

GR Series

Walk-in
Growth Room



CONVIRON[®]

GR SERIES Walk-in Growth Room

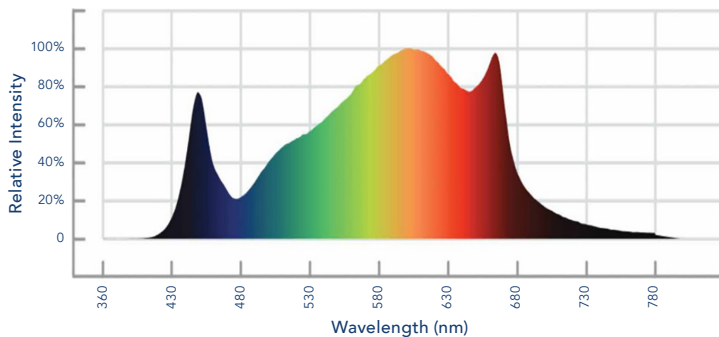
Product Overview

The GR series of walk-in rooms feature high intensity, energy efficient LED lights and a downward airflow design that is redirected up through the plants. The temperature range is narrower than on other Conviron walk-in chambers which affords greater energy efficiency and economy. The GR is available in six standard sizes.

Lighting

The standard package for the GR consists of energy saving LEDs that provide a broad-based light spectrum. The fixed lamp canopy delivers light intensity of 1,200 $\mu\text{mol}/\text{m}^2/\text{s}$ measured at 39" (1 m). Full intensity control is available at the user interface with light output measured by a full-spectrum Apogee Quantum light sensor that automatically adjusts depending on user requirements.

LED Spectrum



Airflow

The airflow design directs air downward along the center aisle way. Air is then redirected returning upward between the plants and through the lamp canopies. Filtered and adjustable fresh air intake enables researchers to exchange air to the chamber in a controlled manner.

Performance Data

| | Temperature Range (°C) | Interior Capacity | Growth Area | Growth Height | Exterior Dimensions (WxDxH) | Light Intensities 39" (1m) from lamp | Electrical Service |
|--------------|--|-----------------------------------|---|------------------|--|--|------------------------------------|
| GR48 | 15 – 35 lights on 5 – 25 lights off | 320 ft ³ (9130 L) | 48 ft ² (4.5 m ²) | 85" (2160 mm) | 9'8" x 9'8" x 9'1 9/16" 2950 x 2950 x 2785 (mm) | 1200 $\mu\text{moles}/\text{m}^2/\text{s}$ @ 25°C | 120/208-3Ø-60Hz 230/400-3Ø-50Hz |
| GR64 | | 420 ft ³ (11980 L) | 64 ft ² (5.9 m ²) | | 11'7" x 9'8" x 9'1 9/16" 3530 x 2950 x 2785 (mm) | | |
| GR96 | | 640 ft ³ (18120 L) | 96 ft ² (8.9 m ²) | | 9'8" x 17'4" x 9'1 9/16" 2950 x 5285 x 2785 (mm) | | |
| GR128 | | 850 ft ³ (23960 L) | 128 ft ² (11.9 m ²) | | 11'7" x 17'4" x 9'1 9/16" 3530 x 5285 x 2785 (mm) | | |
| GR144 | | 960 ft ³ (26800 L) | 144 ft ² (13.4 m ²) | | 9'8" x 25'0" x 9'1 9/16" 2950 x 7620 x 2785 (mm) | | |
| GR192 | | 1280 ft ³ (36000 L) | 192 ft ² (17.8 m ²) | | 11'7" x 25'0" x 9'1 9/16" 3530 x 7620 x 2785 (mm) | | |

Refrigeration

Cooling for the GR series is provided by a self-contained water-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. Alternative refrigeration methods are available depending on site-specific and/or user-defined requirements. Consult the factory for heat rejection information and other refrigeration options.

