



*Quality People. Building Solutions.*

Comfort Systems USA (Arkansas), Inc.  
P.O. Box 16620  
Little Rock, AR 72231  
Phone 501-834-3320  
Fax 501-834-5416

**Date:** 2/4/2025

**Return Request:** 2/14/2025

**Project:** City Of Sherwood Public Works (Administration Building)

**Supplier:** Harrison Energy Partners

**Manufacturer:** Lennox

**Submittal:** Packaged Rooftop Units (PAHU-1,2)

**Submittal Number:** 23 62 13-01

**Drawing # and Installation:** Mechanical Drawings

**ARCHITECT**

Cromwell  
1300 East 6<sup>th</sup> Street  
Little Rock, AR 72202  
501-372-2900

**ENGINEER**

Cromwell  
1300 East 6<sup>th</sup> Street  
Little Rock, AR 72202  
501-372-2900

**GENERAL CONTRACTOR**

Baldwin & Shell  
1000 W. Capitol Ave.  
Little Rock, AR 72201  
501-374-8677

**MECHANICAL SUBCONTRACTOR**

Comfort Systems USA (Arkansas), Inc.  
9924 Landers Rd.  
N. Little Rock, AR 72117  
501-834-3320

Notes:

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**CSUSA PROJECT NO.**

**24-6084**

[sean@comfortar.com](mailto:sean@comfortar.com)

9924 Landers Rd.  
No. Little Rock, AR 72117



# Submittal

**Prepared For:**  
Cromwell Architects Engineers

**Date:**  
12/10/2024

**Sold To:**  
Comfort Systems USA

**Job Name:**  
Sherwood Public Works

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Harrison Energy Partners is pleased to provide the enclosed submittal for your review and approval.

Qty.	Product Summary
3	Rooftop Package Units (PAHU-1,2 & PAHU-1)

Admin Bldg.

Josh Robinson, New Systems Sales  
501-539-0633 • [harrisonenergy.com](http://harrisonenergy.com)  
**Harrison** Energy Partners • Commercial HVAC Excellence  
1501 Westpark Dr., Ste. 9 • Little Rock, AR 72204

*The attached information describes the equipment we propose to furnish for this project and is submitted for your approval.*

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**Lennox Rooftop Package Units (PAHU-1,2 (Admin Bldg) & PAHU-1 (Maint Bldg))**

- Packaged Gas/Electric
- Downflow Configuration
- Downflow to Horizontal Transition Curb
- 4 Ton Nominal Capacity (PAHU-1 Admin)
- 6 Ton Nominal Capacity (PAHU-2 Admin)
- 17.5 Ton Nominal Capacity (PAHU-1 Maint)
- 208-230/3 V/Ph
- Hot Gas Reheat
- High Performance Economizer
- Single Enthalpy Control (PAHU-1 Maint)
- Barometric Relief
- 108 MBH 2-Stage Gas Heat (PAHU-1,2 Admin)
- 360 MBH 2-Stage Gas Heat (PAHU-1 Maint)
- 2" MERV 4 Filters
- Disconnect Switch (Factory Installed)
- Supply & Return Smoke Detector (Factory Installed; PAHU-1 Maint)
- BACnet MS/TP

NOTE: Curbs to be provided in separate submittal.



# Project Submittal

**Project Name:** Sherwood Public Works  
**Project Number:** 756014  
**Project Altitude:** 500  
**Project Location:**  
, Arkansas US

**Date:** 12/20/2024  
**Quote:** 519225  
**Roof Top Units:** 3  
**Split Systems:** 0

**Customer:** Harrison Energy Partners  
**Engineer:** Cromwell Engineers

## Table of Contents

Tag	Qty	Model	Description
<u>PAHU-1 Admin</u>	1	LGT048H5E	LGT048H5E-Y 4T
<u>PAHU-2 Admin</u>	1	LGT072H5E	LGT072H5E-Y 6T
<u>PAHU-1 Maintenance</u>	1	LGT210H5M	LGT210H5M-Y 17.5T

Revit® Building Information Modeling (BIM) - [Click here](#)

AutoCAD® Templates - [Click here](#)



