



Photon Systems Instruments

Professional Instruments
for Plant Science, Biotechnology
and Agriculture

Cultivation Banks

The modular system of cultivation banks
in environmentally controlled rooms

- More than 12 different temperatures and light settings in cultivation chamber
- Every Cultivation Bank is independently controlled
- Suitable for multiple or parallel experiments
- Excellent homogeneity of set parameters
- Sophisticated system of air ventilation
- LED light technology for optimal plant growth
- Easy programming & remote control



Wide Range of Applications

In vitro and soil cultivation of plants

- Suspension culture cultivation
- Multiple and simultaneous physiological studies
- Phenotypical analysis (*Arabidopsis*)
- Vernalization (*Brassica*, *Hordeum*)
- Dusk and Dawn response simulation



High-End Technology Allows

- Temperature extremes -5°C / $+45^{\circ}\text{C}$ with ensured full light exposure!
- Light intensity up to $3,000 \mu\text{mol}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$
- Dynamic **multispectral irradiance**
- **Large plants** and **trees** cultivation



Control & Setting

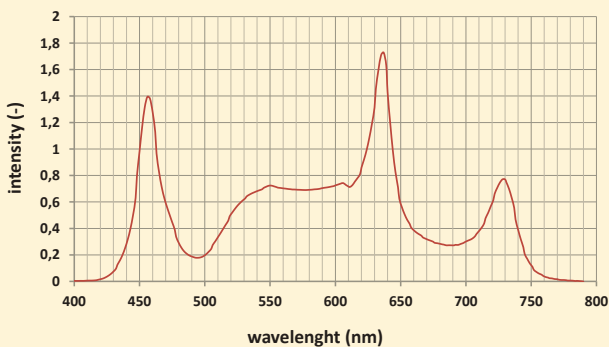
- User friendly control software
- 10.5" LCD color touch screen
- Up to 100 user defined protocols
- Real time data visualization
- Graphical view
- Remote control
- Warning messages via SMS

Sophisticated System of Air Ventilation

- Extremely low air flow up to 0.25 ms^{-1}
- Minimal heat introduction into the chamber
- No water condensation
- Light-independent regulation of temperature
- Highly homogenous environment

Precise Control of Irradiance

- Red and Far-red enriched LED light system for optimal plant growth
- Uniform LED illumination
- Gradual and precise changes of irradiance from 0 to 100%
- Ramping modes and clouds simulation
- Natural light imitation



Customize Your Cultivation Banks

- CO_2 regulation
- Different light sources available (LED with different λ /UV/fluorescent tubes)
- Light radiation monitoring
- Chlorophyll Fluorescence module
- Variable number of Cultivation Banks



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