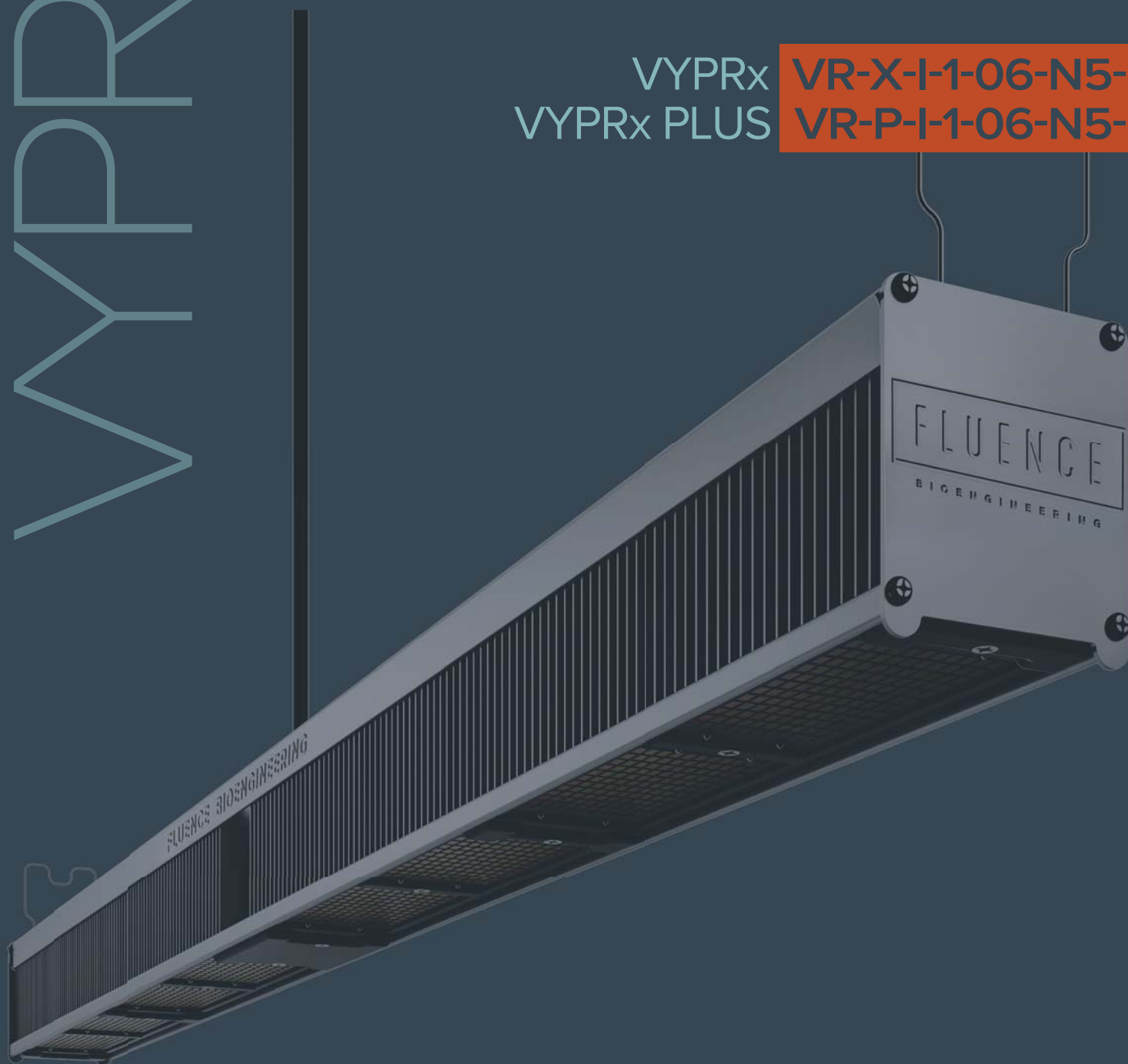


USER MANUAL

VYPR

VYPRx
VYPRx PLUS

VR-X-I-1-06-N5-S
VR-P-I-1-06-N5-S

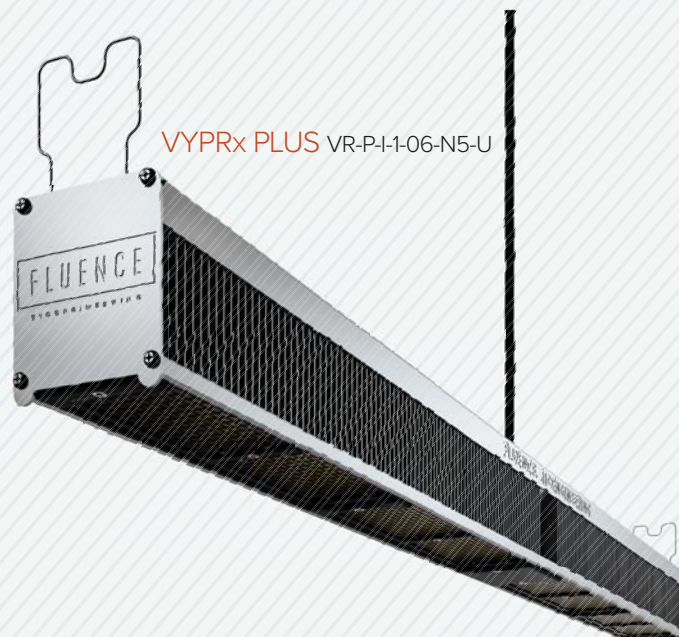
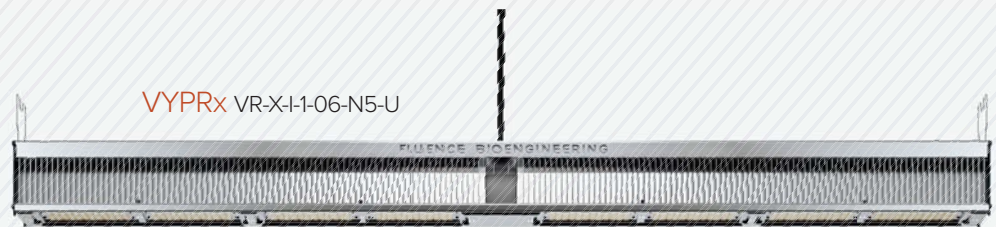


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LET'S GET
SET UP

USER MANUAL ELEMENTS

| | PAGE |
|--|------|
| Safety Precautions + Explanation of Symbols..... | 3 |
| Warranty Info | 4 |
| System Hardware + Accessories | 5 |
| Assembly | 6 |
| Best Practices | 7 |
| General Care | 8 |
| Technical Specifications | 9 |



IMPORTANT SAFETY PRECAUTIONS and EXPLANATION of SYMBOLS

- Please read this manual thoroughly before attempting to install or operate any Fluence VYPRx Series system.
- After successful installation and configuration of the system, be sure to retain this manual in a safe place for future reference. Safety is a key component to a long lasting and trouble free installation.
- It is important you read, fully understand, and observe the subsequent safety precautions. If you are not comfortable with the installation of high-performance lighting systems, you should seek the services of a qualified installation professional or call us for help.
- NOTICE: VYPRx and VYPRx PLUS are high-performance lighting systems. Do not touch while in operation.
- Connect the system only to power sources of the correct voltage (as shown in this manual). Protect power cables from being pinched, walked on, or otherwise damaged. Be especially careful where the power cable enters the power outlet and the unit. Only connect the system to an electrical outlet or extension cord of appropriate type and rating.
- DO NOT defeat the safety purpose of a grounding or polarized plug by removing ground pins or using unsafe adapters. A polarized plug has two blades—one wider than the other. A grounding plug has a third ground prong in addition to the two main conductors. The wide blade or third grounding prong is provided for your safety. If the provided plug does not fit your outlet, consult an electrician to replace your obsolete outlet. If you replace the power cord, only use one of similar type and equal or greater current rating.
- The system should only be cleaned as directed in the manual. You should seek service for your system by qualified service personnel if any of the following occur:
 1. The power-supply cord or the plug has been damaged.
 2. The unit has been exposed to rain.
 3. The unit exhibits a marked change in performance.
 4. The unit has been dropped, or its enclosure or chassis is damaged.

OUR PRODUCT GUARANTEE

WARRANTY

Every VYPR system is engineered and built by Fluence in Austin, TX, using state-of-the-art robotics and hand craftsmanship. All VYPR systems are guaranteed against manufacturing defects for three years from date of purchase.