# Project Submittal

Tag: PAHU-1 Admin  
Model: LGT048H5E - LGT048H5E-Y 4T

## UNIT OVERVIEW

Voltage	SEER2 EER2	MCA/MOCP (amp)	Gross Cooling Ttl/Sens (MBH)	Net Cooling Ttl/Sens (MBH)	Supply Air Flow (cfm)	ESP/TSP (in.WC)	EAT DB/WB (°F)	LAT DB/WB (°F)
208V 3Ph 60Hz	17.3 13	23 / 30	48.3 / 28.8	47.2 / 27.7	1,250	0.50 / 0.60	77.9 / 67.1	55.7 / 54.1

## COOLING

Cooling Performance			Temperatures (DB/WB °F)		
Gross Cooling (Ttl/Sens)	48.3 / 28.8 MBH		Ambient	95.0	
Net Cooling (Ttl/Sens)	47.2 / 27.7 MBH		Entering	77.9	67.1
Coil Moisture Removal	18.37 lb/hr		Total Leaving – (Coil)	55.7	54.1
System Moisture Removal	18.37 lb/hr		Total Leaving – (Unit)	56.6	54.4

ARI Performance		Compressors		Refrigerant		Condensate Drain	
ARI Cooling	50.1 / 49.0 MBH	Cooling Stages	2.0	Type	R-454B	Qty	1
ARI Power	3,800 W	Compressor Qty	1	Charge	5 LBS. 4 OZ.	Size	1 in.
		Compressor RLA	10.2 amp			Pipe Thread	npt

## HUMIDITROL - HOT GAS REHEAT

Humiditrol Dehumidification Performance			Temperatures (DB/WB °F)		
Gross Cooling - Stage 1(Ttl/Sens)	11.7 / 11.7 MBH		Ambient	95.0	
Moisture Removal - Stage 1	lb/hr		Entering	80.0	67.0
			Total Leaving – (Stage 1)	71.0	64.1

## HEATING

Heating Performance		Temperatures (DB/WB °F)		Specifications	
Output (High/Low)	87.0 / 66.0 MBH	Total Leaving	63.7	Heat Stages	2
Input (High/Low)	108.0 / 81.0 MBH			Thermal Efficiency NOX	81.0%
Gas Heat Rise	63.7 °F			Gas Line Size	0.5 in.
				Gas Pressure	7 in.WC

## VENTILATION

Air Flow (cfm)		Supply Fan		Air Resistance (in.WC)	
Supply	1,250	Nominal Power	1.50 hp	Total	0.60
Outdoor	200	Required Power	0.35 hp	Ext Supply	0.50
		Drive Type	MSAV Direct Drive		
		Required Watts	258 W		

## AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)

Wet Coil	Humiditrol	Heat	Economizer	Filters	Diffuser	Exhaust	ERW
0.04	0.00	0.02	0.04				

## ELECTRICAL

Voltage	208V 3Ph / 60Hz	Compressor RLA	10.2 amp
MCA	23 amp	Condenser FLA	2.8 amp
MOCP	30 amp	Supply Fan FLA	4.4 amp
Oper Range-Nom Volt	+/- 10%	Cooling FLA Total	17.4 amp

## ADDITIONAL DATA

Cabinet	85.25 in. x 47.00 in. x 46.88 in.	Total Weight	779 lb
Downflow Supply	20.0 in. x 18.0 in.	Base Unit Net Weight	629 lb
Downflow Return	29.0 in. x 11.0 in.	OAS/Econ Weight	84 lb
Filters	(4) 20.0 in. x 20.0 in. x 2.0 in.	Humiditrol Weight	27 lb
Sound Rating	75 dBA	Gas Heat Weight	8 lb
		Coil/Hail Guard Weight	31 lb



# Project Submittal

**Tag:** PAHU-1 Admin

## Factory Installed Options

Direct Drive  
Unit Orientation Downflow  
Supply Fan: Multi-Speed ECM Direct Drive  
208/220/230/240V 3Phase  
80Amp Non-Fused Disconnect Factory Installed  
Built-in BACnet IP and MS/TP (standard)  
Refrigerant R-454B  
Supply Motor - 1.5 Hp ECM - w/ MSAV  
108K S.S. (Dual Stage)  
Low Nox Factory Installed  
Combination Coil/Hail Guards Factory Installed  
Hinged Access Doors Factory Installed  
15A GFCI Factory Installed/Field Wired  
Environ Evaporator and Condenser Coil System Factory Installed  
Drain Pan Overflow Switch Factory Installed  
Humiditrol Factory Installed  
2" MERV4 - Std. Filter Factory Installed

