



中国认可
国际互认
检测
TESTING
CNAS L6478



TEST REPORT

Reference No..... : WTF22F03053427G
Applicant..... : ENTTEC Pty Ltd.
Address..... : 43 INDIAN DRIVE, KEYSBOROUGH, VICTORIA 3173, AUSTRALIA
Manufacturer : The same as above
Address..... : The same as above
Product Name..... : Smart PXL 60 DOT
Model No..... : 73050-Dome Diffuse-RGB-24V, 73050-Dome Diffuse-RGBW-24V,
73050-Dome Diffuse-RGB-48V, 73050-Dome Diffuse-RGBW-48V,
73050-Flat Clear-RGB-24V, 73050-Flat Clear-RGBW-24V, 73050-Flat
Clear-RGB-48V, 73050-Flat Clear-RGBW-48V
Test specification..... : Luminaires – Part 1: General requirements and tests
IEC 60598-1:2020
Date of Receipt sample.... : 2022-03-25
Date of Test..... : 2022-04-08 to 2022-04-12
Date of Issue..... : 2022-04-20
Test Report Form No..... : WST-133188-01A
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 (Foshan) Co., Ltd.

Address: No.13-19, 2/F., 2nd Building, Sunlink International Machinery City,
Chencun, Shunde District, Foshan, Guangdong, China

Tel:+86-757-23811398

Fax:+86-757-23811381

E-mail:info@waltek.com.cn

Tested by:

Carson Chen

Carson Chen

Approved by:

Jerry Mu

Jerry Mu



List of test items:

No.	Test Items	Requirement + Test	Result
1	IP67 Test	IEC 60598-1:2020	Pass

Subcontract

Whether parts of tests for the product have been subcontracted to other labs:

☐ Yes ☒ No

If Yes, list the related test items and lab information:

Test items: --

Lab information: --

Remarks:

1. Test of IP67 test was carried out on model 73050-Dome Diffuse-RGBW-24V.
2. All models have same dustproof and waterproof structure model name.

WALTEK

**Test Item:**

Tests for protection against dust-proof: IP6X

Test Method:

The tests should be carried out under the standard atmospheric condition.

The atmospheric conditions during tests are as follows:

Temperature range: 20 °C to 30 °C.

Dust-proof luminaires (first characteristic IP numeral 6) 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.

The test shall proceed as follows:

- a) The luminaire is suspended outside the dust chamber and operated at rated supply voltage until operating temperature is achieved.
- b) The luminaire, whilst still operating, is placed with the minimum disturbance in the dust chamber.
- c) The door of the dust chamber is closed.
- d) The fan/blower causing the talcum powder to be in suspension is switched on.
- e) After 1 min, the luminaire is switched off and allowed to cool for 3 h whilst the talcum powder remains in suspension.

NOTE The 1 min interval between switching on the fan/blower and switching off the luminaire is to ensure that the talcum powder is properly in suspension around the luminaire during initial cooling, which is most important with smaller luminaires. The luminaire is operated initially as in item a) to ensure the test chamber is not overheated.

Acceptance Conditions:

After completion of the tests, the luminaire shall withstand the electric strength test specified in Section 10, and inspection shall show:

No deposit of talcum powder inside enclosures for dust-tight luminaires.

Test Result:

☒ Pass ☐ Fail

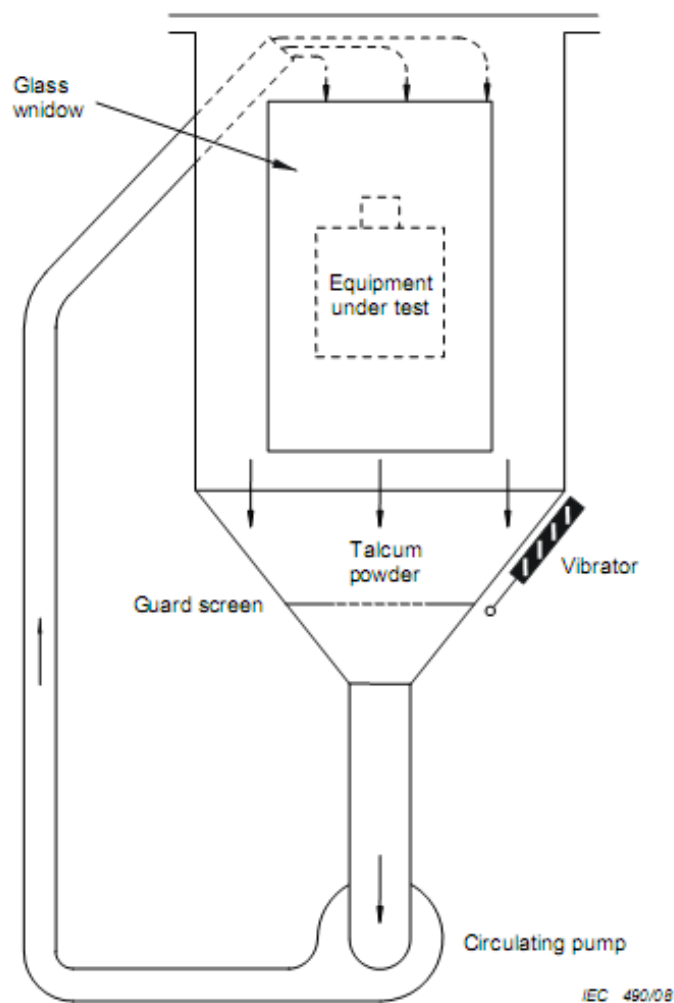


Figure 6 – Apparatus for proving protection against dust

**Test Item:**

Tests for protection against ingress moisture: IPX7

Test Method:

The tests should be carried out under the standard atmospheric condition.

