

## **TEST REPORT** IEC 62262

# Degrees of protection provided by enclosures for electrical equipment against external mechanical impacts (IK code)

Date of issue.....: 2024-01-12

Total number of pages...... 7 pages

Name of Testing Laboratory

Guangdong Meide Testing Technology Co., Ltd. preparing the Report.....:

Applicant's name.....: Ilumileds SA DE CV

Address.....: San Isidro 97 Piso 2 Col San Francisco Tetecala Azcapotzalco

Cuidad de Mexico MEXICO

Test specification:

Standard.....: IEC 62262:2002+A1:2021

Test procedure.....: IK10 Test

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

Test Report Form No.....: 02-Q004-1A

Test Report Form(s) Originator.....: GTG

Master TRF.....: Dated 2022-07-01

#### General disclaimer:

The test results presented in this report relate only to the object tested.

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The authenticity of this Test Report and its contents can be verified by contacting the GTG, responsible for this Test Report.

### Responsible Testing Laboratory (as applicable), testing procedure and testing location(s):

|                            | Testing Laboratory:                   | Guangdong Meide Testing Technology Co., Ltd.                                                                                                        |  |
|----------------------------|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Testing location/ address: |                                       | 1st Floor, Area B, Jinbaisheng Industrial Park, 2nd Road, Songshan Lake High-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China. |  |
| Tes                        | ted by (name, function, signature):   | George Liang Project handler  George Liang Project handler                                                                                          |  |
| Rev                        | iewed by(name, function, signature):  | Louis Lu<br>Reviewer                                                                                                                                |  |
| Арр                        | roved by (name, function, signature): | Mo JiaKeng Authorized Signatory                                                                                                                     |  |

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Test item description.....: Aluminum profiles and covers Trade Mark....:: **ILUMILEDS** Manufacturer....: Same as applicant Model/Type reference....: ILUPA2216KIT / ILUPA3030KIT. Ratings..... List of Attachments (including a total number of pages in each attachment): Attachment 1: Photo Summary of testing: Tests performed (name of test and test **Testing location:** clause): Guangdong Meide Testing Technology Co., Ltd. IEC 62262:2002+A1:2021 1st floor, B Area, Jinbaisheng Industrial Park, Headquarters 2 Road, Songshan Lake Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China. **Summary of compliance with National Differences:** List of countries addressed N/A

