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Nano Liner Allegro AC XB RGB / DW

INSTALLATION GUIDE

V1.2

Cover:

Nano Liner Allegro AC XB-9 RGB

Nano Liner Allegro AC XB-18 RGB

Nano Liner Allegro AC XB-27 RGB

Nano Liner Allegro AC XB-36 RGB

Nano Liner Allegro AC XB-9 DW

Nano Liner Allegro AC XB-18 DW

Nano Liner Allegro AC XB-27 DW

Nano Liner Allegro AC XB-36 DW

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CONTENT

1. INTRODUCTION

1.1 General

The Nano Liner Allegro AC XB RGB / DW series is a slim profile, AC line powered high brightness luminaire. The series is controllable via DMX512, and is available in four lengths. The luminaire can be simply daisy-chained to form long runs.

Model	Number of LED	Power Consumption (W)	Length (mm)
Nano Liner Allegro AC XB-9 RGB / DW	9	12.5	310
Nano Liner Allegro AC XB-18 RGB / DW	18	25	612
Nano Liner Allegro AC XB-27 RGB / DW	27	37.5	913
Nano Liner Allegro AC XB-36 RGB / DW	36	50	1216

Features:

- Outdoor applications
- Protection Class IP66
- Tempered glass cover
- Integrated mounting feet with ±90° adjustment on beam aiming
- Light Output: RGB@309 lm / foot, DW@520lm / foot
- DMX512