The atmospheric conditions during tests are as follows:

Temperature range: 20 °C to 30 °C.

The tests are conducted with fresh water.

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.

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.

Test water for the tests shall be at a temperature of 15°C±10°C.

Luminaires shall be mounted and wired as in normal use and placed in the most unfavourable position, complete with their protective translucent covers, if any, for the tests of IP.

Where connection is made by a plug or a similar device, then this shall be regarded as part of the complete luminaire and shall be included in the tests and similarly for any separate Controlgear.

For tests of IPX1 to IPX8, a fixed luminaire intended for mounting with its body in contact with a surface shall be tested with an expanded metal spacer interposed between the luminaire and the mounting surface.

For recessed luminaires, the parts in the recess and the parts protruding from the recess shall each be tested according to their IP classification as indicated in the manufacturer's mounting instructions.

NOTE A box encapsulating the part in the recess may be necessary for the test of IPX3 to IPX8.

Portable luminaires, wired as in normal use, shall be placed in the most unfavourable position of normal use.

Glands, if any, shall be tightened with a torque equal to two-thirds of that applied to glands in the test of Table 4.2.

Fixing screws of covers, other than hand-operated fixing screws of glass covers, shall be tightened with a torque equal to two-thirds of that specified in Table 4.1.

Screwed lids shall be tightened with a torque having a value in newton metres numerically equal to one-tenth of the nominal diameter of the screw thread in millimetres. Screws fixing other caps shall be tightened with a torque equal to two-thirds of that specified in Table 4.1.

Acceptance Conditions:

After completion of the tests, the luminaire shall withstand the electric strength test specified in table 10.2, and inspection shall show:

No trace of water on current-carrying parts or SELV parts where the voltage under load exceeds 12 V r.m.s. or 30 V ripple-free d.c. or on insulation where it could become a hazard for the user or surroundings, for example, where it could reduce the creepage distances below the values specified in Section 11.

No trace of water entered in any part of a watertight or pressure watertight luminaire.

Test Result:

☒ Pass ☐ Fail



Table 4.1-Torque tests on screws

Nominal outer thread diameter of screw mm	Torque Nm		
	1	2	3
Up to and including 2.8	0.20	0.40	0.40
Over 2.8 up to and including 3.0	0.25	0.50	0.50
Over 3.0 up to and including 3.2	0.30	0.60	0.50
Over 3.2 up to and including 3.6	0.40	0.80	0.60
Over 3.6 up to and including 4.1	0.70	1.20	0.60
Over 4.1 up to and including 4.7	0.80	1.80	0.90
Over 4.7 up to and including 5.3	0.80	2.00	1.00
Over 5.3 up to and including 6.0	-	2.50	1.25
Over 6.0 up to and including 8.0	-	8.00	4.00
Over 8.0 up to and including 10.0	-	17.00	8.50
Over 10.0 up to and including 12.0	-	29.00	14.50
Over 12.0 up to and including 14.0	-	48.00	24.00
Over 14.0 up to and including 16.0	-	114.00	57.00

Table 4.2-Torque tests on glands

Diameter of test rod mm	Moment	
	Metal gland Nm	Moulded plastic glands Nm
Up to 7	6.25	2.5
Over 7 up to 14	6.25	3.25
Over 14 up to 20	7.50	5
Over 20	10	7.50

WALTEK



Table 10.2 Electric strength

Insulation of parts	Test voltage V		
	Class I luminares	Class II luminares	Class III luminares
SELV:			
Between current-carrying parts of different polarity	a	a	a
Between current-carrying parts and the mounting surface *	a	a	a
Between current-carrying parts and metal parts of the luminaire	a	a	a
Between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	a	a	a
Insulating bushings as described in Section 5	a	a	a
Other than SELV:			
Between live parts of different polarity	b	b	-
Between live parts and the mounting surface *	b	b and c, or d	-
Between live parts and metal parts of the luminaire	b	b and c, or d	-
Between live parts which can become of different polarity through action of a switch	b	b and c, or d	-
Between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts	b	c	-
Insulating bushings as described in Section 5	b	b and c, or d	-
Basic insulation for voltages of SELV (a)	500		
Basic insulation for voltages other than SELV (b)	2U ** + 1 000		
Supplementary insulation (c)	2U ** + 1 000		
Double or reinforced insulation (d)	4U ** + 2 000		
* The mounting surface is covered with metal foil for the purpose of this test.			
** U in this case is the nominal line-to-neutral voltage of the neutral-earthed supply system. Advice can be found in IEC 60664-1.			



Photo Documentation:



Photo 1 -- 73050-Dome Diffuse-RGBW-24V



Photo 2 -- After IP6X test



Photo 3 -- After IP6X test



Photo 4 -- After IP6X test



Photo 5 -- After IPX7 test



Photo 6 -- After IPX7 test



Equipment Used during Test :

Equipment	Model/Type	Due Date
Temperature & Humidity Datalogger	608-H1	2023-02-27
Dustproof chamber	HY-FCX	2023-02-27
Probe	FZ-1107-A	2023-03-06
Protection against water test device	KXT1318	2023-02-27
Force Gauge	NK-300	2023-02-27
Temperature Recorder	34970A	2023-02-27
Tape Measure	3m	2023-02-27
Clock	PC397	2023-02-27
Dielectric & Insulation Resistance Tester	9012	2023-02-27
Torsion Tester	20LTDK	2023-02-27
Power Meter	WT310E	2023-02-27

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

WALTEK