Experiment Protection

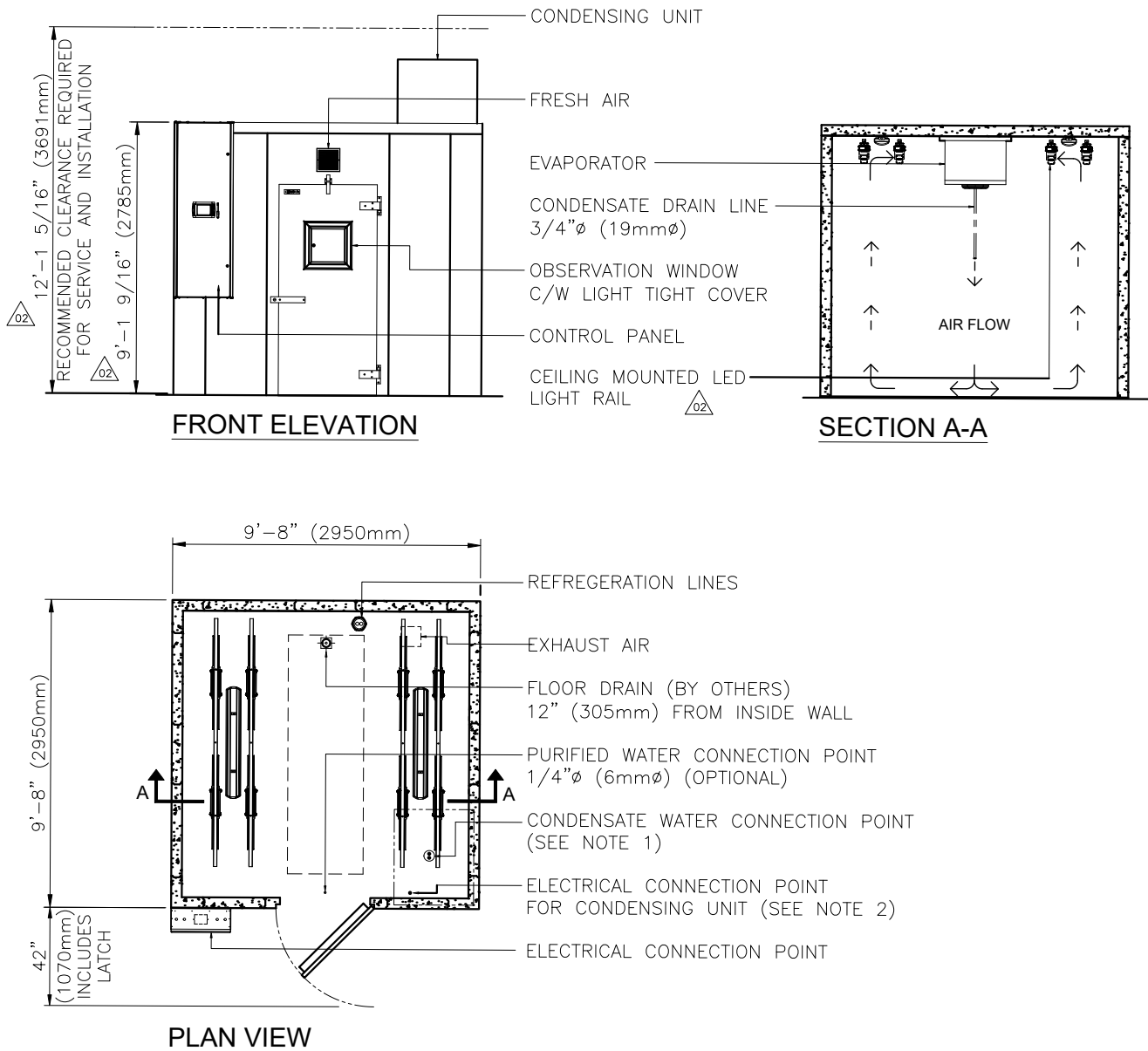
User programmable "set and forget" alarms track actual vs. user-defined setpoints. This allows for exceptionally accurate monitoring without the need for adjustment every time the set point is redefined. Backup "high/low" alarms provide further protection while visual and audible notification is provided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



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NOTES:

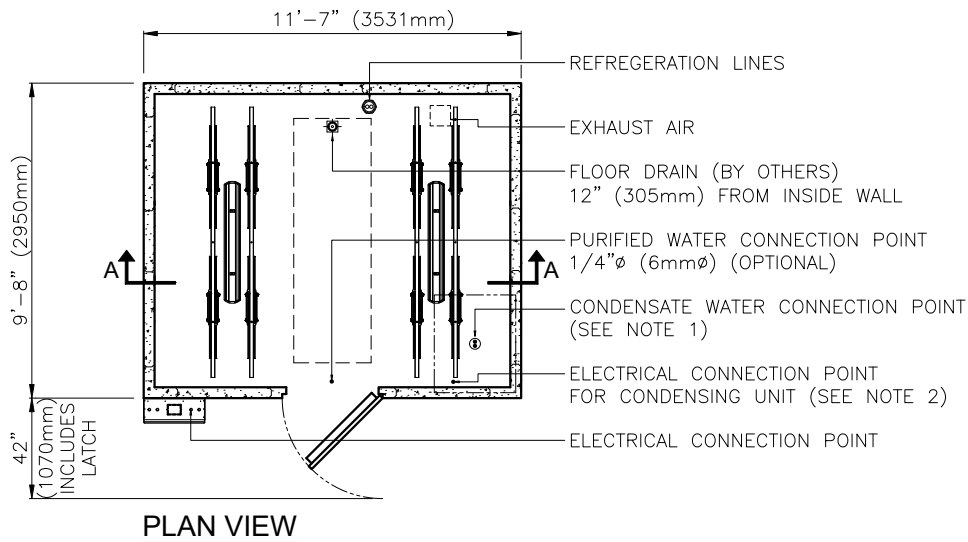
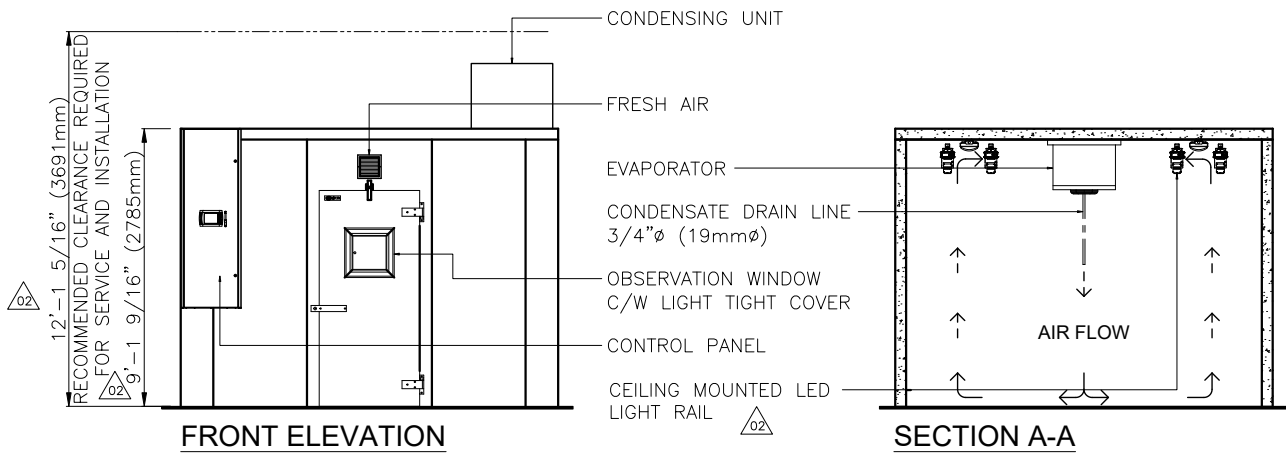
1. STANDARD REFRIGERATION SYSTEM IS WATER COOLED ($3/4"$ ($19\text{mm}\phi$) CONNECTION).
2. CONDENSING UNIT REQUIRES SEPERATE ELECTRICAL SERVICE (60HZ APPLICATION ONLY).
3. DEPTH DIMENSION IS CHAMBER SIZE ONLY. DIMENSION DOES NOT INCLUDE DOOR LATCH.
4. LENGTH AND WIDTH DIMENSIONS $\pm 1/4$ (6mm). HEIGHT DIMENSION $\pm 1"$ (25mm).



