

# **ILED® Aquarius Floodlight**

## User Manual



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### 1. Safety

To ensure that the product is used safely and to optimize its useful life, the following instructions must be observed.

- Only qualified personnel may install the product.
- Observe the locally applicable safety standards and safety regulations.
- During assembling, make sure the light fitting is not subjected to mechanical stress, mount on a flat surface.
- Use all the mounting holes when installing the light fitting.
- Ensure that the cable gland used is suitable for the dimensions and type of cable to be connected. This is necessary, otherwise the IP protection cannot be guaranteed.
- Ensure that the cable gland used has an IP level of IP66, IP67 or IP68 in conformance with EN 60529, and in case of an explosion proof lighting fixture, is Ex-e certified according to IEC 60079-7.
- Ensure there is a reliable connection to the earthing system, both with the external earthing point and with the connection in the light fitting junction box.
- Never open the light fitting's housing.
- Do not clean the light fitting using pressurized steam or a high-pressure water jet, to avoid damage not covered by the warranty.

### 2. Warranty

#### 2.1 General

The warranty for the ILED® Aquarius Floodlight light fittings is only valid when the light fitting is used within the operating limits. The operating limits are:

- The minimum and maximum ambient temperature for the ILED® Aquarius Floodlight light fitting is -40° C and +55°C
- The light fitting must be installed by qualified personnel according to the installation instructions.
- Damage caused by incorrect installation, accidents or external influences, such as a lightning strike or harmonic distortion that are not within EN 50055, are not covered by the guarantee.



The light fitting's lighting level depends on the temperature and is, therefore, not covered by the warranty.

If an ILED® Aquarius Floodlight light fitting fails within the warranty period, IMT B.V. will provide a new light fitting with similar specifications free of charge. Before it can be confirmed that the damage is covered by the warranty, the defective light fitting must be sent to IMT B.V. at the user's expense for inspection. The user will be informed of the result(s) of the inspection. For individual warranty agreements see invoice.

### 3. Type plate

#### 3.1 Standard Model

The standard light fitting has a type plate:




		IMT bv PASCALWEG 10A 4104 BG CULEMBORG THE NETHERLANDS			
		TYPE		<input type="text" value="1"/>	
VERSION	<input type="text" value="2"/>	POWER	<input type="text" value="8"/>	Hz	<input type="text" value="9"/>
Tamb.	<input type="text" value="3"/>	CURRENT	<input type="text" value="7"/>	YEAR OF PROD.	<input type="text" value="5"/>
SERIAL NO.	<input type="text" value="4"/>	VOLTAGE	<input type="text" value="6"/>	IP	<input type="text" value="66"/>
WARNING—DO NOT OPEN WHEN ENERGIZED					

It contains the following information:

1. Type : ILED® FLOODLIGHT
2. Version : HELIDECK  
: TYPE X
3. Ambient Temp. : -40°C/+55°C
4. Serial number
5. Year of manufacture
6. Voltage : AC Version 95-250Vac  
: DC Version 24Vdc ±10%
7. Current : AC Version 420-155mA  
: DC Version 1,66A
8. Power : Max. 40W
9. Frequency : AC Version 50/60  
: DC Version None

### 3.2 Explosionproof Model

The explosion-proof model has a type plate:

	0344	SIRA 11ATEX3295X IECEX SIR 11.0142X	IMT bv PASCALWEG 10A 4104 BG CULEMBORG THE NETHERLANDS		
	II 2 GD SEE LABEL ITEM 10		TYPE	<input type="text" value="1"/>	
VERSION	<input type="text" value="2"/>	POWER	<input type="text" value="8"/>	Hz	<input type="text" value="9"/>
Tamb.	<input type="text" value="3"/>	CURRENT	<input type="text" value="7"/>	YEAR OF PROD.	<input type="text" value="5"/>
SERIAL NO.	<input type="text" value="4"/>	VOLTAGE	<input type="text" value="6"/>	IP	<input type="text" value="66"/>
WARNING—DO NOT OPEN WHEN ENERGIZED					

It contains the following information:

