

PERCIVAL

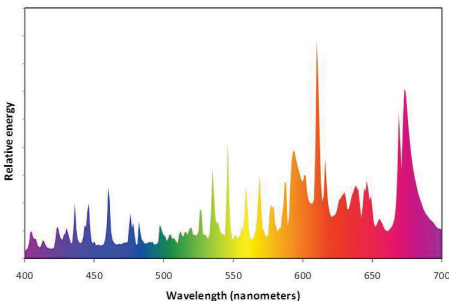
The **PGC-20ALB** Plant Growth Chamber

Featuring

All-Bright™ 315W
UNIFORM ENERGY EFFICIENT LIGHTING

The Percival **PGC-20ALB** plant growth chamber is a low cost alternative to walk-in chambers, offering increased energy savings and improved light and temperature uniformity, all while being easy to maintain and own.

Exclusive to Percival Scientific and the **PGC-20ALB** chamber is GreenBeams **ALL-BRIGHT™ 315W** lamp system.



GREENBEAMS TECHNOLOGY

The GreenBeams **ALL-BRIGHT™ 315W**, by Cycloptics Technologies, uses a patent-pending reflector design which incorporates an innovative beam pattern to shape and direct the light emitted from a horticulture-specific 315W HID lamp.



PGC-20ALB

BENEFITS OF THE PGC-20ALB WITH ALL-BRIGHT™ 315W TECHNOLOGY



Ownership Savings

- 70% less expensive to operate than equivalent chambers with conventional fluorescent lamps
- Requires less power to operate
- A smaller condensing unit allows you to reduce large installation and operation costs associated with traditional water-cooled and remote condensing units

Easier on the Environment

- The unparalleled energy efficiency of the Phillips Elite ARGO 315W lamps in the model PGC-20 ALB equates to energy savings of \$4,447 per year at \$0.10 kWh compared to a standard PGC-20L Percival chamber
- Using three Phillips Elite ARGO 315W bulbs means less time replacing lamps and fewer discarded lamps in the environment
- Less noise disturbance in your research area

PGC-20 CHAMBER COMPARISON BETWEEN FLUORESCENT AND ALL-BRIGHT™ 315W LAMPS

PERCIVAL MODEL	PGC-20L	PGC-20ALB
Lighting System	Fluorescents	All-Bright 315W
Minimum Temperature °C (Lights on)	10	10
Maximum Temperature °C (Lights on)	44	44
Exterior Chamber width (inches)	100.5	100.5
Exterior Chamber depth (inches)	40.6	40.6
Exterior Chamber height (inches)	111	107.3
Interior Chamber width (inches)	96.5	89.25
Interior Chamber depth (inches)	30	32
Interior Chamber height (inches)	65	82
Interior Volume (ft³)	109	135.5
Number of tiers	1	1
Growth Area (ft²)	20.1	19.8
Growth Height	65	82
"PAR at chamber center @ 24"" (µmoles/m²/sec)"	760	750
"PAR at chamber center @ 36"" (µmoles/m²/sec)"	580	652
"PAR at chamber center @ 48"" (µmoles/m²/sec)"	470	559
Power requirements with lights on (KW)	8.77	2.6
Power requirements with lights off (KW)	5.16	1.61
Photoperiod [lights on (hours)]	14	14
Annual energy consumption (kWh)	63643	19170
Electrical rates (\$/kWh)	0.1	0.1
Annual electrical operating cost	\$6,364	\$1,917
Annual electrical operating cost savings	-\$4,447	\$4,447
Heat rejection to ambient	15900	6500
Condensing unit size (hp)	2	1/2

Increased Temperature and Light Uniformity

- Perforated bench section produces uniform, upward air flow
- High efficiency lamps maximize light intensity while minimizing lamp wattage (heat)
- Encapsulated lamp canopy with transparent barriers utilizes a fresh air exchange to lessen the impact of lamp heat on the temperature uniformity in the growing space

Effortless Maintenance

- Evaporation coil(s), heater(s) and air circulation fans are located behind inner access panels for easy access
- Top panels are easily removable to allow quick access from all sides to the condensing unit and lighting components
- Perforated bench sections are easily removable for cleaning and floor drain access
- Lower overhead clearance required for installation

FOR MORE INFORMATION

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