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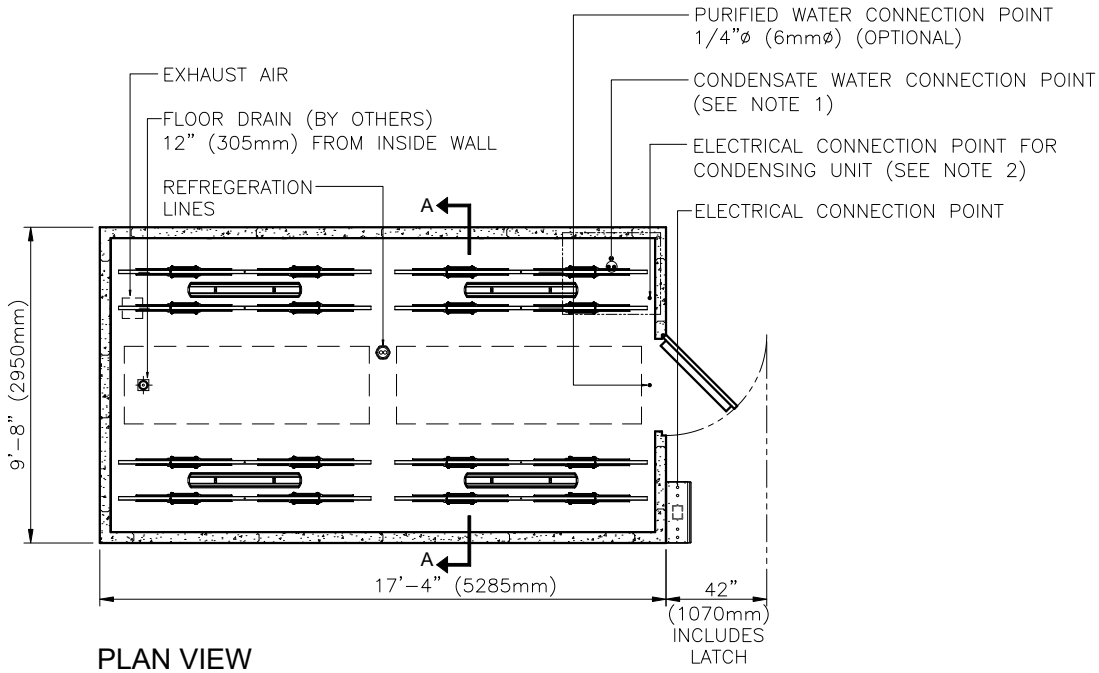
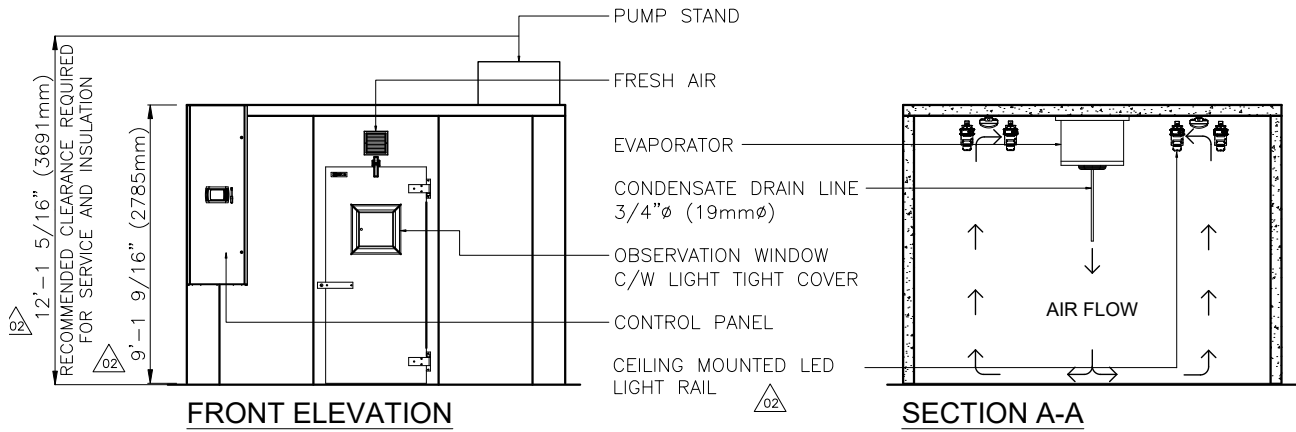
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