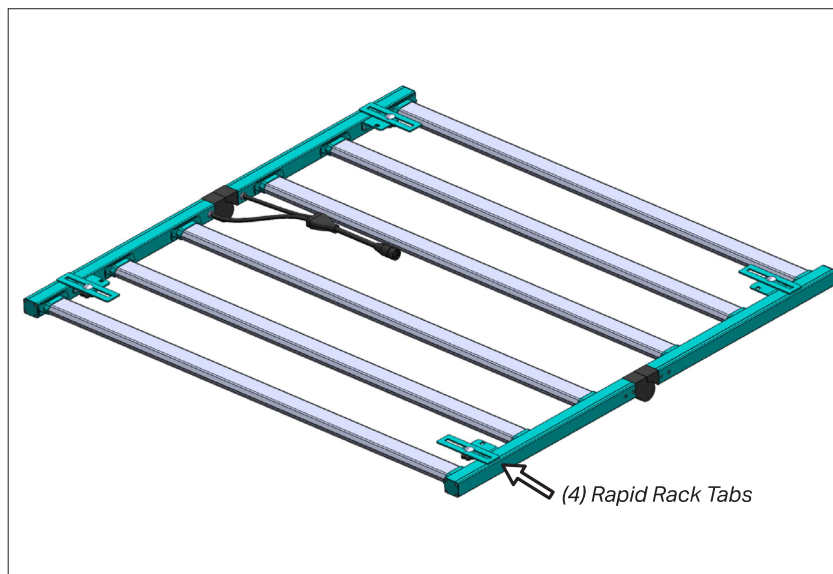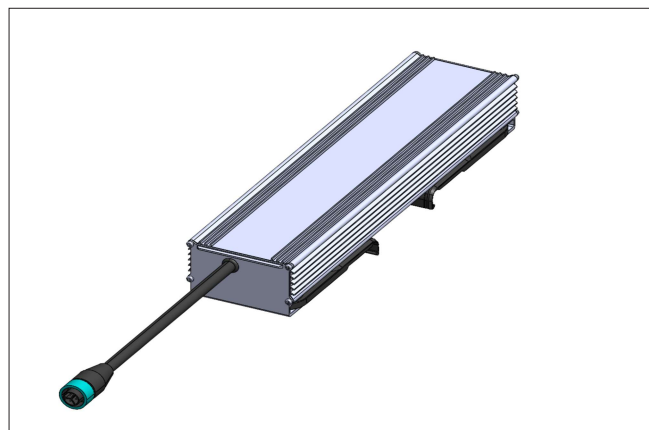# bios
Endeavour

Fixture Assembly + Materials

What's In The Box:

The following items and quantities should arrive with your purchase of the Endeavour LED grow light.
If you are missing items in your fixture box, please contact help@bioslighting.com

(1) Endeavour Fixture

(4) Rapid Rack Tabs

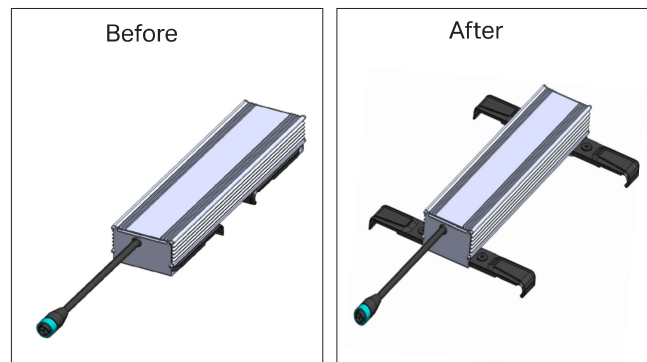**(1)** BIOS Power Supply Unit (PSU)

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Endeavour

The following diagrams provide step-by-step instruction to assemble your Endeavour fixture and PSU. Best practice is to assemble the unit on a flat surface.

