**HYGROTHERMAL SNAPSHOT**

**Framed Wall: Fiber Cement + Mineral Wool**

Minneapolis, Minnesota  |  44.52°N  66.00°W  |  Elev. 872 ft  |  -6 UTC

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**ASSEMBLY COMPONENTS**

1. Fiber Cement  |  4 in
2. Housewrap WRB  |  0.008 in
3. Gypsum Sheathing  |  0.49 in
4. Mineral Wool Insulation  |  2.5 in
5. Polyethylene VR  |  0.03 in
6. Interior Gypsum Board  |  0.49 in
7. Interior Paint & Primer  |  0.003 in

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**PARAMETERS**

| Test Duration | 2 Yrs |
| Interior Moisture | Low |
| Interior Temperature | 69.8°F ± 1.8°F |
| Interior Humidity | 45% ± 15% |
| Orientation / Inclination | N/ 90° |
| Radiation Absorptivity | 0.3 |
| Radiation Emissivity | 0.94 |
| Rain Exposure / Deposition\(^1\) | 0.5 |
| Rain Penetration\(^2\) | 1% |
| Rainscreen / ACH | No / 0 |

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**CLIMATE NORMALS**

- Temp. Daily Max / Min: 53.9°F / 35.9°F
- RH Daily Max / Min: 79% / 59%
- Rainfall: 30.6 in
- Snowfall: 54.4 in
- Wind Speed: 9.7 mph
- Wind Direction: 320°
- Station Air Pressure: 29.1 in
- Heating Degree Days (65°F): 7,580
- Cooling Degree Days (65°F): 753
- Modeled Climate Data: WUFI

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**PERFORMANCE RATINGS**

Ratings are based on ASHRAE Standard 160\(^1\). Resistant materials are evaluated based on hourly 30-day running averages at ≥95% RH, 41°F. P = Pass; Criteria met
C = Conditional; Criteria compliance is uncertain
F = Fail; Criteria not met for a 30-day running average
CF = Critical Fail; Criteria not met at multiple 30-day running averages

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**ABOUT THIS REPORT**

These findings are offered for informational purposes only and are not intended as a comprehensive hygrothermal analysis. Design considerations should not rely on this report as the sole means for predicting assembly performance. Uncertainties and limitations inherent to hygrothermal modeling apply to these findings\(^2\). For more information, visit our website at www.built-environments.com.

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2. ASTM MNL 18: Moisture Control in Buildings.