1.2 Dimensions

FIG.1: Nano Liner Allegro AC XB-9 RGB / DW

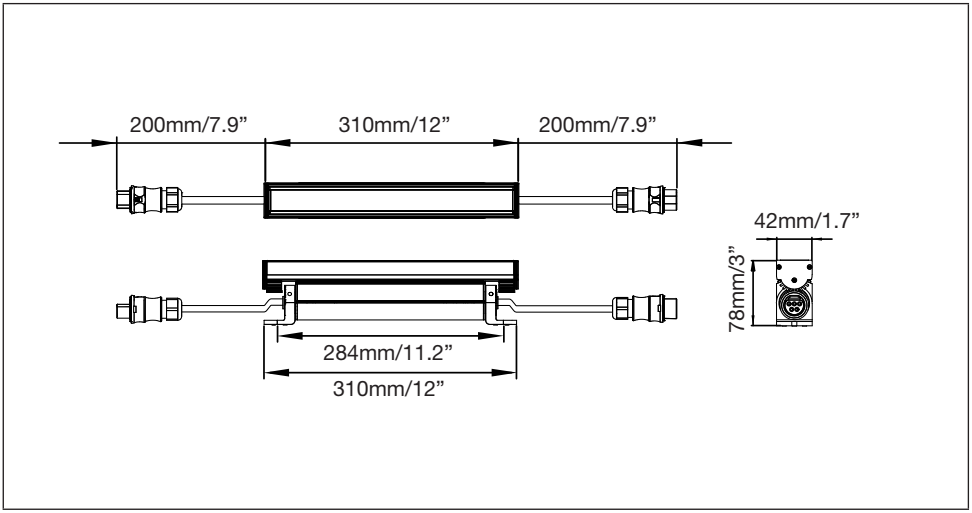


FIG.2: Nano Liner Allegro AC XB-18 RGB / DW

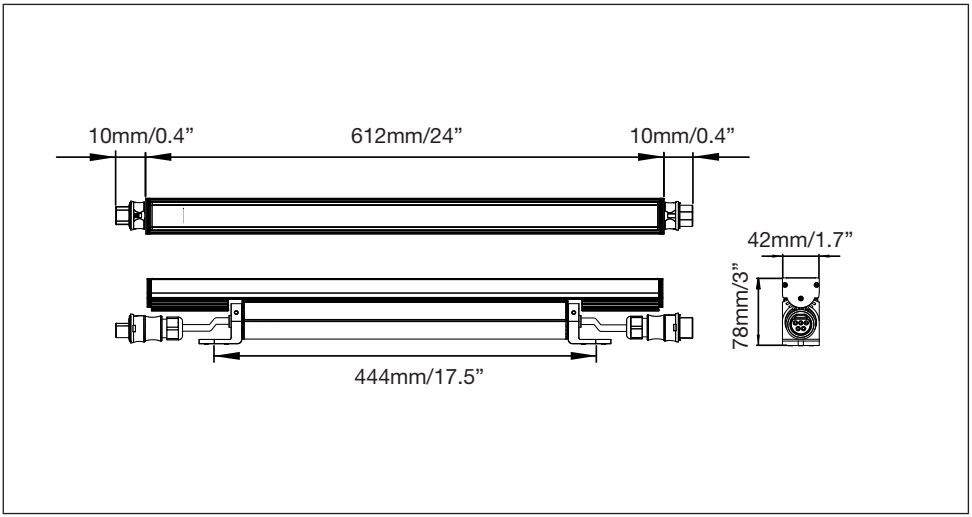


FIG.3: Nano Liner Allegro AC XB-27 RGB / DW

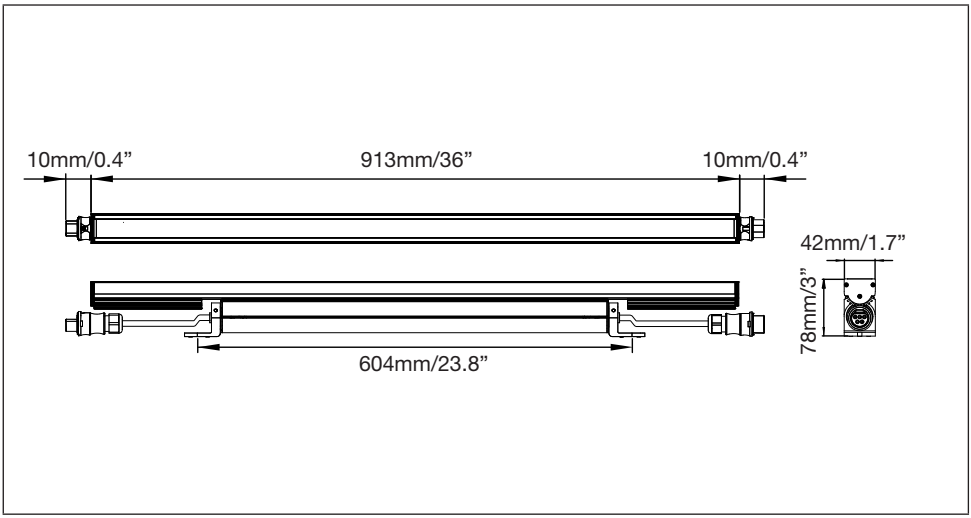
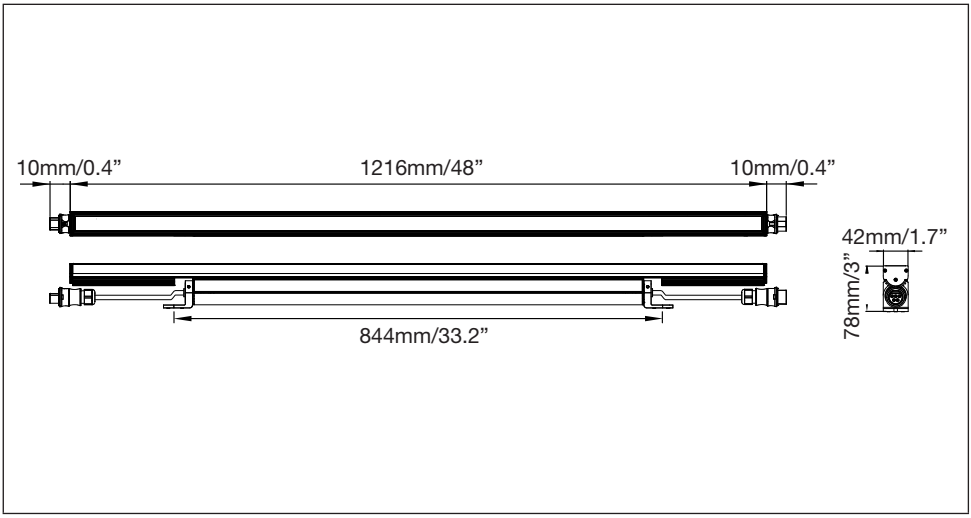
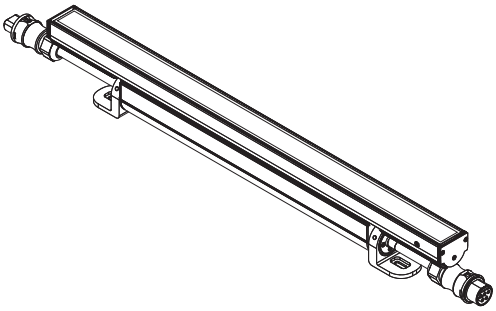