1. Type : ILED® FLOODLIGHT
2. Version : HELIDECK  
: TYPE X
3. Ambient Temp. : -40°C/+55°C
4. Serial number
5. Year of manufacture
6. Voltage : AC Version 95-250Vac  
: DC Version 24Vdc ±10%
7. Current : AC Version 420-155mA  
: DC Version 1,66A
8. Power : Max. 40W
9. Frequency : AC Version 50/60  
: DC Version None
10. Marking : Ex e mb IIC T4 Gb  
: Ex tb IIIC T135°C Db IP66

## 4. Product Description

All ILED® Aquarius Floodlight light fittings are designed for use in demanding surroundings.



The various ILED® Aquarius Floodlight light fittings:

- Are sealed for life.
- Are vibration-proof.
- Are based on ILED® technology.
- explosion-safe model ATEX category 2<sup>1</sup> suitable for use in Zone 1 & 21.

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<sup>1</sup> Risk of the presence of an explosive gas mixture or dust mixture during normal operation is high (10 to 1,000 hours per year)

## 5. Specifications

### 5.1 General

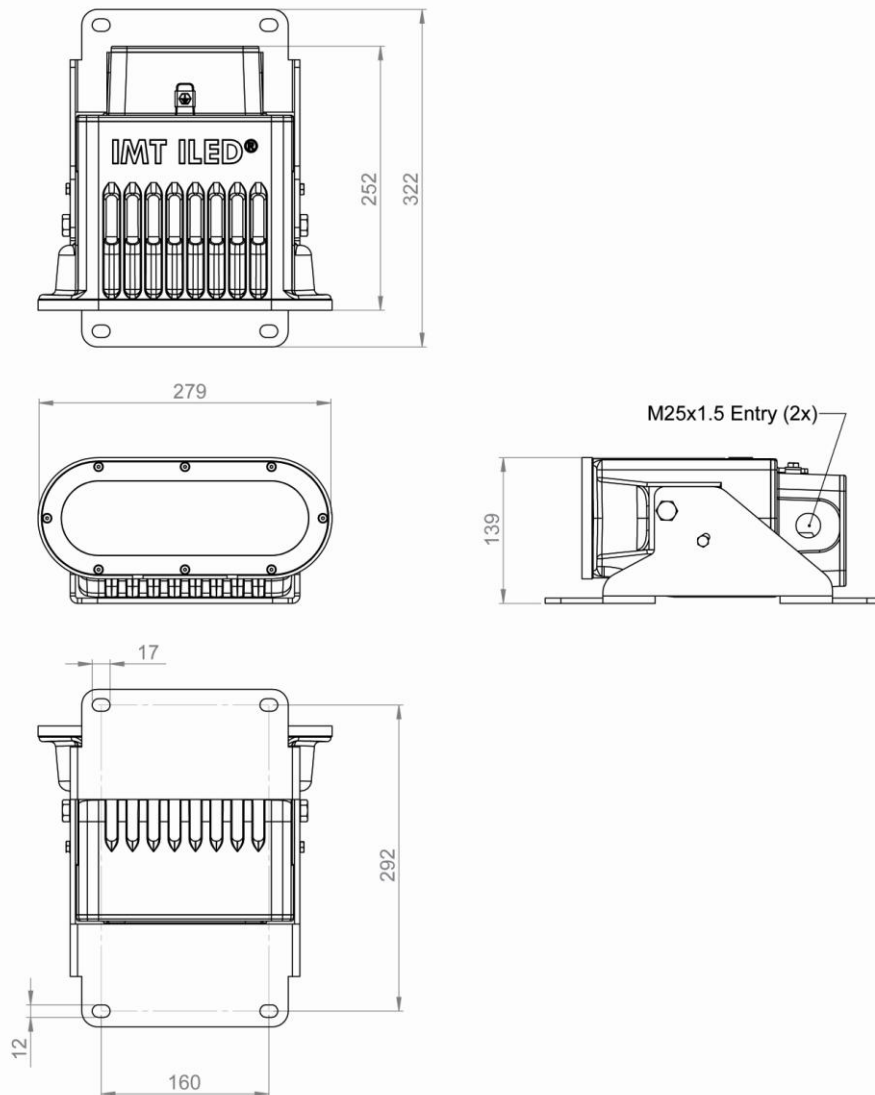
Housing	: Marine grade aluminum anodized
Lens	: Borosilicate glass
Color	: White
Mechanical protection	: IP66
Voltage DC version	: 24Vdc $\pm$ 10%
Voltage AC version	: 95-255Vac 50/60Hz
Burning position	: Universal
(Re)ignition	: Instant
Power factor	: >0,95
Connection	: Fitted as standard with a junction box, suitable for a single-phase connection

