and address of factory (ies):: | Same as manufacturer, see cover page |
| General product information: | the state state with with applied white |
| 1. Control gear is supplied by external power suppl | y No. AS013W-0502000ZC, Class II. |
| 2. Above power supply is SELV design and have co | |
| parameters are 2A, 10W. | onstant voltage output of 5VDC, other output |



. .

Page 7 of 36

IEC 61347-2-11

the star star a

| Clause | Requirement + Test | Result - Remark | Verdict |
|--------|---|---------------------------|----------------|
| N. S. | with a shirt when when we are a st | the star star star | and the second |
| 4 (4) | GENERAL REQUIREMENTS | | Р |
| - (4) | Insulation materials for double or reinforced insulation according requirements in Annex N of IEC 61347-1 | (see Annex N) | N/A |
| - (4) | Compliance of <u>independent controlgear enclosure</u> with IEC 60598-1 | the writter write write w | P |
| - (4) | Built-in magnetic ballast with double or reinforced insulation comply with Annex I of IEC 61347-1 | WALTER WALTER WALTER WALT | N/A |
| - (4) | Built-in electronic controlgear with double or reinforced insulation comply with Annex O of IEC 61347-1 | (see Annex O) | N/A |
| - (4) | SELV controlgear comply with Annex L of IEC 61347-1 | (see Annex L) | N/A |

| 6 (6) | CLASSIFICATION | | | | | P |
|--------|--------------------------|-----|-------------|----|--|---|
| white. | Built-in controlgear: | Yes | ×□ _ | No | | |
| t st | Independent controlgear: | Yes | \boxtimes | No | | |
| we way | Integral controlgear: | Yes | | No | | |

| 7 (7) | MARKING | | P |
|-----------|---|--------------------------|-------------------------------|
| 7.1 (7.1) | Mandatory markings | | P. |
| - ne | a) mark of origin | white white white with | Р |
| - Jet J | b) model number or type reference | to the set of | Р |
| Alt of | d) correlation between interchangeable parts and controlgear marked | NAL MAY WAY THE | N/A |
| m. m. | e) rated supply voltage (V) | L'E WALL WALL WALL | P |
| Set Se | supply frequency (Hz) | at the left of the | N/A |
| - 10- | supply current (A) | mer me me n | Р |
| at suffit | f) earthing symbol, if applicable | at the the | N/A |
| 100 | k) wiring diagram | See photo documentation | Р |
| INLIE NO | I) value of t _c | the state street mile | N/A |
| | s) SELV symbol | the strength in the | N/A |
| 7.1 (-) | - control terminals identified, if applicable | TEX STER MITE MATE | N ^N P _N |
| A A | - ta alternative to tc if independent | SHI THE REAL | P P |
| 7.1 (7.2) | Marking durable and legible | t suffer multi- while wh | P |
| + MITEK | Rubbing 15 s water, 15 s petroleum; marking legible | The street out of any | E- PE |
| 7.2 (7.1) | Information to be provided, if applicable | Mr. In In | P |



Page 8 of 36

IEC 61347-2-11

| | 1001341-2-11 | | |
|-----------|---|--------------------------|---------------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | h) declaration of protection against accidental contact | at an and an and an an | N/A |
| me m | i) cross-section of conductors (mm ²) | White white white white | N/A |
| Set St | j) number, type and wattage of lamp(s) | Details see user manual | 5 ^{6*} P_5 |
| 7.1 (7.2) | Marking durable and legible | inter water water water | Р |
| let white | Rubbing 15 s water, 15 s petroleum; marking legible | TE INTER INTER UNITER UN | S. R.S. |

| 8 (10) | PROTECTION AGAINST ACCIDENTAL CONTAC | T WITH LIVE PARTS | Р |
|-----------|--|-------------------------|--------------------|
| - (10.1) | Controlgear protected against accidental contact with live parts | LIFE MILTER WALTER WALT | P |
| - (A2) | Voltage measured with 50 k Ω | (see Annex A) | Ø P |
| - (A3) | Voltage > 35 V peak or > 60 V d.c. | (see Annex A) | ~ ⁰ N/A |
| - (10.1) | Lacquer or enamel not used for protection or insulation | wiret whitet whitet | P. |
| UNLIEK W | Adequate mechanical strength on parts providing protection | the state with an | Set Pt |
| - (10.2) | Capacitors > 0,5 μF: voltage after 1 min (V): < 50 V: | 0.005 μF | N/A |
| - (10.3) | Controlgear providing SELV | a fur an | N/A |
| ser white | Accessible conductive parts are insulated from live parts by double or reinforced insulation in SELV controlgear | watter watter watter | N/A |
| white u | No connection between output circuit and the body or protective earthing circuit | MILTE WALL WALL AN | N/A |
| white whi | No possibility of connection between output circuit and the body or protective earthing circuit through other conductive parts | | N/A |
| et set | SELV outputs separated by at least basic insulation | white white white | N/A |
| me | ELV conductive parts insulated as live parts | MUTER WALTE WALL V | N/A |
| . At | Tests according Annex L of IEC 61347-1 | (see Annex L) | N/A |
| - (10.4) | Accessible conductive parts in SELV circuits | INTERNALITY MALL MA | N/A |
| INTER WIT | Output voltage under load \leq 25 V r.m.s. or \leq 60 V d.c. | Jet miret white white | N/A |
| 1 1 | If output voltage > 25 V r.m.s. or > 60 V d.c.; | | _⊱N/A |
| | No load output \leq 35 V peak or \leq 60 V d.c and touch current does not exceed 0,7 mA (peak) or 2 mA d.c. | While while while | uni un tre str |
| WE W | One conductive part is insulated if output voltage or current exceeding the values above and withstand test voltage 500 V | While whe whe whe w | N/A |



Page 9 of 36

| IEC 61347-2-11 | | | |
|----------------|--|---------------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| whitek wh | Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor | White white with w | N/A |
| at a | Y1 or Y2 capacitors comply with IEC 60384-14 | an an an at sit | N/A |
| Net me | Resistors comply with test (a) in 14.1 of IEC 60065 | WITT WAITE WAIT WAL | N/A |

| 9 (8) | TERMINALS | | N/A |
|----------|---|----------------------------|-----|
| - (8.1) | Integral terminals | stift outer onthe solution | N/A |
| nuter an | Screw terminals according section 14 of IEC 60598-1 | (see Annex 2) | N/A |
| Tet all | Screwless terminals according section 15 of IEC 60598-1 | (see Annex 3) | N/A |
| - (8.2) | Terminals other than integral terminals | | |
| A NUTER | Comply with relevant IEC standard | (see Annex 1) | N/A |
| | Suit the conditions | me me me | N/A |
| WALTER W | Satisfy additional relevant requirements of this standard | milet while while while | N/A |

| 10 (9) | PROVISION FOR EARTHING | N/A |
|-----------|---|--------|
| - (9.1) | Provisions for protective earthing | N/A |
| | Terminal complying with clause 8 | N/A |
| white v | Locked against loosening and not possible to loosen by hand | N/A |
| NUTER WA | Not possible to loosen clamping means unintentionally on screwless terminals | N/A |
| LIEK WALT | All parts of material minimizing the danger of electrolytic corrosion | N/A |
| t st | Made of brass or equivalent material | N/A |
| me | Contact surface bare metal | N/A |
| đ | Test according 7.2.3 of IEC 60598-1 | ⊘- N/A |
| - (9.2) | Provision for functional earthing | N/A |
| 15 5 | Comply with clause 8 and 9.1 | N/A |
| in with | Functional earth insulated from live parts by double or reinforced insulation | N/A |
| - (9.3) | Lamp controlgear with conductors for protective earthing by tracks on printed circuit board | N/A |



Page 10 of 36

IEC 61347-2-11

| Clause | Requirement + Test Result - Re | mark Verdict |
|---|---|--------------------|
| L. S. | A A A A | the star star with |
| whitek wh | Test with a current of 25 A between earthing terminal or earthing contact and each of the accessible metal parts; measured resistance (Ω) at \geq 10 A according 7.2.3 of IEC 60598-1: < 0,5 Ω | N/A |
| - (9.4) | Earthing of built-in lamp controlgear | N/A |
| et whitet | Earth by means of fixing to earthed metal of luminaire in compliance of 7.2 of IEC 60598-1 | N/A |
| WALTER W | Earthing terminal only for earthing the built-in controlgear | N/A |
| - (9.5) | Earthing via independent controlgear | N/A |
| - (9.5.1) | Earth connection to other equipment | N/A |
| LIEK WALTE | Looping or through connection, conductor min. 1,5 mm ² and of copper or equivalent | N/A |
| * NUTEK | Protective earthing wires in line with 5.3.1.1 and clause 7 of IEC 60598-1 | N/A |
| - (9.5.2) | Earthing of the lamp compartments powered via the independence controlgear | ent lamp N/A |
| NITEX MILL | Test with a current of 25 A between input and output earth terminals; measured resistance (Ω) between earthing terminal or earthing contact and each of the accessible metal parts at \geq 10 A according 7.2.3 of IEC 60598-1: < 0,5 Ω | MA N/A |
| with | Output earthing terminal marked as in 7.1 t) of IEC 61347-1 | N/A |

| 11 (11) | MOISTURE RESISTANCE AND INSULATION | | Р |
|-----------|--|--|------------|
| - (11) | (11) After storage 48 h at 91-95% relative humidity and 20-30 °C measuring of insulation resistance: | | № Р \\ |
| With WALL | For basic insulation $\ge 2 \ M\Omega$: | >100 MΩ | R |
| Et NNITER | For double or reinforced insulation \ge 4 M Ω : | >100 M Ω (test with power supply) | E P E |
| - (11) | Between primary and secondary circuits in controlgear providing SELV, values in Annex L in IEC 61347-1 | MITEX MAILER WAITER | N/A |

| 12 (12) | ELECTRIC STRENGTH | Р |
|---------|--|----------------|
| - (12) | Immediately after clause 11 electric strength test for 1 min | STER MILE PALS |
| t set | Basic insulation for SELV, test voltage 500 V | N/A |
| m. 1 | Working voltage \leq 50 V, test voltage 500 V | 21/P |
| Set . | Working voltage > 50 V \leq 1000 V, test voltage (V): | P |



Page 11 of 36

Report No. WTU22N10211827L

IEC 61347-2-11

| Clause | Requirement + Test | Result - Remark | Verdict |
|------------------------------|--|---------------------------------|---------|
| Walte | Pagia insulation, 211 + 1000 V | ex while market while wh | N/A |
| di la | Basic insulation, 2U + 1000 V Supplementary insulation, 2U + 1000 V | | N/A |
| ne ven e s. k. | Double or reinforced insulation, 4U + 2000 V | 2960 V (test with power supply) | P |
| the week | No flashover or breakdown | | P |
| et whitet | Solid or thin sheet insulation for double or reinforced insulation fulfil the requirements in Annex N in IEC 61347-1 | TE waiter waiter waiter w | N/A |

| 14 (14) | FAULT CONDITIONS | | Р |
|------------|--|-----------------------|------------------|
| - (14.1) | When operated under fault conditions the controlge | ear: | S P S |
| st st | - does not emit flames or molten material | i s at at | 🦽 P 🛛 |
| -m | - does not produce flammable gases | a south would write . | en bu |
| A WALTER V | - protection against accidental contact not impaired | wiret intret untret w | STE PY |
| UNLIEK WA | Thermally protected controlgear does not exceed the marked temperature value | Tet stet with mi | N/A |
| NUTER WALT | Fault conditions: capacitors, resistors or inductors without proof of compliance with relevant specifications have been short-circuited or disconnected | (see appended table) | Р |
| - (14.2) | Short-circuit of creepage distances and clearances if less than specified in clause 16 in Part 1 (after any reduction in 14.2 - 14.5) | (see appended table) | (n) (P) |
| - (14.3) | Short-circuit or interruption of semiconductor devices | (see appended table) | P |
| - (14.4) | Short-circuit across insulation consisting of lacquer, enamel or textile | (see appended table) | N/A |
| - (14.5) | Short-circuit across electrolytic capacitors | (see appended table) | N PO |
| - (14.6) | After the tests has been carried out on three samp | les: | Р |
| WALT | The insulation resistance $\ge 1 \ M\Omega$: | >100 MΩ | N N |
| jet- | No flammable gases | the state | |
| me me | No accessible parts have become live | meret where where whe | w [®] Р |
| NLTEX WALT | During the tests, a five-layer tissue paper, where the test specimen is wrapped, does not ignite | Jet wiret miret white | S S P |
| - (14.7) | Relevant fault condition tests with high-power a.c. supply | t the test stat | |



Page 12 of 36

| Clause | Requirement + Test | Result - Remark | Verdic |
|--|--|--------------------------------------|--------|
| 15 (15) | CONSTRUCTION | <u>. 18 18 58 58</u> | Р |
| - (15.1) | Wood, cotton, silk, paper and similar fibrous ma | torial | Р |
| - (13.1) | Wood, cotton, silk, paper and similar fibrous material not used as insulation | | P |
| - (15.2) | Printed circuits | The Intreast of the WALLE WA | Р |
| et antiet | Printed circuits used as internal connections complies with clause 14 | MUTER MUTER MAUTER WALL | P |
| - (15.3) | Plugs and socket-outlets used in SELV or ELV | circuits | N/A |
| whitek whit | No dangerous compatibility between output socket-outlet and a plug for socket-outlets for input circuit in relation to installation rules, voltages and frequencies | and white white white | N/A |
| JEK WALTER | Plugs and socket-outlets for SELV comply with IEC 60906-3 and IEC 60884-2-4 | * white white white whi | N/A |
| WALTER | Plugs and socket-outlets for SELV \leq 3 A, \leq 25 V r.m.s. or \leq 60 V d.c. and \leq 72 W comply with IEC 60906-3 and IEC 60884-2-4 or: | whitek whitek whitek white | N/A |
| WALTE WA | - plugs not able to enter socket-outlets of other standardised system | NITER WALTER WALTER WALTER | N/A |
| NITER WALTS | - socket-outlets not admit plugs of other standardised system | at white white white | N/A |
| et set | - socket-outlets without protective earth | | N/A |
| - (15.4) | Insulation between circuits and accessible part | S WIT WIT WAL WAL | Р |
| - (15.4.2) | SELV circuits | | Р |
| 211- 21 | Source used to supply SELV circuits: | white white white white | P |
| MULTER WILL | - safety isolating transformer in accordance with relevant part 2 of IEC 61558 | Lifet white white white | N/A |
| LIEK WALTE | - controlgear providing SELV in accordance with relevant part 2 of IEC 61347 | et aret miret whitet wh | N/A |
| et miret | - another source | Power supply comply with EN 62368-1. | P |
| and the second sec | Voltage in the circuit not higher than ELV | me me in in | Р |
| white w | SELV circuits insulated from LV by double or reinforced insulation | ALTER WALTER WALTER WALTE | See P |
| NETER WALT | SELV circuits insulated from non SELV circuits by double or reinforced insulation | Tet whitet whitet white w | N/A |
| JEX WALTER | SELV circuits insulated from FELV circuits by supplementary insulation | + maret maret united unit | N/A |
| t untitet w | SELV circuits insulated from other SELV circuits by basic insulation | THE WERE NUT IN MUT | N/A |
| de . | SELV circuits insulated from accessible conductive parts according Table 6 in 15.4.5 | Mr. which the test | P |



| de de | Page 13 of 36 Report No. WTU22N | N10211827L | |
|----------------|---|------------|--|
| IEC 61347-2-11 | | | |
| Clause | Requirement + Test Result - Remark | Verdict | |
| (15.4.3) | FELV circuits | N/A | |
| IN THE INT | Source used to supply FELV circuits: | N/A | |
| ant and | - separating transformer in accordance with relevant part 2 of IEC 61558 | N/A | |
| et antiet | - separating controlgear providing basic insulation between input and output circuits in accordance with relevant part 2 of IEC 61347 | N/A | |
| at | - another source | N/A | |
| when w | - source in circuits separated by the LV supply by basic insulation | N/A | |
| NUTER WALT | Voltage in the circuit not higher than ELV | N/A | |
| Tet stret | FELV circuits insulated from LV supply by at least basic insulation | N/A | |
| t stat | FELV circuits insulated from other FELV circuits if functional purpose | N/A | |
| when w | FELV circuits insulated from accessible conductive parts according Table 6 in 15.4.5 | N/A | |
| ne an | Plugs and socket-outlets for FELV system comply with: | N/A | |
| LIFEK WALT | - plugs not able to enter socket-outlets of other voltage systems | N/A | |
| et aufet | - socket-outlets not admit plugs of other voltage systems | N/A | |
| | - socket-outlets have a protective conductor contact | N/A | |
| (15.4.4) | Other circuits | N/A | |
| united whi | Insulation between circuits other than SELV or FELV and accessible conductive parts in according Table 6 in 15.4.5. | N/A | |
| (15.4.5) | Insulation between circuits and accessible conductive parts | Nº BUS | |
| A WALTER | Accessible conductive parts insulated from active parts of electric circuits by insulating according Table 6 | | |
| WALTER WA | Requirements for Class II construction with equipotential bonding for protection against indirect contact with live parts: | N/A | |
| 15 1 | - all conductive parts are connected together | N/A | |
| it whe | - conductive parts are reliably connected together according test of IEC 60598-1 cl. 7.2.3 | N/A | |
| white | - conductive parts comply with requirements of Annex A in case of insulation fault | N/A | |
| | | - 7A | |

| 16 (16) | CREEPAGE DISTANCES AND CLEARANCES | N/A |
|---------|-----------------------------------|------|
| () | | 1.11 |



