Temperature range*	4°C to 60°C (Lights on)
%RH (optional)*	20% to 90% RH as limited by dew points
Temperature uniformity	± 1°C
% RH control (optional)	± 3%
Temperature control at sensor	± 0.2°C
Controller model	Standard FUJI PXF4 or optiona 4" watlow touchscreen
Control resolution	± 0.1°C
Cooling/Heating type	Thermoelectric/Peltier driven-for heating/Cooling
Chamber Volume in Cu. Ft	21.4 cu.ft
External Dimension-LXWXH	28″×31″×81″ (refer to drawing)
Internal Dimension-LXWXH	24″ x 27″ x 60″ (refer to drawing)- height includes plenum which is 5″H.
Shelf dimension	23.5” x 24.5”
Cabinet specs	Stainless interior and exterior construction
Lights /Growth height	LED lights with timer.3 level of lights- 100 to 300µmol/m2/s/ measured at 2" from light
Electrical requirement	115V/60hz/1ph, Unit plugs into standard wall outlet.
Shelf quantity, type	3 -6 per chamber/ additional shelves available, wire shelf- PVC coated with 4 installation clips. Shelf capacity- 100 lbs distributed load.
Weight specs	Chamber weight- 210lbs Shipping weight- 254 lbs

*Specifications are based on 20°C ambient and standard voltage. Specifications are subject to change without notice.

Chamber options:

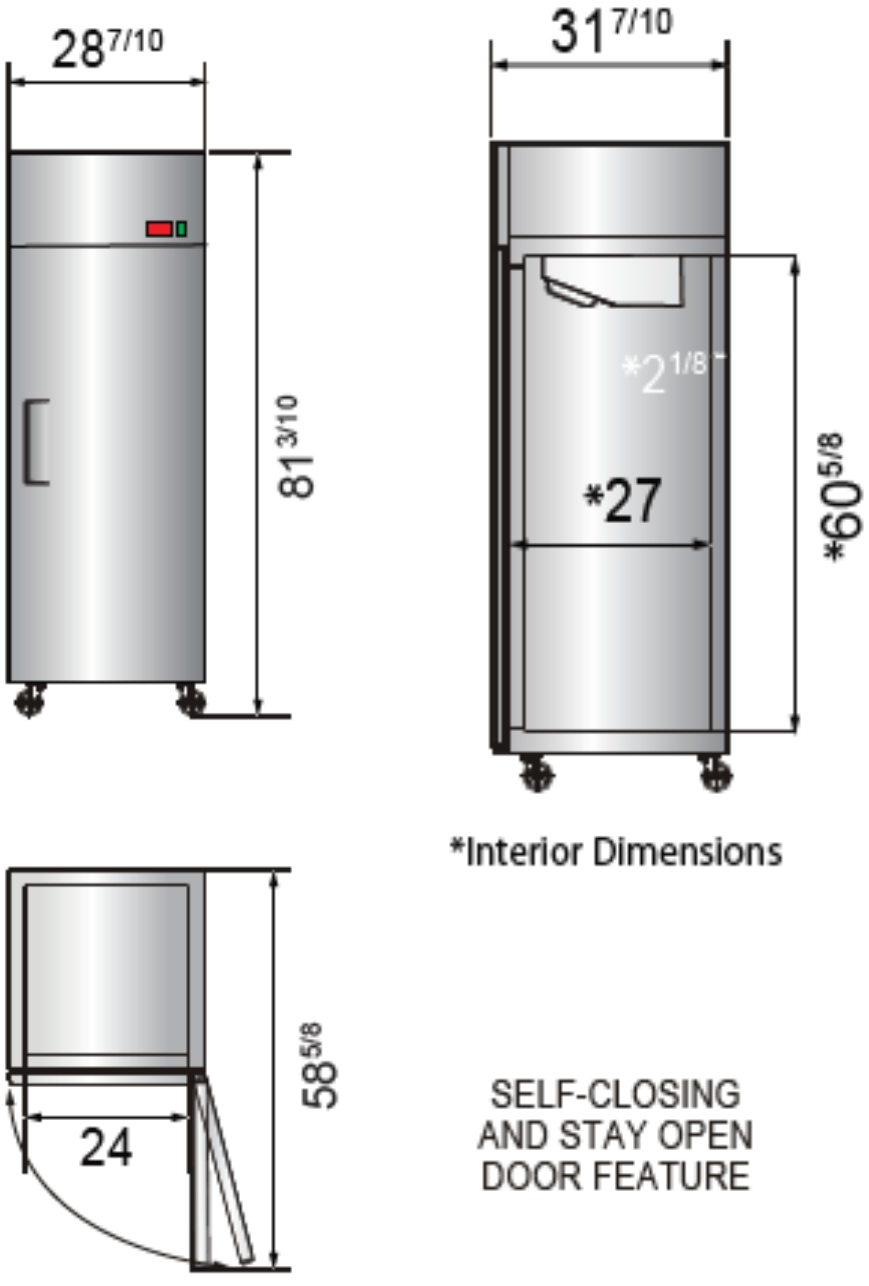
- Chart recorder
- Additional shelving
- Outlets
- Extended temperature ranges
- RO/DI water filtration system
- Water carboy
- Dehumidifier

