

BUILDING LEAKAGE TEST

CR-BPS Inc 10805 River Hill Circle Brainerd, MN 56401

Date of Test: 10/28/2019 Test File: Miller Cabin EPS

Technician: JL Customer: **Energy Panel Structures**

603 N. Van Gordon Ave. Graettinger, IA 51342 Phone: 800.967.2130

Building Address: Miller Cabin

Project Number: Miller Cabin Ely MN

2935 Vanvac Road Ely, MN 55731

Test Results

1. Airflow at 50 Pascals: 377 CFM50 (+/- 1.1 %)

> (50 Pa = 0.2 w.c.)1.41 ACH50

2. Leakage Area: 20.7 in 2 LBL ELA @ 4 Pa

3. Building Leakage Curve: Flow Coefficient (C) = 28.3 + 8.3 %

> Exponent (n) = 0.662 (+/-0.023)Correlation Coefficient = 0.99941

4. Test Settings: Test Standard: RESNET Multi-Point Test

Test Mode: Depressurization

5. Accuracy Level Standard Level of Accuracy Test

Infiltration Estimates

1. Estimated Average Annual Infiltration Rate: 23.1 CFM

0.09 ACH

7.7 CFM per person

(using bedrooms + 1)

2. Estimated Design Infiltration Rate: 36.8 CFM Summer: 22.7 CFM Winter:

> 0.14 ACH 0.09 ACH

Cost Estimates

1. Estimated Cost of Air Leakage for Heating:

2. Estimated Cost of Air Leakage for Cooling:



BUILDING LEAKAGE TEST Page 2 of 4

Date of Test: 10/28/2019 Test File: Miller Cabin EPS

Building Information

Location Climate Information

Volume	16000
Surface Area	
Floor Area	1505
Height	16
# of Bedrooms	2
# of Occupants	2
Year of Construction	2019
Wind Shield	M

Ventilation Weather Factor	0.98
Energy Climate Factor	16.00
Heating Degree Days	10269
Cooling Degree Days	65
Design Winter Wind Speed	5.4 mph
Design Summer Wind Speed	10.6 mph
Design Winter Temp Diff	93 deg F
Design Summer Temp Diff	8 deg F

Heating and Cooling Cost and Efficiency Information

Heating Fuel	Gas
Heating Fuel Cost	
Heating Efficiency %	
Cooling Fuel Cost	
Cooling SEER	

Equipment Information

Туре	Manufacturer	Model	Serial Number	Custom Calibration Date
Fan	Energy Conservatory	Duct Blaster B		-
Micromanometer	Energy Conservatory	DG700	38722	4/11/2017



BUILDING LEAKAGE TEST Page 3 of 4

Date of Test: 10/28/2019 Test File: Miller Cabin EPS

Depressurization Test:

Environmental Data

Indoor Temperature (°F)	Outdoor Temperature (°F)	Altitude (ft)
55.0	30.0	800.0

Data Points - Automated Test (TT 4.0.53.0)

Nominal Building Pressure (Pa)	Baseline Adjusted Building Pressure (Pa)	Fan Pressure (Pa)	Nominal Flow (cfm)	Adjusted Flow (cfm)	% Error	Fan Configuration
-2.4	n/a	n/a				
-61.2	-59.6	119.1	450	428	1.1	Ring 1
-56.7	-55.1	106.6	426	404	0.7	Ring 1
-49.6	-48.0	85.5	381	362	-1.4	Ring 1
-43.9	-42.3	74.4	355	337	0.1	Ring 1
-37.9	-36.3	59.7	318	302	-1.0	Ring 1
-32.7	-31.1	48.8	287	273	-0.7	Ring 1
-26.0	-24.4	36.6	248	236	8.0	Ring 1
-20.4	-18.8	25.9	209	198	0.4	Ring 1
-0.8	n/a	n/a				G

Time Averaging Period: 10

Deviations from Standard RESNET Multi-Point Test - Test Parameters

None



BUILDING LEAKAGE TEST Page 4 of 4

Date of Test: 10/28/2019 Test File: Miller Cabin EPS

Comments

Mn Energy Code Air Leakage Rate Test