

ELAR Q1™

user manual

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DOCUMENT VERSION

 Please check www.elationlighting.com for the latest revision/update of this manual.

Date	Document Version	Software Version	DMX Channel Modes	Notes
10/2014	1	N/A	4	Initial release.

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GENERAL INFORMATION

INTRODUCTION

Congratulations, you have just purchased one of the most innovative and reliable ArtNet to DMX converter on the market today! The **ELAR Q1™** has been designed to perform reliably for years when the guidelines in this booklet are followed. Please read and understand the instructions in this manual carefully and thoroughly before attempting to operate this unit. These instructions contain important information regarding safety during use and maintenance.



IP65 RATED

An IP rated lighting fixture is one, which is commonly installed in outdoor environments and has been designed with an enclosure that effectively protects the ingress (entry) of external foreign objects such as dust and water. The **International Protection (IP)** rating system is commonly expressed as "IP" (Ingress Protection) followed by two numbers (i.e. IP65) where the numbers define the degree of protection. The first digit (Foreign Bodies Protection) indicates the extent of protection against particles entering the fixture and the second digit (Water Protection) indicates the extent of protection against water entering the fixture. An IP65 rated lighting fixture is one, which has been designed and tested to protect against the ingress of dust (6) and high-pressure water jets from any direction (5).



MARINE/COASTAL ENVIRONMENT INSTALLATIONS!

Please note although this fixture is IP rated, the fixture is **NOT** suitable for marine and/or coastal environment installations. Installing this fixture in a marine and/or coastal environment may cause corrosion and/or excessive wear to the interior and/or exterior components of the fixture. Damages and/or performance issues resulting from installation in a marine and/or coastal environment will void the manufactures warranty and will **NOT** be subject to any warranty claims and/or repairs.



OPTIONAL CORROSION-RESISTANT COATING

Optional Corrosion-Resistant Coatings may be available for this fixture. Please consult your **Elation Professional** sales representative for details.

UNPACKING

Thank you for purchasing the **ELAR Q1™** by Elation Professional®.

Every **ELAR Q1™** has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the shipping carton for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your unit for damage and be sure all accessories necessary to operate the unit have arrived intact. In the event damage has been found or parts are missing, please contact our customer support team for further instructions. Please do not return this unit to your dealer without first contacting customer support at the number listed below. Please do not discard the shipping carton in the trash. Please recycle whenever possible.

BOX CONTENTS

- **ELAR Q1™** with molded Power/Data Y-Cable (male and female ends)
- Manual & Warranty Card

CUSTOMER SUPPORT

Elation Professional® provides a customer support line, to provide set up help and to answer any question should you encounter problems during your set up or initial operation. You may also visit us on the web at www.elationlighting.com for any comments or suggestions. For service related issue please contact Elation Professional®.

ELATION SERVICE USA - Monday - Friday 8:00am to 5:00pm PST

Voice: 323-582-3322

Fax: 323-832-9142

E-mail: support@elationlighting.com

ELATION SERVICE EUROPE - Monday - Friday 08:30 to 17:00 CET

Voice: +31 45 546 85 30

Fax: +31 45 546 85 96

E-mail: support@elationlighting.eu

WARRANTY REGISTRATION

The **ELAR Q1™** carries a two-year (730 days) limited warranty. Please fill out the enclosed warranty card to validate your purchase. All returned service items whether under warranty or not, must be freight pre-paid and accompany a return authorization (R.A.) number. The R.A. number must be clearly written on the outside of the return package. A brief description of the problem as well as the R.A. number must also be written down on a piece of paper and included in the shipping container. If the unit is under warranty, you must provide a copy of your proof of purchase invoice. Items returned without a R.A. number clearly marked on the outside of the package will be refused and returned at customer's expense. You may obtain a R.A. number by contacting customer support at 323-582-3322.



IMPORTANT NOTICE!

There are no user serviceable parts inside this unit. Do not attempt any repairs yourself; doing so will void your manufactures warranty. Damages resulting from modifications to this fixture and/or the disregard of safety and general user instructions found in this user manual void the manufactures warranty and are not subject to any warranty claims and/or repairs.

2 - YEAR LIMITED WARRANTY

A. Elation Professional® hereby warrants, to the original purchaser, Elation Professional® products to be free of manufacturing defects in material and workmanship for a period of two years, (730 days) from the date of purchase. This warranty shall be valid only if the product is purchased within the United States of America, including possessions and territories. It is the owner's responsibility to establish the date and place of purchase by acceptable evidence, at the time service is sought.

B. For warranty service, send the product only to the Elation Professional® factory. All shipping charges must be pre-paid. If the requested repairs or service (including parts replacement) are within the terms of this warranty, Elation Professional® will pay return shipping charges only to a designated point within the United States. If the entire instrument is sent, it must be shipped in its original package. No accessories should be shipped with the product. If any accessories are shipped with the product, Elation Professional® shall have no liability what so ever for loss of or damage to any such accessories, nor for the safe return thereof.

C. This warranty is void if the serial number has been altered or removed; if the product is modified in any manner which Elation Professional® concludes, after inspection, affects the reliability of the product; if the product has been repaired or serviced by anyone other than the Elation Professional® factory unless prior written authorization was issued to purchaser by Elation Professional®; if the product is damaged because not properly maintained as set forth in the instruction manual.

