



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx UL 24.0035X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2024-04-25

Applicant: **Advanced Lighting Company**
Unit no 5, Block 6859 Abdullah Ibn Az-Zubayr Ibn Al-Awam st Al Madar Industrial Ibn Sina Dist
Al Khubar 34627-2828
Saudi Arabia

Equipment: **LED Luminaire, Model AE-FL01 Series**

Optional accessory:

Type of Protection: **Flameproof "db", Dust Ignition Protection by Enclosure "tb"**

Marking: **Ex db IIB T6 Gb**
Ex tb IIIC T85°C Db
-25°C ≤ Ta ≤ +50°C

Approved for issue on behalf of the IECEx
Certification Body:

Andreas Koehler

Position:

Certification Program Specialist GMA

Signature:
(for printed version)

Date:
(for printed version)

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Certificate issued by:

UL Solutions (US)
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America





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Manufacturer: **Advanced Lighting Company**
Unit no 5, Block 6859 Abdullah Ibn Az-Zubayr Ibn Al-Awam st Al Madar Industrial Ibn Sina Dist
Al Khubar 34627-2828
Saudi Arabia

Manufacturing locations: **Advanced Lighting Company**
Unit no 5, Block 6859 Abdullah Ibn Az-Zubayr Ibn Al-Awam st Al Madar Industrial Ibn Sina Dist
Al Khubar 34627-2828
Saudi Arabia

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-1:2014 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

US/UL/ExTR24.0050/00

Quality Assessment Report:

GB/CSAE/QAR24.0005/00



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Model AE-FL01 series of LED luminaires are suitable for use in hazardous location classified as Zone 1 and Zone 21. This luminaire consists of two interconnecting "db"/"tb" chambers: one is the wiring compartment (driver cavity and driver cavity cover) for wiring connection, the other one is the LED array chamber (lamp cavity and LED source cavity). The enclosure material is aluminum alloy. The light-transmitting part is made of tempered flat glass. The gasket is used to maintain the IP rating. The entry for wiring through conduit maintains the degree of protection. Unused entries are fitted with blanking elements to maintain the degree of protection.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The flameproof joints are not intended to be repaired.

Annex:

[Annex to IECEx UL 24.0035X Issue 0.pdf](#)



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TYPE DESIGNATION

Nomenclature for Luminaires:

The complete luminaire catalogue number example is as follows:

Models	AE- FL01	-	80W	-	M
	1		2		3

1 – Designates basic luminaire model series

AE-FL01 – For all luminaires

2 – Designates luminaire system input wattage rating

150W – 150 W

100W – 100 W

80W – 80 W

3 - Designates luminaire system input voltage rating

M – 100-240V

H – 200-480V

Models covered are as follows:

Model	Ambient Temperature range	Gas Temperature Code	Dust Temperature Rating
AE-FL01-80W-M AE-FL01-80W-H	-25°C to +50°C	T6	T85°C
AE-FL01-100W-M AE-FL01-100W-H	-25°C to +50°C	T6	T85°C
AE-FL01-150W-M AE-FL01-150W-H	-25°C to +50°C	T6	T85°C

PARAMETERS RELATING TO THE SAFETY

AE-FL01-80W-M, rated 100-240 Vac, 50/60 Hz, 80 W

AE-FL01-100W-M, rated 100-240 Vac, 50/60 Hz, 100 W

AE-FL01-150W-M, rated 100-240 Vac, 50/60 Hz, 150 W

AE-FL01-80W-H, rated 200-480 Vac, 50/60 Hz, 80 W

AE-FL01-100W-H, rated 200-480 Vac, 50/60 Hz, 100 W

AE-FL01-150W-H, rated 200-480 Vac, 50/60 Hz, 150 W

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MARKING

Marking has to be readable and indelible; it has to include the following indications:

