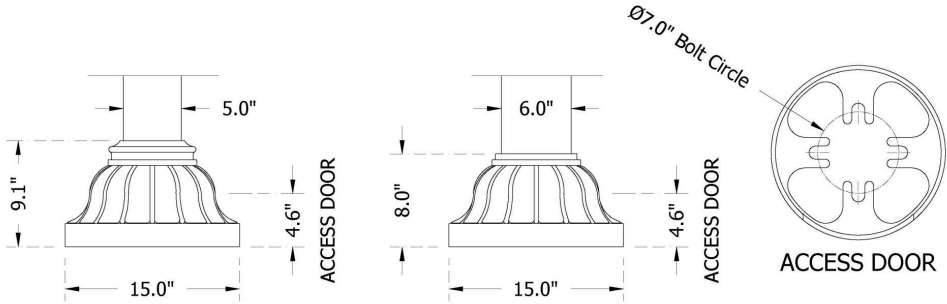


Project Name _____

Qty _____

Type _____

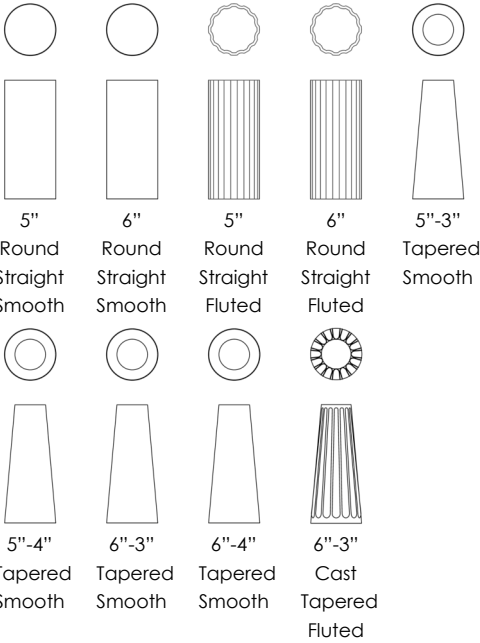
Catalog / Part Number _____



Certifications



Shafts



3/4" x 18" long anchor bolts



Description

The 650 Milford pole is constructed and shipped as 1 piece assembly to keep the base and shaft true and plumb for the life of the product. This low profile design can be used with a variety of luminaires and arms.

Features

Base Model	650: 650 Milford Pole
Height (in feet)	8', 8'9", 10', 10'9", 12', 12'9", 14', 16', 18', 20', 22'
Shafts	P5: 5" Round Straight Smooth P6: 6" Round Straight Smooth FP5: 5" Round Straight Fluted FP6: 6" Round Straight Fluted T5: 5"-3" Tapered Smooth T54: 5"-4" Tapered Smooth T6: 6"-3" Tapered Smooth T64: 6"-4" Tapered Smooth TFP6: 6"-3" Cast Tapered Fluted
Wall Thickness	.125: 1/8" Wall Thickness .188: 3/16" Wall Thickness .250: 1/4" Wall Thickness C: Cast Shaft, Varied Wall Thickness
Optional Post Center Cap	BCC: Ball Center Cap FCC: Finial Center Cap SCC: Spike Center Cap TFCC: Tall Finial Center Cap SSCC: Side Spike Center Cap RCC: Round Center Cap PCC: Plate Center Cap, Flat
Optional Burial	DB4: Direct Burial mounting style pole, with 4' direct burial section (or advise other length) HXB: HXB - Helix Base mounting style pole
Optional Vibration Damper	VD: Internal Vibration Damper

Finish



Optional Photocell

PCD: Electronic Button Photocontrol, mounted on an access door (120V-277V)
PCD4: Electronic Button Photocontrol, mounted on an access door (480V)

Optional Receptacle

GFI LPIUC: 120V, 15 Amp Duplex GFCI receptacles with a low-profile in-use cover
USB LPIUC: 120V, 15 Amp Duplex USB/ Receptacle combo with a low-profile in-use cover (NON-GFCI)
GFI IB: 120V, 15 Amp duplex GFCI receptacle in pole base, includes mouse hole on door for wire access
DPL-LPIUC-GFB: 120V duplex (NON-GFI) receptacle, low-profile in-use cover, Remote Ground Fault Breaker In pole base
GFI IUC: 120V, 15 Amp Duplex GFCI receptacles with a standard in-use cover

