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IMPORTANT SAFETY PRECAUTIONS & EXPLANATION OF SYMBOLS

- Please read this manual thoroughly before attempting to install or operate any Fluence VYPR 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: VYPR 2x and VYPR 2p are high-performance lighting systems. Do not touch while in operation.

- Connect the system only to the power sources of the appropriate voltage using the correct AC plug type. 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. Connect the system only to the power sources of the correct voltage using the plug received.

- 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.

CULTIVATION 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 your fixture at least 18” from the top of your canopy to ensure optimal uniformity and consistent PPFD. The VYPR Series was designed to provide uniform light dispersion and requires precise deployment. A 1” variation in either direction will have a significant effect in uniformity and PPFD (which may or may not be desired).

- 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.

For cultivation recommendations visit http://fluence.science/cultivation-guide
GENERAL CARE

VYPR 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 fixture 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 off heatsink or LED array.

- 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.

For detailed instructions for maintenance and cleaning, please visit www.fluence.science/support/

VYPR 2x and VYPR 2p are high-performance lighting systems. Do not touch while in operation.

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

SYSTEM HARDWARE
A  VYPR 2x or VYPR 2p fixture
B  Power Supply pre-configured with:
   B1  Male AC Connector
   B2  Female DC Connector
   B3  Male Dimming Connector with Dust Cap
       (dimmer sold separately)

ACCESSORIES
C  Mounting Hardware
   (depending on your selection at the time of purchase)
   C1  Pipe Bracket
   C2  Unistrut Bracket
   C3  Square Bracket

D  Accessories
   D1  (1) 6’ AC Cable (or)
       (1) 15’ AC Cable option if upgraded at time of purchase
   D2  (1) 3’ DC Cable (or)
       (1) 6’ AC Cable option if upgraded at time of purchase
   D3  (1) Pigtail Dimming Adapter (purple/grey leads)

E  (1) Vinyl Fluence Sticker

F  Power Supply Accessories
   F1  (2) Power Supply Enclosure Mount
Take caution when handling VYPR fixtures. Ensure the LED array does not come in contact with sharp objects or force that may damage the diodes.

**ASSEMBLY INSTRUCTIONS**

1. Unbox fixture and place on flush, stable surface. Keep the VYPR Series protective cover on the fixture during installation to protect LED array.

2. To mount fixture, refer to the instructions included in the hanging kit package with the associated accessories. Hang the fixture in the desired location and adjust the mounting height to at least 18” above the plant canopy.

3. Connect fixture to power supply with 3’ or 6’ DC cable.
Protective Cover
4 Mount the power supply to a wall or suitable support structure using the included Power Supply Enclosure mounts. Please refer to the mounting guide for installation instructions.

5 Once installation is complete, remove the VYPR protective cover before powering on fixture. **Note, the protective cover will melt if left on the fixture when powered on.**

6 Attach 6’ (or 15’) AC cable to power supply AC connector. Finally, insert AC plug into wall outlet.

7 If connecting VYPR to a dimming system or controller, remove dust cap and connect to the 3-pin waterproof dimming connector or the included pigtail dimming adapter.
# TECHNICAL SPECIFICATIONS

## STOCK KEEPING UNIT (SKU) CONFIGURATOR & OPTIONS

Example SKU: VR-2X-I-1-06-N5P-03-S-S

<table>
<thead>
<tr>
<th>Family</th>
<th>Model</th>
<th>Spectrum</th>
<th>Input Voltage</th>
<th>AC Power Cord</th>
<th>AC Plug</th>
<th>DC Cord Length</th>
<th>Mounting Hardware</th>
</tr>
</thead>
<tbody>
<tr>
<td>VR</td>
<td>VYPR</td>
<td>2x X</td>
<td>1 100-277V</td>
<td>06 6.0’ (1.83m)</td>
<td>N5P</td>
<td>03 3’ (.91cm)</td>
<td>S Square Bracket</td>
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<tr>
<td></td>
<td></td>
<td>I PhysioSpec Indoor</td>
<td>3 347V*</td>
<td>15 15.0’ (4.57m)</td>
<td>NEMA 5–15P</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>G PhysioSpec Greenhouse</td>
<td>4 400V*</td>
<td></td>
<td>N6P</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>5 480V*</td>
<td></td>
<td>L7P</td>
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<td>VYPR</td>
<td>2p Plus</td>
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*347V-480V VYPR fixtures operate at 3% higher wattage on average

<table>
<thead>
<tr>
<th>Model</th>
<th>Input Power</th>
<th>Amps @120V</th>
<th>Amps @208V</th>
<th>Amps @240V</th>
<th>Amps @277V</th>
<th>Amps @347V*</th>
<th>Amps @400V*</th>
<th>Amps @480V*</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>VYPR 2x</td>
<td>342W</td>
<td>2.85</td>
<td>1.64</td>
<td>1.43</td>
<td>1.23</td>
<td>1.02</td>
<td>0.88</td>
<td>0.73</td>
<td>50/60Hz</td>
</tr>
<tr>
<td>VYPR 2p</td>
<td>631W</td>
<td>5.20</td>
<td>3.03</td>
<td>2.63</td>
<td>2.28</td>
<td>1.87</td>
<td>1.62</td>
<td>1.35</td>
<td>50/60Hz</td>
</tr>
</tbody>
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Photosynthetic Photon Flux (PPF)¹

- VYPR 2x: 900 μmol/s
- VYPR 2p: 1700 μmol/s

Energy Efficiency (PAR)/Watt

- VYPR 2x: 2.60 μmol/J
- VYPR 2p: 2.70 μmol/J

Dimensions

- VYPR 2x: 24.1” L x 2.9” W x 3.3” H | 4lbs 15oz
  61.2cm L x 7.4cm W x 8.3cm H | 2.2kg
- VYPR 2p: 46.1” L x 2.9” W x 3.3” H | 9lbs 4oz
  117.2cm L x 7.4cm W x 8.3cm H | 4.2kg
- PSE-342W: 22” L x 6.2” W x 2.4” H | 9lbs
  55.9cm L x 15.8cm W x 6.1cm H | 4.1kg
- PSE-631W: 22” L x 6.2” W x 2.4” H | 12lbs
  55.9cm L x 15.8cm W x 6.1cm H | 5.4kg
**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**
Fixture and power supply are UL 1598 Wet Location rated but are not designed to be submerged in water. In the event that the module or power supply enclosure becomes submersed, first **disengage the circuit breaker**, then unplug submersed components before proceeding to remove from water.

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

**CAUTION**
LED and heatsink 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: VYPR Series fixtures are rated suitable for wet locations. A “wet location” is defined as an interior or exterior location in which water or other liquids may drip, splash or flow on or against the electrical components of a lighting fixture. VYPR Series fixtures and power supply are certified to meet UL standards (ETL) from the Intertek safety consulting and certification company. Systems are cETL listed and are rated IP66 by IEC standard 60529.

1 PPF calculations compiled using integrating sphere measurements and typical spectroadiometric 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 reflections values and dirt accumulation.
OUR PRODUCT GUARANTEE & WARRANTY

Every VYPRx system is engineered and built by Fluence Bioengineering in Austin, Texas, USA using state-of-the-art robotics and hand craftsmanship. All VYPRx systems are guaranteed against manufacturing defects for five 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/