









Changing the Room Settings

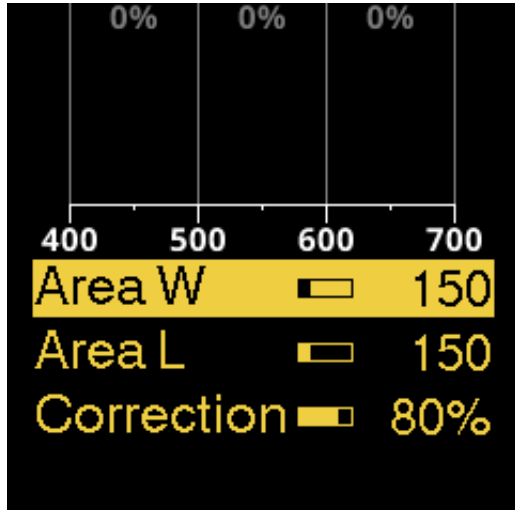
For correct PPF and DLI calculations, some parameters of the room need to be entered.

PPFD is the PPF per square meter. It is often more logical to specify the amount of light in terms of photons that the plant receives rather than the number of photons the fixture emits, which is what PPF does.






DLI is calculation-wise one step further and expresses the number of photons the plant receives per day cycle rather than per second.

To use these power units:

- Enter the menu 
- Enter **Preferences** , , ,
- Go to **Power unit** , ,
- Change the value to PPF or PPFD , 



To configure the room:

- Enter the menu, 
- Go to **Room settings**, , 
- Change the values of **Area W** and **Area L** to match the surface area illuminated by this fixture (usually the grid spacing), , 
- Change the value of **Correction** to adjust for differences between expected and measured PPFD values

The correction factor accounts for wall (reflection) losses and out-of-bound losses (illuminating the path rather than the plants). The default is 80%.

How to calibrate the Correction factor:

- Get a hold of a light meter capable of measuring PAR values, fitted with a cosine-corrected light collector

- Set the fixture's power unit to **PPFD**
- Set the **Correction** value to 100%
- Turn on the outputs and take note of the displayed **PPFD** value. Call this PPFD1
- Using the PAR meter, measure the PPFD (400–700nm) at soil level, unobscured by anything like the canopy. Measure in, or convert the unit to $\mu\text{mol}/\text{s}/\text{m}^2$ (note 1). Call this PPFD2
- Calculate $\text{PPFD2} \div \text{PPFD1} \times 100\%$. This value should be less than 100% if done right
- Enter this value in the **Correction** setting

Note 1) Different representations of the same unit include $\mu\text{mol}/\text{m}^2/\text{s}$, $\mu\text{mol}/\text{s}\cdot\text{m}^2$, and $\mu\text{mol}\text{ s}^{-1}\text{ m}^{-2}$.