FIG.4: Nano Liner Allegro AC XB-36 RGB / DW



1.3 Packing Contents

FIG.5: Packing Contents



1 x Nano Liner Allegro AC XB RGB

1 x 2.5mm Hex Key

2 x Safety Cable Clips

2 x 2.5mm Hex Screws

2. INSTALLATION

2.1 Points To Consider

Plan your installation before mounting any Nano Liner Allegro AC XB RGB / DWs. The following should be considered for a successful installation:

- Weather conditions and ambient temperature of installation site.
- Installation distances and appropriate cable lengths. Please consult your local Traxon™ office or authorized agent for necessary aid.
- The number of Nano Liner Allegro AC XB RGB / DWs and appropriate power sources.
- Distance between each Nano Liner Allegro AC XB RGB / DWs for thermal expansion.
- Proper surge protection.

2.1.1 Installation Checklist

1. Prepare cables and all necessary accessories.
2. Perform functional check of Nano Liner Allegro AC XB RGB / DWs. Take care not to damage cables/connectors during pre-installation checks.
3. Ensure all pre-installation checks laid out below have been followed.
4. Mount the Nano Liner Allegro AC XB RGB / DWs on-site. If the installation is to be left uncompleted overnight, place all non-connected LED Engines and Nano Liner Allegro AC XB RGB / DWs in an indoor environment.

Ensure all the Interconnection Cables, Nano Liner Allegro AC XB RGB / DWs and power sources are initially stored in a dry area to guarantee the complete sealing of the system from water before installation.

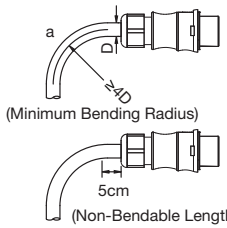
2.2 Pre-Installation Checks

2.2.1 Sequence For Cable And Connector Preparation

1. Trim Cable.
2. Plan for any possible bending of cables.
3. Fix cable ends with connectors.
4. Complete sealing of connectors by tightening screw nut with spanner/wrench.
5. Unplug Dust Caps/Waterproof End Caps and keep safe for reuse.
6. Connect luminaries with power sources and data injector boxes with connection cables in the daisy-chain manner described in the wiring diagram.
7. Open Short Test should be performed to ensure cable wires are connected correctly. Re-crimping of wires should be done if any failures occur.
8. Perform functional check on all Nano Liner Allegro AC XB RGB / DWs.
9. Report any functional defect found to your nearest Traxon Technologies office. DO NOT attempt to install a Nano Liner Allegro AC XB RGB / DW with functional defects on-site.

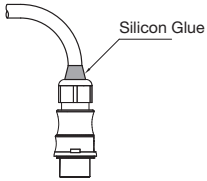
2.2.2 Cable Bending

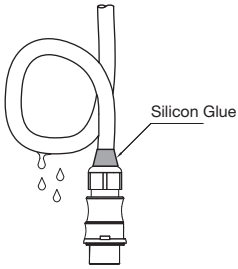
Cable must NOT be bent below the Minimum Bending Radius (4 x Cable Diameter) as specified by cable manufacturer and the Non-Bendable Length of 5cm near the connector end MUST be adhered to.