Step 1:

Remove your **Endeavour** fixture and **BIOS Power Supply (PSU)** from the boxes. Carefully unfold your **Endeavour** fixture and lie it flat, LEDs facing down.
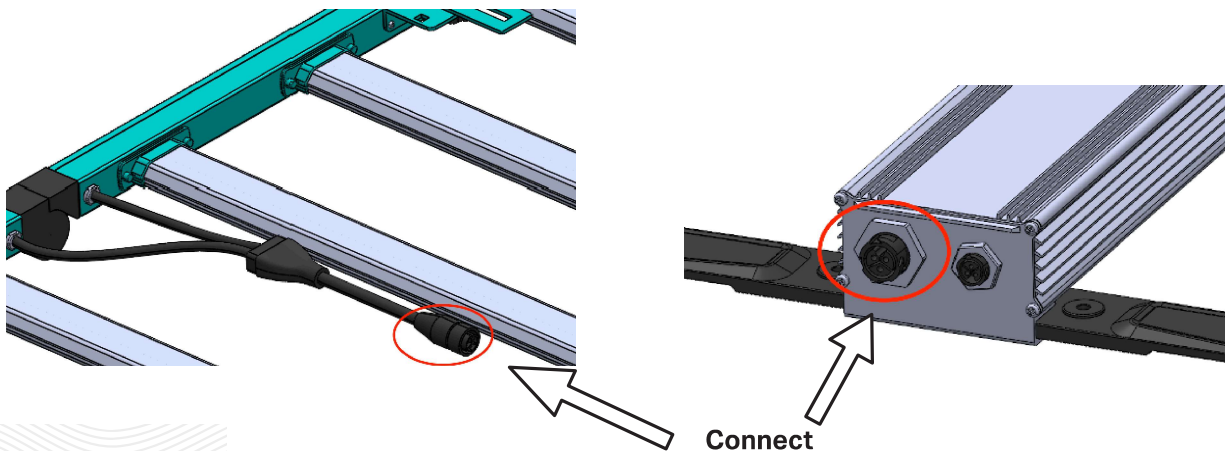
Step 2:

Unfold the (4) clamps on the bottom of your **BIOS Power Supply (PSU.)**

Before   After

Step 3:

Align the *DC Cable input* on your **BIOS Power Supply (PSU)** with the *DC Cable* attached to your **Endeavour** fixture. Connect the fixture cable to the *DC Cable* input (larger hole.)

Connect

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Light Fixture Assembly Cont.

Step 4:

Attach the **BIOS Power Supply (PSU)** to the center of your **Endeavour** fixture using the (4) clamps. Ensure you hear a *click* noise with each clamp assembly, as this will confirm that the **PSU** is fully secured to the **Endeavour** fixture.

Note: The **BIOS Power Supply (PSU)** provides stability to the **Endeavour** fixture and also ensures that the fixture remains unfolded.
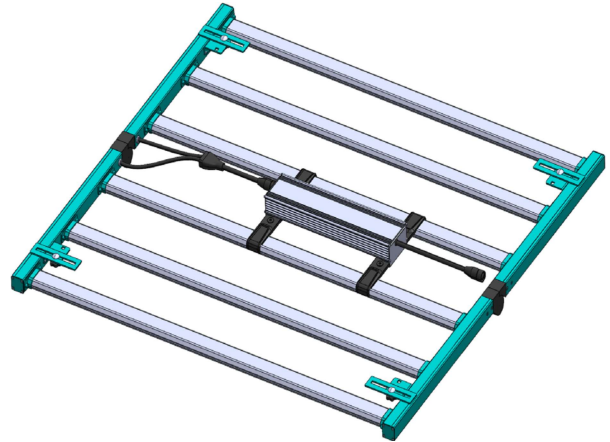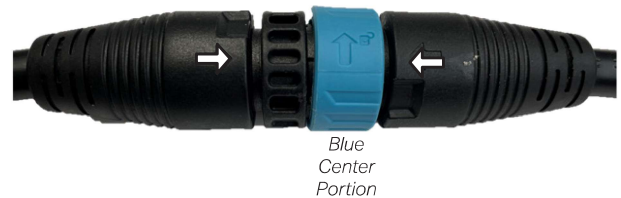
Step 6:

Connect **Endeavour fixture** cable to **BIOS Power Supply (PSU)** cable. Be sure to align the connection points indicated with the arrows below.
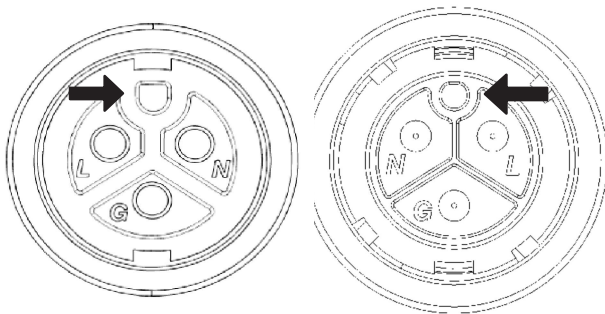
Reference the arrows on the side of each cable to ensure the cables are aligned.

