

Plant Growth Chamber

< High-light intensity >

Dimmable



High-light intensity
410ℓ

● WHITE

● YELLOW

● PINK



Choose from 3 LED colors!



SUNRAY LIGHT
WHITE



PLANTFLEC
YELLOW



PLANTFLEC
PINK

5-side irradiation



The measurement port on the ceiling.

Works as a single door—
perfect for growing tall plants.



This is Standard Plant Growth Chamber equipped with high-light intensity LED lamp on the ceiling.

You can choose the lighting from the following:

-White color: sun-like LED (SUNRAY LIGHT)

-Yellow/Pink color: LED for plant growth (PLANTFLEC)

Three-position controller is used for temperature and humidity control, which provides low running costs. Optimal program control can be achieved based on the specific requirements of the cultured plants. All types are capable of continuous dimming.

Features

- An operation touch panel with time display is mounted on the upper part of the main body, which allows easy operation.
- Type -S: constant operation at any temperature/light/ (humidity) and day/night switching operation.
Type -SP: program control (real-time mode / accumulated operation time mode).
- Type -SPC: CO₂ control function.
- Two-level wind speed control is installed to protect wind-sensitive plants.
- The inner door has energy-saving functions, being used as one door or two up-and-down doors as per usual.
- A hole of 40 mm diameter for measurement is included as standard.
- Humidity control system can be selected from "only humidification" or "only dehumidification" or "both humidification and dehumidification."

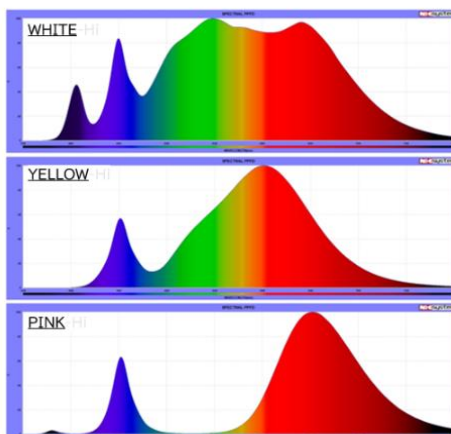
Applications

- Plant cell/tissue culture, germination, acclimation, or growth test
- Environmental test
- Growth of rice, arabidopsis, etc.
- Insect experiment
- Environmental resistance test for plants
- Storage test at constant temperature and at constant humidity

Options

- Table for a water tank (for LPH) (Size:W300×D400×H900mm)
- Evaporator for drained water (for LPH)
- Individual ceiling light control

LED Spectrum



Specifications

Model	White LED	LH-411PFQST-S	LPH-411PFQST-S	LH-411PFQST-SP	LPH-411PFQST-SP	LPH-411PFQST-SPC
	Yellow LED	LH-411PFQDT-S	LPH-411PFQDT-S	LH-411PFQDT-SP	LPH-411PFQDT-SP	LPH-411PFQDT-SPC
	Pink LED	LH-411PFQPT-S	LPH-411PFQPT-S	LH-411PFQPT-SP	LPH-411PFQPT-SP	LPH-411PFQPT-SPC
Outer dimensions (mm)		W880 × D806 × H1,935				
Inner dimensions (mm)		W670 × D565 × H1,100				
Control system		Changeover between constant operation and day/night switching operation		Real-time based control (24 hours)/Cumulated hours-based control(Up to 999 hours and 59 minutes/step) 24steps/5patterns with a pattern link function		
Repeat		—		1 to 99 times or unlimited		
Control methods		Three-position control method: Refrigerator and humidifier, ON/OFF control; heater, proportional control				
Temperature		+5℃ to 50℃ ± 1℃ (+15℃ ~ when all lights on)				
Humidity		—	50-90%RH ± 10%RH (15℃ to 45℃)	—	50-90%RH ± 10%RH (15℃ to 45℃)	
CO ₂ concentration		—				Ambient to 3,000 ppm
Illuminance		White: 0 to 58,500 lx, Yellow: 0 to 76,000 lx, Pink: 0 to 18,500 lx They can be continuously dimmed from 20% to 100% or 0% (all lights off)				
Photon flux density		White:0 to 900 μmolm ⁻² s ⁻¹ , Yellow: 0 to 930 μmolm ⁻² s ⁻¹ , Pink: 0 to 640 μmolm ⁻² s ⁻¹				
Light source	Illumination	White: Straight tube sun-like LED lamp (SUNRAY LIGHT) Yellow and Pink: Straight tube LED lamp (PLANTFLEC) for plant growth				
	Number of lamps	Left, right, rear, and door: 4 lamps (40W) x 4 sides, Ceiling: 1 lamp (600W) x 1 side				
Refrigerator		300W				
Heater		500W				
Humidifier		—	80W	—	80W	
Shelf		6 shelves (adjustable)				
Operation current (maximum)		White: 17A Yellow and Pink: 16A	White: 20.5A Yellow and Pink: 19.5A	White: 17A Yellow and Pink: 16A	White: 20.5A Yellow and Pink: 19.5A	
Power requirement		Single phase 100V 50/60Hz 20A E	Single phase 100V 50/60Hz 30A E	Single phase 100V 50/60Hz 20A E	Single phase 100V 50/60Hz 30A E	
Weight (kg)		About 295	About 305	About 295	About About 305	

All types are capable of continuous dimming.

* Temperature sensor: platinum resistance temperature sensor, humidity sensor: polymer film capacitive sensor, humidifier: ultrasonic humidifier, Carbon Dioxide Concentration Sensor: Non-Dispersive Infrared (NDIR) Spectroscopy Method.

* Power requirement does not include the power-outlet installed inside the chamber. The internal outlet can be used up to 1A.

* These chambers are designed to operate in ambient temperatures 15 to 30°C in general. The specified performance may not be achieved depending on actual usage conditions.

* Supply purified water (disilled or reverse osmosis water) only.

* When lighting, temperature setting should be 15°C or higher.

* Keep 30cm or more clearance at both sides and the back of the product to prevent exhausted heat from being trapped and hindering the cooling function.

* The specified control accuracy for temperature and humidity applies when lights off.

* For long-term operation under conditions of high temperature and high humidity, please contact us for confirmation.

* Due to differences in wavelength characteristics, the illuminance and luminous flux of each colors differ.

* Illuminance and photon flux density values measured on the lower shelf are average values.

* Due to PWM dimming control, flicker may be visible at low output settings.

NKsystem Bio & Clean Scientific Instruments

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