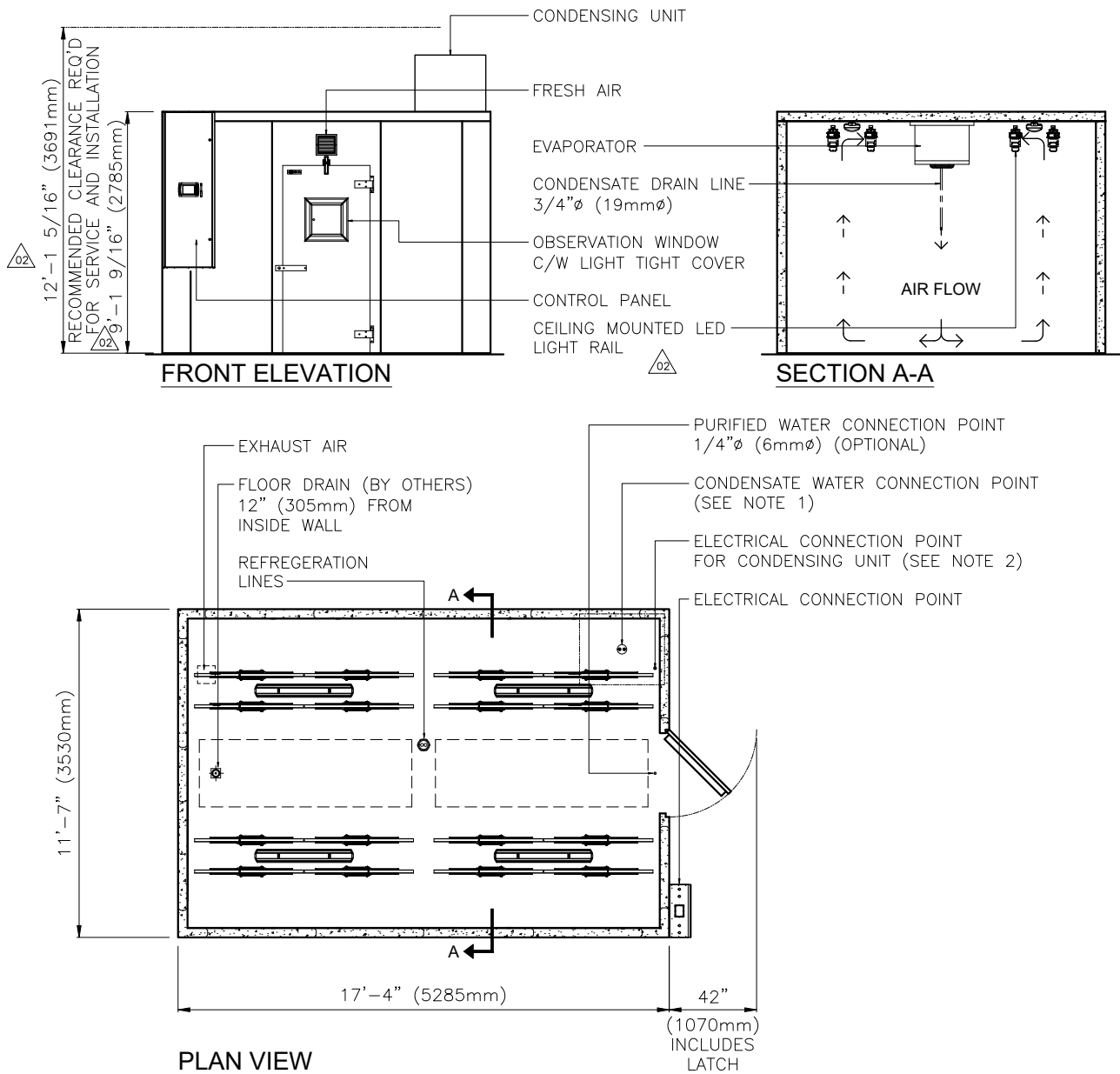
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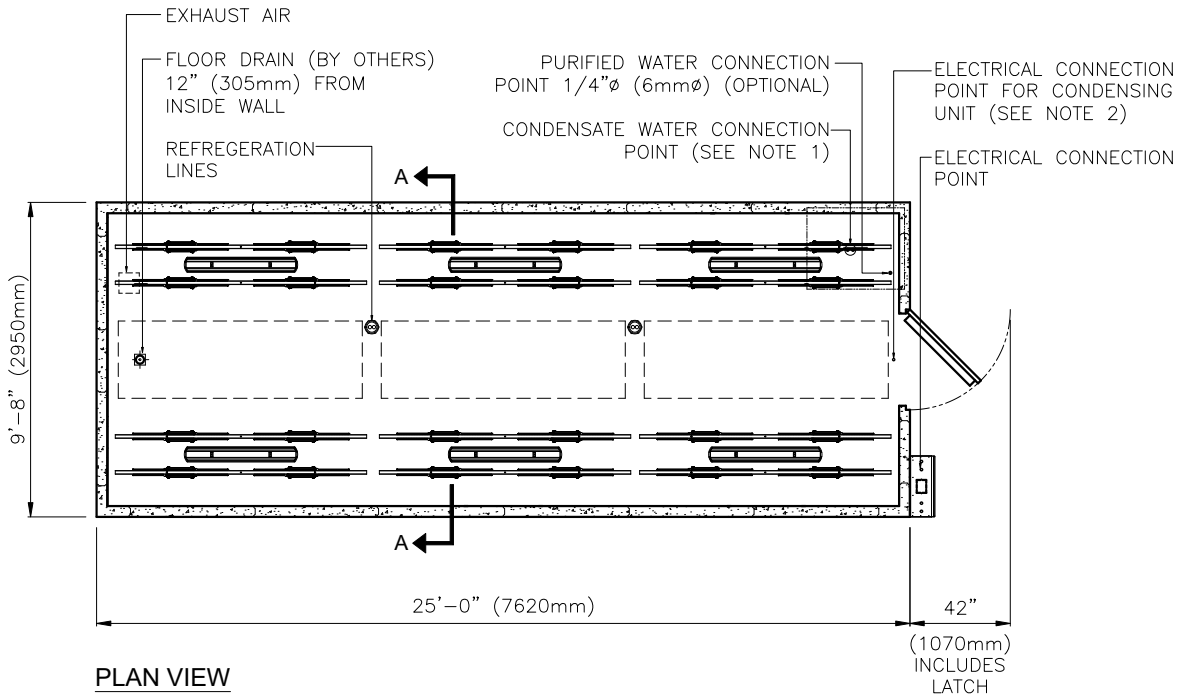
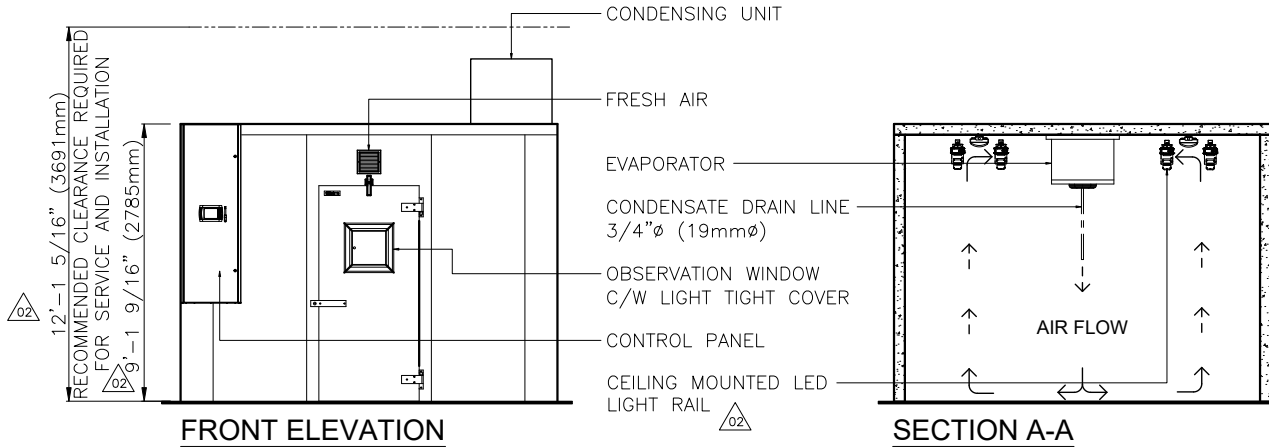
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