D. This is not a service contract, and this warranty does not include maintenance, cleaning or periodic check-up. During the period specified above, Elation Professional® will replace defective parts at its expense, and will absorb all expenses for warranty service and repair labor by reason of defects in material or workmanship. The sole responsibility of Elation Professional® under this warranty shall be limited to the repair of the product, or replacement thereof, including parts, at the sole discretion of Elation Professional®. All products covered by this warranty were manufactured after January 1, 1990, and bare identifying marks to that effect.

E. Elation Professional® reserves the right to make changes in design and/or improvements upon its products without any obligation to include these changes in any products theretofore manufactured.

F. No warranty, whether expressed or implied, is given or made with respect to any accessory supplied with products described above. Except to the extent prohibited by applicable law, all implied warranties made by Elation Professional® in connection with this product, including warranties of merchantability or fitness, are limited in duration to the warranty period set forth above. And no warranties, whether expressed or implied, including warranties of merchantability or fitness, shall apply to this product after said period has expired. The consumer's and or Dealer's sole remedy shall be such repair or replacement as is expressly provided above; and under no circumstances shall Elation Professional® be liable for any loss or damage, direct or consequential, arising out of the use of, or inability to use, this product.

G. This warranty is the only written warranty applicable to Elation Professional® Products and supersedes all prior warranties and written descriptions of warranty terms and conditions heretofore published.

SAFETY INSTRUCTIONS



The **ELAR Q1™** is an extremely sophisticated piece of electronic equipment. To guarantee a smooth operation, it is important to follow the guidelines in this manual. The manufacturer of this device will not accept responsibility for damages resulting from the misuse of this fixture due to the disregard of the information printed in this manual.



This device falls under **PROTECTION CLASS 1**. It's essential this device be grounded properly. Only qualified personnel should perform all electrical connections.

C A U T I O N S



UNPLUG POWER BEFORE SERVICING FIXTURE



NEVER TOUCH FIXTURE DURING OPERATION AS IT MAY BE HOT



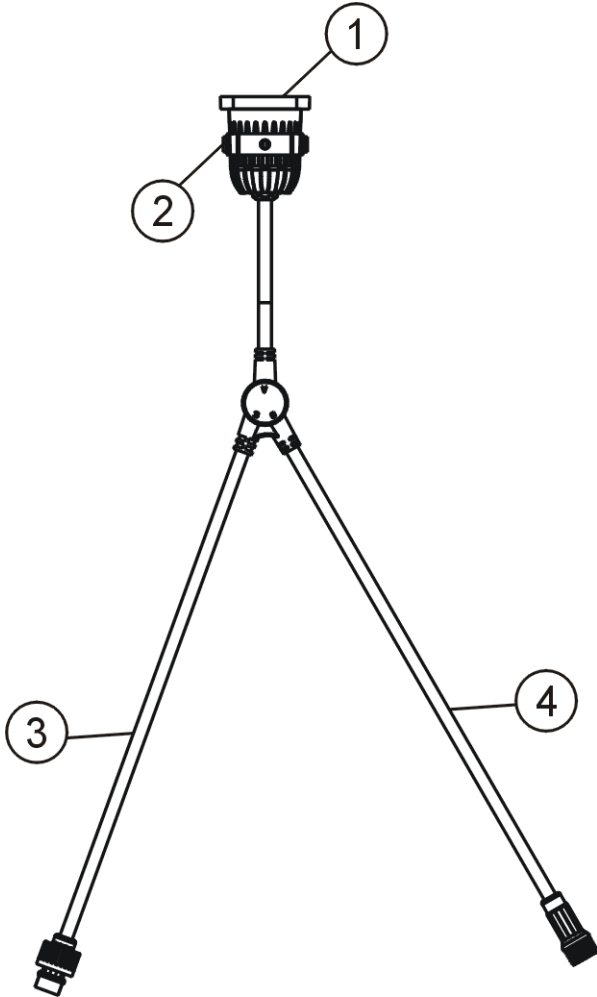
**NEVER LOOK DIRECTLY INTO THE LIGHT SOURCE
SENSITIVE PERSONS MAY SUFFER AN EPILEPTIC SHOCK**

- For proper operation, follow the **Installation** guidelines described in this manual. Only qualified and certified personnel should perform installation of this fixture and only the original rigging parts (brackets) included with this fixture should be used for installation. Any modifications will void the original manufacturer's warranty and increase the risk of damage and/or personal injury.
- Never look directly into the light source of this fixture to prevent risk of injury to your retina, which may induce blindness. Those suffering from **EPILEPSY** should avoid looking directly into the light source of this unit at all times.
- Always disconnect from main power source before performing any type of service and/or cleaning procedure. Only handle the power cord by the plug end, never pull out the plug by tugging the wire portion of the cord.
- Do not operate this fixture if the power cord has become frayed, crimped and/or damaged. If the power cord is damaged, replace it immediately with a new one of similar power rating.

