



RAGING KUSH



RAGING *kush*

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 Scynce Raging Kush. 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.

For further information please contact:

SCYNCE

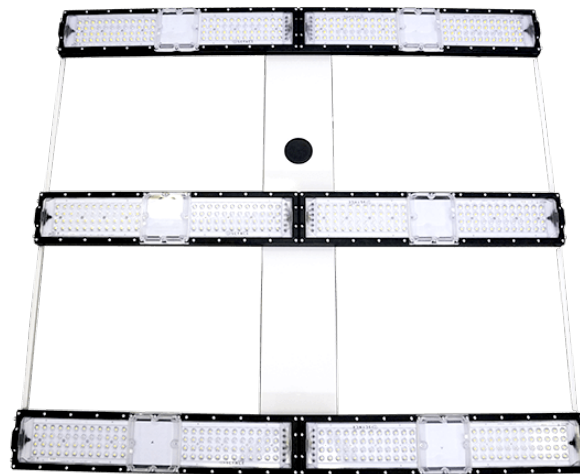
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PRODUCT DESCRIPTION

INTENDED USE/S

Scynce Raging Kush family of fixtures are intended for vertical flowering 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 unintended use.

SCYNCE cannot be held responsible for possible consequential damage caused by improper, incorrect or inadvisable use.

This product is not meant for use in **dwellings, for general purpose lighting or architectural lighting, such as warehouse lighting, work lighting, building lighting, or the like. The light energy and spectrum is spaciouly designed for agricultural settings only.

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

SCYNCE RAGING KUSH 1.0

GENERAL SPECS

Manufactures Identification:	120deg Optic: 52629
Name:	Raging Kush 1.0
Market Introduction:	2019

TECHNICAL SPECIFICATIONS

MECHANICAL

Product Dims (L.W.H):	1124 x 1029 x 83 mm (44.3 x 40.5 x 3.3 in)
Product Weight:	Gen 1 (2018) = 40.8 lbs; Gen 2 (2020) = 33.2 lbs.
Housing:	Powder coated aluminum
Ingress Protection Rating:	IP66
Installation Environment	Suitable for damp location

** Dwelling is defined as any location where humans reside

ELECTRICAL

Main Voltage +/- 10%:	120 – 277 VAC. 50/60 Hz
Power Draw:	Max. 740 W
Power Factor:	> 0.9
Color Spectrum:	Three channels: 2700K White / 6500K White / 720nm Red & 660nm Red
Dimmable:	Wireless

SCYNCE RAGING KUSH 2.0

GENERAL SPECS

Manufactures Identification:	120deg Optic: 52720
Name:	Raging Kush 2.0
Market Introduction:	2020

TECHNICAL SPECIFICATIONS

MECHANICAL

Product Dims (L.W.H):	1098 x 1033 x 135 mm (42.3 x 40.7 x 5.3 in)
Product Weight:	34.0 lbs
Housing:	Powder coated aluminum
Ingress Protection Rating:	Protection Rating: IP66
Installation Environment	Suitable for damp locations

ELECTRICAL

Main Voltage +/- 10%:	120-277VAC 50/60Hz
High Voltage Version	277-480VAC 50/60HA
Power Draw:	650 W (Max. 715 W)
Power Factor:	>0.9
Color Spectrum:	Four channels: 2700K White (500 W) / 6500K White (500 W) / 720nm Red (175 W) / 660nm Red (200 W)
Dimmable:	Wireless and Wired 0-10

OTHER

Ambient Operating Temp:	-40 ~ 30°C
Certification:	Tested to UL1598, UL8750, UL8800, CSA C22.2 NO. 250.0-08, CSA C22.2 NO. 250.13
Warranty:	5 years (please refer to https://scynceled.com/product-warranty/ for full details)

THERMAL MANAGEMENT

All Scynce fixtures have built-in dynamic thermal monitoring. Scynce Raging Kush utilizes a passive cooling system. Should the light begin to overheat, the light will automatically reduce output to protect the light 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.