Chamber features:
The GC20 one door plant growth chamber is designed for botanical and agricultural research applications including seed germination studies, plant pathology, and generic plant research. Chamber design accommodates plant, animal and culture studies, research and growth. Chamber features a digital Watlow, Fuji or equivalent
All of the Canden chambers interior are made out of premium stainless steel. Chamber has 2” thick CFC free insulation providing good thermal gradient. Door locks are standard in doors. Chambers comes with 2” access port with insulation plug-optional. Chamber also includes pre-installed casters capable of supporting 150-200lbs per caster. Chamber can hold up to 25 shelves.
Chamber uses thermoelectric assembly for heating and cooling. This type of cooling/heating system completely eliminates need for conventional refrigeration system and failures due to mechanical components such as compressors thereby drastically increasing the life expectancy of each chamber. Maintenance cost is also lowered by the thermoelectric/Peltier driven heating/cooling system. The chamber is quiet in operation. Back wall plenum on chambers ensures uniform distribution of conditioned air. Chamber temperature set points are tightly controlled using programmable Fuji or watlow model PID controller.

Light control:
JVR digital light timer which enables multiple timer setting per day/7 days a week. Chamber also comes with optional PWM Featured Manual light dimming feature. There is optional outlets inside the chamber to enable user to plug in other devices.
3 level of lighting is standard. LED Grow Light for Indoor Plants, Sun-Like Full Spectrum Panel Plant Light with IR & UV LED Bulbs for Seedling/Veg/Blooming/Succulents. Light intensity varies based on customer research- Typical led intensity is 100 to 300µmol m-2 s-1.

Humidity system:
Humidity control is optional. Humidity range is achieved via additive ultrasonic humidification, a controller with with factory calibrated %RH sensor. Humidifier is installed typically in the rear of the chamber and can be easily serviced or replaced. RO/DI system is recommended but not required as long as the water quality specification is met. Tap water should be fine. The humidifier comes with a 15’ ¼” polytube, shut off valve and quick disconnect fittings as well as a fitting to connect to water faucet.
Water quality specification:
Water conductivity greater then 0.1 µS,TDS of < 10 ppm and works in operating pressure range from 10psi to 80 psi"

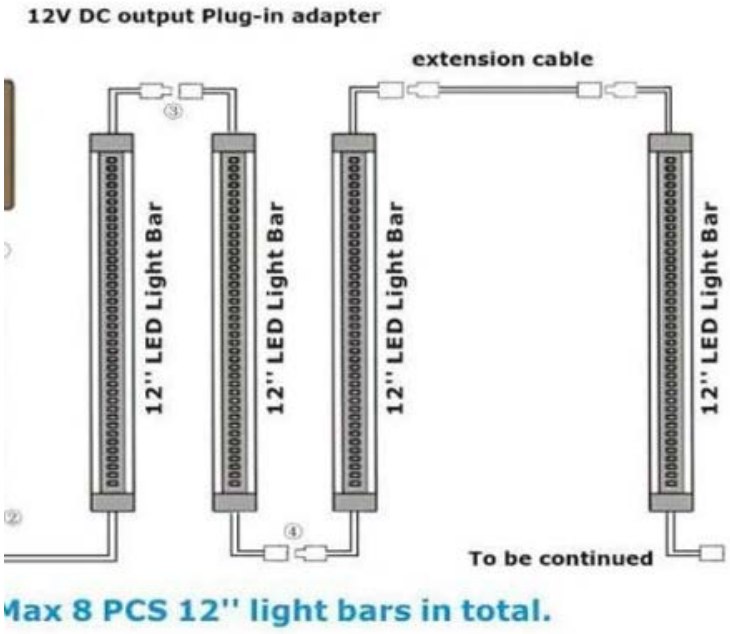
Co2 System-Optional
Chamber is equipped with Autopilot Co2 controller and Sensor. Co2 sensor can detect day/night cycle automatically turns on or off the Co2. Chamber comes standard with Co2 dual pressure gauge that shows inner/working pressure, solenoid valve (DC), bubble counter. Customer to supply CO2 tank.



*Interior Dimensions

SELF-CLOSING
AND STAY OPEN
DOOR FEATURE

Co2 System



Max 8 PCS 12'' light bars in total.

Technical Details Of Canden Light bank—CP2000 Led lights

Color	Black Cable-Daylight White 5000K
Material	Plastic end caps, PC diffusers, Aluminum
Control Method	JVR TIMER—ON/OFF
Light Source Type	LED
Finish Type	Natural Anodised
Shade Material	Polycarbonate
Voltage	12 VDC/24VDC
Shape	Linear
Wattage PER LIGHT	31 watts
Brightness	2000 Lumen
Mounting Type	Surface mounting

Shade Color	White
Area Lighting Classification	IP20
Finish types	Natural Anodised
Plug Format	Standard US plug
Batteries Included?	No
Batteries Required?	No
Wattage	31 Watts
Incandescent equivalent	200 Watts
Color Temperature	5000 Kelvin
Color Rendering Index (CRI)	80.00
Bulb Length	12 Inches
Lumen Maintenance Factor at the End of Life	0.7