

HelioCORE 2.8.0

HelioCORE 2.8.0 introduces several new features and user interface improvements aimed at enhancing lighting control and energy management for installations. The update focuses on simplifying setup, providing detailed spectral analysis, and integrating dynamic electricity pricing responses.

- Quick setup for uniform light schedules:** This feature allows users to rapidly configure zones where the light schedule remains consistent daily by inputting photoperiod and dimming levels or DLI-controller settings with minimal effort.
- Spectrum Calculator for fixture output:** A tool within the system's product library enables visualization and calculation of the spectral output of fixtures and variants, including multichannel fixtures to determine possible spectral compositions and light levels.
- Power page with Dynamic Price Response:** A new page consolidates power and electricity information, featuring a Dynamic Price Response (DRP) that sets dimming limits based on electricity prices. This allows automatic dimming restrictions during high-cost periods for installations on dynamic pricing plans, with support for automatic price fetching in certain regions like the EU and Ontario, Canada.

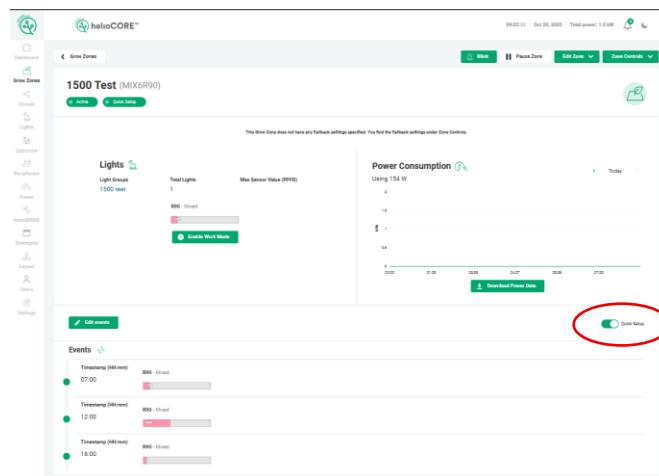
The update also includes updates in the software infrastructure, which will cause this update to take a bit longer than a regular update. (Est update time 40 min). To ensure active controllers are not interrupted it is recommended to perform the update outside of the photoperiod of any controllers running on the system.

New Features

Quick set up

For Zones where the light schedule can be the same day after day. We have added the Quick Setup options.

This allows for a quickly input photoperiod and dimming levels (Or DLI-controller settings) and has a new zone set up with just a few clicks.

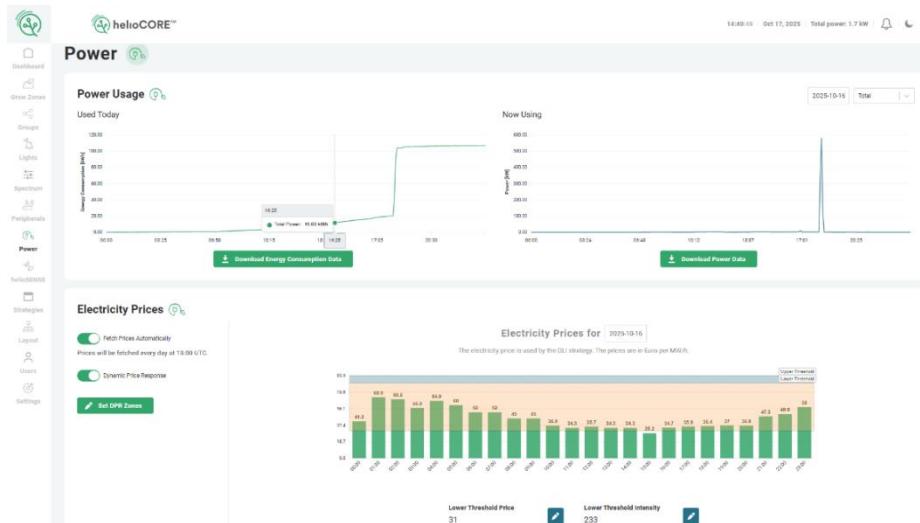


The screenshot shows the HelioCORE software interface for a zone named '1500 Test (MIX6R90)'. The 'Edit mode' button is highlighted with a red circle. The 'Events' section shows scheduled events for 07:00, 12:00, and 16:00. The 'Power Consumption' section shows a graph of power usage over time, with a 'Download Power Data' button.

Spectrum Calculator

In system datasets of our product library provide the user with the ability to visualize and calculate the spectral output of the fixtures and variants in use in the installation.

For multichannel fixtures the tool can be used to figure out what spectral compositions are possible and at what light levels.



For more info, see the spectrum calculator Use guide.

