Pole Selection Guide

valmont
WEST COAST ENGINEERING

As a leading manufacturer of structural lighting standards, Valmont West Coast Engineering offers the most complete and comprehensive group of standards in the industry. With production facilities strategically located, Valmont West Coast Engineering is in a unique position to provide outstanding services throughout the world.

Through our international support system, Valmont West Coast Engineering provides a highly technical and helpful sales force. In addition, Valmont West Coast Engineering's engineering and product development expertise continues to set the standards the industry uses as its benchmark.

The Product Selection Guide is designed to assist you in describing and defining the lighting standard which will meet your requirements. The products listed within are the "backbone" of our street and area lighting standards. The variety of products which could be produced as an offspring of these core product lines is infinite. Valmont West Coast Engineering offers the best solutions for your structural lighting requirements for non-standard products not listed in this catalogue. Chances are that if you can imagine a lighting structure, Valmont West Coast Engineering can design and build it.

Valmont West Coast Engineering's people, including our agents, suppliers, and related partners, are dedicated individuals working together towards continuous improvement and leadership. We maintain our commitment in providing you with quality and service in every product manufactured.

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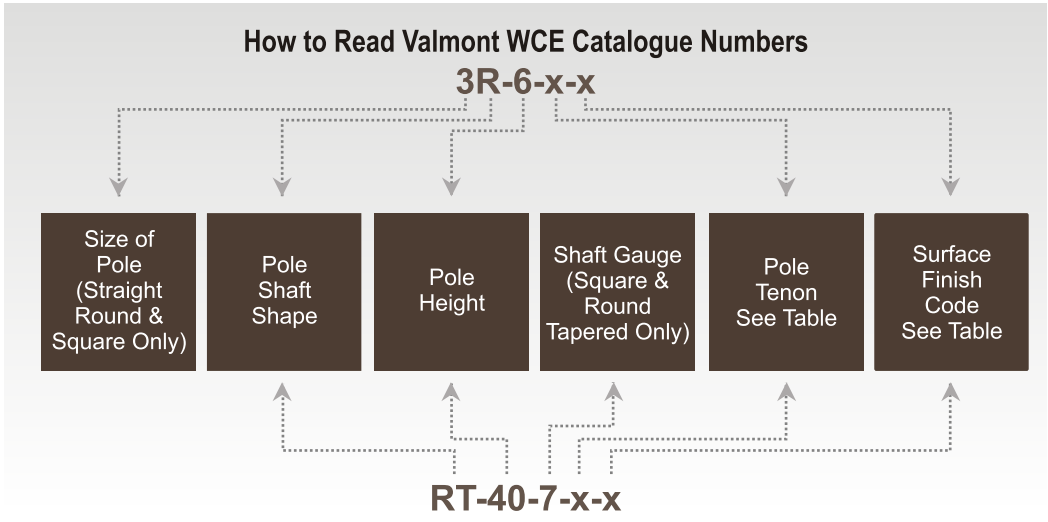
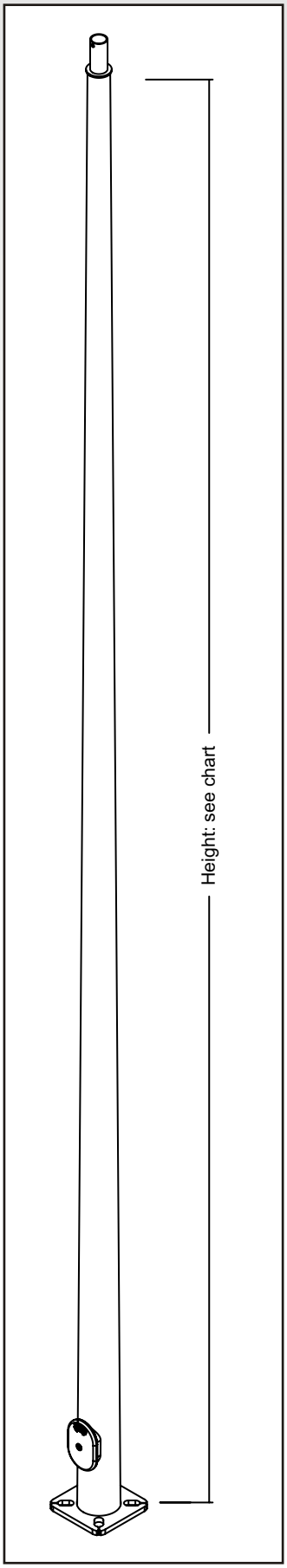
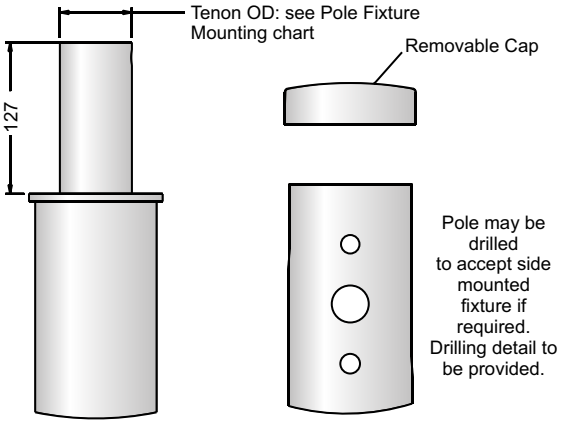
TABLE OF CONTENTS

ABD; Anchor Bolt Diameter
A/F or OD; Across the Flats or outside diameter
Anchor Bolts; Bolts used to secure the pole to the foundation
Banner Arms; Accessory for mounting banners on poles
Base Cover; Made of steel or plastic to encase the base plate of the pole
Base Plate; The plate attached to the bottom of the pole, providing a means for anchoring
BCD; Bolt Circle Diameter - bolt center to center distance on the diagonal
Bollard; A decorative post used as a pedestrian or traffic barrier. Sometimes strung with chains
BSQ; Bolt Square - bolt center to center distance on square
Bull Horn; Pole top adapter for multi-lighting fixtures
Capital; Ornamental pole top
Dodecagonal; Cross-section consisting of 12 equal sides
Davit; Top portion of a pole which is radiused to extend from the center of the main shaft
DD; Double Davit pole with two arms
EPA; Effective Projected Area - expressed in ft2 or mt2
Flange Plate; Connection plate between two pole sections or bottom pole and arms
Fluted; A decorative pole cross section
Ground Stud; A bolt attached to the inside of the hand hole providing the means for electrical grounding
Hexagonal; Cross-section consisting of 6 equal sides
Hexdecagonal; Cross-section consisting of 16 equal sides
HSS; Hollow Structure Section
Junction Box; In-ground plastic wiring enclosures
Ladder Bar; An ornamental tenon with provision for resting a ladder
Luminaire; Fixture or lamp mounted on pole
Nut Covers; Covers for anchor bolt nuts
Octagonal; Cross-section consisting of 8 equal sides
SD; Single Davit pole with one arm
Square; Cross-section consisting of 4 equal sides
Tapered; A constant reduction in diameter over the length of the pole
Tenon; Pipe welded to the pole for mounting fixture

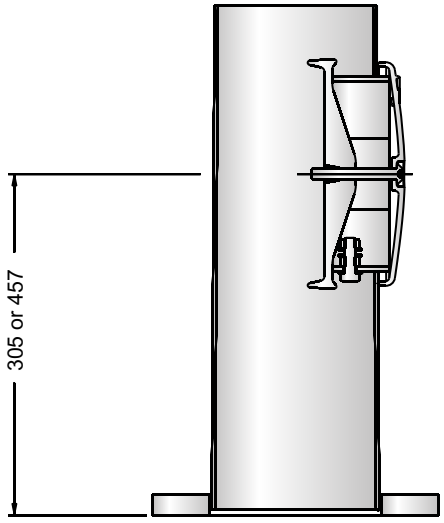


ROUND TAPERED POLES

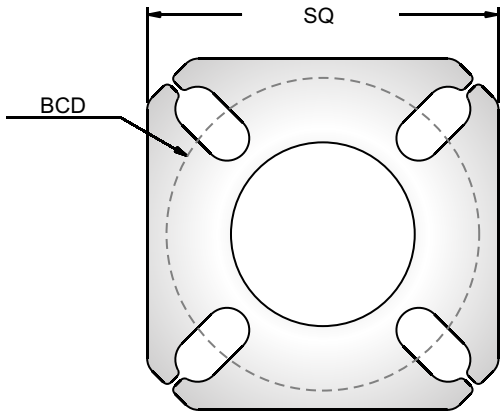




Tenon Mounted Fixture Detail **Side Mounted Fixture Detail**



Pole Base Detail



Base Plate Detail

Surface Finish Codes	
00	Bare Metal
02	Finish Paint
03	Powder Coat
04	Galvanize
07	Galvanize & Powder Coat
08	Special Request

Pole Fixture Mounting Options Chart	
Suffix x.x	**Description**
0.0	Top cap only
0.1	Top cap with one side-mounted fixture
0.2	Top cap with two side-mounted fixtures
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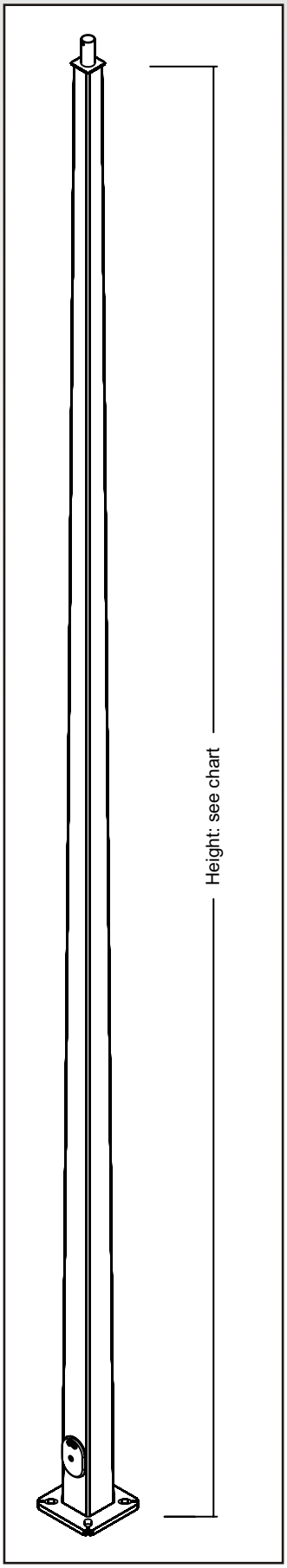
0.4	Top cap with four side-mounted fixtures
2.0	Top tenon, 60mm O.D.
2.5	Top tenon, 73mm O.D.
3.0	Top tenon, 89mm O.D.
3.5	Top tenon, 102mm O.D.
4.0	Top tenon, 114mm O.D.

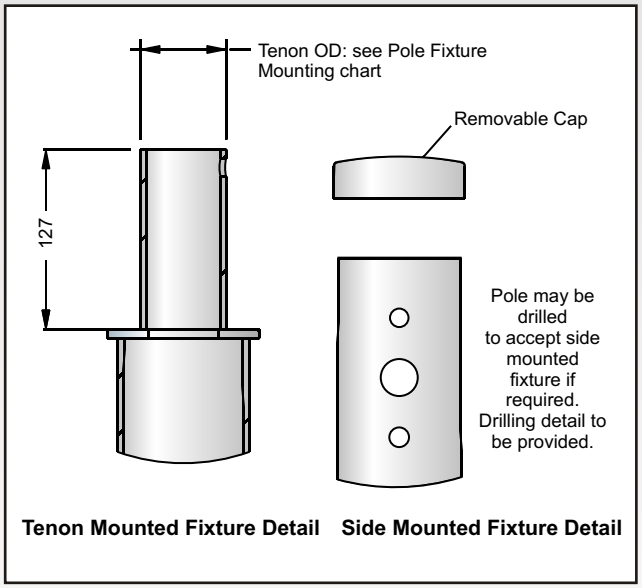
Valmont WCE Round Tapered Poles

Height	Catalogue Number		Base Plate		Anchor Bolt				Max.EPA (m^2)					
	Catalogue Number	Weight (Kg)	SQ (mm)	BCD (mm)	AB Diameter (in)	AB Length (in)	Projection (Shim lvl.) (mm)	Projection (Nut lvl.) (mm)	q<=410 Pa	q<=460 Pa	q<=560 Pa	q<=650 Pa	q<=750 Pa	q<=830 Pa
20'	RT-20-11A-x.x	62	255	229	1	36	61	111	1.64	1.43	1.12	0.92	0.76	0.66
	RT-20-11B-x.x	70	270	241	1	36	61	111	2.02	1.77	1.40	1.15	0.95	0.83
25'	RT-25-11A-x.x	69	255	229	1	36	61	111	1.22	1.05	0.80	0.64	0.51	0.43
	RT-25-11B-x.x	87	280	254	1	36	61	111	1.79	1.54	1.19	0.97	0.78	0.68
	RT-25-7-x.x	123	280	254	1	36	67	117	2.52	2.20	1.73	1.43	1.19	1.04
30'	RT-30-11A-x.x	89	270	241	1	36	61	111	1.20	1.02	0.76	0.59	0.46	0.37
	RT-30-11B-x.x	113	295	279	1	36	61	111	1.85	1.59	1.20	0.96	0.78	0.66
	RT-30-7-x.x	164	295	279	1.25	48	74	131	3.02	2.65	2.06	1.73	1.44	1.26
35'	RT-35-11A-x.x	109	285	267	1	36	61	111	1.36	1.13	0.82	0.62	0.47	0.38
	RT-35-11B-x.x	134	305	292	1	36	61	111	1.65	1.40	1.03	0.82	0.64	0.54
	RT-35-11C-x.x	155	330	330	1	36	67	117	2.14	1.84	1.40	1.15	0.94	0.82
	RT-35-7-x.x	208	315	318	1.25	48	74	131	3.18	2.78	2.16	1.81	1.50	1.32
39'	RT-39-11A-x.x	126	295	279	1	36	61	111	1.07	0.89	0.63	0.46	0.33	0.25
	RT-39-11B-x.x	153	315	318	1	36	67	117	1.50	1.26	0.92	0.71	0.55	0.45
	RT-39-7-x.x	223	315	318	1.25	48	74	131	2.64	2.30	1.78	1.45	1.18	1.03
40'	RT-40-11-x.x	154	355	343	1.25	48	74	131	1.45	1.21	0.88	0.68	0.52	0.42
	RT-40-7-x.x	262	355	343	1.25	48	81	138	3.05	2.65	2.07	1.71	1.42	1.25
45'	RT-45-11-x.x	193	355	343	1.25	48	74	131	1.46	1.22	0.88	0.66	0.50	0.40
	RT-45-7A-x.x	281	355	343	1.25	48	81	138	2.47	2.12	1.62	1.31	1.06	0.91
	RT-45-7B-x.x	335	420	381	1.25	48	81	138	3.30	2.90	2.27	1.88	1.57	1.39
50'	RT-50-11-x.x	202	355	343	1.25	48	74	131	1.14	0.93	0.63	0.44	0.30	0.21
	RT-50-7A-x.x	295	355	343	1.25	48	81	138	2.01	1.71	1.27	1.00	0.79	0.66
	RT-50-7B-x.x	348	420	381	1.25	48	81	138	2.59	2.22	1.70	1.37	1.11	0.96
	RT-50-7C-x.x	440	445	432	1.5	60	93	156	4.22	3.71	2.97	2.51	2.13	1.89
	RT-50-3-x.x	588	460	445	1.5	60	106	169	6	5.30	4.30	3.65	3.10	2.78

