


HYDROFARM®

LED

*Extraordinary performance.
Extreme efficiency.
Exact design.*



PHANTOM LED

**PHANTOM
PHOTOBIO™**

Who We Are

**HYDROFARM**® is a leading distributor and manufacturer of controlled environment agriculture equipment and supplies. For over 40 years, Hydrofarm has helped growers make growing easier and more productive. It's our mission to empower, inspire and support growers in all facets of horticulture. Our premiere lighting brands, Phantom and Phantom PHOTOBIO, offer the perfect LED fixture for all of your indoor growing needs.

PHANTOM LED offers high photon flux for an affordable initial investment. The Phantom PHENO 440 is a reliable, efficient and versatile lighting solution.

PHANTOM PHOTOBIO is Phantom's line of high-performance commercial grade LED fixtures that offer several form factors, all delivering high output and efficiency. It's serious commercial-grade, technologically advanced lighting.



Why choose Phantom LED Lighting?

- Increased production capacity
- Superior crop quality
- No maintenance, long lifetime
- Reduced power consumption
- Reduced operational expenses
- Potential for utility rebates

Proper Thermal Management

Heat is the enemy of Light Emitting Diodes. Cooler operating temperature equals higher light output. Properly designed thermal management is crucial to protect your investment in LED.

All of our LED fixtures undergo extensive thermal modeling and testing. They are strategically designed to allow heat to dissipate and the fixtures to breathe. Keeping diode temperatures low will help keep your yields high.



PHOTOBIO-TX & PHOTOBIO-T
passive cooling system

- Unique heat sink construction built with architectural-grade aluminum
- Closed loop heat pipe technology
- Superior heat dissipation for cooler LEDs



Heavy Duty, Performance LEDs



PHANTOM LED
PHENO 440







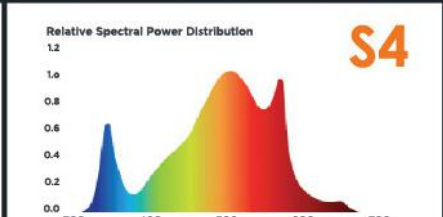
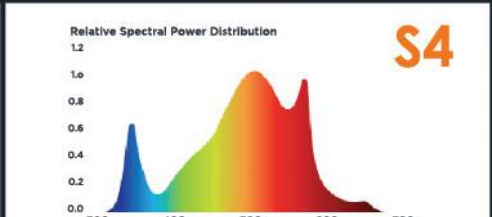












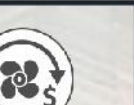









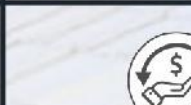





PHANTOM
PHOTOBIO-VP



PHANTOM
PHOTOBIO-7P

PHOTON FLUX ($\mu\text{mol/s}$)	1100	73	858
EFFICACY ($\mu\text{mol/J}$)	2.5	2.3	2.6
SPECTRUM	<p>Relative Spectral Power Distribution MP</p>	<p>Relative Spectral Power Distribution VE</p>	<p>Relative Spectral Power Distribution</p>
WATTAGE (w)	440W	32W	330W
IP RATING	IP65	IP65	IP65
FEATURES	<ul style="list-style-type: none"> - High-efficiency - Multi phase spectrum - Compact size: 31.49" x 16.8" x 4.1" - Integrated flux control knob - Adjustable light distribution - Includes power cord & signal cable 	<ul style="list-style-type: none"> - Cost effective and superior to T5's - Proven spectrum strikes root faster while minimizing shock - Modular, link up to 23 VP's on 277V - Includes power cord 	<ul style="list-style-type: none"> - Cost effective and superior to 315W CMH & 600W HPS - Compact linear to reduce sun interference in greenhouse - Diode centric cooling to keep yields consistent - Centrally controlled - Includes power cord & signal cable
APPLICATIONS	<p>GROW TENT SINGLE LEVEL</p>	<p>PROPAGATION VERTICAL CLOSE TO CANOPY GROW TENT</p>	<p>COMMERCIAL GREENHOUSE SINGLE LEVEL MULTI LEVEL</p>
BENEFITS	<p>REBATE ELIGIBLE HVAC SAVINGS ENERGY SAVINGS MAINTENANCE SAVINGS</p>	<p>REBATE ELIGIBLE HVAC SAVINGS ENERGY SAVINGS MAINTENANCE SAVINGS</p>	<p>REBATE ELIGIBLE HVAC SAVINGS ENERGY SAVINGS MAINTENANCE SAVINGS</p>

