



General Specifications

Axceleron

P/N: 30-00100

(Rev_20200210)



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Introduction

Read this entire document before installing the fixture. This document contains the *General Specifications* of the Aquarii Axceleron LED Fixture.

<i>NOTE</i>	This document DOES NOT contain procedural information. For <i>Installation and Mounting Procedures</i> ; see the accompanying documentation included in the shipping container.
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The fixture is designed for general and specific lighting use applications in environments such as houses of worship, museums, auditoriums, theaters, atriums, cafeteriums, etc.

Safety Information

Read and understand the Safety Information to ensure personal and product safety.

All electrical connections must be installed in accordance with the National Electrical Code (NEC) and specific local codes. Contact the local codes office for applicable codes, permits, and required inspections prior to installation.

The sites Power Supply Voltage must meet the requirements of the Axceleron (see **Electrical Characteristics**) to ensure proper function, personal, and product safety.

The fixture must be oriented correctly to ensure proper function. There are multiple mounting options (see **Mounting Information**) that can be installed. Be sure to confirm the correct fixture and mounting option have been ordered for the specific site parameters and requirements.

Connecting the fixture to a power source with a voltage/AC level that is outside its parameters is prohibited, will damage the product, and void any product warranties.

<i>WARNING</i>	Do not connect the Axceleron to an electrical system that does not provide grounding equipment. Failure to do so can cause an electrical current to flow through the fixture with the potential of causing serious personal injury and permanent damage to the Axceleron. Absence of proper grounding circuitry will void any product warranties.
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The fixture must be properly mounted according to the applicable mounting procedure. Do not hang the Axceleron with supply wires or wire connectors.

<i>WARNING</i>	Attempting to hang the Axceleron with supply wires or wire connectors will result in the fixture to fall with the potential of serious personal injury, electrical shock, and/or fire.
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An Axceleron with a Flat/Slope Recessed Mount is supplied with a repair/assistance cable. Do not change the cable length, or secure with fasteners (Ex. “Dog Clips”) that are not designed for the required use.

Be sure to use caution during the installation process when the wiring systems are exposed. The wires **MUST NOT** come into contact with any surfaces that have sharp edges to ensure personal and product safety.

Personal Protective Equipment (PPE) must be worn at all times during installation/maintenance procedures. The fixture has a high light intensity output. Exposure at close range can cause severe eye damage.

Physical Characteristics

The Physical Characteristics are detailed below.

The *Physical Dimensions* are:

<i>DIAMETER</i>	<i>HEIGHT</i>	<i>UNIT WEIGHT</i>
9.75 in.	14.57 in.	10 lbs
247,6 mm	370 mm	4.5 kg

<i>NOTE</i>	The total Unit Weight does not include the weight of an installed mounting conditions.
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The *Standard Characteristics* are:

- High performance LED Engine, Driver/Controller, and Power Supplies
- Passive Cooling, no internal fans
- All aluminum construction
- Standard black and off-white housing colors available in Matte, Semi-Gloss, or Glossy finish

The *Installation Height* parameters are:

<i>MINIMUM</i>	<i>MAXIMUM</i>
25 ft	60 ft ±
7,6 m	15,2 m ±

The *Environmental Operating Conditions (Temperature/Humidity)* are:

	<i>MINIMUM</i>	<i>MAXIMUM</i>
<i>TEMPERATURE</i>	32°F (0°C)	105°F (40.6°C)
<i>HUMIDITY</i>	5%	95%

If the fixture needs to be stored, ensure it remains inside the original shipping container and in a clean/dry controlled environment to prevent exposure to dirt, water, sunlight, and condensation.

The *Storage Temperature* parameters are:

<i>MINIMUM</i>	<i>MAXIMUM</i>
32°F (0°C)	125°F (51.7°C)

The Axceleron has an Ingress Protection (IP) Rating of IP20, meaning it can withstand physical contact with objects over 12.5 mm and is suitable for use in dry and “damp” non-condensing locations.

