

Maximum EPA Table - Top Mount Fixture/Base Mount

EroVista Column Section Size	Column Height Above Base (ft)	Maximum Fixture EPA (ft ²)					
		Design Wind Speed - AASHTO LTS-6 (ASCE 7-05) (mph)					
		90	100	120	130	140	150
		Ultimate Wind Speed - IBC 2015 (ASCE 7-10) (mph)					
		116	129	154	167	180	193
5" x 5-1/2"	8	20.87	16.47	10.74	8.81	7.28	6.05
	10	15.51	12.02	7.47	5.94	4.73	3.75
	12	11.69	8.82	5.07	3.81	2.82	2.01
	14	8.75	6.33	3.17	2.11	1.26	---
	16	6.10	4.07	1.43	---	---	---
	18	3.87	2.16	---	---	---	---
	20	1.94	---	---	---	---	---
6-3/4" x 6-3/4"	8	49.53	39.55	26.56	22.18	18.72	15.92
	10	38.07	30.12	19.78	16.30	13.54	11.31
	12	30.11	23.54	14.98	12.09	9.81	7.97
	14	24.15	18.57	11.29	8.85	6.91	5.34
	16	18.84	14.13	7.98	5.91	4.27	2.95
	18	14.51	10.47	5.22	3.45	2.05	0.92
	20	10.86	7.38	2.84	1.31	---	---
	22	7.70	4.68	---	---	---	---
	24	5.04	2.38	---	---	---	---
26	2.48	---	---	---	---	---	
8-1/2" x 8-1/4"	8	97.18	77.95	52.90	44.47	37.79	32.40
	10	75.67	60.33	40.36	33.64	28.31	24.01
	12	60.91	48.18	31.61	26.03	21.62	18.05
	14	50.00	39.15	25.03	20.28	16.51	13.47
	16	40.36	31.15	19.16	15.13	11.93	9.35
	18	32.59	24.67	14.36	10.89	8.14	5.91
	20	26.14	19.25	10.28	7.26	4.87	2.94
	22	20.39	14.40	6.60	3.98	1.90	---
	24	15.71	10.43	3.54	1.22	---	---
	26	11.31	6.67	---	---	---	---
	28	7.59	3.46	---	---	---	---
	30	3.98	---	---	---	---	---

Notes:

1. Columns are glu-laminated Alaskan Yellow Cedar manufactured in accordance with ANSI A190.1.
2. Maximum column moisture content of 19% assumed.
3. Column height is the total column height from the top of pedestal base.
4. Maximum pedestal base height of 24" above grade.
5. Total weight of top mounted fixtures assumed to be less than 50 lb.
6. Wind design is based on an Importance Factor of 1.0, Gust Response Factor of 1.14, Wind Exposure C, and Drag Coefficients per AASHTO LTS-6.
7. Maximum column deflection less than 10% of column height.

Maximum EPA Table - Top Mount Fixture/Direct Embed

EroVista Column Section Size	Column Height Above Ground (ft)	Maximum Fixture EPA (ft ²)					
		Design Wind Speed - AASHTO LTS-6 (ASCE 7-05) (mph)					
		90	100	120	130	140	150
		Ultimate Wind Speed - IBC 2015 (ASCE 7-10) (mph)					
		116	129	154	167	180	193
5" x 5-1/2"	8	16.20	12.69	8.11	6.57	5.35	4.37
	10	11.78	9.00	5.38	4.16	3.19	2.41
	12	8.60	6.31	3.33	2.33	1.54	---
	14	6.11	4.19	1.68	---	---	---
	16	4.05	2.41	0.27	---	---	---
	18	2.09	---	---	---	---	---
6-3/4" x 6-3/4"	8	38.99	31.01	20.63	17.13	14.36	12.12
	10	29.65	23.31	15.04	12.26	10.06	8.28
	12	23.11	17.87	11.04	8.74	6.92	5.45
	14	18.16	13.72	7.93	5.98	4.43	3.19
	16	14.20	10.36	5.37	3.69	2.36	1.28
	18	10.48	7.21	2.95	1.52	---	---
	20	7.30	4.50	---	---	---	---
	22	4.53	2.11	---	---	---	---
	24	2.05	---	---	---	---	---
8-1/2" x 8-1/4"	8	76.90	61.52	41.49	34.75	29.41	25.10
	10	59.47	47.21	31.24	25.87	21.61	18.17
	12	47.43	37.26	24.03	19.57	16.04	13.19
	14	38.46	29.81	18.54	14.75	11.75	9.32
	16	31.40	23.90	14.13	10.84	8.23	6.13
	18	24.82	18.38	10.00	7.16	4.92	3.11
	20	19.27	13.69	6.42	3.98	2.04	---
	22	14.32	9.49	3.20	1.08	---	---
	24	10.03	5.82	---	---	---	---
	26	6.41	2.70	---	---	---	---
	28	2.94	---	---	---	---	---