GENERAL GUIDELINES

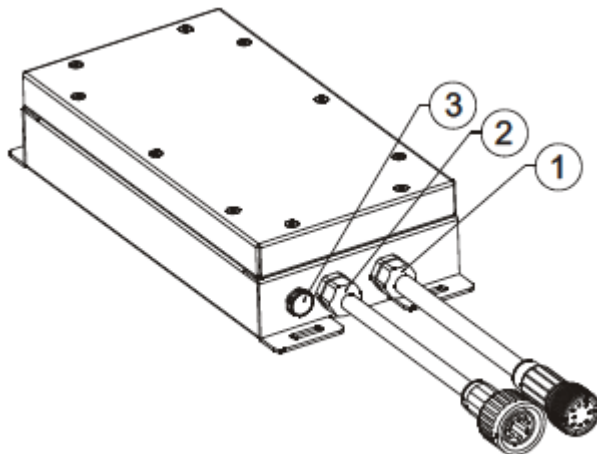
- **NEVER OPEN THIS FIXTURE WHILE IN USE!**
- During the initial operation of this fixture, a light smoke or smell may emit from the interior of the fixture. This is a normal process and is caused by excess paint in the interior of the casing burning off from the heat associated with the lamp and will decrease gradually over time.
- Please make sure there are **NO FLAMMABLE MATERIALS** close to the fixture while operating, to prevent any fire hazard.
- **Minimum** distance of inflammable materials from the surface **1.6 feet (0.5m)**.
- **DO NOT** attempt installation and/or operation without knowledge how to do so.
- **DO NOT** allow operation by persons who are not qualified to operate this type of fixture. Most damages are the result of operations by nonprofessionals.
- Consistent operational breaks may ensure the fixture will function properly for many years to come.
- **DO NOT** shake fixture, avoid brute force when installing and/or operating fixture.
- Always install the fixture with an appropriate safety cable. When installing the fixture in a suspended environment, always use mounting hardware that is no less than M10 x 25 mm, also be sure the hardware is insert in the pre-arranged screw holes in the bracket of the fixture.
- Use the original packaging and materials to transport the fixture in for service.
- **DO NOT TOUCH** the housing bare-hand during its operation. Turn OFF the power and allow approximately 15 minutes for the fixture to cool down before replacing or serving.

FIXTURE AND POWER SUPPLY OVERVIEW



ELAR Q1™ - SKU #EAR913

- 1. LED Lens
- 2. Mounting Yoke
- 3. 8pin Power/Data Y Cable (Male)
- 4. 8pin Power/Data Y Cable (Female)



ELAR PSU 10™ - SKU# EAR925 **(NOT INCLUDED)**

- 1. 8pin Power/Data Cable (Female)
- 2. 8pin Power/Data Cable (Male)
- 3. Fuse

CABLES OVERVIEW

STARTER Y-CABLE - SKU# 60413010144 (NOT INCLUDED)

IP rated power/data starter Y-cable with 8pin male, 8pin female, and 5pin DMX ends, used to connect first **ELAR Q1™** fixture to an **ELAR PSU 10™** power supply and a DMX controller. (see image below)



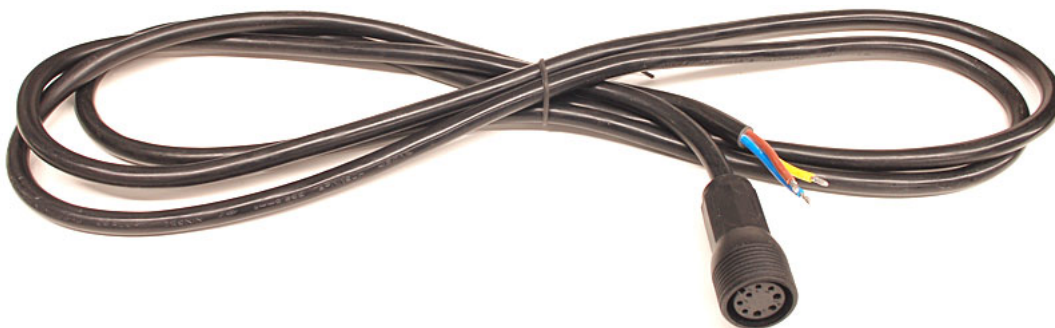
3.3 ft. (1m) POWER CABLE - SKU# 60413010146 (NOT INCLUDED)

IP rated power cable with an 8pin female end and bare wire leads end, used to supply 100-240V to each **ELAR PSU 10™** power supply unit. (see image below)



NO EDISON 3-PRONG POWER PLUG ATTACHED - BARE WIRE LEADS

Due to varying installation requirements, (3) bare-wire leads (Positive, Negative, Ground) are exposed, which can be wired to a standard 3-prong Edison electrical plug and/or wired into an IP rated electrical junction box.



CABLES OVERVIEW [continued]

EXTENSION Y-CABLE - SKU# 60413010149 (NOT INCLUDED)

IP rated power/data extension Y-cable with (2) 8pin male and (1) 8pin female ends, used to daisy chain **ELAR Q1™** fixtures together and **ELAR PSU 10™** power supplies.



CABLES OVERVIEW [continued]

3.3 ft. (1m) EXTENSION CABLE - SKU# 60413010145 (NOT INCLUDED)

IP rated 3.3 ft. (1M) power/data extension cable with 8pin male and 8pin female ends, used to daisy chain up to (10) **ELAR Q1™** fixtures.



9.8 ft. (3m) EXTENSION CABLE - SKU# 60413990038 (NOT INCLUDED)

IP rated 9.8 ft. (3M) power/data extension cable with 8pin male and 8pin female ends, used to daisy chain up to (10) **ELAR Q1™** fixtures.



FIXTURE INSTALLATION



FLAMMABLE MATERIAL WARNING

Keep fixture at least 5.0 ft (1.5m) away from any flammable materials, decorations, pyrotechnics, etc.



