



**DEPARTMENT OF HEALTH CARE ACCESS AND INFORMATION
FACILITIES DEVELOPMENT DIVISION**

**APPLICATION FOR HCAI SPECIAL SEISMIC
CERTIFICATION PREAPPROVAL (OSP)**

OFFICE USE ONLY

APPLICATION #: OSP-0596

HCAI Special Seismic Certification Preapproval (OSP)

Type: New Renewal

Manufacturer Information

Manufacturer: Lennox Industries Inc.

Manufacturer's Technical Representative: Mike Garst

Mailing Address: 1600 Metrocrest Drive, Carrollton, TX 75006

Telephone: (972) 728-7386

Email: mike.garst@lennoxind.com

Product Information

Product Name: Air Conditioning Units

Product Type: Air Conditioning Units - Packaged

Product Model Number: Energence, Model L Ultra, & Enlight Rooftop Units

General Description: Carbon steel packaged rooftop air conditioning units.

Mounting Description: Rigid, Floor Mounted on Curb

Tested Seismic Enhancements: Seismic enhancements made to the test units and/or modifications required to address anomalies during the tests shall be incorporated into the production units.

Applicant Information

Applicant Company Name: Manwill Engineering LLC

Contact Person: Derek Manwill

Mailing Address: PO Box 1194, Bend, OR 97709

Telephone: (541) 241-2102

Email: derek@manwillSE.com

Title: President





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California Licensed Structural Engineer Responsible for the Engineering and Test Report(s)

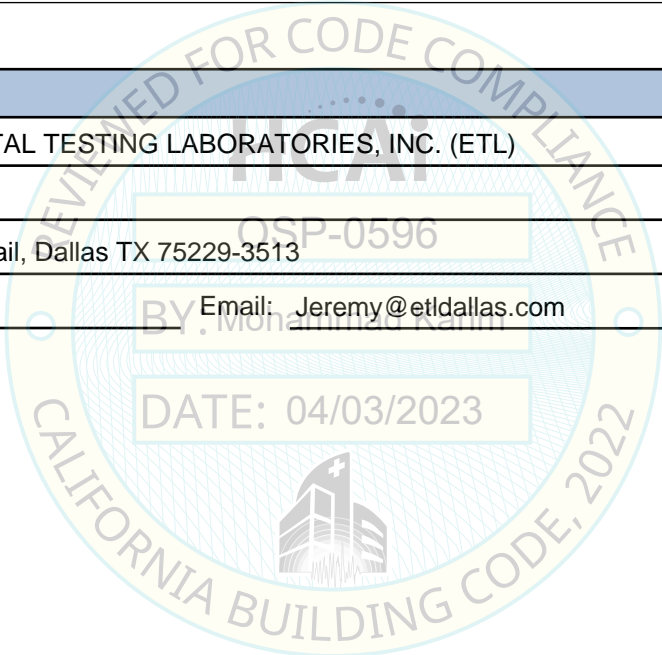
Company Name: MANWILL ENGINEERING LLC
Name: Derek Manwill California License Number: S6266
Mailing Address: PO Box 1194, Bend, OR 97709
Telephone: (541) 241-2102 Email: derek@manwillse.com

Certification Method

GR-63-Core ICC-ES AC156 IEEE 344 IEEE 693 NEBS 3
 Other (Please Specify):

Testing Laboratory

Company Name: ENVIRONMENTAL TESTING LABORATORIES, INC. (ETL)
Contact Person: Jeremy Lange
Mailing Address: 11034 Indian Trail, Dallas TX 75229-3513
Telephone: (972) 247-9657 Email: Jeremy@etldallas.com





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FACILITIES DEVELOPMENT DIVISION**

Seismic Parameters

Design Basis of Equipment or Components (F_p/W_p) = 1.50 (SDS=2.00, z/h=1); 1.13 (SDS=2.50, z/h=0)

SDS (Design spectral response acceleration at short period, g) = 2.00 (z/h=1); 2.50 (z/h=0)

a_p (Amplification factor) = 2.5

R_p (Response modification factor) = 6.0

Ω_0 (System overstrength factor) = 2.0

I_p (Importance factor) = 1.5

z/h (Height ratio factor) = 1 and 0

Natural frequencies (Hz) = See Attachment

Overall dimensions and weight = See Attachment

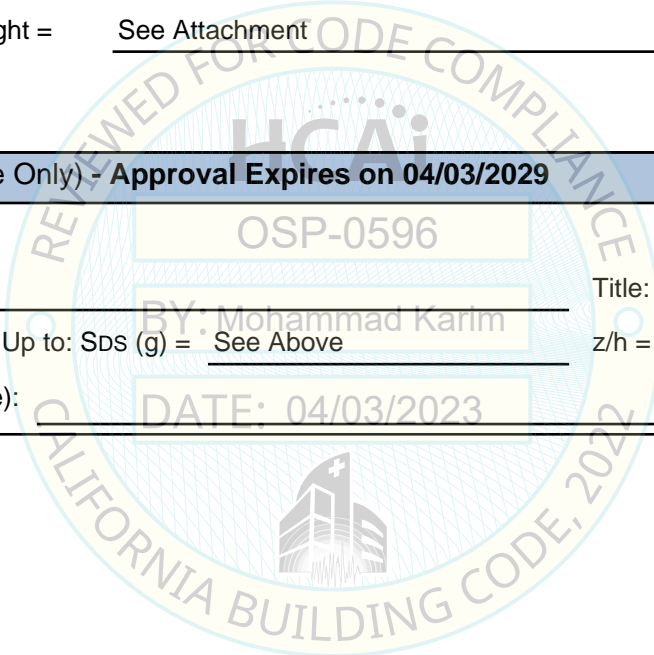
HCAI Approval (For Office Use Only) - Approval Expires on 04/03/2029

Date: 4/3/2023

Name: Mohammad Karim Title: Supervisor, Health Facilities

Special Seismic Certification Valid Up to: SDS (g) = See Above z/h = See Above

Condition of Approval (if applicable): DATE: 04/03/2023



ATTACHMENT 1: CERTIFIED COMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 1 - ROOFTOP UNITS

DOCUMENT NO.: 20044CR2.0

MANUFACTURER: LENNOX INDUSTRIES INC.						
PRODUCT FAMILY: ENERGENGE, MODEL L ULTRA, & ENLIGHT ROOFTOP UNITS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Energence, Model L Ultra, & Enlight Rooftop Units - A Box						
LHT024H4EXXX	85.3	47.0	46.9	765		EXTRAP
LDT024H4EXXX	85.3	47.0	46.9	813		EXTRAP
LCH036H4EE3P	85.3	47.0	38.9	537	UUT: 208/230V, 8in curb	UUT 1
LCM036U4EN1Y	85.3	47.0	46.9	684	UUT: 208/230V, 14in curb	UUT 14
LCX036X4XXXX	85.3	47.0	46.9	742		INTERP
LHT036H4EXXX	85.3	47.0	46.9	764		INTERP
LGX036X4XXXX	85.3	47.0	46.9	759		INTERP
LDT036H4EXXX	85.3	47.0	46.9	812		INTERP
LCX048X4XXXX	85.3	47.0	46.9	759		INTERP
LHT048H4EXXX	85.3	47.0	46.9	760		INTERP
LGX048X4XXXX	85.3	47.0	46.9	759		INTERP
LGH048H4EM4G	85.3	47.0	38.9	651	UUT: 460V, 8in curb	UUT 2
LDT048H4EXXX	85.3	47.0	46.9	808		INTERP
LCX060X4XXXX	85.3	47.0	46.9	759		INTERP
LHT060H4EXXX	85.3	47.0	46.9	792		INTERP
LGX060X4XXXX	85.3	47.0	46.9	759		INTERP
LDT060H4EXXX	85.3	47.0	46.9	840		INTERP
LCX072X4XXXX	85.3	47.0	46.9	759		INTERP
LGX072X4XXXX	85.3	47.0	46.9	759		INTERP
LCX074X4XXXX	85.3	47.0	46.9	759		INTERP
LGX074X4XXXX	85.3	47.0	46.9	759		INTERP
LCH074H4TJ1G	85.3	47.0	46.9	759	UUT: 460V, 24in curb	UUT 3
LGH074H4TT1Y	85.3	47.0	46.9	749	UUT: 208/230V, 24in curb	UUT 4
Energence, Model L Ultra, & Enlight Rooftop Units - B Box						
LHT078H4XXXX	101.3	60.1	46.9	1,253		INTERP
LDT078H4XXXX	101.3	60.1	46.9	1,264		INTERP
LCX092X4XXXX	101.3	60.1	46.9	1,277		INTERP
LHT092H4XXXX	101.3	60.1	46.9	1,253		INTERP
LGX092X4XXXX	101.3	60.1	46.9	1,319		INTERP
LDT092H4XXXX	101.3	60.1	46.9	1,264		INTERP
LCH102H4MN3Y	101.3	60.1	46.9	1,026	UUT: 208/230V, 8in curb	UUT 5
LCX102X4XXXX	101.3	60.1	46.9	1,284		INTERP
LHT102H4XXXX	101.3	60.1	46.9	1,255		INTERP
LGM102U4EM1G	101.3	60.1	46.9	1,300	UUT: 460V, 14in curb	UUT 15
LGX102X4XXXX	101.3	60.1	46.9	1,326		INTERP
LDT102H4XXXX	101.3	60.1	46.9	1,266		INTERP
LGH120H4MH3G	101.3	60.1	46.9	1,330	UUT: 460V, 8in curb	UUT 6
LCX120X4XXXX	101.3	60.1	46.9	1,326		INTERP
LGX120X4XXXX	101.3	60.1	46.9	1,330		INTERP
LHT122H4XXXX	124.4	60.1	46.9	1,405		INTERP
LDT122H4XXXX	124.4	60.1	46.9	1,407		INTERP
LCX150X4XXXX	101.3	60.1	46.9	1,315		INTERP
NOTES:	Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.					

