

LUX ARCHITECTURAL PRODUCTS TEST REPORT

SCOPE OF WORK

ASTM E1592 TESTING ON LUX NEO LUMBER (SUPPORTED)

REPORT NUMBER

Q4604.01-109-44

TEST DATE

11/10/23

ISSUE DATE

01/05/24

RECORD RETENTION END DATE

11/09/27

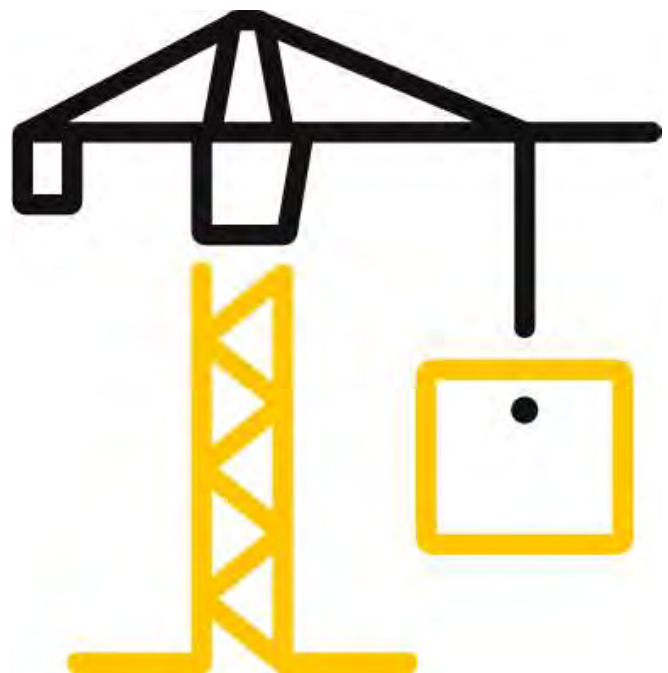
PAGES

14

DOCUMENT CONTROL NUMBER

RT-R-AMER-Test-2805 (10/12/23)

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TEST REPORT FOR LUX ARCHITECTURAL PRODUCTS

Report No.: Q4604.01-109-44

Date: 01/05/24

REPORT ISSUED TO

LUX ARCHITECTURAL PRODUCTS

14525 112ave Street NW
Edmonton, Alberta T5M 2V5
CANADA

SECTION 1

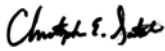
SCOPE

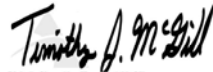
Architectural Testing, Inc. (an Intertek company) dba Intertek Building & Construction (B&C) was contracted by Lux Architectural Products to perform testing in accordance with ASTM E1592, on their Lux Neo Lumber (Supported). Results obtained are tested values and were secured by using the designated test method. Testing was conducted at Intertek B&C test facility in York, Pennsylvania.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. Intertek B&C will service this report for the entire test record retention period. The test record retention period ends four years after the test date. Test records, such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained for the entire test record retention period.

Unless differently required, Intertek reports apply the "Simple Acceptance" rule, also called "Shared Risk approach," of ILAC-G8:09/2019, Guidelines on Decision Rules and Statements of Conformity.

For INTERTEK B&C:

COMPLETED BY:	Christopher E. Sartalis
TITLE:	Technician – Product Testing
SIGNATURE:	 Digitally Signed by: Christopher Sartalis
DATE:	01/05/24

REVIEWED BY:	Timothy J. McGill
TITLE:	Senior Project Engineer – Product Testing
SIGNATURE:	 Digitally Signed by: Timothy J. McGill
DATE:	01/05/24

CES:mas

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TEST REPORT FOR LUX ARCHITECTURAL PRODUCTS

Report No.: Q4604.01-109-44

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SECTION 2**SUMMARY OF TEST RESULTS****Ultimate Test Load Achieved:** -270 psf**SECTION 3****TEST METHOD**

The specimen was evaluated in accordance with the following:

ASTM E1592-05(2017), *Standard Test Method for Structural Performance of Sheet Metal Roof and Siding Systems by Uniform Static Air Pressure Difference*

SECTION 4**MATERIAL SOURCE/INSTALLATION**

Test specimen was provided by the client. Installation was performed by Intertek B&C per Manufacturer's Instructions. Representative samples of the test specimen(s) will be retained by Intertek B&C for a minimum of four years from the test completion date. Installation was performed by Intertek B&C.

