

DRAGON



DRAGON
alpha III

USER MANUAL & INSTALLATION GUIDE

For all our User Manuals please visit www.scynceled.com/support

MANUAL FOR END USER AND INSTALLER

Thank you for purchasing the Alpha III fixture. This manual contains all the information needed to quickly familiarize yourself with the product. Please review this information carefully, before installing and/or operating the product.

We recommend you keep this manual on hand for future reference.

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TABLE OF CONTENTS

Page 3	Product description
Page 3	Specifications
Page 4	Thermal management
Page 4	Light output
Page 5	Light energy distribution
Page 5	Precautions and safety instructions
Page 6	Installation
Page 7	Maintenance
Page 8	Troubleshooting
Page 9	Dragon Alpha Dimensions



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PRODUCT DESCRIPTION

INTENDED USE/S

The Alpha fixture is intended for overhead illumination of horticultural crops. For other applications in professional horticulture, please contact a representative at Scynce. Any use other than the approved intended use described above is considered an unintended use. Scynce cannot be held responsible for possible consequential damage caused by improper, incorrect or inadvisable use.

SYMBOLS USED

The following symbols are used in this manual to draw attention to specific topics or actions

WARNING

A warning indicates the possibility of injury to the user and/or damage to the product should the user not perform the procedures as described.

ATTENTION

A note alerts the user to potential problems which may occur if a procedure is not carried out as described.

SPECIFICATIONS

Product Name	Optic	Manufacture's ID	Size	Wheight	Ingress Protection Rating	Installation Environment
Dragon Alpha	70°	52840	(1111x171 x101)mm (43.75 x 6.75 x 4)in	18 lbs (Fixture only) 33 lbs (Fix/Con/PS)	IP66	Suitable for Damp Loactions
	Main Voltage +/- 10%(VAC) 50/60 Hz	Power Draw	Power Factor	Color Spectrum Four Channels	Dimmable	Ambient Operating Temp
	120-240 277-480	650 watts	>0.95	2700K White 6500K White 660nm Red 720nm Red	Four Channel independent dimming, 0%-100% with Scheduling	-40C ~ 30C

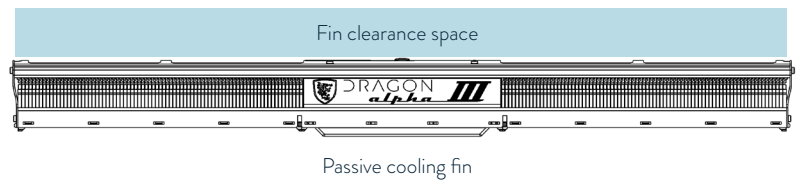
THERMAL MANAGEMENT

All Scynce fixtures have built-in dynamic thermal monitoring. The Alpha III fixture utilizes a passive cooling system. Should the fixture begin to overheat, the system will automatically reduce output to protect the fixture while still maintaining a minimal level of output.

To ensure safe operation of the lighting equipment it is necessary to control the temperature of the room by mechanical ventilation or cooling system to below the maximum ambient operating temperature of 30°C (86°F).

WARNING

Never block the cooling fins on the Scynce Alpha III fixture, leave a minimum of 4 inch clearance around the back of the fixture. Blocking the cooling fins will cause the performance of the fixture to reduce and may cause permanent damage.

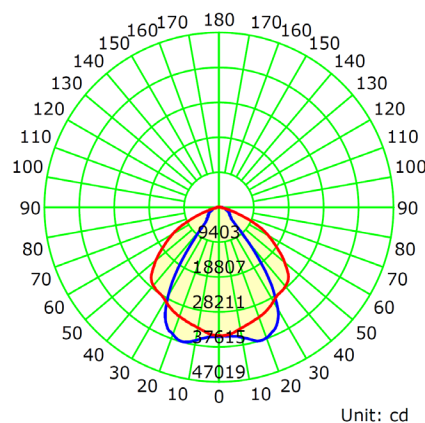


LIGHT OUTPUT

The Alpha III features our Linear 70 optic. The 70° distribution angle has effective penetration of light into the crop and is typically used in high ceiling single-level applications where the fixtures need to be mount 3+ feet over the canopy.

OPTICAL DISTRIBUTION

The luminosity distribution for the Linear 70 optic is pictured below. This optic offers a higher intensity that is evenly distributed across the 70° beam. By controlling the beam with optics, light energy is gathered and focused into a highly efficient and usable pattern, taking full advantage of the LED radiant output. If you need assistance with fixture layout to achieve a desired PAR level at the canopy contact your sales representative, we can and want to help you succeed.