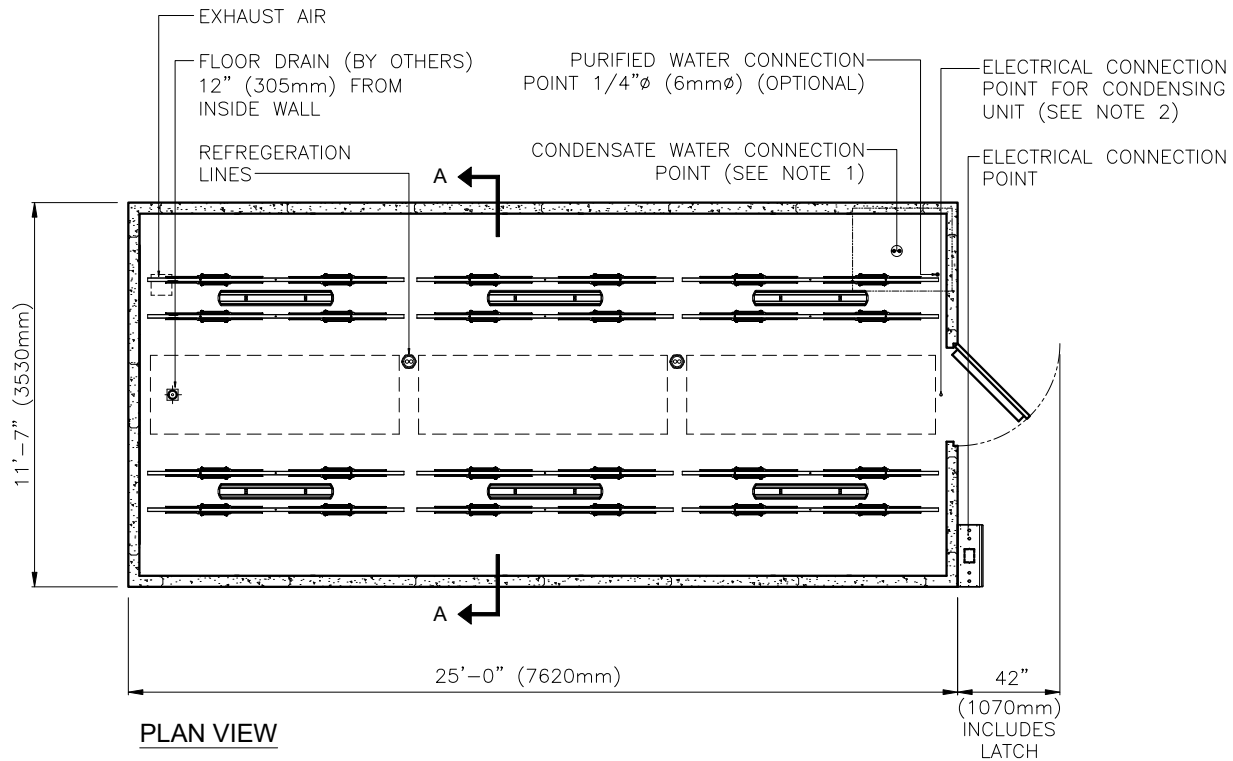
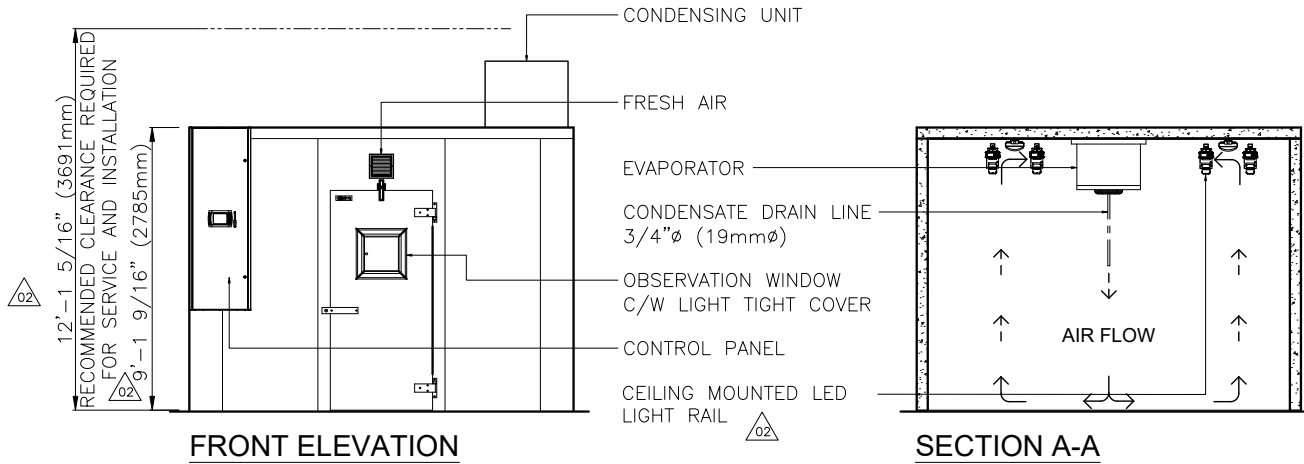
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GR192 Walk-in Growth Room

Drawing No. 231183 R02

CE TÜV Management System Certified to ISO 9001

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REF: GR Series, 2024, MK0259, Rev 31
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