### Options

The following options are available for all the ILED® Aquarius Floodlight light fittings:

- Mounting brackets

### 5.2 Dimensions



## 6. Installation

### 6.1 Preparation

1. Check whether the light fitting is to be installed in an environment that meets the ambient temperatures, gas group and temperature class. This data is included on the light fitting type plate.



**WARNING**

**Installation of a light fitting in an environment that does not meet the specified conditions may result in a dangerous situation.**



**WARNING**

**Installation of a light fitting in an environment that does not meet the specified ambient temperatures may have a negative effect on the useful life of the light fitting.**

2. Choose the correct type of protection for the light fitting. When doing so, ensure:
  - a. The choice of cut-off current for the safety device is suitable for the expected nominal current. This depends on the number of light fittings that are connected.
  - b. The safety device's cut-out power is suitable for the maximum short-circuit current that the mains power supply can provide.

### 6.2 Assembly

1. Remove the light fitting from the packaging.
2. Inspect the light fitting for mechanical damage.
3. Mount the light fitting to the construction.
  - Ensure there is a reliable connection to the earthing system, both with the external earthing point and with the connection in the light fitting junction box. Take precautions to prevent corrosion to ensure the functionality of the earth connection.
  - Ensure that the cable gland is suitable for the dimensions of the type of cable that will be connected and has an IP level of IP66, IP67 or IP68 and in case of an explosion proof lighting fixture, is certified according to EX e IIC T4 Gb and Ex tb IIIC T135C Db IP66 ( ATEX II2 GD) IEC 60079-0:2007 Ed 5, IEC 60079-7 Ed 4, IEC 60079-31:2008 Ed 1. This is necessary to ensure the IP protection, and to be suitable for a hazardous environment.



**WARNING**

**During assembly, make sure the light fitting is not subjected to mechanical stress.**

4. Cable glands and blind plugs need to be installed according to the instructions of the manufacturer. This is necessary to guarantee IP protection. The cable entries are M20x1.5 or M25x1.5. Cables shall be stripped according to the instructions of the manufacturer with the appropriate tools to guarantee the properties of the cable. Wire sleeves suitable for the quadratic wire diameter shall be placed at the bare wire ends and fixed with a specified tool according to the instructions of the manufacturer.
5. Cut the cable to the required length.
6. Connect the cable to the terminals. The standard terminals in the junction box are suitable as a standard for a core diameter of 0 - 4 mm<sup>2</sup>.
7. Check the connections that have been made.
8. Close the junction box.



**WARNING**

**The installation must be carried out in accordance with IEC 60079-14.**



**WARNING**

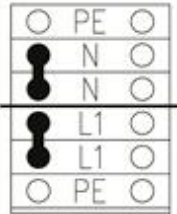
**The installation must be carried out in conformance with (NEN-EN) IEC 60079-14.**



### 6.3 Connections

As standard, there is a terminal block in the junction box of the ILED® Aquarius Floodlight which is suitable for a 1-phase connection.

