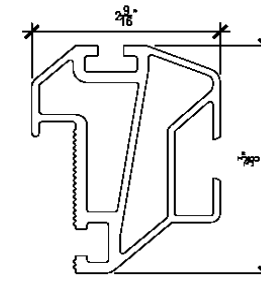
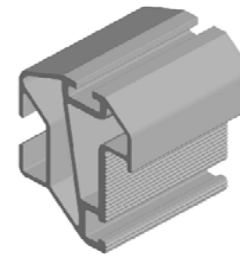


L30 RAIL SPANS (ft)					
wind speed (mph)	Snow (psf) (Ground snow load, P _g)				
	0	20	25	30	40
90	12.50	11.75	11.25	11.00	10.50
100	11.75	11.25	11.00	10.50	10.25
110	11.00	10.75	10.50	10.25	9.75
120	10.50	10.25	10.00	10.00	9.50
140	9.50	9.50	9.50	9.25	9.00
150	9.00	9.00	9.00	9.00	8.75



Rail Properties

A = 1.896 in²

I_x = 1.953 in⁴

weight = 2.230 plf

6063 - T6 Extruded Aluminum

Design criteria

1. Roof Zone 1
2. Building mean roof height = 15 ft.
3. Building category = II
4. Importance factor = 1.0.
5. Exposure category: C
6. Topographic factor = 1.0
7. Roof slope = 5 degrees
8. PV module size: 65.04" x 39.06". Weight per panel = 41.45 lbs.
9. Maximum span of rail is governed by mid-span flexural stresses or deflection limit on a **4-span continuous beam**.
10. Deflection limit: L/120
11. Wind load pressure analyzed as acting toward the PV surface only.
12. PV panels are oriented in portrait and rails run perpendicular to the long side of panel.
13. Rail is oriented vertically on it's strong axis.
14. Wind load designed per ASCE 7-05, Method 2, Section 6.5.13.3 for Monosloped Roofs.

For conditions different from the design criteria, please contact LevelOne Solar for a complete engineering analysis.