ELECTRICAL CONNECTIONS

A qualified electrician should be used for all electrical connections and/or installations.



CAUTIONS

- For added protection, mount the fixture in areas outside walking paths, seating areas, or in areas where unauthorized personnel might reach the fixture.
- Max ambient operating temperature for this fixture is **14-113°F. (-10 - 45°C)**
Do not use the fixture under or above this temperature.
- Before mounting the fixture to any surface, make sure the installation area can hold a minimum point load of **10 times** the weight of a single fixture. **11lbs (5 kg)**
- Fixture installation must always be secured with a secondary safety attachment, such as an appropriate safety cable.
- Never stand directly below the device when mounting, removing or servicing.

MOUNTING

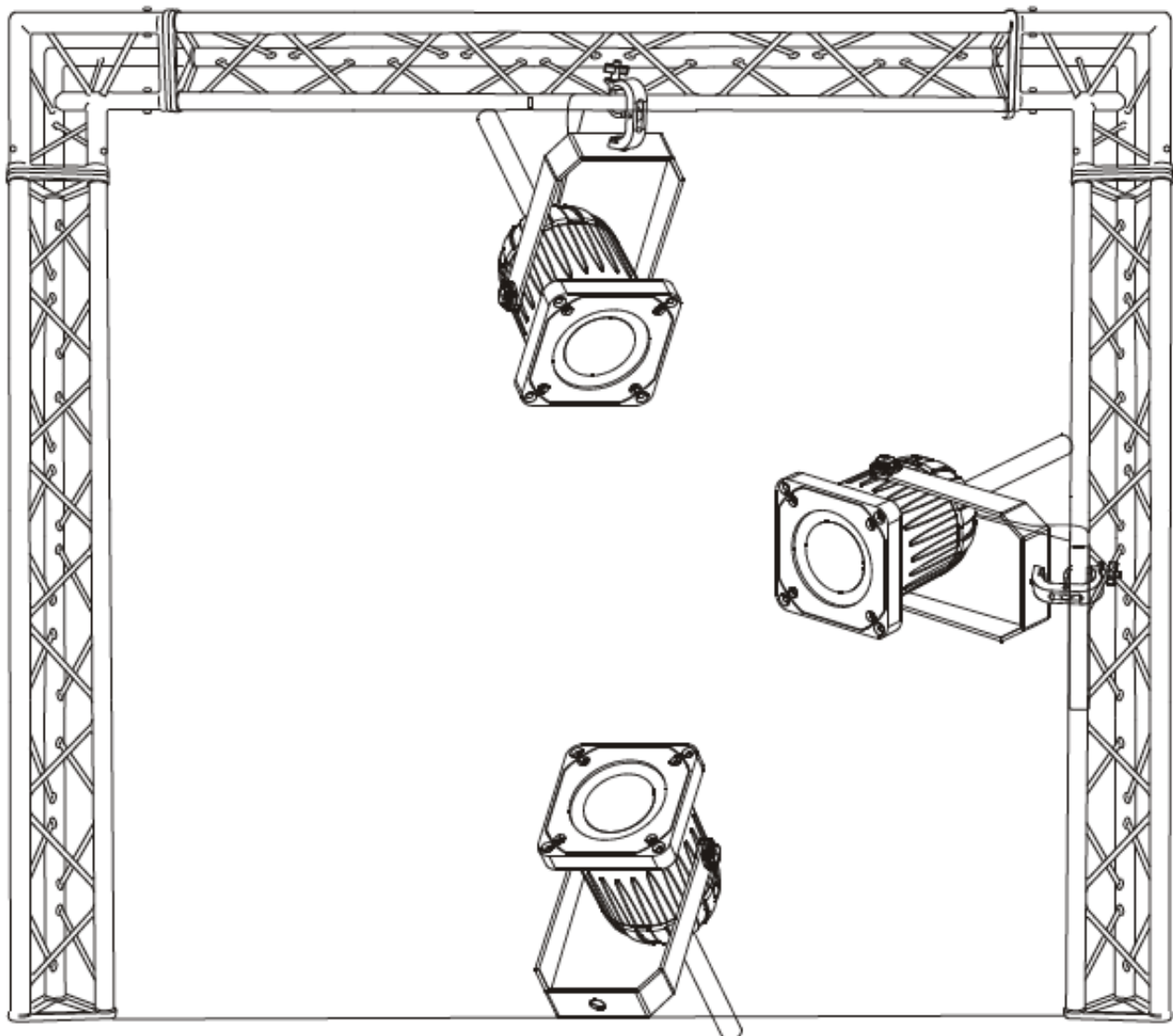
The **ELAR Q1™** provides multiple rigging options including an integrated yoke with (3) holes for hanging or floor/stand installations, and (4) mounting holes around the square LED lens frame for more permanent installations.

SECURING

Regardless of the rigging option you choose for your **ELAR Q1™** always be sure to secure your fixture with a safety cable.

MOUNTING POINTS

- Overhead mounting requires extensive experience, including amongst others calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the device. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.
- Fixture is fully operational in the specific mounting positions as illustrated below.



SAFETY CABLE

Always use a Safety Cable whenever installing this fixture in a suspended environment to ensure the fixture will not drop if the clamp fails.