## Field Installed Accessories

Catalog Number	Qty	Description
20H48	1	High Performance Economizer Field Installed
21Z21	1	Barometric Relief Dampers (for PE Kit) Field Installed
21Z13	1	Power Exhaust Fan Field Installed

## Product Features

### Cabinet

Hinged Access Panels  
Durable Outdoor Enamel Paint Finish  
Totally Enclosed Outdoor Fan Motor  
PVC Coated Fan Guard  
Corrosion-Resistant Removable, Reversible Drain Pan  
Isolated Compressor Compartment

### Cooling System

Scroll Compressor  
Expansion Valves  
High Capacity Driers  
Crankcase Heater  
System can operate from 0°F to 125°F without any additional controls  
Pre-charged Refrigeration System  
Timed Off Control  
Internal Pressure Relief Valve  
Humiditrol - Hot Gas Reheat Dehumidification System

### Heating System

Redundant Automatic Gas Valve with Manual Shut-off  
Electronic Flame Sensor  
Direct Spark Ignition  
Inshot Burners  
AGA-CGA Certified  
If configured for room sensor control, additional staging may be possible. Refer to performance tables within the EHB

### Control System

Fan and Limit Controls  
Overload Protection  
Microprocessor Controls – Lennox® CORE Control System  
Auto reset high & low pressure switch with strike 3 lockout feature in Lennox® CORE Control System  
Built-in BACnet IP & MS/TP  
Return Air Sensor Factory Installed  
Outdoor Air Sensor Factory Installed  
Factory Installed Discharge Air Sensor  
Refrigerant Detection System (RDS) and mitigation response, per UL safety standard 60335-2-40

### Compliance



# Project Submittal

Components are Bonded for Grounding  
Factory Test Operated  
All models are ASHRAE 90.1 energy efficiency compliant and meet or exceed requirements of Section 6.8  
All models meet DOE 2023 energy efficiency standards  
All models are compliant with and listed to UL standard 60335-2-40

Model meets California Code of Regulations, Title 24 and ASHRAE 90.1-2016 Section 6.4.3.10 requirements for staged airflow  
Model meets HCAI (formerly OSHPD) OSP and Special Seismic Certification (Number: OSP-0596) and meet 2018 International Building Code (IBC), 2019  
California Building Code (CBC) ASCE 7, and ICC-ES AC156  
ISO 9001 Registered Manufacturing Quality System

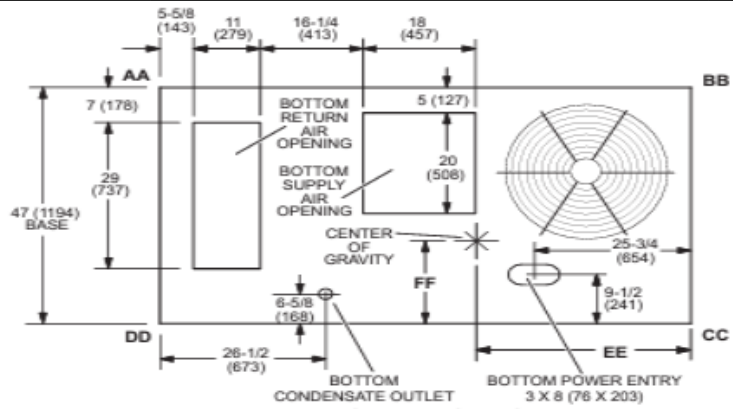
## **Warranty**

Limited warranty on stainless steel heat exchanger of 15 years  
Limited warranty on compressor of 5 years  
Limited warranty on Environ Coil System of 3 years  
Limited warranty on all other components of 1 year  
Limited warranty on Lennox® CORE Control System of 3 years  
See Limited Warranty Certificate included with unit for details