ATTACHMENT 1: CERTIFIED COMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 1 - ROOFTOP UNITS (continued)

DOCUMENT NO.: 20044CR2.0

MANUFACTURER: LENNOX INDUSTRIES INC.						
PRODUCT FAMILY: ENERGENGE, MODEL L ULTRA, & ENLIGHT ROOFTOP UNITS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Energence, Model L Ultra, & Enlight Rooftop Units - B Box (continued)						
LHT150H4XXXX	124.4	60.1	46.9	1,405		INTERP
LHT150H4EL1Y	124.4	60.1	46.9	1,415		UUT 17
LGX150X4XXXX	101.3	60.1	46.9	1,330		INTERP
LGH150H4MH1Y	101.3	60.1	46.9	1,245	UUT: 208/230V, 24in curb	UUT 7
LGH150H4MH1Y	101.3	60.1	46.9	1,299	UUT: 208/230V, 24in curb	UUT 8
LDT150H4XXXX	124.4	60.1	46.9	1,407		INTERP
Energence, Model L Ultra, & Enlight Rooftop Units - C Box						
LCH156H4MK4G	107.8	91.1	54.3	1,955	UUT: 460V, 8in curb	UUT 9
LGH156H4MM4Y	107.8	91.1	54.3	2,198	UUT: 208/230V, 26in horiz. curb	UUT 10
LCX156X4XXXX	107.8	91.1	54.3	2,130		INTERP
LGX156X4XXXX	107.8	91.1	54.3	2,270		INTERP
LCX180X4XXXX	133.1	91.1	54.3	2,350		INTERP
LHT180H4XXXX	133.1	91.1	54.3	2,516		INTERP
LGX180X4XXXX	133.1	91.1	54.3	2,505		INTERP
LDT180H4XXXX	133.1	91.1	54.3	2,668		INTERP
LCX210X4XXXX	133.1	91.1	54.3	2,470		INTERP
LGX210X4XXXX	133.1	91.1	54.3	2,615		INTERP
LCH240H4MP3Y	133.1	91.1	54.3	2,516	UUT: 208/230V, 24in curb	UUT 11
LCX240X4XXXX	133.1	91.1	54.3	2,570		INTERP
LHT240H4XXXX	133.1	91.1	54.3	2,558		INTERP
LGX240X4XXXX	133.1	91.1	54.3	2,628		INTERP
LDT240H4MH1Y	133.1	91.1	54.3	2,360		UUT 18
LDT240H4XXXX	133.1	91.1	54.3	2,668		INTERP
LGM300U4MS1G	133.1	91.1	54.3	2,548	UUT: 460V, 14in curb	UUT 16
LCX300X4XXXX	133.1	91.1	54.3	2,628		INTERP
LGX300X4XXXX	133.1	91.1	54.3	2,628		INTERP
LGH300S4MH4G	133.1	91.1	54.3	2,628	UUT: 460V, 41in horizontal curb	UUT 12
LGH300S4MH4G	133.1	91.1	54.3	2,668	UUT: 460V, 26in horizontal curb	UUT 13
MOUNTING:	Rigid floor mounted on curb.			SEISMIC LEVELS:	$S_{DS} = 2.00g$ for $z/h = 1$ $S_{DS} = 2.50g$ for $z/h = 0$	
NOTES:	<p>Product Construction: Carbon steel construction.</p> <p>Options/Subcomponents: 8in - 24in downflow carbon steel curb; C box also available with 26in - 41in horizontal carbon steel curb; available subcomponents are listed in Table 2 (exempt subcomponents per CBC 1705A.13.3.1 are not listed in the Certified Subcomponent Tables, but the tested subcomponents are shown in the UUT Summary Sheets).</p> <p>Nomenclature: See Attachment 3 for product nomenclature and available model numbers.</p>					

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 2 - SUBCOMPONENTS

DOCUMENT NO.: 20044CR2.0

MANUFACTURER: LENNOX INDUSTRIES INC.						
PRODUCT FAMILY: ENERGENGE, MODEL L ULTRA, & ENLIGHT ROOFTOP UNITS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Subcomponent: Microchannel Coil - Manufacturer: Delphi Thermal Sys - Material: Aluminum						
6.09SFx0.71				9	6.09SF, 0.71" dia., 1R, 10FPI	EXTRAP
8.65SFx0.71				13	8.65SF, 0.71" dia., 1R, 10FPI	EXTRAP
11.7SFx0.71				18	11.7SF, 0.71" dia., 1R, 20FPI	UUT 1
14.5SFx0.71				22	14.5SF, 0.71" dia., 1R, 20FPI	INTERP
17.8SFx0.71				27	17.8SF, 0.71" dia., 1R, 20FPI	UUT 3
28.0SFx0.71				43	28.0SF, 0.71" dia., 1R, 20FPI	UUT 5
41.4SFx0.71				62	41.4SF, 0.71" dia., 1R, 23FPI	UUT 9
41.4SFx1.0				86	41.4SF, 1.0" dia., 1R, 23FPI	INTERP
55.2SFx0.71				83	55.2SF, 0.71" dia., 1R, 23FPI	INTERP
55.2SFx1.0				138	55.2SF, 1.0" dia., 1R, 23FPI	UUT 12,13
Subcomponent: Tube and Fin Condenser Coil - Manufacturer: Lennox - Material: Copper Tube, Aluminum Fin						
15.6SFx1.5R				41	15.6SF, 1.5R, 20FPI	EXTRAP
15.6SFx2R				55	15.6SF, 2R, 20FPI	UUT 2
19.3SFx2R				68	19.3SF, 2R, 20FPI	UUT 4,14
20.5SFx3R				108	20.5SF, 3R, 20FPI	UUT 15
25.9SFx3R				136	25.9SF, 3R, 20FPI	UUT 8
28.0SFx3R				147	28.0SF, 3R, 20FPI	UUT 7
29.3SFx3R				154	29.3SF, 3R, 20FPI	UUT 6
40.4SFx3R				212	40.4SF, 3R, 20FPI	UUT 17
55.1SFx2R				192	55.1SF, 2R, 20FPI	UUT 18
41.4SFx2R				145	41.4SF, 2R, 20FPI	UUT 10
55.2SFx2R				193	55.2SF, 2R, 20FPI	UUT 11
55.2SFx3R				278	55.2SF, 3R, 20FPI	UUT 16
Subcomponent: Indoor Coil - Manufacturer: Lennox - Material: Copper Tube, Aluminum Fin						
7.78SFx3R				41	7.78SF, 3R, 14FPI	UUT 1
9.72SFx3R				51	9.72SF, 3R, 14FPI	UUT 14
7.78SFx4R				55	7.78SF, 4R, 14FPI	UUT 2
9.72SFx4R				68	9.72SF, 4R, 14FPI	UUT 3,4
12.8SFx4R				90	12.8SF, 4R, 14FPI	UUT 17
13.5SFx4R				95	13.5SF, 4R, 14FPI	UUT 5-8,15
21.4SFx3R				112	21.4SF, 3R, 14FPI	UUT 9,10
21.4SFx4R				150	21.4SF, 4R, 14FPI	11-13,16,18
Subcomponent: Reheat Coil - Manufacturer: Lennox - Material: Copper Tube, Aluminum Fin						
3.89SF				7	3.89SF, 1R, 14FPI	UUT 1,2
5.11SF				9	5.11SF, 1R, 14FPI	UUT 5
5.42SF				10	5.42SF, 1R, 14FPI	UUT 6-8
5.83SF				10	5.83SF, 1R, 14FPI	UUT 3,4
6.78SF				12	6.78SF, 1R, 14FPI	INTERP
7.33SF				13	7.33SF, 1R, 14FPI	UUT 9-13
8.13SF				14	8.13SF, 1R, 14FPI	UUT 15
14.66SF				26	14.66SF, 1R, 14FPI	UUT 16
NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.						