WARNING

Never block the cooling fins on the Raging Kush, leave a minimum of 1.5 inch clearance around the back of the Raging Kush fixture. Blocking the cooling fins will cause the performance of the fixture to reduce and may cause permanent damage.



LIGHT OUTPUT

The Raging Kush has one distribution optical angle options.

120° distribution angle has exceptional uniformity of the light onto the crop and is our standard option for indoor, warehouse and greenhouse where 100% artificial light is required.

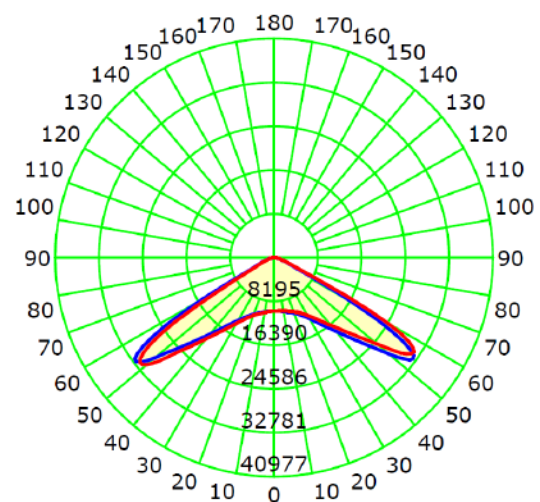
OPTICAL DISTRIBUTION

The luminosity distribution curve for the 120° optics is depicted below. The 120° optic offers intensity (radiated energy) that is slightly brighter on the outside of the beam. When hanging the fixture it is important to overlap the beams to achieve an even intensity on the plant canopy. By controlling the beam with optics, light energy is gathered and focused, taking full advantage of the LED directed radiation pattern. If you need assistance with fixture layout to achieve a desired PAR level at the plant contact your Scynce sales representative, we can help.

120° OPTICS

* 120 degrees is the ideal optic for vertical application allowing the fixture to be mounted between 6” and 18” over the canopy.

Luminous Intensity Distribution Curve



LIGHT ENERGY DISTRIBUTION

PAR (Photosynthetically Active Radiation) is a region of the electromagnetic spectrum (400 to 700 nm) that promotes photosynthesis.

PPF (Photosynthetic Photon Flux) tells us how much PAR a light-source emits. PPF does not measure PAR at a specific location (such as your crop canopy), but it tells you how many photons within the PAR region are coming out of the light-source every second.

PPFD (Photosynthetic Photon Flux Density) measures the amount of photons within the PAR region at a specific location (such as your crop canopy) every second. Most PAR meters report PPFD ($\mu\text{mol}/\text{m}^2/\text{s}$) measurements.

* For more detailed PAR maps, including how the fixtures work in an array, please visit: www.scynceLED.com

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 2

CAUTION. Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to the eye.

Product tested against IEC62471

Groupe de Risque 2

MISE EN GARDE. Rayonnement optique potentiellement dangereux émis par ce produit. Ne regardez pas la lampe en marche. Peut être nocif pour les yeux.

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 in 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

INSTALLATION PREP

1. Switch off the 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.

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.

ELECTRICAL CONNECTION

The Raging Kush 1.0 is equipped with an 8ft power cord, terminated with a North American standard wall plug (NEMA 6-15). Simply plug the light and you are ready to go.

The Raging Kush 2.0 fixture is equipped with a NEMA L7-15 plug on the cowling. Scynce offers four different 10 foot long power cable options and one of them was shipped with your light. Install this power cable into the plug and rotate clockwise to lock. Make sure the plug is fully seated prior to rotating to lock (See Fig. #2). Slip the rubber boot over the plug collar on the cowling, this will ensure that water does not enter the plug. Plug the other end of the power cable in and you are ready to go.

Always ensure that the fixture installation is compliant with local building codes. The Raging Kush 1.0 and Raging Kush 2.0 are intended to connect to the branch circuit with the supplied cord and attachment plug.