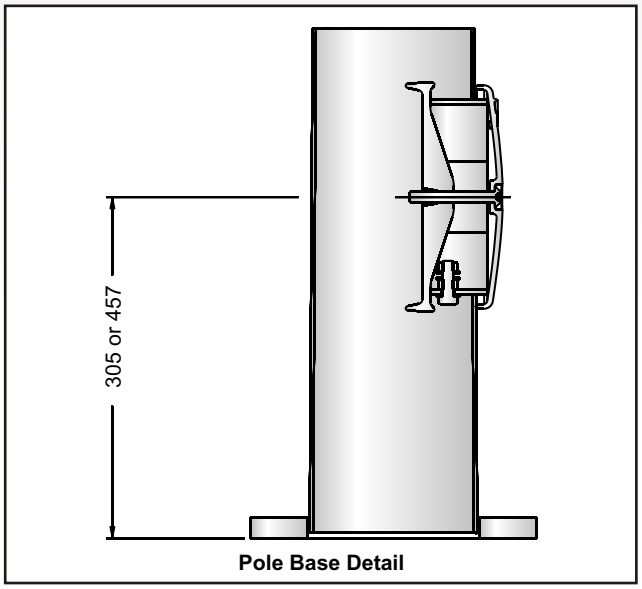
Conversion Factor: to convert EPA from Square Metres to Square Feet multiply Square Metres by 10.76

SQUARE TAPERED POLES

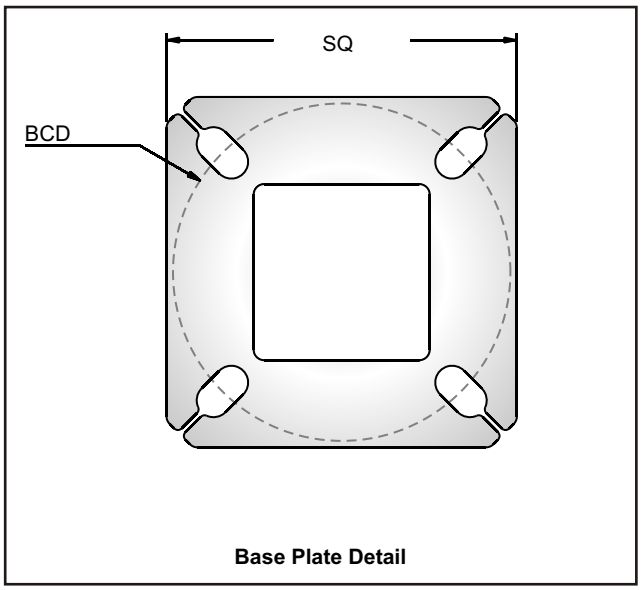




Tenon Mounted Fixture Detail **Side Mounted Fixture Detail**



Pole Base Detail



Base Plate Detail

Surface Finish Codes	
00	Bare Metal
02	Finish Paint
03	Powder Coat
04	Galvanize
07	Galvanize & Powder Coat
08	Special Request

Pole Fixture Mounting Options Chart	
Suffix x.x	**Description**
0.0	Top cap only
0.1	Top cap with one side-mounted fixture
0.2	Top cap with two side-mounted fixtures
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2.0	Top tenon, 60mm O.D.
2.5	Top tenon, 73mm O.D.
3.0	Top tenon, 89mm O.D.
3.5	Top tenon, 102mm O.D.
4.0	Top tenon, 114mm O.D.

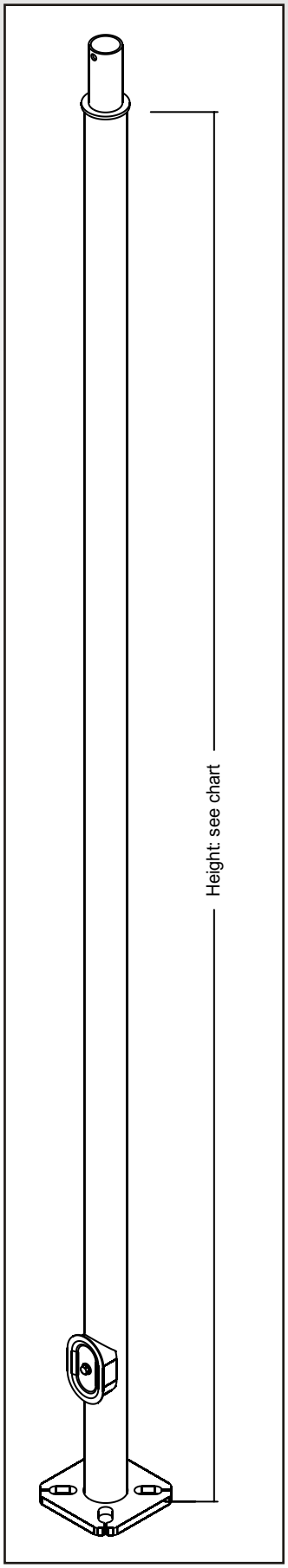
Catalogue

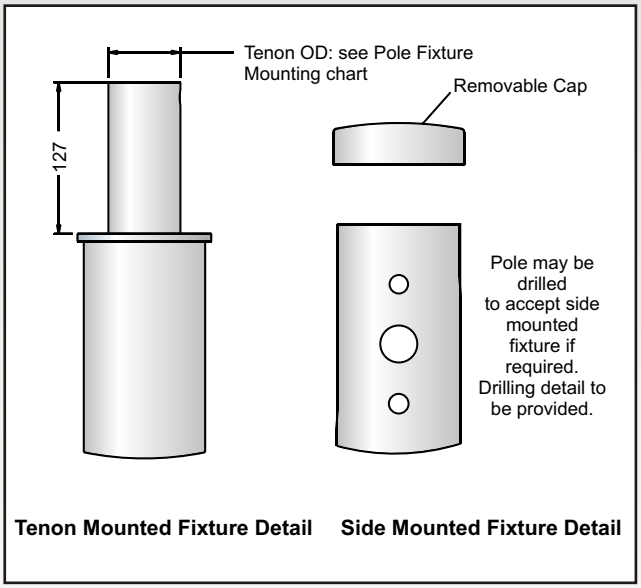
Valmont WCE Square Tapered Poles

Height	Catalogue Number		Base Plate		Anchor Bolt				Max.EPA (m^2)					
	Catalogue Number	Weight (Kg)	SQ (mm)	BCD (mm)	AB Diameter (in)	AB Length (in)	Projection (Shim lvl.) (mm)	Projection (Nut lvl.) (mm)	q<=410 Pa	q<=460 Pa	q<=560 Pa	q<=650 Pa	q<=750 Pa	q<=830 Pa
20'	ST-20-11-x.x	68	285	273	1	36	61	111	1.43	1.21	0.92	0.72	0.56	0.46
	ST-20-7-x.x	106	295	279	1	36	67	117	2.57	2.25	1.76	1.45	1.19	1.02
25'	ST-25-11-x.x	98	320	305	1	36	67	117	1.32	1.12	0.80	0.60	0.43	0.32
	ST-25-7-x.x	148	330	318	1	36	67	117	2.65	2.30	1.75	1.41	1.12	0.95
30'	ST-30-11-x.x	118	330	318	1	36	67	117	1.10	0.90	0.60	0.40	0.24	0.14
	ST-30-7A-x.x	165	330	318	1	36	67	117	1.97	1.68	1.25	0.96	0.73	0.58
	ST-30-7B-x.x	184	355	343	1	36	67	117	2.52	2.15	1.61	1.26	0.97	0.79
35'	ST-35-11-x.x	141	345	330	1	36	67	117	0.87	0.68	0.40	0.21	0.06	0.00
	ST-35-7A-x.x	214	355	343	1	36	67	117	1.90	1.60	1.15	0.85	0.60	0.45
	ST-35-7B-x.x	248	380	368	1.25	48	81	138	2.44	2.05	1.49	1.11	0.81	0.62
39'	ST-39-11-x.x	160	355	343	1	36	67	117	0.71	0.53	0.25	0.07	0.00	0.00
	ST-39-7A-x.x	223	355	343	1	36	67	117	1.50	1.24	0.84	0.59	0.37	0.24
	ST-39-7B-x.x	307	415	400	1.25	48	81	138	2.50	2.05	1.45	1.05	0.72	0.51
45'	ST-45-7A-x.x	282	380	368	1.25	48	81	138	1.36	1.10	0.69	0.42	0.20	0.06
	ST-45-7B-x.x	331	415	400	1.25	48	81	138	1.76	1.42	0.92	0.59	0.30	0.13
50'	ST-50-7-x.x	353	420	406	1.25	48	81	138	1.35	1.05	0.60	0.31	0.07	0.00

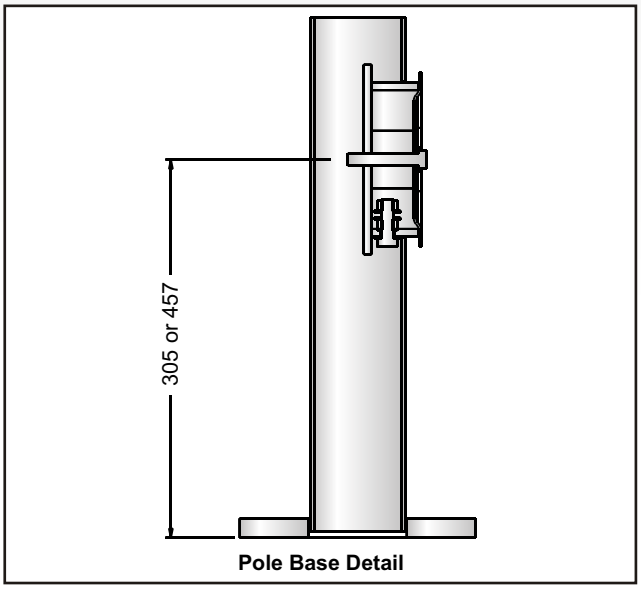
Conversion Factor: to convert EPA from Square Metres to Square Feet multiply Square Metres by 10.76

ROUND STRAIGHT POLES

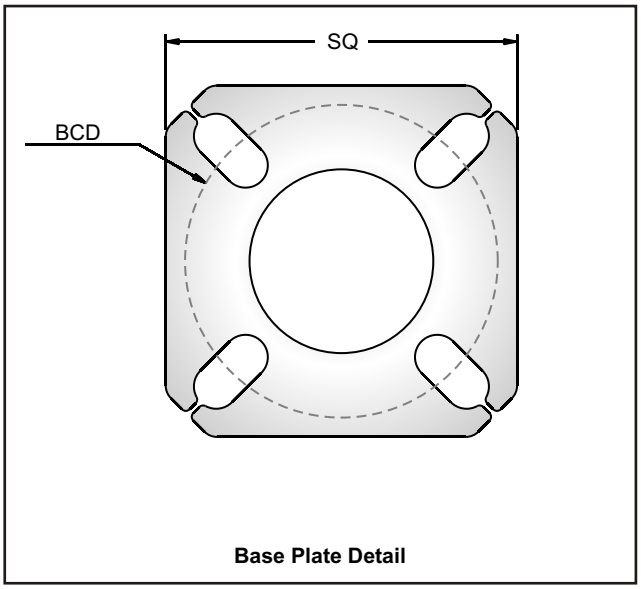




Tenon Mounted Fixture Detail **Side Mounted Fixture Detail**



Pole Base Detail



Base Plate Detail

Surface Finish Codes	
00	Bare Metal
02	Finish Paint
03	Powder Coat
04	Galvanize
07	Galvanize & Powder Coat
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Pole Fixture Mounting Options Chart	
Suffix x.x	**Description**
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0.1	Top cap with one side-mounted fixture
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2.0	Top tenon, 60mm O.D.
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Valmont WCE Round Straight Poles

Height	Catalogue Number		Base Plate		Anchor Bolt				Max.EPA (m^2)					
	Catalogue Number	Weight (Kg)	SQ (mm)	BCD (mm)	AB Diameter(in)	AB Length(in)	Projection (Shim lvl.) (mm)	Projection (Nut lvl.) (mm)	q<=410 Pa	q<=460 Pa	q<=560 Pa	q<=650 Pa	q<=750 Pa	q<=830 Pa
3" Round Straight Poles														
6'	3RS-6-x.x	15	190	152	0.75	24	48	89	1.15	1.02	0.82	0.70	0.60	0.54
8'	3RS-8-x.x	18	190	152	0.75	24	48	89	0.88	0.77	0.62	0.52	0.44	0.39
10'	3RS-10-x.x	22	190	152	0.75	24	48	89	0.68	0.60	0.47	0.39	0.32	0.28
12'	3RS-12-x.x	25	190	152	0.75	24	48	89	0.54	0.47	0.36	0.29	0.23	0.20
4" Round Straight Poles														
8'	4RS-8-x.x	24	200	178	0.75	24	51	92	1.67	1.47	1.19	1.01	0.86	0.76
10'	4RS-10-x.x	29	200	178	0.75	24	51	92	1.33	1.17	0.93	0.78	0.66	0.58
12'	4RS-12-x.x	33	200	178	0.75	24	51	92	1.07	0.94	0.74	0.61	0.50	0.43
14'	4RS-14-x.x	38	200	178	0.75	24	51	92	0.88	0.76	0.58	0.47	0.38	0.32
16'	4RS-16-x.x	43	200	178	0.75	24	51	92	0.72	0.61	0.45	0.36	0.27	0.22
18'	4RS-18-x.x	48	200	178	0.75	24	51	92	0.58	0.48	0.34	0.26	0.18	0.14
20'	4RS-20-x.x	52	200	178	0.75	24	51	92	0.46	0.37	0.25	0.17	0.10	0.06
24'	4RS-24-x.x	61	200	178	0.75	24	51	92	0.26	0.19	0.09	0.00	0.00	0.00
4" Round Straight Heavy Duty Poles														
16'	4RH-16-x.x	62	200	178	0.75	24	51	92	1.15	1.00	0.77	0.63	0.52	0.44
20'	4RH-20-x.x	75	200	178	0.75	24	51	92	0.82	0.69	0.51	0.39	0.30	0.24
24'	4RH-24-x.x	90	200	178	0.75	24	51	92	0.57	0.46	0.31	0.21	0.12	0.08
30'	4RH-30-x.x	111	200	178	0.75	24	51	92	0.27	0.18	0.06	0.00	0.00	0.00