Blue Center Portion

Note: The blue center portion must be turned to disconnect the cables.

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Endeavour

Rapid Rack Mounting

Montel and PIPP Racking - *without under shelf air flow ducting.*
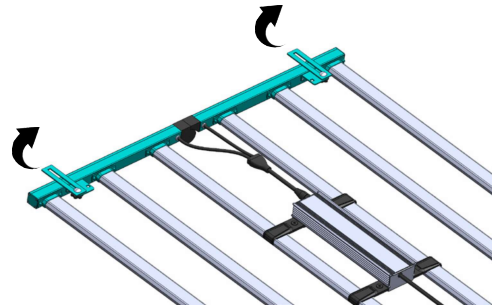
Installation Notes

Step 1:

Loosen the **Hand-Turn Knobs** and extend all of the **Rapid Rack Tabs** on one half of the fixture then re-tighten the **Hand-Turn Knobs.**
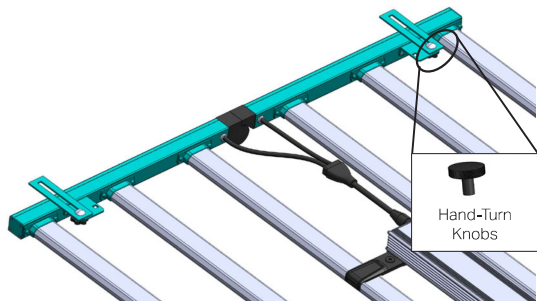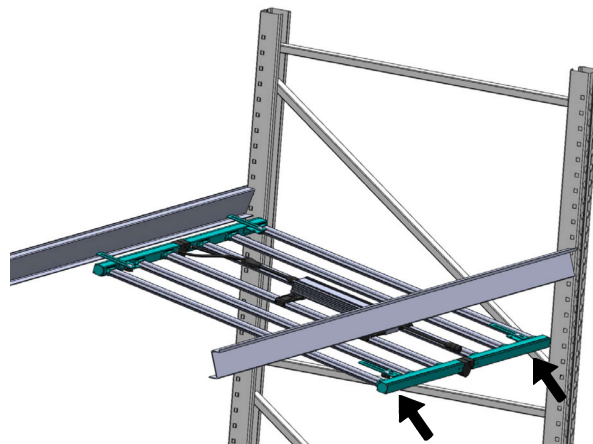

Hand-Turn Knobs

Step 2:

Loosen the other half of the **Hand-Turn Knobs** so the other half of the **Rapid Rack Tabs** can slide freely.

Step 3:

Push the side of the fixture with the extended **Rapid Rack Tabs**, into the rack mounting shelf at an angle, as shown. Fixture is tilted at an angle in order to fit in between rails. **Rapid Rack Tabs** will sit inside mounting rack shelf.

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Montel and PIPP Racking - *without under shelf air flow ducting.*
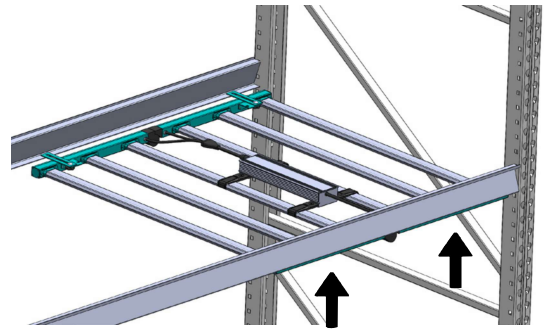
Installation Notes

Step 4:

Extend the loosened ***Rapid Rack Tabs*** out, to connect to the mounting rack shelf.
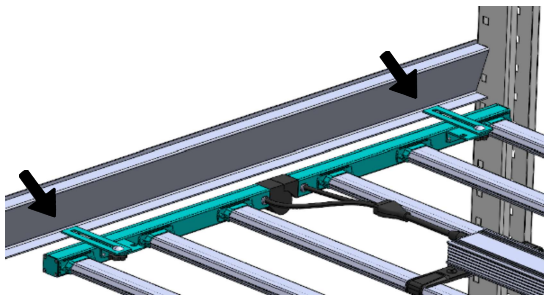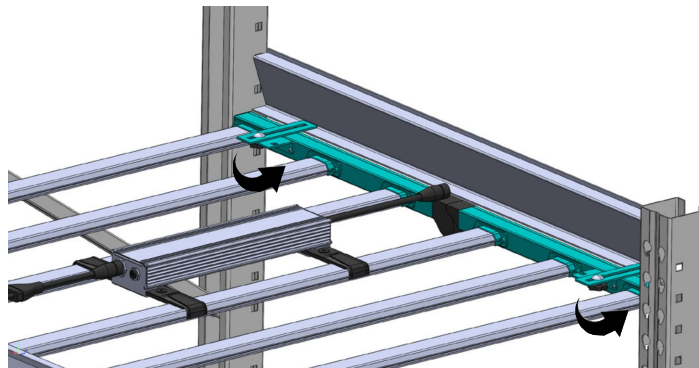
Step 5:

After one side of the fixture is secured into the rack, (step 3), lift the other half of the fixture above the rack mounting shelf.

Step 6:

Repeat Step 4 for this side. Tighten the ***Rapid Rack Tabs*** using the hand turn knobs to secure the fixture to the mounting rack shelf.

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Endeavour

Endeavour Installation Manual

Unistrut - Gripple Cable Mounting

The following outlines the steps for attaching the Gripple Cables to the Endeavour fixture and the best ways to attach those to common mounts. This assembly applies to both unistrut channel-side down and unistrut channel-side up.
Note: Gripple Hangers with Carabiners are purchased separately through BIOS Lighting.
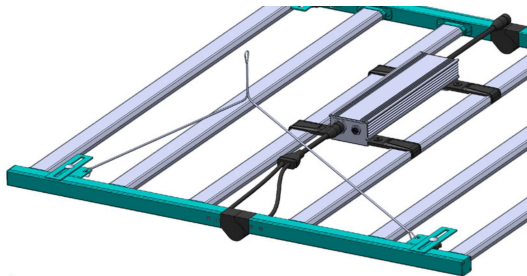
Recommended Hardware
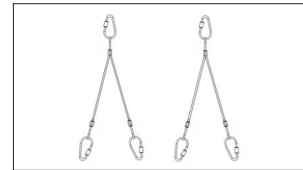
(2) *Gripple Cables with Carabiners*
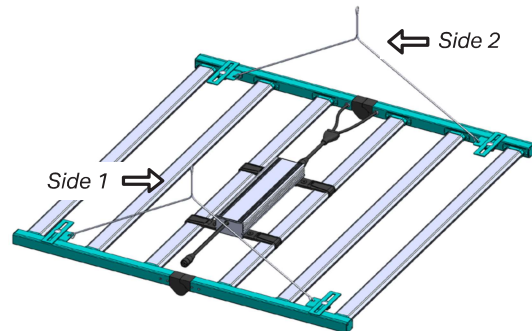*(Not included)*

Installation Notes

Step 1:
Clip the **Gripple Cable with Carabiners** onto the **Endeavour Connectors** on the Rapid Rack slider.
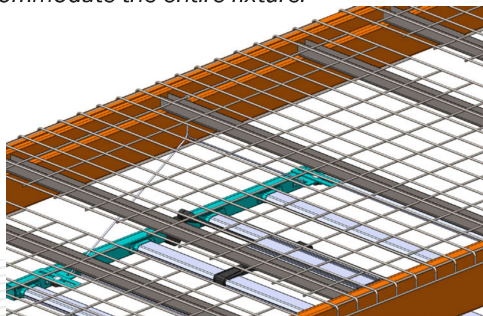
Step 2:
Clip the other set of **Gripple Cable with Carabiners** to the other side of the fixture.