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 for the maximum temperature of 30°C ambient.

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).

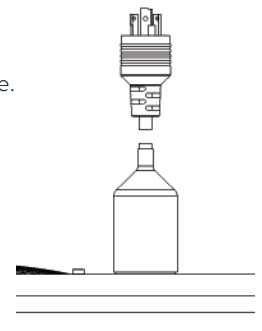


Figure 2: Provided cable by Scynce with rubber boot

The Raging Kush II can also be outfitted with Scynce's power cord management solution. This solution offers the ability to string our lights together and share a single power outlet in custom configurations. It does require special cabling that can be ordered from Scynce directly. Always insure that the facility wiring is appropriately sized to accommodate multiple light configuration. Consult your Scynce representative for assistance in layout, configuration and pricing.

SINGLE PHASE CORD TERMINATION

BLACK	Line
WHITE	Neutral
GREEN	Ground

DOUBLE PHASE CORD TERMINATION

BLACK	Line
WHITE	Line
GREEN	Ground

CONTROLLING THE LIGHT

The Raging Kush 1.0 is equipped with three independent channels of LEDs (White 2700K, White 6000K, and Red 660/720 nm). Each channel can be independently dimmed from 0% to 100%. Channel dimming can be adjusted on-the-fly using the mobile app (See Mobile App Instructions for details) or by setting up an embedded schedule in the light (See Scheduling Instructions for details)

The Raging Kush 2.0 features full power four independent channels of LEDs; 2700K White / 6500K White / 720nm Red / 660nm Red. Each channel can be independently dimmed for 0% to 100%. Channel dimming can be adjusted on-the-fly using the mobile app (See Mobile App Instructions for details) or by setting up an embedded schedule in the light (See Scheduling Instructions for details). The Raging Kush 2.0 fixture can also be controlled through the 0-10 communication portal using a Thia Echo Air. Contact your Scynce representative for more details.

The 0-10 inputs on Scynce lights have two modes; a standard 0-10 analog DC voltage, and a digital data mode. If either mode is enabled the light disables the radio and is controlled by the 0-10 input only. The light features a "Fail to Off" mode; once the 0-10 is enabled and then subsequently disabled, the light output is set to off. The light will stay off until the 0-10 is enabled again, or the light receives a command from the mesh or Thia App.

The analog 0-10 input can be used to control the overall intensity of the light but can not control the spectrum. To control the spectrum the digital 0-10 control, or the wireless must be used.

The analog 0-10 input will dim the light linearly between 1-9 volts DC. Input voltages from 0-1 volts is all the way off and input voltages from 9-10 volts is all the way on (voltage above 9 volts will NOT over-drive the light). If the input voltage is within this range the 0-10 signal is considered active, when the input voltage reaches 11 volts DC, the light assumes the 0-10 signal has been turned off and the light will turn on the radio. The light will enter "Fail to Off" state and wait for a new command, either from the 0-10 or radio.

For additional information about the digital 0-10 control please refer to the Echo Air User Manual, or contact your Scynce representative."

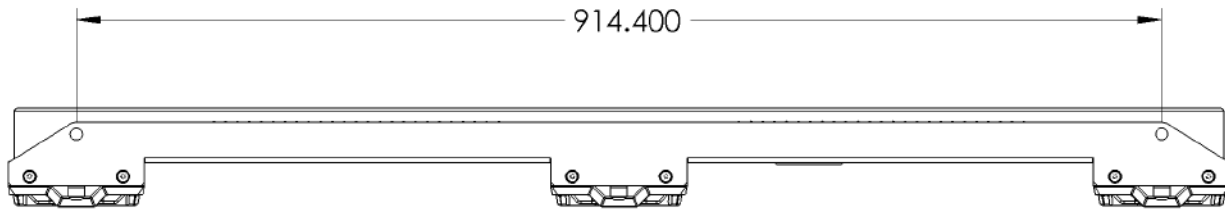
*Mobile app and Scheduling Instructions can be found at:
<https://scynceled.com/installation/> and <https://scynceled.com/support/>

WARNING

Always ensure that fixtures are compliant with local building codes

Hanging the fixture

The Scynce Raging Kush comes equipped with four hanging points, two on either end of the fixture's housing.