SYSTEM INSTALLATION GUIDE

PRE-INSTALLATION

It is highly recommended to first confirm all the required hardware is available to support your system design, before beginning the installation process. Since the **ELAR Q1™** system can be customized with a varying number of fixtures and distances between them, it is imperative to confirm the correct cable types, lengths, quantities, and power supplies are available to support the total number of fixtures you plan to install.

DMX ADDRESS / RDM DEVICE ID

Each fixture comes with a pre-assigned **DMX ADDRESS** and an **RDM DEVICE ID**, which can be found on the 2 labels located on the Y portion of the cable attached to each fixture. (See image below. DMX Address on label for illustration purposes only).



The **DMX ADDRESS** will be pre-assigned to **001**, which you will need to change as per your system requirements.

The **RDM DEVICE ID** will be pre-assigned to a unique **ID**. Please make sure to note the **ID** of each fixture in your system, as you will need this **ID** in order to change the **DMX ADDRESS** as per your system requirements.

CHANGING THE DMX ADDRESS

In order to change the **DMX ADDRESS**, you will need a DMX controller with RDM (Remote Device Management) support. Although a DMX controller is required to control the (4) DMX channels (CH1 - Red, CH2 - Green, CH3 - Blue, CH4 - White) of each fixture, you can alternatively use an external hand-held RDM control device to assign the individual DMX addresses of each **ELAR Q1™** fixture.



POWER LINKING

Max number of **ELAR Q1™** units connected to each **ELAR PSU 10™** power supply is **(15)**, which means you will need **(1)** power supply for every **(15)** fixtures.

SYSTEM EXAMPLE (30 Fixtures)

The table below provides a material list of required cables and power supplies to install a system of **(30)** **ELAR Q1™** fixtures. See the **System Install Diagram Example** on the next page for further details.

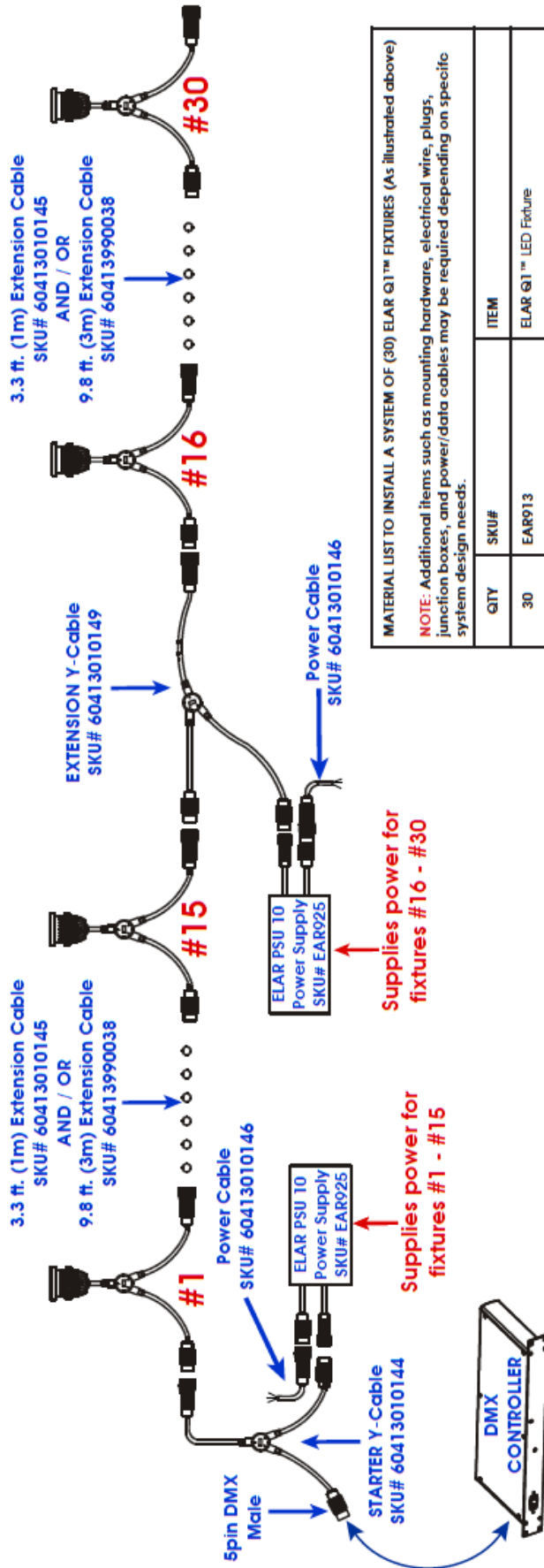
MATERIAL LIST TO INSTALL A SYSTEM OF (30) ELAR Q1™ FIXTURES		
QTY	SKU#	DESCRIPTION
30	EAR913	ELAR Q1™ FIXTURE
1	60413010144	STARTER Y-CABLE
1	60413010149	EXTENSION Y-CABLE
2	EAR925	ELAR PSU 10™ POWER SUPPLY
2	60413010146	3.3 ft. (1m) POWER CABLE

OPTIONAL ITEMS TO SUPPORT ADDITIONAL FIXTURES AND/OR DISTANCES		
~	EAR925	ELAR PSU 10™ POWER SUPPLY
~	60413010146	3.3 ft. (1m) POWER CABLE
~	60413010144	STARTER Y-CABLE
~	60413010149	EXTENSION Y-CABLE
~	60413010145	3.3 ft. (1m) EXTENSION CABLE
~	60413990038	9.8 ft. (3m) EXTENSION CABLE



NOTE: Additional items such as mounting hardware, electrical wire, plugs, junction boxes, and power/data cables may be required, depending on your specific system design needs.

