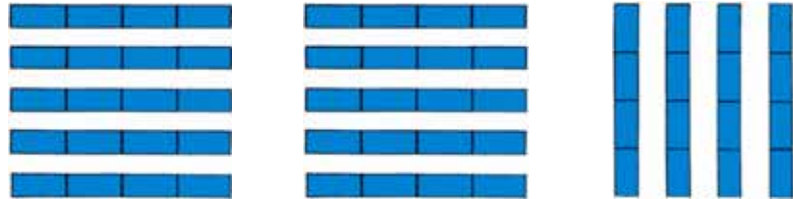




# PVO Pergolas

## PV Energy

### Energy delivered at Madison, Wisconsin with 120 Wp PV Panels



PV Rows	5 Rows	5 Rows	4 Rows
Tilt angle	20 deg.	30 deg.	1-axis trac
PV panels	20	20	16
kWh/year/panel	145	149	175
kWh/summer/panel	50	49	65
kWh/year/pergola	2900	2980	2800
kWh/summer/pergola	1000	980	1040

RETScreen PV calculations by Productive Energy Solutions LLC with 120Wp PV modules (10ft<sup>2</sup>/0.93m<sup>2</sup> each, 12.9% PV module eff., 90% inverter eff., and 5% power conditioning losses, on-grid).

PVO-Pergolas with 4 PV panels per row can be arranged in 2 row (8-panel) to 8 row (32-panel) plans with tilt angle and row spacing options. Stationary low tilt PV rows receive less wind loads with more snow loads and snow cover. The 1-axis tracker with 45° tilt receives larger wind loads. Multiple columns can distribute the loads of engineered PVO Pergolas on roof terraces.



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