
heliospectra
Just a perfect day
Dimmable LED Lighting for maximum savings.
Smart LED lighting technology and control system for maximized energy savings and optimized plant growth.
www.heliospectra.com

Optimize Plant Growth, Yield & Save Energy

Heliospectra has researched light and its effect on plants for over 18 years. By offering four different base spectra (R40, R60, R80, R90) with or without far-red, as well as our fully dynamic LED lights, and with the ability to dim the intensity on demand wirelessly, our spectrum portfolio targets a wide variety of crops.

Our flexible far-red solutions combine three spectra in one, each dimmable from 0-100%. The flexible far-red enables growers to have the far-red on or off depending on crop variety or at a specific part of the day. This allows growers to speed up growth, induce flowering, increase the number of flowers and improve plant growth and quality during low-light periods.

For further control, helioCORE's possibility to set up multiple dynamic grow zones and operate them separately allows growers to set multiple lighting strategies at once in their greenhouse, depending on crop or crop variety. Making sure you always have an optimal grow-light environment.

Save up to 35% extra on top of your LED light savings.

With Heliospectras high-quality LED lights with wireless dimming, sensors and helioCORE software, you can automate your lighting strategy and tailor it to any situation. The software support optimal plant growth and automatically adjust and dim your LED lights based on natural light levels, fluctuating energy prices and by optimizing the efficacy of the light, thereby prioritizing lamp use at times of day when energy and utility costs are lowest. Our software also offers the possibility to set up to multiple grow zones, without upgrade, and to operate them separately. Allowing you to save more energy by not using bays and section not in use.

18 years in the industry

Heliospectra was founded in 2006 in Sweden by plant scientists and biologists with one vision – to make crop production more intelligent and resource-efficient. Today, with customers spanning seven continents, Heliospectra is a leader in innovative SMART horticulture lighting technology, custom light control systems and specialized services for greenhouse and controlled plant growth environments.

Innovation

We provide the most advanced crop lighting, controls and services to customers across six continents.

Expertise

Our team consists of plant biologists and actual growers who understand your growing needs.

Collaboration

Rooted in plant and light research, we partner with you from seed to harvest.

Quality

Using only top tier components, each solution is designed to optimize the quality of your crop in your unique growing environment.

Sustainability

We help you consistently produce sustainable and resource efficient nutritious crops.

Passion

Our passion is to redefine nature's potential so that together we can feed and heal the world.

What We Do

LED Grow Lights
Solutions

MITRA X & MITRA X FLEX

NEW

ELIXIA

NEW

DYNA

ADELPHI
WIRELESS CONNECTOR

NEW

DOXA
SENSOR

Crop Control
helioCORE™

AUTOMATE
LIGHT STRATEGIES

OPTIMIZE LIGHT
ZONES AND
GROUPINGS

MAXIMIZE
GROWTH

CONSISTENT
YIELD

SAVE MONEY

MONITOR YOUR
GROW FACILITY

Crop Services
helioCARE™

LIGHT
PLANNING

ON SITE
SERVICE

TRIALS

CULTIVATION
TRAINING

Crop Control
helioCORE™

Grow Smart

Save Up to 35% on Energy Costs with Wireless Dimming and our Smart Lighting System.

1

Maximize Energy Savings

Use the light only when needed with our unique DLI Management System Including:

- Real-time weather forecast
- Integrated energy prices
- Fixture Efficacy optimization

2

Safeguard your Grow

Minimize risk and ensure you are always in the know and ready to take action with:

- Real-time Notifications
- Fixture, PSU & Installation Status
- External Updates and Support

New Improved UX

Now with an updated more user-friendly interface for improved user experience and added functionality.

3

Full Control & Easy to Use

Custom your light environment to your goals and plant needs. standardize schedules and settings.

- Wireless Dimming from 0-100%
- Advanced Scheduling Features
- Unlimited Dynamic Grow Zones

4

Data-Driven Decisions

Take data-driven decisions and grow with confidence thanks to our in-depth Analyticcs tool.

- Dashboard (Heat maps)
- Zone Overview
- Possibility to Export Data

5

Wireless Sensor Integration

Improve real-time data inflow, gain flexibility and save on installation costs with our wireless sensors.