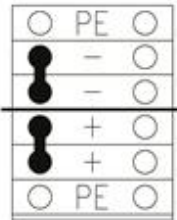
#### Standard AC version:



The following connections can be made

L and N : Power connection

#### Standard DC version:



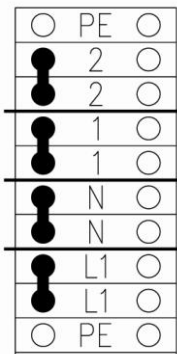
The following connections can be made

+ and - : DC Power connection



**WARNING**  
Swapping over the + and - may damage the light fitting.

#### Explosion proof AC version:



The following connections can be made

L and N : Power connection  
1 and 2 : Communication connection

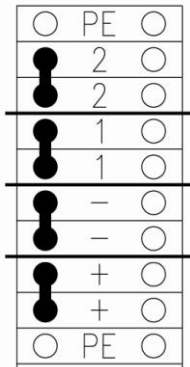


**WARNING**  
Swapping over the 1 and 2 may damage the light fitting.



**WARNING**  
Installing the power on the 1 and 2 will damage the light fitting.

### Explosion proof DC version:



The following connections can be made

+ and - : DC Power connection  
1 and 2 : Communication connection



**WARNING**  
Swapping over the + and – may damage the light fitting.



**WARNING**  
Swapping over the 1 and 2 may damage the light fitting.



**WARNING**  
Installing the 24V on the 1 and 2 will damage the light fitting.

## 7. Use

### 7.1 Operation

The light fitting can be switched on immediately after installation by switching on the supply voltage. .

### 7.2 Insulation test

Installations in which IMT ILED® Dorado light fittings are installed can be tested y means of an insulation test. For this test, apply a maximum of 500 Vdc between earth and (+ and -).



**WARNING**  
Never apply more than 500 VDC between a phase and a neutral wire.

All the light fittings are subjected to a dielectric test during manufacture (DC version: 700 Vdc for 60 seconds, AC version: 2100 Vdc for 60 seconds). In addition, the light fittings have also been subjected to an endurance test.

## 8. Maintenance

The light fittings are 'sealed for life' and therefore cannot be opened. Because of this maintenance, as defined in the IEC 60079-17 standard, is not applicable and visual inspection only for correct functioning is sufficient.



**WARNING**

**Opening the light fitting invalidates any warranty claim.**

## 9. Recycling

For recycling the light fitting, agreements have been made with local authorities within the context of the WEEE directive.

Contact your local partner (see 'Contact details'). Your local partner will take care of further processing.

## 10. Contact details

IMT B.V.

Pascalweg 10a, 4104 BG Culemborg

P.O. Box 88, 4100 AB Culemborg

THE NETHERLANDS

Phone : +31 (0)88 - 12 69 100

Fax : +31 (0)88 - 12 69 101

E-mail : sales@imt.eu

For an up-to-date overview of all national and international contacts, go to our website: [www.imt.eu](http://www.imt.eu).

## 11. EC Declaration of Conformity

The undersigned, representing the following company:

**IMT B.V.**

Pascalweg 10a, 4104 BG Culemborg  
Postbus 88, 4100 AB Culemborg  
Nederland  
Tel: 088 – 12 69 100  
Fax: 088 – 12 69 101  
E-mail: sales@imt.eu

herewith declares that the product, **ILED® Aquarius Floodlight**, marked with Ex II 2 GD Ex e mb IIC T4 Gb and Ex II 2 GD Ex tb IIIC T135°C Db IP66, complies with the terms of the EC directive(s), including all applicable supplements.

94/9/EC	Equipment and protective systems intended for use in potentially explosive atmospheres
2004/108/EC	Electromagnetic Compatibility

and that provisions have been made in all standards and/or technically related specifications below.

Standard	Issue	Title
EN 60079-0	2009	Electrical apparatus for potentially explosive atmospheres General requirements
EN 60079-7	2007	Explosive atmospheres – Part 7: Equipment protection by increased safety “e”
EN 60079-18	2009	Explosive atmospheres – Part 18: Equipment protection by encapsulation “m”
EN 60079-31	2009	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure “t”
EN 61547	2009	Equipment for general lighting purposes. EMC immunity requirements
EN 61000-3-2	2006	Limits for harmonic current emissions (equipment input current up to and including 16A per phase),

EC type certificate number      Sira 11ATEX3295X and  
IECEX SIR 11.0142X.

Culemborg, 1 august 2011



IMT B.V.  
R.L.L.M.G. Mignot, Managing director



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