



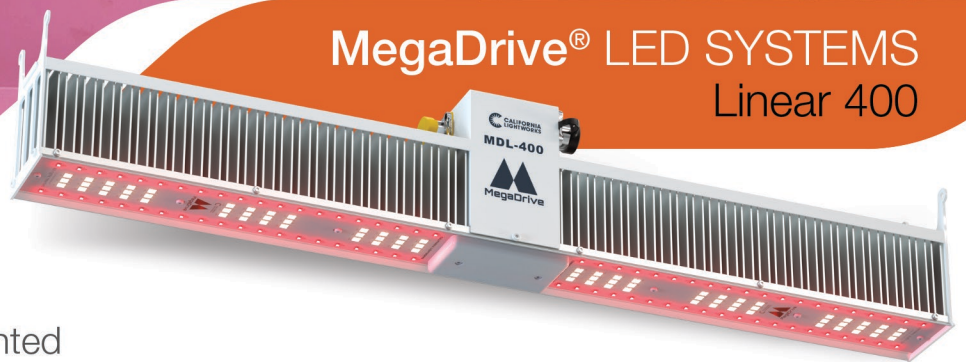
CALIFORNIA
LIGHTWORKS

Indoor

Multi-Level

Greenhouse

MegaDrive® LED SYSTEMS
Linear 400



Horticultural Lighting – Reinvented

MEGADRIIVE

CENTRALIZED POWER
LED SYSTEMS




MegaDrive

californialightworks.com

CALIFORNIA LIGHTWORKS

Advanced Design, Engineering and
Manufacturing of Horticultural Lighting in
California Since 2008

Since 2008, California Lightworks has been designing, manufacturing, and servicing high quality commercial LED lighting systems for horticulture - all made in our factory in Southern California. From initial light plans and layouts to system designs to installation and after sales service, we handle your lighting project from beginning to end.

Unlike most of our competitors who produce entirely in Asia or merely assemble imported Asian parts, California Lightworks designs and manufactures our own drivers, circuit boards, controllers and fixture components, assuring the highest performance and reliability on the market.

All lighting systems are custom designed for the specific crops and applications based on advanced computer light simulations and layouts.



DESIGNED WITH YOUR SUCCESS IN MIND

At California Lightworks, we work directly with growers worldwide to provide optimal lighting solutions for increased yield, better quality crops, and lower operating costs.

NEXT GENERATION LED LIGHTING SYSTEMS

Rather than just producing LED light fixtures, we take a systems approach which tailors each lighting network to the individual application and crop. This includes custom computer-designed light plans, power usage analysis, optimal wiring layouts for each installation, electrical cables, hanging hardware and installation plans. We take a lighting project from beginning to end which includes close coordination with growers, electricians, financing, energy rebates and after sales service support.

BETTER GROWTH THROUGH TECHNOLOGY

Since our beginning in 2008, California Lightworks has focused on advanced technology to improve performance and reduce costs. This has led to significant advances in variable spectrum control, wireless communications, advanced lighting controls, automated photo sensor controls and our patented MegaDrive Centralized Power Supply LED System.

Horticultural Lighting Re-Invented

MegaDrive®

CENTRALIZED POWER LED SYSTEMS

The new MegaDrive Series from California Lightworks represents a bold new direction in horticultural lighting. We removed the individual drivers from the LED fixtures and consolidated these into a centralized 10,000-watt power supply which can be located outside of the grow space.

