

TEST REPORT

Report No.: HN60008/2011

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Date: July 28, 2011

GLACIAL TECH INC.
9FL, NO. 352, SEC. 2, JUNG SHAN RD.,
JUNG HE CITY, TAIPEI, TAIWAN, R.O.C.

The following merchandise was submitted and identified by the vendor as:

Product Description: LED Spotlight
Style/ Item No.: GL-SP15/ No.1
Manufacturer/ Vendor: Glacial Tech Inc.
Quantity: Total 1 set
Testing Period: Jul. 21, 2011 to Jul. 25, 2011

We have tested the submitted sample(s) as requested and the following results were obtained:

Test Required: Test for Degrees of Protection Provided by Enclosures

IP Code	IP65
First characteristic numeral	Degrees of protection against access to hazardous parts and against solid foreign objects
Second characteristic numeral	Degrees of protection against ingress of water

Test Results:

Conclusion
Submittals sample(s) comply with the requirement and acceptance conditions of IEC 60598-1 Sec. 9: 2008 Degrees of Protection Provided by Enclosures -- IP65 The detailed description of test result, please see attached sheet(s).

Signed for and on behalf of
SGS TAIWAN Ltd.



Terence Hsieh
Department Manager

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Test for Degrees of Protection Provided by Enclosures:

Test Equipment:

Name	Brand	Model	Serial No.
1.0 mm Test Wire Probe	ED&D	TRP-02	B0050180
Digital Force Gauge	ALGOL	HF-50	HF-106764
Dust Tester	T-MACHINE	TMJ-9723C	T-23-050411
IPX5 Water Jet Hose Nozzle Set	PTL	P03.26	5050565

Lab Environmental Conditions:

Ambient temperature: 25±3°C

Relative humidity: 55±20%RH

Test Method/ Specification:

Test method: Reference to 60598-1 Sec. 9: 2008--IP65

1. Test for protection against access to hazardous parts:

Test method: Reference to IEC 60598-1 Sec. 9: 2008--IP6X

The test wire with 1.0 mm in diameter and 100 mm long is pushed against or inserted through any openings of the enclosure. Examine whether the test wire touches the hazardous live parts inside the enclosure or not.

Test force: 1 N±10 %

2. Test for protection against solid foreign objects:

Test method: Reference to IEC 60598-1 Sec. 9: 2008--IP6X (Dust test)

Type of dust: Talcum powder

The amount of dust: 2 kg

The chamber size: 1 m³

Test duration: 3 hours

- Examine the protection against ingress of dust of specimen(s) and perform functional check after this test.
- Functional check: Connect the specimen with rated power 110V_{AC} then examine whether the LED lighten function of specimen could be work normally or not.

Test Method/ Specification--Continued:

3. Test for protection against water:

Test method:	<u>According to IEC 60598-1 Sec. 9: 2008--IPX5</u>
Internal diameter of the nozzle:	<u>6.3 mm</u>
Delivery rate:	<u>12.5 l/min ±5%</u>
Distance from nozzle to enclosure surface:	<u>3 m</u>
Core of the substantial stream:	<u>circle of approximately 40 mm diameter at 2.5 m distance from nozzle</u>
Test duration:	<u>15 minutes</u>

- Examine the protection against ingress of dust of specimen(s) and perform functional check after this test.
- Functional check: Connect the specimen with rated power 110VAC then examine whether the LED lighten function of specimen could be work normally or not.

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Specimen:

Style/ Item No.: GL-SP15/ No.1

Quantity: Total 1 set

Test Result:

A. Degrees of protection against access to hazardous parts and against solid foreign objects (IP6X)

A-1 Test for protection against access to hazardous parts (IP6X)

Test Result		
Check Item		Style/ Item No.
		GL-SP15/ No.1
1	Does the test wire penetrate any openings of the enclosure?	No
2	(followed check item 1) If the test wire penetrates any openings of the enclosure, does the test wire touch any hazardous live parts or any hazardous mechanical parts?	N/A
3	(followed check item 2) Does adequate clearance be kept between the test wire and hazardous live parts or hazardous mechanical parts?	N/A
Note 1: N/A means "Not Applicable". Note 2: The check items in this test report for inspecting the degree of protection provided by enclosures are reference to the requirements specified in IEC 60598-1 Sec. 9: 2008 and in accordance with the acceptance conditions specified by client.		

