Technical Specifications

Technical Specs GC1000		
	Standard	**Option**
Temp. Range Lights ON Lights OFF	 0℃ to +50℃ 0℃ to +50℃	 - -10℃ to +50℃
Temp. Display Precision	0.1℃	
Temp. Fluctuation	±0.5℃	
Temp. Uniformity	±0.5℃	
Humidity Range Lights ON Lights OFF	 50% RH to 90% RH 50% RH to 90% RH	 40% RH to 90% RH 40% RH to 90% RH
Humidity Display Precision	0.1%RH	
Humidity Fluctuation	±2.0%RH	
Humidity Uniformity	±3.0%RH	
Temp. & Hum. Sensor	Equipped with VAISALA HMP60	
Control System	Programmable Man-Machine Interactive Control system with 7" Touch Screen	
Smart Phone APP Remote Control System	Equipped with smart phone APP remote control system	
Fresh Air System	Equipped with fresh air system	
Growing Space	790L	
Shelves	Equipped with 4 modular shelves	
Max. Growing Height	152 cm	
Lights & Intensity	LED lighting panels & 700μmol/m²/s (@10cm from the lights)	
Lights Color	Cool white	One/three/four/eighteen color(s)
CO_2	-	Ambient to 2000/5000 PPM
Electrical Supply	AC 220V ±5%, 50/60Hz, 15Amp	
Peak Power Consumption	3.3KW	
Warranty	24 months	

Note: Lights with a different spectrum are available on request

Product Overview/Applications

• Unit is specifically designed for plant growth light sufficiently for quality studies and other experiments requiring with specific wavelengths or full-spectrum wavelengths of light, capable of achieving extreme conditions of temperature, lighting levels and humidity. This product is well suit for research applications which requiring a high level of control in a relatively small footprint. In addition to customizable environmental control parameters, options are also available for growth height, gas levels. This chamber offers a maximum growth height of 59.8" (152cm) or a 27.3 ft^2 (2.54m^2) growth area.

• Many other applications exist for this product.

Lighting System

• This facilitates precise light intensity levels to be maintained throughout the life of experiment. Standard light intensity is 700 µmol/m^2/s (@10cm from the lights), which is measured by a quantum light meter and transmitted to the controller for user readout.

• Standard color choices include cool white, full-spectrum LEDs.

• Non-standard color choices include blue, red, far red, red-blue-far red combination, red-green-blue combination, red-blue-far red-white combination LEDs.

• Non-standard light intensity choices include 500/700/1000/1600 µmol/m^2/s (@10cm from the lights).

•The controller provides closed-loop PPFD adjustable lighting. Light intensity is dimmable regulated from 0%~100%

• Programming and control of the lighting is done via controller

Air Flow

Airflow for this chamber is distributed uniformly outward from back side of the wall and back through the air pump on top of the cabinet, which using horizontal-to-vertical air refresh system. Airflow is sufficiently to ensure uniformity. Fresh air intake can be adjustable.

Refrigeration

• Self-contained air-cooled condensing unit with hot air bypass system for continuous compressor operation, extended life and close temperature control. An electronic modulating valve provides tight temperature control while ensuring quiet operation. Pressure transducers are included for monitoring the status of the refrigeration system.

• Solenoid valves have extended stem for quiet and long-life operation.

• Rear chamber wall mounted evaporator coil incorporates an air circulation fan.

Safety Limit Controls

- Adjustable high and low temperature/humidity/pressure controls, audible alarms, and visual indicators display on the screen.
- Controls shut down all power to the chamber, activating alarms (when the temperature/humidity /pressure returns to the normal range, the system will automatically reset).
- Backup “high/low” alarms provide a further level of protection while visual and audible notification is provided when any alarm be activated. Contacts for connection to a remote management system are also included.