<i>NOTE</i>	Aquarii recommends the Axceleron is installed indoors to avoid any possibility of physical and environmental hazards that could damage the fixture.
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Electrical Characteristics

The fixture is equipped with an *EPP-300-24* Power Supply that supports wattages ranging from 75W - 150W.

See the tables below for the Input, Protection, and Environmental Characteristics of the *EPP-300-24* Board.

<i>INPUT</i>	
VOLTAGE	90-264VAC (127-370VDC)
FREQUENCY	47-63HZ
POWER FACTOR (PF)	PF>0.93/230VAC (0.98/115VAC AT FULL LOAD)
EFFICIENCY	92.5%
AC CURRENT	3.5A/115VAC OR 1.8A/230VAC
INRUSH CURRENT	COLD START: 40A/115VAC OR 80A/230VAC

<i>PROTECTION</i>	
OVERLOAD	105 - 135% rated output power.
	Protection type: Hiccup mode, recovers automatically after fault condition is removed.
OVER VOLTAGE	26 - 30V
	Protection Type: Shut down o/p voltage, restart to recover.
OVER TEMPERATURE	110°C ± 5°C (TSW1) detect on heatsink of power transistor.
	115 ± 5°C (12V, 15V), 85 ± 5°C (24V, 27V, 48V) (TSW2) detect on heatsink of output diode
	Protection Type: (TSW1) Shut down o/p voltage, recovers automatically after temperature goes down
	Protection Type: (TSW2) Shut down o/p voltage, re-power on to recover.

<i>ENVIRONMENTAL</i>	
WORKING TEMP	-30°C - +70°C
WORKING HUMIDITY	20 - 90% RH non-condensing
STORAGE TEMP/HUMIDITY	-40 - +85°C, 10-95% RH
TEMP COEFFICIENT	± 0.03%/°C (0-50°C)
VIBRATION	10 - 500Hz, 2G 10 min./1 cycle, 60 min. each along X, Y, Z axes

Optical Characteristics

The Axceleron has multiple Optical Characteristics.

The *Color Temperatures* are:

- 3000K
- 4000K
- 5000K
- Custom Available

<i>NOTE</i>	The standard Color Rendering Index (CRI) for a fixture with a 3000K, 4000K, or 5000K Color Temperature is 80 CRI.
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The *Beam Angles* are:

- 14°
- 18°
- 28°
- 36°
- 53°
- 70°
- 110°

See the table below for an example of an *Axceleron Standard Optical Configuration*.

STANDARD OPTICAL CONFIGURATION	
COLOR TEMPERATURE	3000K
CRI VALUE	80 CRI
WATTAGE INPUT	150W
BEAM ANGLE	14°
LUMEN OUTPUT	12,000

Refer to the Aquarii Website at www.aquariitech.com for third-party generated and verified IES Files for various Optical Configurations.

Model Number

Each ordered fixture is assigned a Model Number. The Model Number is a code for the specific performance criteria/requirements, as well as for proper ordering.

The different Model Number configuration options are detailed below:

WATTS	COLOR TEMP	BEAM ANGLE	CONTROL	HOUSNG COLOR	COLOR FINISH
75 100 125 150	30 - (3000K) 40 - (4000K) 50 - (5000K) C* - (Custom)	14* - (14°) 18* - (18°) 28* - (28°) 36 - (36°) 53 - (53°) 70 - (70°) 110 - (110°)	C - (Constant) V - (0-10V) L - (Line Voltage) D - (DMX/RDM)	B - (Black) W - (Off-White) C* - (Custom) A* - (Brushed Aluminum) G* - (Graphic)	M - (Matte) S - (Semi-Gloss) G - (Gloss)

