

P.L.S.-Laboratory  
Site: **KET**

**Report N°: KE191769**  
Ingress of dust, solid objects and moisture  
IP



**Ketrzyn LAB**

**To:**

Przemysław Rycerz

Technician

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N.A.

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**From:**

Dalida Fuks

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Quality Lab Technician

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**Object:** 442710333001 BRP101 HOUSING MALAGA SMALL PAINTED BOTAI EXTENSION KZ 2679

**Product description:****Brand:** Philips**Family name:** BRP101**Family code:** Malaga LED**Led Module or Lamps:**

✓

**Electric Components in Product:**✓ **Driver:**✓ **SPD:** -✓ **Other:** 442710333001 BRP101 HOUSING MALAGA SMALL PAINTED BOTAI**Luminaire characteristics:**✓ **Electrical Class:**✓ **IP Classification:** 65✓ **IK Classification:** 08✓ **Ta(°C):** 45✓ **Un(V):** 220-240✓ **fn (Hz):** 50-60✓ **I LedModule (mA):** 700✓ **Luminaire installation:** On the ropes**Tests according to:**☒ EN 60598-1:2015 Luminaires - Part 1: General requirements and tests

+ EN 60598-1:2015/AC:2015 + EN 60598-1:2015/AC:2016, section 9.2

☐ EN 60598-2-1:1989 Luminaires - Part 2: Particular requirements - Section 1: Fixed general purpose, section 1.12☐ EN 60598-2-2:2012 Luminaires - Part 2-2: Particular requirements - Recessed luminaires, section 2.14☒ EN 60598-2-3:2003 Luminaires - Part 2-3: Particular requirements - Luminaires for road and street lighting + EN 60598-2-3:2003/A1:2011 + EN 60598-2-3:2003/AC:2005, section 3.13☐ EN 60598-2-5:2015 Luminaires - Part 2-5: Particular requirements - Floodlights section 5.13☐ EN 60598-2-22:2014 Luminaires - Part 2-22: Particular requirements - Luminaires for emergency lighting + EN 60598-2-22:2014/AC:2015, section 22.13**Test Equipment:**☒ PTL Dr. Grabenhorst GmbH type P03.26PL, Nozzle- **IP X5**☐ PTL Dr. Grabenhorst GmbH type P03.28PL, Nozzle- **IP X6**☐ PTL Dr. Grabenhorst GmbH type P14.21 S/N 5001488, Dust chamber **IP 5,6X**☒ PTL Dr. Grabenhorst, P01.18PL, Rainfall - **IP X 1,2**☐ PTL Dr. Grabenhorst, P02.27PL, Water spray aparatur - **IP X 3,4**☐ PTL Dr. Grabenhorst, P10.24, , Sphere, IEC 60529 ,UP057 - **IP 1X**☐ PTL Dr. Grabenhorst, P10.14, ,Standard test finger UP030 - **IP 2X**☐ PTL Dr. Grabenhorst, P10.26, ø2,5mm ,Wire testing, UP034 - **IP3X**☐ PTL Dr. Grabenhorst, P10.27, ø1,0mm PTL Dr. Grabenhorst , Wire testing, UP033 -**IP4X**☒ Altec thermocouple meter☒ Validation thermocouple nr.4☐ Dymanometer Gedore 2,5-25 Nm☐ Torqueleader ADS 12D 1-12Nm☒ Thermohigrometer LAB\_EL LB-701, nr 799

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**Test Results:**

☒ **PASS**

☐ **FAIL**

**Tested by:**

- ☐ Aneta Lewandowska  
☒ Dalida Fuks  
☐ Michał Szepietowski  
☐ Piotr Jakubiec  
☐ Konrad Micinski  
☐ Andrzej Haluszka

**Approved by:**

- ☒ Dariusz Pierzchanowski

**Test date:** 25-10-2019

**Issue date:** 25-10-2019

9.2	TEST FOR INGRESS OF DUST, SOLID OBJECTS AND MOISTURE	REMARKS	RESULT
	Endurance test before IP	YES	P
	- classification according to IP .....	<input type="checkbox"/> IP2X Solid-object-proof <input type="checkbox"/> IP3X Solid-object-proof <input type="checkbox"/> IP4X Solid-object-proof <input type="checkbox"/> IP5X Dust-proof <input checked="" type="checkbox"/> IP6X Dust-tight <input checked="" type="checkbox"/> P <input type="checkbox"/> IPX1 Drip-proof <input type="checkbox"/> IPX2 Drip-proof <input type="checkbox"/> IPX3 Rain-proof <input type="checkbox"/> IPX4 Splash-proof <input checked="" type="checkbox"/> IPX5 Jet-proof <input checked="" type="checkbox"/> P <input type="checkbox"/> IPX6 Powerful jet-proof <input type="checkbox"/> IPX7 Watertight <input type="checkbox"/> IPX8 Pressure watertight	P
	- mounting position during test.....	Side entry	P
	- fixing screws tightened; torque (Nm) .....		----
	- tests according to clauses .....	9.2.7	P
	Environmental temperature (15~ 35°C)	24	P
	Relative humidity (25 ~ 75%):	50	P
	Atm. pressure (860 ~1060 mbar)	1000	P
	Water temperature (15 ± 10 °C)	15	P

