

PLANT GROWTH CHAMBERS

SINGLE-DOOR LARGE CAPACITY



PRODUCT LINE OVERVIEW & FEATURES

PLANT GROWTH CHAMBERS DESIGNED FOR A WIDE RANGE OF APPLICATIONS

Caron's full line of Plant Growth Chambers provides precision environmental conditions for the growth of vibrant, healthy plants. Our chambers deliver the most accurately controlled conditions for optimum plant research and repeatable, reliable results.

These chambers provide balanced spectrum lighting using Caron's gLux™ high efficiency fluorescent lamps, and uniform temperature distribution through directed airflow across shelves. Light banks are modular, expandable, waterproof, and precisely spaced for uniformed, balanced light spectrum across all locations.

Applications include:

- General plant growth, for medium and tall specimen rearing
- Arabidopsis/algae growth
- Plant tissue culture
- Seed germination

Each chamber is tailored to a specific application, with growth space, lighting type and climactic conditions. See the specifications chart and options list to select the right chamber for your need.



Caron is committed to designing environmentally efficient products that save energy and money. Unlike competing units with constant-on refrigeration, our gROD™ Refrigeration-on-Demand control system operates only when needed to maintain setpoint temperature. Chamber insulation is efficient high R, CFC-free foam, for high thermal retention, and reduced load on your lab's HVAC system.

BENEFITS

Plant-Perfect Performance

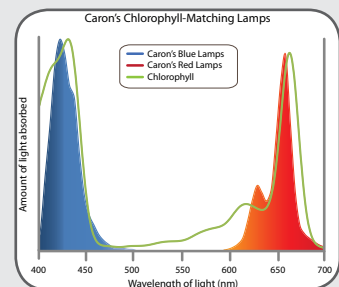
- Highly uniform growth conditions through horizontal airflow system
- gLux lights 10% brighter than conventional systems
- No disruptive defrost cycle or temperature spikes, 24/7

Easy to Use and Maintain

- Powerful, yet simple to program, touchscreen controller
- Tool-free interior removal for quick and convenient cleaning
- Front access filter & electronics minimize wasted service access space

Efficient to Operate

- gROD Refrigeration on Demand saves electricity vs. constant-on systems
- gLux light tubes last up to twice as long as conventional bulbs
- Available red/blue spectrum bulbs for more growth from the same power



PLANT GROWTH MODELS

MODEL 7302 PLANT GROWTH: *Maximum Growth Height, Highest Light Levels*

Ideal for experiments with cereal crops, shrubs, saplings and horticulture plants and pharmaceutical development of medicinal plants. Dimmable/programmable lights with intensity display are standard.



Model	7302-22 (22 ft ³ , 1-Door/Section)
Light Intensity	1,200 $\mu\text{moles/m}^2/\text{s}$
Growth Height	50.5"
Shelf/Growth Area	4 ft ²
Number of Shelves	1
Lamps per Shelf	6
Lamps Total	6
Independent Circuits	1
Dimmable Lights & Intensity Display	Standard

MODEL 7300 PLANT GROWTH: *Maximum Growth Height, High Light Levels*

Ideal for experiments with cereal crops, shrubs, saplings and horticulture plants, general plant growth experiments and standard plant production.

Model/Size	7300-22 (22 ft ³ , 1-Door/Section)
Light Intensity	500 $\mu\text{moles/m}^2/\text{s}$
Growth Height	50.5"
Shelf/Growth Area	4 ft ²
Number of Shelves	1
Lamps per Shelf	8
Lamps Total	8
Independent Circuits	1
Dimmable Lights & Intensity Display	Optional: LGHT325



MODEL 7301 PLANT GROWTH: *Maximum Growth Area, High Light Levels*

Two-tier configuration maximizes area for general plant growth experiments and standard plant production.



Model/Size	7301-22 (22 ft ³ , 1-Door/Section)
Light Intensity	500 $\mu\text{moles/m}^2/\text{s}$
Growth Height	23.5"/25.5"
Shelf/Growth Area	8 ft ²
Number of Shelves	2
Lamps per Shelf	8
Lamps Total	16
Independent Circuits	1
Dimmable Lights & Intensity Display	Optional: LGHT326

ARABIDOPSIS/ALGAE MODELS

MODEL 7303 ARABIDOPSIS/ALGAE: *Maximum Growth Height, Medium Light Levels*

Ideal for algae production, genetic studies involving Arabidopsis, plant physiology and early growth studies.



Model	7303-22 (22 ft ³ , 1-Door/Section)
Light Intensity	300 $\mu\text{moles/m}^2/\text{s}$
Growth Height	23.5'/25.5"
Shelf/Growth Area	8 ft ²
Number of Shelves	2
Lamps per Shelf	6
Lamps Total	12
Independent Circuits	1
Dimmable Lights & Intensity Display	Optional: LGHT327

MODEL 7304 ARABIDOPSIS/ALGAE: *Balance Between Growth Height & Area, Medium Light Levels*

Three-tier design maximizes growth area for algae production, genetic studies involving Arabidopsis, plant physiology and early growth studies.

Model	7304-22 (22 ft ³ , 1-Door/Section)
Light Intensity	300 $\mu\text{moles/m}^2/\text{s}$
Growth Height	14.5"
Shelf/Growth Area	12 ft ²
Number of Shelves	3
Lamps per Shelf	6
Lamps Total	18
Independent Circuits	1
Dimmable Lights & Intensity Display	Optional: LGHT328



TISSUE CULTURE/SEED GERMINATION

MODEL 7305 TISSUE CULTURE/AE: *Maximum Culture Area, Low Light Levels*

Ideal for rapid seedling culture from a single host plant.