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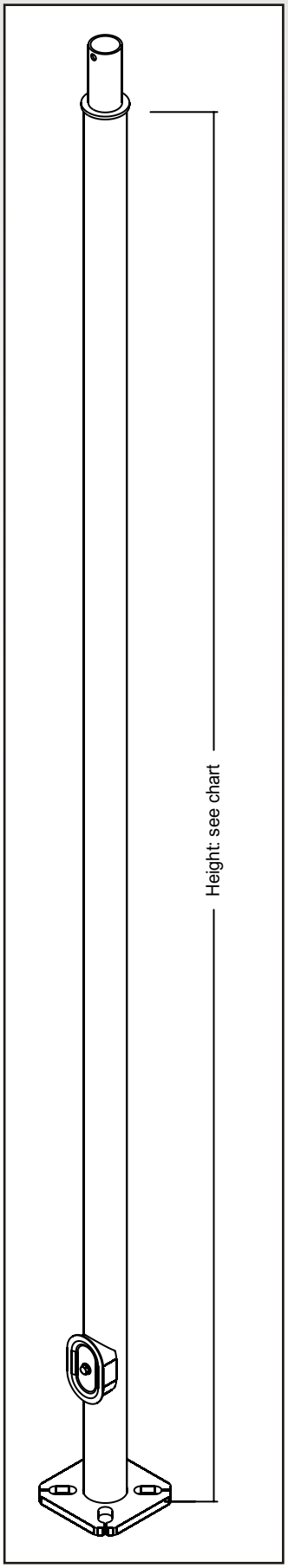
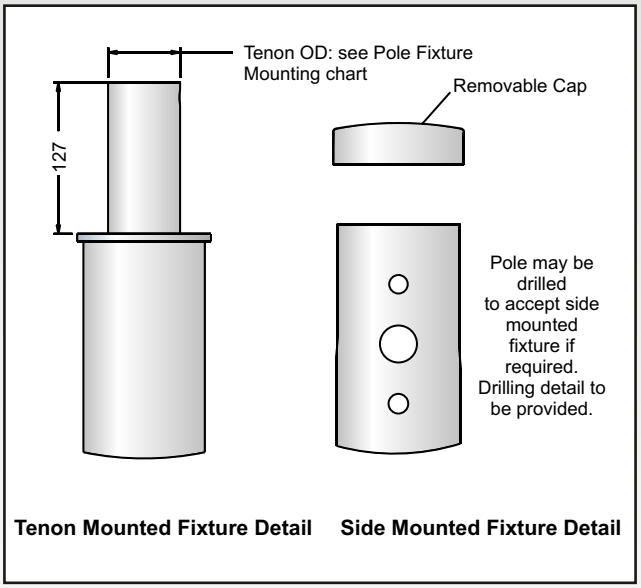
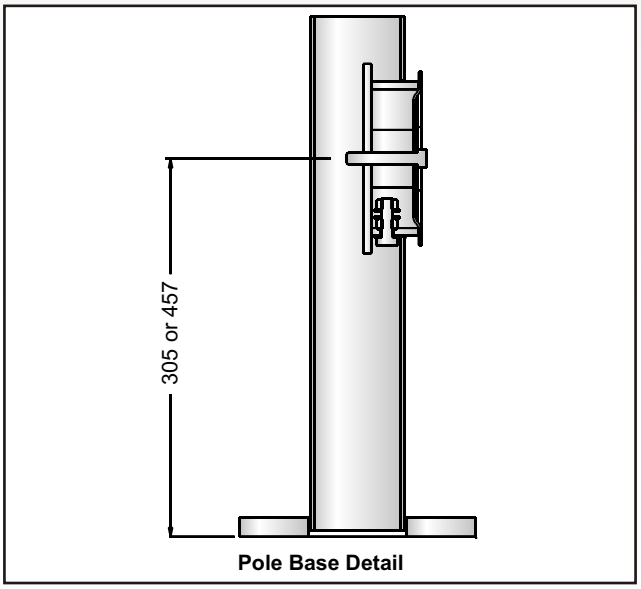
ROUND STRAIGHT POLES

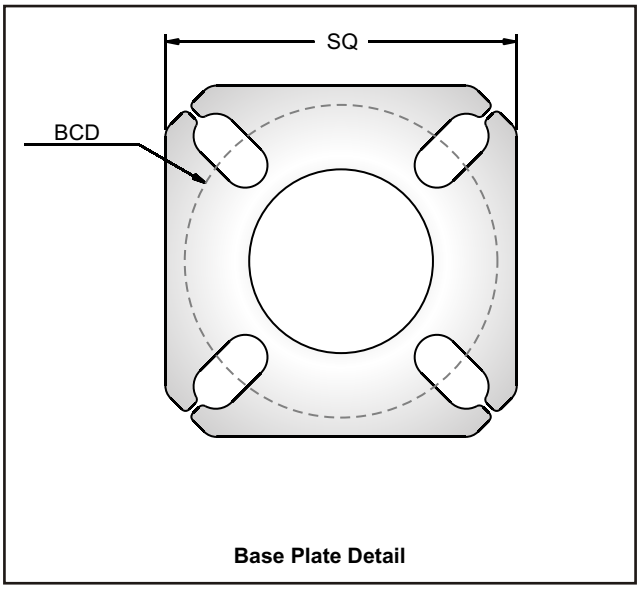




Tenon Mounted Fixture Detail **Side Mounted Fixture Detail**



Pole Base Detail



Base Plate Detail

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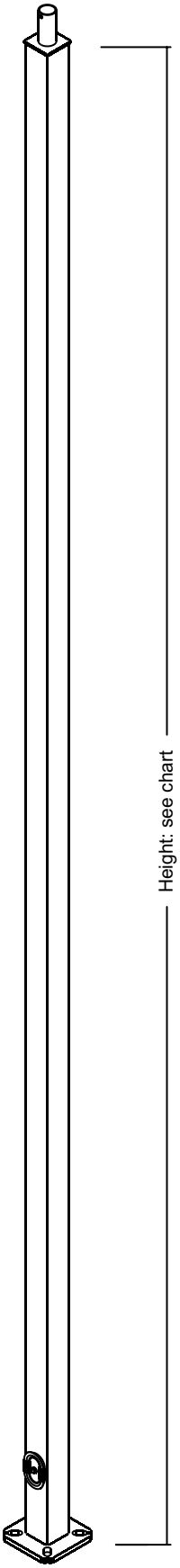
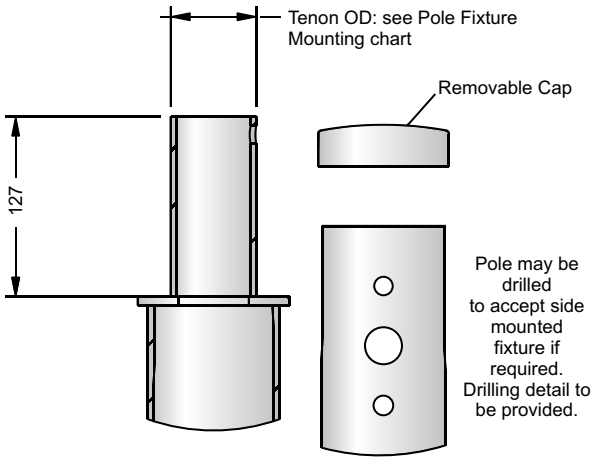
Valmont WCE Round Straight Poles

Height	Catalogue Number		Base Plate		Anchor Bolt				Max.EPA (m^2)					
	Catalogue Number	Weight (Kg)	SQ (mm)	BCD (mm)	AB Diameter (in)	AB Length (in)	Projection (Shim lvl.) (mm)	Projection (Nut lvl.) (mm)	q<=410 Pa	q<=460 Pa	q<=560 Pa	q<=650 Pa	q<=750 Pa	q<=830 Pa
5" Round Straight Poles														
10'	5RS-10-x.x	37	215	203	0.75	24	55	99	2.14	1.89	1.52	1.28	1.08	0.96
12'	5RS-12-x.x	43	215	203	0.75	24	55	99	1.74	1.53	1.22	1.02	0.85	0.75
14'	5RS-14-x.x	49	215	203	0.75	24	55	99	1.45	1.26	0.99	0.82	0.67	0.58
16'	5RS-16-x.x	55	215	203	0.75	24	55	99	1.21	1.04	0.80	0.65	0.52	0.44
20'	5RS-20-x.x	67	215	203	0.75	24	55	99	0.84	0.70	0.50	0.38	0.27	0.21
24'	5RS-24-x.x	80	215	203	0.75	24	55	99	0.55	0.44	0.27	0.16	0.07	0.02
5" Round Straight Heavy Duty Poles														
16'	5RH-16-x.x	78	230	216	1	36	61	111	1.92	1.67	1.32	1.09	0.91	0.79
20'	5RH-20-x.x	96	230	216	1	36	61	111	1.42	1.22	0.93	0.74	0.59	0.50
24'	5RH-24-x.x	115	230	216	1	36	61	111	1.04	0.87	0.63	0.47	0.34	0.26
30'	5RH-30-x.x	143	230	216	1	36	61	111	0.60	0.47	0.27	0.14	0.04	0.00
6" Round Straight Poles														
20'	6RS-20-x.x	121	280	267	1	36	67	117	2.17	1.88	1.46	1.23	1.05	0.93
24'	6RS-24-x.x	143	280	267	1	36	67	117	1.65	1.41	1.05	0.87	0.73	0.64
30'	6RS-30-x.x	175	280	267	1	36	67	117	1.05	0.85	0.56	0.44	0.35	0.30
35'	6RS-35-x.x	201	280	267	1	36	67	117	0.64	0.48	0.24	0.15	0.10	0.06
40'	6RS-40-x.x	228	280	267	1	36	67	117	0.31	0.17	0.00	0.00	0.00	0.00
6" Round Straight Heavy Duty Poles														
30'	6RH-30-x.x	225	280	267	1.25	48	74	131	1.60	1.35	0.97	0.79	0.65	0.57
35'	6RH-35-x.x	260	280	267	1.25	48	74	131	1.11	0.89	0.58	0.45	0.35	0.30
40'	6RH-40-x.x	297	280	267	1.25	48	81	138	0.71	0.52	0.25	0.16	0.10	0.07

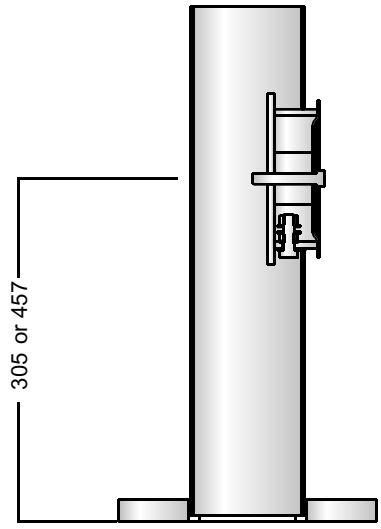
Conversion Factor: to convert EPA from Square Metres to Square Feet multiply Square Metres by 10.76

SQUARE STRAIGHT POLES

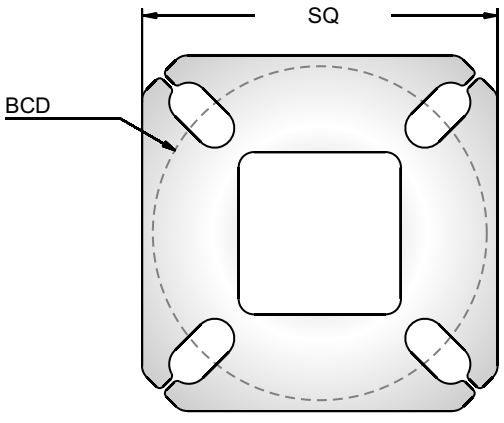




Tenon Mounted Fixture Detail **Side Mounted Fixture Detail**



Pole Base Detail



Base Plate Detail

Surface Finish Codes	
00	Bare Metal
02	Finish Paint
03	Powder Coat
04	Galvanize
07	Galvanize & Powder Coat
08	Special Request

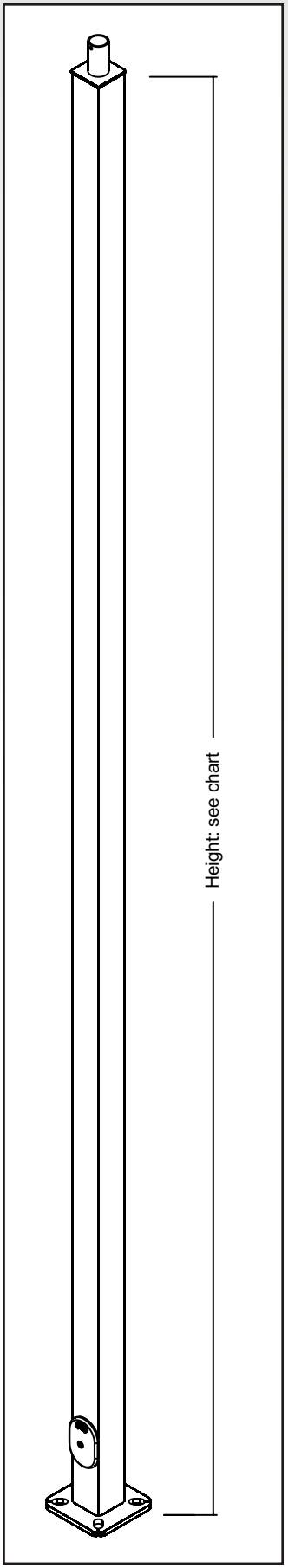
Pole Fixture Mounting Options Chart	
Suffix x.x	**Description**
0.0	Top cap only
0.1	Top cap with one side-mounted fixture
0.2	Top cap with two side-mounted fixtures
0.3	Top cap with three side-mounted fixtures
0.4	Top cap with four side-mounted fixtures
2.0	Top tenon, 60mm O.D.
2.5	Top tenon, 73mm O.D.
3.0	Top tenon, 89mm O.D.
3.5	Top tenon, 102mm O.D.
4.0	Top tenon, 114mm O.D.