ELATION ELAR Q1 - (30) UNIT SYSTEM INSTALL DIAGRAM EXAMPLE



MATERIAL LIST TO INSTALL A SYSTEM OF (30) ELAR Q1™ FIXTURES (As illustrated above)

NOTE: Additional items such as mounting hardware, electrical wire, plugs, junction boxes, and power/data cables may be required depending on specific system design needs.

QTY	SKU#	ITEM
30	EAR913	ELAR Q1™ LED Fixture
1	60413010144	Starter Y-Cable
1	60413010149	Extension Y-Cable
2	EAR925	ELAR PSU 10™ Power Supply
2	60413010146	3.3 ft (1m) Power Cable
OPTIONAL ITEMS TO SUPPORT ADDITIONAL FIXTURES AND/OR DISTANCES (Depending on system design)		
~	EAR925	ELAR PSU 10™ Power Supply
~	60413010146	3.3 ft (1m) Power Cable
~	60413010144	Starter Y-Cable
~	60413010149	Extension Y-Cable
~	60413010145	3.3 ft (1m) Power/Data Extension Cable
~	60413990038	3.3 ft (1m) Power/Data Extension Cable

DMX CHANNEL FUNCTIONS AND VALUES

ELATION© ELAR Q1™ DMX Channel Values / Functions (4 DMX Channels)		
Specifications are subject to change without any prior written notice.		
MODE / CHANNEL	VALUE	FUNCTION
4 CH		
1		RED
	0-255	Red (0-100%)
2		GREEN
	0-255	Green (0-100%)
3		BLUE
	0-255	Blue (0-100%)
4		WHITE
	0-255	White (0-100%)

FAQ / TROUBLE SHOOTING TIPS

How many fixtures can be connected to each power supply?

A maximum of (15) total **ELAR Q1™** fixtures per each **ELAR PSU 10™** power supply.

None of the fixtures turn ON?

Confirm the proper DMX address has been assigned to each fixture in the system and confirm each power supply is receiving AC power.

Is there a way to know if the power supply is working and/or receiving AC power?

Since the power supply has no indicator lights, the only way to confirm functionality is to meter the AC supply line for the proper voltage.

CLEANING AND MAINTENANCE



C A U T I O N

Disconnect power before cleaning or maintenance.

CLEANING

Frequent cleaning is recommended to insure proper function, optimized light output, and an extended life. The frequency of cleaning depends on the environment in which the fixture operates: damp, smoky or particularly dirty environments can cause greater accumulation of dirt on the fixture's optics.

- Clean the external lens surface at least every 20 days with a soft cloth to avoid dirt/debris accumulation. Never use alcohol, solvents, or ammonia based cleaners.

MAINTENANCE

Regular inspections are recommended to insure proper function and extended life. There are no user serviceable parts inside this fixture, please refer all other service issues to an authorized Elation service technician. Should you need any spare parts, please order genuine parts from your local Elation dealer.

Please refer to the following points during routine inspections:

- A detailed electric check by an approved electrical engineer every 3 months, to make sure the circuit contacts are in good condition and prevent overheating.
- Be sure all screws and fasteners are securely tightened at all times. Loose screws may fall out during normal operation resulting in damage or injury.
- Check for any deformations on the housing, color lenses, rigging hardware and rigging points (ceiling, suspension, trussing). Deformations in the housing could allow for dust to enter into the fixture. Damaged rigging points or unsecured rigging could cause the fixture to fall and seriously injure a person(s).
- Inspect all moving parts and make sure there are no signs of wear and rotate/move without imbalances.
- Electric power supply cables must not show any damage, material fatigue or sediments. Never remove the ground prong from the power cable.

TECHNICAL SPECIFICATIONS

ELAR Q1™

FEATURES

IP65 Rated**
7° Beam 14° Field Angles
RDM (Remote Device Management)
Direct DMX Auto Addressing Option

SOURCE

18W RGBW Quad LED
100,000 Average Hour LED Life

COLOR

16.7 Million Colors / 8 Bits Per Color

CONTROL / CONNECTIONS

4 DMX Channels (RGBA)
8pin Data/Power Combo In/Out

ELECTRICAL / THERMAL

24VAC
18W Max Power Consumption
14°F to 113°F (-10°C to 45°C)

APPROVALS / RATINGS

CE
IP65** Optional Corrosion-Resistant Coating may be available for this fixture.
Please consult an Elation sales representative for details.