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 2 - SUBCOMPONENTS (continued)

DOCUMENT NO.: 20044CR2.0

MANUFACTURER: LENNOX INDUSTRIES INC.						
PRODUCT FAMILY: ENERGENGE, MODEL L ULTRA, & ENLIGHT ROOFTOP UNITS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Subcomponent: Gas Heat - Manufacturer: Lennox - Material: Aluminized Steel or Stainless Steel						
HE 65K BTU				20	3 Tubes	EXTRAP
HE 108K BTU				33	5 Tubes (UUT: Aluminized)	UUT 2
HE 130K BTU				47	6 Tubes	INTERP
HE 150K BTU				46	7 Tubes (UUT: Stainless)	UUT 4
HE 180K BTU				71	9 Tubes	INTERP
HE 240K BTU				86	11 Tubes (UUT: Aluminized)	UUT 7,8
HE 240K BTU				86	11 Tubes (UUT: Stainless)	UUT 6
HE 169K/260K BTU				94	12 Tubes	INTERP
HE 360K BTU				141	18 Tubes (UUT: Aluminized)	UUT 10
HE 480K BTU				172	22 Tubes (UUT: Aluminized)	UUT 18
HE 480K BTU				172	22 Tubes (UUT: Stainless)	UUT 12,13
Subcomponent: Electric Heat - Manufacturer: Lennox						
7.5kW	3.4	13.1		11		EXTRAP
15kW	3.4	13.1		11	UUT: 230V, 1-phase	UUT 1
22.5kW	3.4	13.1		11		INTERP
30kW	3.4	13.1		11	UUT: 460V, 3-phase	UUT 3
45kW	6.8	13.1		13		INTERP
60kW	6.8	13.1		13	UUT: 230V, 3-phase	UUT 5, 17
30kW (2x15kW)	3.4	13.1	QTY=2	11		INTERP
45kW (2x22.5kW)	3.4	13.1	QTY=2	11	UUT: 460V, 3-phase	UUT 9
60kW (2x30kW)	3.4	13.1	QTY=2	11		INTERP
90kW (2x45kW)	6.8	13.1	QTY=2	13	UUT: 230V, 3-phase	UUT 11
Subcomponent: Blower - Manufacturer: Morrison						
03-45331	10	10	10		10x10	UUT 1,2
03-55315	10	11	11		11x10	INTERP
03-74428	9	15	15		15x9	UUT 3,4
03-78805	15	15	15		15x15	5,6,12,16,18
Subcomponent: EBM Blower - Manufacturer: EBM-Papst						
R3G310-PY18-X1				20	1630W, 230V	UUT 14
R3G310-PY12-V1				20	1630W, 460V	INTERP
R3G450-PW13-09A				35	3300W, 230V	UUT 17
R3G450-PW08-10A				35	3600W, 460V	INTERP
R3G500-AP34-18A				54	2880W, 230V	INTERP
R3G500-AP25-08A				54	2880W, 460V	UUT 15
Subcomponent: Transformer - Manufacturer: Square D						
I5S1F	8.3	6.6	5.1	30		UUT 16
Subcomponent: Auto Transformer - Manufacturer: Ningbo Zhongce E.T.						
ETE-AT2.9K-460230	5.5	6.5	4.7	22		UUT 15,16
Subcomponent: Auto Transformer - Manufacturer: Basler Electric						
BE33654001	5.5	6.5	4.6	22		UUT 2
Subcomponent: Powered GFI Transformer - Manufacturer: Jefferson Electric						
411-B003-009	10.6	5.3	6.1	39		UUT 13
NOTES: Table continues on the next page. Additional notes, information, and seismic parameters are shown at the end of the table.						

ATTACHMENT 1: CERTIFIED SUBCOMPONENTS

SPECIAL SEISMIC CERTIFICATION

TABLE 2 - SUBCOMPONENTS (continued)

DOCUMENT NO.: 20044CR2.0

MANUFACTURER: LENNOX INDUSTRIES INC.						
PRODUCT FAMILY: ENERGENGE, MODEL L ULTRA, & ENLIGHT ROOFTOP UNITS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Subcomponent: Economizer - Manufacturer: Micrometal						
EC-L104598-01				60	Standard	UUT 6
ECD-L103491-01				131	Standard w/ motor	INTERP
ECD-L103491-03				131	Low leakage w/ motor	UUT 3
EC-L104597-01				167	Standard	UUT 11
Subcomponent: Economizer - Manufacturer: Ruskin						
50-361-51C				60	Low leakage	UUT 5,15
50-361-52				167	Low leakage	UUT 12
Subcomponent: Economizer - Manufacturer: Lennox						
C1DAMP50C				30	Barometric relief damper	UUT 10
Subcomponent: Outside Air Damper - Manufacturer: Lennox						
C1DAMP20C-1				10	Manual w/ hood	EXTRAP
C1DAMP11A-1				30	Manual w/ hood	UUT 1
C1DAMP10B-2				39	Manual w/ hood	INTERP
C1DAMP21A-1				40	Automatic w/ hood	UUT 4
Subcomponent: Outside Air Damper - Manufacturer: Micrometal						
OA-L104446-01				18	Automatic w/ hood	UUT 9
OA-L104446-02				51	Automatic w/ hood	UUT 7,8
Subcomponent: Power Exhaust - Manufacturer: Lennox						
K1PWRE10B				31	UUT: 460V	UUT 6
C1PWRE10A				35	UUT: 460V	UUT 3
C1PWRE11C				62	UUT: 208/230V	UUT 11
C1PWRE11C				62	UUT: 460V	UUT 12,13
MOUNTING:	Mounted within unit.			SEISMIC LEVELS:	$S_{DS} = 2.00g$ for $z/h = 1$ $S_{DS} = 2.50g$ for $z/h = 0$ $I_p = 1.5$	
NOTES:	Construction/Options: Model number uniquely identifies manufacturer, materials, and configuration of subcomponents.					

ATTACHMENT 1: SUBCOMPONENTS (REFERENCE ONLY)

SPECIAL SEISMIC CERTIFICATION

TABLE 3 - CURBS

DOCUMENT NO.: 20044CR2.0

MANUFACTURER: LENNOX INDUSTRIES INC.						
PRODUCT FAMILY: ENERGENGE, MODEL L ULTRA, & ENLIGHT ROOFTOP UNITS						
MODEL NUMBER	DIMENSIONS (in)			MAX. WT. (lb)	DESCRIPTION / NOTES	BASIS
	DEPTH	WIDTH	HEIGHT			
Subcomponent: A Box Downflow Curb - Manufacturer: Lennox - Material: Carbon Steel						
C1CURB70A-1	79.8	41.5	8.0	66	0.048" thick	UUT 1,2
C1CURB71A-1	79.8	41.5	14.0	75	0.048" thick	UUT 14
C1CURB72A-1	79.8	41.5	18.0	85	0.048" thick	INTERP
C1CURB73A-1	79.8	41.5	24.0	95	0.048" thick	UUT 3,4
Subcomponent: B Box Downflow Curb - Manufacturer: Lennox - Material: Carbon Steel						
C1CURB70B-1	95.4	54.3	8.0	80	0.048" thick	UUT 5,6
C1CURB71B-1	95.4	54.3	14.0	94	0.048" thick	UUT 15,17
C1CURB72B-1	95.4	54.3	18.0	108	0.048" thick	INTERP
C1CURB73B-1	95.4	54.3	24.0	122	0.048" thick	UUT 7,8
Subcomponent: C Box Downflow Curb - Manufacturer: Lennox - Material: Carbon Steel						
C1CURB70C-1	102.0	86.1	8.0	85	0.048" thick	UUT 9
C1CURB71C-1	102.0	86.1	14.0	120	0.048" thick	UUT 16,18
C1CURB72C-1	102.0	86.1	18.0	155	0.048" thick	INTERP
C1CURB73C-1	102.0	86.1	24.0	190	0.048" thick	UUT 11
Subcomponent: C Box Horizontal Flow Curb - Manufacturer: Lennox - Material: Carbon Steel						
C1CURB14C-1	102.1	86.3	26.0	287	0.063" thick, 75" x 14" opening	UUT 10,13
C1CURB15C-1	102.1	86.3	30.0	327	0.063" thick, 75" x 18" opening	INTERP
C1CURB16C-1	102.1	86.3	37.0	369	0.063" thick, 75" x 14" opening	INTERP
C1CURB17C-1	102.1	86.3	41.0	409	0.063" thick, 75" x 18" opening	UUT 12
MOUNTING:	Unit is rigid floor mounted on curb. Curb is rigid floor mounted.			SEISMIC LEVELS:	S _{DS} = 2.00g for z/h = 1 S _{DS} = 2.50g for z/h = 0 I _p = 1.5	
NOTES:	Construction/Options: Model number uniquely identifies manufacturer, materials, and configuration of subcomponents.					