Page 14 of 36

IEC 61347-2-11

| | IEC 61347-2-11 | | |
|------------|--|------------------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| | int with the set of | | and the |
| - (16) | Creepage distances and clearances according to 16.2 and 16.3 | white white the state | N/A |
| | Controlgears providing SELV comply with additional requirements in Annex L | (see Annex L) | N/A |
| ner mer | Insulating lining of metallic enclosures | LEE INTERNATION WATER | N/A |
| IEX MALTER | Controlgear protected against pollution comply with Annex P | (see Annex P) | N/A |
| - (16.2) | Creepage distances | Mr m w | N/A |
| - (16.2.2) | Minimum creepage distances for working voltages | | N/A |
| 15 1 | Creepage distances according to Table 7 | (see appended table) | N/A |
| - (16.2.3) | Creepage distances for working voltages with frequencies above 30 kHz | | N/A |
| st st | Creepage distances according to Table 8 | (see appended table) | N/A |
| - (16.3) | Clearances | ret white white when w | N/A |
| - (16.3.2) | Clearances for working voltages | e at at at a | N/A |
| 24. 1 | Clearances distances according to Table 9 | (see appended table) | N/A |
| - (16.3.3) | Clearances for ignition voltages and working voltages with higher frequencies | | - NUTER |
| Alt St | Clearances distances for basic or supplementary insulation according to Table 10 | (see appended table) | N/A |
| in with | Clearances distances for reinforced insulation according to Table 11 | (see appended table) | N/A |
| | | | |

| 17 (17) | SCREWS, CURRENT-CARRYING PARTS AND CONNECTIONS | Pot |
|----------|---|-----------|
| - (17) | Screws, current-carrying parts and connections in compliance with IEC 60598-1 (clause numbers between parentheses refer to IEC 60598-1) | Р |
| (4.11) | Electrical connections | 01 P - 51 |
| (4.11.1) | Contact pressure | N/A |
| (4.11.2) | Screws: | N/A |
| of the | - self-tapping screws | N/A ≪ |
| m | - thread-cutting screws | N/A |
| (4.11.3) | Screw locking: | N/A |
| m. m | - spring washer | N/A |
| 50 .5 | - rivets | N/A |
| (4.11.4) | Material of current-carrying parts | Р |
| (4.11.5) | No contact to wood or mounting surface | P.S |
| (4.11.6) | Electro-mechanical contact systems | N/A |
| (4.12) | Mechanical connections and glands | Р |
| (4.12.1) | Screws not made of soft metal | Р |
| INLIE W | Screws of insulating material | N/A |



Page 15 of 36

IEC 61347-2-11

| Clause | Requirement + Test | Result - Remark | Verdict |
|-----------|--|------------------------------------|---------|
| S STE | inter when we we get | the set with all | and a |
| | Torque test: torque (Nm); part: | Metal enclosure: Φ1.65mm, 0.4Nm | P |
| when when | Torque test: torque (Nm); part: | Screen PCB: Φ2.92mm, 0.5Nm | Р |
| me me | Torque test: torque (Nm); part: | let must white white | N/A |
| (4.12.2) | Screws with diameter < 3 mm screwed into metal | a state | e P |
| (4.12.4) | Locked connections: | and the most work with | N/A |
| . Set | - fixed arms; torque (Nm): | a at at a | N/A |
| m. n | - lampholder; torque (Nm): | while while when when | N/A |
| Set of | - push-button switches; torque 0,8 Nm: | at at set set | N/A |
| (4.12.5) | Screwed glands; force (Nm): | it's white white with | N/A |

| 18 (18) | RESISTANCE TO HEAT, FIRE AND TRACKING | | Р |
|----------|---------------------------------------|--------------------------|-----|
| - (18.1) | Ball-pressure test: | See Test Table 18 (18.1) | Р |
| - (18.2) | Test of printed boards: | See Test Table 18 (18.2) | P |
| - (18.3) | Glow-wire test: | See Test Table 18 (18.3) | P . |
| - (18.4) | Needle flame test: | See Test Table 18 (18.4) | Р |
| - (18.5) | Tracking test: | See Test Table 18 (18.5) | N/A |

| 19 (19) | RESISTANCE TO CORROSION | | N/A |
|---------|---|-----------------------------|-----|
| t let | - test according 4.18.1 of IEC 60598-1 | i i it it it | N/A |
| an an | - adequate varnish on the outer surface | and white white white white | N/A |

| 20 (-) | ANNEXES | | Р |
|------------|--|---------------|----------------------------------|
| JIER NUTER | Comply with appropriate annexes of IEC 61347-1 | (see Annexes) | S ^{ee} P _o S |

| 14 5 | TABLE: tests of fault conditions | P |
|---------------------|----------------------------------|---------|
| Part | Simulated fault | Hazard |
| Where wi | Control PCB | white a |
| C21 | SC; 0.019A, 0.9W. | YES/NO |
| D1 5 | SC; 0.018A, 0.8W. | YES/NO |
| LD01 ₁₋₂ | SC; 0.027A, 3.1W. | YES/NO |
| LD012-3 | SC; 0.038A, 4.5W. | YES/NO |
| D4 | SC; 0.053A, 6.5W. | YES/NO |
| U61-2 | SC; 0.035A, 4.0W. | YES/NO |
| U6 ₂₋₃ | SC; 0.035A, 4.0W. | YES/NO |



| | Page 1 | 6 of 36 Report No. WT | U22N10211827L |
|-------------------|--------------------------------------|--------------------------------|--------------------|
| THE WALTE | IEC 613 | 47-2-11 | Et MALTE MALTE |
| Clause | Requirement + Test | Result - Remark | Verdict |
| 110 | | the set set with with | |
| U6 ₃₋₄ | SC; 0.035A, 4.0W. | mer m m | YES/ NO |
| U6 ₅₋₆ | SC; 0.035A, 4.0W. | at the tit with | YES/NO |
| U6 ₆₋₇ | SC; 0.035A, 4.0W. | white white white white | YES/ NO |
| U67-8 | SC; 0.035A, 4.0W. | let set set after after a | YES/ NO |
| D7 | SC; 0.035A, 4.1W. | ant an an an | YES/ NO |
| U8 ₁₋₂ | SC; 0.036A, 4.2W. | tet the super mater which | YES/NO |
| U8 ₂₋₃ | SC; 0.035A, 4.1W. | and the second state | YES/ NO |
| U83-4 | SC; 0.038A, 4.5W. | let write write white white | ¥ES/NO |
| U8 ₅₋₆ | SC; 0.035A, 4.1W. | with the state | YES/NO |
| U8 ₆₋₇ | SC; 0.035A, 4.1W. | with mile white white | YES/ NO |
| U87-8 | SC; 0.035A, 4.1W. | m to at let | YES/NO |
| D11 | SC; 0.035A, 4.1W. | mitter white white white white | YES/ NO |
| at stat | Scree | n PCB | THE NUTER |
| U61-2 | SC; 0.022A, 1.1W. Screen was not dis | played. | YES/ NO |
| U62-3 | SC; 0.033A, 3.8W. | a at set set set | YES/NO |
| D2 | SC; 0.035A, 4.0W. | Martin Martin Walk Martin | YES/ NO |
| D3 | SC; 0.035A, 4.0W. | the state of the state of | ¥ES/NO |
| D1 | SC; 0.056A, 6.8W. Screen was not dis | played. | ¥ES/NO |

| 16 (16) | TABLE: | creepage di | stance and clo | earance (mm |) | | N/A |
|--------------|----------------|---------------------------|--------------------|---|--------------|-----------------------------------|------------|
| | | Applic | able part of IE | С 61347-1 Та | able 7 – 11* | | |
| Distances | Insulation | Measured | Requ | ired | Measured | Requir | ed |
| | type ** | clearance | clearance | *Table | creepage | creepage | *Table |
| Distance 1: | - Set a | LIER MUTE | when when | 24. 24 | | at at | St 5 |
| Working volt | tage (V) | | | | <30V | ner when w | _ |
| Frequency if | f applicable (| kHz) | | | A | at the s | s — |
| | | | | | | <u>></u> 600 🗌 | |
| Peak value | of the workin | g voltage Û _{ou} | t if applicable (I | <v):< td=""><td>1 1</td><td>- 5⁶⁴ 55⁶</td><td>_</td></v):<> | 1 1 | - 5 ⁶⁴ 55 ⁶ | _ |
| Pulse voltag | e if applicabl | e (kV) | t | | we we | me m | |
| Supplementa | ary informatio | on: M | | + 1+ | at at | JUSE MUTER | Intre whit |
| Distance 2: | , et | et set | INTER MAL | men m | 2000 | | at de |
| Working volt | tage (V) | | | | t set | LIER INLIE NO | |
| Frequency if | f applicable (| kHz) | | | In In | 1 1 1 | a — |
| PTI | les me | 10 | | de la de | < 600 🗌 💉 | ≥ 600 🗌 | _ |
| Peak value | of the workin | g voltage Û _{ou} | t if applicable (I | kV): | 50° 5° | t t | |
| Pulse voltag | e if applicabl | e (kV) | | <i></i> | NUTER MAILER | WALL WALL | _ |
| | L 1/2 | 10 10 | | | <u>p</u> | | - |

TRF No. IEC61347_2_11F



Page 17 of 36

IEC 61347-2-11

| Clause | Requirement + Test | Result - Remark | Verdict |
|--------|--------------------|-----------------|---------|
|--------|--------------------|-----------------|---------|

| Supplementary information: | when when | an an | |
|--|--------------|-----------------|---------|
| Distance 3: | at at | JEEK NUT | INLIE N |
| Working voltage (V): | her when | m. m. | _ |
| Frequency if applicable (kHz): | at st | ALTER MUTER M | |
| PTI | < 600 🗌 | <u>≥</u> 600 □ | |
| Peak value of the working voltage \hat{U}_{out} if applicable (kV): : | the state of | TEL UNITED WITT | |
| Pulse voltage if applicable (kV): | 24 25 | L A A | |
| Supplementary information: | NUTER MUTE | WALL WALL | me 1 |

** Insulation type: B - Basic; S - Supplementary; R - Reinforced

| 18 (18.1) TABLE: Ball | Pressure Test | | at at at P.S |
|----------------------------------|----------------------------|-----------------------|--------------------------|
| Allowed impression diameter (mm) | | INTER WATE WATE | MUT MUT AND - |
| Object/ Part No./ Material | Manufacturer/ trademark | Test temperature (°C) | Impression diameter (mm) |
| DC inlet (J2) | See Annex 1 | 125 | 1.07 |
| DC inlet (J3, J4) | the state | 125 | 1.51 |
| DC inlet (J5, J6) | | 125 | 1.02 |
| Battery support | | 125 | 1.39 |
| Connector for display screen | | 125 | 1.14 |
| Control PCB | set tet mute | 125 | 0.55 |
| Screen PCB | | 125 | 0.59 |

| 18 (18.2) | TABLE: Test of printed boards | | | | |
|-------------------------------|-------------------------------|---|--|------------------------------|--------------------|
| Object/ Part No./ Material | Manufacturer/ trademark | Duration of application of test flame (s) | Ignition of specified layer Yes/No | d Duration of burning (s) | Verdict |
| Control PCB | See Annex 1 | 30 | No | 1.0 | Р |
| Screen PCB | In In | 30 | No | 1.0 | « ^м Р . |

| 20 | 18 (18.3) | TABLE: Glow-wire test | white white white white whe whe | Р |
|----|---------------|-----------------------|---------------------------------|---|
| 5 | Glow wire ten | nperature:: | 650°C | |



| | IEC 61347 | -2-11 | | |
|---|------------------------------------|--|----------------------------|---------|
| Clause | Requirement + Test | Result - R | emark | Verdict |
| and the | and and and and | L A At | 15 58 5V | |
| Object/ Part No./ Material | Manufacturer/ trademark | Ignition of specified layer Yes/No | Duration of burning (s) | Verdict |
| Label | See Annex 1 | No | 0 | P |
| Transparent insulation sheet | TEX WITEX WATER WATER WATER W | No | 0 | P |
| Support pillar for display screen | * while while while while while | No | 0 | P |
| Support pillar for indicator | MALTER WALTER WALTER WALTER WALTER | No | 0 | P |
| Battery support | stret maret united united united | No | 0 | P |

Page 18 of 36

| 18 (18.4) | TABLE: Needle-fl | ame test | | at set set | Р |
|------------------------------------|----------------------------|---|--|----------------------------|--------------------|
| Object/ Part No./ Material | Manufacturer/ trademark | Duration of application of test flame (s) | Ignition of specified layer Yes/No | Duration of burning (s) | Verdict |
| DC inlet (J2) | See Annex 1 | ۵ <u>۲</u> 10 ۲ | No | 2.0 | P . |
| DC inlet (J3, J4) | at at at | 10 | No | 3.0 | Ρ |
| DC inlet (J5, J6) | white white an | 10 | No | 3.0 | ^w PP |
| Battery support | | 10 | No | 3.0 | M ^{LYP} , |
| Connector for display screen | | 10 | No | 1.0 st | TO P |
| Control PCB | TE WALT WALT | 10 | No | 1.0 | P |
| Screen PCB | h at at | 10 J | No | 1.0 | Р |

| 1 | 18 (18.5) TABLE: Proof tracking test | | N/A | |
|---|--|------|-------|---|
| s | Test voltage | PTI: | 175 V | — |