Optional Flag Pole Holder

FH: Cast Aluminum flag holder mount, for use with 1" diameter flag pole

Optional Banner Arms

SBA: Single Banner Arm, PM style mount
DBA: Double Banner Arms, PM style mount
SBAR: Single Banner Arm and Ring, for triangle banners, PM style mount
HSBA: Single Banner Arm, HUB mount style mount
HDBA: Double Banner Arms, HUB mount style mount
BDBA6: Double Banner Arms, Break-Away style, to break with 60MPH wind gust
BDBA9: Double Banner Arms, Break-Away style, to break with 90MPH wind gust
C5SBA: Single Banner Arm, Clamp-Style mount, for straight 5" diameter poles
C52BA: Two Banner Arms at 180°, Clamp-Style mount, for straight 5" diameter poles

Banner Width (If Applicable)

18W: 20" Long Banner arm
24W: 26" Long Banner arm
30W: 32" Long Banner arm
36W: 38" Long Banner arm
CSTM: Custom Sized Banner setup

Break-Away Banner Size (If Applicable)

18x36: 20" Long Banner arm, 36" tall center to center
18x72: 20" Long Banner arm, 72" tall center to center
24x48: 26" Long Banner arm, 48" tall center to center
30x36: 32" Long Banner arm, 36" tall center to center
24x60: 26" Long Banner arm, 60" tall center to center
CSTM: Custom Sized Banner setup

Optional Planter Arms

DHPA: Double Hooked Planter Arm
SHPA: Single Hooked Planter Arm
DSPA: Double Stepped Planter Arm
SSPA: Single Stepped Planter Arm
PA478: Cast aluminum decorative planter arm

Optional Drip Irrigation

DIS: Drip Irrigation System

Optional Sign Arms	SA78: Small cast aluminum decorative sign arm, with 24" long channel for blade sign by others SA478: Large cast aluminum decorative sign arm, with 24" long channel for blade sign by others SABA: Banner arm style sign arm, with 24" long channel for blade sign by others
Optional Speaker Hub	SH0.5: Speaker Hub Coupling, 1/2"-14 NPS SH0.75: Speaker Hub Coupling, 3/4"-14 NPS SH1.0: Speaker Hub Coupling, 1"-11.5 NPS SH1.5: Speaker Hub Coupling, 1-1/2"-11.5 NPS SH2.0: Speaker Hub Coupling, 2"-11.5 NPS
Optional Sign Bracket	SB: Sign Bracket, vertically mounted on pole shaft
Optional Steel Wreath Hook	WHK: Steel Wreath Hook
Finish	BKT: Black Textured WHT: White Textured PGT: Park Green Textured ABZT: Arch Med Bronze Tex DBT: Dark Bronze Textured VG: Verde Green SI: Swedish Iron OWGT: Old World Gray Tex OI: Old Iron RT: Rust WBR: Weathered Brown CD: Cedar WBK: Weathered Black TT: Two Tone CM: Custom Match

Electrical and control

Optional Motion Sensor In Arm	MSA-RND-L3: Motion Sensor, For Round shaft, L3 Sensor Lens (40' diameter coverage at 20' Mounting Height) MSA-RND-L7: Motion Sensor, For Round shaft, L7 Sensor Lens (50' diameter coverage at 20' Mounting Height)
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Important

Virtual Patent Marking Notice

This website (<https://www.lmpg.com/patents-trademarks>) is provided to satisfy the virtual patent marking provisions of applicable jurisdictions. Some products listed may be covered by additional patents not referenced here.