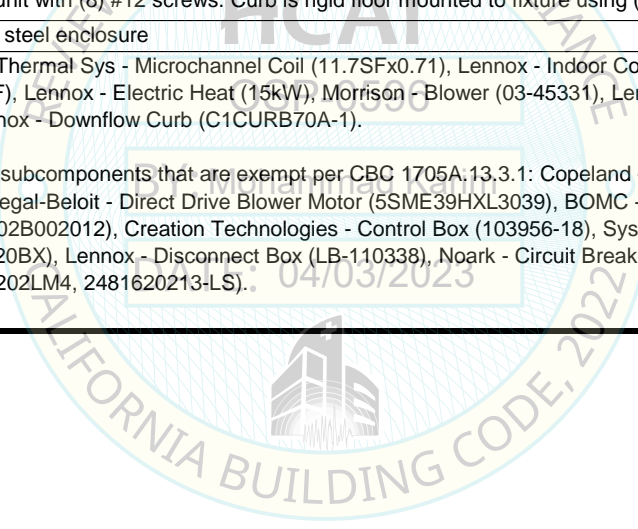
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 1

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:		LENNOX INDUSTRIES INC.				
MODEL NUMBER:		LCH036H4EE3P				
UNIT FUNCTION:		ROOFTOP AIR HANDLING UNIT				
SERIAL NUMBER:		5619B06573				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
85.3	47.0	38.9	537	5.4	9.8	9.1
CODE & CRITERIA:		2022 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT:		18061TR1.1 (dated 4/1/2019), tested on 3/6/2019				
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.00	1	3.20	2.40	1.68	0.68	
2.50	0					
IMPORTANCE FACTOR, I_p = 1.5		Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.				
MOUNTING:		Unit is rigid floor mounted on 8in curb using (4) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (16) 1/2in Grade 8 bolts.				
CONSTRUCTION:		Carbon steel enclosure				
SUBCOMPONENTS:		Delphi Thermal Sys - Microchannel Coil (11.7SFx0.71), Lennox - Indoor Coil (7.78SFx3R), Lennox - Reheat Coil (3.89SF), Lennox - Electric Heat (15kW), Morrison - Blower (03-45331), Lennox - Outside Air Damper (C1DAMP11A-1), Lennox - Downflow Curb (C1CURB70A-1). Tested subcomponents that are exempt per CBC 1705A.13.3.1: Copeland - Scroll Compressor (ZPS30K5E-PFV-130), Regal-Beloit - Direct Drive Blower Motor (5SME39HXL3039), BOMC - Condenser Fan Motors ECM (ZWK702B002012), Creation Technologies - Control Box (103956-18), System Sensor - Smoke Detector (LD4SB, LD4P120BX), Lennox - Disconnect Box (LB-110338), Noark - Circuit Breaker (MIS90T3LP), Tri-Dim - Air Filters (06016202LM4, 2481620213-LS).				



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 2

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:	LENNOX INDUSTRIES INC.
MODEL NUMBER:	LGH048H4EM4G
UNIT FUNCTION:	ROOFTOP AIR HANDLING UNIT
SERIAL NUMBER:	5619B06925



DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
85.3	47.0	38.9	651	6.2	9.5	9.2

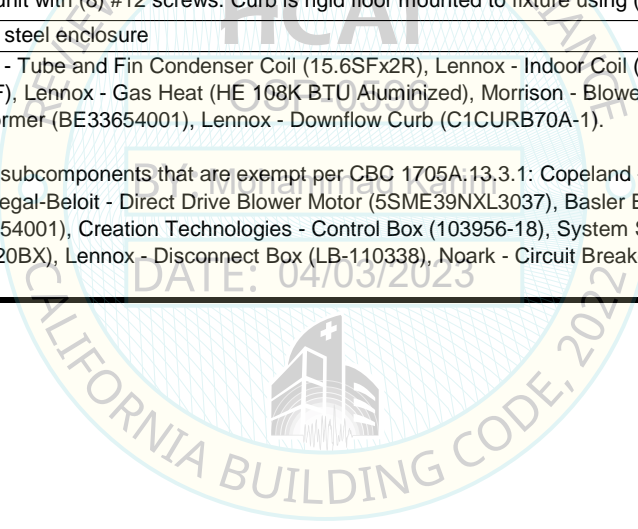
CODE & CRITERIA:	2022 CBC	ICC-ES AC156
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TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
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REPORT:	18061TR1.1 (dated 4/1/2019), tested on 3/6/2019
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S _{DS} (g)	z/h	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
2.00	1	3.20	2.40	1.68	0.68
2.50	0				

IMPORTANCE FACTOR, I_p = 1.5	Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
MOUNTING:	Unit is rigid floor mounted on 8in curb using (4) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (16) 1/2in Grade 8 bolts.
CONSTRUCTION:	Carbon steel enclosure
SUBCOMPONENTS:	<p>Lennox - Tube and Fin Condenser Coil (15.6SFx2R), Lennox - Indoor Coil (7.78SFx4R), Lennox - Reheat Coil (3.89SF), Lennox - Gas Heat (HE 108K BTU Aluminized), Morrison - Blower (03-45331), Basler Electric - Auto Transformer (BE33654001), Lennox - Downflow Curb (C1CURB70A-1).</p> <p>Tested subcomponents that are exempt per CBC 1705A.13.3.1: Copeland - Scroll Compressor (ZPS40K5E-TFD-130), Regal-Beloit - Direct Drive Blower Motor (5SME39NXL3037), Basler Electric - Auto Transformer (BE33654001), Creation Technologies - Control Box (103956-18), System Sensor - Smoke Detector (LD4SB, LD4P120BX), Lennox - Disconnect Box (LB-110338), Noark - Circuit Breaker (MIS15T3L).</p>



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 3

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:		LENNOX INDUSTRIES INC.				
MODEL NUMBER:		LCH074H4TJ1G				
UNIT FUNCTION:		ROOFTOP AIR HANDLING UNIT				
SERIAL NUMBER:		5619B06930				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
85.3	47.0	46.9	759	3.4	8.1	8.9
CODE & CRITERIA:		2022 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT: 18061TR1.1 (dated 4/1/2019), tested on 3/7/2019						
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.00	1	3.20	2.40	1.68	0.68	
2.50	0					
IMPORTANCE FACTOR, I_p = 1.5		Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.				
MOUNTING:		Unit is rigid floor mounted on 24in curb using (4) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (16) 1/2in Grade 8 bolts.				
CONSTRUCTION:		Carbon steel enclosure				
SUBCOMPONENTS:		Delphi Thermal Sys - Microchannel Coil (17.8SFx0.71), Lennox - Indoor Coil (9.72SFx4R), Lennox - Reheat Coil (5.83SF), Lennox - Electric Heat (30kW), Morrison - Blower (03-74428), Micrometal - Economizer (ECD-L103491-03), Lennox - Power Exhaust (C1PWRE10A), Lennox - Downflow Curb (C1CURB73A-1). Tested subcomponents that are exempt per CBC 1705A.13.3.1: Copeland - Scroll Compressor (ZPS60K5E-TFD-130), Nidec - Belt Drive Blower Motor (P63GZEKR-5006), Creation Technologies - Control Box (103956-18), System Sensor - Smoke Detector (LD4SB, LD4P120BX), Lennox - Disconnect Box (LB-110338), Socomec - Disconnect Switch (22L23508), Tri-Dim - Air Filters (06020202LM4, 2482020213-LS).				



