

COOLING PERFORMANCE CURVE FOR THE NEBRASKA MODIFIED ROOF POND
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ABSTRACT

A Cooling performance curve for the Nebraska Modified Roof Pond is presented in this paper. For a given fixed pond temperature the generated curve is a plot of the total deliverable Cooling versus the ambient outdoor temperature. This Cooling performance curve occurs for a fixed water temperature of 21.1 °C (70.0 °F). Each test point requires one complete night of testing. The peak Cooling capacity for the test period exceed 6 kilowatt-hours per square meter of roof pond area for an 8.5 hour interval when the pump is on.