This results in many significant advantages over traditional greenhouse lighting systems:



Lower Fixture Cost - All expensive electronics are removed from the fixtures



Lower Operating Costs - Industry leading efficiency and photo sensor controls



Plug and Play Solution - System includes LED fixtures, Electrical Cables, and Hanging Hardware



Less Heat - Central power units can be installed outside of the grow area



Lower Installation Cost - No power drops over the canopy



Water Resistant - Environmentally sealed with no sensitive electronics in the fixtures



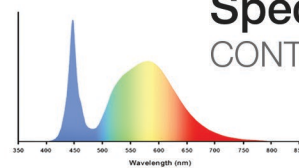
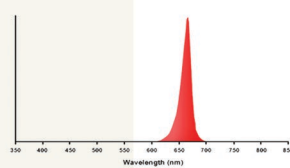
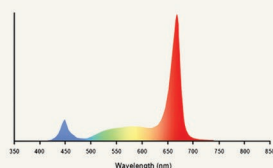
Better Controls - Two channel dimming and spectrum control - touch screen or wireless controllers



Less Shadow Effect - Slim linear fixtures and no drivers over the canopy to block the sun



Better Reliability - Industrial grade surge protection and fan cooled electronics



Two Channel
Spectrum
CONTROL/DIMMING

Run up to
27 lights
on a single
power
drop



MegaDrive® Greenhouse Lighting

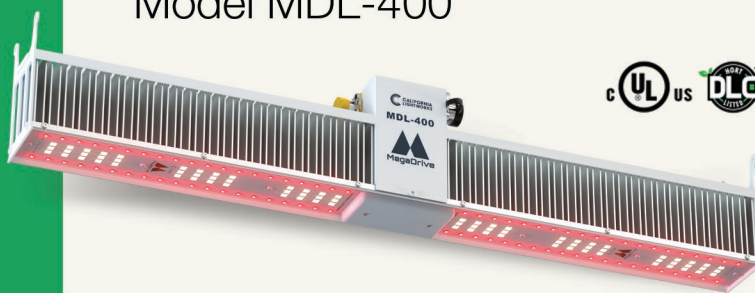
A Quantum Leap in Greenhouse Lighting Technology

The New MegaDrive® Linear 400 is specifically designed for supplemental lighting in greenhouses. It features a very small shadow effect yet covers a large area. The Linear 400 is chainable and as many as 27 lights can be run from a single power drop to save on installation costs. It also features wireless two-channel spectrum control and integrates with a wireless photo sensor for automated dimming depending on the amount of sunlight available. The Linear 400 uses passive cooling with no fans and has an IP rating of 65. Draws 380W with up to 3.5 μ Moles/J efficacy.



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MegaDrive® Linear 400 Model MDL-400



NEW PATENTED CENTRAL POWER SUPPLY DESIGN

- No Power Drops Over The Canopy
- Reduced Fixture Cost by 30%
- Reduced Installation Cost by up to 80%
- Multiple Control Options
- Optimal Light Levels
- Reduced Shadow Effect
- Lowest Energy Consumption
- Industrial-Grade Surge & Over-voltage Protection
- Award Winning Support

Remote 10K driver reduces installation cost by 80% and allows for industrial-strength power-quality protection.

2-Channel Sequential Dimming optimizes mixed-light spectrum resulting in increased flower density and shelf appeal

Eliminating the driver in the light fixture reduces the shading coefficient below any light with integrated drivers.



Eliminates power drops or electrical wiring over the canopy

Chainable – As many as 27 fixtures can be chained from a single power drop

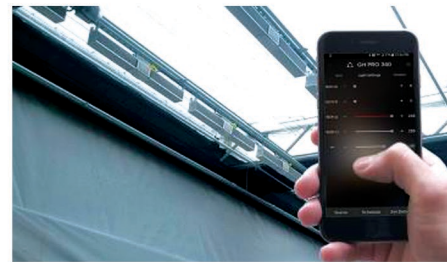
Optimal spectrum for maximum yield in flowering crops

Features minimal shadow effect

Integrates with a wireless photo sensor for automated dimming

Multi Channel Spectrum Control

Digital two channel spectrum control provides the optimum light levels and spectrum under all growing conditions. MDL400 is optimized for flowering crops with a heavy intensity in deep red which drives maximum yield.



MegaDrive® Linear 400 Dual
Model MDL-400 Dual



Up to 3.5 $\mu\text{Moles}/\text{j}$ Industry-leading Efficacy

Higher efficiency equals more light with less power – reducing operating costs.