IEC 61347-2-11

Page 19 of 36

| Clause | Requi | rement + Test | WALTER WALL WA | Result - Rema | ark | Verdict |
|--------------------------|---------|----------------------------|----------------|---|--------------------------|---------|
| Object/ Part Material | No./ | Manufacturer/ trademark | | ops without failure on three specime | e on three places ens | Verdict |
| m. m. | -24 | a at a | at the with | INLIE WALL | mer mer | 12 2 |
| Set Se | A NUTER | Intre white white | -un - | at at | let let | Ster a |
| 24 | 24 | 1 A At | Tet oute . | MET WALK Y | 12 m m | 20 |



Page 20 of 36

IEC 61347-2-11

| | | | 1. 3. |
|--------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| Jan 10 | | | |

| (A) | ANNEX A - TEST TO ESTABLISH WHETHER A CONDUCTIVE PART IS A LIVE PART WHICH MAY CAUSE AN ELECTRIC SHOCK | | N ^{CC} P |
|-----------|---|-------------------------|-------------------|
| (A.1) | Comply with A.2 or A.3 | i i to to tot | , Р |
| (A.2) | Voltage \leq 35 V peak or \leq 60 V d.c: | 5.99VDC | Р |
| (A.3) | If voltage measured according Clause A.2 exceeds the limit value; | stret stret white white | N/A |
| NUTER AND | touch current does not exceed 0,7 mA (peak) or 2 mA d.c. | ret ret set with | . Milek |

| (C) | ANNEX C – PARTICULAR REQUIREMENTS FOR ELECTRONIC LAMP CONTROLGEAR WITH MEANS OF PROTECTION AGAINST OVERHEATING | N/A |
|----------------------------------|---|-----|
| (C3) | GENERAL REQUIREMENTS | N/A |
| (C3.1) | Thermal protection means integral with the convertor, protected against mechanical damage | N/A |
| an . | Renewable only by means of a tool | N/A |
| WALTEX W | If function depending on polarity, for cord- connected equipment protection means in both leads | N/A |
| NUTE MALT | Thermal links comply with IEC 60691 | N/A |
| st its | Electrical controls comply with IEC 60730-2-3 | N/A |
| (C3.2) | No risk of fire by breaking (clause C7) | N/A |
| (C5) | CLASSIFICATION | N/A |
| where i | a) automatic resetting type | |
| . et . | b) manual resetting type | |
| m. m. | c) non-renewable, non-resetting type | 8 — |
| 5 ⁶⁴ . 5 ⁶ | d) renewable, non-resetting type | _ |
| 24 | e) other type of thermal protection; description: | |
| (C6) | MARKING | N/A |
| (C6.1) | Symbol for temperature declared thermally protected ballasts | N/A |
| (C6.2) | Declaration of the type of protection provided | N/A |
| (C7) | LIMITATION OF HEATING | N/A |
| (C7.1) | Preselection test: | N/A |
| TER WALTE | Test sample placed for at least 12 h in an oven having temperature (t _c - 5) K | N/A |
| t Jiet | No operation of the protection device | N/A |
| (C7.2) | Functioning of protection means: | N/A |



Page 21 of 36

| IEC 6 | 61347-2-11 |
|-------|------------|
|-------|------------|

| Clause | Requirement + Test | Result - Remark | Verdict |
|------------|--|----------------------|---------|
| NIC . | when when when when we get | 10 10 50 | NUL MUL |
| | Normal operation of the sample in a test enclosure according to Annex D at an ambient temperature such that (t_c +0; -5) °C is obtained | white white white | N/A |
| at a | No operation of the protection device | | N/A |
| stor when | Introducing of the most onerous test condition determined during test of clause 14.2 to 14.5 | et white white whi | N/A |
| ic white | Output of windings connected to the mains supply short-circuited, and other part of the controlgear operated under normal conditions | water water wate | N/A |
| WAL W | Increasing of the current through the windings continuously until operation of the protection means | and white when | N/A |
| Set Set | Continuous measuring of the highest surface temperature | t at at a | N/A |
| of the | Ballasts according to C5 a) or C5 e) operated until stable conditions are achieved | which which which | N/A |
| when | Automatic-resetting thermal protectors working 3 times | MULTE WAIT MAL | N/A |
| men m | Ballasts according to C5 b) working 6 times | still other southers | N/A s |
| NUTEX ANUT | Ballasts according to C5 c) and C5) d) working once | et states | N/A |
| ret stret | Highest temperature does not exceed the marked value | | N/A |
| t jet | Any overshoot of 10% over the marked value within 15 min | which where where | N/A |
| mr. 1 | After 15 min value not exceed marked value | white white white | N/A |

| (D) | ANNEX D – REQUIREMENTS FOR CARRY OUT THE HEATING TESTS OF THERMALLY PROTECTED LAMP CONTROLGEAR | |
|--------|---|-----|
| it was | Tests in C7 performed in accordance with Annex D, if applicable | N/A |

| (F) | ANNEX F - DRAUGHT-PROOF ENCLOSURE | - P- |
|----------|--|---------|
| sunt. | Draught-proof enclosure in accordance with the description | Р |
| IN THE W | Dimensions of the enclosure | J P P M |
| A | Other design; description | N/A |

| (H) | ANNEX H - TESTS | P |
|------|---|-------------|
| with | All tests performed in accordance with the advice given in Annex H, if applicable | uni uni unP |



| | Page 22 of 36 | Report No. WTU22N | 10211827L | |
|-------------------|---|-------------------------------|-----------|--|
| JER MUTE | IEC 61347-2-11 | | | |
| Clause | Requirement + Test | Result - Remark | Verdict | |
| <u></u> | ANNEX I – ADDITIONAL REQUIREMENTS FOR | | N/A | |
| (1) | BALLASTS WITH DOUBLE OR REINFORCED IN | | | |
| (1.6) | Symbol on ballasts with double or reinforced insulation | white white white white | N/A | |
| the super | Symbol explained in manufacturers catalogue | CER MUTER MALTE MALT | N/A | |
| (1.9) | No protective earthing terminal | a to the | N/A | |
| (I.12) | Devices for limiting the temperature bridged | in white white white wh | _ | |
| - 5 ⁶⁴ | After the test according clause 13 | 1 1 1 1 S | N/A | |
| Mr M | At least six of seven ballast start the lamp and the current not exceed 115% | interview with the | N/A | |
| int in | Insulation resistance not less than 4 $M\Omega$ between winding and case for all ballasts | outer survice survice survice | N/A | |
| er winter | All ballasts withstand electric strength test reduced to 35% of values in Table 1 of IEC 61347-1 | The write write write w | N/A | |
| (l.15) | Built-in ballasts with double or reinforced insulation comply with corresponding values of creepage and clearances in IEC 60598-1 | white white white white | N/A | |

| (L) | ANNEX L - PARTICULAR ADDITIONAL REQUIREMENTS FOR CONTROLGEARS PROVIDING SELV | | N/A |
|-----------|---|-----------------------------|------------|
| (L.3) | Classification | | |
| | Class I | Yes No | |
| NALLE V | Class II | Yes No | _ |
| A | Class III | Yes 🗌 No 🗌 | — |
| waren wa | non-inherently short circuit proof controlgear | Yes No | <u>ы —</u> |
| 1 1 | inherently short circuit proof controlgear | Yes 🗌 No 🗌 | _ |
| r w. | fail safe controlgear | Yes 🗌 No 🗌 🚽 | _ |
| et set | non-short-circuit proof controlgear | Yes 🗌 No 🗌 | — |
| (L.4) | Marking | main mar man m | N/A |
| NUTER I | Adequate symbols are used | let let liet with | N/A |
| (L.5) | Protection against electric shock | and any and an | N/A |
| MUTER MAL | Comply with clause 9.2 of IEC 61558-1 | the state as the assistance | N/A |
| (L.6) | Heating | in the second second | N/A |
| The Mala | No excessive temperatures in normal use | et with with white wh | N/A |
| t st | Value if capacitor to marked: | With the state | . – |
| June 1 | Winding insulation classified as Class | white white while white | — |
| UNLIEK W | Comply with tests of clause 14 of IEC 61558-1 with adjustments | Tet with milet milet | N/A |



| Page 23 of 36 |
|----------------|
| IEC 61347-2-11 |

| | IEC 01347-2-11 | The The | | |
|---------------------------------------|---|---------|--|--|
| Clause | Requirement + Test Result - Remark | Verdic | | |
| · · · · · · · · · · · · · · · · · · · | N' N' M' M' M' M' A A A A A A A A A A A A A | N/A | | |
| (L.7) | Short-circuit and overload protection | | | |
| white whi | Comply with tests of clause 15 of IEC 61558-1 with adjustments | N/A | | |
| (L.8) | Insulation resistance and electric strength | N/A | | |
| (L.8.1) | Conditioned 48 h between 91 % and 95 % | N/A | | |
| (L.8.2) | Insulation resistance | N/A | | |
| 5 ⁶⁴ . | Between input- and output circuits not less than 5 $M\Omega$: | N/A | | |
| | Between metal parts of class II convertors which are separated from live parts by basic insulation only and the body not less than 5 M Ω | N/A | | |
| is et white | Between metal foil in contact with the inner and outer surfaces of enclosures of insulating material not less than 2 M Ω : | N/A | | |
| (L.8.3) | Electric strength | N/A | | |
| Jun J | 1) Between live parts of input circuits and live parts of output circuits: | N/A | | |
| me m | 2) Over basic or supplementary insulation between: | N/A | | |
| 1 3 | a) live parts having different polarity: | , ∕N/A | | |
| in with | b) live parts and body if intended to be connected to protective earth | N/A | | |
| wint | c) accessible metal parts and a metal rod of the same diameter as the flexible cable or cord: | N/A | | |
| NINE W | d) live parts and an intermediate metal part: | N/A | | |
| * | e) intermediate metal parts and the body: | N/A | | |
| white white | f) each input circuit and all other input circuits: | N/A | | |
| LIEK WALTER | 3) Over reinforced insulation between the body and live parts | N/A | | |
| (L.9) | Construction | N/A | | |
| (L.9.1) | Transformer comply with 19.12 of IEC 61558-1 and 19 of IEC 61558-2-6 | N/A | | |
| NUTER | HF transformer comply with 19 of IEC 61558-2-16 | N/A | | |
| (L.10) | Components | N/A | | |
| Intres which | Protective devices comply with 20.6 – 20.11 of IEC 61558-1 | N/A | | |
| (L.11) | Creepage distances, clearances and distances through insulation | N/A | | |
| t set | Creepage distances and clearances not less than in Clause 16 | N/A | | |
| m. n | Distance through insulation according Table L.5 in IEC 61347-1 | N/A | | |
| de la | 1) Basic distance through insulation | N/A | | |



Page 24 of 36

| Clause | Requirement + Test | Result - Remark | Verdict |
|----------|--|----------------------------|----------------|
| 550 | the state of the s | - A A A | and the second |
| - Sec | Required distance (mm) | me me m | Sec |
| INLIE NO | Measured (mm) | Tet stet stet i | N/A |
| | Supplementary information | Her and in a | - |
| LIC WALL | 2) Supplementary distance through insulation | is the surfice white white | N/A |
| at at | Required distance (mm) | | - |
| me | Measured (mm) | at inter white white | N/A |
| - At | Supplementary information | the state | 1 - |
| mer n | 3) Reinforced distance through insulation | INTE WALL WALL | N/A |
| Set 5 | Required distance (mm) | at at at | 1t - |
| n n | Measured (mm) | Prit white when we | N/A |
| 58 .58 | Supplementary information | at at at is | × |

| (N) | N) ANNEX N - REQUIREMENTS FOR INSULATION MATERIALS USED FOR DOUBLE OR REINFORCED INSULATION | | | |
|-------------|--|----------------------|--|--|
| (N.4) | General requirements | | | |
| (N.4.1) | Material comply with IEC 60085 and IEC 60216 series | | | |
| (N.4.2) | Solid insulation | •// N/A ² | | |
| set white | Electric strength test at least 5 kV or 1,35 x test voltage in Table N.1 | N/A | | |
| whitek w | If not classified according IEC 60085 and IEC 60216 series: Electric strength test increased 10 % to 5,5 kV or 1,5 x test voltage in Table N.1 | N/A | | |
| (N.4.3) | Thin sheet insulation | | | |
| (N.4.3.1) | Thickness and composition of thin sheet insulation | | | |
| ister white | - Inside the ballast and not subjected to handling or abrasion during the production and during maintenance | N/A | | |
| wine v | - Non-separated layers: Min. 3 layers and fulfil mandrel test of 150N | N/A | | |
| white wh | - Separated layers: Min. 2 layers and each layer fulfil mandrel test of 50N | N/A | | |
| MITEL WALT | - Separated layers (alternative): Min. 3 layers and 2/3 of the layers fulfil mandrel test of 100N | N/A | | |
| (N.4.3.2) | Mandrel test (electric strength test during mechanical stress) | N/A | | |
| 24 | Electric strength test after mandrel test: | N/A | | |
| WINLIEK W | - Non-separated layers: min. 5 kV or 1,35 x test voltage in Table N.1 | N/A | | |
| Intitet whi | - 2/3 of min. 3 separated layers: min. 5 kV or 1,25 x test voltage in Table N.1 | N/A | | |



Page 25 of 36

| IEC 61347-2-11 | | | | |
|----------------|--|-------------------------|---------|--|
| Clause | Requirement + Test | Result - Remark | Verdict | |
| SALLY THE | - one of 2 separated layers: min. 5 kV or 1,25 x test voltage in Table N.1 | Marter Marter Marter M | N/A | |
| m. m | No flashover or breakdown occurred | white white white white | N/A | |

| (0) | ANNEX O - ADDITIONAL REQUIREMENTS FOR BUILT-IN ELECTRONIC CONTROLGEAR WITH DOUBLE OR REINFORCED INSULATION | | | | |
|------------|--|-------------------------|-----------------------|--|--|
| (0.6) | Marking | | | | |
| - Jet | Marking according clause 7 (7) | See clause 7 | N/A | | |
| m. n | Special symbol | MALL MALL MALL MAL | N/A | | |
| UNLIEK WA | Meaning of the special symbol explained in catalogue | Tex miles whiles whiles | N/A | | |
| (0.7) | Protection against accidental contact with live parts | | | | |
| in m | Requirements of clause 8 (10) | See clause 8 | N/A | | |
| ex whitek | Test finger not possible to make contact with basic insulated metal parts | ALTER MATER MALTER MAN | N/A | | |
| (0.8) | Terminals | the state of the | N/A | | |
| me m | Clause 9 (8) | See clause 9 | N/A | | |
| (O.9) | Provision for earthing | | _ <n a<="" td=""></n> | | |
| | Functional earthing terminals comply with clause 9 of part 1 | a sunti and | N/A | | |
| me | No protective earthing terminal | white white white w | N/A | | |
| (0.10) | Moisture resistance and insulation | a state of | N/A | | |
| mer 1 | Clause 11 (11) | See clause 11 | N/A | | |
| (0.11) | Electric strength | s at at at | N/A | | |
| m. m. | Clause 12 (12) | See clause 12 | N/A | | |
| (0.13) | Fault conditions | | | | |
| 24 | Clause - (14) | See clause 14 | N/A | | |
| et whitet | End of test, between live part and accessible metal parts or external parts of insulating material in contact with the supporting surface comply with dielectric strength test reduced to 35 % of values according Table 3 in part 1 | WALTER WALTER WALTER WA | N/A | | |
| NETEX WING | Insulation resistance according to Cl.10 between live part and accessible metal parts or external parts of insulating material in contact with the supporting surface not less than 4 $M\Omega$ | Let white white white | N/A | | |
| (0.14) | Construction | white white white where | N/A | | |
| A NUTER | Clause 17 (15) | See clause 17 | N/A | | |
| . At | Accessible metal parts insulated from live parts by double or reinforced insulation | and any and any | N/A | | |