SECTION 5**EQUIPMENT****Control Panel:** 005644**Weather Station:** 63316**Tape Measure Verification:** 63788**Linear Transducers:** 64461, INT03252, INT03251, INT03248, 62189, INT03250**SECTION 6****LIST OF OFFICIAL OBSERVERS**

NAME	COMPANY
Timothy J. McGill	Intertek B&C
Christopher E. Sartalis	Intertek B&C

TEST REPORT FOR LUX ARCHITECTURAL PRODUCTS

Report No.: Q4604.01-109-44

Date: 01/05/24

SECTION 7

TEST SPECIMEN DESCRIPTION

Series/Model: Lux Neo Lumber (Supported)

Product Size(s):

OVERALL AREA:	WIDTH		HEIGHT	
	millimeters	inches	millimeters	inches
2.2 m ² (23.8 ft ²)				
Overall size	724	28-1/2	3048	120
Long Side Panel size (3)	165	6-1/2	51	2
Short Side Panel size (3)	51	2	165	6-1/2

Test Wall Construction: The 3' x 10' test wall was constructed of 2x6, 18-gauge galvanized steel stud with a horizontal stud located at the midspan of the height. The wall utilized a 2x8 Spruce-Pine-Fir wood wrap around the perimeter to facilitate testing.

Test Specimen Installation: Twelve 10' pieces of Neo Lumber with a nominal thickness of 0.025" were interlocked together with 18-gauge steel supports on the inside creating six completed panels. The Neo Lumber panels were installed on to the test wall without sheathing. The long side panels were fastened with three #14 x 1-1/4" hex head screws with 3/4" self-sealing washer, the short side panels used two fasteners. The panels were secured to the test wall at the top and bottom plates and the horizontal stud through the panel into the test wall perimeter utilizing a 1/2" between each panel. The panels of Neo Lumber were installed in a long side and short side orientation, starting with long side and ending with short side in an alternating pattern, utilizing three of each.

TEST REPORT FOR LUX ARCHITECTURAL PRODUCTS

Report No.: Q4604.01-109-44

Date: 01/05/24

SECTION 8

TEST RESULTS

The temperature during testing was 19°C (66°F). The results are tabulated as follows:

Test Pressure	Observations	Result	Note
-45.0 psf (-2,155 Pa) - -270.0 psf (-12,928 Pa)	Visible stress to the wall system (Reference Table #1 for deflection and permanent set measurements)	Pass	1, 2
-275.0 psf (-13,167 Pa)	Thirty seconds into target load, the interlock where the panels come together, pulled apart.	Failed	--

General Note: All testing was performed in accordance with the referenced standard(s).

Note 1: Loads were held for 60 seconds.

Note 2: Tape and film were used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the test.

Table #1 – Deflection Data

Load (psf)	Measurement Type	Indicator Locations					
		#1 (In.)	#2 (In.)	#3 (In.)	#4 (In.)	#5 (In.)	#6 (in.)
-45.0	Deflection	0.10	0.08	0.02	0.03	0.03	0.03
0	Permanent Set	0.01	0.01	<0.01	0.01	0.01	<0.01
-90.0	Deflection	0.25	0.20	0.08	0.09	0.10	0.08
0	Permanent Set	0.03	0.03	0.01	0.02	0.02	0.01
-135.0	Deflection	0.39	0.33	0.18	0.17	0.18	0.14
0	Permanent Set	0.05	0.05	0.03	0.03	0.03	0.03
-180.0	Deflection	0.56	0.50	0.31	0.28	0.29	0.24
0	Permanent Set	0.08	0.08	0.05	0.06	0.07	0.06
-225.0	Deflection	0.79	0.73	0.46	0.45	0.45	0.38
0	Permanent Set	0.16	0.15	0.10	0.12	0.13	0.12
-270.0	Deflection	1.13	1.08	0.77	0.79	0.74	0.63
0	Permanent Set	0.33	0.34	0.28	0.33	0.31	0.25
-275.0	Failed building pressure to -275 psf, interlock came apart at the top of specimen causing pressure to be lost.						



Total Quality. Assured.