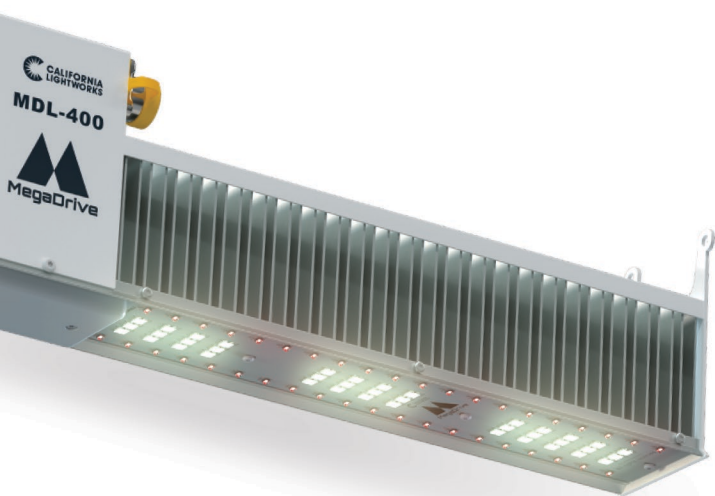
Chain up to 27 MDL fixtures

Our groundbreaking MegaDrive technology eliminates the need for drivers and electrical power connections over the canopy thus reducing both fixture and installation costs.



MegaDrive® Indoor Lighting

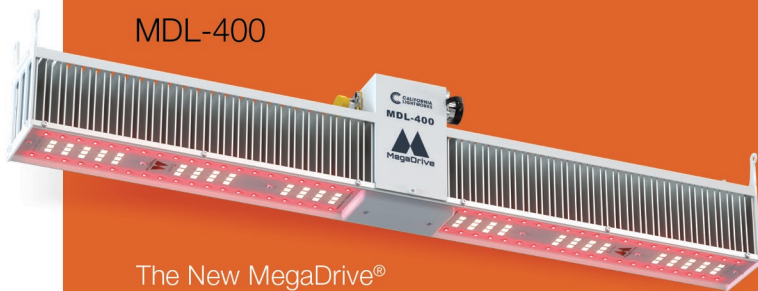
Take Your
Indoor Grow to
the Mega Level



MegaDrive® LINEAR SERIES

Linear 400

MDL-400



The New MegaDrive® Linear 400 is designed to replace HPS lights in indoor applications. The Linear 400 is chainable and as many as 27 lights can be run from a single power drop to save on installation costs. It also features wireless two-channel spectrum control and integrates with a wireless photo sensor for automated dimming. The Linear 400 uses passive cooling with no fans and has an IP rating of 65. Draws 400W with up to 3.5 $\mu\text{Moles/J}$ efficacy.

NEW PATENTED CENTRAL POWER SUPPLY DESIGN

- Reduced Fixture Cost by 30%
- Reduced Installation Cost by up to 80%
- Multiple Control Options
- Optimal Light Levels
- Lowest Energy Consumption
- Award Winning Support



MegaDrive®
MDL-400 DUAL
800 Watts

27
lights

CAN BE RUN FROM A
SINGLE POWER DROP TO SAVE
ON INSTALLATION COSTS.





MegaDrive® Vertical Series

Discover unparalleled results from our groundbreaking MegaDrive technology which eliminates the need for drivers and electrical power connections over the canopy thus reducing both fixture and installation costs. The new Megadrive Vertical Series reduces fixture costs and improves operating efficiencies with up to 3.5 uMoles/J efficacy. Available in 400, 600, or 800-watt versions.

Take Your Vertical Grow to the Mega Level

The New MegaDrive Vertical Series is designed for multi-level or single-level indoor growing. The Vertical Series is chainable, and as many as 27 lights can be run from a single power drop to save on installation costs and eliminate heat from the grow room. It also features programmable two-channel spectrum control to ensure optimum lighting in all phases of growth. Best of all, the new Megadrive Vertical Series reduces fixture costs and improves operating efficiencies with up to 3.5 uMoles/J efficacy. Available in 400, 600, or 800-watt versions.