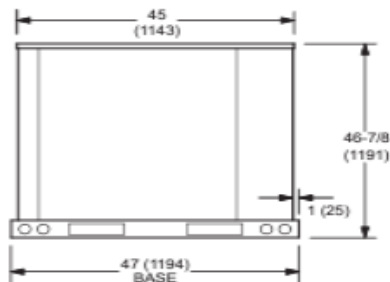


# Project Submittal

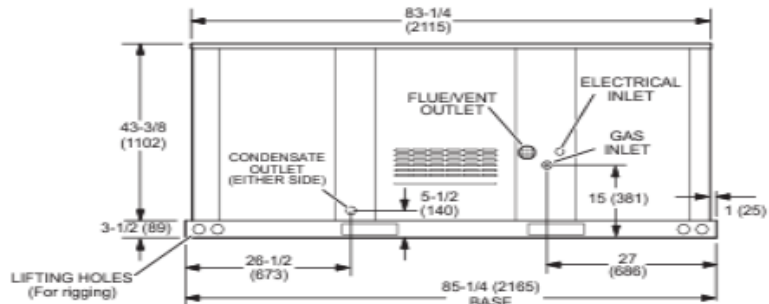
Corner Weights (lb)								Center of Gravity (in.)			
AA		BB		CC		DD		EE		FF	
Base	Max	Base	Max	Base	Max	Base	Max	Base	Max	Base	Max
131	169	161	207	220	283	179	230	38.25	39.75	19.88	19.88