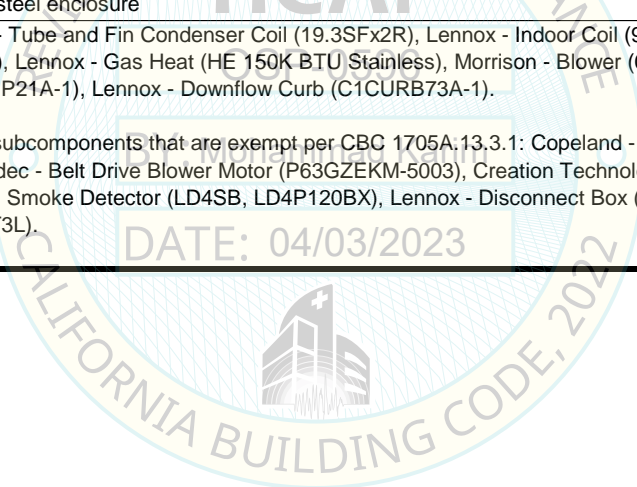
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 4

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:		LENNOX INDUSTRIES INC.				
MODEL NUMBER:		LGH074H4TT1Y				
UNIT FUNCTION:		ROOFTOP AIR HANDLING UNIT				
SERIAL NUMBER:		5619B06938				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
85.3	47.0	46.9	749	4.3	9.0	9.7
CODE & CRITERIA:		2022 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT: 18061TR1.1 (dated 4/1/2019), tested on 3/7/2019						
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.00	1	3.20	2.40	1.68	0.68	
2.50	0					
IMPORTANCE FACTOR, I_p = 1.5		Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.				
MOUNTING:		Unit is rigid floor mounted on 24in curb using (4) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (16) 1/2in Grade 8 bolts.				
CONSTRUCTION:		Carbon steel enclosure				
SUBCOMPONENTS:		Lennox - Tube and Fin Condenser Coil (19.3SFx2R), Lennox - Indoor Coil (9.72SFx4R), Lennox - Reheat Coil (5.83SF), Lennox - Gas Heat (HE 150K BTU Stainless), Morrison - Blower (03-74428), Lennox - Outside Air Damper (C1DAMP21A-1), Lennox - Downflow Curb (C1CURB73A-1). Tested subcomponents that are exempt per CBC 1705A.13.3.1: Copeland - Scroll Compressor (ZPS60K5E-TF5-130), Nidec - Belt Drive Blower Motor (P63GZEKM-5003), Creation Technologies - Control Box (103956-18), System Sensor - Smoke Detector (LD4SB, LD4P120BX), Lennox - Disconnect Box (LB-110338), Noark - Circuit Breaker (MIS45T3L).				



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 5

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:	LENNOX INDUSTRIES INC.
MODEL NUMBER:	LCH102H4MN3Y
UNIT FUNCTION:	ROOFTOP AIR HANDLING UNIT
SERIAL NUMBER:	5619B06273



DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
101.3	60.1	46.9	1026	4.1	7.6	10.7

CODE & CRITERIA:	2022 CBC	ICC-ES AC156
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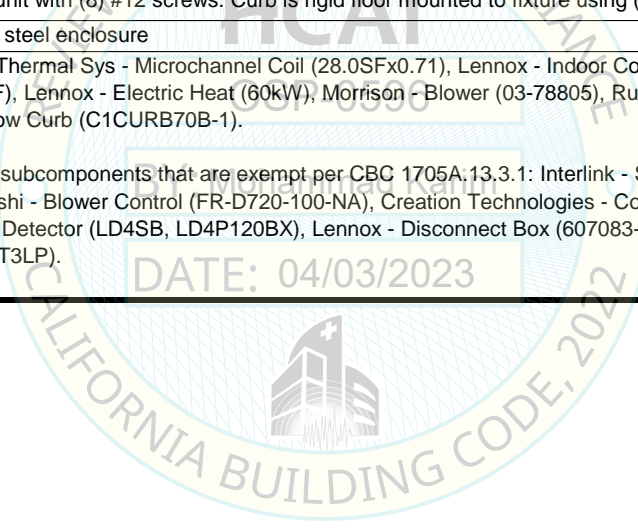
TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
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REPORT:	18061TR1.1 (dated 4/1/2019), tested on 3/6/2019
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S _{DS} (g)	z/h	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
2.00	1	3.20	2.40	1.68	0.68
2.50	0				

IMPORTANCE FACTOR, I_p = 1.5	Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
MOUNTING:	Unit is rigid floor mounted on 8in curb using (6) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (16) 1/2in Grade 8 bolts.
CONSTRUCTION:	Carbon steel enclosure
SUBCOMPONENTS:	<p>Delphi Thermal Sys - Microchannel Coil (28.0SFx0.71), Lennox - Indoor Coil (13.5SFx4R), Lennox - Reheat Coil (5.11SF), Lennox - Electric Heat (60kW), Morrison - Blower (03-78805), Ruskin - Economizer (50-361-51C), Lennox - Downflow Curb (C1CURB70B-1).</p> <p>Tested subcomponents that are exempt per CBC 1705A.13.3.1: Interlink - Scroll Compressor (AQA042RAA), Mitsubishi - Blower Control (FR-D720-100-NA), Creation Technologies - Control Box (103956-18), System Sensor - Smoke Detector (LD4SB, LD4P120BX), Lennox - Disconnect Box (607083-01), Noark - Circuit Breakers (MIS50T3LP).</p>

DATE: 04/03/2023



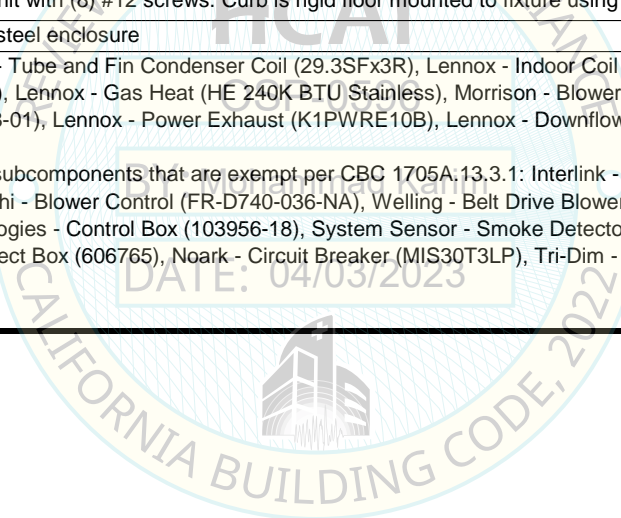
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 6

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:		LENNOX INDUSTRIES INC.				
MODEL NUMBER:		LGH120H4MH3G				
UNIT FUNCTION:		ROOFTOP AIR HANDLING UNIT				
SERIAL NUMBER:		5619B06581				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
101.3	60.1	46.9	1330	5.4	6.9	10.0
CODE & CRITERIA:		2022 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT: 18061TR1.1 (dated 4/1/2019), tested on 3/6/2019						
S _{DS} (g)	z/h	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)	
2.00	1	3.20	2.40	1.68	0.68	
2.50	0					
IMPORTANCE FACTOR, I_p = 1.5		Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.				
MOUNTING:		Unit is rigid floor mounted on 8in curb using (6) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (16) 1/2in Grade 8 bolts.				
CONSTRUCTION:		Carbon steel enclosure				
SUBCOMPONENTS:		<p>Lennox - Tube and Fin Condenser Coil (29.3SFx3R), Lennox - Indoor Coil (13.5SFx4R), Lennox - Reheat Coil (5.42SF), Lennox - Gas Heat (HE 240K BTU Stainless), Morrison - Blower (03-78805), Micrometal - Economizer (EC-L104598-01), Lennox - Power Exhaust (K1PWRE10B), Lennox - Downflow Curb (C1CURB70B-1).</p> <p>Tested subcomponents that are exempt per CBC 1705A.13.3.1: Interlink - Scroll Compressor (ABA051WAA), Mitsubishi - Blower Control (FR-D740-036-NA), Welling - Belt Drive Blower Motor (YSDK1500-4C), Creation Technologies - Control Box (103956-18), System Sensor - Smoke Detector (LD4SB, LD4P120BX), Lennox - Disconnect Box (606765), Noark - Circuit Breaker (MIS30T3LP), Tri-Dim - Air Filters (06020252LM4, 2482025213-LS).</p>				



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 7

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:		LENNOX INDUSTRIES INC.				
MODEL NUMBER:		LGH150H4MH1Y				
UNIT FUNCTION:		ROOFTOP AIR HANDLING UNIT				
SERIAL NUMBER:		5619B07205				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
101.3	60.1	46.9	1245	4.0	6.3	9.4
CODE & CRITERIA:		2022 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT: 18061TR1.1 (dated 4/1/2019), tested on 3/7/2019						
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.00	1	3.20	2.40	1.68	0.68	
2.50	0					
IMPORTANCE FACTOR, I_p = 1.5		Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.				
MOUNTING:		Unit is rigid floor mounted on 24in curb using (6) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (16) 1/2in Grade 8 bolts.				
CONSTRUCTION:		Carbon steel enclosure				
SUBCOMPONENTS:		<p>Lennox - Tube and Fin Condenser Coil (28.0SFx3R), Lennox - Indoor Coil (13.5SFx4R), Lennox - Reheat Coil (5.42SF), Lennox - Gas Heat (HE 240K BTU Aluminized), Micrometal - Outside Air Damper (OA-L104446-02), Lennox - Downflow Curb (C1CURB73B-1).</p> <p>Tested subcomponents that are exempt per CBC 1705A.13.3.1: Copeland - Scroll Compressor (ZP61K5E-TF5-130), Mitsubishi - Blower Control (FR-D720-165-NA), Nidec - Belt Drive Blower Motor (DV42), Revcor (Air Drive) - Condenser Fan Blade (3P24CW26), Nidec - Condenser Fan Motors PSC (K55HXLVZ-2657), Creation Technologies - Control Box (103956-18), System Sensor - Smoke Detector (LD4SB, LD4P120BX), Lennox - Disconnect Box (606765), Noark - Circuit Breakers (MIS90T3L).</p>				



