

LED series

Percival® model LED-30HL1



applications

- This chamber is specifically designed for plant growth light quality studies and other experiments requiring specific wavelengths of light
- Many other applications exist for this product
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 color choices include cool white, red, far red, and blue LEDs
- Non-standard color choices include UV, warm white, full spectrum white, and green
- Each color is independently dimmable between 10-100%
- Programming and control of the lighting is done via IntellusUltra real time controller

cabinet construction

- Interior constructed of 22-gauge electro-zinc plated steel
- Exterior constructed of 18-gauge exterior electro-zinc plated steel
- Stainless steel floor
- Welded seams and joints on outer and inner shells
- Inner shell supported by non-compressing/non-thermal conducting material locking inner liner in place without a metal-to-metal bond to outer case
- Chamber is completely self-contained, suitable for stacking one above the other

LED-30HL1 specifications (subject to change without notice)

| Temp Range <small>with all lights on</small> | Interior Space <small>volume</small> | | Total Shelving <small>Floor Area</small> | | Maximum <small>Growing Height</small> | | Exterior Dimensions | | | | | | Light Intensity <small>6" from lamps unless otherwise noted</small> | Tiers | LED <small>Colors</small> |
|-------------------------------------------------|-----------------------------------------|-----------------|---------------------------------------------|-----------------|------------------------------------------|------|---------------------|-------|------|-------|------|--------|----------------------------------------------------------------------------|-------|------------------------------|
| | °C | ft ³ | m ³ | ft ² | m ² | in | cm | width | | depth | | height | | | |
| 10-44±0.5 | 9.7 | 0.3 | 3 | 0.3 | 22 | 55.9 | 31 | 78.7 | 25.8 | 65.4 | 46.1 | 117.2 | 1050 | 1 | 4* |

Each color independently dimmable. *Cool White + Red + Far Red + Blue combination.

LED series Percival model LED-30HL1

insulation

- Woodless construction using CFC free insulation (overall wall thickness is 2" [5.1 cm], ample insulation for maintenance of stated temperature range)

door

- One door opening 26.8" x 29.6" (67.9 cm x 75.2 cm) provides full access to the chamber interior (magnetic gasket provides a tight seal to door frame)

interior space

- 9.7 ft³ (0.3 m³) with work area of 3 ft² (0.3 m²) provided on one tier

shelving

- One tier of white epoxy coated steel wire shelving (shelf is 16.5"D x 26.5"W [41.9 cm x 67.3 cm])
- Shelf is supported by shelf clips allowing ½" vertical adjustments
- Maximum growing height is 22" (55.9 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 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
- Rear chamber wall mounted evaporator coil incorporates an air circulation fan (heat rejection to ambient [standard chamber] = 1800 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)
- CO₂ 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

- One 115/1/60 convenience receptacle provided inside chamber

electrical service requirements

- 115/1/60, RLA=13.4, MCA=16.8, for standard chamber without options
- Power cord and ground plug provided (NEMA 5-20P)



Percival Scientific, Inc.
505 Research Drive • Perry, IA 50220 USA
800.695.2743 • 515.465.9363 • Fax: 515.465.9464
www.percival-scientific.com