ELAR PSU 10™

FEATURES

IP65 Rated
24VAC Output
Max (15) Linked ELAR Q1™ Units

CONTROL / CONNECTIONS

DMX 512
RDM (Remote Device Management)
8pin Data/Power Combo In/Out

ELECTRICAL / THERMAL

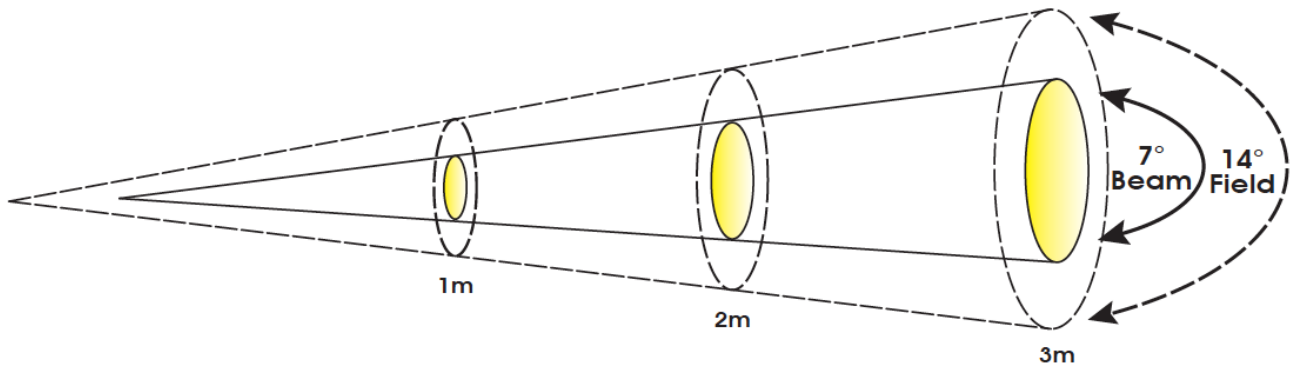
AC 100-240V - 50/60Hz
300W Max Power Consumption
14°F to 113°F (-10°C to 45°C)

APPROVALS / RATINGS

CE Approved
IP65** Optional Corrosion-Resistant Coating may be available for this fixture.
Please consult an Elation sales representative for details.

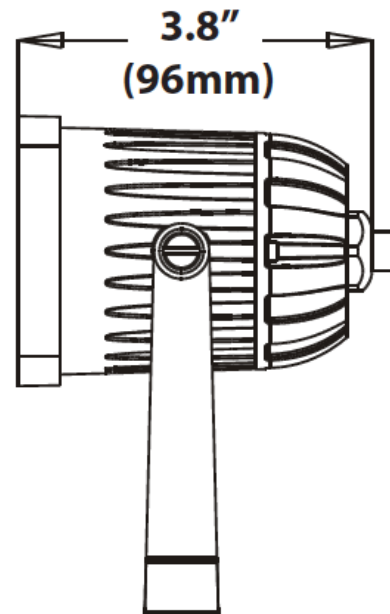
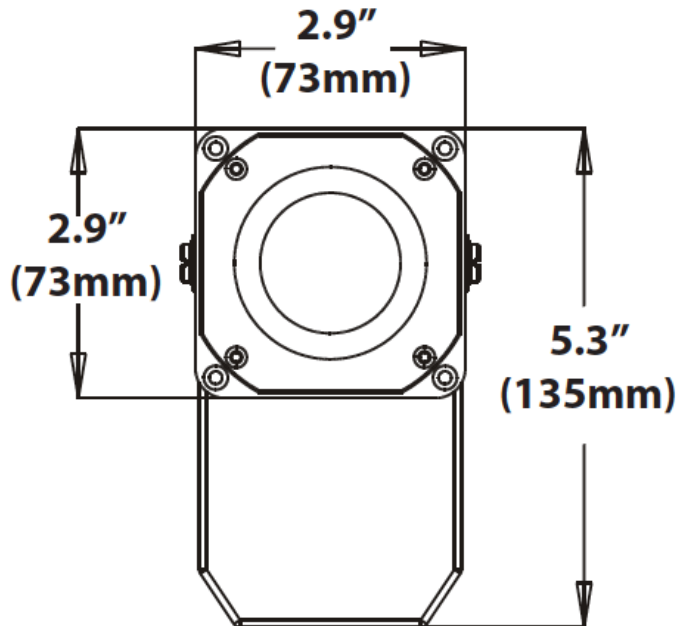
Please Note: Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.