Page 26 of 36

| Clause | Requirement + Test | Result - Remark | Verdict |
|------------|--|--|---------|
| | The second secon | | |
| whitek wh | Live part insulated from supporting surface in contact with external faces by double or reinforced insulation | White white white | N/A |
| (0.15) | Creepage distances and clearances | the state of the s | N/A |
| in me | Clause 18 (16) | See clause 18 | N/A |
| iet untret | Comply with corresponding values for luminaries in IEC 60598-1 | t thet whet muse | N/A |
| (0.16) | Screws, current-carrying parts and connection | N/A | |
| winter w | Clause 19 (17) | See clause 19 | N/A |
| (0.17) | Resistance to heat and fire | N/A | |
| me m | Clause 20 (18) | See clause 20 | N/A |
| (0.18) | Resistance to corrosion | <i>₀</i> + № /A | |
| n m | Clause 21 (19) | See clause 21 | N/A |

| (P) | ANNEX P - Creepage distances and clearances and distance through isolation (DTI) for lamp controlgear which are protected against pollution by the use of coating or potting | | | |
|------------|--|-----|--|--|
| (P.1) | General | | | |
| ner wat | P.2 applies if creepage distances less than the minimum in Table 7 and 8 | N/A | | |
| SER WALTER | P.3 applies if clearance less than the minimum in Table 9, 10 and 11 | N/A | | |
| (P.2) | Creepage distances | N/A | | |
| (P.2.2) | Minimum creepage distances for working voltages and rated voltages with frequencies up to 30 kHz (Table P.1) | N/A | | |
| m. m. | Basic or supplementary insulation: | N/A | | |
| 1. 5 | Required creepage: | _ | | |
| - 14 · | Measured | N/A | | |
| et wet | Supplementary information | _ | | |
| 24 | Reinforced insulation: | N/A | | |
| INCIES N | Required creepage | | | |
| | Measured | N/A | | |
| nere whe | Supplementary information | _ | | |
| (P.2.3) | Creepage distances for working voltages with frequencies above 30 kHz (Table P.2) | N/A | | |
| 1 Ac | Voltage Û _{out} kV: | — | | |
| MALTE | Frequency: | — | | |
| A | Required distance: | — | | |
| and an | Measured | N/A | | |



| 2 | Page | 27 | of 36 |
|---|-------|-----|--------|
| 1 | IEC 6 | 134 | 7-2-11 |

| Clause | Requirement + Test | Result - Remark | Verdict |
|---|--|----------------------|-------------|
| NALL W | it we we we are | t set set star | white white |
| | Supplementary information | m. m. m. | |
| (P.2.4) | Compliance with the required creepage distances | S the start start of | N/A |
| (P.2.4.1) | Compliance in accordance with 16.3.3 and test according P.2.4.2 | all when when it | N/A |
| (P.2.4.3) | Electrical tests after conditioning | ere when whe wh | N/A |
| (P.2.4.3.1) | Insulation resistance and electric strength according Clause 11 and 12 | N/A | |
| (P.3) | Distance through isolation | A A A | N/A |
| (P.3.4) | Electrical tests after conditioning | | N/A |
| (P.3.4.1) | Insulation resistance and electric strength according Clause 11 and 12 | N/A | |
| (P.3.4.2) | Impulse voltage dielectrical test | s N/A | |
| in any | Basic or supplementary insulation: | TET WALT WALT WAL | N/A |
| at aller . | Working/rated voltage | e at at at | |
| m. n | Impulse voltage | . white white white | N/A |
| all the second | Supplementary information | at at at | JIE - |
| 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - | Reinforced insulation: | WITT WITT WITT W | N/A |
| NUTER WALL | Working/rated voltage | the street of | - W. |
| st at | Impulse voltage | | N/A |
| Str. Maria | Supplementary information | 6 - 18 J. J. | |



Page 28 of 36 IEC 61347-2-11

Requirement + Test Clause

Result - Remark

Verdict

| <u></u> | | itical components | | | | | P |
|-----------------------------|------|--|----------------------|--|-----------------------------------|---|---------|
| Object / part No. | Code | Manufacturer/ trademark | Type / model | Technical data | Standard | Mark(s) conforn | |
| Power supply | B | Shenzhen Xin YiJia Electronics Co Ltd | AS013W- 0502000ZC | Input: 100- 240V~, 50/60Hz, 0.45A; Output: 5VDC, 2A, 10W; Class II, indoor use | EN 62368-1 | (CE) AN test repo SA1904 01001 | ort No. |
| Output wire of power supply | C | TONGXIANG ZHOUQUAN HONGKE ELECTRIC FACTORY | 2464 | 22AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E368 tested w applianc | vith 📎 |
| Alt. | С | LTK Electric Wire (Huizhou) Ltd | 2464 | 22AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E148 tested w applianc | vith |
| Alt. | С | GUANGDONG HAERKN NEW ENERGY CO LTD | 2464 | 22AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E300 tested w applianc | vith |
| Alt. | С | DONGGUAN CITY DHE WIRE & CABLE CO LTD | 2464 | 22AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E343 tested w applianc | vith |
| Alt. | Call | QIFURUI ELECTRONICS CO | 2464 | 22AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E21 tested w appliance | vith |
| Alt. | C | LINOYA ELECTRONIC TECHNOLOGY CO LTD | 2464 | 22AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E318 tested w applianc | vith |
| Alt. | C | DONGGUAN NISTAR TRANSMITTING TECHNOLOGY CO INC | 2464 | 22AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E214 tested w applianc | vith |
| Alt. | С | XINYA ELECTRONIC CO LTD | 2464 | 22AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E170 tested w applianc | vith |
| Alt. | С | Suzhou Dian Hang Electronic Co Ltd | 2464 | 22AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E354 tested w applianc | vith |
| Alt. | C | KUNSHAN XINGHONGMEN G ELECTRONIC CO LTD | 2464 | 22AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E315 tested w applianc | vith |



| 20. 24. | 4 | at set o | Page 29 | 9 of 36 | Report No. WTU | 22N10211827L |
|--|-------|--|----------|----------------------|-----------------------------------|--|
| THE WALTE W | NUN . | when whe with | IEC 6134 | 47-2-11 | - JEK NIE | Multer white |
| Clause | Requi | rement + Test | WILLER W | Result - F | Remark | Verdict |
| Alt. | C | SUZHOU YONGHAO CABLE CO LTD | | | IEC 61347-1 IEC 61347- 2-11 | UL E313065 + tested with appliance |
| Alt. | C | Hichain Electricity (Zhaoqing) Co Ltd | 2464 | 22AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E304337 + tested with appliance |
| Alt. | C | SHENZHEN LILUTONG TECHNOLOGY INDUSTRY CO LTD | 2464 | 22AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL 309471 + tested with appliance |
| Alt. | C | SUZHOU SHUNTONG WIRE & CABLE CO LTD | 2464 | 22AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E339682 + tested with appliance |
| Alt. | С | SHENZHEN YUEDENG ELECTRONICS CO LTD | 2464 | 22AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E471418 + tested with appliance |
| Control link cable and Temperature sensor cable | C | SUZHOU SHUNTONG WIRE & CABLE CO LTD | 2464 | 28AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E339682 + tested with appliance |
| Alt. | C | TONGXIANG ZHOUQUAN HONGKE ELECTRIC FACTORY | 2464 | 28AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E365749 + tested with appliance |
| Alt. | C | LTK Electric Wire (Huizhou) Ltd | 2464 | 28AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E148000 + tested with appliance |
| Alt. | C | GUANGDONG HAERKN NEW ENERGY CO LTD | 2464 | 28AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E300956 + tested with appliance |
| Alt. | C | DONGGUAN CITY DHE WIRE & CABLE CO LTD | 2464 | 28AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E343712 + tested with appliance |
| Alt. | С | QIFURUI ELECTRONICS CO | 2464 | 28AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E211048 + tested with appliance |
| Alt. | C | LINOYA ELECTRONIC TECHNOLOGY CO LTD | 2464 | 28AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E315619 + tested with appliance |



| the state | Nº . | white white white | Page 30 of | | Report No. WTU | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
|------------------------------------|-----------|--|---------------------|--------------------------------------|-----------------------------------|--|
| 2 on s | <u></u> | 11 - 1 - 1 | IEC 61347-2 | | WALLY WALLY | ontron |
| Clause | Requi | irement + Test | main wh | Result - F | Remark | Verdict |
| Alt. | C | DONGGUAN NISTAR TRANSMITTING TECHNOLOGY CO INC | 2464 | 28AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E214184 - tested with appliance |
| Alt. | С | XINYA ELECTRONIC CO LTD | 2464 | 28AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E170689 + tested with appliance |
| Alt. | C | Suzhou Dian Hang Electronic Co Ltd | 2464 | 28AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E354173 + tested with appliance |
| Alt. | С | KUNSHAN XINGHONGMEN G ELECTRONIC CO LTD | 2464 | 28AWG, 80°C, 300V IEC 613 2-11 | | UL E315421 + tested with appliance |
| Alt. | С | SUZHOU YONGHAO CABLE CO LTD | 2464 | 28AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E313065 + tested with appliance |
| Alt. | C SUNT | Hichain Electricity (Zhaoqing) Co Ltd | 2464 | 28AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E304337 + tested with appliance |
| Alt. | C | SHENZHEN LILUTONG TECHNOLOGY INDUSTRY CO LTD | 2464 | 28AWG, 80°C, 300V | IEC 61347-1 IEC 61347- 2-11 | UL E309471 - tested with appliance |
| Label | C | Suzhou Huayin Packaging Co., Ltd | The whe | PC, 0.3mm | IEC 61347-1 IEC 61347- 2-11 | Tested with appliance |
| Transparent insulation sheet | С | SKC Co.,Ltd. | SG82 | PET, 0.2mm | IEC 61347-1 IEC 61347- 2-11 | UL E74359 + tested with appliance |
| Alt. | С | TORAY INDUSTRIES INC FILM DIV | Lumirror (#) | PET, 0.2mm | IEC 61347- | |
| Alt. | С | SICHUAN DONGFANG INSULATING MATERIAL CO LTD | DF6027 | PET, 0.2mm | | |
| Alt. | С | JIANGSU YUXING FILM TECHNOLOGY CO LTD | 6023/6027D/6 027 | PET, 0.2mm | IEC 61347-1 IEC 61347- 2-11 | UL E212271 + tested with appliance |
| Alt. | С | JIANGSU YUXING FILM TECHNOLOGY CO LTD | 6023Z | PET, 0.2mm | IEC 61347-1 IEC 61347- 2-11 | UL E212271 - tested with appliance |



| Set SITE | NUT | where where where | IEC 61347- | 2-11 | 1 1 1 | The st |
|----------------------|------|--|-----------------------|------------|---|--|
| Clause | Requ | irement + Test | MLTER WAL | | sult - Remark | Verdict |
| Alt. | C | SICHUAN DONGFANG INSULATING MATERIAL CO LTD | DF6025 PET, 0.2mm | | IEC 61347-1 IEC 61347- IEC 61347- 2-11 | UL E199019 + tested with appliance |
| PCBs | С | KUNSHAN JINPENG ELECTRONICS CO LTD | JP-1/JP-2 | V-0, 130°C | IEC 61347-1 IEC 61347- 2-11 | UL E306084 + tested with appliance |
| Alt. | С | SUZHOU CITY YILIHUA ELECTRON CO.,LTD | YLH-6 | V-0, 130°C | IEC 61347-1 IEC 61347- 2-11 | UL E251781 + tested with appliance |
| Alt. | С | Weiliguang Technology Co Ltd | JK-1/JK-2 | V-0, 130°C | IEC 61347-1 IEC 61347- 2-11 | UL E472363 + tested with appliance |
| Alt. | С | ANHUI HONGXIN ELECTRONIC TECHNOLOGY CO LTD | HX-01/HX- 02/HX-03 | V-0, 130°C | IEC 61347-1 IEC 61347- 2-11 | UL E468758 + tested with appliance |
| Alt. | С | Kunshan Suyuan Eloctronic Group Co., Ltd. | MSY | V-0, 130°C | IEC 61347-1 IEC 61347- 2-11 | UL E233870 + tested with appliance |
| Alt. | С | SUZHOU XINKE ELECTRONICS CO LTD | ХК-2, ХК-3 | V-0, 130°C | IEC 61347-1 IEC 61347- 2-11 | UL E231590 + tested with appliance |
| Alt. | C | GLOBAL SUCCESS CIRCUITS CO LTD | T-1 W | V-0, 130°C | IEC 61347-1 IEC 61347- 2-11 | UL E324220 + tested with appliance |
| DC inlet (J2) | С | Horustech Electronics Co., Ltd | DC-005 | DC 12V, 24 | A IEC 61347-1 IEC 61347- 2-11 | Tested with appliance |
| DC inlet (J3, J4) | C | Horustech Electronics Co., Ltd | PJ3025C | 0.5A; DC30 | V IEC 61347-1 IEC 61347- 2-11 | Tested with appliance |
| DC inlet (J5, J6) | C | Horustech Electronics Co., Ltd | PJ-211A | 0.5A; DC30 | 0V IEC 61347-1 IEC 61347- 2-11 | Tested with appliance |
| T1 magnet wire | С | ZHEJIANG SANXING ELECTRICAL TECHNOLOGY CO., LTD. | 2UEW/155 | 155°C | IEC 61347-1 IEC 61347- 2-11 | UL E327855 + tested with appliance |
| Alt. | C | HENG YA ELECTRIC KUN SHAN LTD | TYA1-U155 | 155°C | IEC 61347-1 IEC 61347- 2-11 | UL E245514 - tested with appliance |



| THE WITE OF | | | IEC 61347-2 | 2-11 | | | | | | | | | | | | |
|---|--------|--|----------------------|----------------------|------------|-----------------------------------|--|----------------------------|--|-------|--|-------|--|-----------------------------------|-----------------|-----------------|
| Clause | Requir | ement + Test | WALTER WALT | me | Result - F | Remark | | Verdict | | | | | | | | |
| Alt. | C | SHANGHAI LUCKY TRADE CO LTD | TIW-B | 155°C | JUNIT S | IEC 61347-1 IEC 61347- 2-11 | UL E305883 tested with appliance | | | | | | | | | |
| Insulation tape | C | SUZHOU MAILADUONA ELECTRIC MATERIAL CO LTD | JY313# | 600V, 130°C | | IEC 61347-1 IEC 61347- 2-11 | | 188295 + d with ance | | | | | | | | |
| Alt. | C | JINGJIANG YAHUA PRESSURE SENSITIVE GLUE CO LTD | CT* (c)(g) | 600V, 130°C | | IEC 61347-1 IEC 61347- 2-11 | | 165111 + d with ance | | | | | | | | |
| Switch (SW1- SW5) | C | Horustech Electronics Co., Ltd | TS1214- 250AH | DC12V | /, 50mA | IEC 61347-1 IEC 61347- 2-11 | Teste applia | ed with ance | | | | | | | | |
| Alt. | С | Suzhou Lai long Electronic Technology Co., Ltd | TC-00121- 140E | DC12V, 0.3A | | IEC 61347-1 IEC 61347- 2-11 | Teste applia | ed with ance | | | | | | | | |
| Switch (SW6) | C | Horustech Electronics Co., Ltd | TS6217- 250AH | DC12V, 50mA | | IEC 61347-1 IEC 61347- 2-11 | Teste applia | ed with ance | | | | | | | | |
| Alt. | С | Zhejiang Lingxiang Electronics Co., Ltd. | 8HA-C-A-S1- 01170 | DC12V, 50mA | | IEC 61347-1 IEC 61347- 2-11 | Teste applia | ed with ance | | | | | | | | |
| Support pillar for display screen | C | SUZHOU HUIHUA ELECTRICS TECH CO., LTD | HTP-311 | PA66, 2.5mm | | IEC 61347-1 IEC 61347- 2-11 | Teste applia | ed with ance | | | | | | | | |
| Connector for display screen | C | Suzhou Liqin Electronics Co., Ltd | White w | PBT, 2.0mm | | IEC 61347-1 IEC 61347- 2-11 | Teste applia | ed with ance | | | | | | | | |
| Support pillar for indicator | C | SUZHOU HUIHUA ELECTRICS TECH CO., LTD | LEDP-9 | PA66, 3.0mm | | IEC 61347-1 IEC 61347- 2-11 | Teste applia | ed with ance | | | | | | | | |
| Button battery | В | MATSUSHITA ELECTRIC INDUSTAIAL CO LTD | CR2032 | 3V | | IEC 62133 | CE te | est report | | | | | | | | |
| Battery support | С | Horustech Electronics Co., Ltd | BS-02 | 3.0mm | | 3.0mm | | 3.0mm | | 3.0mm | | 3.0mm | | IEC 61347-1 IEC 61347- 2-11 | Teste applia | ed with ance |
| Relay (Relay1, Relay2) | B | Xiamen Hongfa Electroacoustic Co., Ltd. | HFD4/5-S | 0.5A, 125VAC, T85 | | EN 61810-1 | TÜV Rheir R 503 | nland 333270 | | | | | | | | |



