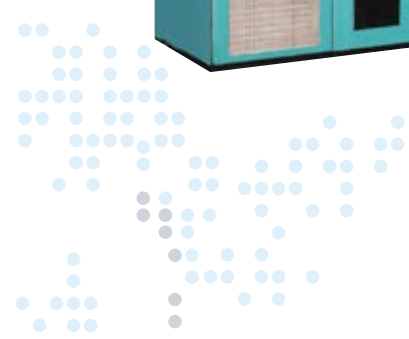




# E8 REACH-IN

PLANT GROWTH

DATA SHEET



# E8 REACH-IN



## PLANT GROWTH

### Product Overview/Applications

The E8 is a highly customizable plant growth chamber capable of achieving extreme conditions of temperature, lighting levels, and humidity. The product is well suited for research applications 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, and a variety of refrigeration configurations. The E8 offers a minimum growth height of 46" (1180mm) in an 8 ft<sup>2</sup> (0.74m<sup>2</sup>) growth area. Please consult Conviron for your specific requirements.

### Lighting

The standard lighting system for the E8 employs a counterbalanced light canopy. This facilitates precise light intensity levels to be maintained throughout the life of the experiment. A balanced light spectrum for plant growth is achieved with a combination of T8 fluorescent and halogen incandescent lamps with options for other lamp types. Standard light intensity is 575 micromoles/m<sup>2</sup>/s which is measured by a quantum light meter and transmitted to the controller for user readout. Standard lighting control includes four levels per lamp type while higher intensity levels and control are available.

### Airflow

Airflow for the E8 is distributed uniformly upward using Conviron's innovative *Uniflow*<sup>®</sup> air distribution plenum. Airflow is sufficient to ensure uniformity as well as proper gas exchange at the leaf surface. Fresh air intake can be adjusted up to 10ft<sup>3</sup>/min (0.28m<sup>3</sup>/min) which also helps to ensure adequate ambient gas exchange.

Cooling is provided by a self-contained air-cooled condensing unit with hot gas bypass for continuous compressor operation. An electronic modulating valve provides tight temperature control while ensuring quiet operation. Pressure transducers are included for monitoring the status of the refrigeration system. Consult the factory for heat rejection information and other options for cooling.

### Experiment Protection

User programmable "set and forget" alarms track the chamber's operation versus user-defined set points. This allows for exceptionally accurate monitoring without the need for adjustment every time the set point is redefined. Backup "high/low" alarms provide a further level of protection while visual and audible notification is provided when any alarm is activated. Contacts for connection to a building management system are also included.

### Key Product Attributes

- Counterbalanced lighting system
- Standard lighting provides a wide spectrum at high intensity
- Extreme environmental conditions are available via configurable options
- Shipped fully assembled – fits through standard doorways
- Product certifications/markings; <sub>c</sub>CSA<sub>US</sub> (NRTL), CE



### Performance Data

Temperature Range (°C)	Interior Capacity	Growth Area	Growth Height	Exterior Dimensions (WxDxH)	Light Intensities (6in. from lamp)	Electrical Service	Weight
10 – 45 lights on	32ft <sup>3</sup>	8ft <sup>2</sup>	46"	71.25" x 29.5" x 76.25"	575 μmoles/m <sup>2</sup> /s	120/208-1Ø-60Hz	990lb
4 – 45 lights off	900L	0.74m <sup>2</sup>	1180mm	1810 x 750 x 1935 (mm)	@ 25°C	220/240-1Ø-50Hz	449kg

