LED series

Percival® model LED-41L2

applications

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

  Please compare your own requirements to the specifications listed below.

percival's IntellusUltra controller

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

Please refer to www.percival-scientific.com for additional information regarding the control system.

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 (refer to insulation section)
- One 1¼" 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

LED-41L2 specifications (subject to change without notice)

Temp Range with all lights on	Interior Space volume		Total Shelving Floor Area		Maximum Growing Height		Exterior Dimensions						Light Intensity 6" from lamps unless otherwise noted	Tiers	LED Colors
							width		depth		height				
°C	ft³	m³	ft²	m²	in	cm	in	cm	in	cm	in	cm	µmoles/m²/s		
10-44±0.5	37.2	1.1	13.6	1.3	20.5	52.1	41	104.1	33.6	85.4	77.2	196.1	550	2	2

Each color and tier is independently dimmable.

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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/ft^3

door

- One door opening 36.75" x 57.5" (93 cm x 146 cm) provides full access to the chamber interior (magnetic gasket provides a tight seal to door frame)

interior space

- 37.2 ft^3 (1.1 m^3) with work area of 13.6 ft^2 (1.3 m^2) provided on two tiers

shelving

- Two tiers of white epoxy coated steel wire shelving (shelf is 27"D x 36.3"W [68.6 cm x 92.1 cm])
- Shelf is supported by shelf clips allowing ½" vertical adjustments
- Maximum growing height is 20.3" (52.1 cm)

finish

- Interior and exterior painted with highly 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 continous 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 [standard chamber] = 4700 BTU/hr.)

temperature range

- 10°-44°C (±0.5°C) lights on and 2°-44°C (±0.5°C) 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 the chamber, activating alarms (when the temperature returns to the normal range the system will automatically reset)

humidity control (with optional H15)

- Humidity control of 40% to 75% (±10%) lights on for set temperatures between 15° to 30°C
- Humidity control of 40% to 90% (±10%) lights off for set temperatures between 15° to 30°C
- Extended humidity ranges available

  See other specification sheets or consult factory for additional information.

options (most popular)

- IntellusUltra Connect (C9)
- IntellusUltra Connect and Android-based Touchscreen (C9T)
- IntellusUltra (standard) and Android-based Touchscreen (C8T)
- Ultrasonic Humidifier with advanced RH Sensor (H11)
- Dehumidification via independent dehumidifying coil with reheat heaters and Ultrasonic Humidifier (H12)
- Ultrasonic Humidifier with Electronic RH sensor (H14)
- CO_2 enrichment package
- Self-contained water-cooled condensing unit
- Dry alarm contacts
- Extended temperature ranges available

  See other catalog sheets or consult factory for additional accessories.

convenience receptacles

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

electrical service requirements

- 115/1/60 - two grounded cords each with NEMA 5-20P plug provided
- Cord #1 RLA=11 & cord #2 RLA=12 (combined MCA=29)