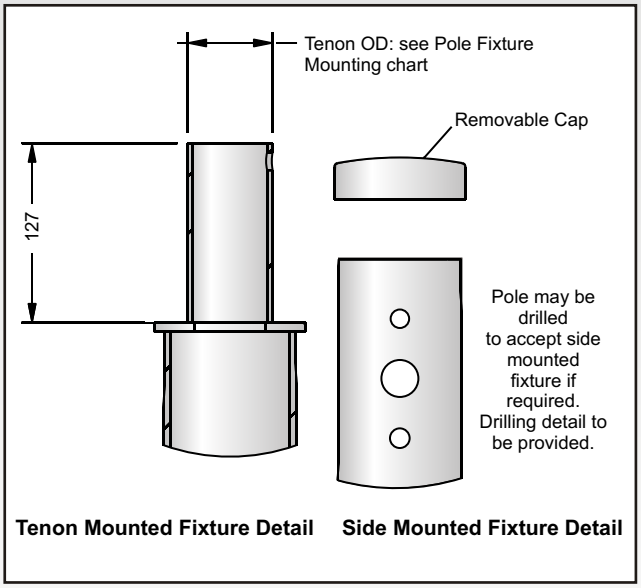
Valmont WCE 4" Square Straight Poles

Height	Catalogue Number		Base Plate		Anchor Bolt				Max.EPA (m^2)					
	Catalogue Number	Weight (Kg)	SQ (mm)	BCD (mm)	AB Diameter (in)	AB Length (in)	Projection (Shim lvl.) (mm)	Projection (Nut lvl.) (mm)	q<=410 Pa	q<=460 Pa	q<=560 Pa	q<=650 Pa	q<=750 Pa	q<=830 Pa
4" Square Straight Poles														
8'	4SS-8-x.x	33	230	216	0.75	24	55	99	2.74	2.41	1.94	1.64	1.40	1.25
10'	4SS-10-x.x	39	230	216	0.75	24	55	99	2.09	1.84	1.46	1.22	1.02	0.90
12'	4SS-12-x.x	45	230	216	0.75	24	55	99	1.64	1.42	1.12	0.92	0.76	0.65
14'	4SS-14-x.x	51	230	216	0.75	24	55	99	1.30	1.12	0.86	0.69	0.55	0.46
16'	4SS-16-x.x	57	230	216	0.75	24	55	99	1.04	0.88	0.65	0.50	0.38	0.30
18'	4SS-18-x.x	63	230	216	0.75	24	55	99	0.82	0.68	0.47	0.35	0.24	0.17
20'	4SS-20-x.x	69	230	216	0.75	24	55	99	0.64	0.51	0.33	0.21	0.11	0.06
24'	4SS-24-x.x	82	230	216	0.75	24	55	99	0.34	0.23	0.08	0.00	0.00	0.00
4" Square Straight Heavy Duty Poles														
20'	4SH-20-x.x	98	230	216	0.75	24	55	99	1.15	0.98	0.71	0.54	0.40	0.31
24'	4SH-24-x.x	116	230	216	0.75	24	55	99	0.76	0.62	0.40	0.26	0.14	0.07
30'	4SH-30-x.x	143	230	216	0.75	24	55	99	0.32	0.21	0.04	0.00	0.00	0.00

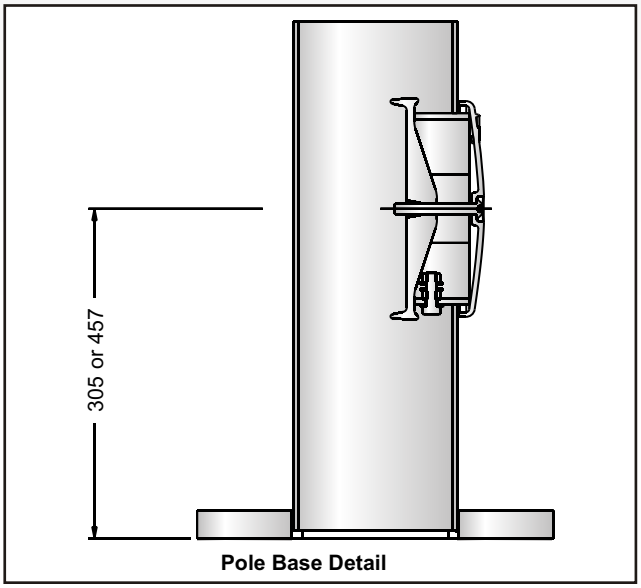
Conversion Factor: to convert EPA from Square Metres to Square Feet multiply Square Metres by 10.76

SQUARE STRAIGHT POLES

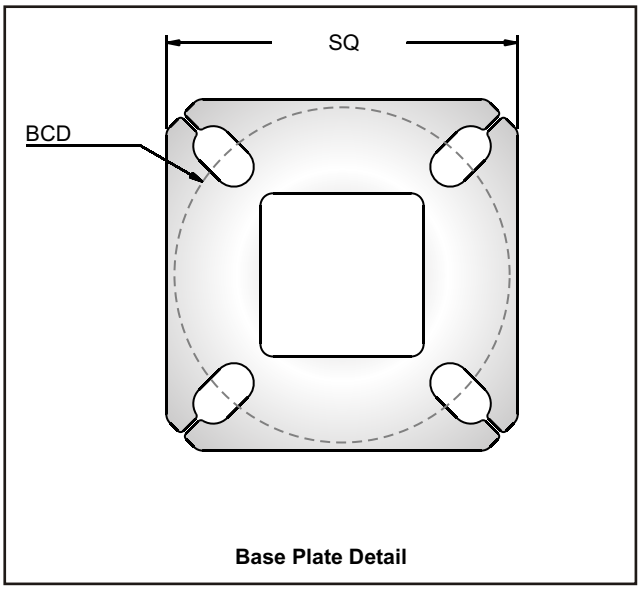




Tenon Mounted Fixture Detail **Side Mounted Fixture Detail**



Pole Base Detail



Base Plate Detail

Surface Finish Codes	
00	Bare Metal
02	Finish Paint
03	Powder Coat
04	Galvanize
07	Galvanize & Powder Coat
08	Special Request

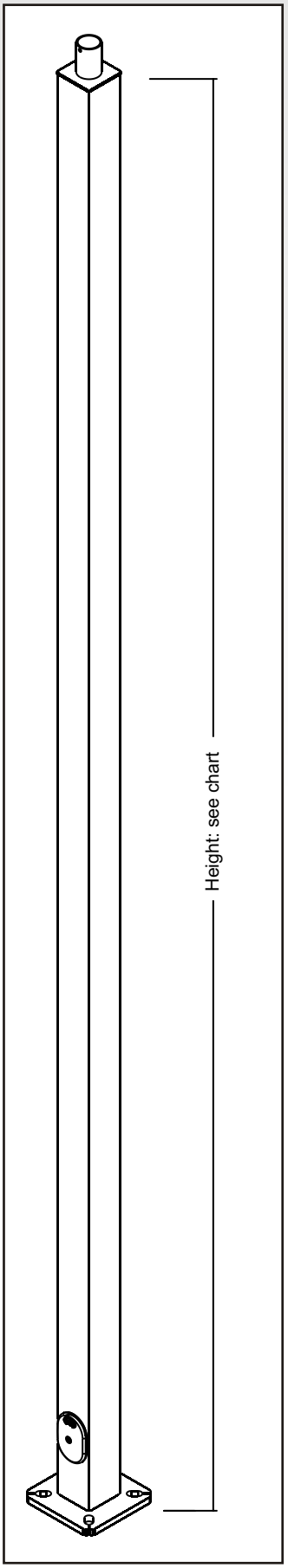
Pole Fixture Mounting Options Chart	
Suffix x.x	**Description**
0.0	Top cap only
0.1	Top cap with one side-mounted fixture
0.2	Top cap with two side-mounted fixtures
0.3	Top cap with three side-mounted fixtures
0.4	Top cap with four side-mounted fixtures
2.0	Top tenon, 60mm O.D.
2.5	Top tenon, 73mm O.D.
3.0	Top tenon, 89mm O.D.
3.5	Top tenon, 102mm O.D.
4.0	Top tenon, 114mm O.D.

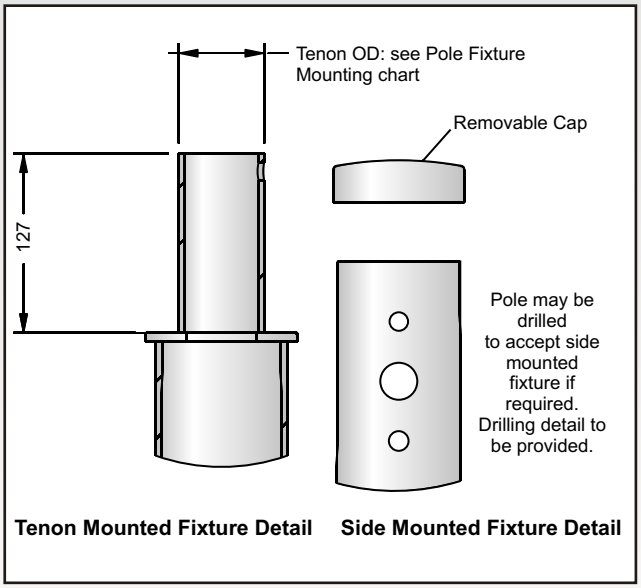
Valmont WCE 5" Square Straight Poles

Height	Catalogue Number		Base Plate		Anchor Bolt				Max.EPA (m^2)					
	Catalogue Number	Weight (Kg)	SQ (mm)	BCD (mm)	AB Diameter (in)	AB Length (in)	Projection (Shim lvl.) (mm)	Projection (Nut lvl.) (mm)	q<=410 Pa	q<=460 Pa	q<=560 Pa	q<=650 Pa	q<=750 Pa	q<=830 Pa
5" Square Straight Poles														
16'	5SS-16-x.x	86	280	267	1	36	61	111	1.77	1.52	1.16	0.93	0.74	0.62
20'	5SS-20-x.x	104	280	267	1	36	61	111	1.17	0.98	0.69	0.51	0.35	0.26
24'	5SS-24-x.x	122	280	267	1	36	61	111	0.74	0.58	0.33	0.18	0.05	0.00
30'	5SS-30-x.x	149	280	267	1	36	61	111	0.24	0.11	0.00	0.00	0.00	0.00
5" Square Straight Heavy Duty Poles														
20'	5SH-20-x.x	127	280	267	1	36	61	111	2.00	1.72	1.30	1.04	0.81	0.68
24'	5SH-24-x.x	150	280	267	1	36	61	111	1.42	1.20	0.85	0.62	0.44	0.32
30'	5SH-30-x.x	183	280	267	1	36	61	111	0.79	0.60	0.32	0.14	0.00	0.00
35'	5SH-35-x.x	210	280	267	1	36	61	111	0.36	0.20	0.00	0.00	0.00	0.00

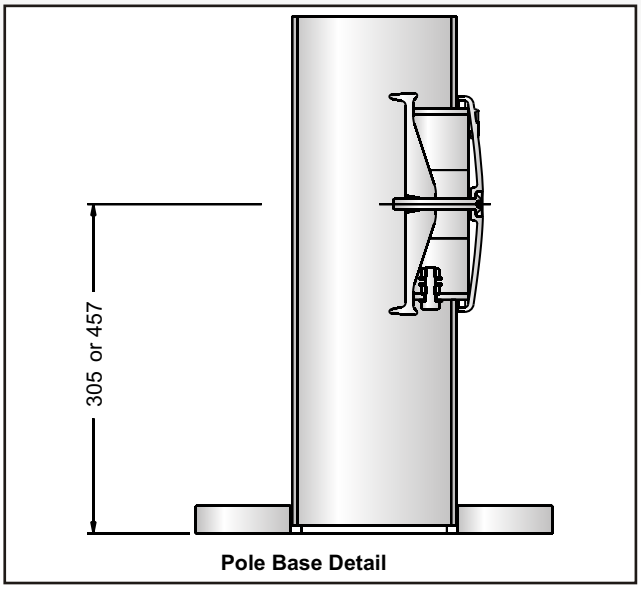
Conversion Factor: to convert EPA from Square Metres to Square Feet multiply Square Metres by 10.76

SQUARE STRAIGHT POLES

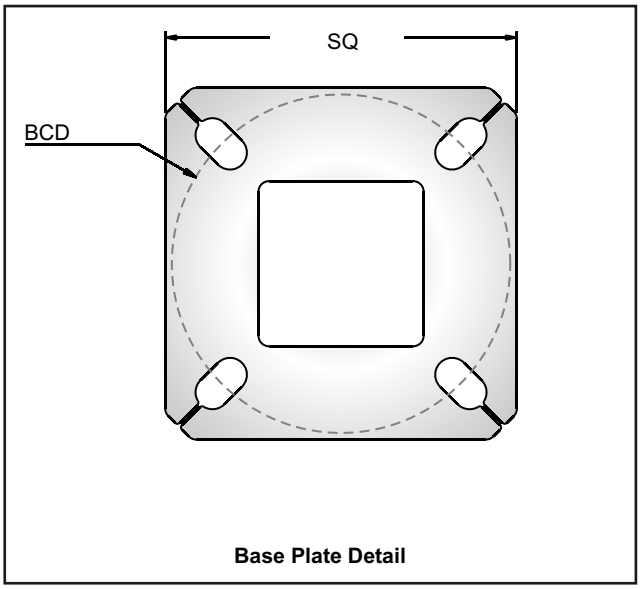




Tenon Mounted Fixture Detail **Side Mounted Fixture Detail**



Pole Base Detail



Base Plate Detail

Surface Finish Codes	
00	Bare Metal
02	Finish Paint
03	Powder Coat
04	Galvanize
07	Galvanize & Powder Coat
08	Special Request

Pole Fixture Mounting Options Chart	
Suffix x.x	**Description**
0.0	Top cap only
0.1	Top cap with one side-mounted fixture
0.2	Top cap with two side-mounted fixtures
0.3	Top cap with three side-mounted fixtures
0.4	Top cap with four side-mounted fixtures
2.0	Top tenon, 60mm O.D.
2.5	Top tenon, 73mm O.D.
3.0	Top tenon, 89mm O.D.
3.5	Top tenon, 102mm O.D.
4.0	Top tenon, 114mm O.D.

Valmont WCE 6" Square Straight Poles

Height	Catalogue Number		Base Plate		Anchor Bolt				Max.EPA (m^2)					
	Catalogue Number	Weight (Kg)	SQ (mm)	BCD (mm)	AB Diameter (in)	AB Length (in)	Projection (Shim lvl.) (mm)	Projection (Nut lvl.) (mm)	q<=410 Pa	q<=460 Pa	q<=560 Pa	q<=650 Pa	q<=750 Pa	q<=830 Pa
6" Square Straight Poles														
20'	6SS-20-x.x	153	330	318	1	36	67	117	3.10	2.69	2.06	1.68	1.35	1.15
24'	6SS-24-x.x	180	330	318	1	36	67	117	2.30	1.95	1.42	1.10	0.84	0.66
30'	6SS-30-x.x	221	330	318	1	36	67	117	1.40	1.12	0.71	0.46	0.24	0.11
35'	6SS-35-x.x	255	330	318	1	36	67	117	0.82	0.59	0.25	0.03	0.00	0.00
40'	6SS-40-x.x	293	330	318	1	36	67	117	0.33	0.13	0.00	0.00	0.00	0.00
6" Square Straight Heavy Duty Poles														
30'	6SH-30-x.x	291	330	318	1.25	48	81	138	2.16	1.82	1.30	0.95	0.67	0.50
35'	6SH-35-x.x	336	330	318	1.25	48	81	138	1.46	1.16	0.73	0.45	0.20	0.05
40'	6SH-40-x.x	380	330	318	1.25	48	81	138	0.87	0.62	0.26	0.00	0.00	0.00
45'	6SH-45-x.x	425	330	318	1.25	48	81	138	0.40	0.17	0.00	0.00	0.00	0.00
48'	6SH-48-x.x	452	330	318	1.25	48	81	138	0.13	0.00	0.00	0.00	0.00	0.00

Conversion Factor: to convert EPA from Square Metres to Square Feet multiply Square Metres by 10.76

FATIGUE RESISTANT SQUARE STRAIGHT POLES

Valmont West Coast Engineering is widely recognized throughout the industry as the leader in product design. The Fatigue Resistant Square steel lighting pole is just another example why.