⇐ *Side 2*

Side 1 ⇒

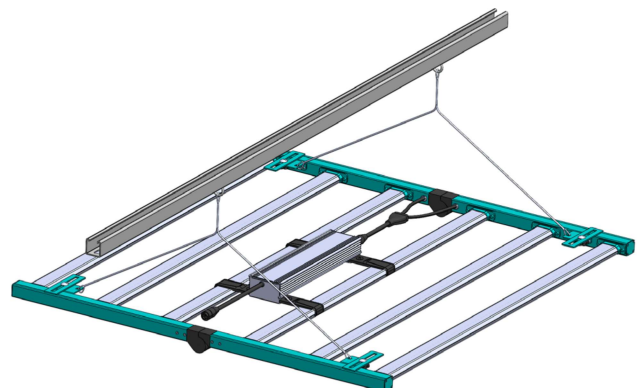**Step 3:** Clip the single end of the cable to the desired mounting location.

Option 1: Wire Racking

NOTE: Ensure your racking is wide enough to accommodate the entire fixture.

Option 2: Unistrut

NOTE: This will require additional hardware and installation steps that can be found on the next page (pg. 7.)

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The following outlines the steps for mounting the fixtures using the gripple cable method to unistrut in either the channel up or channel down orientation.
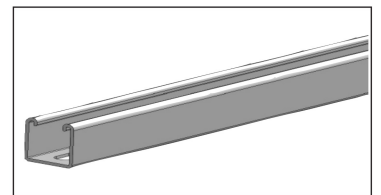
Unistrut Channel-Side Down

Recommended Hardware
Note: Hardware not included

(2) *Strut Channel Nut with Spring*   **(2)** *Eye Bolt*   **(2)** *Washer*   **(2)** *Nut*
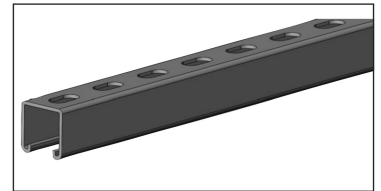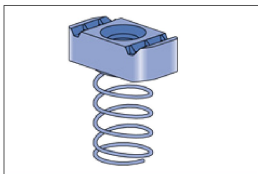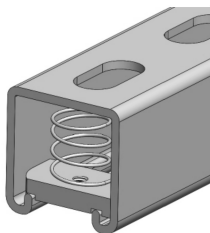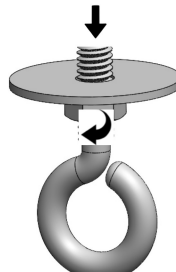
Unistrut Channel-Side Up

Unistrut Channel Down

Step 1:
Place the **Strut Channel Nut with Spring** in the Unistrut Channel.

Step 2:
Thread the **Nut** and **Washer** onto the **Eye Bolt.**

Step 3:
Thread *assembly* from Step 2 into the **Strut Channel Nut with Spring** from Step 1.
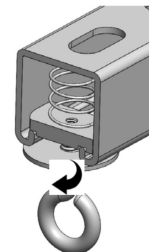
Unistrut Channel Up

Step 1:
Thread the **Nut** and **Washer** onto the **Eye Bolt.**
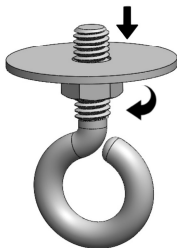
Step 2:
Place the **Eye Bolt assembly** from Step 1 through the Unistrut slot. Then thread another **Washer** and **Nut** on top of the assembly and tighten.

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Endeavour

Mounting in GrowGlide Racking with AirGlide System

The following outlines the steps for mounting your Endeavour fixture with the GrowGlide with Airglide racking system. This mounting method utilizes the Gripple Cables with Carabiners that do not come with the Endeavour fixture, but can be purchased through BIOS Lighting. The eye hooks shown should come with the GrowGlide rack.
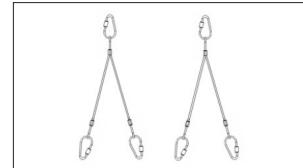
Recommended Hardware

(2) *Gripple Cables with Carabiners (Not included)*

Installation Notes

Step 1:

Clip the **Gripple Cable with Carabiners** onto the **Endeavour Connectors** on the Rapid Rack slider.

Step 2:

Clip the other set of **Gripple Cable with Carabiners** to the other side of the fixture.

Side 2

Side 1

Step 3:

Clip the **Gripple Cable with Carabiners** to the GrowGlide Rack.

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Endeavour

Endeavour Installation Manual
Mounting in GrowGlide Racking with AirGlide System Cont.