Bending radius (for conductors) Note the minimum bending radius for conductors > 1.5mm2. Pull forces on the contact points can be avoided by proceeding as follows: a – Bend the wire as required	 FIG.6: Cable Bending

2.2.3 Vertical Cable Installation

If vertical position cannot be avoided and 90 degree connector installation is not feasible, it is recommended to:

Add silicon glue on the surface of cable gland.	 FIG.7: Silicon Glue

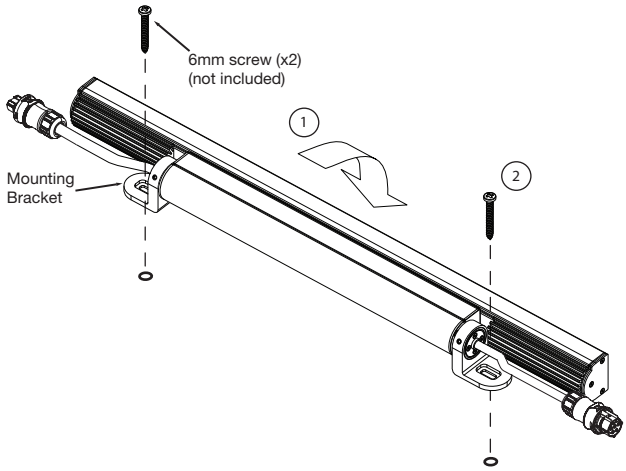
Layout the cable to have drip loop to allow water run off the wire.	 FIG.8: Drip Loop

2.3 On-Site Installation

- DO NOT attempt installation in wet or severe weather conditions.
- DO NOT leave and expose any Nano Liner Allegro AC XB RGB / DWs or power sources unconnected under wet/raining or snowing environment.
- IP failure induced by stressed/damaged cables during or after installation will not be under warranty by Traxon Technologies.
- ALWAYS keep the cables protected from sharp objects and ensure no damage is generated on the cable.
- Failure to keep Nano Liner Allegro AC XB RGB / DWs within the operating temperature range of –30°C to +50°C (–22°F to +122°F) and storage temperature range of –40°C to +70°C (–40°F to +158°F) will void the product's warranty.