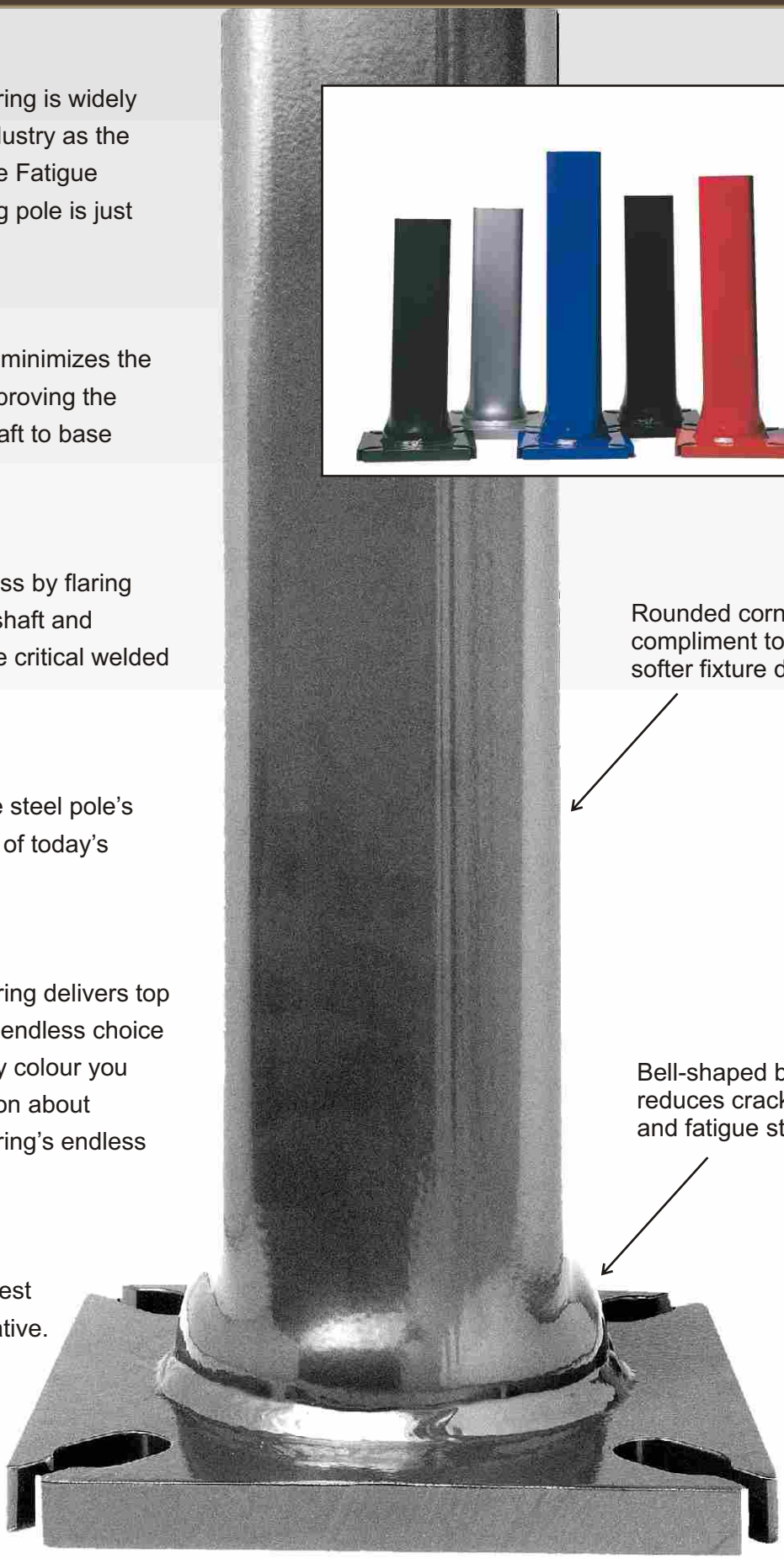
Increased Performance
The unique bell-shaped base minimizes the effects of pole vibration by improving the fatigue performance of the shaft to base plate connection.

How We Did It
We evenly distributed the stress by flaring out the bottom 4" of the pole shaft and creating a round section at the critical welded connection point.

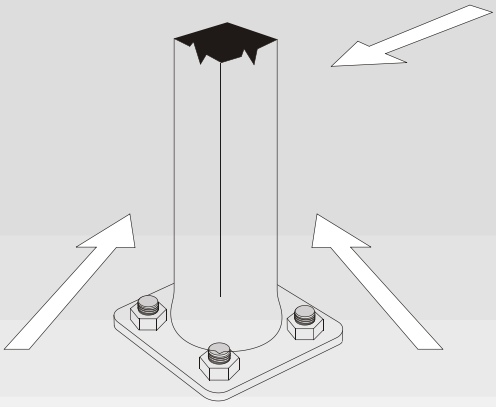
Updated Exterior Design
The Fatigue Resistant Square steel pole's rounded corners match many of today's softer corner fixture styles.

Endless Choice of Colours
Valmont West Coast Engineering delivers top quality powder coatings in an endless choice of colours. We can match any colour you need. Call for more information about Valmont West Coast Engineering's endless choice of colours.

Questions?
Contact your local Valmont West Coast Engineering representative.



Wind Direction Detail



Wind Direction Across Flats

Wind Direction Across Points

Maximum weight and EPA values are determined by analyzing stress from two wind directions as shown. Due to the increased area and reduced section properties, stress levels across the points generally control the allowable loads.

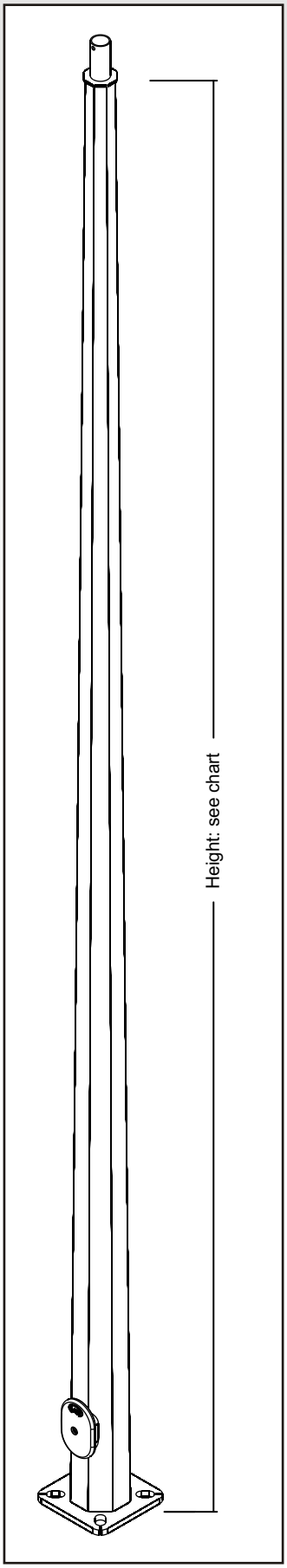
Valmont WCE Fatigue Resistant Square Straight Poles

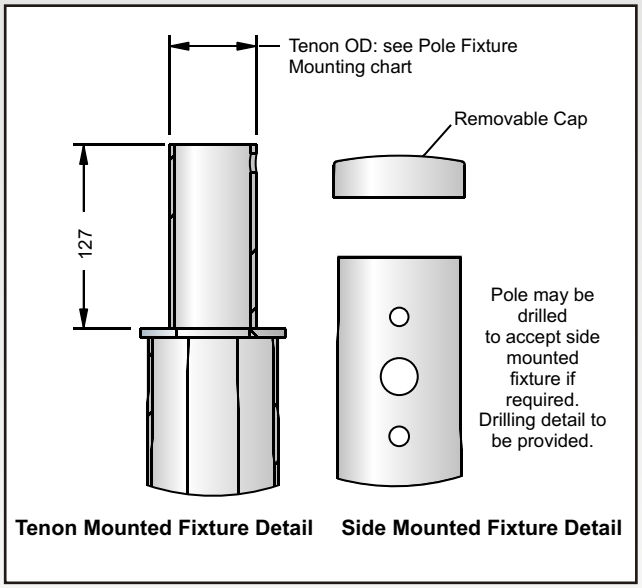
Height	Shaft				Pole Base Plate			Anchor Bolt				Max EPA (m^2)					
					Bolt Circle												
	Catalogue Number	Base O.D. (in)	Wall Thk. (ga)	Struct. Weight (lbs)	Dia (in)	± (in)	B.P. Square (in)	Dia (in)	Length (in)	Projection (Shim lvl.) (mm)	Projection (Nut lvl.) (mm)	q<=410 Pa	q<=460 Pa	q<=560 Pa	q<=650 Pa	q<=750 Pa	q<=830 Pa
10	400Q100	4	11	75	8.5	0.5	8.25	0.75	24	55	99	2.09	1.84	1.46	1.22	1.02	0.90
12	400Q120	4	11	90	8.5	0.5	8.25	0.75	24	55	99	1.64	1.42	1.12	0.92	0.76	0.65
14	400Q140	4	11	100	8.5	0.5	8.25	0.75	24	55	99	1.30	1.12	0.86	0.69	0.55	0.46
16	400Q160	4	11	115	8.5	0.5	8.25	0.75	24	55	99	1.04	0.88	0.65	0.50	0.38	0.30
18	400Q180	4	11	125	8.5	0.5	8.25	0.75	24	55	99	0.82	0.68	0.47	0.35	0.24	0.17
20	400Q200	4	11	140	8.5	0.5	8.25	0.75	24	55	99	0.64	0.51	0.33	0.21	0.11	0.06
	500Q200	5	11	185	11	1	11	0.75	24	74	131	1.17	0.98	0.69	0.51	0.35	0.26
	500W200	5	7	265	11	1	11	0.75	24	74	131	2.00	1.72	1.30	1.04	0.81	0.68
25	400Q250	4	11	170	8.5	0.5	8.25	0.75	24	55	99	0.34	0.23	0.08	0.00	0.00	0.00
	400W250	4	7	245	8.5	0.5	8.25	0.75	24	55	99	0.76	0.62	0.40	0.26	0.14	0.07
	500Q250	5	11	225	11	1	11	0.75	24	74	131	0.74	0.58	0.33	0.18	0.05	0.00
	500W250	5	7	360	11	1	11	0.75	24	74	131	1.42	1.20	0.85	0.62	0.44	0.32
30	400W300	4	7	291	8.5	0.5	8.25	0.75	24	55	99	0.32	0.21	0.04	0.00	0.00	0.00
	500Q300	5	11	265	11	1	11	0.75	24	74	131	0.24	0.11	0.00	0.00	0.00	0.00
	500W300	5	7	380	11	1	11	0.75	24	74	131	0.79	0.60	0.32	0.14	0.00	0.00
	600W300	6	7	520	12	1	12.5	1	36	74	131	1.40	1.12	0.71	0.46	0.24	0.11
35	500W350	5	7	440	11	1	11	0.75	24	74	131	0.36	0.20	0.00	0.00	0.00	0.00
	600W350	6	7	540	12	1	12.5	1	36	74	131	0.82	0.59	0.25	0.03	0.00	0.00
40	600W400	6	7	605	12	1	12.5	1	36	74	131	0.33	0.13	0.00	0.00	0.00	0.00

Conversion Factor: to convert EPA from Square Metres to Square Feet multiply Square Metres by 10.76

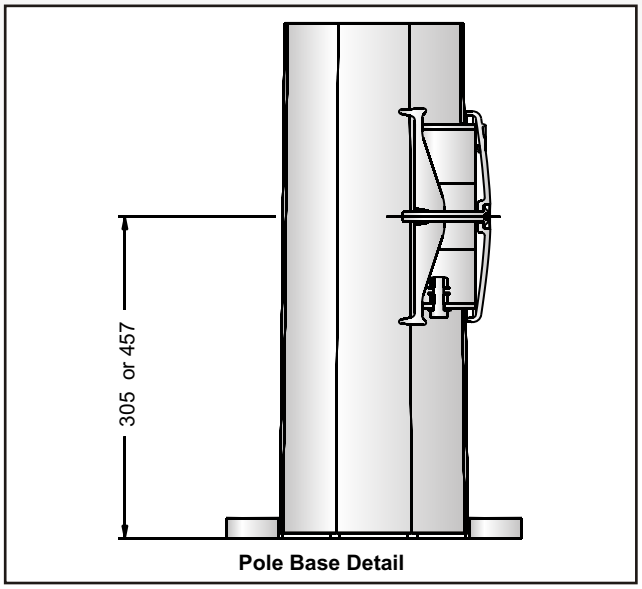
Notes:
1. All designs provided with 2.5” x 5” nominal handhole.
2. Structure weight is a nominal value which includes the pole shaft and base plate only.
3. Maximum weight and EPA values are based on side mounted fixtures only. Consult Valmont West Coast Engineering on loading criteria for pole top mounted luminaries.

OCTAGONAL TAPERED POLES

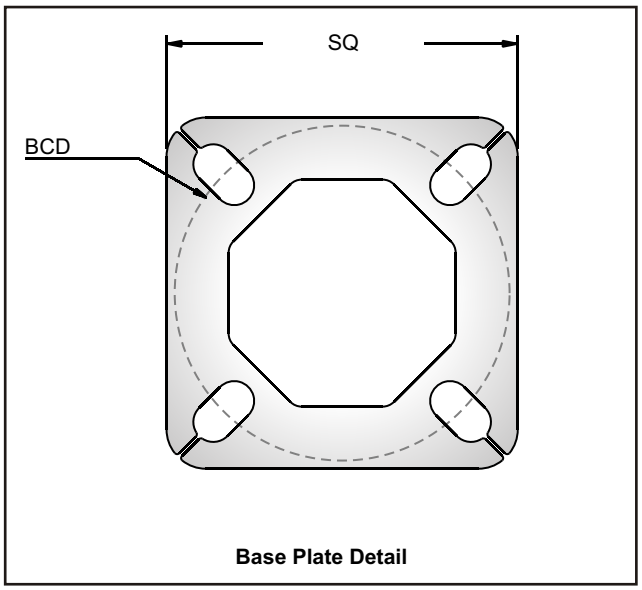




Tenon Mounted Fixture Detail **Side Mounted Fixture Detail**



Pole Base Detail



Base Plate Detail

Surface Finish Codes	
00	Bare Metal
02	Finish Paint
03	Powder Coat
04	Galvanize
07	Galvanize & Powder Coat
08	Special Request

Pole Fixture Mounting Options Chart	
Suffix x.x	**Description**
0.0	Top cap only
0.1	Top cap with one side-mounted fixture
0.2	Top cap with two side-mounted fixtures
0.3	Top cap with three side-mounted fixtures
0.4	Top cap with four side-mounted fixtures
2.0	Top tenon, 60mm O.D.
2.5	Top tenon, 73mm O.D.
3.0	Top tenon, 89mm O.D.
3.5	Top tenon, 102mm O.D.
4.0	Top tenon, 114mm O.D.