A-2 Test for protection against solid foreign objects (IP6X)

Test Result		
Check Item		Style/ Item No.
		GL-SP15/ No.1
1	Does any dust deposit inside the enclosure?	No
2	Functional Check	Normal
Note 1: N/A means "Not Applicable". Note 2: The check items in this test report for inspecting the degree of protection provided by enclosures are reference to the requirements specified in IEC 60598-1 Sec. 9: 2008 and in accordance with the acceptance conditions specified by client.		

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Test Result--Continued:







B. Degree of protection against ingress of water (IPX5)

Test Result		Style/ Item No.
Check Item		GL-SP15/ No.1
1	Does any water enter the enclosure?	No
2	(followed check item 1) If any water has entered, does the water accumulate near the cable end or live parts?	N/A
2.1	(followed check item 2) Does the water be sufficient to interfere with the correct operation of the equipment or impair safety?	N/A
2.2	(followed check item 2.1) Does the water deposit on insulation parts where it could lead to tracking along the creepage distances?	N/A
2.3	(followed check item 2.2) Does the water reach live parts or windings not designed to operate when wet?	N/A
3	Functional Check	Normal

Note 1: N/A means "Not Applicable".

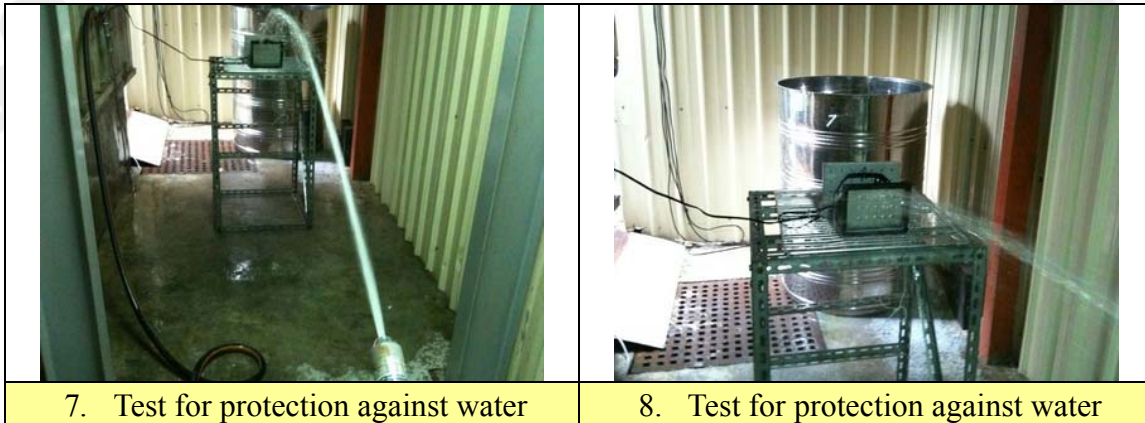
Note 2: The check items in this test report for inspecting the degree of protection provided by enclosures are reference to the requirements specified in IEC 60598-1 Sec. 9: 2008 and in accordance with the acceptance conditions specified by client.

Test Photos:

	
<p>1. Appearance of specimen</p>	<p>2. Functional Check</p>
	
<p>3. Test for protection against access to hazardous parts</p>	<p>4. Test for protection against access to hazardous parts</p>
	
<p>5. Test for protection against solid foreign objects (Dust test)</p>	<p>6. Test for protection against solid foreign objects (Dust test)</p>

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Test Photos--Continued:



— — — **The End of Test Report** — — —

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