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Report No.: Q4604.01-109-44

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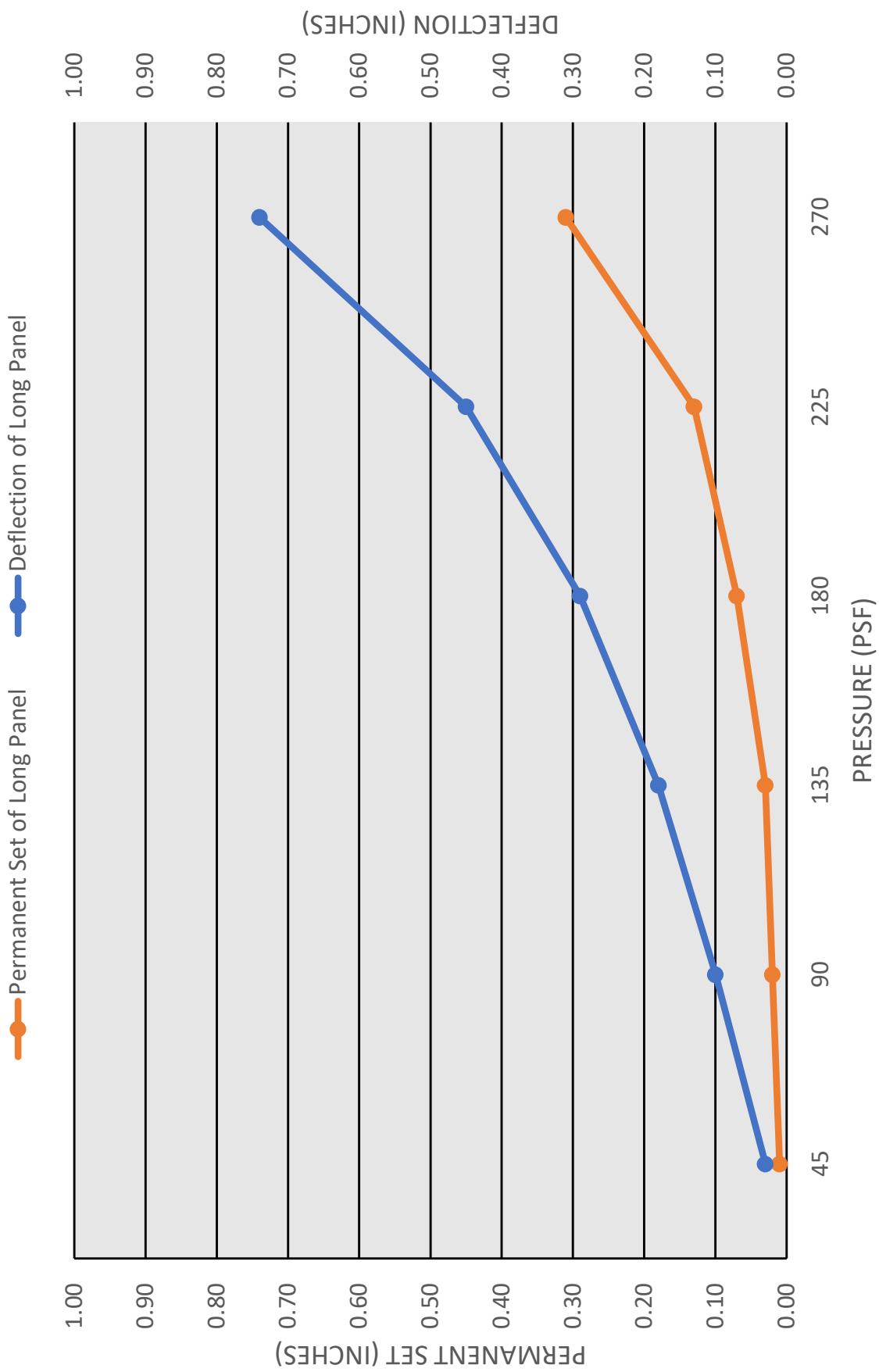
SECTION 9