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 8

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:		LENNOX INDUSTRIES INC.				
MODEL NUMBER:		LGH150H4MH1Y				
UNIT FUNCTION:		ROOFTOP AIR HANDLING UNIT				
SERIAL NUMBER:		5619B07205				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
101.3	60.1	46.9	1299	4.8	2.6	2.3
CODE & CRITERIA:		2022 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT: 18061TR1.1 (dated 4/1/2019), tested on 3/5/2019						
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.00	1	3.20	2.40	1.68	0.68	
2.50	0					
IMPORTANCE FACTOR, I_p = 1.5		Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.				
MOUNTING:		Unit is rigid floor mounted on 24in curb using (6) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (16) 1/2in Grade 8 bolts.				
CONSTRUCTION:		Carbon steel enclosure				
SUBCOMPONENTS:		Lennox - Tube and Fin Condenser Coil (25.9SFx3R), Lennox - Indoor Coil (13.5SFx4R), Lennox - Reheat Coil (5.42SF), Lennox - Gas Heat (HE 240K BTU Aluminized), Micrometal - Outside Air Damper (OA-L104446-02), Lennox - Downflow Curb (C1CURB73B-1). Tested subcomponents that are exempt per CBC 1705A.13.3.1: Copeland - Scroll Compressor (ZP61K5E-TF5-130), Mitsubishi - Blower Control (FR-D720-165-NA), Nidec - Belt Drive Blower Motor (DV42), Revcor (Air Drive) - Condenser Fan Blade (3P24CW26), Nidec - Condenser Fan Motors PSC (K55HXLVZ-2657), Creation Technologies - Control Box (103956-18), System Sensor - Smoke Detector (LD4SB, LD4P120BX), Lennox - Disconnect Box (606765), Noark - Circuit Breakers (MIS90T3L).				
TESTING NOTES:		UUT 8 is the same physical unit as UUT 7 but with the coil changed out.				



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 9

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:	LENNOX INDUSTRIES INC.
MODEL NUMBER:	LCH156H4MK4G
UNIT FUNCTION:	ROOFTOP AIR HANDLING UNIT
SERIAL NUMBER:	5619B07458



DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
107.8	91.1	54.3	1955	5.2	6.8	10.4

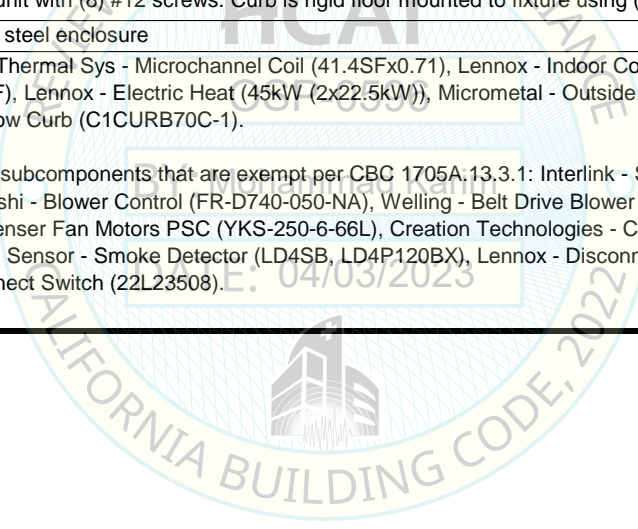
CODE & CRITERIA:	2022 CBC	ICC-ES AC156
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TEST LABORATORY:	ENVIRONMENTAL TESTING LABORATORY
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REPORT: 18061TR1.1 (dated 4/1/2019), tested on 3/5/2019
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S _{DS} (g)	z/h	A _{FLX-H} (g)	A _{RIG-H} (g)	A _{FLX-V} (g)	A _{RIG-V} (g)
2.00	1	3.20	2.40	1.68	0.68
2.50	0				

IMPORTANCE FACTOR, I_p = 1.5	Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.
MOUNTING:	Unit is rigid floor mounted on 8in curb using (8) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (20) 1/2in Grade 8 bolts.
CONSTRUCTION:	Carbon steel enclosure
SUBCOMPONENTS:	<p>Delphi Thermal Sys - Microchannel Coil (41.4SFx0.71), Lennox - Indoor Coil (21.4SFx3R), Lennox - Reheat Coil (7.33SF), Lennox - Electric Heat (45kW (2x22.5kW)), Micrometal - Outside Air Damper (OA-L104446-01), Lennox - Downflow Curb (C1CURB70C-1).</p> <p>Tested subcomponents that are exempt per CBC 1705A.13.3.1: Interlink - Scroll Compressor (ABA044WAA), Mitsubishi - Blower Control (FR-D740-050-NA), Welling - Belt Drive Blower Motor (YSDK2200-4I-1), Interlink-Welling - Condenser Fan Motors PSC (YKS-250-6-66L), Creation Technologies - Control Box (103956-18, 103892-01), System Sensor - Smoke Detector (LD4SB, LD4P120BX), Lennox - Disconnect Box (607549-01), Socomec - Disconnect Switch (22L23508).</p>



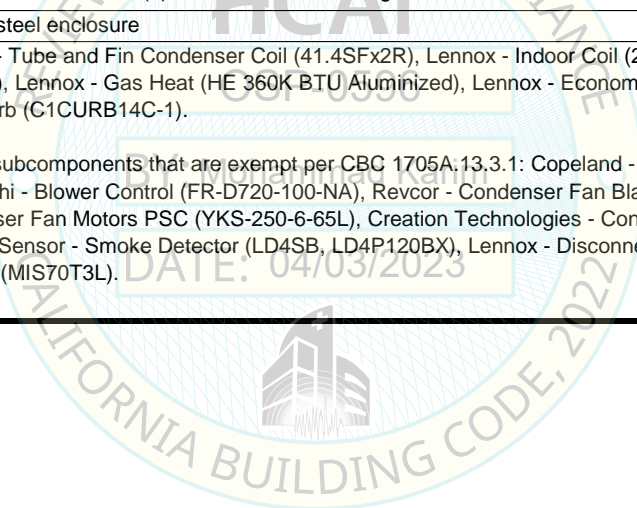
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 10

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:		LENNOX INDUSTRIES INC.				
MODEL NUMBER:		LGH156H4MM4Y				
UNIT FUNCTION:		ROOFTOP AIR HANDLING UNIT				
SERIAL NUMBER:		5619B07461				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
107.8	91.1	54.3	2198	5.0	6.4	10.8
CODE & CRITERIA:		2022 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT: 18061TR1.1 (dated 4/1/2019), tested on 3/5/2019						
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.00	1	3.20	2.40	1.68	0.68	
2.50	0					
IMPORTANCE FACTOR, I_p = 1.5		Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.				
MOUNTING:		Unit is rigid floor mounted on 26in curb using (8) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (20) 1/2in Grade 8 bolts.				
CONSTRUCTION:		Carbon steel enclosure				
SUBCOMPONENTS:		Lennox - Tube and Fin Condenser Coil (41.4SFx2R), Lennox - Indoor Coil (21.4SFx3R), Lennox - Reheat Coil (7.33SF), Lennox - Gas Heat (HE 360K BTU Aluminized), Lennox - Economizer (C1DAMP50C), Lennox - Horizontal Flow Curb (C1CURB14C-1). Tested subcomponents that are exempt per CBC 1705A.13.3.1: Copeland - Scroll Compressor (ZP44K5E-TF5), Mitsubishi - Blower Control (FR-D720-100-NA), Revcor - Condenser Fan Blade (T2403-24), Interlink-Welling - Condenser Fan Motors PSC (YKS-250-6-65L), Creation Technologies - Control Box (103956-18, 103892-01), System Sensor - Smoke Detector (LD4SB, LD4P120BX), Lennox - Disconnect Box (604539-01), Noark - Circuit Breaker (MIS70T3L).				