PHOTOMETRIC DATA



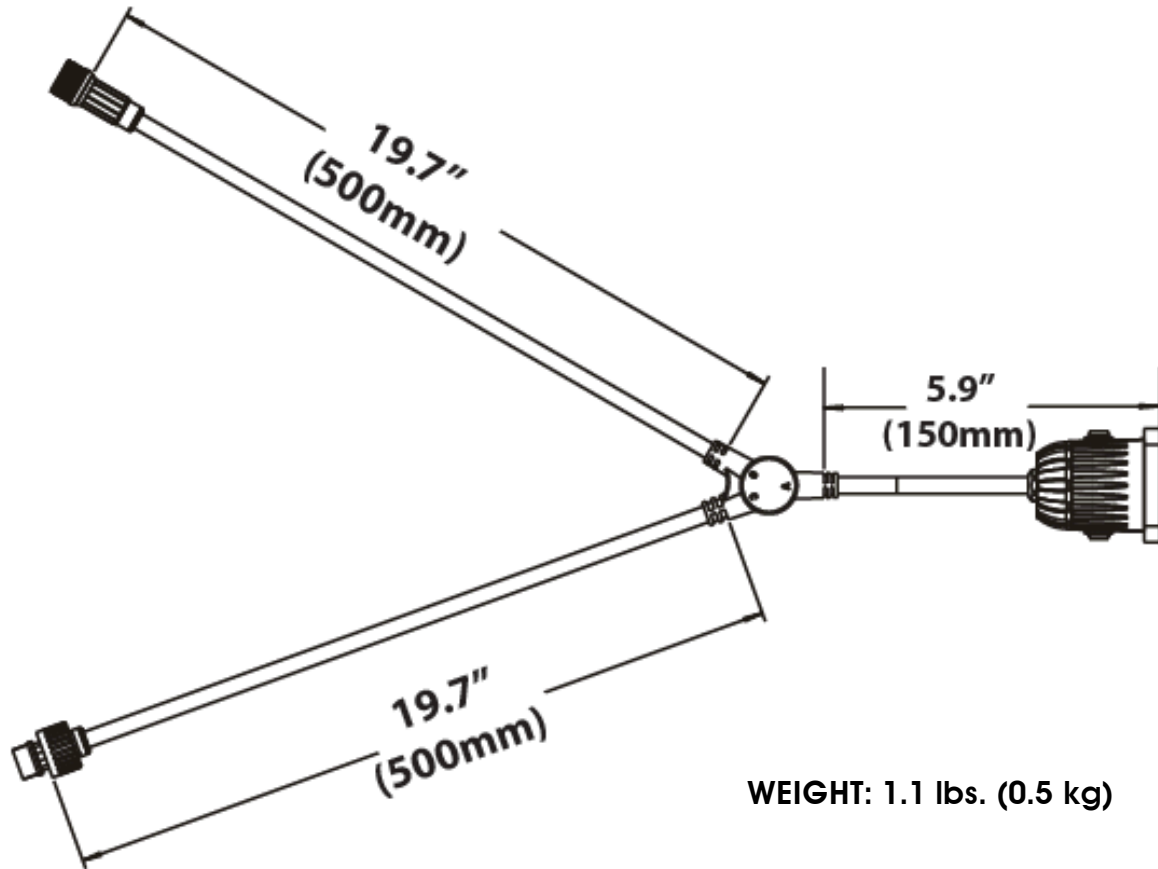
Distance	m	ft	m	ft	m	ft
	1	3.3	2	6.6	3	9.8
7° Beam Diameter	0.12	0.4	0.24	0.8	0.36	1.2
14° Field Diameter	0.24	0.8	0.48	1.6	0.72	2.4
	lux	fc	lux	fc	lux	fc
RED	1,520	141	425	39	175	16
GREEN	4,310	400	1,218	113	516	48
BLUE	630	59	172	16	175	16
WHITE	4,452	414	1,276	119	554	51
FULL ON	9,310	865	2,698	251	1,170	109

DIMENSIONAL DRAWINGS - ELAR Q1™ LED LENS HOUSING



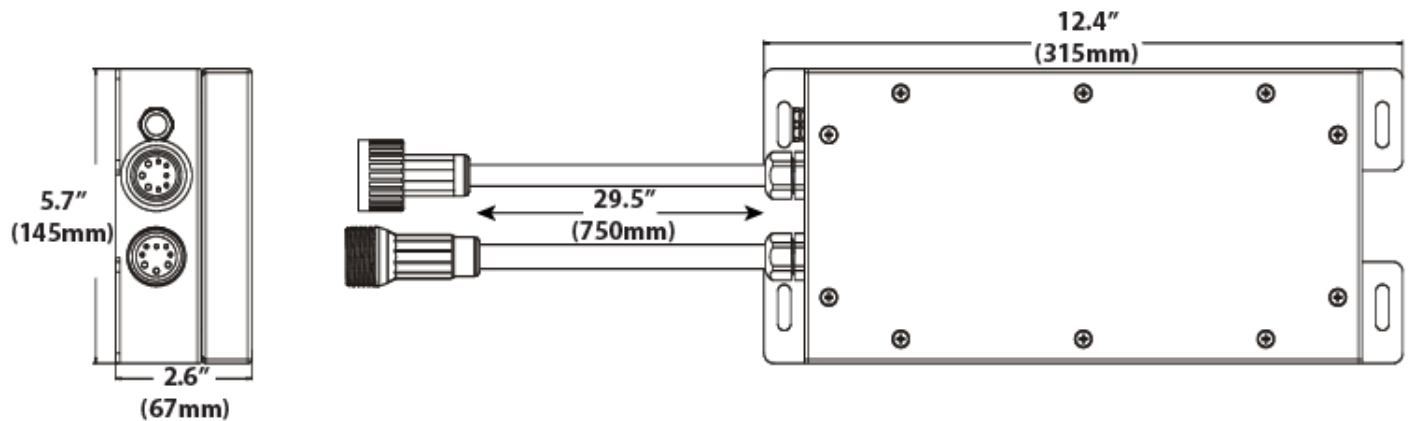
Please Note: Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.

DIMENSIONAL DRAWINGS - ELAR Q1™ ATTACHED CABLE LENGTHS



WEIGHT: 1.1 lbs. (0.5 kg)

DIMENSIONAL DRAWINGS - ELAR PSU 10™ (NOT INCLUDED)



WEIGHT: 2.2 lbs. (1.0 kg)

OPTIONAL ACCESSORIES

ORDER CODE	ITEM
EAR913	ELAR Q1™ LED Fixture
EAR925	ELAR PSU 10™ Power Supply
60413010144	Starter Y-Cable
60413010146	3.3 ft (1m) Power Cable
60413010149	Extension Y-Cable
60413010145	3.3 ft (1m) Power/Data Extension Cable
60413990038	3.3 ft (1m) Power/Data Extension Cable