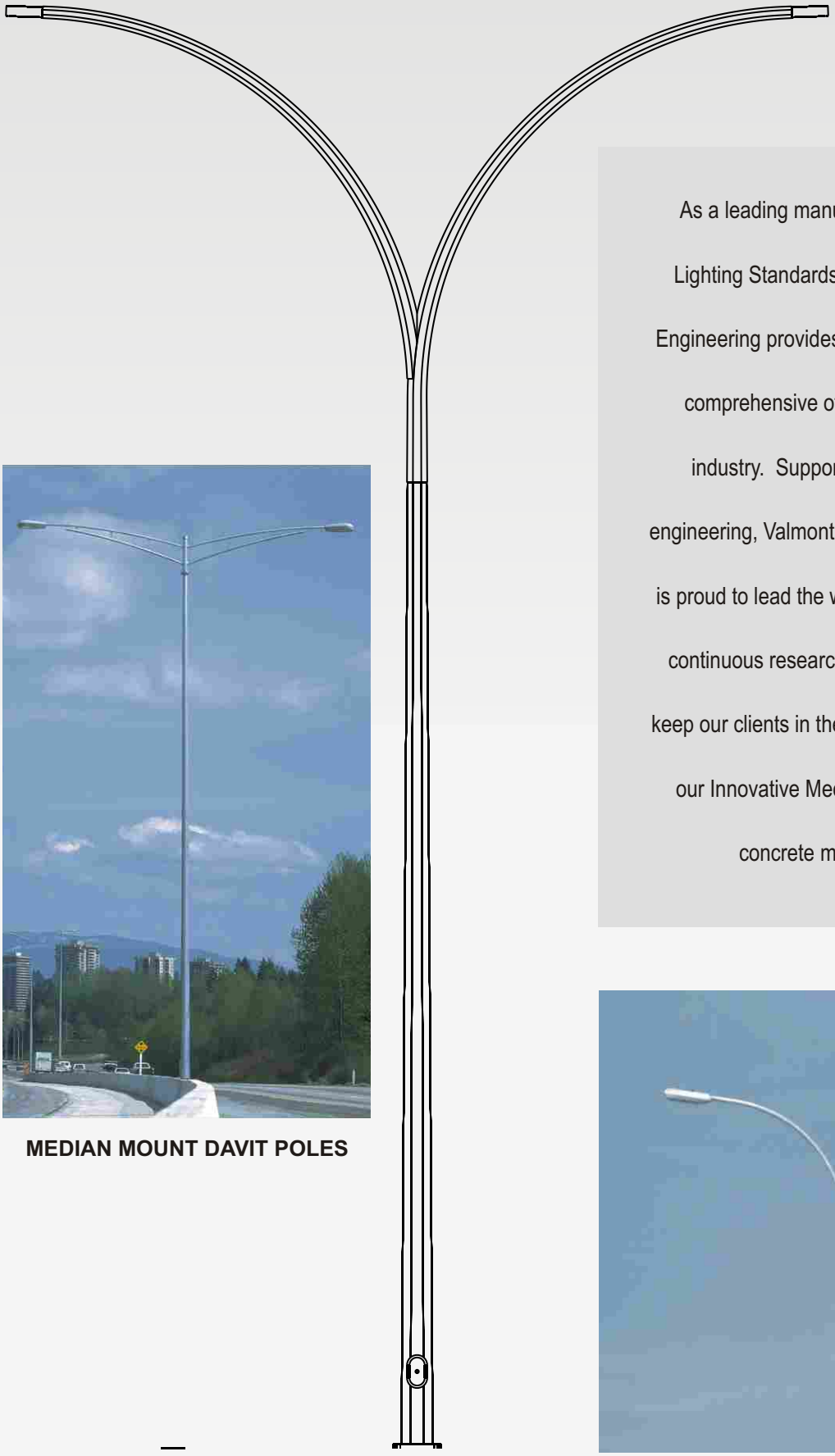
Valmont WCE Octagonal Tapered Poles

Height	Catalogue Number		Base Plate		Anchor Bolt				Max.EPA (m^2)					
	Catalogue Number	Weight (Kg)	SQ (mm)	BCD (mm)	AB Diameter (in)	AB Length (in)	Projection (Shim lvl.) (mm)	Projection (Nut lvl.) (mm)	q<=410 Pa	q<=460 Pa	q<=560 Pa	q<=650 Pa	q<=750 Pa	q<=830 Pa
12’	OT-12-x.x	44	280	267	1	36	61	111	4.45	3.94	3.20	2.74	2.33	2.10
15’	OT-15-x.x	53	280	267	1	36	61	111	3.52	3.14	2.53	2.14	1.82	1.62
17’	OT-17-x.x	59	280	267	1	36	61	111	3.10	2.73	2.19	1.84	1.55	1.37
20’	OT-20-x.x	68	280	267	1	36	61	111	2.55	2.24	1.78	1.48	1.23	1.07
22’	OT-22-x.x	73	280	267	1	36	61	111	2.26	1.97	1.54	1.28	1.05	0.91
25’	OT-25-x.x	82	280	267	1	36	61	111	1.89	1.63	1.25	1.02	0.82	0.69
27’	OT-27-x.x	88	280	267	1	36	61	111	1.67	1.44	1.09	0.87	0.68	0.57
30’	OT-30-x.x	99	295	280	1	36	61	111	1.90	1.63	1.22	0.98	0.76	0.63
35’	OT-35-x.x	115	295	280	1	36	61	111	1.41	1.19	0.85	0.63	0.45	0.34
40’	OT-40-x.x	146	355	343	1.25	48	74	131	1.52	1.27	0.89	0.65	0.45	0.31
45’ Two Sections	OT-45-x.x	287	380	368	1.25	48	81	138	2.70	2.31	1.72	1.35	1.03	0.83
50’ Two Sections	OT-50-x.x	345	405	394	1.25	48	81	138	2.34	1.95	1.40	1.04	0.75	0.56

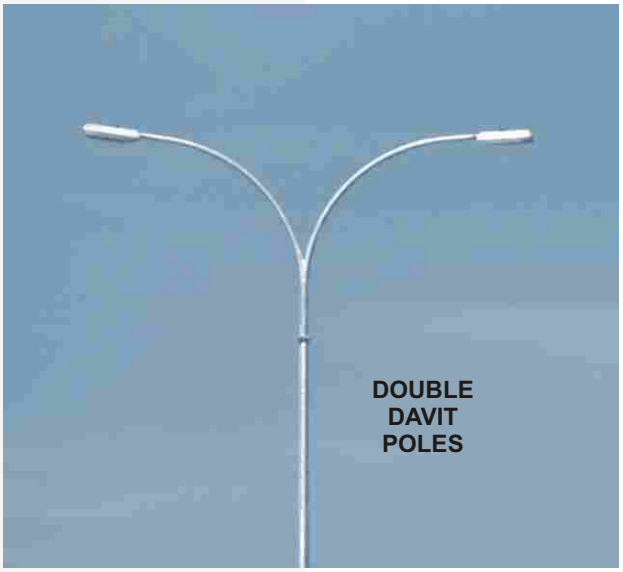
Conversion Factor: to convert EPA from Square Metres to Square Feet multiply Square Metres by 10.76

DAVIT POLES

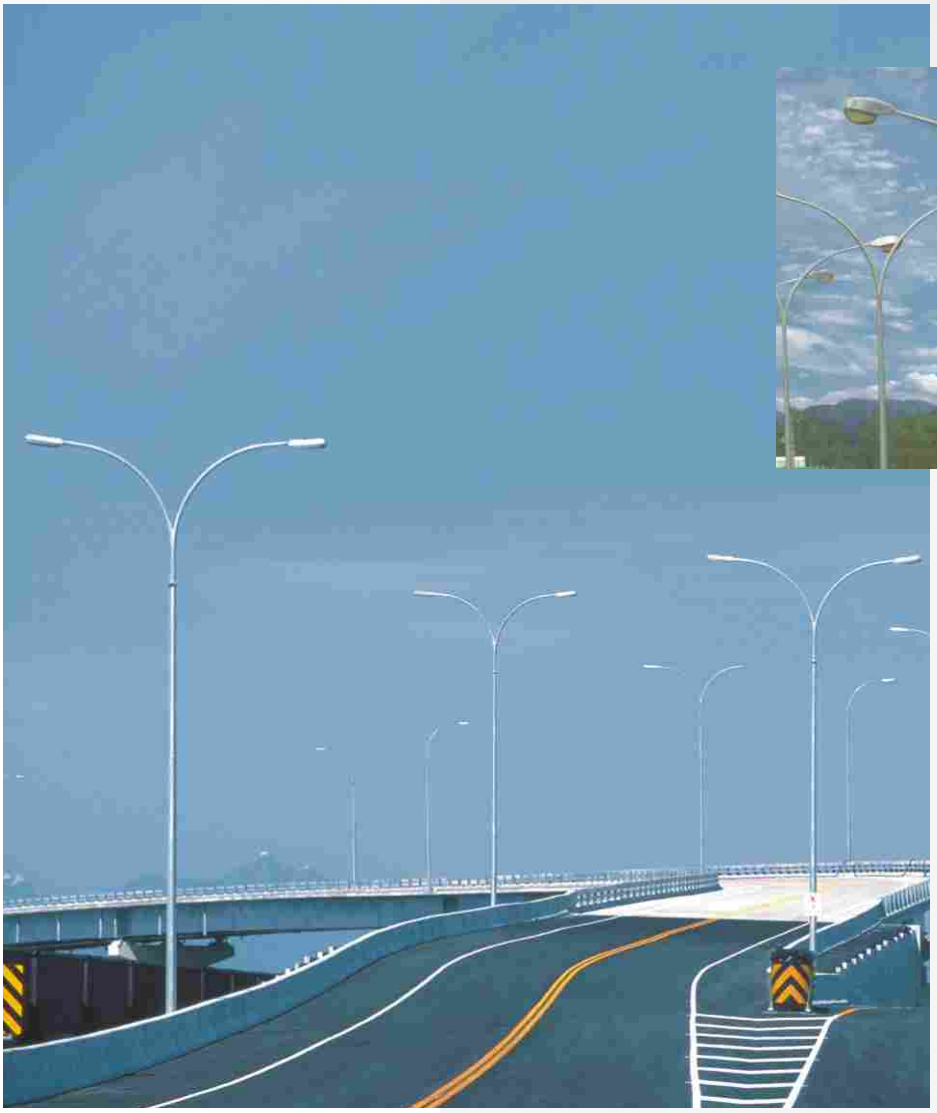
MEDIAN MOUNT DAVIT POLES



As a leading manufacturer of Structural Lighting Standards, Valmont West Coast Engineering provides the most complete and comprehensive offering of poles in the industry. Supported with world class engineering, Valmont West Coast Engineering is proud to lead the way. In keeping with our continuous research and development we keep our clients in the forefront with poles like our Innovative Median Mount Design for concrete median barriers.



DOUBLE DAVIT POLES



HINGED POLES

Valmont WCE Octagonal Tapered Hinged Steel Poles

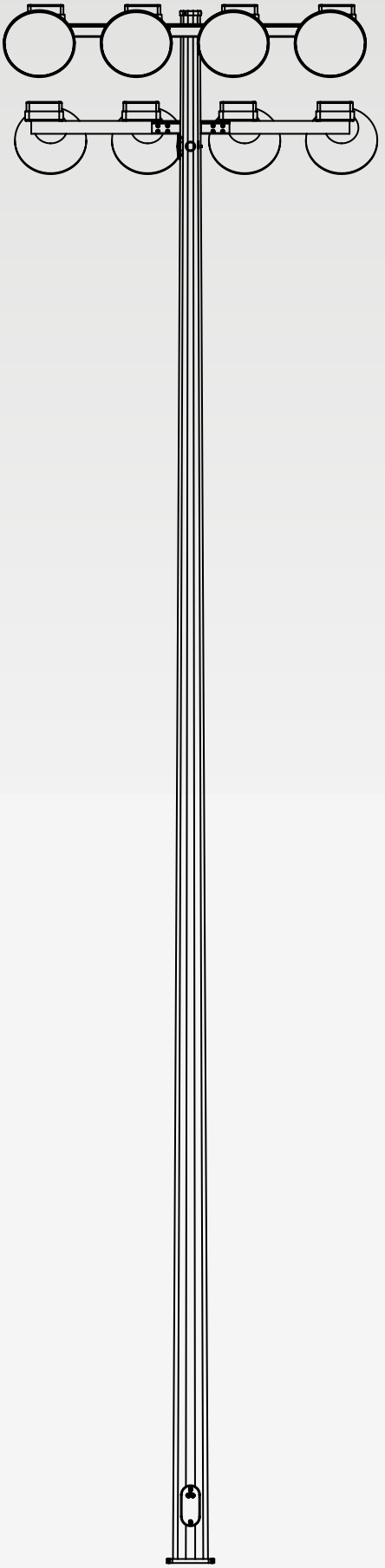
Cat#	Height ft (m)	EPA Rating sq. ft (sq. m)	B.Sq. in (mm)	BCD in (mm)	Bolt Dia. in (mm)	Weight lbs. (kg)
HI-0T-20	20 (6.1)	10 (0.9)	7.1-7.75 (180 197)	10-11 (254 279)	1 (25)	213 (97)
HI-0T-25	25 (7.6)	10 (0.9)	7.1-7.75 (180-197)	10-11 (254-279)	1 (25)	266 (121)
HI-0T-30	30 (9.1)	10 (0.9)	7.4-8.1 (189 206)	10.5-11.5 (267 292)	1 (25)	346 (157)
HI-0T-35	35 (10.7)	8 (0.7)	7.4-8.1 (189 206)	10.5-11.5 (267 292)	1 (25)	405 (184)
HI-0T-40	40 (12.2)	8 (0.7)	9.2-9.9 (234-251)	13-14 (330-356)	1.25 (32)	528 (240)

Valmont WCE Square Tapered Hinged Steel Poles

Cat#	Height ft (m)	EPA Rating sq. ft (sq. m)	B.Sq. in (mm)	BCD in (mm)	Bolt Dia. in (mm)	Weight lbs. (kg)
HI-ST-20	20 (6.1)	10 (0.9)	7.75-8.5 (197 216)	11-12 (279 305)	3/4 (19)	256 (116)
HI-ST-25	25 (7.6)	10 (0.9)	8.8-9.5 (224-241)	12.5-13.5 (318-343)	1 (25)	360 (164)
HI-ST-30	30 (9.1)	10 (0.9)	9.5-10.3 (241-262)	13.5-14.5 (343-386)	1 (25)	490 (223)
HI-ST-35	35 (10.7)	10 (0.9)	9.5-10.3 (241 262)	13.5-14.5 (343 386)	1 (25)	571 (260)
HI-ST-40	40 (12.2)	10 (0.9)	11-11.7 (279 297)	15.5-16.5 (394 419)	1.25 (32)	846 (385)

Above hinged poles are designed and sized to accept Valmont West Coast Engineering winches. Consult factory for appropriate winch design for your application.

Whether you are lighting a baseball field, soccer field, football field or even a golf course Valmont West Coast Engineering has the solution you've been looking for. With experience on hundreds of various Sports Lighting projects, we'll design the right pole for your special field. Our poles for sports applications can be direct burial or base plate mounted and are available with a host of accessories and coating finishes. Consult Valmont West Coast Engineering for your specific application.



"THE BULLDOG"

It'll take a bite out of wire theft!

The Lockable Hand Hole Cover

- Shatter resistant cast construction
- Shackeless key lock which can't be removed
- Easy lock in/lock out
- Rugged cast back bar
- Fits standard 4" x 7" hand hole and oversized 4" x 8" hand hole

4" x 8" Oversize
(Max OD opening 8")
Cat# 39507

5" x 12"
Cat# 39510

Tamper Resistant Hand Hole

- Shatter resistant cast construction
- Tamper-proof bolt included
- Easy lock in/lock out
- Rugged cast back bar
- Fits standard 4" x 7" hand hole

4" x 7"
Cat# 39500

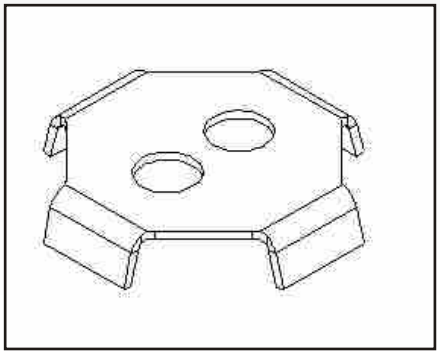
5" x 12"
Cat# 39509

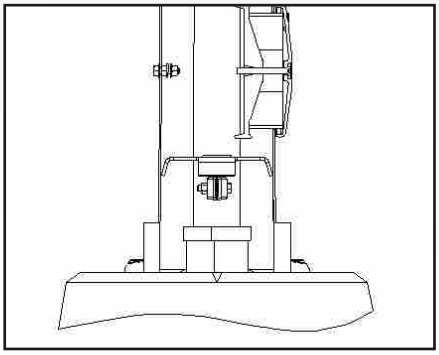
Protect the copper conducts from theft below the pole base.