<p>LED Luminaire</p> <p>ALCE Certificate No.: IECEx UL 24.0035X Ex db IIB T6 Gb Ex tb IIIC T85°C Db -25°C ≤ Ta ≤ +50°C</p> <p>Model: AE-FL01-80W-H Driver Model: HVG-100-36A 80W, 200-480V AC, 50/60Hz, 5000K, MIN.P.F: 0.9, IP65 Thread Size and Type: 3/4" NPT WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT WARNING – DO NOT OPEN WHEN ENERGIZED SEE INSTALLATION INSTRUCTIONS CAUTION – USE FASTENERS WITH YIELD STRESS > 450 Mpa</p> <p>Advanced Lighting Company Unit no. 5, Block 6859 Abdullah Ibn Az-Zubayer Ibn Al-Awam st Al Madar Industrial Ibn Sina Dist Al Khobar 34627-2828</p>	<p>LED Luminaire</p> <p>ALCE Certificate No.: IECEx UL 24.0035X Ex db IIB T6 Gb Ex tb IIIC T85°C Db -25°C ≤ Ta ≤ +50°C</p> <p>Model: AE-FL01-80W-M Driver Model: HLG-100H-36A 80W, 100-240V AC, 50/60Hz, 5000K, MIN.P.F: 0.9, IP65 Thread Size and Type: 3/4" NPT WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT WARNING – DO NOT OPEN WHEN ENERGIZED SEE INSTALLATION INSTRUCTIONS CAUTION – USE FASTENERS WITH YIELD STRESS > 450 Mpa</p> <p>Advanced Lighting Company Unit no. 5, Block 6859 Abdullah Ibn Az-Zubayer Ibn Al-Awam st Al Madar Industrial Ibn Sina Dist Al Khobar 34627-2828</p>
<p>LED Luminaire</p> <p>ALCE Certificate No.: IECEx UL 24.0035X Ex db IIB T6 Gb Ex tb IIIC T85°C Db -25°C ≤ Ta ≤ +50°C</p> <p>Model: AE-FL01-100W-H Driver Model: HVG-100-36A 100W, 200-480V AC, 50/60Hz, 5000K, MIN.P.F: 0.9, IP65 Thread Size and Type: 3/4" NPT WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT WARNING – DO NOT OPEN WHEN ENERGIZED SEE INSTALLATION INSTRUCTIONS CAUTION – USE FASTENERS WITH YIELD STRESS > 450 Mpa</p> <p>Advanced Lighting Company Unit no. 5, Block 6859 Abdullah Ibn Az-Zubayer Ibn Al-Awam st Al Madar Industrial Ibn Sina Dist Al Khobar 34627-2828</p>	<p>LED Luminaire</p> <p>ALCE Certificate No.: IECEx UL 24.0035X Ex db IIB T6 Gb Ex tb IIIC T85°C Db -25°C ≤ Ta ≤ +50°C</p> <p>Model: AE-FL01-100W-M Driver Model: HLG-100H-36A 100W, 100-240V AC, 50/60Hz, 5000K, MIN.P.F: 0.9, IP65 Thread Size and Type: 3/4" NPT WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT WARNING – DO NOT OPEN WHEN ENERGIZED SEE INSTALLATION INSTRUCTIONS CAUTION – USE FASTENERS WITH YIELD STRESS > 450 Mpa</p> <p>Advanced Lighting Company Unit no. 5, Block 6859 Abdullah Ibn Az-Zubayer Ibn Al-Awam st Al Madar Industrial Ibn Sina Dist Al Khobar 34627-2828</p>
<p>LED Luminaire</p> <p>ALCE Certificate No.: IECEx UL 24.0035X Ex db IIB T6 Gb Ex tb IIIC T85°C Db -25°C ≤ Ta ≤ +50°C</p> <p>Model: AE-FL01-150W-H Driver Model: HVG-150-36A 150W, 200-480V AC, 50/60Hz, 5000K, MIN.P.F: 0.9, IP65 Thread Size and Type: 3/4" NPT WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT WARNING – DO NOT OPEN WHEN ENERGIZED SEE INSTALLATION INSTRUCTIONS CAUTION – USE FASTENERS WITH YIELD STRESS > 450 Mpa</p> <p>Advanced Lighting Company Unit no. 5, Block 6859 Abdullah Ibn Az-Zubayer Ibn Al-Awam st Al Madar Industrial Ibn Sina Dist Al Khobar 34627-2828</p>	<p>LED Luminaire</p> <p>ALCE Certificate No.: IECEx UL 24.0035X Ex db IIB T6 Gb Ex tb IIIC T85°C Db -25°C ≤ Ta ≤ +50°C</p> <p>Model: AE-FL01-150W-M Driver Model: HLG-150H-36A 150W, 100-240V AC, 50/60Hz, 5000K, MIN.P.F: 0.9, IP65 Thread Size and Type: 3/4" NPT WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT WARNING – DO NOT OPEN WHEN ENERGIZED SEE INSTALLATION INSTRUCTIONS CAUTION – USE FASTENERS WITH YIELD STRESS > 450 Mpa</p> <p>Advanced Lighting Company Unit no. 5, Block 6859 Abdullah Ibn Az-Zubayer Ibn Al-Awam st Al Madar Industrial Ibn Sina Dist Al Khobar 34627-2828</p>



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ROUTINE EXAMINATIONS AND TESTS

- Routine overpressure tests in accordance with IEC 60079-1 Ed. 7 shall be conducted on all units in accordance with clause 15.2.3.2, at a pressure of 136 psi for the duration of not less than 10 seconds. There shall be no sign of damage, deformation or rupture that will invalidate the concept of protection.