

GMD WHOLESALE INC

CALIFORNIA LIGHTWORKS



MegaDrive LED Series





TAKE YOUR GROW TO THE MEGALEVEL!

The NEW MegaDrive LED series from California LightWorks dramatically reduces fixture and installation costs by moving the LED drivers into a centralized power supply. Customized LED solutions for every application.



LIGHT UP YOUR GROW OPERATION

AT A FRACTION OF THE COST AND TIME

Our all-new patented MegaDrive™ system consists of a MegaDrive 10KW power unit and a series of MegaDrive LED fixtures.

This system:

- Eliminates the need for LED drivers in each fixture, significantly reducing fixture cost
- Dramatically simplifies electrical infrastructure and installation for major cost savings
- Eliminates contactor panels by wirelessly controlling an entire group or row of lights
- Minimizes energy costs with industry leading efficiency
- Provides variable spectrum control for the best light spectrum in all phases
- Works with a photosensor to ensure the perfect light level in all conditions





SIMPLIFY INFRASTRUCTURE

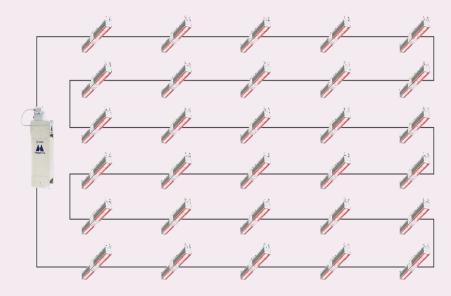
BY ELIMINATING POWER DROPS

First, we remove the drivers from each of our MegaDrive MDF-400 light fixtures and centralize them in one MegaDrive™ 10KW power unit.

The MegaDrive power unit provides 10 kilowatts of power. That's enough to power up to 27 MDF-400 fixtures. This makes installation much easier and far more affordable.

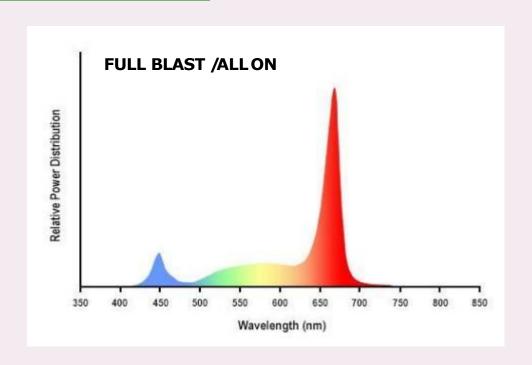
Because the individual fixtures no longer require individual LED drivers, those fixtures also do not need dedicated power drops. Instead of designing an infrastructure that provides one drop per light, you can simply install one drop per MegaDrive™ power supply, powering up to 27 fixtures. In many cases, this means no electrical power drops over the canopy at all - power supplies can be mounted along the wall at the start of each row. Unskilled labor can hang and connect the fixtures with our custom designed cables. This greatly reduces the installation cost-especially when retrofitting existing grow operations.

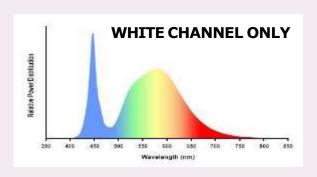


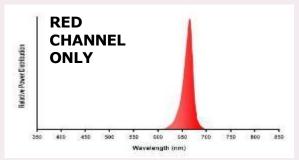


2CHANNEL VARIABLE SPECTRUM

PROGRAMMABLE 0-100% DIMMING ON TWO SEPARATE
CHANNELS PROVIDES OPTIMAL SPECTRUM FOR ALL PHASES







MULTIPLE CONTROL OPTIONS

FOR MAXIMUM EFFICIENCY

MegaDrive is available with several different control options:

WIRELESS BLUETOOTH MESH

Our Bluetooth Mesh option allows wireless communication throughout the grow facility for on/off schedules, spectrum control and our wireless photo sensor for sunlight balancing – all with no data cables or additional wiring. Smart phone apps are available for both Apple and Android platforms.

WIRELESS PHOTOSENSOR

Also available with our Bluetooth Mesh Network is a wireless photo sensor which will automatically raise and lower the light level based on your light level targets in a greenhouse application.

WIFI GATEWAY

With our Bluetooth Mesh network, we can also supply an internet gateway which will connect all operations to our cloud server for worldwide access.

HARDWIRED DEDICATED CONTROLLER

Our hardwired controller can control an unlimited number of fixtures from a cost effective and reliable touchscreen controller. Wiring only connects to the central power supplies, not the individual fixtures, so you still have no wiring over the canopy.

INTEGRATION WITH THIRD PARTY ENVIRONMENTAL CONTROLLERS

Connections are available for most industry standard environmental controllers. A simple 0 – 10 interface can be connected both wirelessly or using a hard-wired option.











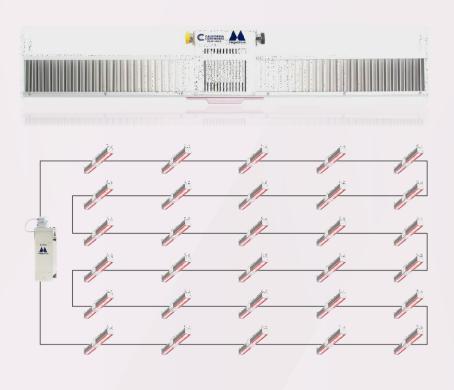
MegaDrive[™] MDP-10KW SPECIFICATIONS

MEGADRIVE 10KW POWER SUPPLY	480V 3 PHASE		240V 3 PHASE	240 SINGLE PHASE	208V 3 PHASE
TOTAL WATTAGE ON POWER SUPPLY	10 KW	10 KW	6KW	6KW	6KW
MAXIMUM CURRENT	12.25A	-	-	25A	17A
CHAINABLE # OF FIXTURES	27	27	16	16	16
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				
WARRANTY	5 YEARS				
THERMAL MANAGEMENT	ACTIVE				
SAFETY CERTIFICATIONS	UL, cUL E519648: UL 8750, CAN/CSA-C22.2 No. 250.13, CE				
DATA CONNECTION	BLUETOOTH MESH, 0-10V, RS-232				
SPECTRUM CONTROL	2 CHANNEL 0-100%				
SERVICE LIFE	> 50,000 Hrs				