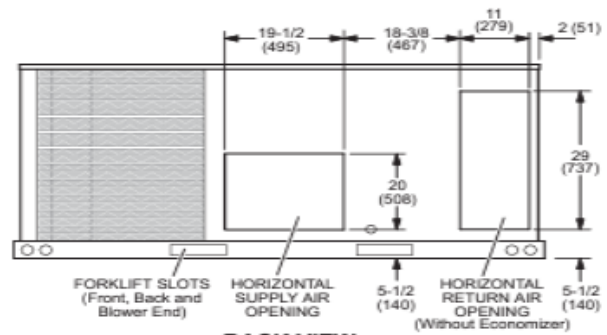
**TOP VIEW (Base)**



**END VIEW**



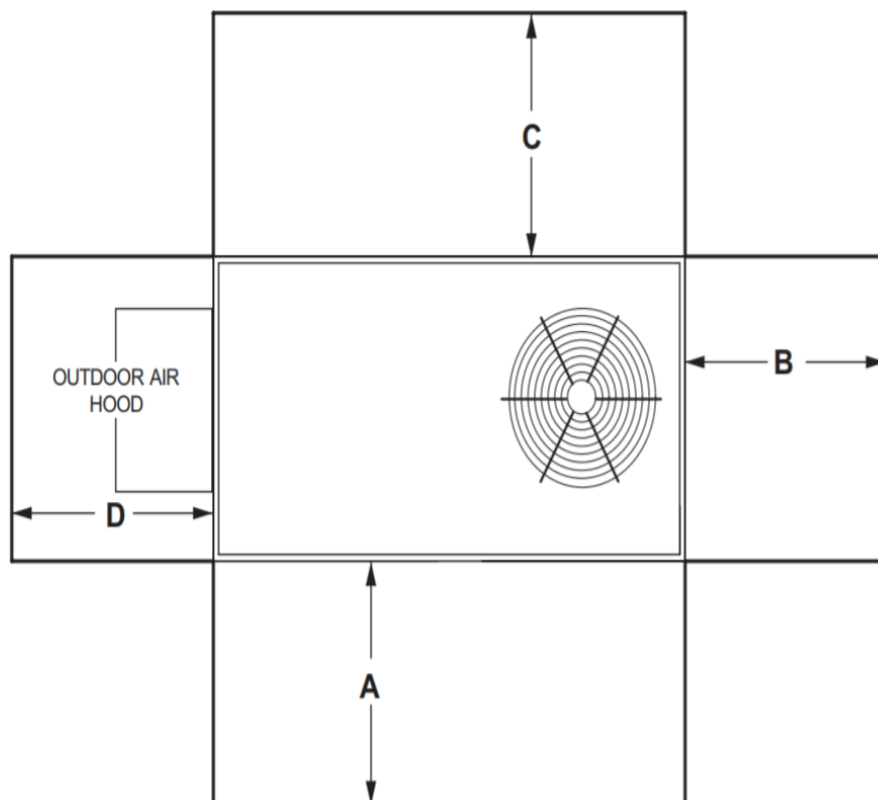
**SIDE VIEW**



**BACK VIEW**



## UNIT CLEARANCES



<sup>1</sup> Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	48	1219	36	914	36	934	36	914	Unobstructed
Clearance to Combustibles	36	914	1	25	1	25	1	25	
Minimum Operation Clearance	36	914	36	914	36	914	36	914	

NOTE - Entire perimeter of unit base requires support when elevated above the mounting surface.

<sup>1</sup> **Service Clearance** - Required for removal of serviceable parts.

**Clearance to Combustibles** - Required clearance to combustible material.

**Minimum Operation Clearance** - Required clearance for proper unit operation.



# Project Submittal

Tag: PAHU-2 Admin  
Model: LGT072H5E - LGT072H5E-Y 6T

## UNIT OVERVIEW

Voltage	IEER EER	MCA/MOCP (amp)	Gross Cooling Ttl/Sens (MBH)	Net Cooling Ttl/Sens (MBH)	Supply Air Flow (cfm)	ESP/TSP (in.WC)	EAT DB/WB (°F)	LAT DB/WB (°F)
208V 3Ph 60Hz	17.3 12.2	34 / 50	72.6 / 46.1	69.4 / 42.9	1,950	1.00 / 1.21	77.9 / 67.1	55.1 / 54.6

## COOLING

Cooling Performance			Temperatures (DB/WB °F)		
Gross Cooling (Ttl/Sens)	72.6 / 46.1 MBH		Ambient	95.0	
Net Cooling (Ttl/Sens)	69.4 / 42.9 MBH		Entering	77.9	67.1
Coil Moisture Removal	24.97 lb/hr		Total Leaving – (Coil)	55.1	54.6
System Moisture Removal	24.97 lb/hr		Total Leaving – (Unit)	56.7	55.2

ARI Performance		Compressors		Refrigerant		Condensate Drain	
ARI Cooling	72.0 / 69.0 MBH	Cooling Stages	2.0	Type	R-454B	Qty	1
ARI Power	5,600 W	Compressor Qty	1	Charge	4 LBS. 8 OZ.	Size	1 in.
		Compressor RLA	19.2 amp			Pipe Thread	npt

## HUMIDITROL - HOT GAS REHEAT

Humiditrol Dehumidification Performance			Temperatures (DB/WB °F)		
Gross Cooling - Stage 1(Ttl/Sens)	17.6 / 17.6 MBH		Ambient	95.0	
Moisture Removal - Stage 1	lb/hr		Entering	80.0	67.0
			Total Leaving – (Stage 1)	71.3	64.2

## HEATING

Heating Performance		Temperatures (DB/WB °F)		Specifications	
Output (High/Low)	87.0 / 66.0 MBH	Total Leaving	40.8	Heat Stages	2
Input (High/Low)	108.0 / 81.0 MBH			Thermal Efficiency NOX	81.0%
Gas Heat Rise	40.8 °F			Gas Line Size	0.5 in.
				Gas Pressure	7 in.WC

## VENTILATION

Air Flow (cfm)		Supply Fan		Air Resistance (in.WC)	
Supply	1,950	Nominal Power	1.50 hp	Total	1.21
Outdoor	230	Required Power	1.03 hp	Ext Supply	1.00
		Drive Type	MSAV Direct Drive		
		Required Watts	764 W		

## AIR RESISTANCE - OPTIONS/ACCESSORIES (in.WC)

Wet Coil	Humiditrol	Heat	Economizer	Filters	Diffuser	Exhaust	ERW
0.10	0.03	0.04	0.05				

## ELECTRICAL

Voltage	208V 3Ph / 60Hz	Compressor RLA	19.2 amp
MCA	34 amp	Condenser FLA	2.8 amp
MOCP	50 amp	Supply Fan FLA	4.4 amp
Oper Range-Nom Volt	+/- 10%	Cooling FLA Total	26.4 amp

