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**Degree of protection against dust, moisture or  
solid objects, according to IP66 test requirements  
on Luscinia series luminaires**

Arnhem, December 12, 2024

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On request of:

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10 pages 0 annexes

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## 1 INTRODUCTION

On request of SIA VIZULO, Riga, Latvia, several IP tests were conducted on the representative models of the Luscinia series luminaires. The requirements as well as the method of testing and test equipment of the IP66 test are described in EN 60598-1:2021 and as detailed on the following pages

The IP66 test was conducted on models: LUAE 080 740 L01 BL024 CB XG2; LUIE 060 740 L01 BL024 CB XG2; LUPE 055 740 L01 BL024 CB XG2 and LUHE 060 740 L01 BL024 CB XG1 which are representative for entire series. Before the IP66 test was conducted the luminaires were subjected to an endurance test. Details about the endurance test can be found in examination report no. 2288152.50

## 2 TESTED PRODUCT AND TEST DESCRIPTION

### Product overview













**IP66 denotes**

- IP6X = Dust-tight.
- IPX6 = Powerful water Jet-proof.

**Preparation and tests:**

Before the below tests were conducted the luminaire was subjected to an endurance test as described in section 12 of EN 60598-1. Refer to examination report 2283443.50 for further details.

In case the product holds screws in parts which are to be operated by the user (e.g. for lamp replacement, supply connection, etc), these were tightened with a torque of 2/3 of full torque; unless the manual states otherwise.

**IP6X:**

The luminaire was mounted as in normal use and connected to the supply for at least two hours to heat up.

After that, the luminaire was placed in the dust cabinet and during the first minute of circulation of the dust the product was still connected to the supply. Then the product was disconnected from the supply and subjected to circulating dust for total duration of 3 hours.

**IPX6:**

Directly after the IP6X test the luminaire was cleaned (most of dust was removed from the luminaire) and connected to the supply for at least 2 hours to heat up.

After that, the luminaire was disconnected from the supply and immediately sprayed with a powerful jet-proof set to 100 l/min. for three minutes with the appropriate nozzle. After the test, the luminaire was carefully dried and opened of visual check. Before it was opened a dielectric voltage-withstand test was conducted at 2000 V + 4xU<sub>in</sub> (U<sub>in</sub> = maximum input voltage or maximum output voltage of the LED driver, whichever is higher).

**Pass criteria:**

For IP6X:

No entry of dust allowed into the luminaire enclosure, connection compartment, light source compartment, etc.

For IPX6:

No entry of water allowed in the luminaire enclosure, connection compartment, light source compartment, etc. that is in contact with live parts or components or where it can accumulate and cause a dangerous situation over time.

No flash-over or breakdown shall occur during the dielectric voltage-withstand test at 1000 V + 2xU<sub>in</sub> for class I luminaire and 2000 V + 4xU<sub>in</sub> for class II luminaire (U<sub>in</sub> = maximum input voltage or maximum output voltage of the LED driver, whichever is higher)

### 3 RESULTS/CONCLUSION

After the test there was no dust or water found in the luminaire housing, connection compartment, light source compartment, etc.

No flash-over or breakdown occur during the dielectric voltage-withstand test.

The product passed the test and complies with the specified requirements for IP66.

Test conducted by:

A blue ink signature, appearing to be 'R.D. Mindiola Romero', written in a cursive style.

R.D. Mindiola Romero

Reviewed by:

A blue ink signature, appearing to be 'J. Röttjers', written in a cursive style.

J. Röttjers

**END OF EXAMINATION REPORT**