LINEAR 70 OPTIC

Luminous Intensity Distribution Curve

- Red is perpendicular to the fixture
- Blue is parallel to the fixture

PRECAUTIONARY MEASURES AND SAFETY INSTRUCTIONS

WARNING

- Always adhere to the local building and electrical codes when installing or using the fixture.
- HIGH VOLTAGE- Switch off the main voltage before commencing installation or maintenance work.
- Do not open or disassemble the fixture, it contains no serviceable parts inside. Opening the fixture can be dangerous and will void the warranty.
- Never look directly into the light source while fixture is turned on. Doing so can cause damage to the eyes.

ATTENTION

- The end user is responsible for ensuring correct installation and use of the product. Incorrect installation can cause damage to the product. The warranty shall become void if the product and/or electronic components are damaged due to incorrect installation.
- The performance of the fixture may be compromised if operated outside of the recommended ambient temperature guidelines.

Risk Group 1

NOTICE - UV EMITTED FROM THIS PRODUCT. MINIMIZE EXPOSURE TO EYES AND SKIN. USE APPROPRIATE SHIELDING.

NOTICE - IR EMITTED FROM THIS PRODUCT. USE APPROPRIATE SHIELDING OR EYE PROTECTION.

WARNING - IR EMITTED FROM THIS PRODUCT. DO NOT STARE AT OPERATING LAMP.

Product tested against IEC62471

Groupe de Risque 1

AVISO - EMITIDOS UV DESDE ESTE PRODUCTO. MINIMICE LA EXPOSICIÓN DE LOS OJOS Y LA PIEL. UTILICE PROTECCIÓN APROPIADA

AVISO - ESTE PRODUCTO EMITE IR. UTILICE PROTECCIÓN O PROTECCIÓN PARA LOS OJOS APROPIADA.

ADVERTENCIA - ESTE PRODUCTO EMITE IR. NO MIRAR FIJAMENTE LA LÁMPARA DE FUNCIONAMIENTO.

Produit testé contre IEC62471

These photobiological safety markings are based on testing of the light output characteristic of a single horticultural luminaire. Increased exposure risk to facility personnel may be present depending upon the number of horticultural luminaires and their placement and/or positioning within the plant growth facility.

It is the responsibility of the plant growth facility to address these risks at the facility level and to ensure that people entering the plant growth areas while the lights are on, are aware of these risks and that appropriate safeguards are in place.

INSTALLING THE FIXTURE

ATTENTION

- THIS PRODUCT MUST BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE INSTALLATION CODE BY A PERSON FAMILIAR WITH THE CONSTRUCTION AND OPERATION OF THE PRODUCT AND THE HAZARDS INVOLVED

MOUNTING THE LIGHT FIXTURE

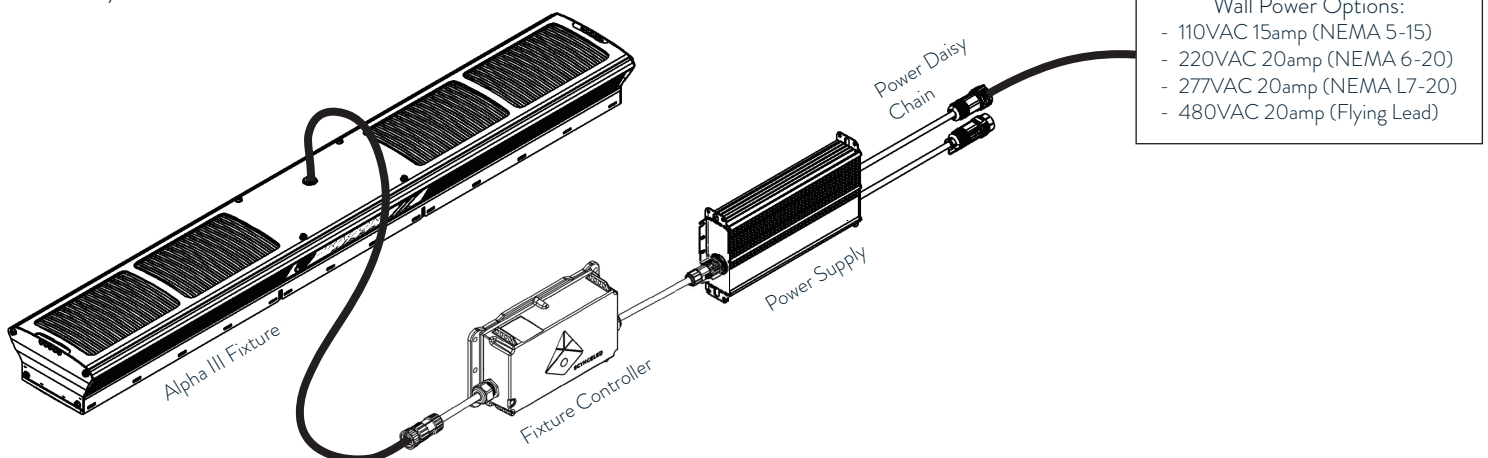
The Alpha III fixture is designed to be hung using any of the array of hanging holes at either end of the fixture. Generally the center hole will be used, but if the fixture is tilting adjust the hanger to an adjacent hole until the fixture is hanging level.