1. Rotate fixture to gain access to mounting holes.

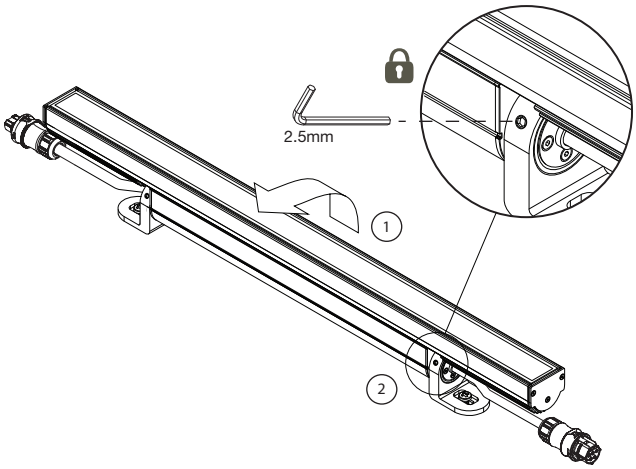
FIG.9: Mounting



2. Fix screws to mounting brackets.

3. Tilt the Nano Liner Allegro AC XB RGB / DWs head to the desired angle.

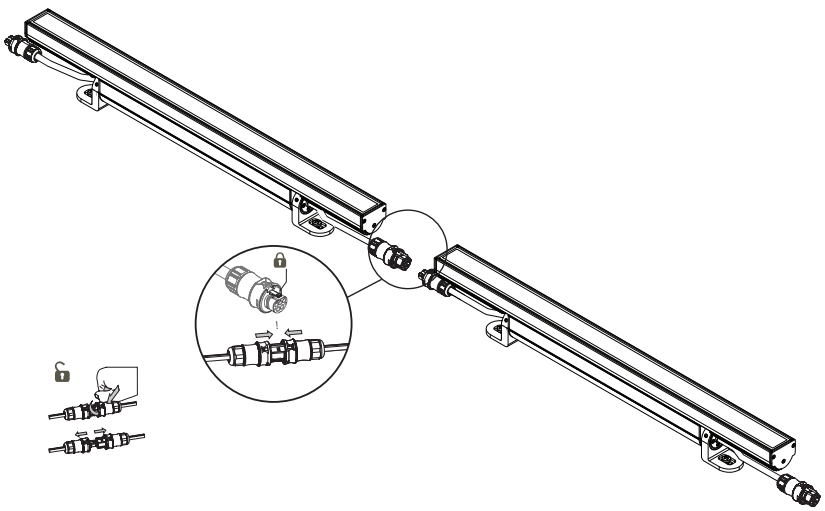
FIG.10: Locking fixture position



4. Then tighten lock screws with provided Hex Key in clockwise direction.
5. Unplug the Dust Caps/Waterproof End Caps and keep them in a container for reuse.

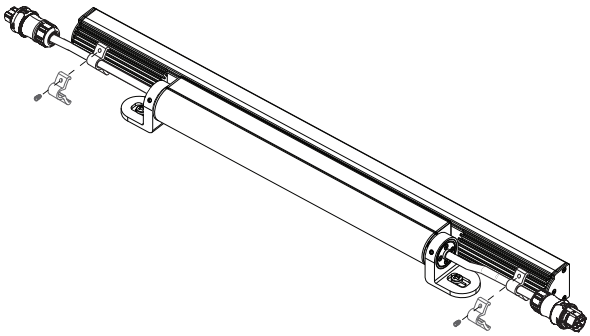
6. Fully connect all the Nano Liner Allegro AC XB RGB / DWs with connection cables one after the other. Do not work on the other unit's connections until the first unit under installation is properly connected.

FIG.11: Interconnecting fixtures



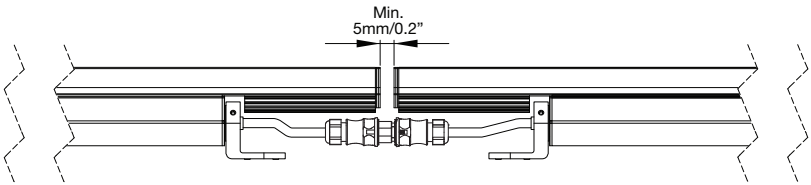
7. After connecting all the Nano Liner Allegro AC XB RGB / DWs, use Safety Cable Clips to clamp the cable firmly to the body.

FIG.12: Clamping cables



8. Do not leave and expose Nano Liner Allegro AC XB RGB / DWs without Dust Cap plugged under wet/raining or snowing environment as the Nano Liner Allegro AC XB RGB / DWs is not IP66 compliant unless properly connected. Make sure there is a minimum spacing of 5mm/0.2” between Nano Liner Allegro AC XB RGB / DWs for thermal expansion.

