



# Zakłady Badań i Atestacji „ZETOM”

im. Prof. F. Stauba w Katowicach sp. z o.o.

Institutions for Research and Certification „Zetom” Ltd.

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## Laboratorium Badawcze i Wzorcujące

Laboratorium badawcze akredytowane przez  
Polskie Centrum Akredytacji, sygnatariusza porozumień EA MLA i ILAC MRA  
dotyczy wzajemnego uznawania wyników badań.

Nr akredytacji AB 024



AB 024

# TEST REPORT

Ref. no. B/2024/167 dated 22/07/2024

**Subject:** Testing the resistance to the ingress of dust, solids and water of the ALA2 800  
lighting fixture.

**Tested for:** Furnika Sp. z o.o. [Limited Liability Partnership] Limited Partnership  
48-200 Prudnik  
Przemysłowa street 11

**Tested at:** Institutes for Research and Certification “ZETOM” Katowice  
Testing and Calibration Laboratory “ZETOM” Katowice

Customer Order Index: Order dated: 18/06/2024

3Laboratory Log Reference No. of Order: B/2024/306

**Test start date:** 17/07/2024 **Test end date:** 22/07/2024

This Test Report contains: 7 pages

3 copies hereof are issued to the following recipients:

1. Furnika Sp. z o.o. [Limited Liability Partnership] Limited Partnership
2. Furnika Sp. z o.o. [Limited Liability Partnership] Limited Partnership
3. LT

**Test supervisor:** Piotr Jureczko, MSc Eng.

**Tested and measured by:** Piotr Jureczko, MSc Eng. Lab Section: WE  
Kamil Długajczyk Eng. Lab Section: WE

**Test Report prepared by:** Kamil Długajczyk Eng.

**Authorised by:**

**Approved by:**

Kierownik Pracowni  
Elektrotechnicznej  
mgr inż. Piotr Jureczko



DYREKTOR  
DS. BADAŃ I WZORCOWAŃ  
mgr inż. Marcin Szota

The test results refer only to the tested object

**Zakłady Badań i Atestacji „ZETOM”**  
**im. Prof. F. Stauba w Katowicach sp. z o.o.**  
**Institutions for Research and Certification „ZETOM” Ltd.**  
**EU Notified Body no. 1436,**  
**for the following Directives: Construction, Low Voltage & Machinery**  
Ks. Bpa H. Bednorza 17 street; 40-384 Katowice, Poland  
*Phone: 0048(032) 2569-257, 0048(032) 2569-273, 0048(032) 2569-353*

## PROVISIONS

### A. Obligatory:

1. The Test Report shall be property of the Customer who has ordered to have the test done.
2. The Test Report and all information contained therein shall only be used with the consent of the Test Report owner.
3. This Test Report shall only be used in full.
4. All test and measurement reports listed herein refer to the test objects only and shall not be construed as a quality approval thereof.
5. The work covered herein has been carried out according to its Work Plan and in line with the Management System requirements specified in the Testing and Calibration Laboratory Quality Manual.
6. All reference to this Test Report shall be made with the following statement (or its equivalent in meaning):

***Tested by the Testing and Calibration Laboratory “ZETOM”  
in Katowice, a unit accredited by the Polish Centre for Accreditation  
seated in Warsaw within the scope of the Certificate No. AB 024 Annex.***

### B. Complementary (listed in this Test Report) Section

### C. Anomalies (listed in this Test Report) Section

When using the contents of this Test Report, the owner hereof shall state that they use the results produced by the Testing and Calibration Laboratory at the Institutes for Research and Certification “ZETOM” in Katowice, accredited by the Polish Centre for Accreditation in Warsaw.

The test results refer only to the tested object



Marking plate



Fixed luminaire LED model ALA2 800

The test results refer ONLY to the tested object

#### 4. TESTING PROGRAM

The Testing Program includes the testing's cope of the following reference standards:

- PN-EN IEC 60598-1:2021-07+A11:2022-12 "Luminaires. Part 1: General requirements and tests"
  - Section 9: Testing of resistance to ingress of dust, solids and water.
- PN-EN 60529:2003+A2:2014 "Degrees of protection provided by enclosures (IP code)"

**Possible evaluation results:**

- test description not applicable to the test object ..... : **N** (Not applicable))
- test object meets the requirement ..... : **P** (Pass)
- test object fails to meet the requirement ..... : **F** (Fail)
- not within the scope of testing ..... : - (-)

**General remarks:**

The numbers contained in the parentheses in the column refer to the Sections of PN-EN IEC 60598-1.

"(See note #)" refers to notes appended herein.

"(See Annex #)" refers to Annexes appended herein.

The report refers to complete studies performed for:

Fixed luminaire LED model ALA2 800

Technical specifications:

Supply voltage: 230 V~  
Rated mains frequency: 50 Hz  
Max. power consumption: 5 W  
Light source: LED  
IP44  
Insulation class: II

The test sample is representative of a series consisting of the following models:

ALA2 300  
ALA2 400  
ALA2 500  
ALA2 600

The test results refer only to the tested object

**5. MEASUREMENT EQUIPMENT**

- Thermohygrometer ID no. 9200014
- High-voltage apparatus ID no. 2100047
- Seconds meter ID no. 4500001
- INSTEK GPT measuring device ID no. 1005008
- Ruler ID no. 0110068
- IP leakage test facility

**6. TEST DESCRIPTION AND RESULTS**

**6.1** Research done by the standards PN-EN IEC 60598-1:2021-07+A11:2022-12

PN-EN IEC 60598-1:2021-07+A11:2022-12			
Section	Requirement - Check	Result	Evaluation
9.2	Testing of resistance to ingress of dust, solids and water.		
	- Classification rating .....	IP44	
	- Luminaire orientation during the test ...	as in normal use	
	- Tightened mounting screws (Nm) .....		
	- Test comply with Section .....	9.2.0 and 9.2.5	
	- Electric strength	2920 V	P
	a) No excessive amounts of talc in the dust-proof luminaire		N
	b) No talc in the dust-proof luminaire		N
	c) No traces of water on live parts		P
	d) No water in the waterproof luminaire		N
	e) No access to live parts		N
	f) No traces of water on any part which requires flooding protection		P
	g) No mechanical damage		N
9.3	48 h humidity test		P

Testing according to PN-EN IEC 60598-1:2021-07+A11:2022-12 "Luminaires. Part 1: General requirements and tests" section 9: 'Resistance to ingress of dust, solids and moisture' are the same with the corresponding requirements of PN-EN 60529:2003+A2:2014-07 "Degrees of protection provided by enclosures (IP code)" to the extent relevant to them.

The test results refer only to the tested object

Complementary photos:



END OF REPORT

The test results refer only to the tested object