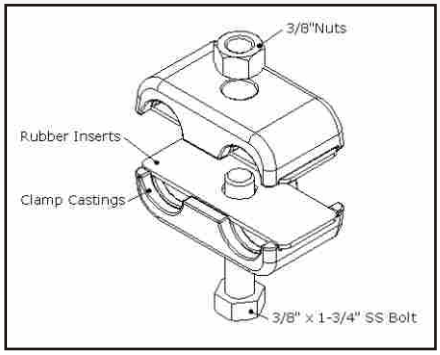
The Copper Stopper I

- Welded barrier plate as an integral part of the pole
- Grommeted holes to protect wires
- Single clamp to hold both the incoming and outgoing wires
- Connections can be inspected through hand hole
- Patent pending

Cat #COPPERS1



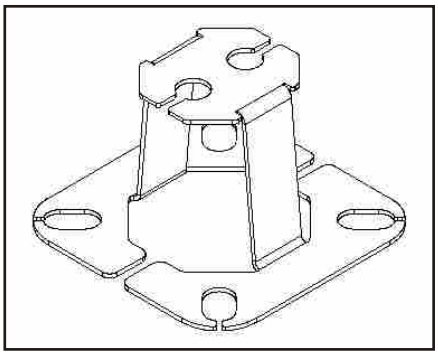


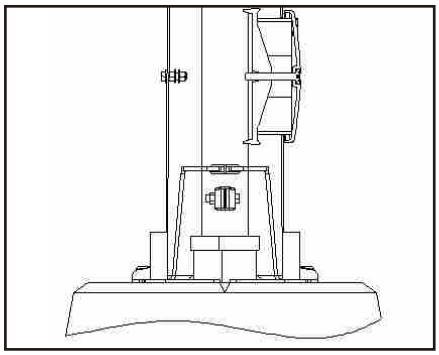


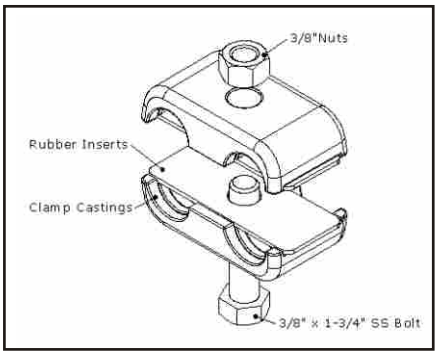
The Copper Stopper II

- Use with existing pole installations as an add-on (no welding required)
- Installation is possible without disconnecting the wires - added slots on the side
- Simple & economical construction
- Patent pending

Cat #COPPERS2



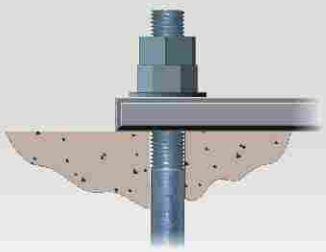




Bull Horns:

Flood light area lighting for 1 fixture to 4 fixtures in different configurations and degrees.

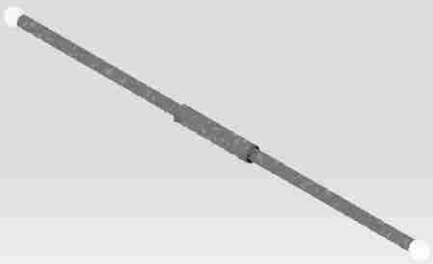
Cat #	Fixture Mounts	Offset	Diagram
BH2-180	2	180	
BH3-180	3	180	
BH3-120	3	120	
BH4-180	4	180	
BH4-90	4	90	



Anchor Bolts:

Standard Anchor Bolts used are:
ASTM F1554 Gr. 55 or CAN/CSA G30.18 400W.
Also available in heat treated grade #4140.

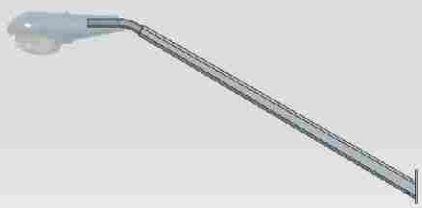
Cat #	Bolt Dia. (in)	Length (in)	Grade
AB-0750-400	3/4”	24”	400
AB-1000-400	1”	36”	400
AB-1250-400	1 1/4”	48”	400
AB-1500-400	1 1/2”	72”	400
AB-1750-400	1 3/4”	96”	400
AB-1000-4140	1”	36”	4140
AB-1250-4140	1 1/4”	48”	4140
AB-1500-4140	1 1/2”	54”	4140



Banner Arms:

Standard banner arms for mounting to poles for City banners and flags.
Banner arms also complete with decorative end ball. Available in bolt on or clamp on.

Cat #	Diameter (in)	Length (in)
BA-00-01	1½”	36”



Elliptical Arms:

For wooden poles.
4’ foot galvanized
6’, 8’, 10’ & 12’ in aluminum.
Consult factory for galvanized.

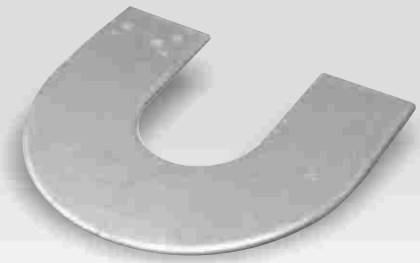
Cat #	Reach (ft)		Material
LA03-06-01-04	4’	6 sided	galv
LA03-06-01-08	8’	6 sided	galv
LA03-06-01-12	12’	6 sided	galv
LA03-06-01-16	16’	6 sided	galv
LA03-00-01-06	6’	round	alum
LA03-00-01-08	8’	round	alum
LA03-00-01-10	10’	round	alum
LA03-00-01-12	12’	round	alum

Nuts:
Nuts come with our standard anchor bolts and are available in galvanized steel and heavy hex.

Nut Covers:
Plastic nut covers to protect anchor bolts and nuts.
Standard nut covers available in grey or black. Consult factory for custom colours.

Cat #	Size (in)
N03-0750	3/4”
N03-1000	1”
N03-1250	1 1/4”
N03-1500	1 1/2”

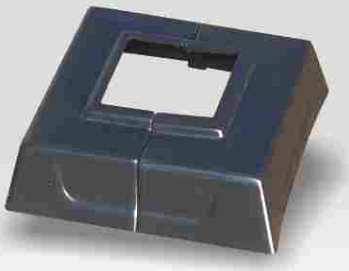
Cat #	Bolt Dia. (in)
NC-0750	3/4”
NC-1000	1”
NC-1250	1 1/4”
NC-1500	1 1/2”



Shims:

Leveling shims available in 2 sizes for anchor bolts 1” and 1 ½”.
Dimension 1/16” thick.

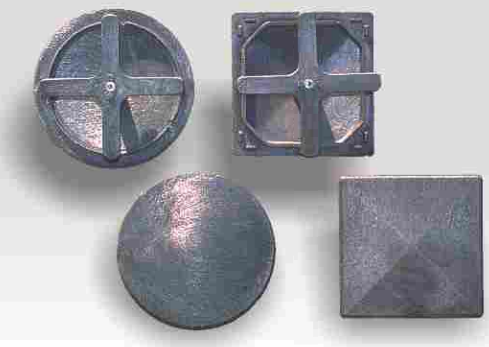
Cat #	Bolt Dia. (in)
SH-1000	1”
SH-1500	1 1/2”



Base Covers:

2 piece steel base covers available for round, square or multi-sided poles.
3”- 6” for round poles and 4”- 6” for square poles.
Round poles have the option of either a square or round base.

Cat #	Cat #	Cat #	Size (in)
			
BC-00-01-3	BC-00-02-3		3”
BC-00-01-4	BC-00-02-4	BC-04-01-4	4”
BC-00-01-5	BC-00-02-5	BC-04-01-5	5”
BC-00-01-6	BC-00-02-6	BC-04-01-6	6”



Top Caps:

Plastic pole top caps available in square or round 4” to 6” round.

Cat #	Size	Style	Cat #	Size	Style
P40-00-300	3”	round	P40-04-300	3”	square
P40-00-350	3.5”	round	P40-04-400	4”	square
P40-00-400	4”	round	P40-04-500	5”	square
P40-00-425	4.25”	round	P40-04-600	6”	square
P40-00-450	4.50”	round			
P40-00-500	5”	round			

COATINGS

Introduction

Valmont West Coast Engineering employs state-of-the-art Powder Coating Technology to provide a beautiful durable, and long lasting finish on our poles and accessories. Our powder coating is done “in-house” to ensure quality and timely delivery.

Quality Assurance

Quality is maintained and verified in accordance with Valmont West Coast Engineering’s ISO 9001 Quality Assurance Program. Quality checks are carried out and documented throughout the process. Quality records for each production run are maintained, identifying the batch number, colour, and type of powder used, and the date of application. Our QA records and testing documentation are available for review upon request.

Surface Preparation

Bare Steel

Bare steel products are thoroughly cleaned by sand blasting in accordance with SSPC-SP6 prior to powder coating.

Hot Dipped Galvanized Steel

Galvanized steel products are brush blasted in accordance with SSPC-SP7 and then pre-baked at 260°C to prevent out gassing during the curing cycle.

Aluminum Castings and Extrusions

Aluminum products are chemically cleaned or sand blasted to remove residual dirt or oils.

Powder Coating Over Bare Steel and Galvanizing

This process subjects low-molecular-weight solid resins to elevated temperatures, causing them to melt, flow, and chemically melt to form a durable, attractive, consistently finished protective coating.

Powder Application

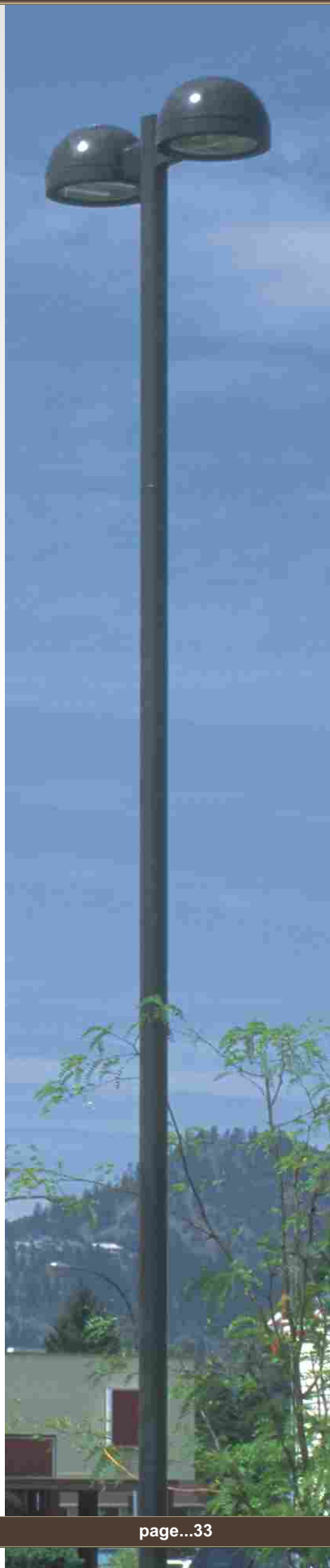
1. Powder is only applied after the product is completely fabricated. No welding or bending takes place after the powder is applied.
2. The product is thoroughly cleaned and dried with an air gun. All hand marks or grease spots are cleaned with a mild solvent.
3. After brush blasting, the entire pole or product is pre-baked in an oven at 260°C for at least one hour. The pre-baking must be done to prevent out gassing during the curing cycle.
4. The base powder coat is then applied electrostatically while the pole or product is cooling from the 260°C pre-bake period to allow the powder to melt and fuse to the surface. The base coat is a minimum of 3 mils in thickness.
5. After the base coat is applied and set, the topcoat is applied to a thickness of 3 to 5 mils. The pole or product is returned to the oven and heated to 230°C (temperature will not exceed pre-bake) for a minimum of 25 minutes. Thicker material may require longer bake cycles to fully cure. Upon removal of the pole or product from the oven, it is left to rest until the pole or product is cool enough to handle.
6. The product is then wrapped in foam and plastic and nested to minimize freight damage.

Field Repairs

1. Feather the damage area with sandpaper.
2. Clean area with solvent.
3. Allow the product to dry.
4. Neatly brush on application of Aliphatic Urethane Acrylic Semi-gloss High Build applied at 2-4 mils DFT over the entire sanded and damaged areas. The ambient conditions will be dry and over 10°C when the paint is applied.

Warranty

Valmont West Coast Engineering warranties the integrity of the powder coated finish for a period of one year from the date of shipping. The warranty is limited to repairing or replacing product that exhibits defects in material or workmanship. Valmont West Coast Engineering will not accept claims for incidental costs due to delays or extra labor charges incurred. As the fabricator and powder applicator, Valmont West Coast Engineering assumes full responsibility for the powder finish on all our products.



TERMS AND CONDITIONS

Prices and FOB Point

Prices are quoted NET, all taxes extra if applicable. FOB Factory unless otherwise specified at the time of quoting. All damages that occur in transit on shipments marked “FOB Factory” are the responsibility of the consignee and claims are to be processed by the consignee. We reserve the right to retain or resume possession until the purchase price is fully paid.

Terms of Payment

Terms of payment are net, 30 days from date of invoice unless otherwise specified.

Delays and Damages

We will not accept responsibility for delays for any reason whatsoever and we shall not be liable for any special or consequential losses or damages resulting from delays or defects. No labor, repair, changes or additions to our products are allowed on site and all such changes become the responsibility of the consignee and nullifies our warranty.

Warranty

Valmont West Coast Engineering warrants its products to be free from defects in materials and workmanship. Valmont West Coast Engineering will repair or replace without charge, F.O.B. Factory, any defective part returned to Valmont West Coast Engineering **within one year** from the date of delivery of the goods.

General Product Warranty

This warranty specifically excludes fatigue failure or similar phenomena resulting from induced vibration, harmonic oscillation or resonance associated with movement of air currents around the product.

The above warranties are given in lieu of all other warranties express or implied, including without limitation, the warranty of merchantability and the warranty of suitability for a particular purpose. It is expressly stated that Valmont West Coast Engineering assumes no liability for consequential or liquidated damages arising out of a breach of the sale, including any warranties arising therefrom, and buyer's remedy shall be limited to repair or replacement of defective parts as described above.

Any action for the breach under a sale including warranties arising therefrom must be commenced within one year after the cause of action accrues.

General Product Warranty (continued)

Our warranty is restricted solely to the replacement and/or repair of the products under the following conditions.

(a) The defect is the direct result of faulty workmanship by our company.

(b) The defect is reported within 14 days of its appearance (in writing).

(c) The defect appears within 90 days from the date of invoicing.

Cancellation and Restocking

A cancellation and restocking charge applies on all poles. Poles designed and manufactured on a custom basis or non-standard items will not be accepted back in stock, except by special agreement.

Returned Goods

Prior written consent from Valmont WCE must be secured before credit on returned goods will be given. Restocking charges, freight charges, product condition, product type and potential reselling abilities are considerations which will be included when evaluating returned goods requests.

Freight

Unless customer pays freight, method of shipment will be determined by Valmont WCE to the common carrier delivery point nearest destination. The customer will assume charges for special services such as cartage, air freight, express, parcel post, and multiple deliveries on one order.