The following outlines the steps for mounting your Endeavour fixture with the GrowGlide with Airglide racking system. This mounting method utilizes the Gripple Cables with Carabiners that do not come with the Endeavour fixture, but can be purchased through BIOS Lighting. The eye hooks shown should come with the GrowGlide rack.
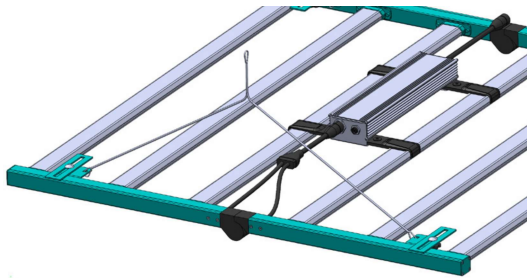
Recommended Hardware

(2) *Gripple Cables with Carabiners*
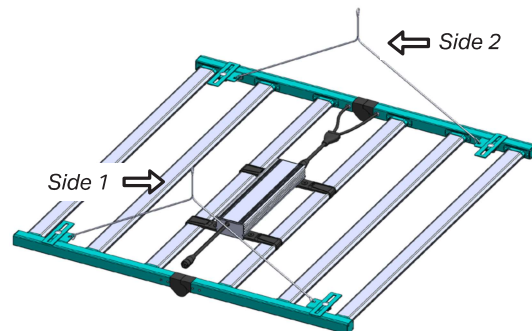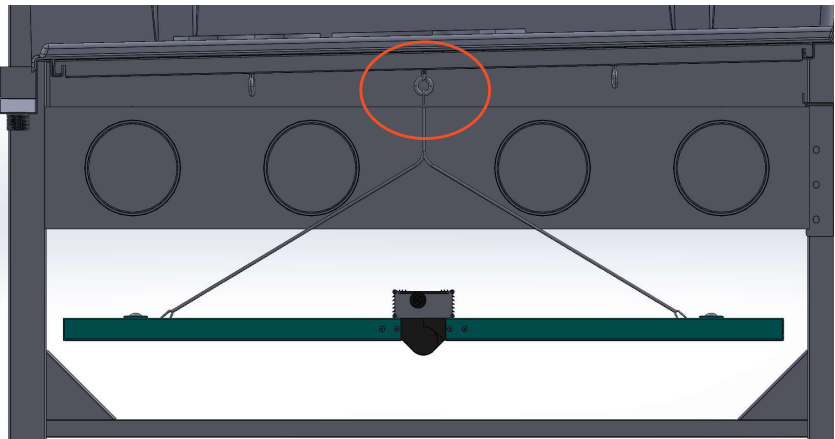*(Not included)*

Installation Notes

Step 4:

Clip the other **Gripple Cable with Carabiners** to the GrowGlide Rack.

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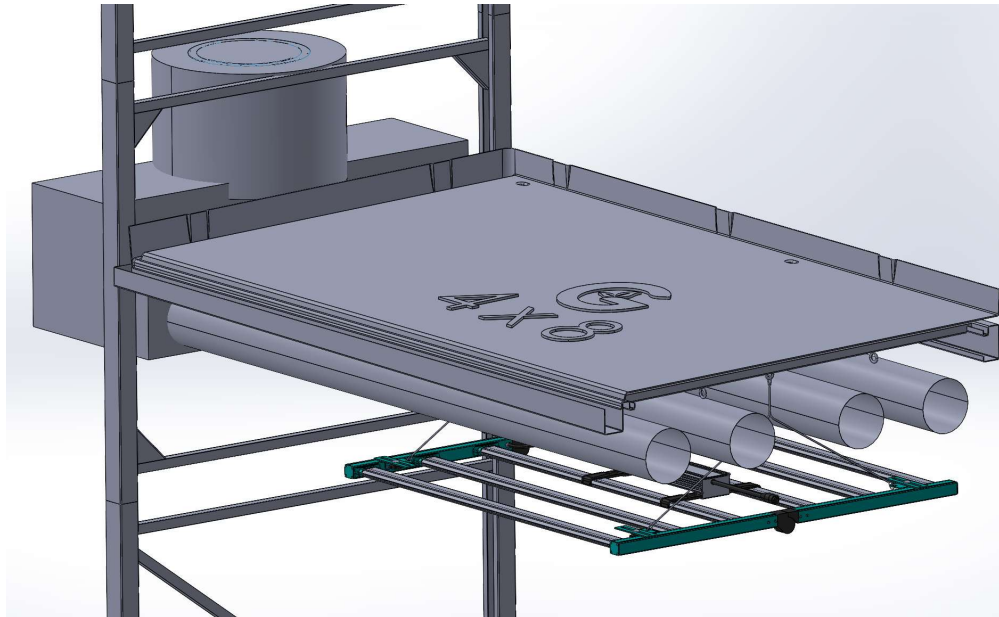Contact BIOS for questions and the most current information.