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| Test item particulars::                                                                                                                                                                                                                                             |                                                                                                  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--|--|--|--|
| 1 63t Itolii particulara                                                                                                                                                                                                                                            |                                                                                                  |  |  |  |  |
| Classification of installation and use:                                                                                                                                                                                                                             | N/A                                                                                              |  |  |  |  |
| Supply Connection:                                                                                                                                                                                                                                                  | N/A                                                                                              |  |  |  |  |
|                                                                                                                                                                                                                                                                     |                                                                                                  |  |  |  |  |
| Possible test case verdicts:                                                                                                                                                                                                                                        |                                                                                                  |  |  |  |  |
| - test case does not apply to the test object:                                                                                                                                                                                                                      | N/A                                                                                              |  |  |  |  |
| - test object does meet the requirement:                                                                                                                                                                                                                            | P (Pass)                                                                                         |  |  |  |  |
| - test object does not meet the requirement:                                                                                                                                                                                                                        | F (Fail)                                                                                         |  |  |  |  |
| Testing:                                                                                                                                                                                                                                                            |                                                                                                  |  |  |  |  |
| Date of receipt of test item:                                                                                                                                                                                                                                       | 2023-12-14                                                                                       |  |  |  |  |
| Date (s) of performance of tests:                                                                                                                                                                                                                                   | 2023-12-15                                                                                       |  |  |  |  |
|                                                                                                                                                                                                                                                                     |                                                                                                  |  |  |  |  |
| General remarks:                                                                                                                                                                                                                                                    |                                                                                                  |  |  |  |  |
| "(See Enclosure #)" refers to additional information appended to the report. "(See appended table)" refers to a table appended to the report.                                                                                                                       |                                                                                                  |  |  |  |  |
| Throughout this report a $\square$ comma / $\boxtimes$ point is $\iota$                                                                                                                                                                                             | sed as the decimal separator.                                                                    |  |  |  |  |
| Clause numbers between brackets refer to clauses in                                                                                                                                                                                                                 | EC 60598-1                                                                                       |  |  |  |  |
| Manufacturer's Declaration per sub-clause 4.2.5 of IECEE 02:                                                                                                                                                                                                        |                                                                                                  |  |  |  |  |
| manufacturer's Declaration per Sub-clause 4.2.5 of                                                                                                                                                                                                                  | IECEE 02:                                                                                        |  |  |  |  |
| 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               | IECEE 02:  ☐ Yes ☐ Not applicable                                                                |  |  |  |  |
| 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)                                                                    | <ul><li>☐ Yes</li><li>☒ Not applicable</li></ul>                                                 |  |  |  |  |
| 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               | ☐ Yes ☐ Not applicable                                                                           |  |  |  |  |
| 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 | <ul> <li>Yes</li> <li>Not applicable</li> <li>he General product information section.</li> </ul> |  |  |  |  |
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|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--|--|
| Clause                                                | Requirement – Test                                                                                                                                                                                                                                                                                                                                                                                                                                     | Result - Remark                                                                                                                                                                        | Verdict       |  |  |
| 4                                                     | Mechanical impacts protection test                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                        | Р             |  |  |
| 4.1                                                   | Arrangement of the IK code                                                                                                                                                                                                                                                                                                                                                                                                                             | IK10                                                                                                                                                                                   | <u>.</u><br>Р |  |  |
| 4.2                                                   | Impact energy                                                                                                                                                                                                                                                                                                                                                                                                                                          | 20J                                                                                                                                                                                    | Р             |  |  |
| 5                                                     | General requirements for tests                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                        | P             |  |  |
| 5.1                                                   | Atmospheric conditions for tests                                                                                                                                                                                                                                                                                                                                                                                                                       | 23.2°C, 94 kPa                                                                                                                                                                         | <u>.</u><br>Р |  |  |
| 5.2                                                   | Enclosures under test                                                                                                                                                                                                                                                                                                                                                                                                                                  | Each enclosure under test is in a clean and new condition, complete with all its parts in Place.                                                                                       | P             |  |  |
| 5.3                                                   | Specifications to be given in the relevant product standard -The definition of "enclosure" as it applies to the                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                        | Р             |  |  |
|                                                       | particular type of equipment                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                        | N/A           |  |  |
|                                                       | -The test equipment (e.g. pendulum hammer, spring hammer or vertical hammer)                                                                                                                                                                                                                                                                                                                                                                           | Pendulum hammer                                                                                                                                                                        | Р             |  |  |
|                                                       | -The number of samples to be tested                                                                                                                                                                                                                                                                                                                                                                                                                    | 1 PCS                                                                                                                                                                                  | Р             |  |  |
|                                                       | -The conditions for mounting, assembling and positioning the samples, e.g. by the use of an artificial surface (ceiling, floor or wall), in order to simulate intended service conditions as far as possible                                                                                                                                                                                                                                           |                                                                                                                                                                                        | N/A           |  |  |
|                                                       | -The pre-conditioning, if any, which is to be used                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                        | N/A           |  |  |
|                                                       | -Whether to be tested energised                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                        | N/A           |  |  |
|                                                       | -Whether to be tested with any moving parts in motion                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                        | N/A           |  |  |
|                                                       | -The number of impacts and their points of application (see 6.4)                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                        | Р             |  |  |
| 6                                                     | Test to verify the protection against mechanical impacts                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                        | Р             |  |  |
| 6.1                                                   | The test specified in this standard is a type test.                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                        | Р             |  |  |
| 6.2                                                   | In order to verify the protection against mechanical impacts, blows shall be applied to the enclosure to be tested.                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                        | Р             |  |  |
| 6.3                                                   | During the test the enclosure shall be mounted on a rigid support, according to the manufacturer(s) instructions for use. A support is considered to be sufficiently rigid if its displacement is less than or equal to 0,1 mm under the effect of an impact directly applied and whose energy corresponds to the degree of protection. Alternative mounting and support, suitable for the product, may be specified in the relevant product standard. |                                                                                                                                                                                        | Р             |  |  |
| 6.4                                                   | The number of impacts shall be five on each exposed face unless otherwise specified in the relevant product standard. The impacts shall be evenly distributed on the faces of the enclosure(s) under test. In no case shall more than three impacts be applied in the surroundings of the same point of the enclosure. The relevant product standard shall specify the points of application of impacts.  Test evaluation                              | Each exposed surface impacts 5 times. The impacted parts was evenly distributed on the test surface of the test shell. The impact applied near the same part on the shell was 3 times. | N/A<br>P      |  |  |
| 0.5                                                   | I GOL GVAIUALIUII                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                        | Г             |  |  |

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|--------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------|--|--|--|--|
|        | IEC 62262                                                                                                                                     |                                                                                       |         |  |  |  |  |
| Clause | Requirement – Test                                                                                                                            | Result - Remark                                                                       | Verdict |  |  |  |  |
| 6.5.1  | The relevant product standard shall specify the criteria upon which the acceptance or rejection of the enclosure is to be based, particularly | Meet to requirement (After the test, the sample plastic enclosure were not damaged ). | Р       |  |  |  |  |
|        | -Admissible damages                                                                                                                           |                                                                                       | N/A     |  |  |  |  |
|        | -Verification criteria relative to the continuity of the safety and reliability of the equipment                                              |                                                                                       | N/A     |  |  |  |  |

## Attachment 1: Photo



Figure 1: Outlook view

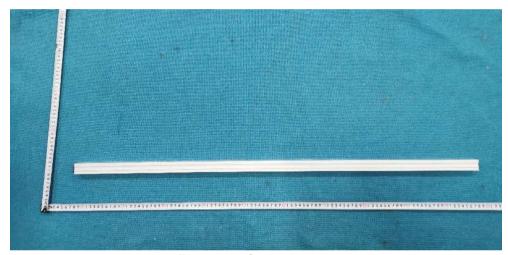


Figure 2: Outlook view



Figure 3: After IK10 test



Figure 4: After IK10 test

---End of Report---