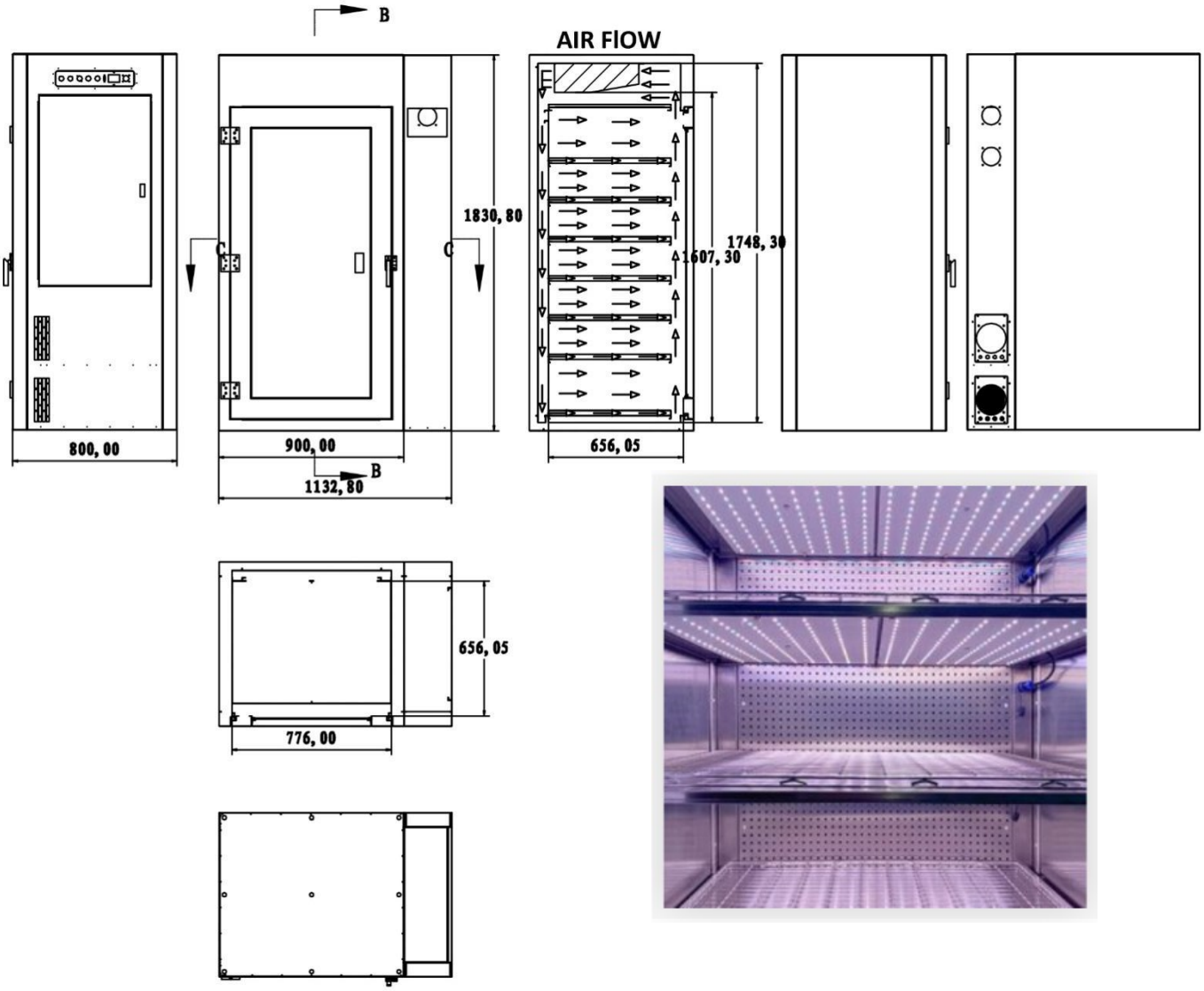
Key Product Attributes

- Counterbalanced Lighting system
- Standard lighting provides a wide spectrum at high intensity
- Certifications: ISO9001:2015, CE, RoHS, FCC, SPE-1000
- Temperature range: 0°C to +50°C
- Humidity range: 50% RH to 90% RH
- Programmable lighting conditions under regulated
- Temperature regulation with resistive temperature sensor
- Humidity regulation with capacitive humidity sensor and vapor humidification
  Software JPCS19V4 Basic Edition
- Equipped with smart phone APP remote control system
- Equipped with fresh air system
- LCD to display temperature and humidity along with additional information and alarms
- Independent temperature safety device with visual and audible temperature alarm
- Easily operate with reliable regulating system which works in tandem with an HMI (Human-Machine Interface) consisting of a touchscreen display
- Intuitive touchscreen controller with time-segment and real-time programming
- Internal data logger, measured values can be read out in open format via USB and includes graphing capability
- Flush-mounted door design for better air impermeability
- The chamber made of completely stainless steel (SUS304) inner parts and spraying carbon steel body shell
- Equipped with 4 stable castors and two with brakes, moveable to anywhere

CANDEN GC1000

Dimensions and Technical Drawings

Dimensions GC1000			
	Width	**Depth**	**Height**
Interior	30.6"	25.8"	61"
Exterior	45.8"	31.5"	76.4"
Packing	50"	35.4"	84.3"



Product Picture