MegaDrive[™] MDF-400 SPECIFICATIONS

MEGADRIVE 400W LED FIXTURE (MDF-400)	
Input Voltage	<20VDC
NOMINAL WATTAGE PER FIXTURE	400
OPERATING TEMP	0-40°C (32-107°F)
DIMENSIONS	34" X 3.2" X 3.2"
WEIGHT	10 LBS
LED LIFETIME RATING (L90)	>100,000 HOURS
WARRANTY	5 YEARS
THERMAL MANAGEMENT	PASSIVE
DIMMING	0-100%
SPECTRUMCONTROL	2 CHANNEL 0-100%
LIGHT OUTPUT (PPF)	1,044 µMoles/s
EFFICACY	2.75 µMoles/J (Total AC system efficacy)
HEAT OUTPUT	1365 BTU
SAFETY COMPLIANCE	UL 8750, CAN/CSA-C22.2 No. 250.13



GLASSHOUSE FARMS

Greenhouse in Carpinteria, CA



Glasshouse Farms in a state-of-the art cannabis greenhouse operation located in Carpinteria, California. This area has become one largest cannabis production centers in the U.S., if not the world. Glasshouse was one of the first licensed greenhouses in Carpinteria and remains one of the leading producers with over 500,000 square feet of high-end cannabis production.

However, even in Southern California, the yield drops by half in the winter months and there is fog most mornings and late afternoons. Glasshouse teamed up with California Lightworks for the first pilot installation of the new MegaDrive Greenhouse LED Lighting System. This solution significantly reduces the fixture and installation costs by eliminating the drivers and creating networks of intelligent light systems.

The installation was completed in a fraction of the time required for traditional lighting, even with plants in the greenhouse.



ISLAND BREEZE FARMS

Greenhouse in Carpinteria, CA



Island Breeze Farms in Carpinteria has transformed an aging traditional greenhouse into a state-of-the-art Cannabis production facility. This has involved completely remodeling the greenhouse from the ground up as well as adding state of the art supplemental lighting - the new MegaDrive LED Series from California Lightworks.

Most traditional greenhouses were not designed with supplemental lighting in mind. Thus, there are often significant rewiring and electrical costs to add power drops over the canopy and bring things up to code. This can often be as much as the light fixtures themselves.

Fortunately, the new MegaDrive system eliminates the need for power drops over the canopy and greatly reduces the need for electrical infrastructure and code approvals.

This case study walks us through the installation and operation of the MegaDrive system in a traditional greenhouse conversion.







XOTICS CULTIVATION

Indoor Operation in Lompoc, CA



Xotics Cultivation is a licensed indoor and outdoor grower in Lompoc, California. Xotics has been relying on tradition HPS light fixtures on a single level in a classic indoor cultivation operation. Xotics teamed up with California Lightworks to upgrade its lighting by moving to multiple level and LEDs – based on the new MegaDrive system from California Lightworks.

By moving to two levels, the production level has nearly doubled — with almost no increase in electrical costs. By using the new MegaDrive system, there are no drivers or power drops over the canopy on the shelves. This greatly reduces heat within the shelves. The installation process was also greatly shortened as no power drops were required in the grow room.

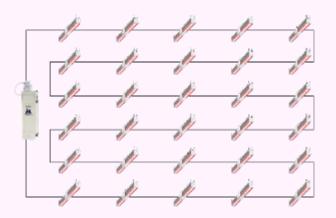
Finally, by using MegaDrives advanced spectrum control, yields have been maximized while electrical costs have been minimized.

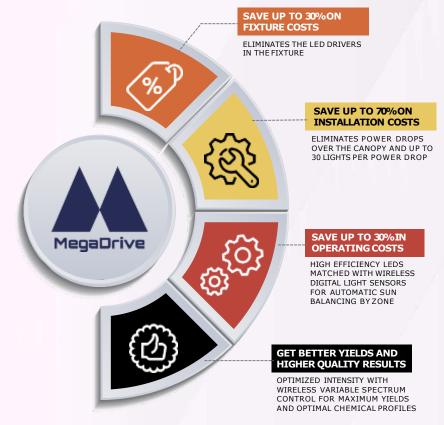


WATCH VIDEO











CALIFORNIA LIGHTWORKS

ADVANCED HORTICULTURAL LIGHTING MADE INCALIFORNIA

DESIGN | MANUFACTURING | DISTRIBUTION | SUPPORT

Since 2008, California LightWorks has been guided by a vision focused on the research, design, development and manufacturing of state-of-the-art commercial LED grow lights and automation equipment for greenhouse and indoor horticulture. By applying the latest advances in high efficiency, solid-state lighting and controls technology, our team provides worldwide growers innovative grow lights that deliver clear benefits at a competitive price.



TAKE YOUR GROW TO THE MEGA LEVEL!

If you think MegaDrive[™] technology could be the solution you've been looking for—or if you have any questions—please reach out to our U.S.-based lighting experts at any time. Our friendly team is always here to offer clarity, talk through your needs, and even provide a free, zero-obligation light plan.

We look forward to hearing from you.



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Video Link for MegaDrive:

https://vimeo.com/569065527/c8fedb2f34

