Type Test Report

IEC/EN 60598-1

SECTION 9: RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE

Report reference No. .....: CTE17GR-633IP

Compiled by (name+ signature).....: Angell Liu

Approved by (name+ signature).....: Jason Chen

Date of issue ..... :June 27, 2018

Contents ..... : 8 pages

Testing laboratory

Name .....: **Coffee-T Electronics Technology Co Ltd**

Address .....: 4th Floor,Bldg A3,Digital Tech Park,7th GaoXin South Blvd, Tech Park,NanShan,ShenZhen,China

Testing location ..... : As above

Client

Name .....:

Address.....: 4/6F,6st building Hengguangyao industrial Park,Yonghe Road, Fuyong Town,Bao'an District, Shenzhen, China

Manufacturer

Name .....:

Address.....: 4/6F,6st building Hengguangyao industrial Park,Yonghe Road, Fuyong Town,Bao'an District, Shenzhen, China

Test specification

Standard ..... : IEC 60598-1: 2008 and EN 60598-1: 2008+A11: 2009(Clause: 9.2)

Test procedure ..... : Compliance with IEC 60598-1: 2008 and EN 60598-1: 2008+A11: 2009(Clause: 9.2)

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

Procedure deviation ..... : N/A

Test item

Description ..... : **Solar FP Series or NFP series**

Trademark ..... : N/A

Model and/or type reference ..... : FP-01A, FP-02A, FP-03A, FP-04A, FP-05A, FP-06A FP-01B, FP-02B, FP-03B, FP-04B, FP-05B, FP-06B

Rating(s) 18V 60W 5A 50/60Hz

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Test case verdicts

Test case does not apply to the test object : N(N/A)

Test item does meet the requirement .....: P(Pass)

Test item does not meet the requirement ..: F(Fail)

Testing

Date of receipt of test item .....: June 27, 2018

Date(s) of performance of test.....: June 27, 2018

General remarks

This report shall not be reproduced except in full without the written approval of the testing laboratory.

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

Clause numbers between brackets refer to clauses in IEC 60598-1(EN 60598-1).

Throughout this report a comma is used as the decimal separator.

Remark:

1. All models are the same except their model names, appearance and power. And all tests were conducted on model: FP-04A.

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IEC/EN 60598-1			
Clause	Requirement - Test	Result - Remark	Verdict
9.2	**Tests for ingress of dust, solid objects and moisture**		P
	The enclosure of a luminaire shall provide the degree of protection against ingress of dust, solid objects and moisture in accordance with the classification of the luminaire and the IP number marked on the luminaire.		P
	Check compliance as the descried 9.2.0~9.2.9		P
	Before the tests for the second characteristic numeral, with the exception of IPX8, the luminaire complete with lamp(s) shall be switched on and brought to a stable operating temperature at rated voltage.		P
	The water for the tests shall be at a temperature of 15 °C ± 10 °C.		P
	Luminaires shall be mounted compliance as specified		P
9.2.0	Solid-object-proof luminaires (first characteristic IP numeral 2) shall be tested with the standard test finger specified in IEC 60529 according to the requirements of Sections 8 and 11 of this standard. Solid-object-proof luminaires (first characteristic IP numerals 3 and 4) shall be tested at every possible point (excluding gaskets) with a probe in accordance with test probe C or D of IEC 61032,	IP65	P
	For First characteristic numeral 1-4 test as specified IEC/EN 60529		--
	First characteristic numeral		N
	Test means		N
	Test force		N
9.2.1	Dust-proof luminaires (first characteristic IP numeral 5) shall be tested in a dust chamber similar to that shown in Figure 6, in which talcum powder is maintained in suspension by an air current. The chamber shall contain 2 kg of powder for every cubic metre of its volume. The talcum powder used shall be able to pass through a square-meshed sieve whose nominal wire diameter is 50 µm and whose nominal free distance between wires is 75 µm. It shall not have been used for more than 20 tests.		P
	Compliance test as specified		P