CHARTS

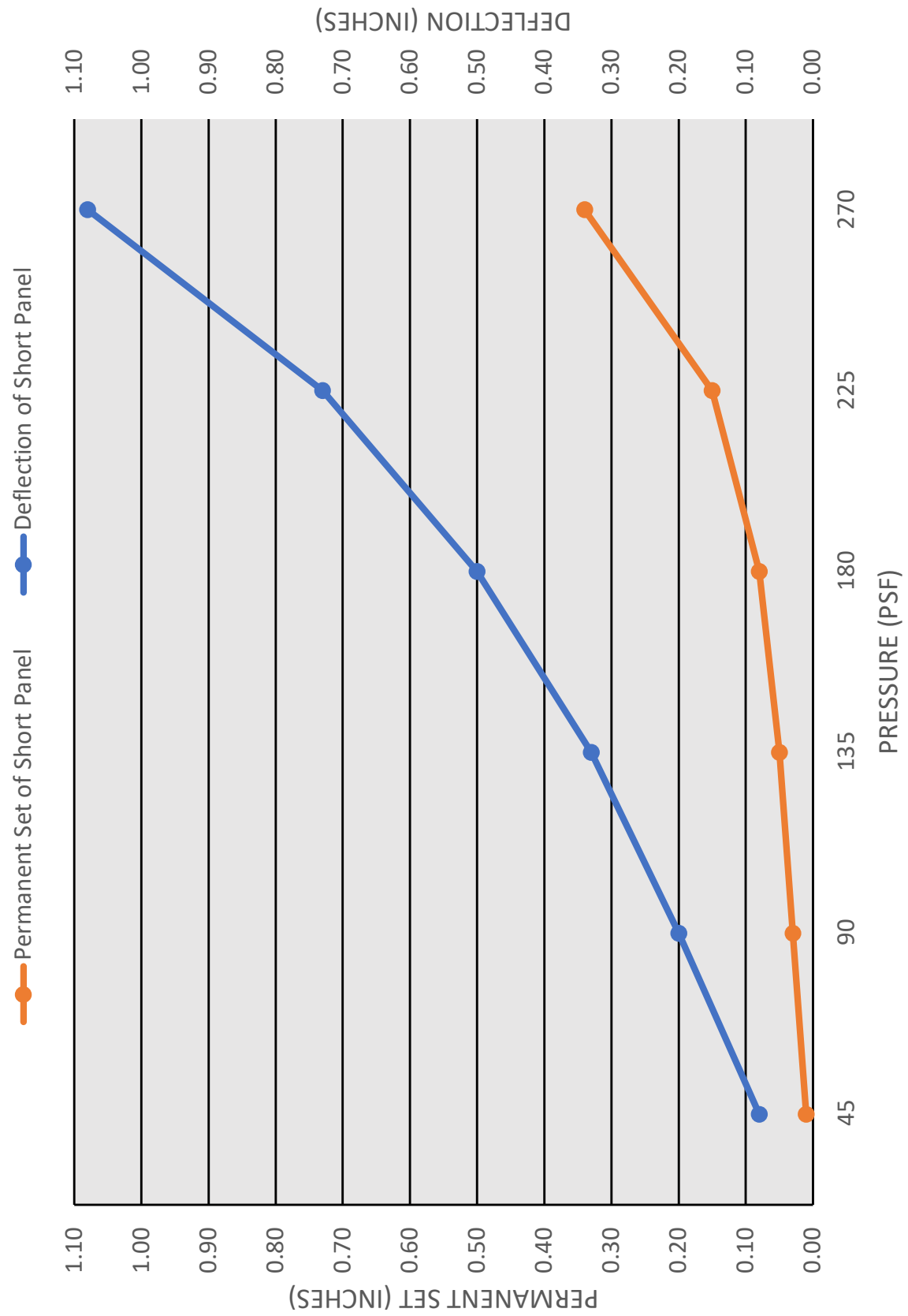
130 Derry Court
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DEFLECTIONS AND PERMANENT SET