Model	7305-22 (22 ft ³ , 1-Door/Section)
Light Intensity	150 $\mu\text{moles/m}^2/\text{s}$
Growth Height	6.5"/4.5"
Shelf/Growth Area	24 ft ²
Number of Shelves	6
Lamps per Shelf	2
Lamps Total	12
Independent Circuits	1
Dimmable Lights & Intensity Display	N/A

MODEL 7306 SEED GERMINATION: *Maximum Germination Area, Low Light Levels*

Multi-tier design maximizes shelf area for seed germination.

Model	7306-22 (22 ft ³ , 1-Door/Section)
Light Intensity	60 $\mu\text{moles/m}^2/\text{s}$
Growth Height	6"/4"
Shelf/Growth Area	48 ft ²
Number of Shelves	12
Lamps per Shelf	Shared arrays
Lamps Total	12 LED arrays
Independent Circuits	1
Dimmable Lights & Intensity Display	N/A



MULTIPLE OPTIONS FOR ALL MODELS

Remote alarm contacts provide NO/NC	ALRM302	Blue light produces high quantities of chlorophyll-absorbing light in the 420 nm range (set of four)*	LGHT308
IR-CO ₂ Control from ambient to 20%	CO2C302	Red light produces high quantities of chlorophyll-absorbing light in the 660 nm range (set of four)*	LGHT309
Condensate Recirculating system: provides a pure water source for chambers with the humidity option	CRSY102	Universal analog output (0-5V, 4-20mA) provides one connection for monitoring temp	OUTP301
Humidity control from ambient to 85% for 22 ft ³ chambers	HUMD308	Universal analog output (0-5V, 4-20mA) provides two connections for monitoring temp & humidity	OUTP302
Condensate drain pump	PUMP301	6" door mounted chart recorder, temp only	RCDR316
Installation and startup of equipment	INST001	6" door mounted chart recorder, temp & humidity	RCDR317
Additional access port	PORT304	10" door mounted chart recorder, temp only	RCDR318
Additional cool white 24W gLux fluorescent lamps (set of four)*	LGHT310	10" door mounted chart recorder, temp & humidity	RCDR319
Additional cool white 80W gLux fluorescent lamps (set of four) for 7302 models	LGHT319		
Grow lamps mimic the sun's daylight and enhance plant growth, 6500K color temperature (set of four)*	LGHT306		
Bloom lamps provide optimal light spectrum to produce abundant fruit & flowers, 2900K color temperature (set of four)*	LGHT307		

*Denotes light packages for models: 7300, 7301, 7303 and 7304 only.

CHAMBER SPECIFICATIONS

Models: One-Door	7300-22-1 7300-22-2 7300-22-3	7301-22-1 7301-22-2 7301-22-3	7302-22-1 7302-22-2 7302-22-3	7303-22-1 7303-22-2 7303-22-3	7304-22-1 7304-22-2 7304-22-3	7305-22-1 7305-22-2 7305-22-3	7306-22-1 7306-22-2 7306-22-3
Light Intensity, $\mu\text{moles}/\text{m}^2/\text{s}^*$	500	500	1,200	300	300	150	60
Shelves Total	1	2	1	2	3	6	12
Shelf Area (ft ²)	4	8	4	8	12	24	48
Shelf Construction, Dimensions	Type 304 Stainless Steel, Electro polished, 21.6"W x 26.5"D (55 cm x 67 cm)						
Growth Height (inches)	50.5	23.5/25.5	50.5	23.5/25.5	14.5	6.5/4.5	6/4
Temp. Range (lights off)	5°C to 50°C						
Temp. Range (lights on)	10°C to 50°C		13°C to 50°C		10°C to 50°C		
Temp. Sensor & Control	3-wire RTD, \pm 0.2°C						
Interior Dimensions	22.5" W x 28.5" D x 57.8" H (57 cm x 72 cm x 146 cm)						
Interior/Exterior Construction	Stainless Steel						
Exterior Dimensions	30" W x 35.1" D** x 81.5" H (76 cm x 89 cm x 207 cm)						
Work Space	22 ft ³ (623 Liters)						
Electrical	115V, 60Hz, 16A 208/230A,60Hz,10A 230V, 50Hz, 8A	115V, 60Hz, 16A 208/230A,60Hz,10A 230V, 50Hz, 8A	115V, 60Hz, 16A 208/230A,60Hz,10A 230V, 50Hz, 8A	115V, 60Hz, 16A 208/230A,60Hz,10A 230V, 50Hz, 8A	115V, 60Hz, 16A 208/230A,60Hz,10A 230V, 50Hz, 8A	115V, 60Hz, 16A 208/230A,60Hz,10A 230V, 50Hz, 8A	115V, 60Hz, 16A 208/230A,60Hz,10A 230V, 50Hz, 8A
Shipping Weight, lbs.	550/700***	550/700***	550/700***	550/700***	550/700***	550/700***	550/700***

Note: Specifications are subject to change without notice. Light intensity will vary with interior temperature. Specifications were established with 20°C ambient. *Measured 6" from light source, 4" on 7306 models. **Add 2.75" for handle. Fits through a 33.5" standard door opening with door assembly and front panel removed. ***220V, 50Hz versions, includes export shipping crate.