Page 33 of 36

IEC 61347-2-11

| | | 61347-2-11 | Mr. Mr. |
|--------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| Clause | Requirement + Test | Result - Remark | Ve |

| Alt. Relay (Relay1, Relay2) | C | Omron Corp | G6K-2F-Y | 0.3A, 125VAC, T85 | EN 61810-1 | UL E41515 + tested with appliance |
|-----------------------------------|----------|----------------------|-------------------|----------------------|------------|---|
| Supplementar | y inform | nation: | NUTE WALT | me me m | 4 | st at |
| ¹⁾ Provided evi | dence | ensures the agreed | level of complian | nce. See OD-CB203 | 9. 56 | |
| The codes ab | ove hav | ve the following mea | aning: | | | |

A - The component is replaceable with another one, also certified, with equivalent characteristics

B - The component is replaceable if authorised by the test house

C - Integrated component tested together with the appliance

D - Alternative component

10



Page 34 of 36

| | | | 1 |
|--------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 1 | | | |

| ANNEX 2 | Screw terminals (part of the controlgear) | | N/A | | | | | | |
|-----------------------|---|-----------------------------|--------------------|--|--|--|--|--|--|
| (14) | SCREW TERMINALS (IEC 60598-1) | | | | | | | | |
| (14.2) | Type of terminal: | a street intree intree with | | | | | | | |
| at de | Rated current (A): | | | | | | | | |
| (14.3.2.1) | One or more conductors | miter inite white white | N/A | | | | | | |
| (14.3.2.2) | Special preparation | a at the lite | N/A | | | | | | |
| (14.3.2.3) | Terminal size | Ste white white white | N/A | | | | | | |
| . 1 th . 1 | Cross-sectional area (mm ²): | h at at at | | | | | | | |
| (14.3.3) | Conductor space (mm): | i wait was we we | N/A | | | | | | |
| (14.4) | Mechanical tests | - it it it it is | N/A | | | | | | |
| (14.4.1) | Minimum distance | white white white white | N/A | | | | | | |
| (14.4.2) | Cannot slip out | the set set set | N/A | | | | | | |
| (14.4.3) | Special preparation | her me me m | N/A | | | | | | |
| (14.4.4) | Nominal diameter of thread (metric ISO thread): | M- 54 56 56 | N/A | | | | | | |
| | External wiring | Mr. M. M. | N/A | | | | | | |
| NUTE WALTY | No soft metal | a street intre- an | N/A | | | | | | |
| (14.4.5) | Corrosion | 3 | N/A | | | | | | |
| (14.4.6) | Nominal diameter of thread (mm): | atter were white white | N/A | | | | | | |
| t at | Torque (Nm): | M. W. St. At | N/A | | | | | | |
| (14.4.7) | Between metal surfaces | with mith white white | N/A | | | | | | |
| the start | Lug terminal | i i i it it | N/A | | | | | | |
| mer mer | Mantle terminal | Set white while white w | N/A | | | | | | |
| de de | Pull test; pull (N): | a to the second | < [™] N/A | | | | | | |
| (14.4.8) | Without undue damage | and and and and and | N/A | | | | | | |



Page 35 of 36 IEC 61347-2-11

| Clause Requirement + Test | Result - Remark | Verdict |
|---------------------------|-----------------|---------|
|---------------------------|-----------------|---------|

| ANNEX 3 | Screwless terminals (part of the controlgear) | N/A |
|--------------|--|------------|
| (15) | SCREWLESS TERMINALS (IEC 60598-1) | N/A |
| (15.2) | Type of terminal | multi MA - |
| st at | 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 |
| MUTER MA | 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 |
| t st | 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 |
| min white | Voltage drop (mV) after 1 h (4 samples) | N/A |
| the state | Voltage drop of two inseparable joints | N/A |
| the surress | Number of cycles: | mer m - |
| EK WALTER V | Voltage drop (mV) after 10th alt. 25th cycle (4 samples): | N/A |
| INLIEK NO | Voltage drop (mV) after 50th alt. 100th cycle (4 samples): | N/A |
| and white | After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples) | N/A |
| the state | 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 |
| m n | Terminal size and rating | N/A |
| 15.6.2 | Mechanical tests | N/A |



IEC 61347-2-11

Page 36 of 36

| Clause | Requirement + Test | Result - Remark | | | |
|------------|---|-----------------------|-----|--|--|
| (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) | New White White we | N/A | | |
| (15.6.3) | Electrical tests | Tet outer intro white | N/A | | |
| at at | Tests according 15.6.3.1 + 15.6.3.2 in IEC 60598-1 | in the st | N/A | | |

| (15.6.3.1) (15.6.3.2) | TA | BLE: (| Conta | ct resist | ance tes | st / Heat | ing tests | with the set | - 5Et | . Jet | NUTER | N/A |
|--------------------------------|---------|--|--------|-----------|--------------------------------|------------|--|-----------------|--------|---------|----------------|-------|
| | Vol | tage d | rop (n | NV) after | ^ل کي ^ا 1 | - MALLE | white | m | 2m | 24 | 1. 1. 1. | |
| terminal | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| voltage drop | (mV) | et. | Set. | JUE | NUTER | ma | Mr. | n i | | | st. | st |
| the work | "her | Voltage drop of two inseparable joints | | | | | | | | | | |
| t it | All and | Voltag | ge dro | p after 1 | 0th alt. 2 | 25th cycle |) - M | - 4n | | 4 | L .0 | · |
| Max. allowed voltage drop (mV) | | | | | | | | | | | | |
| terminal | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| voltage drop (mV) | | 50° | ~ | | de | 55 | 55 | INTE | NN'LL' | where . | n · | h. |
| 15 5 | | Volta | ge dro | p after 5 | 0th alt. 1 | 00th cyc | le | | | 1.15- | alt . | Jet - |
| Max. allowed voltage drop (mV) | | | | | | | a m | | | | | |
| terminal | | T | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| voltage drop | (mV) | | J. | de la | đ. | Ser | IT IN | in mi | m | m. | 20 | 10 |
| * Jiet | NUT | Conti | nued a | ageing: v | voltage d | rop after | 10th alt. | 25th cyc | le 🦽 | | 550 | NUTE |
| | . An | Max. | allowe | d voltag | e drop (r | nV) | | when | m | m | -10- | |
| terminal | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| voltage drop | (mV) | A | jet- | J. | | JULI . | NOT . | sur. | n. 1 | 30. 2 | | |
| WE WIT | an's | Conti | nued a | ageing: v | voltage d | rop after | 50th alt. | 100th cy | cle | Star N | Jer Ini | 10. |
| 1 A | .0 | Max. | allowe | d voltag | e drop (r | nV) | ······································ | n w | -14 | | 4 | _ |
| terminal | | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| voltage drop (mV) | | 1 | | 197 . J | in ma | . m | 200 | 20. | | sh | | je. |
| voltage urop | | | | | | | | | 10 | | - C | |

===== End of Report ======



Page 1 of 20

Attachment 1: IEC 60598-1

Clause

Requirement + Test

Result - Remark

Verdict

| Attachme | nt Form No: WSL-605981A-05A | |
|----------|--|-----------------------------|
| 3 | MARKING | F |
| 3.2 | Mandatory markings | State State Mark Mark M P |
| .t. | Position of the marking | F |
| ner m | Format of symbols/text | Free outer outer only of SF |
| 3.3 | Additional information | F |
| m | Language of instructions | MALE MALE MALE MALE |
| 3.3.1 🦽 | Combination luminaires | N/ |
| 3.3.2 | Nominal frequency in Hz | N/ |
| 3.3.3 | Operating temperature | A A A A F |
| 3.3.5 | Wiring diagram | Sure out of F |
| 3.3.6 | Special conditions | N/ |
| 3.3.7 | Metal halide lamp luminaire – warning | N/ |
| 3.3.8 | Limitation for semi-luminaires | N/ |
| 3.3.9 | Power factor and supply current | N/ |
| 3.3.10 | Suitability for use indoors | at all all all all a |
| 3.3.11 | Luminaires with remote control | N/ |
| 3.3.12 | Clip-mounted luminaire – warning | N/ |
| 3.3.13 | Specifications of protective shields | N/ |
| 3.3.14 | Symbol for nature of supply | N/ |
| 3.3.15 | Rated current of socket outlet | N/ |
| 3.3.16 | Rough service luminaire | N/ |
| 3.3.17 | Mounting instruction for type Y, type Z and some type X attachments | Type X F |
| 3.3.18 | Non-ordinary luminaires with PVC cable | N/ |
| 3.3.19 | Protective conductor current in instruction if applicable | N/ |
| 3.3.20 | Provided with information if not intended to be mounted within arm's reach | N/ |
| 3.3.21 | Non replaceable and non-user replaceable light sources information provided | N/ |
| 3.3.22 | Controllable luminaires, classification of insulation provided | Tet with with milet and |
| 3.3.23 | Luminaire without controlgear provided with necessary information for selection of appropriate component | N/ |
| 3.3.24 | If not supplied with terminal block, information on the packaging | N/ |
| , | | |



| | A A A A A A | Page 2 of 20 Report No. | NTU22N10211827L |
|-----------|-----------------------------|-------------------------|---------------------|
| INLITER I | Attachm | ent 1: IEC 60598-1 | street intre- white |
| Clause | Requirement + Test | Result - Remark | Verdict |
| NUTE SINC | and the short share she was | and the state state and | ier and the annual |
| 3.4 | Test with water | with the me and the | Р |

| 3.4 | Test with water | | 20, 20. | | P. |
|-----------|--------------------|------------------|------------------|-----------|----------------------|
| Ser INNER | Test with hexane | the state | JEAN NUTER IN | LIE WALTE | n ^C P of |
| - A | Legible after test | INLIES MALIE WAL | m. in is | 1 A | , ^A P , ≺ |
| main | Label attached | at at set | LITER NUTER WALT | white we | R |

| 4 | CONSTRUCTION | Р |
|-----------|--|---------------|
| 4.2 | Components replaceable without difficulty | P |
| 4.3 | Wireways smooth and free from sharp edges | NUTE INTE INP |
| 4.4 | Lampholders | N/A |
| 4.4.1 | Integral lampholder | N/A |
| 4.4.2 | Wiring connection | N/A |
| 4.4.3 | Lampholder for end-to-end mounting | N/A |
| 4.4.4 | Positioning | N/A |
| in m | - pressure test (N): | More More - |
| SEX WALTE | After test the lampholder comply with relevant standard sheets and show no damage | N/A |
| whitek | After test on single-capped lampholder the lampholder have not moved from its position and show no permanent deformation | N/A |
| Set | - bending test (N) | * |
| Nr. W | After test the lampholder have not moved from its position and show no permanent deformation | N/A |
| 4.4.5 | Peak pulse voltage | N/A |
| 4.4.6 | Centre contact | N/A |
| 4.4.7 | Parts in rough service luminaires resistant to tracking | N/A |
| 4.4.8 | Lamp connectors | N/A |
| 4.4.9 | Caps and bases correctly used | N/A |
| 4.4.10 | Light source for lampholder or connection according IEC 60061 not connected another way | N/A |
| 4.5 | Starter holders | N/A |
| m | Starter holder in luminaires other than class II | N/A |
| t det | Starter holder class II construction | N/A |
| 4.6 | Terminal blocks | N/A |
| Set | Tails | N/A |
| m. a | Unsecured blocks | N/A |
| 4.7 | Terminals and supply connections | N/A |
| 4.7.1 | Contact to metal parts | N/A |
| 4.7.2 | Test 8 mm live conductor | N/A |



| , it- | Page 3 of 20 | | U22N10211827L | |
|-------------|--|---------------------------|---------------|--|
| and all | Attachment 1: IEC 60598-1 | | | |
| Clause | Requirement + Test | Result - Remark | Verdict | |
| er an | - Mr Mr W Mr Art get and | et antier and the world's | sunti sunt | |
| \$.A | Test 8 mm earth conductor | | N/A | |
| 4.7.3 | Terminals for supply conductors | white white white | N/A | |
| 4.7.3.1 | Welded method and material | Nº 1 | N/A | |
| white is | - stranded or solid conductor | LIET WALTE WALT WA | N/A | |
| dt . | - spot welding | | N/A | |
| nr m | - welding between wires | Terr white white white | N/A | |
| 15 1 | - Type Z attachment | 1 1 1 | N/A | |
| MULT | - mechanical test according to 15.6.2 | intite Matter water | N/A | |
| t set | - electrical test according to 15.6.3 | the state | N/A | |
| me | - heat test according to 15.6.3.2.3 and 15.6.3.2.4 | INTE WALL WALL W | N/A | |
| 4.7.4 | Terminals other than supply connection | it it it i | N/A | |
| 4.7.5 | Heat-resistant wiring/sleeves | at white white white | N/A | |
| 4.7.6 | Multi-pole plug | t at at all | N/A | |
| 240 | - test at 30 N | me me me | N/A | |
| 4.8 | Switches | . It set set | JIE NP | |
| 24 | - adequate rating | mer mer and | Р | |
| NUTE | - adequate fixing | the state of | LIE P.M | |
| - 40 | - polarized supply | | N/A | |
| WALLE WA | - compliance with IEC 61058-1 for electronic switches | fer white white white | N/A | |
| 4.9 5 | Insulating lining and sleeves | t at at at | P | |
| 4.9.1 | Retainment | me sur sur | Р | |
| et | Method of fixing: | Glue | JIE NIP | |
| 4.9.2 | Insulated linings and sleeves: | Mr. Mr. Mr. 4 | N/A | |
| where a | Resistant to a temperature > 20 °C to the wire temperature or | LIET WALTER WALTER WAL | N/A | |
| . State . S | a) & c) Insulation resistance and electric strength | a at at at | N/A | |
| 1 - 14 - | b) Ageing test. Temperature (°C): | mer mer m | N/A | |
| 4.10 | Double or reinforced insulation | + 10 10 5th | N/A | |
| 4.10.1 | No contact, mounting surface – accessible metal parts – wiring of basic insulation | which which which | N/A | |
| 24 | Safe installation fixed luminaires | Intit work with wi | N/A | |
| Jet . | Capacitors and switches | at the tot is | N/A | |
| site si | Interference suppression capacitors according to IEC 60384-14 | which which which | N/A | |
| 4.10.2 | Assembly gaps: | Inite water water | N/A | |
| 1 1 | - not coincidental | a at at | N/A | |