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The following outlines the steps for mounting your Endeavour fixture without the GrowGlide with Airglide racking system. This mounting method utilizes the Rapid Rack Mounting system and the geometries of the rack.

Note: The Endeavour Rapid Rack System does not work on the lower tier of GrowGlide racks since they are sloped.
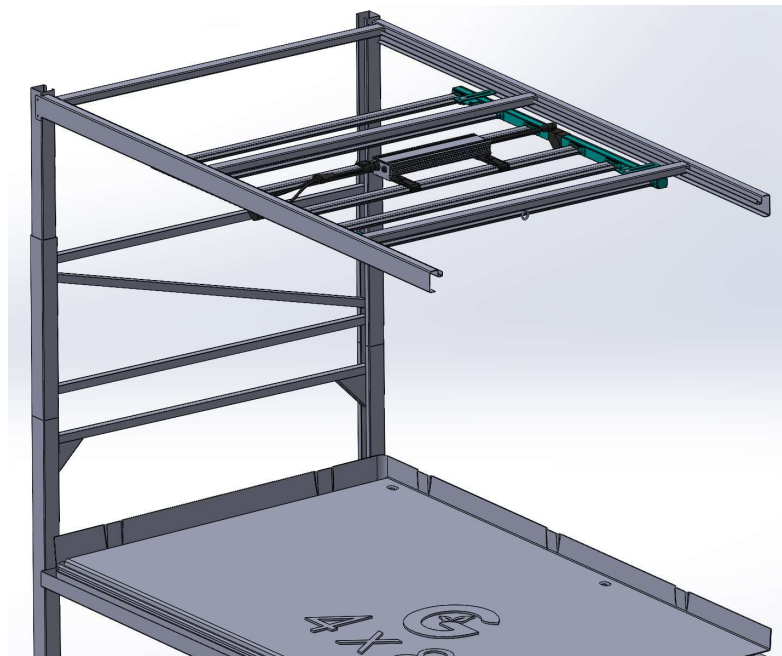
Installation Notes

Step 1:

Perform the Rapid Rack Mounting Instructions found on page 4-5.

Profile section view of the top tier of the GrowGlide rack without Airglide system:

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Endeavour

AC & DC Power Cable Connections:

Connect DC cable between the PSU and the Fixture.
- Cable coming out of the power supply can be attached to the cable coming out of the fixture (see page 3 for details.) Please contact *help@bioslighting.com* if you need assistance.

Connect AC cable between PSU and Power source.
- If using an AC Pig-Tail Cable, double check that the J-Box is de-energized before beginning the work.
    - The circuit should be off before making any electrical connections.
    Note: Please use licensed electrical contractor for this work
- If using a NEMA plug cable, be sure the plug is rated to match your circuit.

Double check all cable connection points to be sure of connectivity.

Fixture Testing/Commissioning:

IMPORTANT:
Once the **fixtures are securely hung** <u>and</u> **the power cables are connected**, energize the circuit to test the fixture. The fixtures will illuminate at full brightness. Always be careful with your eyes.
- Burn in the fixtures for 30 minutes to reach thermal equilibrium.
- Note that fixtures are equally bright, no failing diodes, no flickering, and confirm the Thermal Plot for proper light coverage.
- Power off fixtures before making any needed adjustments.

Dimming Option:

It is recommended to make the dimming connection at the power supply after the fixture commissioning is complete. This helps filter potential issues and will make troubleshooting much easier.
- Connect dimming pig-tail cables and optional Dimming Chain Cables (T-Cables & Jumper Cables) per the Dimming Cable Installation Guide on the BIOS Lighting website.
- Once all dimming cables are installed, energize the fixture circuit, and begin the commissioning of the dimming system per the manufactures specifications.

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