- Wireless PAR / ePAR sensors
- Temperature Sensors
- helioSENSE biofeedback sensor

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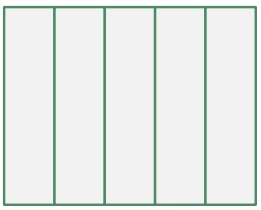
Customized Lighting Strategies with Dynamic Grow Zones

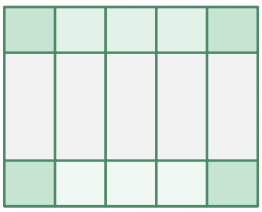
helioCORE and sensor feedback algorithms enable growers to break down their grow environment into multiple controllable “grow zones” with customized lighting strategies to optimize energy use while improving growth consistency throughout the greenhouse and as the season changes. Allowing you to use only the right amount of light needed in that area and turn off lights in sections, not in use. All via an easy to work with user interface.

Strategies for Dividing your Greenhouse into Zones



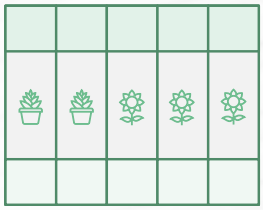
Zones by Bay

Divide your greenhouse into zones based on your greenhouse bay-layout and infrastructure.



Zones by Climate

Divide your zones based on different microclimates in your greenhouse, such as natural light levels.



Zones by Crops

Different zones can also be defined depending on what crop is grown in each area or what stage that crop is in.

Your CORE controllers:

- **DLI Controller** - minimize energy consumption while optimizing the light environment.
- **Set Dynamic Grow Zones** - optimize light strategies per crop, zone or crop stage
- **Schedule** - Induce flowering or extend the photoperiods

Wireless, Instant Dimming and Control for your Greenhouse

Our wireless connector allows for true wireless dimming, and control in your greenhouse facility. Integration with helioCORE enables you to set DLI targets and zone light strategies over time, lowering your energy cost, increasing crop quality, and maximizing ROI.

Up to 9000 units

The Adelphi is built for large-scale greenhouse installations. With a system capable of running up to 9000 units in harsh environments.

No Wiring

No extra wiring is needed during installation, saving you money and time.

LoRa Protocol

Our wireless connector is built on a stable long-range LoRa radio protocol wich secures a stable network for your facillity.

helioCORE™

Integration with helioCORE and sensors allows for automated light strategies and real-time light adjustments.

DOXA

SENSOR

The DOXA sensor is a light sensor, which can be placed at ether a canapy level of the crops or outdoor as an roof top sensor. The sensor communicates with the helioCORE system over the local LORA network and is powered by batteries. The sensor unit can be mounted directly on to a wall, with screws directly through the sensor bracket or mounted to a pole of a maximum diameter of 50mm with the additional moutning kit.

6 months battery time

The Doxa sensor is powered by batteries that last as long as 6 months before they need to be replaced.

Multiple positions

The Doxa sensor can be installed in a number of different ways, allowing it to be perfectly adapted to your greenhouse construction.

Easy installation

The Doxa sensor is quick and easy to install and does not require third party assistance. Saving both time and money.

IP66
Dust & Waterproof

DLC
Certified

MITRA X

A unique modular LED lighting system targeted to fit diverse customer needs and crops.

Soft Fruit + Leafy Greens & Herbs + Tomatoes + Flowers

5 Different
Spectral Variants

Ensure healthy, high-quality production year-round with 5 spectral variants specifically developed for greenhouse cultivation on various crops.

Wireless Control
With the Adelphi

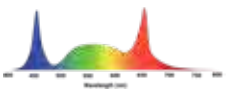
Add precise dimming and control with the Adelphi wireless controller without installing new wiring. Set light strategies and zone strategies to minimize energy costs and optimize your ROI.

Up to 3.7 µmol/J
of Fixture Efficacy

Maximize your production consistently, harvest after harvest, while saving electricity, with consistently high-quality LED light output.

