THE IMPORTANCE OF THE RED / FAR-RED RATIO IN LIGHTING FOR PLANT GROWTH

Skye’s SKR 110 Red / Far-red sensor is designed to simultaneously measure Red wavelengths centred at 660 nm and Far-red wavelengths centred at 730 nm. These are the wavelengths of light to which the plant’s photoreceptor pigment (called phytochrome) react.

On a clear, sunny day around noon, the ratio of Red light to Far-red light in natural daylight is close to 1 (equal proportions of each).

Plants react to the ratio of Red / Far-red to regulate their growth. From this they can assess the season (from the day / night length) or react to shading by other plants by elongating.

More details can be found on Wikipedia http://en.wikipedia.org/wiki/Phytochrome

RED/FAR-RED RESPONSE

- Red & far-red photons control plant height
- Shaded plants grow tall - not enough red photons
- Too many red photons - plants are stunted