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 11

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:		LENNOX INDUSTRIES INC.				
MODEL NUMBER:		LCH240H4MP3Y				
UNIT FUNCTION:		ROOFTOP AIR HANDLING UNIT				
SERIAL NUMBER:		5619B07569				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
133.1	91.1	54.3	2516	5.3	6.0	8.7
CODE & CRITERIA:		2022 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT: 18061TR1.1 (dated 4/1/2019), tested on 3/4/2019						
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.00	1	3.20	2.40	1.68	0.68	
2.50	0					
IMPORTANCE FACTOR, I_p = 1.5		Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.				
MOUNTING:		Unit is rigid floor mounted on 24in curb using (8) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (20) 1/2in Grade 8 bolts.				
CONSTRUCTION:		Carbon steel enclosure				
SUBCOMPONENTS:		<p>Lennox - Tube and Fin Condenser Coil (55.2SFx2R), Lennox - Indoor Coil (21.4SFx4R), Lennox - Reheat Coil (7.33SF), Lennox - Electric Heat (90kW (2x45kW)), Micrometal - Economizer (EC-L104597-01), Lennox - Power Exhaust (C1PWRE11C), Lennox - Downflow Curb (C1CURB73C-1).</p> <p>Tested subcomponents that are exempt per CBC 1705A.13.3.1: Interlink - Scroll Compressor (ABA051RAA), Mitsubishi - Blower Control (FR-D720-318-NA), Nidec - Belt Drive Blower Motor (DV44), Revcor - Condenser Fan Blade (T2403-18), Interlink-Welling - Condenser Fan Motors PSC (YKS-250-6-65L), Creation Technologies - Control Box (103956-18, 103892-01), System Sensor - Smoke Detector (LD4SB, LD4P120BX), Lennox - Disconnect Box (607549-01), Square D - Circuit Breaker (JDP36250), Tri-Dim - Air Filters (06024242LM4, 2482424213-LS).</p>				



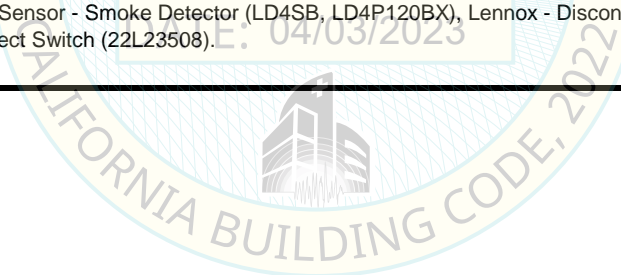
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 12

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:		LENNOX INDUSTRIES INC.				
MODEL NUMBER:		LGH300S4MH4G				
UNIT FUNCTION:		ROOFTOP AIR HANDLING UNIT				
SERIAL NUMBER:		5619B07463				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
133.1	91.1	54.3	2628	3.8	5.8	10.1
CODE & CRITERIA:		2022 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT: 18061TR1.1 (dated 4/1/2019), tested on 3/4/2019						
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.00	1	3.20	2.40	1.68	0.68	
2.50	0					
IMPORTANCE FACTOR, I_p = 1.5		Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.				
MOUNTING:		Unit is rigid floor mounted on 41in curb using (6) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (20) 1/2in Grade 8 bolts.				
CONSTRUCTION:		Carbon steel enclosure				
SUBCOMPONENTS:		Dephi Thermal Sys - Microchannel Coil (55.2SFx1.0), Lennox - Indoor Coil (21.4SFx4R), Lennox - Reheat Coil (7.33SF), Lennox - Gas Heat (HE 480K BTU Stainless), Morrison - Blower (03-78805), Ruskin - Economizer (50-361-52), Lennox - Power Exhaust (C1PWRE11C), Lennox - Horizontal Flow Curb (C1CURB17C-1). Tested subcomponents that are exempt per CBC 1705A.13.3.1: Copeland - Scroll Compressor (ZP61K5E-TFD-130), Mitsubishi - Blower Control (FR-D740-160-NA), Revcor - Condenser Fan Blade (T2403-18), Interlink-Welling - Condenser Fan Motors PSC (YKS-250-6-66L), Creation Technologies - Control Box (103956-18, 103892-01), System Sensor - Smoke Detector (LD4SB, LD4P120BX), Lennox - Disconnect Box (604539-01), Socomec - Disconnect Switch (22L23508).				



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 13

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:		LENNOX INDUSTRIES INC.				
MODEL NUMBER:		LGH300S4MH4G				
UNIT FUNCTION:		ROOFTOP AIR HANDLING UNIT				
SERIAL NUMBER:		5619B07463				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
133.1	91.1	54.3	2668	4.6	6.4	9.5
CODE & CRITERIA:		2022 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT: 18061TR1.1 (dated 4/1/2019), tested on 3/27/2019						
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.00	1	3.20	2.40	1.68	0.68	
2.50	0					
IMPORTANCE FACTOR, I_p = 1.5		Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.				
MOUNTING:		Unit is rigid floor mounted on 26in curb using (8) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (20) 1/2in Grade 8 bolts.				
CONSTRUCTION:		Carbon steel enclosure				
SUBCOMPONENTS:		<p>Dephi Thermal Sys - Microchannel Coil (55.2SFx1.0), Lennox - Indoor Coil (21.4SFx4R), Lennox - Reheat Coil (7.33SF), Lennox - Gas Heat (HE 480K BTU Stainless), Morrison - Blower (03-78805), Jefferson Electric - Powered GFI Transformer (411-B003-009), Ruskin - Economizer (50-361-52), Lennox - Power Exhaust (C1PWRE11C), Lennox - Horizontal Flow Curb (C1CURB14C-1).</p> <p>Tested subcomponents that are exempt per CBC 1705A.13.3.1: Copeland - Scroll Compressor (ZP61K5E-TFD-130), Mitsubishi - Blower Control (FR-D740-160-NA), Revcor - Condenser Fan Blade (T2403-18), Interlink-Welling - Condenser Fan Motors PSC (YKS-250-6-66L), Jefferson Electric - Powered GFI Transformer (411-B003-009), Creation Technologies - Control Box (103956-18, 103892-01), System Sensor - Smoke Detector (LD4SB, LD4P120BX), Lennox - Disconnect Box (604539-01), Socomec - Disconnect Switch (22L23508).</p>				
TESTING NOTES:		UUT 13 is the same physical unit as UUT 12 but with the added Powered GFI Transformer.				



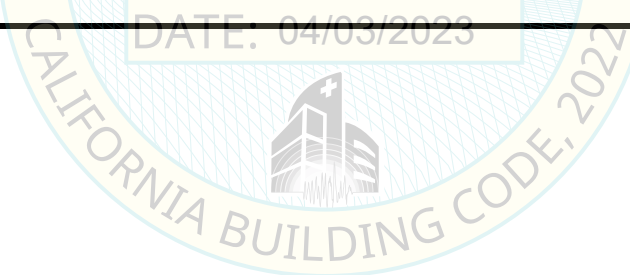
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 14

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:		LENNOX INDUSTRIES INC.				
MODEL NUMBER:		LCM036U4EN1Y				
UNIT FUNCTION:		ROOFTOP AIR HANDLING UNIT				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
85.3	47.0	46.9	684	4.1	7.7	9.0
CODE & CRITERIA:		2022 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT: 20044TR1.0 (dated 3/30/2021), tested on 3/4/2021						
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.00	1	3.20	2.40	1.68	0.68	
2.50	0					
IMPORTANCE FACTOR, I_p = 1.5		Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.				
MOUNTING:		Unit is rigid floor mounted on 14in curb using (4) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (8) 3/8in Grade 8 bolts.				
CONSTRUCTION:		Carbon steel enclosure				
SUBCOMPONENTS:		Lennox - Tube and Fin Condenser Coil (19.3SFx2R), Lennox - Indoor Coil (9.72SFx3R), EBM-Papst - EBM Blower (R3G310-PY18-X1), Lennox - Downflow Curb (C1CURB71A-1). Tested subcomponents that are exempt per CBC 1705A.13.3.1: EBM-Papst - EBM Blower (R3G310-PY18-X1), Interlink - Scroll Compressors (APA026DAA), BOMC - Condenser Fan Motor ECM (ZWK702B002012), Creation Technologies - Control Board (106519-01), LG - Variable Speed Controls (PDR070R010, PDR070R030, PDR070R020, PDR070R040), Revcor (Air Drive) - Condenser Fan Blade (611067-SGL).				