When mounting the Dragon fixtures in an array, a minimum distance of 8 inches side to side and a minimum distance of 1 inch end to end must be maintained. When mounting next to a ceiling or wall, movable partitions, and the like, insure a minimum distance of 40 inches (100cm) is maintained.

CONTROL AND POWER CONNECTION

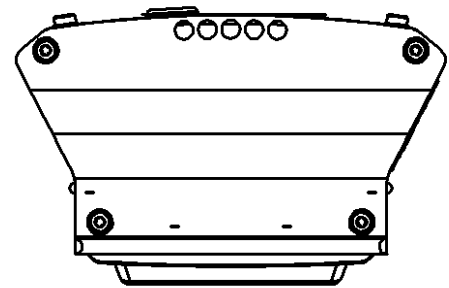
Alpha III was designed with an off-board fixture Controller and fixture power supply. This feature adds an advantage to you, in the event of a power supply or Controller failure, this feature allows you to replace either on the fly with easily disconnected connectors and process an RMA on only a small part that is easily shipped.

Both the Controller and the power supply have numerous mounting options that allows you to mount where needed for your convenience. These options include; mounting flanges to mount to any surface, multiple hanging locations to be used with Hanging Kits offered by Scynce LED.



INSTALLATION PREP

1. Switch off main voltage
2. Refer to your light plan. Arrange boxed light fixtures in specified mounting locations.
3. Remove the fixture from the packaging and check contents.
4. Gather any additional tools and/or hardware that may be required to mount the fixture.



WARNING

Do NOT hang or mount the fixture Controller or power supply to the Alpha III fixture. If you are struggling to find a location to mount the Controller or power supply, please consult your sales rep at Scynce LED for available Hanging Kit options.

ELECTRICAL CONNECTION

The Alpha III fixture is intended to connect to the branch circuit with the supply cord and attachment plug, and the other end connecting to the fixture power supply. Each power cord features a standard NEMA (or flying lead) on one end and on the other a quarter turn connector that is “push to connect”, push the connectors together until you hear an audible “snap”.

To accommodate both residential and commercial power, Scynce offers power supplies at two voltage ranges with two plug options for each;

- 110 to 240 VAC
 - 110, NEMA 5-15 (15 amps)
 - 220, NEMA 6-20 (20 amps)
- 277 to 480 VAC
 - 277, NEMA L7-20 (20 amps)
 - 480, Flying Lead (20 amps)

POWER DAISY CHAIN

The Alpha III fixture allows for power to be daisy-chained through a second connector on the power supply. Once the first Alpha III fixture is connected to power, simply connect the next Alpha III power cord to the first power supply. This configuration can be repeated until the line current reached 20

ROUTING POWER CORDS

When routing the fixture power cord ensure that;

- The cord is not concealed or extended through a wall, floor, ceiling, or other parts of the building structure.
- The cord is not located above a suspended ceiling or dropped ceiling.
- The cord is not permanently affixed to the building structure.
- The cord is routed so that it is not subject to strain and is protected from physical damage.
- The cord is visible over its entire length.
- The cord is to be used within its rated ampacity as determined

INTERFACING TO ALPHA III

To interface with the Alpha III, an Echo Display or Echo Mini needs to be connected to the fixture Controller using the provided communication cable. The next Alpha III communication cable can be connected to the previous Alpha III Controller to create a daisy chain back to the Echo Display or Echo Mini. The last Alpha III in the communication daisy chain line, whether the line has one Alpha III or has 70 Alpha III, must be terminated with Echo Termination Plug. You are now ready to set-up and operate your Alpha III using the Echo Display or Echo Mini

WARNING

Always use the appropriate power cord/connector option that corresponds to your power outlet. Use of an incorrect cord can cause damage to the cord or fixture.