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	- electric strength test afterwards		N/A
	a) no deposit in dust-proof luminaire (IP5X)		N/A
	b) no talcum in dust-tight luminaire (IP6X)		N/A
	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		N/A
	c.2) For luminaires with drain holes – no hazardous water entry		N/A
	d) no water in watertight or pressure watertight luminaire (IPX7, IPX8)		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		N/A

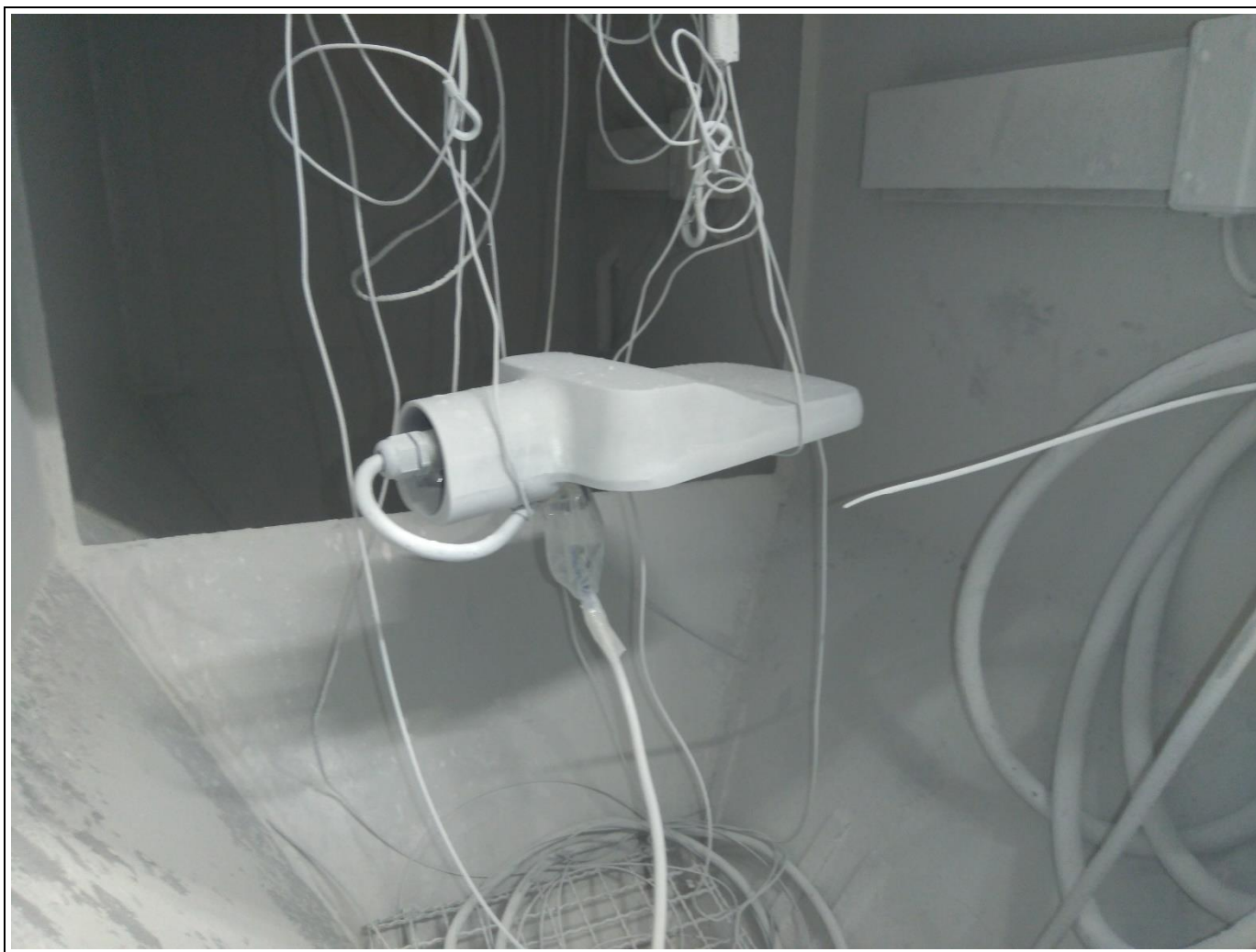
**PHOTOS**

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CONCLUSIONS AND REMARKS

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