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Clause	Requirement - Test	Result - Remark	Verdict
9.2.2	Dust-tight luminaires (first characteristic IP numeral 6) are tested in accordance with 9.2.1.		P
9.2.3	Drip-proof luminaires (second characteristic IP numeral 1) are subjected for 10 min to an artificial rainfall of 3 mm/min, falling vertically from a height of 200 mm above the top of the luminaire.		N
9.2.4	Test as the specified for Drip-proof luminaires (second characteristic IP numeral 3)		N
	Tube radius		N
	Number of open holes		N
	Total water flow		N
	Angle of oscillating tube		N
9.2.5	Test as the specified for Drip-proof luminaires (second characteristic IP numeral 4)		N
	Tube radius		N
	Number of open holes		N
	Total water flow		N
	Angle of oscillating tube		N
9.2.6	Jet-proof luminaires (second characteristic IP numeral 5) are switched off and immediately subjected to a water jet for 15 min from all directions by means of a hose having a nozzle with the shape and dimensions shown in Figure 8. The nozzle shall be held 3 m away the sample.		P
	The water pressure at the nozzle shall be adjusted to achieve a water delivery rate of 12,5 l/min ± 5 % (approximately 30 kN/m2).		P
9.2.7	Powerful water jet-proof luminaires (second characteristic IP numeral 6) are switched off and immediately subjected to a water jet for 3 min from all directions by means of a hose having a nozzle with the shape and dimensions shown in Figure 8. The nozzle shall be held 3 m away from the sample.		N
	The water pressure at the nozzle shall be adjusted to achieve a water delivery rate of 100 l/min ± 5 % (approximately 100 kN/m2).		N

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IEC/EN 60598-1			
Clause	Requirement - Test	Result - Remark	Verdict
9.2.8	Watertight luminaires (second characteristic IP numeral 7) are switched off and immediately immersed for 30 min in water, so that there is at least 150 mm of water above the top of the luminaire and the lowest portion is subjected to at least 1 m head of water. Luminaires shall be held in position by their normal fixing means. Luminaires for tubular fluorescent lamps shall be positioned horizontally, with the diffuser upwards, 1 m below the water surface.		N
9.2.9	Pressure watertight luminaires (second characteristic IP numeral 8) are heated either by switching on the lamp or by other suitable means, so that the temperature of the luminaire enclosure exceeds that of the water in the test tank by between 5 °C and 10 °C.		N
	The luminaire shall then be switched off and subjected to a water pressure of 1,3 times that pressure which corresponds to the rated maximum immersion depth for a period of 30 min.		N
9.2.10	Electric strength test		P
	Between current-carrying parts and mounting surface.	1530V	P
	There is no flashover or breakdown occurred.		P

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Attachment of Report — Photos

Fig.1 Product Image

Fig.2 Product Image

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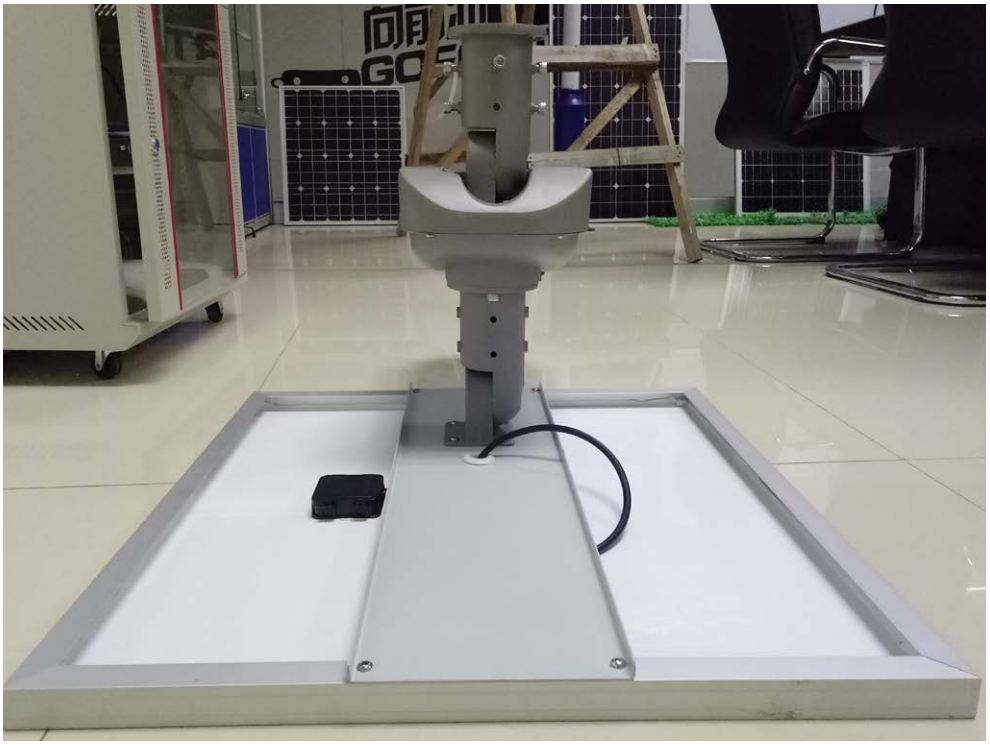
EUT - View



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