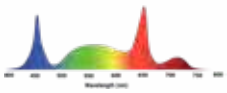
Spectrum portfolio overview:

helioSPEC R40



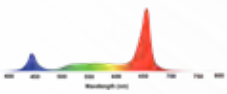
Efficacy (µmol/J): 2.9
PF Light output (µmol/s):1887

helioSPEC R40F



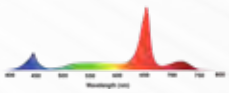
Efficacy (µmol/J): 2.9
PF Light output (µmol/s):1954

helioSPEC R60



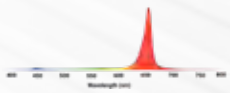
Efficacy (µmol/J): 3.1
PF Light output (µmol/s):2119

helioSPEC R60F



Efficacy (µmol/J): 3.1
PF Light output (µmol/s):2041

helioSPEC R80



Efficacy (µmol/J): 3.7
PF Light output (µmol/s):2220

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Soft Fruit + Leafy Greens + Tomatoes + Flowers

Speed up Production with Flexible Far-Red

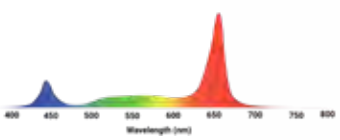
MITRA Flex allows growers to use targeted crop strategies with its flexible Far Red by combining three spectrum in one without loosing power. The Flexible Far Red allow growers to have the far-red on or off depending on crop variety or at a specific part of the day, speed up growth, induce flowering, and increase the number of flowers. Far Red can also be used to improve plant growth and quality during low-light periods.

Applications

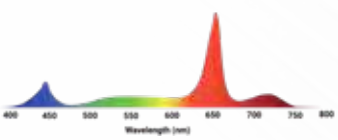
- End of day Far-red treatments
- Far-red enriched spectrum for end of production or full crop cycle, inducing flowering
- PAR only for crop production, vegetative phase

Three Spectrum in One Fixture:

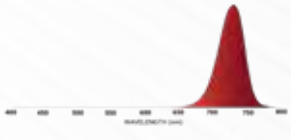
PAR Only



PAR + Far-Red



Far-Red Only



MITRA X FLEX is avaliable in the following spectrum:

- helioSPEC R40F Flex
- helioSPEC R60F Flex
- helioSPEC R80F Flex

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NEW Platform!

ELIXIA C5

Unparalleled Flexible Spectrum Control

Research + Herbs + Tomatoes + Microgreens

>1,000[4]
Spectral Combinations

Always be in control, no matter what you grow, with variable control spectra and a seemingly infinite number of light strategies.

90%
More Yield

Increased production cycle after cycle and year-round with leading light science to meet every crop's requirements.

46% Less
Energy Use Than HPS

Reduce energy consumption and save on HVAC infrastructure costs, all the while increasing production, with highly efficient LEDs.

New platform

Same great functionality - just more!

5	700W	34%	56%	IP65
LED Channels	Increased wattage	Increased efficacy	Higher output	Improved IP-protection

*Production start Q2 2024.

heliospectra

NEW Platform!

DYNA C9

Dynamic LED Light
Designed for Plant Scientists

Herbs + Microgreens + Research

1,000[9]
Spectral Combinations

Move your research forward with countless spectral options and full wavelength control from UVA to Far-red.

134 Research
Institutions Trust DYNA

Researchers around the globe use DYNA to aid diverse research applications with precision spectra control and wireless functionality.

50%
Removable Heat

Maintain precise temperature control in growth chambers and remove up to 50% of the heat generated by fixtures with innovative ducting solutions.

New platform
Same great functionality - just more!

9	700W	87%	240%	IP65
LED Channels	Increased wattage	Increased efficacy	Higher output	Improved IP-protection

*Production start Q2 2024.

heliospectra

Crop Services

helioCARE™

Innovation, Technology and Meaningful Partnerships

We partner with you from the ground up to help you achieve your crop goals, and make an easier transition into LED with the help of our technical and horticulture experts.

Your CARE benefits:

- Achieve your crop goals
- Increase yield and improve quality
- Alter morphology and accelerate production
- Help to transition and adapt your growth environment to LED

Light Planning

LIGHT PLANNING SERVICES:

Our experts can optimize the light conditions in your greenhouse, indoor grow facility or research chamber.

Cultivation Training

CULTIVATION TRAINING SERVICES:

We work with your team to create a customized training curriculum based on your crop and production goals.

On Site Service

BENEFIT FROM OUR ON-SITE SERVICES:

We can help you get the most out of your light solution with on-site installation support and ongoing consultancy.

Trials

TRY-BEFORE-YOU-BUY SERVICES:

Try the solution on-site with our industry experts before committing.

> “Heliospectra is not just selling a light, they continue to support and aid us as we learn - ensuring that our growers and the company as a whole are getting the most out of the investment.”
>
> — Andrew Fuller, Technical Director, Bridge Farm Group

Learn more about **helioCARE™**

heliospectra

www.heliospectra.com

LET'S CONNECT

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