We stand behind our research, we stand behind our technology and we stand behind our clients.

www.fluence.science/warranty

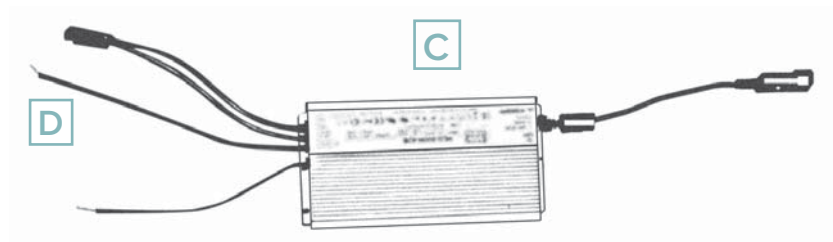
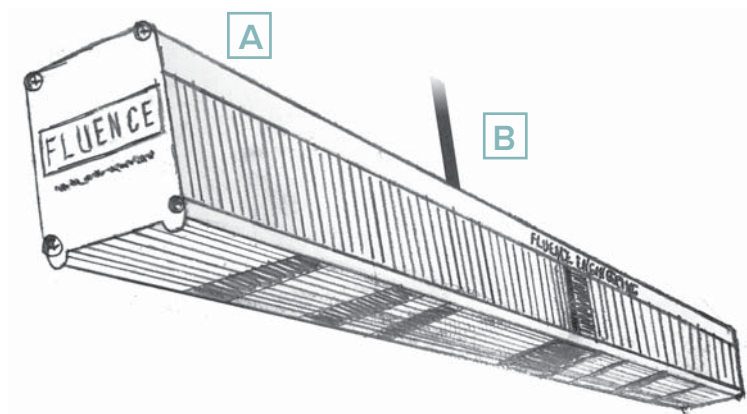
SYSTEM **HARDWARE** + ACCESSORIES**System Hardware**

- A** VYPRx or VYPRx PLUS console pre-configured with:
B Female AC connector
- C** Power supply preconfigured with
D 0-10V dimming input

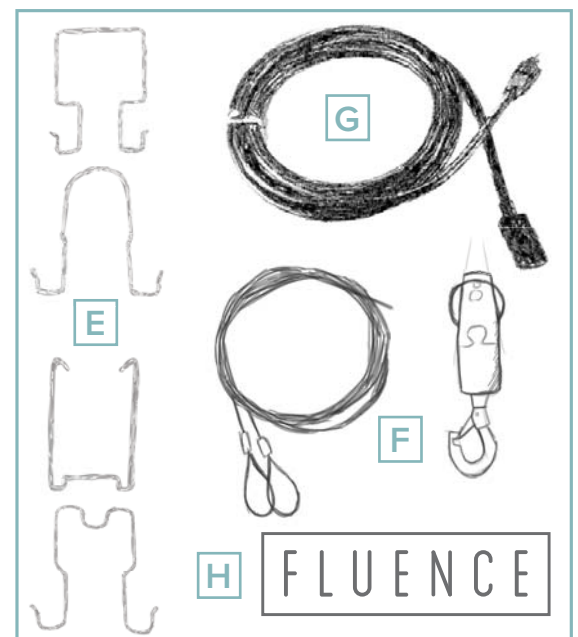
Accessories

- E** (2) Mounting bracket (*depending on choice at time of purchase*)
F (1) Adjustable kit (*option if upgraded at time of purchase*)
G (1) 6' AC cable (*15' cable option if upgraded at time of purchase*)
H Vinyl-cut Fluence sticker

PRODUCT LEGEND

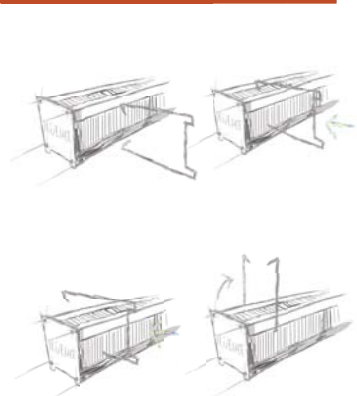


ACCESSORIES

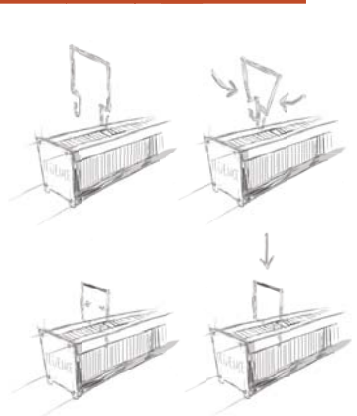


ASSEMBLY & MOUNTING INSTRUCTIONS

UNIVERSAL BRACKET



UNISTRUT, PIPE & SQUARE BRACKETS



Unbox hardware and place on flush, stable surface. Take extra caution, ensuring the LED array does not come in contact with sharp objects or force that may damage the diodes.

