

PAR-Lite sensor

- Measures the light between 400 and 700 nm or 'PAR'
- Suited to inside or outside use
- Requires little maintenance
- Can be connected to the Clima 500 and the MultiMa



Measure the light needed for growth
with the PAR-Lite

Light in the Photosynthetically Active Radiation (PAR) spectrum is vital for plant growth. Together with CO₂ and water, PAR is the main element required for photosynthesis. The more PAR, the more potential for plant growth. A PAR sensor is a quantum sensor which measures the number of photons in the PAR spectrum, which is light with a wavelength between 380 and 750 nm.

HortiMaX
growing solutions



PAR-Lite sensor

Lighting system

A PAR-Lite sensor can be used both inside and outside to measure your crop's growth potential. If the sensor is placed inside, you can measure the actual amount of PAR reaching the plants. The PAR-Lite sensor measures the number of photons which plants are able to exploit and can, therefore, be used to objectively assess the quality of your lighting system.

PAR comparisons

The PAR-Lite sensor is the most commonly used sensor by study groups to take PAR readings. Study groups use this sensor to compare the amount of PAR which each company in the study group has received. Although PAR is only one of the factors necessary for growth, it serves as a reliable indicator for making comparisons. You should note, however, that the PAR-Lite is a point sensor, which means that it takes light measurements of only a small area. That is why it is very important to choose the right location for the sensor. If the members of a study group fail to make proper agreements about where to place the sensors, there is a significant risk that the wrong comparisons will be made.

Minimum day sum

The table below shows the minimum day sum listed by crop. This is the minimum amount of light needed for plant growth.

| Crop | Minimum day sum (mol/m ² /dag) |
|--------|---|
| Tomato | 12 |
| Rose | 12 |

PAR day sum

The table below shows the PAR day sum listed by light source. The PAR day sum is the total number of micromol/m²/day.

| Light source | Standard | PAR day sum (mol/m ² /day) |
|--------------|-----------------------------|---------------------------------------|
| Summer day | 2000 J/cm ² /day | 30 |
| Winter day | 200 J/cm ² /day | 3 |
| SON-T | 10.000 lux, 16 hour | 7 |
| | 15.000 lux, 16 hour | 10 |

The figures below show light in the PAR spectrum and light visible to the naked eye.