 <p>PHANTOM BIO·T</p>	 <p>PHANTOM PHOTO·BIO·TX</p>	 <p>PHANTOM PHOTO·BIO·CX</p>	 <p>PHANTOM PHOTO·BIO·MX</p>
	1768	2125	1768
	2.6	2.5	2.6
 <p>S4</p>	 <p>Relative Spectral Power Distribution S4</p>	 <p>Relative Spectral Power Distribution S4</p>	 <p>Relative Spectral Power Distribution S4</p>
	680W	850W	680W
	IP65	IP66	IP65
<p>superior output</p> <p>minimize</p> <p>ing to tent</p> <p>able</p> <p>ord &</p>	<ul style="list-style-type: none"> - Delivers = output to 1000W DE while reducing power consumption by 35% - More effective spectrum - Compact linear to minimize sun interference in greenhouse - Diode centric cooling to keep yields consistent - Centrally controllable - Includes power cord & signal cable 	<ul style="list-style-type: none"> - More than a 1:1 1000W DE replacement - More effective spectrum - Centrally controllable, signal repeater provides limitless fixture quantity - Integrated light output control - Includes power cord & signal cable 	<ul style="list-style-type: none"> - Delivers = output to 1000W DE while reducing power consumption by 35% - Ultrawide light panels = uniform light delivery - More effective spectrum - Centrally controllable - Commercial build quality - Integrated light output control - Includes power cord & signal cable
 <p>SINGLE LEVEL</p>  <p>grow TENT</p>	 <p>COMMERCIAL GREENHOUSE</p>  <p>SINGLE LEVEL</p>  <p>grow TENT</p>	 <p>SINGLE LEVEL</p>  <p>COMMERCIAL GREENHOUSE</p>  <p>grow TENT</p>	 <p>MULTI LEVEL</p>  <p>SINGLE LEVEL</p>  <p>CLOSE TO CANOPY</p>  <p>grow TENT</p>
 <p>HVAC SAVINGS</p>  <p>ENERGY SAVINGS</p>	 <p>REBATE ELIGIBLE</p>  <p>HVAC SAVINGS</p>  <p>ENERGY SAVINGS</p>  <p>MAINTENANCE SAVINGS</p>	 <p>REBATE ELIGIBLE</p>  <p>HVAC SAVINGS</p>  <p>ENERGY SAVINGS</p>  <p>MAINTENANCE SAVINGS</p>	 <p>REBATE ELIGIBLE</p>  <p>HVAC SAVINGS</p>  <p>ENERGY SAVINGS</p>  <p>MAINTENANCE SAVINGS</p>