Notes:

1. Columns are glu-laminated Alaskan Yellow Cedar manufactured in accordance with ANSI A190.1.
2. Design values reduced for wet use conditions.
3. Column height is the total column height above grade. Add embedment depth for total column length.
4. Total weight of top mounted fixtures assumed to be less than 50 lb.
5. Wind design is based on an Importance Factor of 1.0, Gust Response Factor of 1.14, Wind Exposure C, and Drag Coefficients per AASHTO LTS-6.
6. Maximum column deflection less than 10% of column height.

Maximum EPA Table - Side Mount Fixture/Base Mount

EroVista Column Section Size	Column Height Above Base (ft)	Maximum Fixture EPA (ft ²)					
		Design Wind Speed - AASHTO LTS-6 (ASCE 7-05) (mph)					
		90	100	120	130	140	150
		Ultimate Wind Speed - IBC 2015 (ASCE 7-10) (mph)					
		116	129	154	167	180	193
5" x 5-1/2"	8	7.39	5.97	4.13	3.50	3.01	2.62
	10	7.39	5.97	4.13	3.50	3.01	2.62
	12	7.39	5.97	4.13	3.07	2.10	1.31
	14	7.39	5.49	2.42	1.39	---	---
	16	5.25	3.28	---	---	---	---
	18	3.06	1.40	---	---	---	---
	20	1.16	---	---	---	---	---
6-3/4" x 6-3/4"	8	16.04	12.98	8.99	7.65	6.59	5.73
	10	16.04	12.98	8.99	7.65	6.59	5.73
	12	16.04	12.98	8.99	7.65	6.59	5.73
	14	16.04	12.98	8.99	7.65	6.21	4.67
	16	15.68	12.68	7.26	5.22	3.60	2.29
	18	13.70	9.71	4.52	2.78	1.39	---
	20	10.10	6.64	2.16	---	---	---
	22	6.95	3.96	---	---	---	---
	24	4.31	1.68	---	---	---	---
26	1.76	---	---	---	---	---	
8-1/2" x 8-1/4"	8	30.57	24.75	17.17	14.62	12.59	10.96
	10	30.57	24.75	17.17	14.62	12.59	10.96
	12	30.57	24.75	17.17	14.62	12.59	10.96
	14	30.57	24.75	17.17	14.62	12.59	10.96
	16	29.88	24.19	16.78	14.28	11.26	8.70
	18	29.20	23.64	13.66	10.21	7.48	5.27
	20	25.36	18.52	9.60	6.60	4.23	2.31
	22	19.63	13.69	5.94	3.33	1.27	---
	24	14.98	9.73	2.88	---	---	---
	26	10.59	5.98	---	---	---	---
	28	6.90	2.79	---	---	---	---
	30	3.29	---	---	---	---	---

Notes:

1. Columns are glu-laminated Alaskan Yellow Cedar manufactured in accordance with ANSI A190.1.
2. Maximum column moisture content of 19% assumed.
3. Column height is the total column height from the top of pedestal base.
4. Maximum pedestal base height of 24" above grade.
5. Total weight of top mounted fixtures assumed to be less than 50 lb.
6. Maximum offset of 24" assumed for side mounted fixtures.
7. Maximum Fixture EPA shown is for the total of all side mounted fixtures (1 to 4 fixtures).
8. Wind design is based on an Importance Factor of 1.0, Gust Response Factor of 1.14, Wind Exposure C, and Drag Coefficients per AASHTO LTS-6.
9. Maximum column deflection less than 10% of column height.