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MegaDrive® VERTICAL SERIES Vertical 400, 600 & 800



The new MegaDrive Vertical Series is designed to replace HPS lights or operate in tight spaces such as on shelves. The vertical series is chainable and up to 27 fixtures can be run from a single power drop to save on installation costs and eliminate heat from the grow space. It also features programmable two-channel spectrum control which allows veg and flower using the same fixtures. The Vertical Series is available in 400, 600 or 800 watts and has an IP rating of 65. High efficiency LEDs – up to 3.5 uMoles/J.”

NEW PATENTED CENTRAL POWER SUPPLY DESIGN

- Reduces Fixture Cost by 30%
- Reduces Installation Cost by up to 80%
- Best Spectrum for all Grow Phases
- Reduces Heat Over the Canopy
- Lowest Energy Consumption
- Award Winning Support



Remote 10K driver reduces installation cost by up to 80% and allows for industrial-strength power surge protection.

2 channel programmable spectrum control optimizes light levels and maximizes yield and quality.

Eliminating the driver in the light fixture reduces heat in the shelves and in the grow room.

Multi Channel Spectrum Control

Digital 2 channel spectrum control provides the optimal light levels and spectrum under all growing conditions. The MegaDrive Vertical Series is optimized for flowering crops with a heavy intensity in deep red which drives maximum yield.

Chainable Design

Our groundbreaking MegaDrive technology eliminates the need for drivers and electrical power connections over the canopy thus reducing both fixture and installation costs. Run up to 27 lights from a single power drop.

Up to 3.5 $\mu\text{Moles/J}$ Industry-leading Efficacy

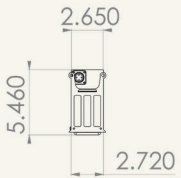
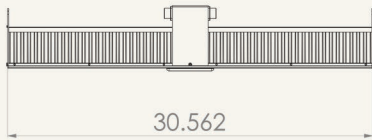
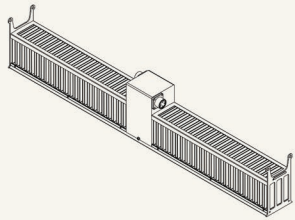
Industry leading efficiency means more light with less energy resulting in lower operating costs and higher returns on investment..

Replacing HPS

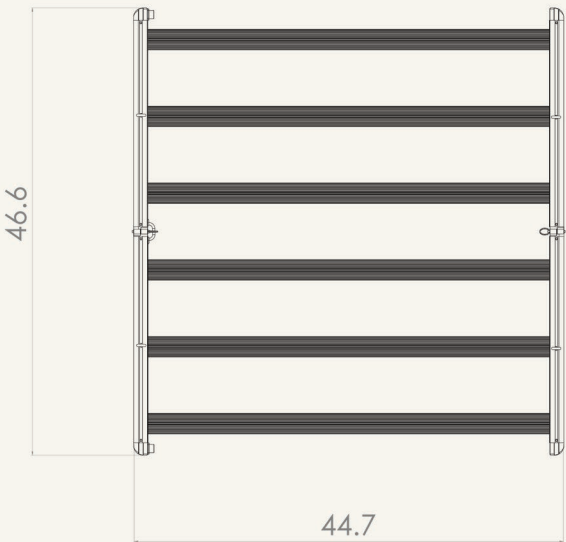
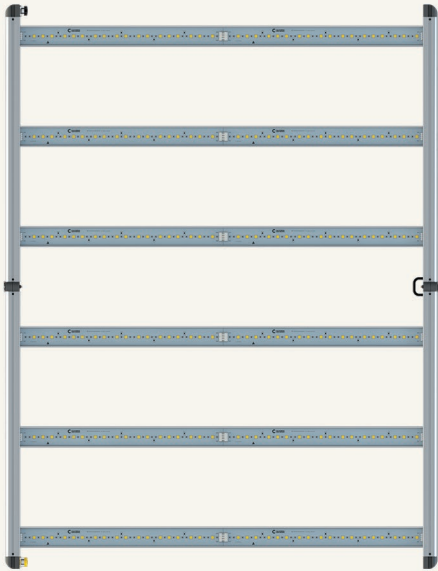
A high efficiency LED system will provide the same amount of light as traditional HPS or MH fixtures with less than half the energy and heat.