- 1..... Insert power cable into appropriate receptacle on the power supply.
- 2..... Connect fixture cable to appropriate power supply receptacle.
- 3..... If connecting VYPR to a dimming system or controller, visit fluence.science/support/
- 4..... If desired, the fourth cable can be connected to a remote control system. Otherwise, cut close to power supply housing.
- 5..... For square, unistrut, or pipe bracket, pinch the sides of your mounting bracket and insert the ends down into the gaps of the fixture's heat sink. Release bracket and allow it to "catch" the inside of the heat sink. If you are using universal bracket, simply insert one end of the bracket in through a gap in the heat sink, thread it through to the other side of the heat sink and rotate it into correct position.
- 5..... Attach to bracket chain or aircraft cable or other mounting cabling as desired.
- 6..... Plug power cable into power source.

For detailed instructions for assembling and mounting your Fluence lighting fixture, please see video tutorials at fluence.science/support/

How to apply your vinyl-cut Fluence sticker:

- 1..... Clean and dry the surface where the sticker will be applied. Air and surface temperature should be between 40° and 90° F.
- 2..... Remove backing sheet to expose adhesive and apply sticker to desired surface.
- 3..... Starting from the center and working outward, squeegee pre-masked surface with a credit card to remove air bubbles.
- 4..... Allow adhesive to bond approximately 15 minutes.
- 5..... Remove pre-mask from sticker at a 45° angle, keeping it as close to the sticker as possible. If lettering is coming up with pre-mask, re-squeegee before attempting to remove.

Last, and most important, please recycle all packaging material. Future generations will thank you.

BEST PRACTICES

Fluence encourages everyone to experiment and pursue their own techniques. Every crop is different and everyone has different goals. However, our internal research has given us insight into several strategies we would like to share.

- Regularly check your plants' growth and health. Fluence lighting systems deliver high levels of PAR, typically more than experienced in nature. Adjustments to H₂O, CO₂, RH, nutrients, and temperature are typically required.
- Mount the fixture at least 18" from the top of your canopy to ensure optimal uniformity and consistent PPFD. A 1" variation in mounting height in either direction will have a significant change in uniformity and PPFD (which may or may not be desired).
- Supplement CO₂ to boost photosynthesis for high-yielding crops such as cannabis, tomatoes and peppers as follows:
 - A. Veg: 800 to 1,000 PPM
 - B. Bloom: 1,200 to 1,600 PPM
- Many plants prefer higher temperatures when exposed to high PPFD. Experiment with higher temperatures to achieve higher yields. Canopy temperature and room ambient temperature often vary. For accurate results, test at the canopy level to gauge leaf surface temperature.

GENERAL CARE

VYPRx Series systems are passively cooled with zero moving components. They are designed for harsh environments and years of maintenance-free performance. Some basic care will keep your system operating at peak performance cycle after cycle.

- Natural convection removes heat away from the heatsink. In order for the system to properly cool itself, at least one inch of space is required between the console and the roof of your grow area. Failure to do so may shorten the fixture's lifespan.
- To achieve the optimal lifespan and performance of your fixtures, routinely check for and remove excess dust, debris, and mineral build up from heatsink and LED array.
- Cleaning should always be done with the fixture unplugged from its power source using low-pressure compressed air or water to rinse away dirt from light bars.
- Never use a cloth to clean the diode array. Doing so can scratch or compromise the integrity of the silicon seal, or dislodge diodes entirely.
- To limit degradation, avoid touching the diodes with your hands, even in a powered-off state.