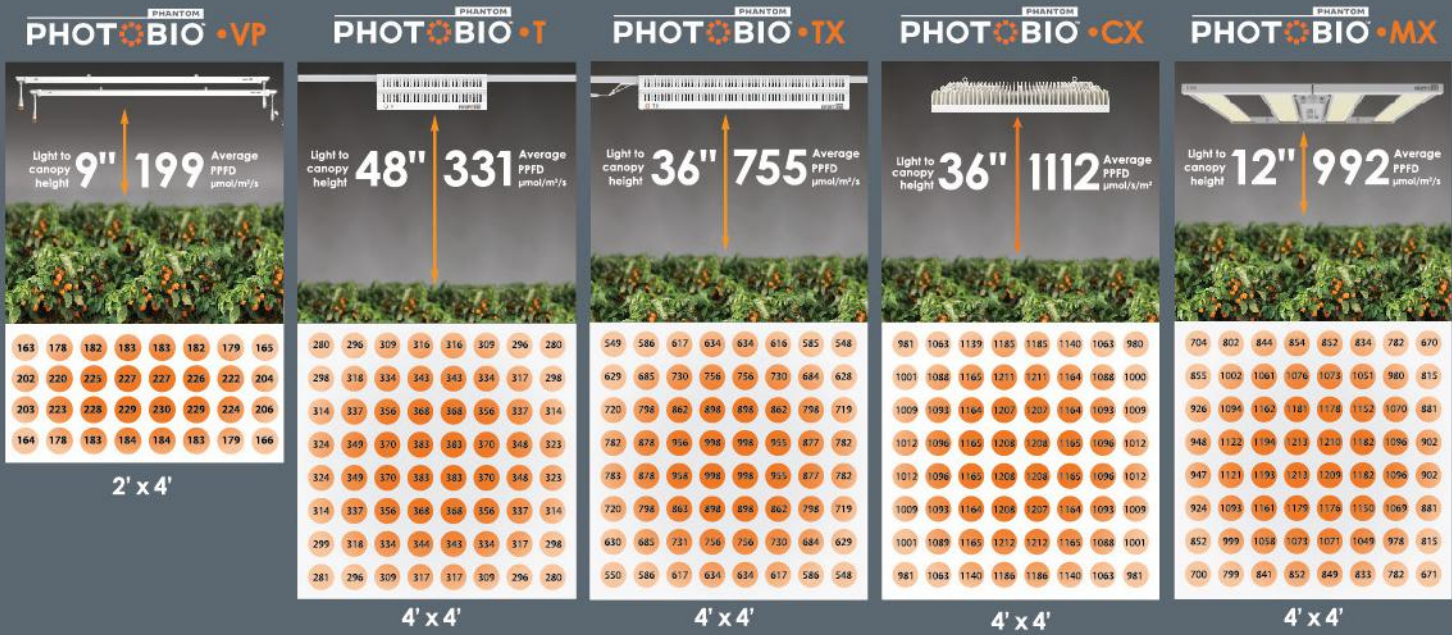
Extra Validation...



- PHOTOBIO •MX, CX, TX, T, VP, and PHENO 440 have all been validated as high-performance LED fixtures
- Validated by independent 3rd party testing lab and certified by DLC - Design Lights Consortium
- Being DLC Hort Listed means high-level reliability, efficiency, and possible energy rebates
- Search 'Hydrofarm' at: apl.designlights.org/horticulture



Planning Your Grow PPFD FOOTPRINTS



Note: Photosynthetic Photon Flux Density (PPFD) data is produced by using professional lighting simulation software and third party laboratory photometric files. All PPFD data are measured in µmol/m²/s. The result is showing a calculation grid assuming fixture is mounted on the above mentioned grow shelf with 85% wall reflectance. Actual measurement may vary depending on actual use conditions, input voltages, and measuring instruments. Professional lighting plans for commercial applications are available upon request.

PHANTOM
PHOTOBIO•MX



SCAN ME

See how **MX** performs in our PPI report...

PHOTOBIO•MX was tested alongside seven other commercially available LED lighting solutions by the most experienced independent testing lab in the industry. Our Product Performance Index, or PPI, puts emphasis on what matters most to growers - performance, efficiency, and cost.

- **Ultra-wide Light Bars** for better uniformity - no skinny or flimsy bars
- **Heavy-duty architectural-grade aluminum** for high reliability - no low-grade cheap metal and plastics
- **Commercial grade external drivers** offer versatility with drivers that can be mounted remotely outside the tent
- **Best-in-Class Heat Dissipation** Low operating temperature while functioning



Lighting Accessories

**MORE POWERFUL
 MORE RELIABLE
 MORE CAPABLE**

Advanced lighting controllers, cable kits, meters, and more.

www.phantombio.com
www.hydrofarm.com



**AUTOPILOT PX2
 Advanced
 Lighting Controller**

ITEM CODE
APDPX2



**PHOTOBIO
 Advanced Quantum
 PAR Meter**

ITEM CODE
LGBQM2



**HYDROFARM Light Riser
 Hanging System w/Push
 Button Release, 1/8"**

ITEM CODE
HLH1002



We're Ready to Help!

Ask a Question

Get a Custom Lighting
Layout Solution

Request a Commercial Quote

Check us out:

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www.hydrofarm.com



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SCAN ME