FIG.13: Min. clearance between fixtures

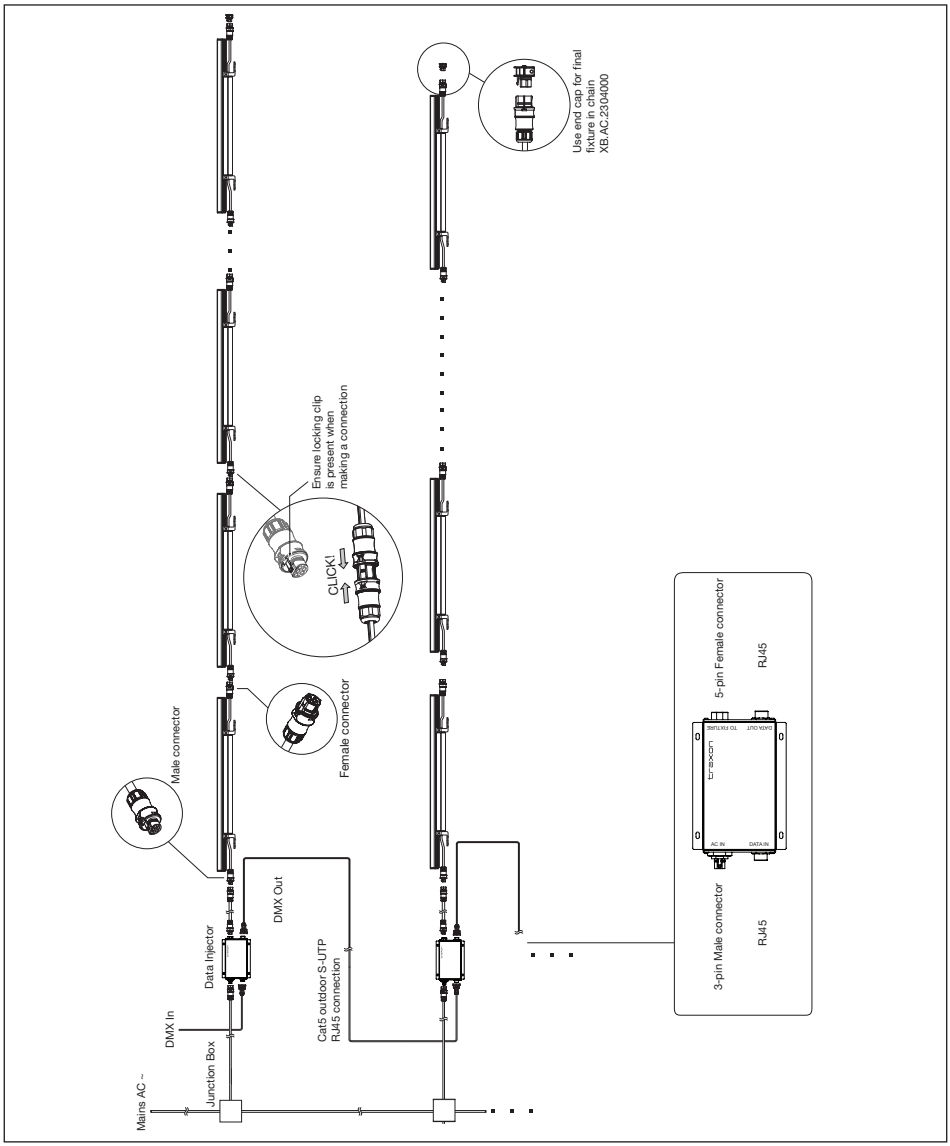


3. SAFETY AND OPERATION

- Caution - Unplug the power supply from the mains power before connecting any cables as this can damage the products.
- Caution - Avoid looking directly into the LED light source at close range for your own safety.
- Persons installing this product should make sure:
    1. The installation complies with all applicable codes, state and local laws, ordinances, standards and safety regulations.
    2. The installation environment is carefully studied and suitable surge protection measure(s) is taken.
    3. He or she is qualified for the handling of electrical equipment.
- Do not attempt to install or use the product until installation instructions and safety labels are fully understood. This product is designed for indoor and outdoor use.
- Ensure product operates within the specified temperature range. (Refer to 6. TECHNICAL SPECIFICATION for more details.)
- Do not attempt to open the product. Not user serviceable.
- Do not use the product if any part of it, or the power cables are damaged.
- Only use product for specified voltage, do not exceed. (Refer to 6. TECHNICAL SPECIFICATION for more details.)
- Always maintain connection to ensure waterproofing.
- If the product has been subjected to drastic temperature variances, for example, following transportation, do not connect the fixture until it has reached room temperature, as moisture condensation may cause electric shock and product damages.
- When installing the products and system power supplies, please ensure they will not be exposed to moisture and extreme heat (and direct sunlight for outdoor products). Besides, keep a clean operating environment for the fixtures and system power supplies.
- Please study this Installation Guide thoroughly and check the latest Technical Specification Sheets available from the Traxon website www.traxontechnologies.com before setup.
- Any non-compliance of the Installation Guide will void the Traxon warranty.