TECHNICAL SPECIFICATIONS

STOCK KEEPING UNIT (SKU) CONFIGURATOR AND OPTIONS

EXAMPLE SKU: VR-X-I-06-N5-S

| Family | Model | Spectrum | Input Voltage | Cord Length | AC Plug Type | Mounting Hardware |
|---------|--------|-------------------------|---------------|-------------|----------------|---------------------|
| VR VYPR | X X | I PhysioSpec Indoor | 1 120V–277V | 06 6.0' | N5 NEMA 5–15P | S Square Bracket |
| | P Plus | G PhysioSpec Greenhouse | | 15 15.0' | N6 NEMA 6–15P | U Unistrut Bracket |
| | | | | | L7 NEMA L7-15P | P Pipe Bracket |
| | | | | | PT Pigtails | X Universal Bracket |

Photosynthetic Photon Flux (PPF)¹

VYPRx 750 µmol/s

VYPRx PLUS 1190 µmol/s

Energy Efficiency (PAR)/Watt)

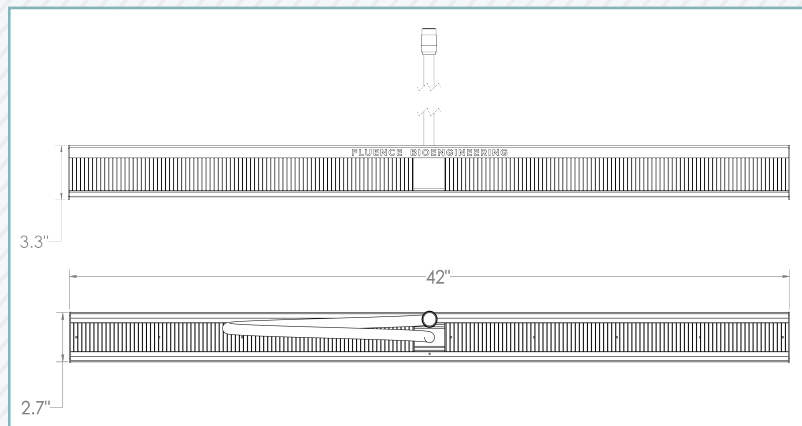
VYPRx 2.3 µmol/J

VYPRx PLUS 2.3 µmol/J

Dimensions

VYPRx 7 lbs 0oz | 42" x 2.7" x 3.3"

VYPRx PLUS 7 lbs 0oz | 42" x 2.7" x 3.3"



Electrical

| Product Model | Input Voltage | Input Power ² | Amps @ 120V | Amps @ 208V | Amps @ 240V | Amps @ 277V | Frequency |
|---------------|---------------|--------------------------|-------------|-------------|-------------|-------------|-----------|
| VYPRx | 100V - 277V | 320W | 2.7A | 1.5A | 1.3A | 1.2A | 50/60Hz |
| VYPRx PLUS | 100V - 277V | 515W | 4.3A | 2.5A | 2.1A | 1.9A | 50/60Hz |

WARNING Risk of electrical shock. To reduce the possibility of serious injury, always take the proper precautions and unplug the fixture before moving or cleaning.

WARNING Light bars and power supply are splash-proof but not waterproof. In the event that the light bar becomes submersed, **first disengage the circuit breaker**, then unplug the fixture before proceeding to remove from water.

CAUTION To prevent eye damage, avoid looking directly at the unshielded LEDs.

CAUTION LED and heat sink surfaces may be hot. Allow sufficient cooling time before handling.

CAUTION To reduce the risk of overheating or fire, never place operating fixtures face down on a flush surface. Always allow for adequate ventilation of fixtures and power supplies.



ETL Rating: Fluence Bioengineering fixtures are rated suitable for damp locations. A “damp location” is defined as exterior or interior location that is normally or periodically subject to condensation of moisture in, on, or adjacent to the electrical components of a lighting fixture or ceiling fan. VYPRx and VYPRx PLUS are certified to meet UL standards (ETL) from the Intertek safety consulting and certification company. Systems are cETL and DLC listed.

¹ PPF calculations compiled using integrating sphere measurements and typical spectroradiometric data for each LED to determine typical fixture performance. Actual photometric results may vary within the LED manufacturer's bin tolerance.

² Wattage values are typical expected values. Fluence maintains a tolerance of ±10% on flux and power specifications. Target light levels can vary from projected levels depending on ambient temperature, room reflection values and dirt accumulation.

VYPRx
VYPRx PLUS

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USER MANUAL

version 1.0 | 09.2016

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