HYGROTHERMAL SNAPSHOT

Standing Seam Metal Roof
Oklahoma City, Oklahoma  |  35.23°N 97.36°W  |  Elev. 1,285 ft  |  -6 UTC

RATING  Conditional  C

ASSEMBLY COMPONENTS
1. Standing Seam Metal Roof  0.03 in
2. Ice & Water Membrane  0.04 in
3. Metal Roof Deck (1.5")  0.03 in
4. Fiberglass Batt Insulation  16 in
5. Polyethylene VR  0.03 in

PARAMETERS
Test Duration  2 Yrs
Interior Moisture  Low
Interior Temperature  69.8°F ± 1.8°F
Interior Humidity  45% ± 15%
Orientation / Inclination  5/12°
Roof Surface Absorptivity  0.2
Roof Surface Emissivity  0.9
Rain Exposure / Deposition\(^1\)  1/1
Rain Penetration\(^2\)  0%
Rainscreen / ACH  No / 0

CLIMATE NORMALS
Temp. Daily Max / Min  72.2°F / 50.7°F
RH Daily Max / Min  80% / 54%
Rainfall  36.52 in
Snowfall  7.6 in
Wind Speed  11.4 mph
Wind Direction  170°
Station Air Pressure  28.6 in
Heating Degree Days (65 F)  3,365
Cooling Degree Days (65 F)  2,099
Modeled Climate Data  WUFI

MOLD AND CORROSION RISKS AT PREDICTED RH AND SURFACE TEMPERATURES (YEAR 2)

Insulation Exterior  Insulation Interior  ASHRAE 30-Day Criteria  95% RH; 41°F

PERFORMANCE RATINGS
Ratings are based on ASHRAE Standard 160\(^2\). 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

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.

2. ASTM MNL 18: Moisture Control in Buildings.