4. SYSTEM CONFIGURATION

FIG.14: System Diagram



5. CARE AND MAINTENANCE

- Traxon™ products are of superior design and quality and should be treated with care. The recommendations below will help fulfill anY warranty obligations and gain good use and longevity from the products.
- Do not attempt or use the product(s) until you read and understand the installation instructions. Failure to adhere to these instructions could result in serious injury or property damage.
- Do not use product(s) if cables are damaged.
- Do not connect cables and connectors when wet or in wet area. Moisture on bare connectors can cause electric shock and damage to product(s).
- Do not use product(s) in extreme heat environment. Ensure there is sufficient airflow and use cool air circulation if required.
- Do not drop, knock, or shake product(s). Rough handling can damage the electronics and void the warranty.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean products. Wipe with a damp cloth on housings and a dry cloth on electronics to remove dirt or dust.
- Do not attempt to service or repair the product(s) unless done by an authorized service personnel. Contact your local Traxon office or distributor for details.
- If the product is not working as specified, please contact your nearest authorized service center or Traxon Technologies office for assistance.

6. TECHNICAL SPECIFICATION

RGB

Light Source	9 / 18 / 27 / 36 High intensity power LEDs
Color Range	16.7 million additive RGB colors
Beam Angle	40°, 50°x10°
Power Input	120V, 230V, 277V AC 50/60Hz nominal
Power Consumption	12.5W per 300mm (1ft) max.
Weight	1.5kg/3.3lbs; 2.7kg/5.9lbs; 3.7kg/8.1lbs; 5.0kg/11lbs
Operating Temperature	–30°C to +50°C / –22°F to +122°F; startup temperature, –20°C/–4°F

DW

Light Source	9 / 18 / 27 / 36 High intensity power LEDs
Color Temperature	Dynamic white - 2700K - 6500K
Beam Angle	40°, 50°x10°
Power Input	120V, 230V, 277V AC 50/60Hz nominal
Power Consumption	12.5W per 300mm (1ft) max.
Weight	1.5kg/3.3lbs; 2.7kg/5.9lbs; 3.7kg/8.1lbs; 5.0kg/11lbs
Operating Temperature	–30°C to +50°C / –22°F to +122°F; startup temperature, –20°C/–4°F

As with all electronic devices, LED output degrades over time - a term called lumen depreciation. This also explains why it is nearly impossible to expect photometric performances of two LED products with different service life spans to be the same. The rate of LED degradation is a complex function of many factors such as operating efficiency, duration of continuous operation, and operating conditions (e.g. ambient temperature).

Because LEDs are semiconductor devices, their performances are subject to inherent variability commonly found in semiconductor industry. To improve consistency in performance across the same product, LED manufacturers “sort” LEDs into bins according to different preset parameters, such as forward driving voltage, illumination, etc. Whereas binning is a sorting function, it is not a correction process. Inherent variability in the manufacturing process always results in different binning distributions according to different production lots. Traxon uses automatically binned LEDs on its products, thereby minimizing output variations within the model range.

7. TROUBLESHOOTING

Caution: Ensure power supply is OFF when disconnecting / connecting cables.

Problem	Cause	Possible Solutions
Product does NOT light up after installation	Incorrect power connection	• Check Mains Power • Check power supply leads and wire connections • Ensure output wires are connected with proper polarity
Shadowing	Light source covered	• Check for cables, wires or unwanted debris covering LED light source
Modules are dim	Excess products connected	• Ensure the power supplies are not overloaded due to an excess of products connected
Flickering	Incorrect power input/ Excess products connected	• Ensure the input voltage is correct • Ensure the power supplies are not overloaded due to an excess of products connected

If problems persist or the product is not working as specified, please contact your nearest authorized service center or Traxon Technologies office for assistance.

8. WARRANTY STATEMENT

Traxon Technologies warrants its Products against material or workmanship defects for a period of five (5) years from date of purchase, provided that the purchased items are used under the conditions stated in this user manual.

Please refer www.traxontechnologies.com for all warranty terms and conditions.

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Please check for the latest updates and changes on the Traxon website.

www.traxontechnologies.com