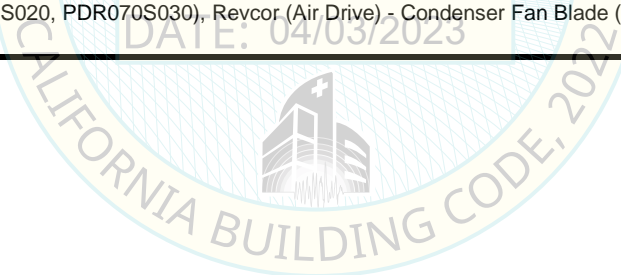
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 15

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:		LENNOX INDUSTRIES INC.				
MODEL NUMBER:		LGM102U4EM1G				
UNIT FUNCTION:		ROOFTOP AIR HANDLING UNIT				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT	(lb)	F-B	S-S	V
101.3	60.1	46.9	1300	4.0	5.8	8.2
CODE & CRITERIA:		2022 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT: 20044TR1.0 (dated 3/30/2021), tested on 3/4/2021						
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.00	1	3.20	2.40	1.68	0.68	
2.50	0					
IMPORTANCE FACTOR, I_p = 1.5		Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.				
MOUNTING:		Unit is rigid floor mounted on 14in curb using (6) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (10) 3/8in Grade 8 bolts.				
CONSTRUCTION:		Carbon steel enclosure				
SUBCOMPONENTS:		Lennox - Tube and Fin Condenser Coil (20.5SFx3R), Lennox - Indoor Coil (13.5SFx4R), Lennox - Reheat Coil (8.13SF), EBM-Papst - EBM Blower (R3G500-AP25-08A), Ningbo Zhongce E.T. - Auto Transformer (ETE-AT2.9K-460230), Ruskin - Economizer (50-361-51C), Lennox - Downflow Curb (C1CURB71B-1). Tested subcomponents that are exempt per CBC 1705A.13.3.1: Copeland - Scroll Compressor (ZP42K6E-TFD), Interlink - Scroll Compressor (ABA042DBA), BOMC - Condenser Fan Motor ECM (ZWK702B002011), Creation Technologies - Control Board (106519-01), LG - Variable Speed Controls (PDR070S010, PDR070R030, PDR070S020, PDR070S030), Revcor (Air Drive) - Condenser Fan Blade (611067-CTN-B).				



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 16

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:		LENNOX INDUSTRIES INC.				
MODEL NUMBER:		LGM300U4MS1G				
UNIT FUNCTION:		ROOFTOP AIR HANDLING UNIT				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
133.1	91.1	54.3	2548	10.2	5.5	7.4
CODE & CRITERIA:		2022 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT: 20044TR1.0 (dated 3/30/2021), tested on 3/3/2021						
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.00	1	3.20	2.40	1.68	0.68	
2.50	0					
IMPORTANCE FACTOR, I_p = 1.5		Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.				
MOUNTING:		Unit is rigid floor mounted on 14in curb using (8) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (14) 3/8in Grade 8 bolts.				
CONSTRUCTION:		Carbon steel enclosure				
SUBCOMPONENTS:		<p>Lennox - Tube and Fin Condenser Coils (55.2SFx3R), Lennox - Indoor Coil (21.4SFx4R), Lennox - Reheat Coil (14.66SF), Morrison - Blower (03-78805), Square D - Transformer (I5S1F), Ningbo Zhongce E.T. - Auto Transformer (ETE-AT2.9K-460230), Lennox - Downflow Curb (C1CURB71C-1).</p> <p>Tested subcomponents that are exempt per CBC 1705A.13.3.1: Copeland - Scroll Compressors (ZP61K5E-TFD, ZP67KCE-TFD), Interlink - Scroll Compressor (ABA051DAA), Nidec - Belt Drive Blower Motor (DV38), BOMC - Condenser Fan Motor ECM (ZWK702B002011), Socomec - Disconnect Switch (22L23508), Creation Technologies - Control Board (106523-01), LG - Variable Speed Controls (PDR070S010, PDR070R030, PDR070S020, PDR070S030), Mitsubishi - Blower Control (FR-D740-080-NA), Revcor (Air Drive) - Condenser Fan Blade (611067-SGL).</p>				



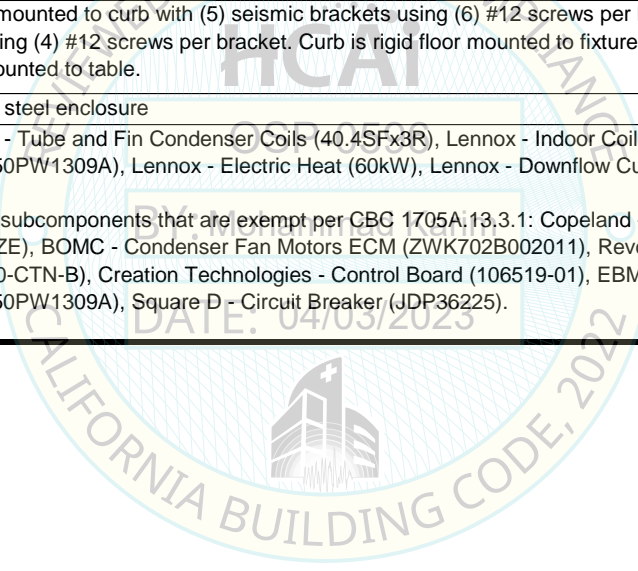
ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 17

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:		LENNOX INDUSTRIES INC.				
MODEL NUMBER:		LHT150H4EL1Y				
UNIT FUNCTION:		ROOFTOP AIR HANDLING UNIT				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
124.4	60.1	46.9	1415	4.2	7.0	10.2
CODE & CRITERIA:		2022 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT: 20044TR2.0 (dated 3/26/2023), tested on 2/27/2023						
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.00	1	3.20	2.40	1.68	0.68	
2.50	0					
IMPORTANCE FACTOR, I_p = 1.5		Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.				
MOUNTING:		Unit is mounted to curb with (5) seismic brackets using (6) #12 screws per bracket. Seismic bracket connects to 14in curb using (4) #12 screws per bracket. Curb is rigid floor mounted to fixture using (10) 3/8-in Grade 8 bolts. Fixture is rigid mounted to table.				
CONSTRUCTION:		Carbon steel enclosure				
SUBCOMPONENTS:		Lennox - Tube and Fin Condenser Coils (40.4SFx3R), Lennox - Indoor Coil (12.8SFx4R), EBM-Papst - EBM Blower (R3G450PW1309A), Lennox - Electric Heat (60kW), Lennox - Downflow Curb (C1CURB71B-1). Tested subcomponents that are exempt per CBC 1705A.13.3.1: Copeland - Scroll Compressor (ZPS60K5E, ZP67KZE), BOMC - Condenser Fan Motors ECM (ZWK702B002011), Revcor (Air Drive) - Condenser Fan Blade (611170-CTN-B), Creation Technologies - Control Board (106519-01), EBM-Papst - EBM Blower (R3G450PW1309A), Square D - Circuit Breaker (JDP36225).				



ATTACHMENT 2: UNIT UNDER TEST SUMMARIES

SPECIAL SEISMIC CERTIFICATION

UUT 18

DOCUMENT NO.: 20044CR2.0

MANUFACTURER:		LENNOX INDUSTRIES INC.				
MODEL NUMBER:		LDT240H4MH1Y				
UNIT FUNCTION:		ROOFTOP AIR HANDLING UNIT				
SERIAL NUMBER:		N/A				
DIMENSIONS (in)			WEIGHT (lb)	RES. FREQ. (Hz)		
DEPTH	WIDTH	HEIGHT		F-B	S-S	V
133.1	91.1	54.3	2360	4.9	6.4	9.5
CODE & CRITERIA:		2022 CBC		ICC-ES AC156		
TEST LABORATORY:		ENVIRONMENTAL TESTING LABORATORY				
REPORT: 20044TR2.0 (dated 3/26/2023), tested on 2/27/2023						
S_{DS} (g)	z/h	A_{FLX-H} (g)	A_{RIG-H} (g)	A_{FLX-V} (g)	A_{RIG-V} (g)	
2.00	1	3.20	2.40	1.68	0.68	
2.50	0					
IMPORTANCE FACTOR, I_p = 1.5		Unit was full of operating content during the shake table test. Unit maintained structural integrity and remained functional per manufacturer requirement after shake table test.				
MOUNTING:		Unit is rigid floor mounted on 14in curb using (8) seismic brackets. Each bracket connects to curb with (4) #12 screws and to unit with (8) #12 screws. Curb is rigid floor mounted to fixture using (14) 3/8in Grade 8 bolts.				
CONSTRUCTION:		Carbon steel enclosure				
SUBCOMPONENTS:		Lennox - Tube and Fin Condenser Coil (55.1SFx2R), Lennox - Indoor Coil (21.4SFx4R), Morisson - Blowers (03-78805), Lennox - Gas Heat (HE 480K BTU Aluminized), Lennox - Downflow Curb (C1CURB71C-1). Tested subcomponents that are exempt per CBC 1705A.13.3.1: Copeland - Scroll Compressor (ZPS104KCE, ZP104KZE), Nidec - Belt Drive Blower Motor (DV44), Mitsubishi - Blower Control (FR-D720-318-NA), Interlink-Welling - Condenser Fan Motors PSC (YKS-250-6-65L), Revcor (Air Drive) - Condenser Fan Blade (T2403-18), Creation Technologies - Control Board (106519-01), Square D - Circuit Breaker (JDP36175).				