## ADDITIONAL DATA

Cabinet	85.25 in. x 47.00 in. x 46.88 in.	Total Weight	780 lb
Downflow Supply	20.0 in. x 18.0 in.	Base Unit Net Weight	630 lb
Downflow Return	29.0 in. x 11.0 in.	OAS/Econ Weight	84 lb
Filters	(4) 20.0 in. x 20.0 in. x 2.0 in.	Humiditrol Weight	27 lb
Sound Rating	82 dBA	Gas Heat Weight	8 lb
		Coil/Hail Guard Weight	31 lb



# Project Submittal

**Tag:** PAHU-2 Admin

## Factory Installed Options

Direct Drive  
Unit Orientation Downflow  
Supply Fan: Multi-Speed ECM Direct Drive  
208/220/230/240V 3Phase  
80Amp Non-Fused Disconnect Factory Installed  
Built-in BACnet IP and MS/TP (standard)  
Refrigerant R-454B  
Supply Motor - 1.5 Hp ECM - w/ MSAV  
108K S.S. (Dual Stage)  
Low Nox Factory Installed  
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Isolated Compressor Compartment

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Scroll Compressor  
Expansion Valves  
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Return Air Sensor Factory Installed  
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Refrigerant Detection System (RDS) and mitigation response, per UL safety standard 60335-2-40

### Compliance



# Project Submittal

Components are Bonded for Grounding  
Factory Test Operated  
All models are ASHRAE 90.1 energy efficiency compliant and meet or exceed requirements of Section 6.8  
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Model meets California Code of Regulations, Title 24 and ASHRAE 90.1-2016 Section 6.4.3.10 requirements for staged airflow  
Model meets HCAI (formerly OSHPD) OSP and Special Seismic Certification (Number: OSP-0596) and meet 2018 International Building Code (IBC), 2019  
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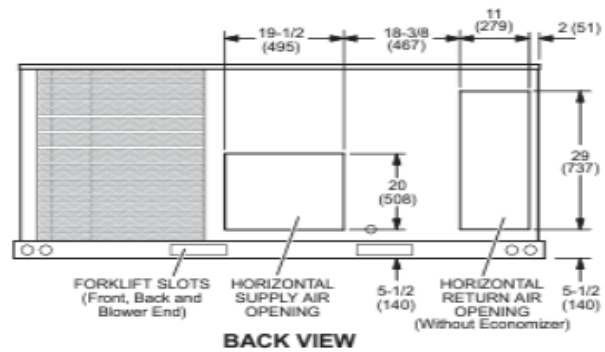
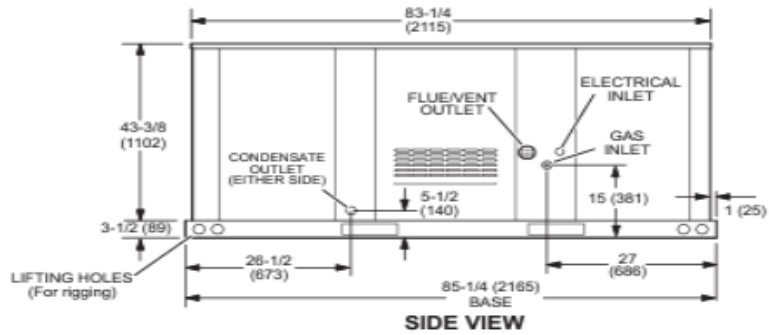
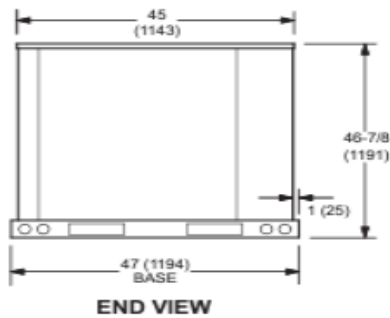
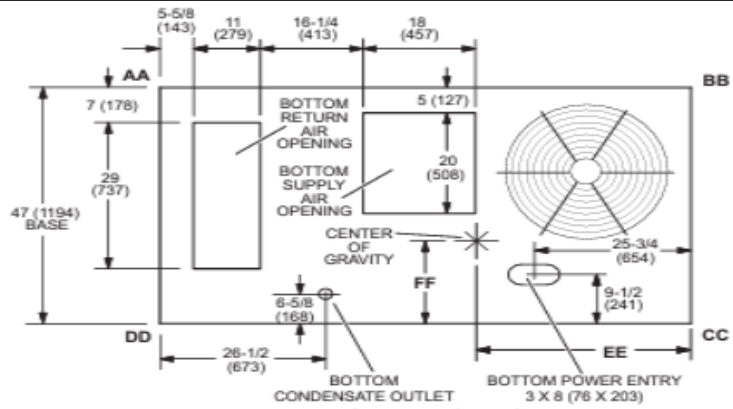
## **Warranty**

