
Test Report

Report No.: AGC05443231019SS02

PRODUCT DESIGNATION : Solar powered 20 LED light
BRAND NAME : N/A
MODEL NAME : M02151
APPLICANT : MID OCEAN BRANDS B.V
DATE OF ISSUE : Nov.09, 2023
REPORT VERSION : V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd



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1. GENERAL INFORMATION

1.1 Testing laboratory

Name Attestation of Global Compliance (Shenzhen) Co., Ltd.
Address 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Test location Same as above

1.2 Applicant information

Name MID OCEAN BRANDS B.V
Address 7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong

1.3 Manufacturer information

Name MID OCEAN BRANDS B.V
Address 7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong

1.4 Factory information

Name MID OCEAN BRANDS B.V
Address 7/F, Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong



1.5 Testing

Date of receipt of test item Oct. 17, 2023
Date(s) of performance of test Oct. 18, 2023 · Nov.08, 2023

1.6 Summary of testing

The product is accordance with the requirements of IP44 according IEC 60529:1989+A1:1999+A2:2013, Degrees of protection provided by enclosures (IP code).

Report Version	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Nov.09, 2023	Valid	Initial release

Tested by  Mody Mo
Reviewed by  Vicky Lv
Approved By  Matte He
(Authorized Officer)

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2. Equipment Under Test (EUT) and Ancillary Equipment (AE)

2.1 About EUT

Product Designation	Solar powered 20 LED light
Brand Name	N/A
Test model	MO2151
Series model	N/A
Supply connection	Solar panel Built-in battery: 3.7V 1200mAH
IP code	IP44

3. Reference Documents

The following documents listed in this section are referred for testing.

Reference	Title	Clause
IEC 60529:1989+A1:1999+A2:2013	Degrees of protection provided by enclosures (IP Code)	12+13.3+14.2. 4+14.3

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4. IP44 Test Procedure and Requirements

4.1 Environment conditions

Test environments Temperature: 15-35°C, Humidity: 25%-75%, Air Pressure: 86kPa-106kPa

4.2 Tested relevant

Number of tested samples 1

Conditions for mounting Horizontal placement

Whether to be tested energized Yes No

Whether to be tested with its parts in motion Yes No

Other pre-conditioning No

4.3 Test conditions

4.3.1 IP4X Test conditions

Dangerous parts protection test:

- 1) The Test prober of 1 mm diameter is pushed against any opening of the sample with force of 1 N;
- 2) Internal moving parts may be operated slowly, where this is possible.

4.3.2 IPX4 Test conditions

Radius of the tube: 200mm;

Water flow rate: 0.91L/min, 13 holes;

Spray Angle: ±180°;

Test duration: 10min;

If not specified otherwise in the relevant product standard, the support for the enclosure under test is perforated so as to avoid acting as a baffle and the enclosure is sprayed from every direction by oscillating the tube to the limit of its travel in each direction.

4.4 Acceptance conditions

4.4.1 IP4X Acceptance conditions

Dangerous parts protection:

- 1) The protection is satisfactory if adequate clearance is kept between the access probe and hazardous parts, and the lamp shall not light, or the test probe can not pass through the opening;
- 2) For low-voltage equipment, the access probe shall not touch hazardous live parts;
- 3) For high-voltage equipment, When the access probe is placed in the most unfavourable position(s), the equipment shall be capable of withstanding the dielectric tests as specified in the relevant product standard applicable to the equipment.

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4.4.1 IPX4 Acceptance conditions

It is the responsibility of the relevant technical committee to specify the amount of water which may be allowed to enter the enclosure and the details of a dielectric strength test, if any.

In general, if any water has entered, it shall not:

- be sufficient to interfere with the correct operation of the equipment or impair safety;
- deposit on insulation parts where it could lead to tracking along the creepage distances;
- reach live parts or windings not designed to operate when wet;
- accumulate near the cable end or enter the cable if any.

If the enclosure is provided with drain-holes, it should be proved by inspection that any water which enters does not accumulate and that it drains away without doing any harm to the equipment.

For enclosures without drain-holes, the relevant product standard shall specify the acceptance conditions if water can accumulate to reach live parts.

5. Detailed Test Results

Sample No.	Test results	Test verdict
231016067 231106165	1. The test probe could not pass through the opening of the sample; 2. No water entered into the test sample inside.	The test sample passed the IP44 test.

6. Test Equipments Utilized

No.	Name	Model No.	Calibration Date	Calibration Due.
1	Φ1mm test probe	TZ-12	Nov. 15, 2022	Nov. 14, 2023
2	Waterproof test system	KXT1318	Jan. 12, 2023	Jan. 11, 2024

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Attachment A Photos of Product



Fig.1 – overview



Fig.2 –View During Test

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Fig.3 –View during Test

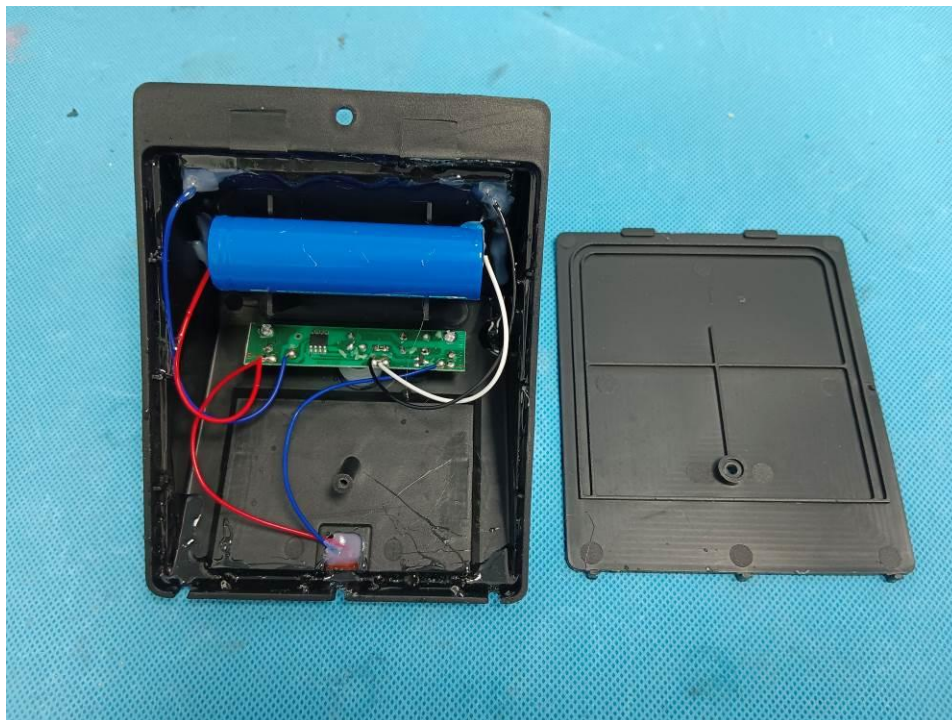


Fig.4 – view after testing

----- End of Report -----

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Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd. (the “Company”) solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the “Clients”).
2. Any report issued by Company as a result of this application for testing services (the “Report”) shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.
3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.
4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.
5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.
6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.
7. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.
8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.
9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.

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