| NUTER N | Attachment 1: IEC 60598-1 | | | |
|-----------|--|--|---------|--|
| Clause | Requirement + Test | Result - Remark | Verdict | |
| NUTER JAL | white whe was all an other | ret ret wret outer only | WALT | |
| | - no straight access with test probe | a m m m | N/A | |
| 4.10.3 | Retainment of insulation: | et itet with with anit | N/A | |
| | - fixed | all the second | N/A | |
| WALT | - unable to be replaced; luminaire inoperative | - LITER NUTER MALTE WALT W | N/A | |
| . At | - sleeves retained in position | s st it | , N/A ⊗ | |
| mer m | - lining in lampholder | at the matter white white white | N/A | |
| 4.10.4 | Protective impedance device | and the state of | N/A | |
| et whe | Double or reinforced insulation bridged by appropriate and at least two resistors or two Y2 capacitors or one Y1 capacitor | the watch watch watch watch | N/A | |
| 19 | Y1 or Y2 capacitors comply with IEC 60384-14 | nor me me m | N/A | |
| white w | Resistors comply with test (a) in 14.1 of IEC 60065 | IN TEX WAITER WAITER WAITER WA | N/A | |
| 4.11 | Electrical connections and current-carrying par | ts it it it is | P. | |
| 4.11.1 | Contact pressure | net white when when when | N/A | |
| 4.11.2 | Screws: | it it it sto sto | N/A | |
| 10. | - self-tapping screws | the way way and an | N/A | |
| A STREET | - thread-cutting screws | the states with | N/A N | |
| 4.11.3 | Screw locking: | | N/A | |
| INLIER N | - spring washer | the star what white whi | N/A | |
| | - rivets | m m m | N/A | |
| 4.11.4 | Material of current-carrying parts | TE STER MITER MATER MALIE | _∿P . | |
| 4.11.5 | No contact to wood or mounting surface | in the the second | P | |
| 4.11.6 | Electro-mechanical contact systems | et allet miles while while | √ N/A √ | |
| 4.12 | Screws and connections (mechanical) and glan | ds | | |
| 4.12.1 | Screws not made of soft metal | white must white white white | P | |
| dt . | Screws of insulating material | and at at a | N/A | |
| nr m | Torque test: torque (Nm); part | .: See (4.12.1) of IEC 61347-2-11 | ×Ρ | |
| St . 5 | Torque test: torque (Nm); part | | N/A | |
| Mur | Torque test: torque (Nm); part | The second secon | N/A | |
| 4.12.2 | Screws with diameter < 3 mm screwed into metal | L at let set set | J P | |
| 4.12.4 | Locked connections: | white white some soll of | N/A | |
| Still . | - fixed arms; torque (Nm) | i the left of the | N/A | |
| m. n | - lampholder; torque (Nm) | in which when the she | N/A | |
| JIE M | - push-button switches; torque 0,8 Nm | is the set set with | N/A | |
| 4.12.5 | Screwed glands; force (Nm) | The all all and an | N/A | |
| 1.1.2 | | | | |

4.13

Mechanical strength

Page 4 of 20

Ρ



| S ^{el} | Page 5 | of 20 | n, |
|-----------------|----------|-----------|-----|
| Attac | hment 1: | IEC 60598 | 3-1 |

| Clause Requirement + Test | Result - Remark | Verdict |
|---------------------------|-----------------|---------|
|---------------------------|-----------------|---------|

| 4.13.1 | Impact tests: | | P |
|----------|---|---|------------------|
| MALT | - fragile parts; energy (Nm): | Tet with our on the | N/A |
| NUE | - other parts; energy (Nm): | Metal enclosure, Screen surface: 0.35Nm | THE P |
| 20. | 1) live parts | her all and an | Р |
| NUTER OF | 2) linings | at the state states | ್ಸ್ _P್ |
| | 3) protection | when the me a | Р |
| in the | 4) covers | a cat when when wh | P |
| 4.13.2 | Metal parts have adequate mechanical strength | Mr. M. M. | Р |
| 4.13.3 | Straight test finger | uset when muse while | P s |
| 4.13.4 | Rough service luminaires | M. M. S. A. | N/A |
| anter s | - IP54 or higher | THE NUTE WHITE WALL | √ N/Â |
| dt. | a) fixed | i i it it | N/A |
| in m | b) hand-held | Pat milli while while w | N/A |
| et de | c) delivered with a stand | a at at a | o N/A |
| Mart | d) for temporary installations and suitable for mounting on a stand | white while white whe | N/A |
| 4.13.6 | Tumbling barrel | Power supply | N Po |
| 4.14 | Suspensions, fixings and means of adjusting | | Ø P |
| 4.14.1 💉 | Mechanical load: | LIE MITE WAIT WALL V | м ^с Р |
| de s | A) four times the weight | 0.252 Kg * 4 = 1.008 Kg | e Bo |
| an an | B) torque 2,5 Nm | e intre white white wh | N/A |
| + | C) bracket arm; bending moment (Nm): | I A A A | N/A |
| m | D) load track-mounted luminaires | untit white white white | N/A |
| MALTER | E) clip-mounted luminaires, glass-shelve. Thickness (mm) | LIEK MITEK WALTER WALTER | N/A |
| dt. | Metal rod. diameter (mm): | i shat the | N/A |
| nt wh | Fixed luminaire or independent control gear without fixing devices | A WALL WALL WALL W | N/A |
| 4.14.2 | Load to flexible cables | A LIFE MUTER INTER AND | N/A |
| . A | Mass (kg): | with the second | _ |
| when | Stress in conductors (N/mm ²) | ALTER MUTER MALT MAUL | N/A |
| to | Mass (kg) of semi-luminaire: | L A At | ⊘-N/A |
| W. M | Bending moment (Nm) of semi-luminaire: | ster intre while while | N/A |
| 4.14.3 | Adjusting devices: | 1 A A At | N/A |
| e m | - flexing test; number of cycles: | is unite white white wh | N/A |
| | - strands broken: | | N/A |



| | Attachment 1: IEC 60598 | -1 - the set states a | |
|--------------|--|--|-------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| STER INT | internet water water with the set of | t tet the state out | and the |
| | - electric strength test afterwards | mi m m | N/A |
| 4.14.4 | Telescopic tubes: cords not fixed to tube; no strain on conductors | WALTER WALTER WALTER WALTER | N/A |
| 4.14.5 | Guide pulleys | at let set set | N/A |
| 4.14.6 | Strain on socket-outlets | in the me me | N/A |
| 4.15 | Flammable materials | at the state what we | P |
| | - glow-wire test 650°C | me me me | P |
| JE WALL | - spacing ≥30 mm | The street out of any | N/A |
| L A | - screen withstanding test of 13.3.1 | m m t | N/A |
| MAL | - screen dimensions | whet super white white | N/As |
| A | - no fiercely burning material | and the | J P |
| when w | - thermal protection | Tet intre intra which w | N/A |
| dt. | - electronic circuits exempted | i s it it i | N/A |
| 4.15.2 | Luminaires made of thermoplastic material with lamp of | control gear | N/A |
| et de | a) construction | a at the th | N/A |
| the. | b) temperature sensing control | white white white white | N/A |
| - Set | c) surface temperature | the set of | Ň/A |
| 4.16 | Luminaires for mounting on normally flammable su | urfaces | Р |
| - LTEK I | No lamp control gear | (compliance with Section 12) | N/A |
| in the sures | Provided with adaptor for a track meet the requirements for direct mounting on normally flammable surfaces | White where we want | N/A |
| 4.16.1 | Lamp control gear spacing: | W W A | N/A |
| Math | - spacing 35 mm | where muse while while | N/A |
| A | - spacing 10 mm | i i it it | _⊘N/A _ |
| 4.16.2 | Thermal protection: | with intermeter which which w | N/A |
| dt . | - in lamp control gear | i shat at i | N/A |
| the the | - external | white white white white | N/A |
| d | - fixed position | the state of | N/A |
| m | - temperature marked lamp control gear | while while white white | N/A |
| 4.16.3 | Design to satisfy the test of 12.6 | (see clause 12.6) | <u>́N/А</u> |
| 4.17 | Drain holes | unter white when when | N/A |
| J.T.E. | Clearance at least 5 mm | at the tat the | N/A |
| 4.18 | Resistance to corrosion | the super su | N/A |
| 4.18.1 | - rust-resistance | t the set set with | N/A |
| 4.18.2 | - season cracking in copper | me me me m | N/A |
| 4.18.3 | - corrosion of aluminium | at at at at | N/A |



| 0 | Attachment 1: IEC 60598 | | |
|--------------------|--|---------------------------|------------|
| Clause | Requirement + Test | Result - Remark | Verdict |
| 4.19 | Ignitors compatible with ballast | and the superior superior | N/A |
| 4.20 | Rough service vibration | 1. 1. 1. | N/A |
| 4.21 | Protective shield | MULT WITH WITH | N/A |
| 4.21.1 | Shield fitted if tungsten halogen lamps or metal halide lamps | LIFE WALTER WALTER WA | N/A |
| 54 | Shield of glass if tungsten halogen lamps | at at at a | N/A |
| 4.21.2 | Particles from a shattering lamp not impair safety | with the sure | N/A |
| 4.21.3 | No direct path | the set of | N/A |
| 4.21.4 | Impact test on shield | Murr Murr Murr | N/A |
| - NULLER | Glow-wire test on lamp compartment | the state state | N/A |
| 4.22 | Attachments to lamps not cause overheating or damage | at at at | N/A |
| 4.23 | Semi-luminaires comply Class II | a mur mur mur | N/A |
| 4.24 | Photobiological hazards | et tet ster ste | N/A |
| 4.24.1 | No excessive UV radiation if tungsten halogen lamps and metal halide lamps (Annex P) | with with with | N/A |
| 4.24.2 | Retinal blue light hazard | where where we | N/A |
| WALTER | Class of risk group assessed according to IEC/TR 62778 | at multit w | Lifer W - |
| Alt. | Luminaires with Ethr: | | N/A |
| her an | a) Fixed luminaires | in white white white | N/A |
| 5 ⁶⁴ .5 | - distance x m, borderline between RG1 and RG2: | the state state | N/A |
| 14 | - marking and instruction according 3.2.23 | me me me | N/A |
| * NITER | b) Portable and handheld luminaires | at the the | N/A |
| . Tet | - marking according 3.2.23 if RG1 exceeded at 200 mm according to IEC/TR 62778 | unt when when a | N/A |
| NIN V | 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 | and which which which | N/A |
| 4.25 | Mechanical hazard | Mr. M. M. | P |
| in marine | No sharp point or edges | JEK ALER MILE | until unip |
| 4.26 | Short-circuit protection | We we we | N/A |
| 4.26.1 | Adequate means of uninsulated accessible SELV parts | MITER WHITE WALTE W | N/A |
| 4.26.2 | Short-circuit test with test chain according 4.26.3 | let the the of | N/A |
| | Test chain not melt through | m. m. m. | N/A |
| iner whi | Test sample not exceed values of Table 12.1 and 12.2 | A MUTER WALTER WALTE | N/A |
| 4.27 | Terminal blocks with integrated screwless earthing | g contacts | N/A |

Page 7 of 20



| Clause | Requirement + Test Result - Remark | Verdict |
|-----------|--|--------------------|
| LIER WAL | and what what what we are not the tree where white white | WALT |
| | Test according Annex V | N/A |
| MALT | Pull test of terminal fixing (20 N) | N/A |
| | After test, resistance < $0,05 \Omega$ | N/A |
| when a | Pull test of mechanical connection (50 N) | N/A |
| de . | After test, resistance < $0,05 \Omega$ | N/A |
| ne m | Voltage drop test, resistance < $0,05 \Omega$ | N/A |
| 4.28 | Fixing of thermal sensing control | N/A |
| - mar | Not plug-in or easily replaceable type | N/A |
| the set | Reliably kept in position | N/A |
| W. Tek | No adhesive fixing if UV radiations from a lamp can degrade the fixing | N/A |
| and a | Not outside the luminaire enclosure | N/A |
| de c | Test of adhesive fixing: | N/A |
| in an | Max. temperature on adhesive material (°C): | — |
| et .58 | 100 cycles between t min and t max | N/A |
| m | Temperature sensing control still in position | N/A |
| 4.29 | Luminaires with non-replaceable light source | N/A |
| In . | Not possible to replace light source | N/A |
| WALTER WI | Live part not accessible after parts have been opened by hand or tools | N/A |
| 4.30 | Luminaires with non-user replaceable light source | N/A |
| t set | If protective cover provide protection against electric shock and marked with "caution, electric shock risk" symbol: | N/A |
| m | Minimum two fixing means | N/A |
| 4.31 | Insulation between circuits | , ⊘ ⁺ P |
| un s | Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3 | Р |
| NEL WALTE | 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 | SP. |
| 4.31.1 | SELV circuits | N/A |
| m | Used SELV source | N/A |
| 1th | Voltage ≤ ELV | N/A |
| and an | Insulating of SELV circuits from LV supply | N/A |
| LIEK WAL | Insulating of SELV circuits from other non SELV circuits | N/A |
| 1 1 | Insulating of SELV circuits from FELV | N/A |

Page 8 of 20



| | at at at at | Page 9 of 20 Report No. W | 1022N10211827L |
|---------|---------------------------|---------------------------|----------------|
| NUTER N | Attachment 1: IEC 60598-1 | | |
| Clause | Requirement + Test | Result - Remark | Verdict |

| dan d | Insulating of SELV circuits from other SELV circuits | N/A |
|----------|--|-------|
| white | SELV circuits insulated from accessible parts according Table X.1 | N/A |
| WALTER | Plugs not able to enter socket-outlets of other voltage systems | N/A |
| NETEX W | Socket outlets does not admit plugs of other voltage systems | N/A |
| itt anti | Plugs and socket-outlets does not have protective conductor contact | N/A |
| 4.31.2 | FELV circuits | N/A |
| JALAN . | Used FELV source | N/A |
| Å | Voltage ≤ ELV | N/A |
| UNER 3 | Insulating of FELV circuits from LV supply | N/A |
| LIEK IN | FELV circuits insulated from accessible parts according Table X.1 | N/A |
| et _5 | Plugs not able to enter socket-outlets of other voltage systems | N/A |
| W. Et | Socket outlets does not admit plugs of other voltage systems | N/A |
| white | Socket-outlets does not have protective conductor contact | N/A |
| 4.31.3 | Other circuits | P |
| set int | Other circuits insulated from accessible parts according Table X.1 | Per |
| + _5# | Class II construction with equipotential bonding for protection against indirect contacts with live parts: | |
| In. | - conductive parts are connected together | N/A |
| Set | - test according 7.2.3 | N/A |
| Nº . | - conductive part not cause an electric shock in case of an insulation fault | N/A |
| 2 m | - equipotential bonding in master/slave applications | N/A |
| ex whit | - master luminaire provided with terminal for accessible conductive parts of slave luminaires | N/A |
| | - slave luminaire constructed as class I | N/A |
| 1.32 | Overvoltage protective devices | N/A |
| Jet- | Comply with IEC 61643-11 | <_N/A |
| 1. 1 | External to controlgear and connected to earth: | N/A |
| dt . | - only in fixed luminaires | N/A |
| -m | - only connected to protective earth | N/A |