How to Order

Base Model	Height (in feet)	Shafts	Wall Thickness	Optional Post Center Cap	Optional Burial	Optional Vibration Damper	Optional Photocell	Optional Receptacle	Optional Motion Sensor In Arm ⁽⁵⁾	Optional Flag Pole Holder
650 650 Milford Pole	08FT 8'	P5 5" Round Straight Smooth ⁽¹⁾	.125 1/8" Wall Thickness	BCC Ball Center Cap	DB4 Direct Burial mounting style pole, with 4' direct burial section (or advise other length) HXB HXB - Helix Base mounting style pole	VD Internal Vibration Damper	PCD Photocontrol on door (120V- 277V) PCD4 Photocontrol on door (480V)	GFI LPIUC Duplex GFCI , low-profile in- use cover USB LPIUC Duplex Combo Receptacle, low-profile in- use cover GFI IB Duplex GFCI , In pole base DPL-LPIUC-GFB Duplex Combo Receptacle, low-profile in- use cover , Remote breaker in pole base GFI IUC Duplex GFCI , standard in-use cover	MSA-RND-L3 Motion Sensor, For Round shaft, L3 Sensor Lens MSA-RND-L7 Motion Sensor, For Round shaft, L7 Sensor Lens	FH Cast Aluminum flag holder mount, for use with 1" diameter flag pole
	08.75FT 8'9"	P6 6" Round Straight Smooth ⁽¹⁾	.188 3/16" Wall Thickness	FCC Finial Center Cap						
	10FT 10'	FP5 5" Round Straight Fluted ⁽¹⁾	.250 1/4" Wall Thickness	SCC Spike Center Cap						
	10.75FT 10'9"	FP5 5" Round Straight Fluted ⁽¹⁾	C Cast Shaft, Varied Wall Thickness ⁽⁴⁾	TFCC Tall Finial Center Cap						
	12FT 12'	FP6 6" Round Straight Fluted ⁽²⁾		SSCC Side Spike Center Cap						
	12.75FT 12'9"	T5 5"-3" Tapered Smooth		RCC Round Center Cap						
	14FT 14'	T54 5"-4" Tapered Smooth		PCC Plate Center Cap, Flat						
	16FT 16'	T6 6"-3" Tapered Smooth								
	18FT 18'	T64 6"-4" Tapered Smooth								
	20FT 20'	TFP6 6"-3" Cast Tapered Fluted ⁽³⁾								
	22FT 22'									

Notes:

1. Not available in .125 wall.
2. Only available in .250 wall.
3. Heights limited to 8'9", 10'9" & 12'9" for TFP shaft
4. For cast "TFP" shafts only.
5. Not for use with a 6" round straight shaft

How to Order

Optional Banner Arms	Banner Width (If Applicable) ⁽⁶⁾ ⁽⁷⁾ ⁽⁸⁾	Break-Away Banner Size (If Applicable) ⁽⁸⁾ ⁽⁹⁾	Optional Planter Arms	Optional Drip Irrigation ⁽¹⁰⁾	Optional Sign Arms	Optional Speaker Hub	Optional Sign Bracket ⁽¹¹⁾	Optional Steel Wreath Hook	Finish
SBA Single Arm, PM mount DBA Double Arms, PM mount SBAR Single Arm W/ Ring, PM mount HSBA Single Arm, HUB mount HDBA Double Arm, HUB mount BDBA6 Double Arms, BREAK-AWAY, 60MPH BDBA9 Double Arms, BREAK-AWAY, 90MPH C5SBA Single Arm, CLAMP mount, 5" C52BA Double Arm, CLAMP mount, 5"	18W 20" Long Banner arm 24W 26" Long Banner arm 30W 32" Long Banner arm 36W 38" Long Banner arm CSTM Custom Sized Banner setup	18x36 20" Long Banner arm, 36" tall center to center 18x72 20" Long Banner arm, 72" tall center to center 24x48 26" Long Banner arm, 48" tall center to center 30x36 32" Long Banner arm, 36" tall center to center 24x60 26" Long Banner arm, 60" tall center to center CSTM Custom Sized Banner setup	DHPA Double Hooked Planter Arm SHPA Single Hooked Planter Arm DSPA Double Stepped Planter Arm SSPA Single Stepped Planter Arm PA478 Cast aluminum decorative planter arm	DIS Drip Irrigation System	SA78 Small cast aluminum decorative sign arm, with 24" long channel for blade sign by others SA478 Large cast aluminum decorative sign arm, with 24" long channel for blade sign by others SABA Banner arm style sign arm, with 24" long channel for blade sign by others	SH0.5 Speaker Hub Coupling, 1/2"-14 NPS SH0.75 Speaker Hub Coupling, 3/4"-14 NPS SH1.0 Speaker Hub Coupling, 1"-11.5 NPS SH1.5 Speaker Hub Coupling, 1-1/2"-11.5 NPS SH2.0 Speaker Hub Coupling, 2"-11.5 NPS	SB Sign Bracket, vertically mounted on pole shaft	WHK Steel Wreath Hook	BKT Black Textured ⁽¹²⁾ WHT White Textured ⁽¹²⁾ PGT Park Green Textured ⁽¹²⁾ ABZT Arch Med Bronze Tex ⁽¹²⁾ DBT Dark Bronze Textured ⁽¹²⁾ VG Verde Green SI Swedish Iron OWGT Old World Gray Tex OI Old Iron ⁽¹³⁾ RT Rust ⁽¹³⁾ WBR Weathered Brown ⁽¹³⁾ CD Cedar ⁽¹³⁾ WBK Weathered Black ⁽¹³⁾ TT Two Tone ⁽¹³⁾ CM Custom Match ⁽¹³⁾