When mounting the Raging Kush 1.0 and Raging Kush 2.0 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.

WARNING

Never block the cooling fins on the Raging Kush, leave a minimum of 1.5 inch clearance around the back of the Raging Kush fixture. Blocking the cooling fins will cause the performance of the fixture to reduce and may cause permanent damage.

MAINTENANCE

WARNING

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

ATTENTION

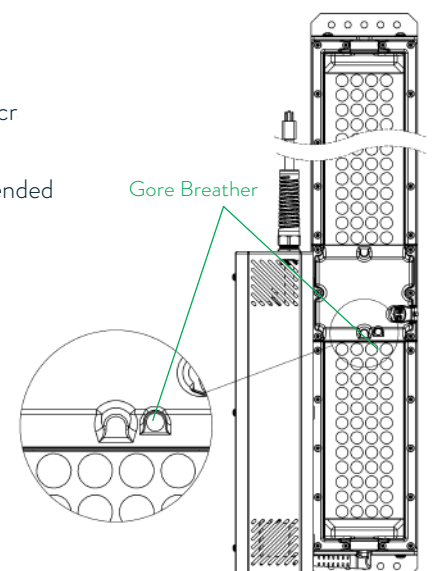
In the event that the product is defective or damaged, contact the dealer from whom you purchased the fixtures, or SCYNCE directly.

- 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 a vinegar and water solution (1:100 ratio) 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.
- Clean the fixture with water and a damp cloth or a vinegar and water solution (1:100 ratio) or with a hydrogen dioxide and water solution (<10:100 ratio) such as ZeroTol 2.0 with their recommended dilution of 1:50 or a polycarbonate safe cleaner such as Novus #1 Cleaner. Always ensure that the lens is always clean.
- Never clean the fixture with corrosive cleaning agents or other aggressive liquids. The following cleaners are known to cause damage to polycarbonate and/or PMMA.
 - Solvents; Acetone, Alcohol...
 - Window Cleaner; Windex, 409...
 - Alkaline Cleaners
- Never use abrasive cleaners, abrasive pads, or gritty cloths to clean, the lenses will scr
- Never scrape the lenses to remove build-up.
- 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.

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 the dealer where you purchased the fixture or contact SCYNCE directly.

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 5 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 (120-277vac).

Reload default settings.

If the issue persists, contact supplier for assistance.

Only half of the fixture lights turn on

Reset the fixture by disconnecting the main voltage from the fixture for more than 5 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.

Fixture will not respond to Dim Control.