<i>MOUNTING</i>	<i>POWER CONNECTOR*</i>	<i>TERMINALS</i>	<i>OPTIONS*</i>
1 - (C-Clamp) 2 - (Wall Bracket) 3 - (Yoke) 5 - (Slope/Rigid Pendant) 6 - (Air Craft Cable Pendant) 7 - (Flat Recessed) 8* - (Slope Recessed)	B - (Bare End; 5 ft (1.5 m) Std.) 515 - (NEMA 5-15; 125V/15A) L515 - (NEMA L5-15; 125V/15A, Locking Type) N - (None)	X - (XLR 5-Pin for DMX) R - (RJ45 for DMX) I - (Insulation Displacement Connector for DMX) ST - (Screw Terminal must choose for 0-10V) N - (None, must choose for Constant)	90-CRI - (only available for LEDs < 4000K) S1 - (Surge Protector; 120V) S2 - (Surge Protector; 220V) CR - (Concentric Ring Glare Reducer) HEX - (Hexagonal Ring Glare Reducer) 277 - (277V External Transformer) N - (None)

* = Consult factory before ordering.
 DMX/RDM controls choice can be connected with DMX or DMX/RDM controls
 DMX/RDM comes standard with screw terminal
 Recessed mounts must be installed in accessible ceilings
 Multiple Options can be used on the same fixture

Model Number Example: *AX-150-30-36-D-B-M-5 (12")-515-X-90-S1-CR*

The Model Number Example stated above is an Axceleron with a wattage limit of 150W, 3000K Color Temp, 36° Beam Angle, DMX/RDM Control, Black Housing with a Matte Finish, a 12 in. Slope/Rigid Pendant Mount, NEMA 5-15 (125V/15A) Power Connector, XLR 5-Pin for DMX Terminal, with a 120V Surge Protector, and a Concentric Ring Glare Reducer.

Optional Characteristics

The Optional Characteristics that are available are:

- Custom RAL Color Housing/Graphics
- Brushed Aluminum Housing
- 90 CRI for 3000K LEDs
- Concentric, Hexagonal Ring Glare Reducers, or Homogenizing Beam Filter
- Surge Protector
- Screw Terminal for 0-10V and DMX Controllers.
- DMX Connectors: XLR-5PIN, RJ45, and IDC

Mounting Information

The fixture must be compatible with the required mounting conditions.

Each Mounting Option has a corresponding Mounting Number. The table below is a list of each *Mounting Number* with the corresponding *Mounting Option*.

<i>MOUNTING NUMBER</i>	<i>MOUNTING OPTION</i>
1	C-CLAMP
2	WALL BRACKET
3	YOKE
5	SLOPE/RIGID PENDANT
6	AIR CRAFT CABLE PENDANT
7	FLAT RECESSED
8	SLOPE RECESSED

Wiring Information

Below is a list of the different Wiring Options available for the Axceleron.

- Constant Control - Order Code: *C*
- 0-10V - Order Code: *V*
- Line Voltage - Order Code: *L*
- DMX/RDM - Order Code: *D*

Customer Service

For questions regarding the installation, operation, maintenance and/or troubleshooting procedures, contact an Aquarii Customer Service Representative by one of the following methods:

- *Phone:* (315) 672-8807, Monday - Friday from 8:00am - 5:00pm Eastern Standard Time
- *Email:* support@aquariitech.com
- *Mail:*

AQUARII, INC
ATTN: Customer Service Department
17 Genesee Street
Camillus, New York, U.S.A. 13031

Product Return Policy

Before returning a fixture, please call or email an Aquarii Customer Service Representative to receive a RMA Number.

Ensure the RMA Number is next to the address label on the shipping container and packing slip.

Each Axceleron must be returned as *freight prepaid* unless instructed otherwise by Aquarii Customer Service.

A fixture returned without an RMA will delay, and can void any return credit.

All returns must be shipped to the following address:

AQUARII, INC.
3195 Vickery Road
Syracuse, New York, U.S.A. 13212