



GENEVA SCIENTIFIC

LAB EQUIPMENT SOLUTIONS

LED PLANT GROWTH CHAMBER - LED-41L2



Model	LED-41L2
Exterior Dimensions (WxDxH)	41" x 33.6" x 77.2"
Temp. Range (w/ lights on)	10-44C +/- 0.5C
Interior Space	37.2 cu.ft.
Total Shelving Floor Area	13.6 sq.ft.
Maximum Growing Height	20.5"
Light Intensity (6" from lamps)	550 micromoles/m2/sec
Number of Tiers	2

Applications

*This chamber is specifically designed for plant growth light quality studies and other experiments requiring specific wavelengths of light

Percival's IntellusUltra Controller

*Percival Scientific has built a reputation of providing flexible, customized options for research scientists around the world. We have taken the philosophy to the next level with our improved IntellusUltra controller. Now choose from the levels of functionality that meet your research needs.

Lighting System

*Standard chamber includes cool white and red LEDs (combinations of cool white, red, far red, and blue LEDs are also available)
 *Non-standard color choices include UV, warm white, full spectrum white, and green
 *Each color is independently dimmable between 10-100%
 *Each tier is independently dimmable
 *Programming and control of the lighting is done via IntellusUltra real time controller

Airflow/Circulation

*Air circulation inside chamber is from a specifically designed air diffuser (air travels along the entire back wall, over the shelves and returns to the ceiling fans through an opening between the light fixtures and the doors)

Cabinet Construction

*26-gauge smooth galvanized white side walls and top reinforced with 24-gauge backer plates
 *Interior floor constructed of 24-gauge #304-4 stainless steel
 *24-gauge smooth white galvanized exterior
 *NSF compliant seam design
 *Overall wall thickness 2"
 *Foamed-in-place non-CFC insulation
 *One 1 1/4" diameter access port on right hand wall
 *Chamber floor equipped with floor drain and hose assembly
 *Contains casters assembly and adjustable leveling legs to compensate for floor unevenness in the lab

Insulation

*Woodless construction using 2" thick foamed-in-place non-CFC Urethane insulation with 93% closed cell, R-value of 12.5, K-value of 0.16 and density of 2.2 lbs/ft3

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Door

*One door opening of 36.75" x 57.5" providing full access to chamber interior (magnetic gasket provides a tight seal to door frame)

Interior Space

*37.2 cu.ft. with work area of 13.6 sq.ft. provided on two tiers

Shelving

*Two tiers of white epoxy coated steel wire shelving (each shelf is 27"D x 36.3"W)

*Shelving is vertically adjustable in 1/2" increments

*Maximum growing height is 20.5"

Finish

*Interior and exterior painted with high reflective, environmentally friendly, high temperature baked white powder coating

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

*Ceiling mounted evaporator coil incorporates twin air circulation fans in aluminum housing (heat rejection to ambient in standard chamber = 4700 BTU/hr)

Temperature Range

*10-44C (+/- 0.5C) with lights on and 2-44C (+/- 0.5C) with lights off

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)

Convenience Receptacles

*Two 120/1/60 convenience receptacles provided inside chamber

Electrical Requirements

*Consult Geneva Scientific for electrical requirements and amperage draw.

Options

*Additive Humidity Control with Sensor

*Dehumidifier with Sensor

*IntellusUltra Connect

*Android-Based Touch Screen

*CO₂ Enrichment Package

*Door with Observation Window with Cover

*Door with Fresh Air Ports

*Self-Contained Water-Cooled Condensing Unit

*Dry Alarm Contacts

*Extended Temperature Ranges

*External Drip Pan Assembly



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