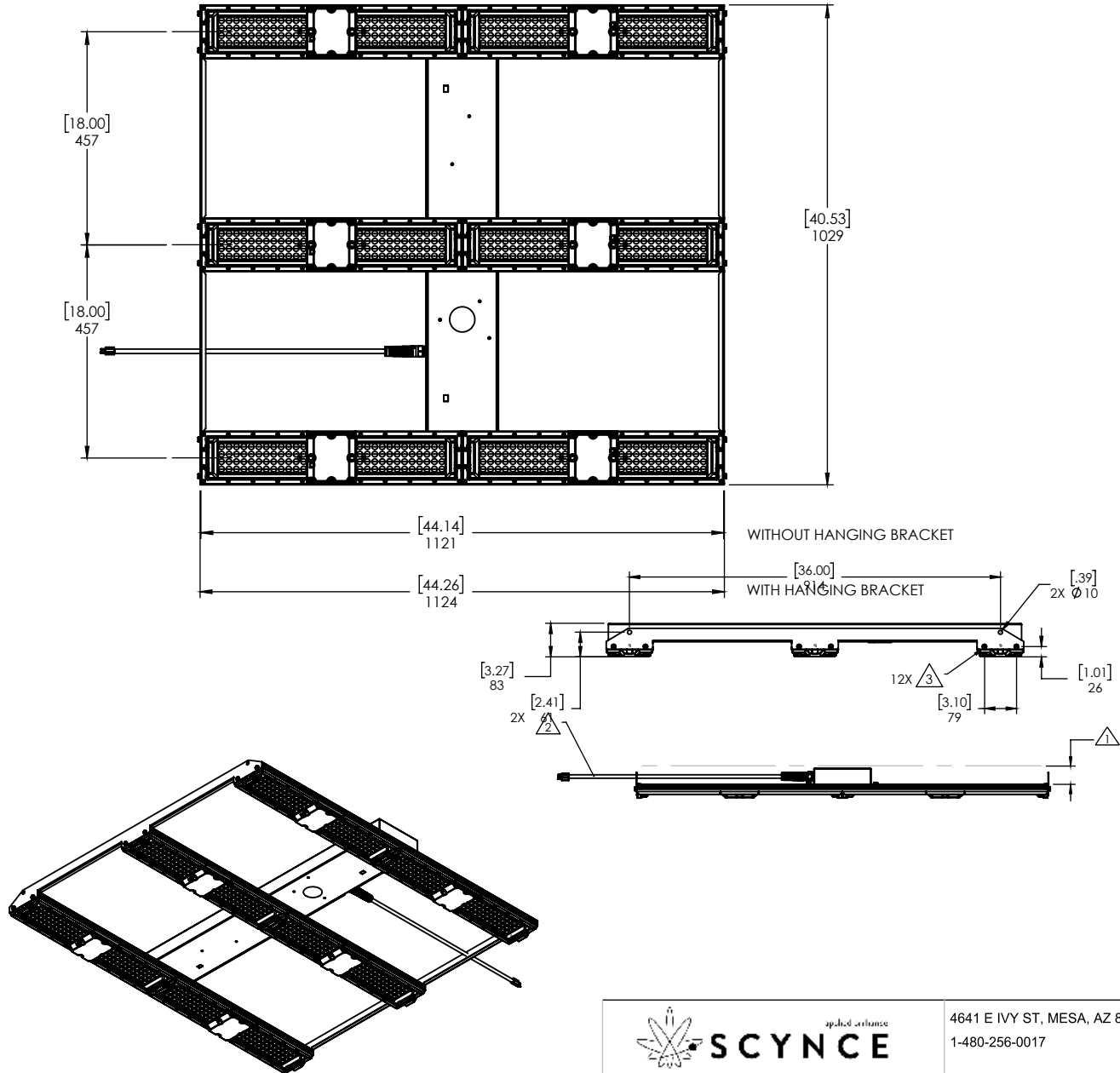
Reload default settings.


Contact the installer and have the wiring checked.

If the issue persists, contact supplier for assistance.