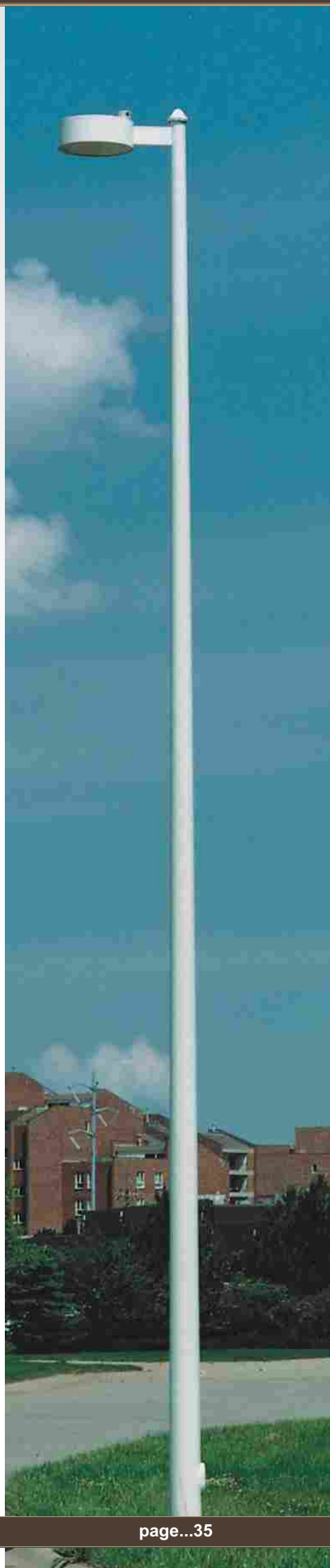
Special Design Loading

For design or stress loading applications, other than those covered in each design section such as overhead wiring, guying of structures, structure mounted applications, or other field installed attachments, consult Valmont WCE for design recommendations.

Existing Foundation or Anchorage:

If the poles are to be used on an existing foundation or on other structures, the customer assumes all responsibility for the structural integrity of the existing foundation and anchorage. The customer also assumes all liabilities associated with ensuring the pole being ordered will be a compatible fit to the existing foundation or anchorage.

Valmont WCE reserves the right to change any portion of this publication and its terms without notice in order to promote product improvement and allow for material availability.



Pole Type Design Series

POLE TYPE	DESCRIPTION
SS	**S**quare **S**traight
SH	**S**quare Straight **H**eavy Duty
ST	**S**quare **T**apered
RS	**R**ound **S**traight
RH	**R**ound Straight **H**eavy Duty
RT	**R**ound **T**apered
OT	**O**ctagonal **T**apered

Pole Numbering System

W	XXX	YY	ZZ	X.X
Straight Shaft A/F or O.D.	Pole Type	Pole Height	Shaft Gauge – SQT and ROT	Tenon Size or "0" for removable top cap configuration

DESIGN

The standard poles presented in this catalogue are designed in accordance with Canadian Highway Bridge Design Code CAN/CSA-S6-2006 and CSA 22.2 No. 206.

The design wind pressure (Wp) is calculated based on the following formula:

Wp = q x Cg x Ce x Cd [Pa]

Where:

q Reference wind pressure [Pa (As per CAN/CSA-S6-06, Annex A3.1)

Cg Gust effect coefficient = 2.5

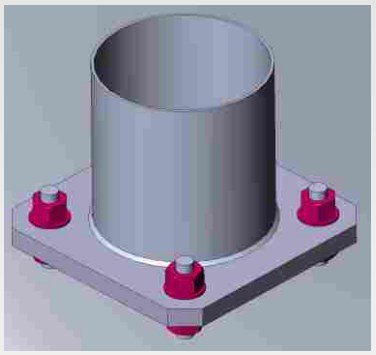
Ce Wind exposure coefficient

(As per CAN/CSA-S6-06, Table 3.8)

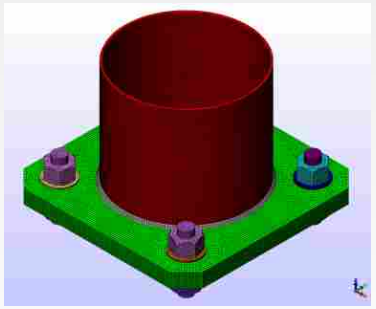
Cd Wind Drag coefficient

(As per CAN/CSA-S6-06, Annex A3.1, Table A.3.2.2)

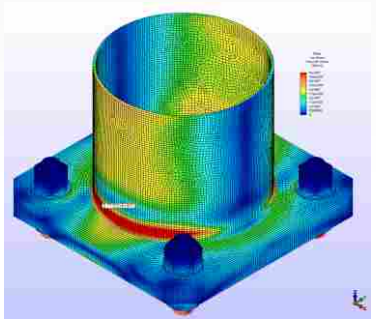
The design methodology accounts for the secondary moments (p-delta effect) induced by eccentric loads when the pole is in the deflected state. Height correction factors and drag coefficients are applied to the entire pole. The poles are designed for ground mounted applications. Poles mounted on bridges or other elevated structures require special consideration and the poles should be custom designed for the application.



Valmont West Coast Engineering utilizes 3D modeling and Finite Element Analysis (FEA) capabilities to optimize pole designs for strength, aesthetics and function. All critical connections as well as complicated geometries, which cannot be analytically investigated, are analyzed and optimized using numerical simulation. This capability ensures that our customers are provided with poles that are designed to meet all loading requirements and will stand the test of time.



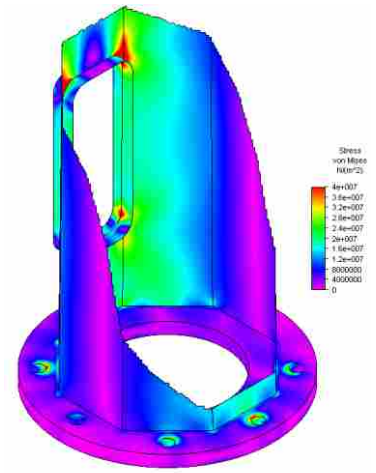
Valmont WCE conducts on-going Research and Development projects designed to advance the design and fabrication of pole structures. Finite Element Analysis backed up by full scale load and fatigue testing capabilities puts Valmont West Coast Engineering at the leading edge of advancements in the industry to the benefit of our customers.



WELDING

All Valmont WCE plants are certified to CWB W47.1 - Certification of Companies for Fusion Welding of Steel.

Welding is performed in accordance with CAN/CSA-W59-2003 - Welded Steel Construction (Metal Arc Welding).



MATERIALS

ANCHOR BOLTS

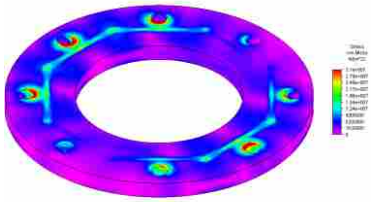
Carbon steel bar in accordance with ASTM F1554 Grade 55 or CAN/CSA G30.18 400W.

BASE PLATES

Structural quality hot rolled steel plate conforming to CAN/CSA-G40.21-300W.

POLE SHAFTS

Tapered shafts from structural quality hot rolled steel is in accordance with ASTM-A1011-50. Straight round and square shafts from HSS conforming to CAN/CSA-G40.21-350W.



STANDARD FINISH

Standard finishes available are powder coated, galvanized and duplex coating of powder coated over galvanized. The galvanize finish is done in accordance with the latest edition of CAN/CSA-G164M.

POLE SELECTION AND EPA RATING

1) From CAN/CSA-S6-2006, table A3.1.1, select the 25 year return value for wind pressure - q, for the project location.
2) Select the Max EPA from the column in the table corresponding to the wind pressure - q, for the project location.

Example:
4" Square Straight 20' pole installed in the Vancouver area.

1) From CAN/CSA-S6-2006, table A3.1.1 -
q (25 years return period) = 430 Pa

2) In the 4" Straight Square Pole table, select the

Max. EPA = 0.51 sq. m from the q<=460 Pa
column for Catalogue Number 4SS-20

EPA Conversion Formula
$1m^2 = 10.76\ ft^2$

To convert m^2 to ft^2, multiply the m^2 value by 10.76
$0.51m^2 \times 10.76 = 5.5\ ft^2$

To convert ft^2 to m^2, divide the ft^2 value by 10.76
$5.5\ ft^2 / 10.76 = 0.51m^2$

Wind Pressure (Pa)	Gusted Wind Pressure (Pa)	Equivalent Max. Wind Gust (km/h)/(mph)
410	1025	147/91
460	1150	156/97
560	1400	172/107
650	1625	185/115
750	1875	199/124
830	2075	209/130

Wind Pressure Forces Across Canada

Location	Hourly mean wind pressure, Pa, for return periods of				Velocity related seismic zone,	Zonal velocity ratio,	Acceleration related seismic zone,	Zonal acceleration ratio,
	10 yr	25 yr	50 yr	100 yr	Z_v	V	Z_a	A
British Columbia								
Abbotsford	415	530	620	710	4	0.20	4	0.20
Chilliwack	475	605	715	830	4	0.20	4	0.20
Dawson Creek	310	365	400	440	1	0.05	0	0.00
Kelowna	340	410	470	530	1	0.05	1	0.05
Langley	455	560	640	730	4	0.20	-	-
Nanaimo	470	560	635	710	4	0.20	4	0.20
New Westminster	360	420	470	520	4	0.20	-	-
North Vancouver	360	430	480	530	4	0.20	-	-
Port Alberni	470	560	630	700	5	0.30	5	0.30
Prince George	280	335	370	410	2	0.10	0	0.00
Prince Rupert	420	485	535	590	5	0.30	3	0.15
Vancouver	360	430	480	530	4	0.20	4	0.20
Victoria	475	560	630	690	5	0.30	6	0.40
Alberta								
Calgary	395	455	495	540	1	0.05	0	0.00
Drumheller	315	380	430	490	0	0.00	0	0.00
Edmonton	315	390	450	510	1	0.05	0	0.00
Fort McMurray	270	310	350	380	0	0.00	0	0.00
Grande Prairie	370	430	475	520	1	0.05	0	0.00
Jasper	365	415	455	500	1	0.05	0	0.05
Lethbridge	640	745	825	910	0	0.00	0	0.00
Medicine Hat	395	470	535	600	0	0.00	0	0.00
Saskatchewan								
North Battleford	450	590	705	830	0	0.00	0	0.00
Prince Albert	265	325	380	440	0	0.00	0	0.00
Regina	340	385	420	460	0	0.00	0	0.00
Saskatoon	360	425	480	540	0	0.00	0	0.00
Swift Current	455	545	620	690	0	0.00	0	0.00
Manitoba								
Brandon	375	435	490	540	0	0.00	0	0.00
Churchill	480	570	645	720	0	0.00	0	0.00
Flin Flon	330	390	440	490	0	0.00	0	0.00
Portage la Prairie	360	415	465	510	0	0.00	0	0.00
St. Boniface	350	405	450	500	0	0.00	0	0.00
St. Vital	350	405	450	500	0	0.00	0	0.00
Thompson	370	440	490	540	0	0.00	0	0.00
Winnipeg	350	405	450	490	0	0.00	0	0.00
Ontario								
Ajax	430	510	570	640	1	0.05	1	0.05
Barrie	210	280	330	390	1	0.05	1	0.05
Belleville	320	380	430	480	1	0.05	1	0.05
Bowmanville	460	535	590	660	1	0.05	-	-
Brampton	315	380	430	490	0	0.05	1	0.05
Brockville	315	380	430	490	1	0.05	3	0.15
Burlington	360	415	460	510	0	0.05	1	0.05
Cambridge	265	310	350	390	0	0.05	1	0.05
Durham	310	380	435	500	0	0.05	1	0.05
Fort Erie	365	415	460	500	0	0.05	2	0.10
Guelph	250	295	325	360	0	0.05	1	0.05
Hamilton	365	415	460	500	0	0.05	1	0.05
Kingston	350	415	465	520	1	0.05	2	0.10
Kitchener	275	330	370	420	0	0.05	1	0.05

Location	Hourly mean wind pressure, Pa, for return periods of				Velocity related seismic zone,	Zonal velocity ratio,	Acceleration related seismic zone,	Zonal acceleration ratio,
	10 yr	25 yr	50 yr	100 yr	Z_v	V	Z_a	A
Ontario continued								
London	365	455	535	610	0	0.00	0	0.00
Mississauga	370	435	495	550	0	0.05	1	0.05
Newmarket	260	325	385	440	1	0.05	1	0.05
North Bay	260	300	340	370	1	0.05	2	0.10
Oakville	375	435	490	540	0	0.05	1	0.05
Oshawa	430	510	575	640	1	0.05	1	0.05
Ottawa	295	360	410	460	2	0.10	4	0.20
Peterborough	290	360	415	470	1	0.05	1	0.05
Sarnia	350	415	465	520	0	0.00	0	0.00
Sault Ste. Marie	320	365	400	430	0	0.00	0	0.00
St. Catherines	365	415	460	500	0	0.05	1	0.05
Sudbury	290	390	465	550	1	0.05	1	0.05
Thunder Bay	300	355	390	430	0	0.00	0	0.00
Toronto	390	460	520	580	0	0.05	1	0.05
Waterloo	275	330	370	420	0	0.05	1	0.05
Quebec								
Dorval	315	365	400	440	2	0.10	4	0.20
Granby	265	310	350	390	2	0.10	3	0.15
Hull	295	360	410	460	2	0.10	4	0.20
Lachine	315	365	400	440	2	0.10	-	-
Laval	315	365	400	440	2	0.10	4	0.20
Montreal	315	365	400	440	2	0.10	4	0.20
Noranda	260	310	350	390	1	0.05	2	0.10
Quebec	385	460	520	580	3	0.15	4	0.20
St-Laurent	315	365	400	440	2	0.10	4	0.20
New Brunswick								
Edmundston	300	380	440	510	3	0.15	3	0.15
Fredericton	295	360	410	460	1	0.05	2	0.10
Moncton	460	560	640	720	1	0.05	2	0.10
Saint John	385	460	520	590	1	0.05	2	0.10
Woodstock	275	330	370	420	1	0.05	2	0.10
Nova Scotia								
Amherst	410	510	585	660	1	0.05	1	0.05
Dartmouth	400	505	590	670	1	0.05	1	0.05
Halifax	400	505	590	670	1	0.05	1	0.05
Port Hawkesbury	590	675	740	800	1	0.05	1	0.05
Sydney	465	535	595	650	2	0.10	2	0.10
Yarmouth	410	495	560	630	1	0.05	1	0.05
Prince Edward Island								
Charlottetown	460	530	590	660	1	0.05	1	0.05
Newfoundland & Labrador								
Cape Race	785	935	1050	1170	1	0.05	1	0.05
Gander	460	535	595	660	1	0.05	1	0.05
St. John's	605	710	800	890	1	0.05	1	0.05
Yukon Territory								
Dawson	230	275	310	340	4	0.20	2	0.10
Whitehorse	280	330	370	420	4	0.20	2	0.10
Northwest Territories								
Fort Good Hope	480	565	635	700	1	0.05	1	0.05
Inuvik	390	525	640	760	2	0.10	1	0.05
Yellowknife	345	415	470	530	1	0.05	0	0.00
Nunavut								
Iqaluit	565	670	750	840	0	0.05	1	0.05

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