SINGLE PHASE CORD TERMINATION

BLACK	Line
WHITE	Neutral
GREEN	Ground

DOUBLE PHASE CORD TERMINATION

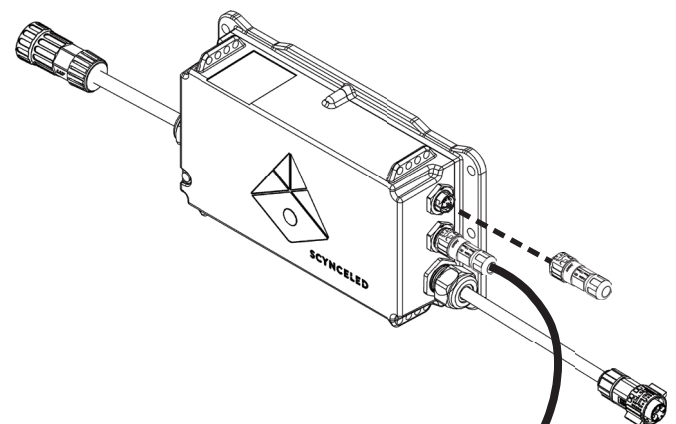
BLACK	Line
BLACK	Line
GREEN	Ground

WARNING

Never exceed the current rating of the power cords when daisy-chaining fixture power together. Doing so will cause damage to the power cords and power supply and may possibly damage the fixtures. Consult your Scynce LED specialist or a licensed electrician for assistance.

ATTENTION

To ensure safe operation of the lighting equipment it is necessary to control the temperature of the room by mechanical ventilation or cooling system to below the maximum ambient operating temperature of 30C (86F).



Communication Daisy Chain:
 - to next light
 - or Echo Display or Echo Mini

FIXTURE INTERFACE

The Alpha III fixture is equipped with four independent channels of LEDs (White 2700K, White 6500K, Red 660nm, and Red 720nm). Each channel can be independently dimmed from 0% to 100%. Channel dimming can be adjusted on-demand through the Echo Display or Echo Mini user interface.

The Echo Display is a first person user interface, meaning you can operate the Alpha III fixture locally without having to connect a phone, tablet or another computer. It can be mounted outside the grow room, or inside the grow. If remote access is desired the Echo Display can be connected to your network and can be interfaced with using a computer, tablet, or mobile phone. The Echo Display can also be controlled using a facility wide control system by communicating through the MODBUS interface (See Echo Display User Manual for details).

ALPHA III OPERATIONS

The Alpha III fixture is operational using either the Echo Display or the Echo Mini, refer to the Echo Display User Manual or Echo Mini User Manual for details.

MAINTENANCE

WARNING

- High Voltage - Switch off the main voltage before commencing maintenance work.
- Caution - Fixture reaches high temps while in use.
- Do not open or disassemble the product. Opening the product can prove hazardous and will void the warranty.
- Caution - Risk of Fire
- Caution - Risk of shock

ATTENTION

In the event that the product is defective or damaged, contact Scynce Customer Support (www.scynceled.com) for assistance. Never switch on a defective or damaged fixture.

- Check the product at regular intervals for build-up of dust and dirt. Clean the product if necessary. Contamination can lead to overheating and reduced light output performance.
- Clean the fixture with water and a damp cloth or a polycarbonate safe cleaner such as Novus #1 Cleaner. Ensure that the polycarbonate lens is always clean.

CLEANING

- Always allow the fixture to cool to room temperature before cleaning it.
- Never clean the fixture with corrosive cleaning agents or other aggressive liquids. The following cleaners are known to cause damage to polycarbonate.
 - Solvents; Acetone, Alcohol...
 - Window Cleaner; Windex, 409...
 - Alkaline Cleaners
- Never use abrasive cleaners, abrasive pads, or gritty cloths to clean, the polycarbonate lenses will scratch.
- Never scrape the polycarbonate lenses to remove build-up. Only use a vinegar and water solution (1:100 ratio) to remove build-up of limescale on the lens.
- Fixtures have been tested under Chlorine gas exposure at manufacturer's recommended dosage with no adverse effects.
- Oil based and non oil based fungicides and pesticides used at manufactures recommendations will not degrade lenses or the fixture.

ATTENTION

Do Not remove or damage the Gore breathers. Removal or damage of the breather could allow condensation and contaminants to enter the fixture.



TROUBLESHOOTING

WARNING

Do not open or disassemble the product. Opening the product can prove hazardous and will void the warranty.

ATTENTION

Never switch on a defective or damaged fixture. In the event the product is defective or damaged, contact Scynce Customer Support (www.scynceled.com) for assistance.

WHAT CAN YOU SEE?

WHAT SHOULD I DO?

The fixture does not emit any light.

Reset the fixture by disconnecting the main voltage for more than 15 seconds and then reconnect.

In the event that the fixture switches off again, lower the ambient temperature.

Check main voltage line for correct voltage range (120-240VAC or 277-480VAC).

Reload default settings.

If the issue persists, contact Scynce Customer Support (www.scynceled.com) for assistance for assistance.

Only half of the fixture lights turn on

Reset the fixture by disconnecting the main voltage from the fixture for more than 15 seconds and then reconnecting.

If the issue persists, contact supplier for assistance.

The fixture emits too little light when compared to the other fixture(s).

Reload default settings.

Contact the installer and have the wiring checked.

If the issue persists, contact supplier for assistance.



PRODUCT DIMENSIONS (IN MM)