DEFLECTIONS AND PERMANENT SET





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TEST REPORT FOR LUX ARCHITECTURAL PRODUCTS

Report No.: Q4604.01-109-44

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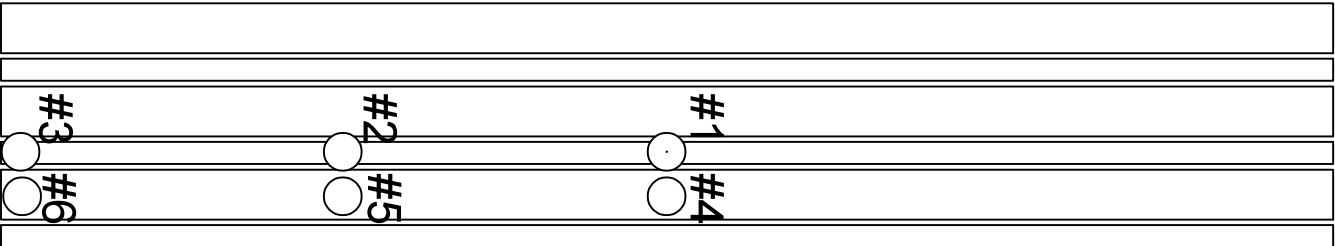
SECTION 10

SKETCH

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REV	DATE	DESCRIPTION	BY
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PROJECT NO. Q4604.01 109 – 44	PROJECT NAME: ASTM E1592		DRAWING	DWG. BY TJM	SHEET 1 OF 1
CLIENT: LUX ARCHITECTURAL PRODUCTS			SKETCH #1 INDICATOR LOCATIONS	DATE: 12/19/23	

TEST REPORT FOR LUX ARCHITECTURAL PRODUCTS

Report No.: Q4604.01-109-44

Date: 01/05/24

SECTION 11

PHOTOGRAPH



Photo No. 1

Test Specimen prior to testing



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Date: 01/05/24

SECTION 12

DRAWING

The test specimen drawings have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.

