



Technical Report No. 68.140.17.128.01

Dated 2017-02-15

Client: Name: Photon-L (Dongguan) Manufacturing Asia LTD
Address: No. 2, 2nd Beizong Road, Techno-industrial Park, Qishi, 523519
Dongguan, PEOPLE'S REPUBLIC OF CHINA
Contact person: Ms. Maria Shibalova

Manufacturing place: Manufacturer's name: same as client
Address: same as client

Factory's name: same as client
Address: same as client

Test subject: Product: LED Street Light
Type: Model 28/20W; Model 28/30W; Model 28/40W; Model 28/50W;
Model 49/60W; Model 49/80W; Model 49/100W; Model 49/120W;
Model 91/140W; Model 91/160W; Model 91/180W; Model 91/200W
Trade mark: **PHOTON-L**

Test specification: IP66 test according for clause 9.2.2 and clause 9.2.7 according to IEC 60598-1:2014 and EN 60598-1:2015.

Purpose of examination:

- inspection according to specified requirements to realize the conformity with the Produktsicherheitsgesetz –ProdSG, version Nov 08, 2011
- inspection according to specified requirements to realize the observance of the protection aims of the following EC directives:
 - LVD directive 2014/35/EU
 - EMC directive 2014/30/EU

Test according to the test specification

Test result: See section 3 for details.

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1 Description of the test subject

1.1 Function

- Manufacturer's specification for intended use:
LED Street Light for indoor and outdoor use.
- Manufacturer's specification for predictive misuse:
Nil

1.2 Consideration of the foreseeable misuse

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

1.3 Technical Data

Nil.

2 Order

2.1 Date of Purchase Order, Customer's Reference

2016-12-21

2.2 Receipt of Test Sample, Location

3pcs samples were recieved on 2016-12-21; EnE Department, Shenzhen

2.3 Date of Testing

2016-12-21 to 2017-02-15

2.4 Location of Testing

Building 12&13, Zhiheng Wisdomland Business Park Nantou Checkpoint Road 2, Nanshan District
518052 Shenzhen CHINA

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

Nil

3 Test Results

3.1 IP6X test (clause 9.2.2 of EN 60598-1:2015)

Test sample: Model 28/50W; Model 49/120W; Model 91/200W

Test location: the luminaires is tested in a dust chamber in which talcum powder is maintained in suspension by an air current. The chamber shall contain 2kg 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 50µm and whose nominal free distance between wires is 75µm. It shall not have been used for more than 10 tests.

Test procedure:

- a) Gland of supply cord was tightened with a torque of 2.2Nm, screws of metal enclosure were tightened with a torque of 1.3Nm.
- b) The luminaire is suspended outside the dust chamber and operated at rated supply voltage until operating temperature is achieved.
- c) The luminaire, whilst still operating, is placed with the minimum disturbance in the dust chamber.
- d) The door of the dust chamber is closed.
- e) The fan/blower causing the talcum powder to be in suspension is switched on.
- f) After 1min, the luminaire is switched off and allowed to cool for 3h whilst the talcum powder remains in suspension.

Test Result: Pass. After test, the luminaire can withstand the electric strength test at 1480V between live part and metal enclosure, and there is no deposit of talcum powder inside enclosures.

3.2 IPX6 test (clause 9.2.2 of EN 60598-1:2015)

Test sample: Model 28/50W; Model 49/120W; Model 91/200W

Test location: The luminaires is mounted in normal use and placed in the most unfavourable position, the water for the test is at a temperature of 15°C ±10°C.

Test procedure:

- (a) Gland of supply cord was tightened with a torque of 2.2Nm, screws of metal enclosure were tightened with a torque of 1.3Nm.
- (b) The luminaire complete with lamp is switched on and brought to stable operating temperature at rated voltage.
- (c) The luminaire is switched off and immediately subjected to a water jet for 3min from all directions by means of a hose having a nozzle with the shape and dimensions shown in Figure 8 of IEC/EN 60598-1, the nozzle is held 3m away from the sample.
- (d) The water pressure at the nozzle is adjusted to achieve a water flow rate of 100l/min ± 5% (approximately 100kN/m²).

Test Result: Pass. After test, the luminaire can withstand the electric strength test at 1480V between live part and metal enclosure, and there is no water entry into the luminaire.



- 4 Remark
- 4.1 Annex 1: photo document.
- 5 Documentation
- Nil
- 6 Summary
- The test specifications are met.

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch

Engineer:



Sadie Jiang
Project Handler

Technical Report checked:



David Zhao
Designated Reviewer

Annex 1: Photo document

Details of: Outlook for Model 28/20W, Model 28/30W, Model 28/40W and Model 28/50W
(representative model: Model 28/50W)



Details of: Back view for Model 28/20W, Model 28/30W, Model 28/40W and Model 28/50W
(representative model: Model 28/50W)



Details of: Outlook for Model 49/60W, Model 49/80W, Model 49/100W and Model 49/120W
(representative model: Model 49/120W)



Details of: Back view for Model 49/60W, Model 49/80W, Model 49/100W and Model 49/120W
(representative model: Model 49/120W)



Details of: Outlook for Model 91/140W, Model 91/160W, Model 91/180W and Model 91/200W
(representative model: Model 91/200W)



Details of: Back view for Model 91/140W, Model 91/160W, Model 91/180W
and Model 91/200W (representative model: Model 91/200W)