Page 10 of 20 Attachment 1: IEC 60598-1

| Clause | Requirement + Test | Result - Remark | Verdict | | |
|--------|--------------------|-----------------|---------|--|--|

| 5 | EXTERNAL AND INTERNAL WIRING | | P |
|----------|--|----------------------------|------------------|
| 5.2 | Supply connection and external wiring | THE STREE NUTER WATER | JUN P |
| 5.2.1 | Means of connection: | Power supply | Р |
| WALL V | Outdoor luminaire has not PVC insulated external wiring if not class III or SELV ≤ 25 V a.c./60 V d.c. or protected from outdoor environment | the white white white | N/A |
| 5.2.2 | Type of cable: | See Annex 1 | Р |
| Set Set | Nominal cross-sectional area (mm ²): | See Annex 1 | Р |
| 2m | Cables equal to IEC 60227 or IEC 60245 | wints when when with | Р |
| 5.2.3 | Type of attachment, X, Y or Z | Туре Х | N ^S P |
| 5.2.5 | Type Z not connected to screws | ner me me m | N/A |
| 5.2.6 | Cable entries: | et tet stet with | N Po |
| 197 - A | - suitable for introduction | - me me me | Р |
| LIE ML | - adequate degree of protection | et the state with an | Р |
| 5.2.7 | Cable entries through rigid material have rounded edges | at set set and | N/A |
| 5.2.8 | Insulating bushings: | MILL' MILL MILL MILL | N/A |
| NUTER. | - suitably fixed | the street street | N/A |
| 20.00 | - material in bushings | | N/A |
| WITER OF | - material not likely to deteriorate | and the state of the state | N/A |
| | - tubes or guards made of insulating material | Mr. Mr. m. | N/A |
| 5.2.9 | Locking of screwed bushings | I TEL ALTER MITE MIT | N/A |
| 5.2.10 | Cord anchorage: | all the state | P |
| when | - covering protected from abrasion | street intree intre intre | P - |
| de la | - clear how to be effective | and the state | _d+P |
| a real | - no mechanical or thermal stress | LIER MUTE MALL MALL | N BN |
| dt i | - no tying of cables into knots etc. | i s s to | P |
| in m | - insulating material or lining | and white white white wh | ×Р |
| 5.2.10.1 | Cord anchorage for type X attachment: | and the state of the | Р |
| ne | a) at least one part fixed | white white white white | S P |
| t Set | b) types of cable | at the set set | J. P |
| the . | c) no damaging of the cable | mill water water water | Р |
| STR. 1 | d) whole cable can be mounted | at the set set | P |
| 24. 24. | e) no touching of clamping screws | and and and an | N/A |
| JER NY | f) metal screw not directly on cable | t at at at at | N/A |
| | g) replacement without special tool | Mr. Mr. M. M. | Р |
| ar Sta | Glands not used as anchorage | At the set of | N/A |



| | | ge 11 of 20 Report No. W | 1022N10211827L |
|---------------------------|--------------------|--------------------------|----------------|
| Attachment 1: IEC 60598-1 | | | Et antre antre |
| Clause | Requirement + Test | Result - Remark | Verdict |

| | Labyrinth type anchorages | 40. 10. | N/A |
|------------------|--|---------------------------|------|
| 5.2.10.2 | Adequate cord anchorage for type Y and type Z attachment | while while while while | N/A |
| 5.2.10.3 | Tests: | let let uset whet | N/A |
| 10 A | - impossible to push cable; unsafe | T. M. M. M. | N/A |
| NUTER ON | - pull test: 25 times; pull (N): | et get wet with aller | N/A |
| | - torque test: torque (Nm): | my m. m. m. a. | N/A |
| Ster Malin | - displacement ≤ 2 mm | The with a star of the | N/A |
| L A | - no movement of conductors | Mr. Mr. C. | N/A |
| MALA | - no damage of cable or cord | street while white white | N/A |
| A | - function independent of electrical connection | and the state | N/A |
| 5.2.11 📣 | External wiring passing into luminaire | THE MUTE MATE MALL | P P |
| 5.2.12 | Looping-in terminals | i i it it | N/A |
| 5.2.13 | Wire ends not tinned | and the while while wh | ° P |
| et det | Wire ends tinned: no cold flow | a at the t | N/A |
| 5.2.14 | Mains plug same protection | white white white whe | S P |
| Set | Class III luminaire plug | | N/A |
| 241 2 | No unsafe compatibility | and and and | N/A |
| 5.2.16 | Appliance inlets (IEC 60320) | | N/A |
| 1. 2. | Installation couplers (IEC 61535) | which when when a | N/A |
| LIEK MALIE | Other appliance inlet or connector according relevant IEC standard | whitek whitek whitek whi | N/A |
| 5.2.17 | No standardized interconnecting cables properly assembled | stret miret antifet would | N/A |
| 5.2.18 | Used plug in accordance with | when the state | _∕-P |
| and a | - IEC 60083 | LIER WHITE WALL WALL | n Bu |
| de s | - other standard | i it it lit | N/A |
| 5.3 | Internal wiring | the must would write we | N/A |
| 5,3.1 | Internal wiring of suitable size and type | A A A S | N/A |
| - nor | Through wiring | white white white white | N/A |
| - 5 ⁶ | - not delivered/ mounting instruction | at at at at | N/A |
| m. | - factory assembled | min white white white | N/A |
| STER IN | - socket outlet loaded (A): | at let the state | N/A |
| 10 - 20. | - temperatures: | (see Annex 2) | N/A |
| LIEN ML | Green-yellow for earth only | + tet stet stat is | N/A |
| 5.3.1.1 | Internal wiring connected directly to fixed wiring | me me me en | N/A |
| a ste | Cross-sectional area (mm ²): | At at 5th 5th | N/A |



| Attachment 1: IEC 60598-1 | | |
|---------------------------|--------|---------------------------|
| | | |
| | Attach | Attachment 1: IEC 60598-1 |

10 of 00

| | Insulation thickness (mm): | | N/A |
|----------|--|-----------------------------|--------------------|
| WALT | Extra insulation added where necessary | JEt ALTER MUSE MUTE | N/A |
| 5.3.1.2 | Internal wiring connected to fixed wiring via internal cur | rent-limiting device | N/A |
| white y | Cross-sectional area (mm ²): | TER NITER INTER WITE W | N/A |
| 5.3.1.3 | Double or reinforced insulation for class II | with the state | N/A |
| 5.3.1.4 | Conductors without insulation | er marter white white white | N/A |
| 5.3.1.5 | SELV current-carrying parts | s at the tot | N/A |
| 5.3.1.6 | Insulation thickness other than PVC or rubber | white white white white | ∽ ⁰ N/A |
| 5.3.2 | Sharp edges etc. | is at at at | N/A |
| - april | No moving parts of switches etc. | mile while while when y | N/A |
| Set | Joints, raising/lowering devices | a at at at | N/A |
| m n | Telescopic tubes etc. | The white white where with | N/A |
| State St | No twisting over 360° | + at set alt with | N/A |
| 5.3.3 | Insulating bushings: | when when we we | × |
| et are | - suitable fixed | at the state of the | N/A |
| | - material in bushings | Were aller and an | N/A |
| MALTE . | - material not likely to deteriorate | at aller miles a | N/A |
| | - cables with protective sheath | | N/A |
| 5.3.4 | Joints and junctions effectively insulated | E all with antife and | N/A |
| 5.3.5 | Strain on internal wiring | We we set at | N/A |
| 5.3.6 | Wire carriers | white white white white | N∕A |
| 5.3.7 | Wire ends not tinned | W L A A | N/A |
| me | Wire ends tinned: no cold flow | white white white white | N/A |
| 5.4 | Test to determine suitability of conductors having a area | a reduced cross-sectional | N/A |
| uter al | Under test the temperature of the luminaire wiring insulation not exceed the limits stated in Table 12.2 | (see Annex 2) | N/A |
| 24 | No damage to luminaire wiring after test | mer mer me in | N/A |

| 8 | PROTECTION AGAINST ELECTRIC SHOCK | |
|-----------|--|-------------------------|
| 8.2.1 | Live parts not accessible | P.M. P.M. |
| | Basic insulated parts not used on the outer surface without appropriate protection | the state state of P |
| NITER MAN | Basic insulated parts not accessible with standard test finger on portable, settable and adjustable luminaires | N/A |
| et mire | Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires | THE STREE STREET STREET |



| Attachment 1: IEC 605 | |
|-----------------------|--|
| Page 13 of 20 | |
| | |

| 1. S. | | | |
|--------|--------------------|-----------------|---------|
| Clause | Requirement + Test | Result - Remark | Verdict |

| et white | Lamp and starterholders in portable and adjustable luminaires comply with double or reinforced insulation requirements | N/A |
|----------|--|--------------------|
| Whitek | Basic insulation only accessible under lamp or starter replacement | N/A |
| A | Protection in any position | L P |
| men m | Double-ended tungsten filament lamp | N/A |
| at a | Insulation lacquer not reliable | N/A |
| ant. | Double-ended high-pressure discharge lamp | N/A |
| + MUTEK | Relevant warning according to 3.2.18 fitted to the luminaire | N/A |
| 8.2.2 | Portable luminaire adjusted in most unfavourable position | N/A |
| 8.2.3.a | Class II luminaire: | N/A |
| LIER WAY | - basic insulated metal parts not accessible during starter or lamp replacement | N/A |
| et white | - basic insulation not accessible other than during starter or lamp replacement | N/A |
| MUTER | - glass protective shields not used as supplementary insulation | N/A |
| 8.2.3.b | BC lampholder of metal in class I luminaires shall be earthed | N/A |
| 8.2.3.c | SELV circuits with exposed current carrying parts: | N/A |
| THE WAY | Ordinary luminaire: | N/A |
| | - voltage under load (V) | N/A |
| MALTE | - no-load voltage (V) | N/A |
| A | - touch current if applicable (mA): | N/A |
| WALTE J | One conductive part insulated if required | N/A |
| at . | Other than ordinary luminaire: | N/A |
| in m | - nominal voltage (V) | N/A |
| et de | Class III luminaire only for connection to SELV | N/A |
| whit | Class III luminaire not provided with means for protective earthing | N/A |
| 8.2.4 | Portable luminaire has protection independent of supporting surface | N/A |
| 8.2.5 | Compliance with the standard test finger or relevant probe | et white whi e Phi |
| 8.2.6 | Covers reliably secured | At 5 P |
| 8.2.7 | Luminaire other than below with capacitor > 0,5 μ F not exceed 50 V 1 min after disconnection | N/A |



Page 14 of 20

| Attachment 1: IEC | 60598-1 |
|-------------------|---------|
|-------------------|---------|

| Clause | Requirement + Test | Result - Remark | Verdict |
|----------|---|--|---------|
| at al | Portable luminaire with capacitor > 0,1 μ F (0.25) not exceed 34 V 1 s after disconnection | et white white white | N/A |
| Whitek . | Other luminaires with capacitor > 0,1 μ F (0.25) with plug and track adaptors not exceed 60 V 5 s after disconnection | WALL AND | N/A |

| 12 | ENDURANCE TEST AND THERMAL TEST | | Р |
|-----------|---|---------------------------------------|-----|
| SEK MALT | If IP > IP 20 relevant test of (12.4), (12.5) and (12.6) a 1.13 | Ifter (9.2) before (9.3) specified in | |
| 12.2 | Selection of lamps and ballasts | When the second second | |
| When | Lamp used according Annex B | (Lamp used see Annex 2) | |
| st | Controlgear if separate and not supplied | (Controlgear used see Annex 2) | |
| 12.3 | Endurance test | The intre-white white white | P |
| de la | a) mounting-position: | Acc. to user manual | |
| e m | b) test temperature (°C): | 50 | |
| et .56 | c) total duration (h): | 240 | |
| 24 | d) supply voltage (V): | 264 | |
| WALTER | d) if not equipped with controlgear, constant voltage/current (V) or (A): | The WALTER WALTER W | |
| Set . | e) luminaire ceases to operate | | |
| 12.3.2 | After endurance test: | is when when when we | Р |
| 510 | - no part unserviceable | a let get get all | Р |
| 2. | - luminaire not unsafe | white white white you | Р |
| it intre | - no damage to track system | Tet the street white | N/A |
| ~ | - marking legible | me we me | Р |
| Multer of | - no cracks, deformation etc. | set stet allet mile w | Pu |
| 12.4 | Thermal test (normal operation) | (see Annex 2) | Р |
| 12.5 | Thermal test (abnormal operation) | (see Annex 2) | N/A |
| 12.6 | Thermal test (failed lamp control gear condition): | m we at at | N/A |
| 12.6.1 | Through wiring or looping-in wiring loaded by a current of (A) | WATER WATER WATER WATER | |
| MULTER | - case of abnormal conditions: | ster street wither white w | — |
| | - electronic lamp control gear | the she so at | N/A |
| WALL W | - measured winding temperature (°C): at 1,1 Un: | ret write white white whi | — |
| LIEK WIL | - measured mounting surface temperature (°C) at 1,1 Un: | t the the state | N/A |
| 1. A | - calculated mounting surface temperature (°C): | me m m | N/A |
| and a | - track-mounted luminaires | THE LIFE ALLE WITE | N/A |



| | Attachment 1: IEC 60598-1 | | | | |
|-----------|--|--------------------|--|--|--|
| Clause | Requirement + Test Result - Remark | Verdic | | | |
| LITER MAL | which which which which which we get net inter white a | NUTE WALL | | | |
| 12.6.2 | Temperature sensing control | N/A | | | |
| E. WALL | - case of abnormal conditions | × | | | |
| . A | - thermal link | N/A | | | |
| when y | - manual reset cut-out | N/A | | | |
| A | - auto reset cut-out | N/A | | | |
| ne m | - measured mounting surface temperature (°C): | N/A | | | |
| 15 1 | - track-mounted luminaires | N/A | | | |
| 12.7 | Thermal test (failed lamp control gear in plastic luminaires): | N/A | | | |
| 12.7.1 | Luminaire without temperature sensing control | <i></i> N/А | | | |
| 12.7.1.1 | Luminaire with fluorescent lamp ≤ 70W | N/A | | | |
| 50 | Test method 12.7.1.1 or Annex W: | | | | |
| m n | Test according to 12.7.1.1: | N/A | | | |
| State S | - case of abnormal conditions: | J _ | | | |
| | - Ballast failure at supply voltage (V) | | | | |
| it with | - Components retained in place after the test | N/A | | | |
| | - Test with standard test finger after the test | N/A | | | |
| MALL R | Test according to Annex W: | N/A | | | |
| | - case of abnormal conditions | _ | | | |
| Intres M | - measured winding temperature (°C): at 1,1 Un: | | | | |
| LIEK MILI | - measured temperature of fixing point/exposed part (°C): at 1,1 Un | | | | |
| et miret | - calculated temperature of fixing point/exposed part (°C): | set — | | | |
| | Ball-pressure test: | N/A | | | |
| 12.7.1.2 | Luminaire with discharge lamp, fluorescent lamp > 70W, transformer > 10 VA | N/A | | | |
| | - case of abnormal conditions: | _ | | | |
| ner in | - measured winding temperature (°C): at 1,1 Un: | Nec - | | | |
| JEK INLIE | - measured temperature of fixing point/exposed part (°C): at 1,1 Un: | 11 ⁶⁶ — | | | |
| t stet | - calculated temperature of fixing point/exposed part (°C): | * _ | | | |
| 24 | Ball-pressure test: | N/A | | | |
| 12.7.1.3 | Luminaire with short circuit proof transformers ≤ 10 VA | N/A | | | |
| Set 5 | - case of abnormal conditions: | . 5ª — | | | |
| 14 | - Components retained in place after the test | N/A | | | |
| 1 10 | - Test with standard test finger after the test | N/A | | | |