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Limited warranty on compressor of 5 years  
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Limited warranty on all other components of 1 year  
Limited warranty on Lennox® CORE Control System of 3 years  
See Limited Warranty Certificate included with unit for details

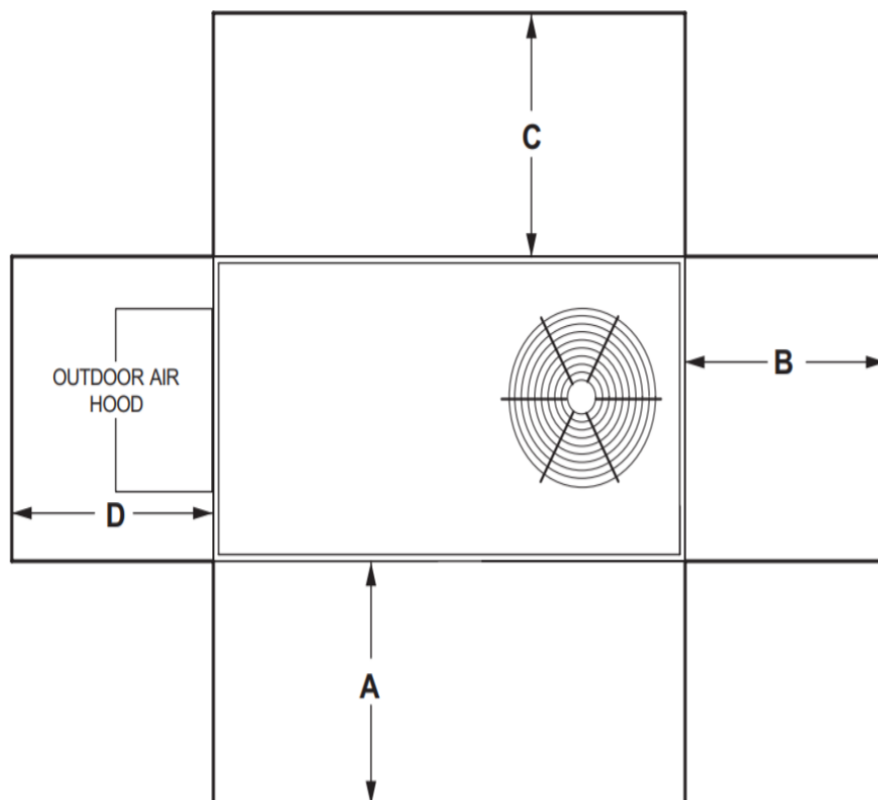


# Project Submittal

Corner Weights (lb)								Center of Gravity (in.)			
AA		BB		CC		DD		EE		FF	
Base	Max	Base	Max	Base	Max	Base	Max	Base	Max	Base	Max
131	169	161	208	220	284	179	231	38.25	39.75	19.88	19.88



## UNIT CLEARANCES



<sup>1</sup> Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	48	1219	36	914	36	934	36	914	Unobstructed
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Minimum Operation Clearance	36	914	36	914	36	914	36	914	

NOTE - Entire perimeter of unit base requires support when elevated above the mounting surface.

<sup>1</sup> **Service Clearance** - Required for removal of serviceable parts.

**Clearance to Combustibles** - Required clearance to combustible material.

**Minimum Operation Clearance** - Required clearance for proper unit operation.