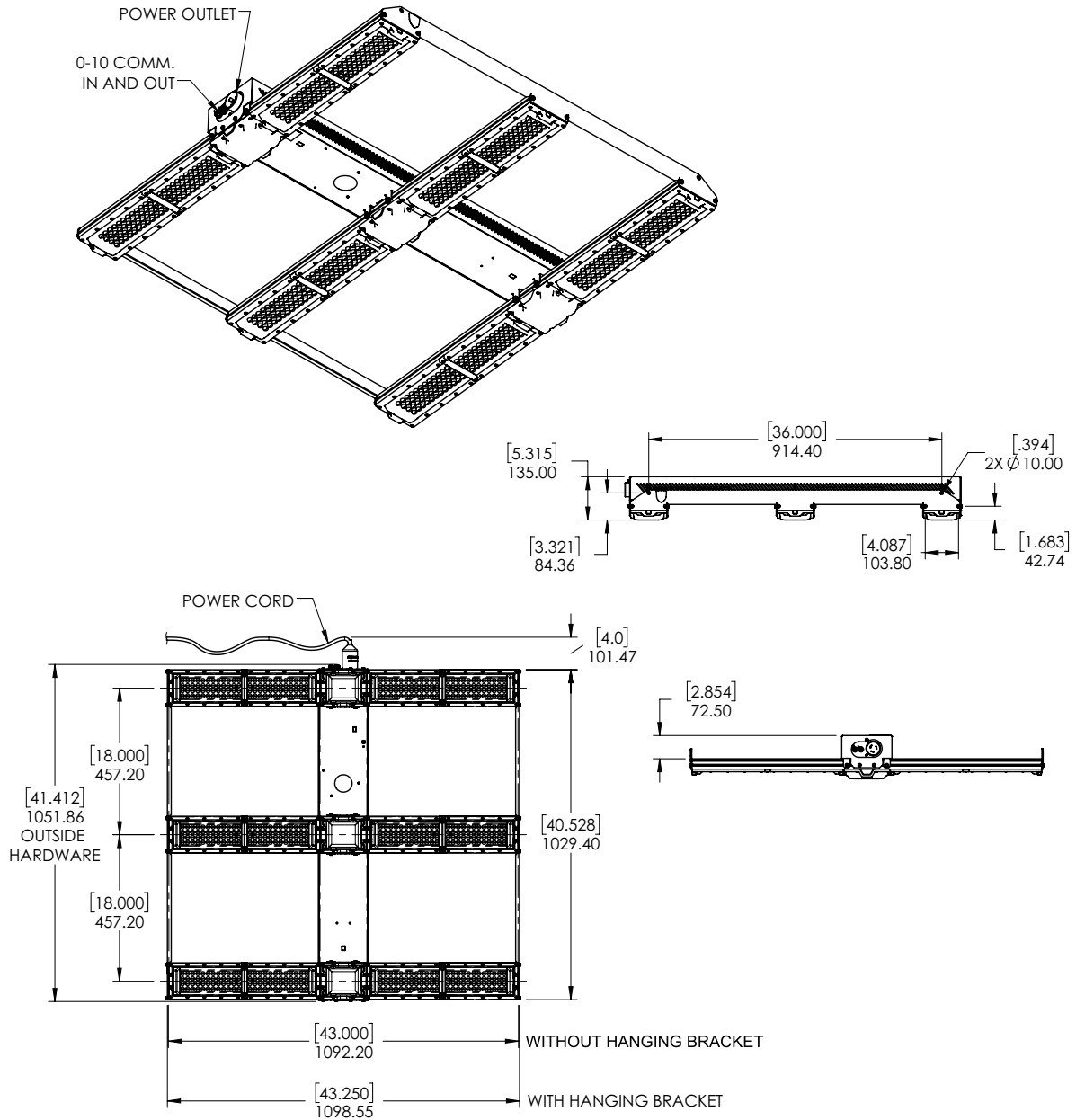
PRODUCT DIMENSIONS



 SCYNCE <small>applied science</small>	4641 E IVY ST, MESA, AZ 85205 1-480-256-0017	
	UNLESS OTHERWISE NOTED ALL DIMENSIONS IN MILLIMETERS	SCYNCE PART# 52626
TOLERANCES X ± 0.80 X.X ± 0.60 X.XX ± 0.40 X.XXX ± 0.20	ANGLER: ±0.5° CONCENTRICITY: ±0.20 FLATNESS: ±0.20	DESCRIPTION: Raging Kush



PRODUCT DIMENSIONS



		4641 E IVY ST, MESA, AZ 85205 1-480-256-0017 WWW.SCYNCE.AG	
UNLESS OTHERWISE NOTED ALL DIMENSIONS IN MILLIMETERS		SCYNCE PART# 52720	REV: A
TOLERANCES X ± 0.80 ANGLES: ±0.5° X.X ± 0.60 CONCENTRICITY: ±0.20 X.XX ± 0.40 FLATNESS: ±0.20 X.XXX ± 0.20		DESCRIPTION: Raging Kush 2.0	