| | | Page 16 of 20 | Report No. W | TU22N10211827L |
|---------|-----------------------|-------------------------|----------------|------------------|
| NUTER N | NUT WALL WALL WALL AL | tachment 1: IEC 60598-1 | t the state of | Et antife antife |
| Clause | Requirement + Test | R | esult - Remark | Verdict |

| 12.7.2 | Luminaire with temperature sensing control | | N/A |
|----------|--|-------------------------|---------------------|
| MALTE | - thermal link: | Yes No | |
| | - manual reset cut-out: | Yes 🗌 No 🗌 | |
| man | - auto reset cut-out: | Yes 🗌 No 🔲 🕔 | _ |
| đ | - case of abnormal conditions: | i shat the state | — |
| n m | - highest measured temperature of fixing point/ exposed part (°C):: | white white white white | _ |
| NIN NINE | Ball-pressure test: | LIFE MITE WITH WALT | _√ [®] N/A |

| 9 | RESISTANCE TO DUST AND MOISTURE | | р Р 🗸 |
|-----------|--|----------------------------|-------------------|
| jit- | If IP > IP 20 the order of tests as specified in clause 1 | .12 | Ø P 3 |
| 9.2 | Tests for ingress of dust, solid objects and moisture: | NETER WALTE WALT WALT I | Р |
| . Alt | - classification according to IP: | IP20 | s – |
| 2 4 | - mounting position during test: | Acc. to user manual | _ |
| et si | - fixing screws tightened; torque (Nm): | Cl. 9.2.0 | _ |
| 24 | - tests according to clauses: | When when we we | |
| - MUTE | - electric strength test afterwards | set suret muter | JUL P. |
| . A | a) no deposit in dust-proof luminaire | | N/A |
| INTER S | b) no talcum in dust-tight luminaire | The state where white an | N/A |
| | c) no trace of water on current-carrying parts or on insulation where it could become a hazard | a ret ret with | N/A |
| ۍ کې ځ | c.1) For luminaires without drain holes – no water entry | when when you we we | N/A |
| met | c.2) For luminaires with drain holes – no hazardous water entry | white white white white | N/A |
| min | d) no water in watertight or pressure watertight luminaire | NETER WALTE WALT WALT | N/A |
| North N | e) no contact with live parts (IP 2X) | sat whet outer onthe of | ° _с Р° |
| st | e) no entry into enclosure (IP 3X and IP 4X) | - 341 - 141 - 14 | N/A |
| NUNI | e) no contact with live parts through drain holes and ventilation slots (IP3X and IP4X) | Muter white white white | N/A |
| white | f) no trace of water on part of lamp requiring protection from splashing water | MITER WAITER WAITER WAITER | N/A |
| Set | g) no damage of protective shield or glass envelope | at at at at | N/A |
| 9.3 | Humidity test 48 h | VI MAL MAN WAY I | Р |

| s) | 10 INSULATION RESISTANCE AND ELECTRIC STRENGTH | | Р | |
|----|--|----------------------------|-------------------------|-------|
| 3 | 10.2.1 | Insulation resistance test | Tet Jet Jet milet milet | NºP J |



| Attachment | 1: | IEC | 60598-1 | |
|------------|----|-----|---------|--|
| | | | | |

| Clause Requirement + Test | Result - Remark | Verdict |
|---------------------------|-----------------|---------|
|---------------------------|-----------------|---------|

| | Cable or cord covered by metal foil or replaced by a metal rod of mm Ø | Metal foil | - |
|----------|---|---|---|
| mer | Insulation resistance (M Ω) | See below | |
| . Let | SELV | L A A A | С Р. |
| mer. | - between current-carrying parts of different polarity : | atternite with white | N/A |
| . de | - between current-carrying parts and mounting | >100 MΩ | P |
| | surface | | - 14 - 14 - 14 - 14 - 14 - 14 - 14 - 14 |
| iek whit | - between current-carrying parts and metal parts of the luminaire | >100 MΩ | et P |
| WALTER | - between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts | MUTEK WALTER WALTER WALTER | N/A |
| NUTER | - Insulation bushings as described in Section 5: | et let jet alter | N/A |
| 20. 0 | Other than SELV | to more and and a | Р |
| STEL IN | - between live parts of different polarity | t the state attained | N/A |
| et | - between live parts and mounting surface:: | >100 M Ω (test with power supply) | P. |
| Nº (Et | - between live parts and metal parts: | >100 M Ω (test with power supply) | Р |
| where . | - between live parts of different polarity through action of a switch | a funti uni | N/A |
| nt w | - between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts: | white white white w | N/A |
| an. | - Insulation bushings as described in Section 5: | Main war war we | N/A |
| 10.2.2 | Electric strength test | at the set we | S P |
| 20 | Dummy lamp | NUT AND AND AN | N/A |
| NITE. | Luminaires with ignitors after 24 h test | it it is at | N/A |
| 19. J. | Luminaires with manual ignitors | in mu mu m | N/A |
| LIPE IN | Test voltage (V): | See below | P |
| | SELV | and and an an | P. |
| E. MALA | - between current-carrying parts of different polarity : | wet wet and and | N/A |
| | - between current-carrying parts and mounting surface | 500 V | P |
| Set. | - between current-carrying parts and metal parts of the luminaire | 500 V | Р |
| int of | - between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts | t ret ret with with | N/A |
| | - Insulation bushings as described in Section 5: | -1415 - 141 | N/A |
| NU" | Other than SELV | at the set of | P |



Page 18 of 20 Attachment 1: IEC 60598-1

| Clause Requirement + Test | Result - Remark | Verdict |
|---------------------------|-----------------|---------|
|---------------------------|-----------------|---------|

| | - between live parts of different polarity: | when the start of the | N/A |
|---------|---|--|--------------------|
| MALT | - between live parts and mounting surface | 2960 V (test with power supply) | " ^с Р |
| A | - between live parts and metal parts | 2960 V (test with power supply) | P |
| white w | - between live parts of different polarity through action of a switch | tree watter watter watter w | N/A |
| it is | - between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts: | at white white white white | N/A |
| with | - Insulation bushings as described in Section 5: | white white white white | √ [®] N/A |
| 10.3 | Touch current or protective conductor current (mA).: | Touch current: 0.001 mA < 0.7 mA (Test with power supply) | P |

| ANNEX 1 | TABLE: Cr | itical components | s information | | | P P |
|----------------------|---------------|----------------------------|--------------------|----------------|---------------------------------|-------------------------------------|
| Object / part No. | Code | Manufacturer/ trademark | Type / model | Technical data | Standard | Mark(s) of conformity ¹⁾ |
| at at | | Et aller white | white where | m. m. | * * | et set |
| Description: | See A | NNEX 1 of IEC 61 | 347-2-11 | ALTER MALTER M | the water of | Up. Mr. 2 |
| t det . | 1.5 | | 3 F ² 5 | | 17 st | at the s |
| me m | | | an street | 5 ⁶ | white wh | m. m. |
| 1th 51 | | | N. KD | | 4 1 | t stek stre |
| Description: | 2 | at at a | et ster at | FET MALTE MALT | me me | an an |
| Jet Jet | In the second | The works whe | 24. 24 | 1 A At | the set | TEX MITER |
| - m | | t at all | - NUTER INLIE | white white | her me. | 211 20 |
| et allet | NUTE WALT | and an | 500 T | the state | at set | IT THE WITH A |
| Description: | 1 1 | at at | ALTER MALTER | white white wh | w. w | |
| NUTER MAL | in min | WALL WALL | 5 | at at a | 5 50 .5 | er intre int |
| 10 20 | L A | the fit is | TEX MALTE MA | no me me | m. m | 1 A |
| JUE NUE | in an | 2. m. m | | t at at | 5 ⁶⁴ 5 ⁶⁶ | NUTE MALL |

Supplementary information:

¹⁾ Provided evidence ensures the agreed level of compliance. See OD-CB2039.

The codes above have the following meaning:

- The component is replaceable with another one, also certified, with equivalent characteristics А

- В - The component is replaceable if authorised by the test house
- С - Integrated component tested together with the appliance
- Alternative component D



| | I A A A | Page 19 of 20 | Report No. WTU22N1 | 0211827L |
|-----------|---------------------|---------------------------|--------------------|-----------|
| - NUTER N | NETE WALL WALL WALL | Attachment 1: IEC 60598-1 | Tet Jet allet mi | I'm MALIE |
| Clause | Requirement + Test | Re Martin Re | sult - Remark | Verdict |

| ANNEX 2 | TABLE: Thermal tests of Section 12 | | л ^{у́} Р |
|------------|---|---------------------------|-------------------|
| | Type reference: | LUMM0019 | |
| water ou | Lamp used: | Resistive load | |
| the de | Lamp control gear used: | AS013W-0502000ZC | |
| ne me | Mounting position of luminaire | Acc. to user manual | |
| at set | Supply wattage (W): | 3.71 | |
| - nu- | Supply current (A) | 0.04 | |
| * WALTER V | Temperatures in test 1 - 4 below are corrected for ta (°C): | 40 | — |
| det . | - abnormal operating mode: | the state of a | |
| 12.4 | - test 1: rated voltage: | The superior when when we | |
| LIEK WALTE | - test 2: 1,06 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current: | 1.06*240=254.4 | _ |
| EK WALTER | - test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage: | | _ |
| MUTEX | Through wiring or looping-in wiring loaded by a current of A during the test: | att and the state | _ |
| 12.5 | - test 4: 1,1 times rated voltage or 1,05 times rated wattage or 1,1 times constant voltage/current: | | — |

Temperature measurements (°C)

| Dort | Ambient | Cl. 12.4 – normal | | | | | Cl. 12.5 – abnormal | |
|--------------------------------|---------|-------------------|--------|-----------|-------|---|---------------------|--|
| Part | Ambient | test 1 | test 2 | test 3 | limit | test 4 | limit | |
| Power supply (contact surface) | 40 | | 51.3 | <u></u> | 70 | 1. J. | m m | |
| Power supply (accessible) | 40 | un m | 44.9 | · · · · | 75 | | _d 5 | |
| Output wire of power supply | 40 | * ^¢ | 44.7 | NITE NIT | 80 | m - m | | |
| Control link cable | 40 | -70- | 46.0 | | 80 | 10 | at 5 at | |
| Temperature sensor cable | 40 | | 42.9 | The state | 80 | ner ner | -20- | |
| DC inlet (J2) | 40 | an - | 51.6 | | CI.18 | Jet Jet | | |
| DC inlet (J3, J4) | 40 | | 54.3 | with a | Cl.18 | -76 | | |
| DC inlet (J5, J6) | 40 | en | 52.0 | 77 | CI.18 | t star | nute n | |
| T1 magnet wire | 40 | LIET NET | 53.0 | m m | 140 | | | |
| C21 | 40 | A | 52.2 | st 5 | 105 | NUTE IN | 2 | |
| Battery support | 40 5 | | 52.6 | | Cl.18 | | L A | |
| Relay | 40 | | 70.3 | et | 85 | Prile NUL | <u></u> | |
| SW1 surface | 40 | w w | 45.2 | | Ref. | 1 A | 77- | |



| | s at at a | Page 20 of 20 | Report No. W | TU22N10211827L |
|--------|---------------------|------------------------|-----------------|----------------|
| TEL | NUTE MALL WALL WALL | Attachment 1: IEC 6059 | 98-1 - A S | Et INLIE MALIE |
| Clause | Requirement + Test | TEX STER MAIL W | Result - Remark | Verdict |

| Connector for display screen | 40 | | 54.4 | 10 | Cl.18 | | |
|------------------------------|----|----------|------|------|-------|-----------------|--------------|
| Control PCB | 40 | | 60.3 | | CI.18 | at and a second | |
| Screen PCB | 40 | With Mai | 56.6 | -m | Cl.18 | | 10 |
| Metal surface | 40 | | 47.3 | JA N | Ref. | in 2 | 11 ···· ···· |
| Mounting surface | 40 | | 46.7 | h | 90 | + | st , |

===== End of Attachment 1 ======



Attachment 2: Photo Documentation

Page 1 of 9

Model: LUMM0019



Photo 2

Description: Overview_ Wiring diagram.



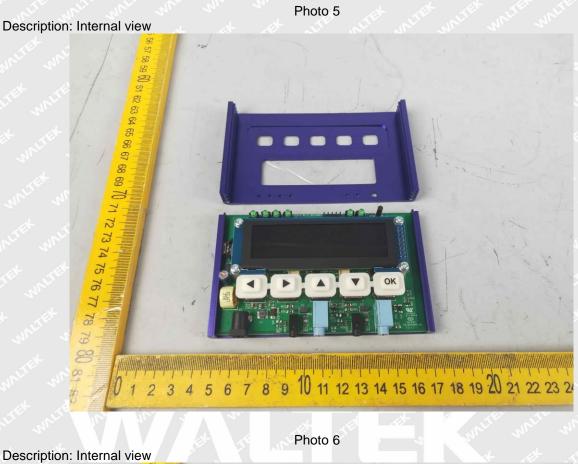
Page 2 of 9

Attachment 2: Photo Documentation



Page 3 of 9

Attachment 2: Photo Documentation



Attachment 2: Photo Documentation

Page 4 of 9

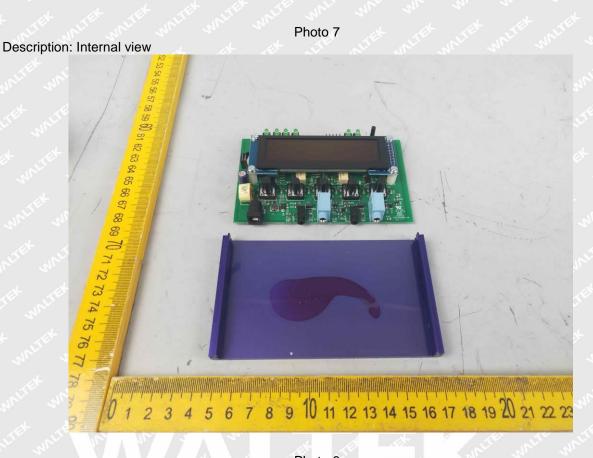


Photo 8 Description: Internal view _ Transparent insulation sheet





Attachment 2: Photo Documentation

Photo 9

Description: Internal view



Description: Internal view

Photo 10





Attachment 2: Photo Documentation



Photo 12

Description: Internal view ion's Panasonic Made in Ind

Attachment 2: Photo Documentation

Page 7 of 9



Description: Power supply _ UK plug

Photo 14



Page 8 of 9

Attachment 2: Photo Documentation





Page 9 of 9

Attachment 2: Photo Documentation



Description: Control link cable.

Photo 18



====== End of Attachment 2 ======