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Technical Report No. 611401610401

Rev. 00

Dated 2016-12-23

Client: Top Win Optoelectronics Corp.
5F, -2, No. 120, Qiaoh Rd., Zhonghe Dist., New Taipei City, New Taipei City

Test subject: Product: LED Street Light
Type: TW-PD0365011-D5, TW-PD0555011-D5, TW-PD0725011-D5,
TW-PD0855011-D5, TW-PD0905011-D5, TW-PD1105011-D5,
TW-PD1355011-D5

Test specification:

1. Test item: IEC 60598-1 Edition 8.0
2. Test conditions:
 - (1) IP6X (Dust): IEC 60598-1, Clause 9.2.2
 - (a) Dust: Talcum powder.
 - (b) The luminaire is operated at rated supply voltage until operating temperature is achieved before testing.
 - (c) The duration of test is 3 hrs.
 - (2) IPX6 (Water): IEC 60598-1, Clause 9.2.7
 - (a) Internal diameter of the nozzle: 12.5 mm
 - (b) Delivery rate: 100 l/min \pm 5%
 - (c) Distance from nozzle to enclosure surface: 3 m
 - (d) The duration of test is 3 mins.
3. Test environment:
 - (a) Temp.: $23 \pm 1^\circ\text{C}$; R.H.: $55 \pm 2\%$

Purpose of examination:

- Test according to the test specification

Test result: The test results show that the presented product is in compliance with the specified requirements.

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1 Description of the test subject

1.1 Function

Manufacturer's specification for intended use.

1.2 Consideration of the foreseeable misuse

- Not applicable
- Covered through the applied test specification
- Covered by the following comment
- Covered by attached risk analysis

1.3 Technical Data

Rated Voltage : 100-240 Vac
Rated Frequency : 50/60 Hz
Protection Class : Class I
IP Class : IP66

2 Order

2.1 Date of Purchase Order, Customer's Reference

2016-12-14

2.2 Receipt of Test Sample, Location

2016-12-14, TÜV SÜD Asia Ltd. Taiwan Branch

2.3 Date of Testing

2016-12-20



2.4 Location of Testing

TÜV SÜD Asia Ltd. Taiwan Branch
7F., No. 37, Sec. 2, Zhongyang S., Rd., Beitou District, Taipei City, 11270, Taiwan

2.5 Points of Non-compliance or Exceptions of the Test Procedure

None

3 Test Results

RESISTANCE TO DUST AND MOISTURE		Verdict
If IP > IP 20 the order of tests as specified in clause 3.12		P
Tests for ingress of dust, solid objects and moisture:		P
- classification according to IP	IP66	—
- mounting position during test.....	As normal use	—
- fixing screws tightened; torque (Nm)	0.8 Nm	—
- tests according to clauses	9.2.2 and 9.2.7	—
- electric strength test afterwards		P
a) no deposit in dust-proof luminaire		N/A
b) no talcum in dust-tight luminaire		P
c) no trace of water on current-carrying parts or on insulation where it could become a hazard		P
c.1) For luminaires without drain holes – no water entry		P
c.2) For luminaires with drain holes – no hazardous water entry		N/A
d) no water in watertight or pressure watertight luminaire		N/A
e) no contact with live parts (IP 2X)		N/A
e) no entry into enclosure (IP 3X and IP 4X)		N/A
e) no contact with live parts through drain holes and ventilation slots (IP3X and IP4X)		N/A
f) no trace of water on part of lamp requiring protection from splashing water		N/A
g) no damage of protective shield or glass envelope		P

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4 Remark

- Due to similar construction of enclosures, model TW-PD1355011-D5 was choose to perform this test and to represent all models.
- The test results are evaluated only on the luminaire construction, the LED driver tested with luminaire is for operation only, and is not evaluated to the test results.

4.1 Remarks to Factory

Not applicable.

5 Documentation

- Photos – see Appendix.

6 Summary

The test specification is met.

TÜV SÜD Asia Ltd. Taiwan Branch
TÜV SÜD Group

Engineer:

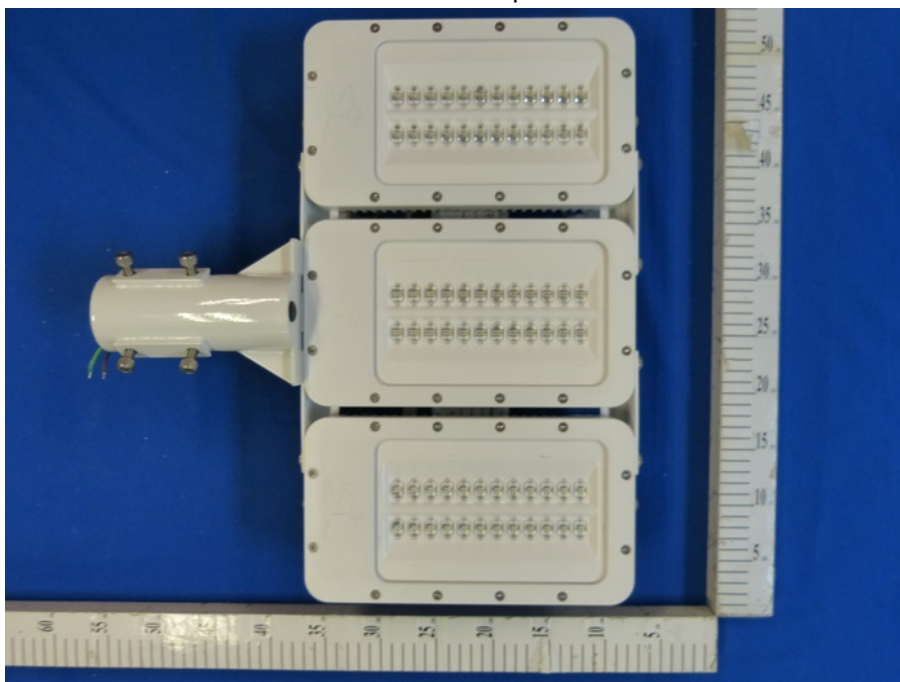

Ellen Yuan
Project Engineer

Technical Report checked:

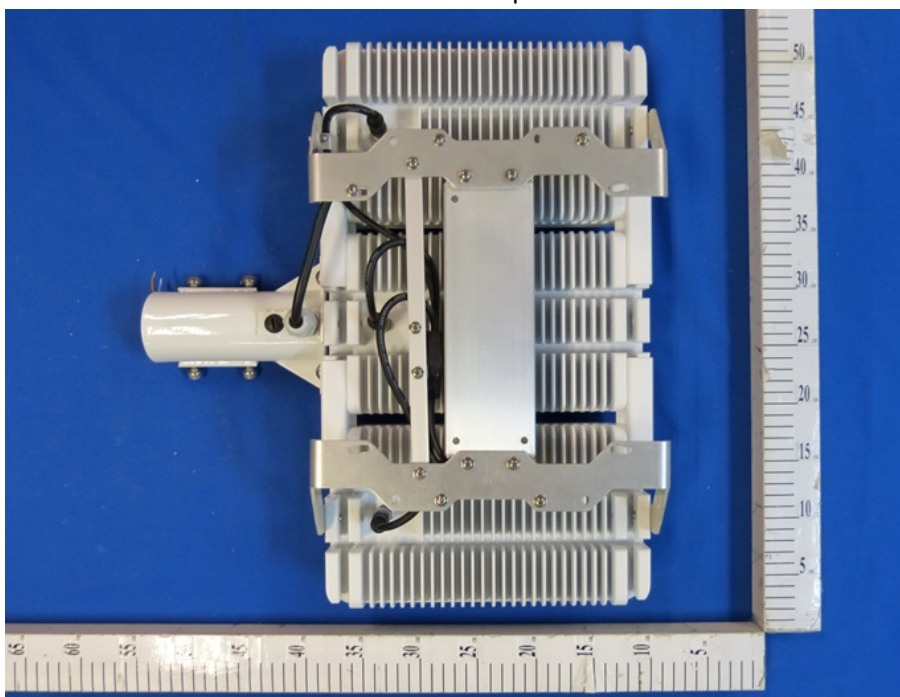

Alin Hung
Designated Reviewer

Appendix – Photos

Overall view of test sample before test



Overall view of test sample before test

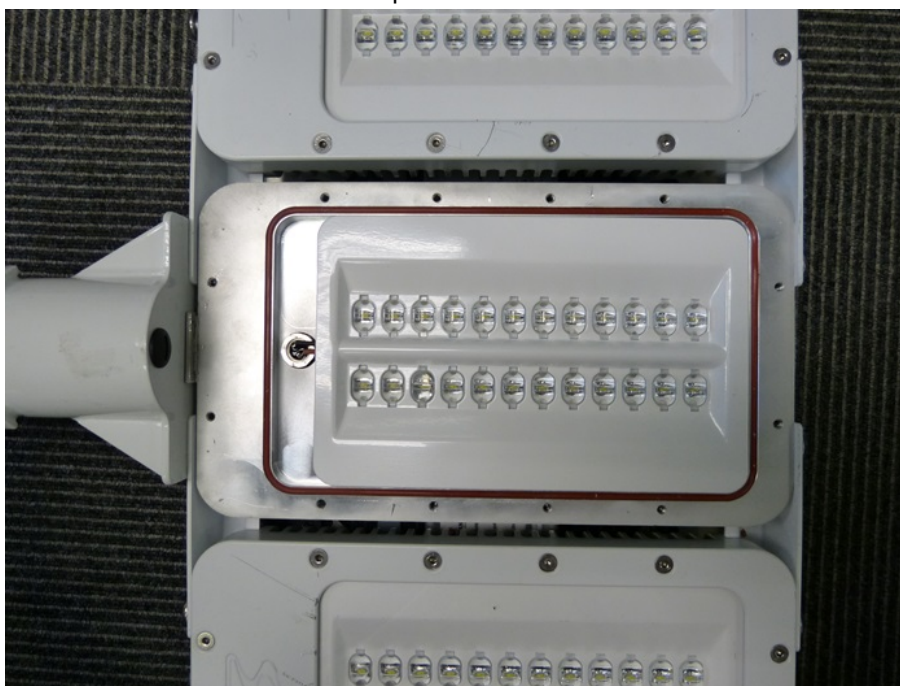


Appendix – Photos

After IP6X test

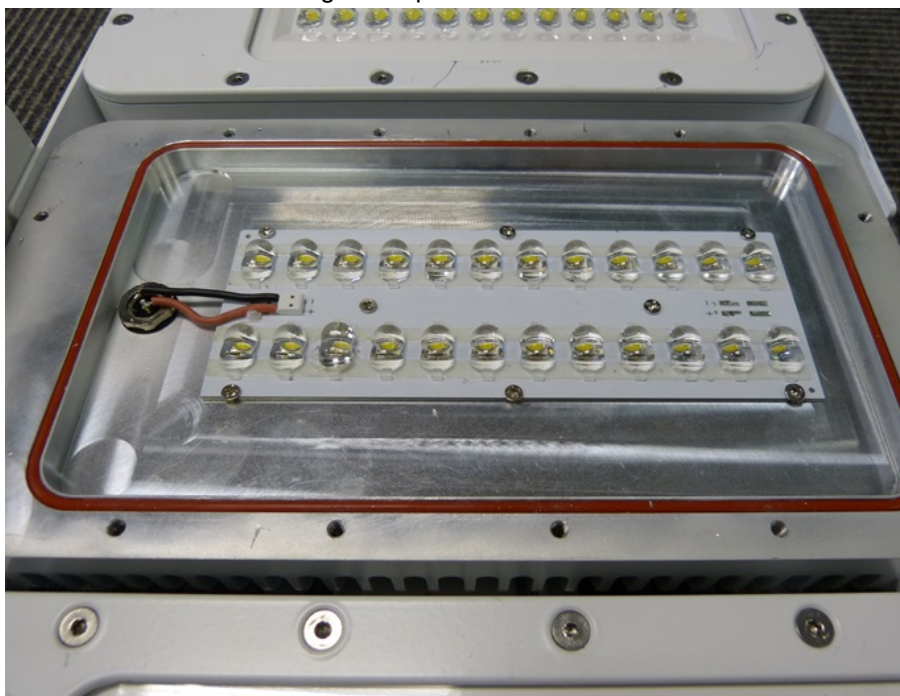


View of the product after IP6X test

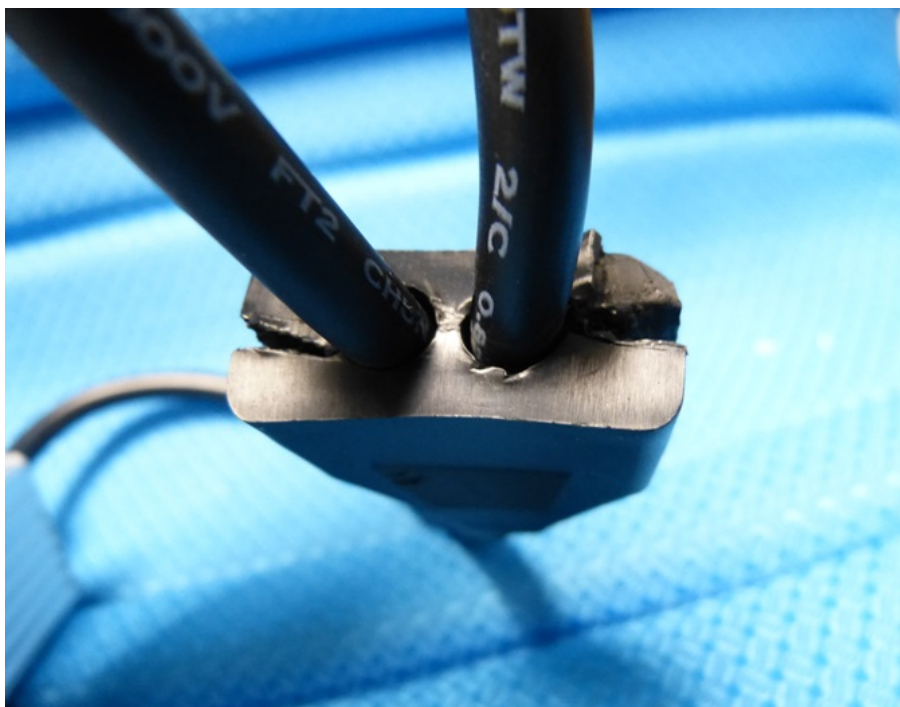


Appendix – Photos

View of light compartment after IP6X test



View of wire distributor after IP6X test



Appendix – Photos

During IPX6 test



View of light engine after IPX6 test



Appendix – Photos

View of wire distributor after IPX6 test