NEOLUMBER

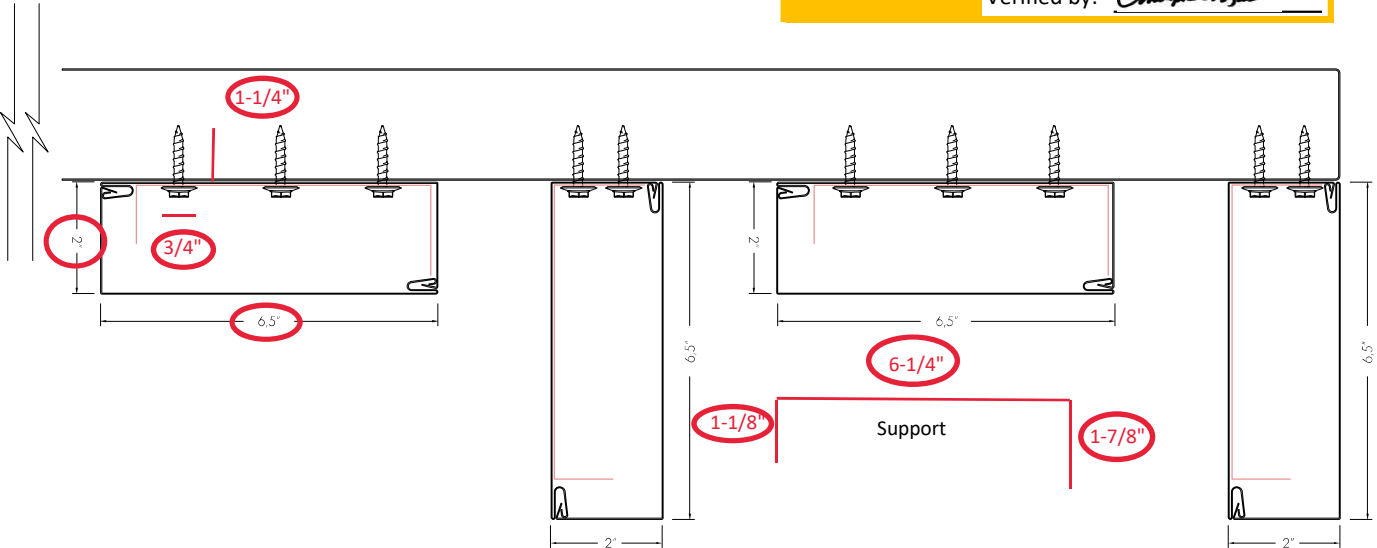
WIND LOAD TEST



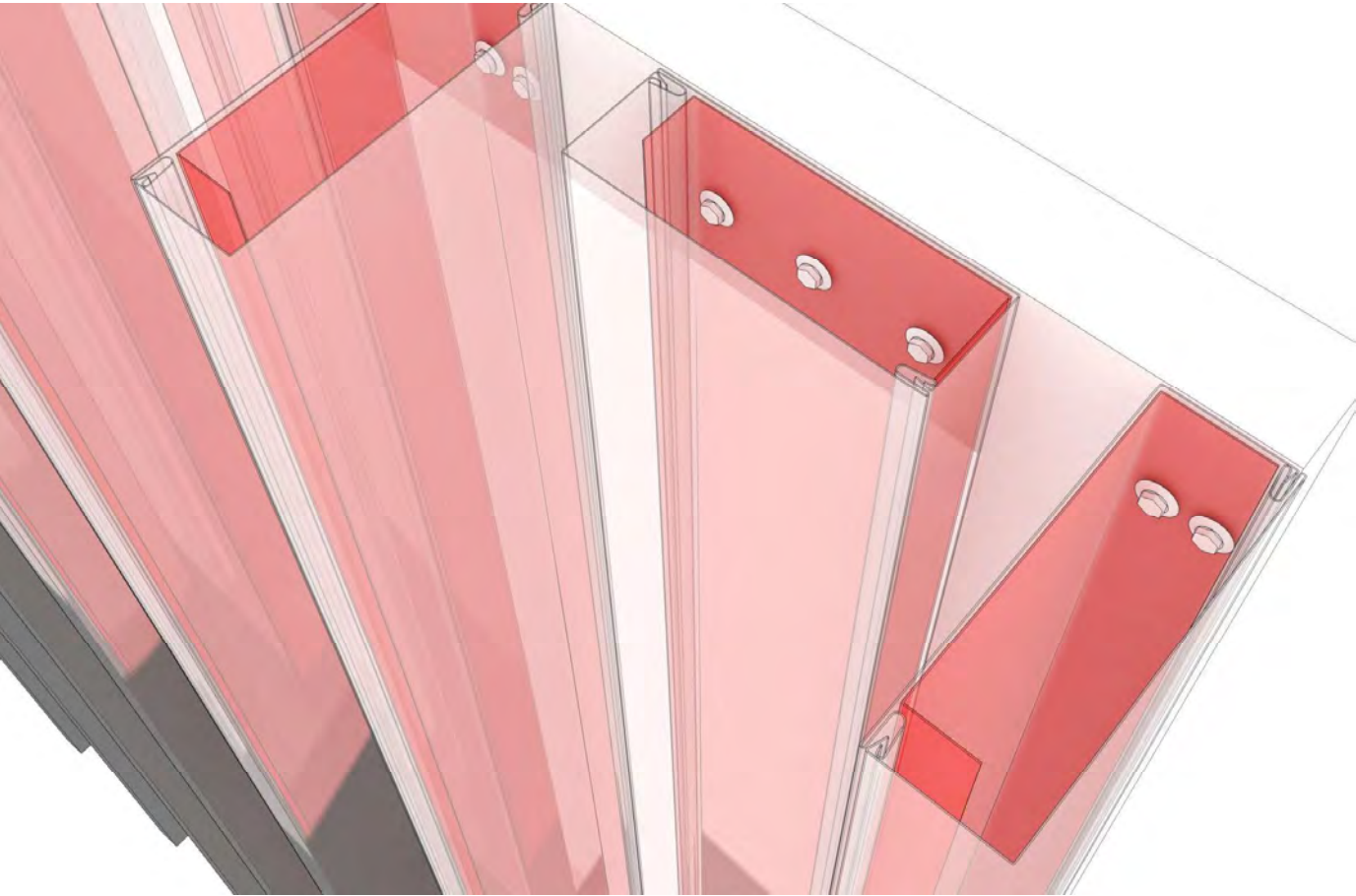
SECTION B-B



Report #: q4604.01
Date: 12/22/23
Verified by: *Charles E. Jeter*



PERSPECTIVE B-B





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TEST REPORT FOR LUX ARCHITECTURAL PRODUCTS

Report No.: Q4604.01-109-44

Date: 01/05/24

SECTION 13

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	01/05/24	N/A	Original Report Issue