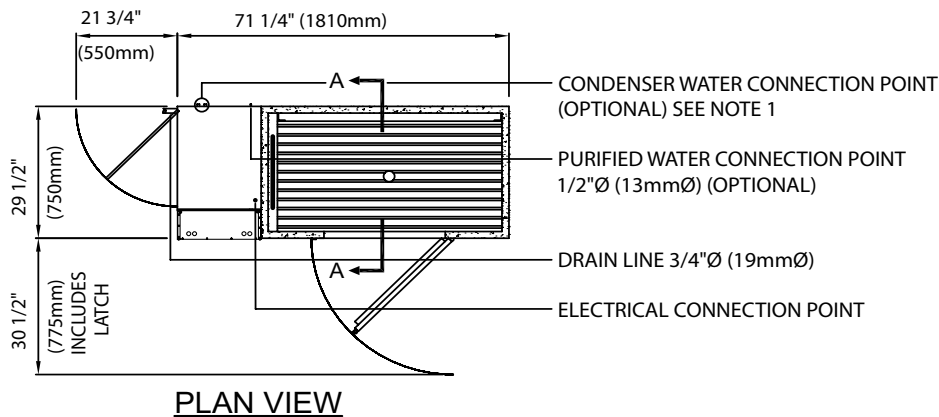
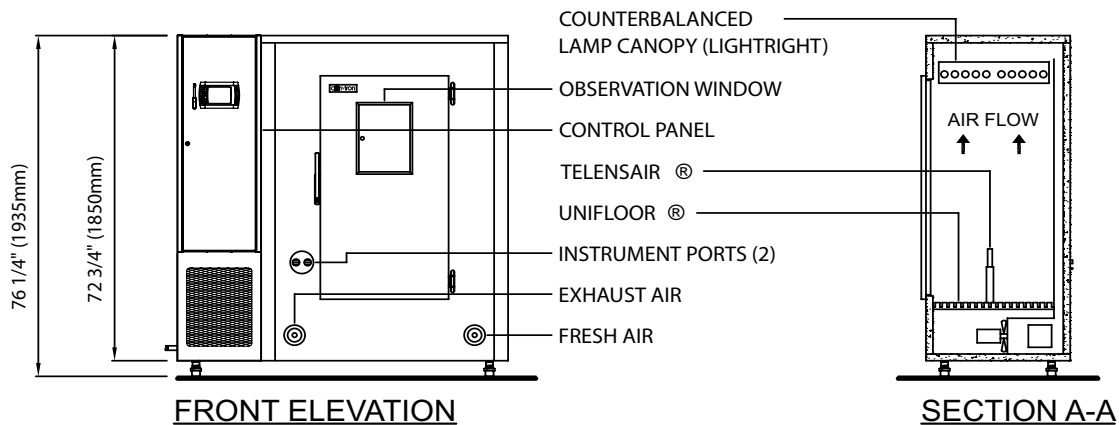
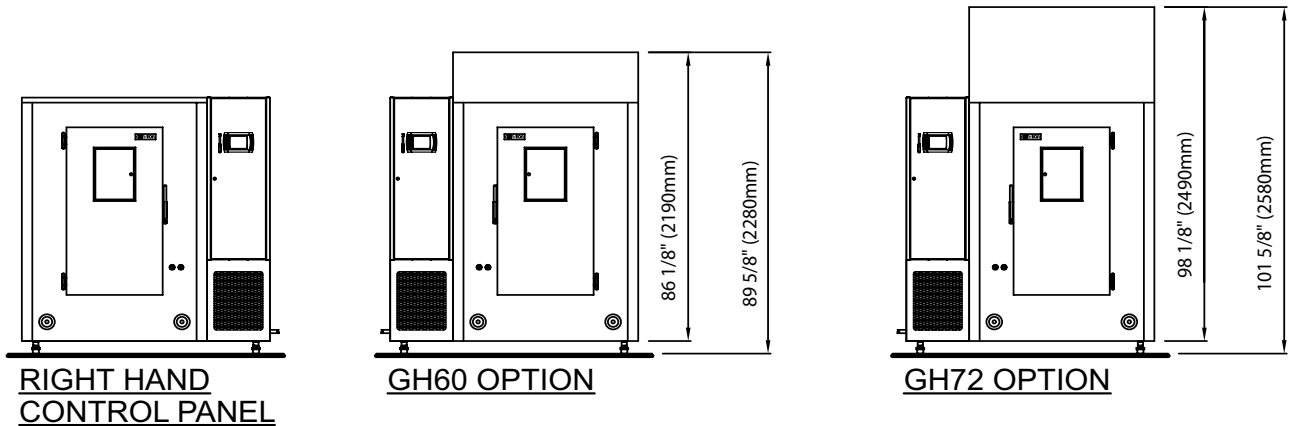
# CONVIRON MODEL E8

## PLANT GROWTH CHAMBER



### NOTES:

1. STANDARD REFRIGERATION SYSTEM IS SELF-CONTAINED AIR-COOLED. WATER COOLED REFRIGERATION (1/2"Ø (13mmØ) CONNECTION) IS OPTIONAL.
2. REQUIRE A MINIMUM OF 2" (51mm) FROM REAR OF CHAMBER TO BACK WALL.
3. CASTER OPTION ADDS 2" (51mm) TO OVERALL HEIGHT OF CHAMBER.
4. DEPTH DIMENSION IS CHAMBER SIZE ONLY. DIMENSION DOES NOT INCLUDE DOOR LATCH OR PIPING ON BACK WALL.
5. LENGTH AND WIDTH DIMENSIONS ±1/4 (6mm). HEIGHT DIMENSION ±1" (25mm). DO NOT SCALE DRAWING.



### E8 PLANT GROWTH CHAMBER

DRAWING NO. 231162

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