Maximum EPA Table - Side Mount Fixture/Direct Embed

EroVista Column Section Size	Column Height Above Ground (ft)	Maximum Fixture EPA (ft ²)					
		Design Wind Speed - AASHTO LTS-6 (ASCE 7-05) (mph)					
		90	100	120	130	140	150
		Ultimate Wind Speed - IBC 2015 (ASCE 7-10) (mph)					
		116	129	154	167	180	193
5" x 5-1/2"	8	6.46	5.22	3.60	3.06	2.63	2.28
	10	6.46	5.22	3.60	3.06	2.44	1.68
	12	6.46	5.22	2.55	1.58	---	---
	14	5.21	3.35	---	---	---	---
	16	3.19	1.61	---	---	---	---
	18	1.27	---	---	---	---	---
6-3/4" x 6-3/4"	8	14.03	11.35	7.86	6.69	5.76	5.01
	10	14.03	11.35	7.86	6.69	5.76	5.01
	12	14.03	11.35	7.86	6.69	5.76	4.75
	14	14.03	11.35	7.18	5.26	3.74	2.51
	16	13.34	9.56	4.64	2.99	1.68	---
	18	9.66	6.44	2.25	---	---	---
	20	6.52	3.76	---	---	---	---
	22	3.77	1.39	---	---	---	---
	24	1.31	---	---	---	---	---
8-1/2" x 8-1/4"	8	26.74	21.65	15.01	12.78	11.01	9.58
	10	26.74	21.65	15.01	12.78	11.01	9.58
	12	26.74	21.65	15.01	12.78	11.01	9.58
	14	26.74	21.65	15.01	12.78	11.01	8.64
	16	26.74	21.65	13.41	10.14	7.56	5.47
	18	24.00	17.61	9.28	6.48	4.26	2.47
	20	18.48	12.95	5.74	3.31	1.39	---
	22	13.57	8.77	2.53	---	---	---
	24	9.29	5.12	---	---	---	---
	26	5.69	2.01	---	---	---	---
	28	2.23	---	---	---	---	---

Notes:

1. Columns are glu-laminated Alaskan Yellow Cedar manufactured in accordance with ANSI A190.1.
2. Design values reduced for wet use conditions.
3. Column height is the total column height above grade. Add embedment depth for total column length.
4. Total weight of top mounted fixtures assumed to be less than 50 lb.
5. Maximum offset of 24" assumed for side mounted fixtures.
6. Maximum Fixture EPA shown is for the total of all side mounted fixtures (1 to 4 fixtures).
7. Wind design is based on an Importance Factor of 1.0, Gust Response Factor of 1.14, Wind Exposure C, and Drag Coefficients per AASHTO LTS-6.
8. Maximum column deflection less than 10% of column height.

Minimum Column Embedment

Maximum Fixture EPA (ft ²)	Soil Type ⁽¹⁾	Column Height Above Ground (ft)	Minimum Embedment Depth (ft)					
			Design Wind Speed - AASHTO LTS-6 (ASCE 7-05) (mph)					
			90	100	120	130	140	150
			Ultimate Wind Speed - IBC 2015 (ASCE 7-10) (mph)					
			116	129	154	167	180	193
2	Gravel Soils	15	3.5	4.0	4.5	4.5	5.0	5.0
		20	4.0	4.5	5.0	5.5	5.5	6.0
		24	4.5	5.0	5.5	6.0	6.5	6.5
		30	5.5	5.5	6.5	7.0	7.0	7.5
	Sandy Soils	15	4.0	4.0	4.5	5.0	5.0	5.5
		20	4.5	5.0	5.5	6.0	6.0	6.5
		24	5.0	5.5	6.0	6.5	7.0	7.0
		30	6.0	6.0	7.0	7.5	8.0	8.5
4	Gravel Soils	15	3.5	4.0	4.5	5.0	5.0	5.5
		20	4.5	4.5	5.5	5.5	6.0	6.0
		24	5.0	5.0	6.0	6.0	6.5	7.0
		30	5.5	6.0	6.5	7.0	7.5	8.0
	Sandy Soils	15	4.0	4.5	5.0	5.0	5.5	6.0
		20	4.5	5.0	5.5	6.0	6.5	6.5
		24	5.0	5.5	6.5	7.0	7.0	7.5
		30	6.0	6.5	7.5	7.5	8.0	8.5
8	Gravel Soils	15	4.0	4.5	5.0	5.0	5.5	6.0
		20	4.5	5.0	5.5	6.0	6.5	6.5
		24	5.0	5.5	6.5	6.5	7.0	7.5
		30	6.0	6.0	7.0	7.5	8.0	8.5
	Sandy Soils	15	4.5	4.5	5.5	5.5	6.0	6.5
		20	5.0	5.5	6.0	6.5	7.0	7.5
		24	5.5	6.0	7.0	7.0	7.5	8.0
		30	6.5	7.0	7.5	8.0	8.5	9.0

Notes:

- Direct embedment depth based on the following soil properties:
 - Gravel Soils (GW, GP): $\phi = 34^\circ$, $\gamma = 130 \text{ lb/ft}^3$, $c = 0 \text{ lb/ft}^2$
 - Sandy Soils (SW, SP, SM, SC, GM, GC): $\phi = 30^\circ$, $\gamma = 120 \text{ lb/ft}^3$, $c = 0 \text{ lb/ft}^2$
- Column height is the total column height from the top of grade. Add embedment depth for total column length.
- Wind design is based on an Importance Factor of 1.0, Gust Response Factor of 1.14, Wind Exposure C, and Drag Coefficients per AASHTO LTS-6.
- Embedment depth based on column being encased in 24" diameter pier foundation below grade.