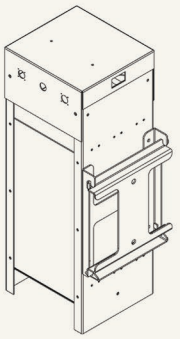
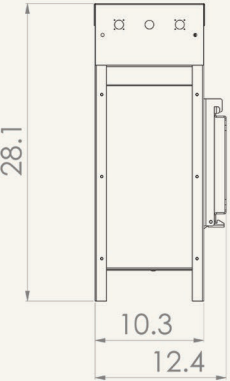
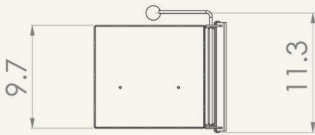
MegaDrive® Linear 400
Model MDL-400



MegaDrive® Vertical Series
Model MDV-400, 600 & 800



MegaDrive® Power Unit
MDP-10KW



Specifications

FIXTURES

Linear 400

Model	MDL-400	MDL-400 DUAL
Nominal Wattage Per Fixture	400	800
Operating Temperature	0-40° C (32-107° F)	
Dimensions	30.6" X 3.1" X 5.5"	30.6" X 10" X 5.5"
Weight	7.2 LBS	14.4 LBS
LED Lifetime Rating (L90)	>100,000 HOURS	
Warranty	5 YEARS	
Thermal Management	PASSIVE	
Dimming	0-100%	
Spectrum Control	2 CHANNEL 0-100%	
Light Output (PPF)	1050 µMoles/s	2100 µMoles/s
Efficacy	Up to 3.5 µMoles/J	
Heat Output	1365 BTU	2730 BTU
Safety Compliance	UL 8800, CAN/CSA-C22.2 No. 250.13	
Fixtures Per Power Supply	12-27	6-13

Vertical Series

MDV-400	MDV-600	MDV-800	MDV-800 XL
400	600	800	800
0-40° C (32-107° F)			
46.5" x 45" x 1.25"	46.5" x 45" x 1.25"	46.5" x 45" x 1.25"	56" x 45" x 1.25"
14.9 lbs	14.9 lbs	14.9 lbs	18 lbs
>100,000 HOURS			
5 YEARS			
PASSIVE			
0-100%			
2 CHANNEL 0-100%			
1,050 µMoles/s	1,850 µMoles/s	2,470 µMoles/s	2,470 µMoles/s
Up to 3.5 µMoles/J			
1,365 BTU	2,040 BTU	2,720 BTU	2,720 BTU
UL 8800, CAN/CSA-C22.2 No.250.13			
12-27	8-16	6-12	6-12

MegaDrive® POWER UNIT

MEGADRIVE 10KW POWER SUPPLY	480V 3 PHASE	347V SINGLE PHASE	240V 3 PHASE	240V SINGLE PHASE	208V 3 PHASE
Total Power Supply Watts	10,000				
Maximum Current	12.25A	29A	25A	45A	28.3A
Chainable # of Fixtures	8 to 27				
Power Factor	> 0.95				
Frequency	50-60 Hz				
Operating Temp	0-40°C (32-107°F)				
Dimensions	32" X 10" X 10.5"				
Weight	62 LBS - 72 LBS				
Warranty	5 YEARS				
Thermal Management	ACTIVE				
Safety Certifications	UL, cUL E519648: UL 8800, CAN/CSA -C22.2 No. 250.13, CE				
Data Connection	0-I/OV, RS-232				
Spectrum Control	2 CHANNEL 0-100%				
Service Life	> 50,000 Hrs				





Greenhouse

Multi-Level

Indoor



ADDRESS:

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HORTICULTURAL
LIGHTING
REINVENTED