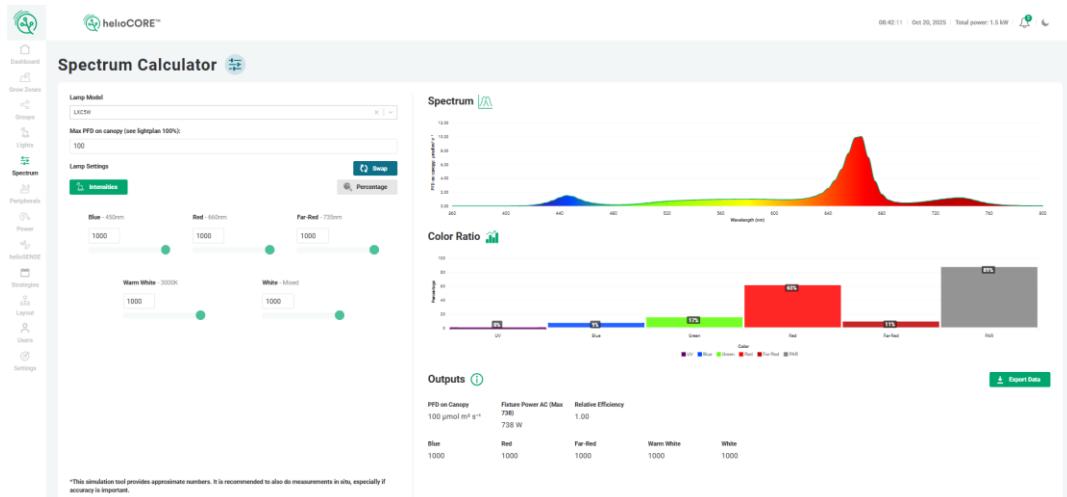
Power page

A new page view that gathers all power and electricity information in once place.

We have added a new feature called Dynamic Price Response (DRP for short) which allows the user to set upper limits on the Dimming level depending on electricity price.

There are two levels that can be set with individual dimming settings. For instance, if price per Mwh Exceeds 31 EURm, Limit what dimming level is set in a Zone to be 80% of max, or if it exceeds 50 EUR, set the Limit to 0%. Effectively making the system automatically limit electricity use during expensive hours if the installation is running on a dynamically priced electricity plan.

For region that support automatic fetching of electricity prices (currently EU and Ontario,CA) this feature is also activated from this view.



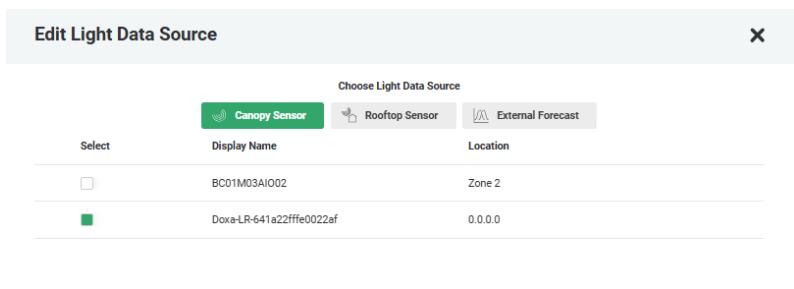
Options for Controller Data source

We have now three methods for the DLI controller to use as a source of sunlight for the controller.

- Canopy sensor – Ideal for when accuracy is important, or when growing crops sensitive to tip burn.
- Rooftop sensor* – To allow using a single sensor as input for multiple zones, good when the light level in the installation is uniform. A transmission factor is used to compensate for losses in glass/shadows from structures etc. See transmission factor in the Adjustments/UI changes segment.
- External forecast* – Third party provided solar forecast enables the controller to more quickly adjust to changes in solar levels, or when the controller's photoperiod can't extend after sunset.

*Use of DLI controller requires a calibrated zone.

Changing the Light data source is done in the “Edit Zone” drop-down menu.



Edit Light Data Source		
Choose Light Data Source		
Select	Display Name	Location
<input type="checkbox"/>	BC01M03AI002	Zone 2
<input checked="" type="checkbox"/>	Doxa-LR-641a22ffffe0022af	0.0.0.0

Adjustments/UI changes

Peripherals

 New Main Tab that combines the previous Sensor tab and the Gateway tab.

In the “Sensors” sub-section, all devices in the sensor category connected to the system is listed.

In the “Gateways” sub-section, all LoRa-gateways are listed.

Led board information

In this update we added the function to assign LED board type to the fixtures in the system. This has multiple benefits.

- More accurate power data for LoRa connected devices.
- Spectrum specific UI elements.
- Compatibility checks to prevent accidental mixing of incompatible fixtures.

Led board type can only be assigned to groups when they are not currently in a Zone to prevent compatibility issues.

If you are unsure what fixture type is installed on your site. Contact support@heliospectra.com for more information.

Transmission factor

For systems using rooftop sensors or external forecast. The transmission factor can be set at a system wide level under Facility Information. The transmission factor set here is used by default by all zones unless it is explicitly set to another value on the zone.

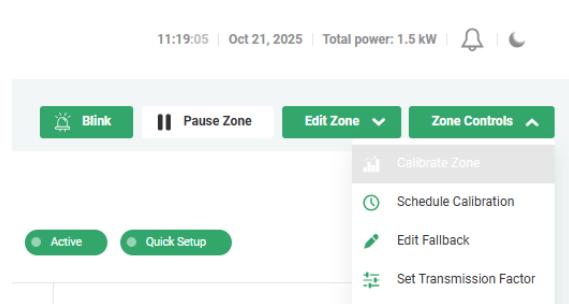
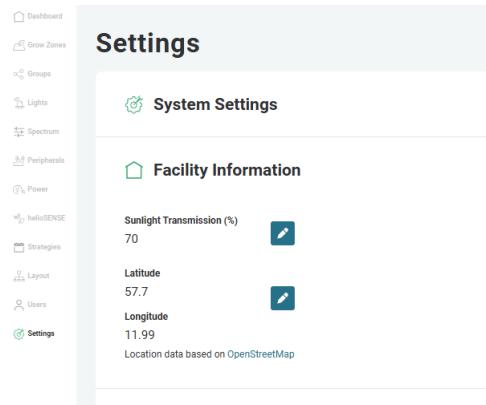


Figure 1 Transmission factor for Zone

Figure 2 Transmission factor for facility

For any questions regarding the update or the update procedure please contact support@heliospectra.com