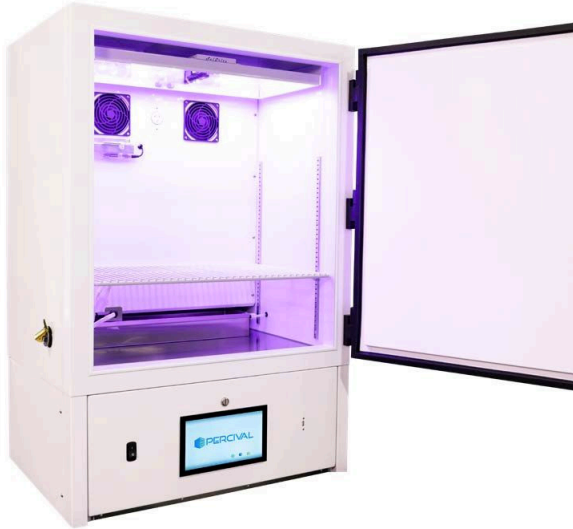




GENEVA SCIENTIFIC
LAB EQUIPMENT SOLUTIONS

LED PLANT GROWTH CHAMBER - LED-30L1



Model	LED-30L1
Exterior Dimensions (WxDxH)	31" x 24.3" x 46.1"
Temp. Range (w/ lights on)	10-44±0.5
Interior Space	9.6 cu.ft.
Total Shelving Floor Area	3 sq.ft.
Maximum Growing Height	25.5"
Light Intensity (6" from lamps)	1400 micromoles/m ² /sec
Number of Tiers	1

Applications

- *This chamber is specifically designed for plant growth light quality studie and other experiments requiring specific wavelengths of light
- *Many other applications exist for this product

Percival's IntellusUltra Controller

- *The IntellusUltra control system (C8) was purpose-built for controlled environments and is standard on all Percival chambers.
- *Robust and reliable, industrial-grade integrated hardware design
- *Highly flexible architecture facilitates configuration, expansion and customization
- *Precise, simultaneous control of up to 7 environmental parameters
- *Industry-leading experiment protection and system diagnostics

IntellusUltra control graphical user interface

- *A touchscreen user interface is provided as standard on all Percival Scientific plant growth chambers and allows users to interact with their controlled environment

IntellusUltra control graphical user interface (cont.)

- in new and intuitive ways.
- *10.1" IPS, high resolution display with 10-point multi-touch sensitivity
- *Tabular and graphical presentation of chamber programs and parameters
- *Highly visible process values and alarm notifications
- *Enhanced user feedback menus

SciBrite Lighting System

- *Each lamp bank shall consist of SciBrite™ multi-color LED tiles consisting of:
 - *Warm White (3500K) LEDs
 - *Red (650-670nm) LEDs
 - *Blue (451nm) LEDs
 - *Far Red (720-740nm) LEDs
- *Light intensity vs distance for the colors referenced above:
 - *1400 μmoles/m²/s at 6" (15cm) from the lamp canopy at 24°C
 - *950 μmoles/m²/s at 20" (50cm) from the lamp canopy at 24°C
- *Intensity breakdown by LED type
 - *Warm White (3500K) LEDs = 31.7%
 - *Red (650-670nm) LEDs = 29.5%
 - *Blue (451nm) LEDs = 23.8%
 - *Far Red (720-740nm) LEDs = 15%

LED PLANT GROWTH CHAMBER - LED-30L1

SciBrite Lighting System (cont.)

- *System controlled via open-loop dimming as a percentage of total output
- *Each color shall be independently dimmable as a percentage of total output between 1% to 100% in 1% increments
- *Each color on each tier is independently dimmable

Cabinet Construction

- *Interior constructed of 26-gauge galvanized steel
- *Interior floor constructed of 24-gauge polished stainless steel
- *Exterior constructed of 24-gauge Galvannealed extra-smooth steel
- *NSF-compliant seam design
- *Chamber is completely self-contained, suitable for stacking one above the other
- *Overall wall thickness is 2" (5.1 cm)
- *Highly durable and reflective coating

Insulation

- *Woodless construction using CFC free insulation (overall wall thickness is 2", ample insulation for maintenance of stated temperature range)

Door

- *One door opening of 26.8" x 29.8" providing full access to chamber interior (magnetic gasket provides a tight seal to door frame)

Interior Space

- *9.7 cu.ft. with work area of 3 sq.ft. provided on one tier

Shelving

- *One tier of white epoxy coated steel wire shelving (shelf is 16.5"D x 26.5"W)
- *Shelf is vertically adjustable in 1/2" increments
- *Maximum growing height is 25.5"

Temperature Range

- *10°-44°C (±0.5°C) lights on and 2°-44°C (±0.5°C) lights off

Refrigeration

- Self-contained air-cooled condensing unit with hot gas bypass system for continuous compressor operation, extended life and close temperature control (this continuous running condensing unit ensures precise temperature control by alternately cycling refrigerant and hot gas to coil; this also prolongs life of compressor, and eliminates risk of ice build up in coil)
- *Solenoid valves have extended stem for quiet and long life operation
- *Heat rejection to ambient (standard chamber) = 1785 BTU/hr.

Temperature Safety Limit Controls

- *Experiment Protection: Adjustable high and low temperature controls, audible alarms, and visual indicators provided
- *Controls shut down all power to chamber, activating alarms (when the temperature returns to the normal range the system will automatically reset)

Electrical Requirements

- *Consult Geneva Scientific for electrical requirements and amperage draw.

Options

- *Additive Humidity Control with Sensor
- *Dehumidifier with Sensor
- *IntellusUltra Connect
- *CO2 Enrichment Package
- *Self-Contained Water-Cooled Condensing Unit
- *Dry Alarm Contacts
- *Extended Temperature Ranges
- *Convenience receptacles

Regulatory Standards

- *Electrical Safety: UL-508A, certified and labelled by Percival Scientific under UL file number E340161
- *Quality System: ISO 9001:2015, certified under DQS, Inc. under certification number 10017261



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