Notes:

6. Only required if a NON-Break Away style banner arm is selected

7. Height to be advised (CONSULT EPA CHART)

8. Banner width should be 2" smaller than the banner arm, so an 18" wide banner is assumed to be used with a 20" long arm. Banners by Others.

9. Only required if a Break-Away style banner arm is selected
10. Requires planter arm

11. Advise Length in next field.

12. Smooth finishes are available upon request.

13. Custom colors require upcharge.

Specifications

Construction	The base shall be made of heavy wall, 356 alloy cast aluminum. It shall have a 1" thick floor cast as an integral part of the one piece base. The high tensile aluminum shaft shall be double circumferentially welded internally and externally to the base for added strength.
Access Door	Cast aluminum access door integral to base. Includes stainless steel allen head hardware for attachment to base.
Tenon	Standard tenon size to be 3" OD x 3" tall. Consult the Sales Department for additional sizes.
Straight Smooth Shaft - Round	The straight round shaft shall be made of ASTM 6061 extruded aluminum and tempered to a T6 condition.
Straight Fluted Shaft	The straight fluted shaft will have a 12 Flat Flute profile and shall be made of ASTM 6061 extruded aluminum and tempered to a T6 condition.
Tapered Smooth Shaft	The tapered smooth shaft shall be made of ASTM 6063 extruded aluminum and tempered to a T6 condition.
Tapered Fluted Shaft	The tapered fluted shaft will have a 16 Flat Flute profile and shall be made of heavy wall 356 alloy cast aluminum.
Installation	Four 3/4" diameter by 18" long, hot-dipped galvanized "L" type anchor bolts shall be provided with the post for anchorage, they shall be mounted in a 7" bolt circle, Diamond pattern. Post will be provided with a grounding stud mounted on the base floor opposite the access door. CONCRETE FOOTING DESIGN BY OTHERS (OPTIONAL): 4' direct burial portion of pole shaft extending below pole base. Includes "Slipping" base style which has set screws at the neck to tighten the base down to the pole shaft. Includes anti-rotational rod and (2) wireway holes on direct burial portion. (OPTIONAL): Helix base "screw-in" style foundation allows for pole installation without concrete. Hot-dip galvanized steel support installs directly into the soil and mechanically attaches to the pole base. Includes attachment hardware.
Hardware	Includes Stainless steel hardware. Most finishes will include hardware with a Black Oxide conversion coating. Light finishes will get non-color coated hardware (Whites and Silvers)
Receptacle	Optional 120V duplex 15A GFI (GFI LPIUC) or NON-GFI/5A USB combo duplex receptacle (USB LPIUC) installed in proprietary "Low-Profile" box with a lockable In-Use cover (lock not included). Optional 120V duplex 15A GFI duplex receptacle (GFI IB) is installed in the decorative pole base with no cover. The access door includes a mouse hole for wire access. Optional 120V duplex (NON-GFI) receptacle (DPL) is installed in proprietary "Low-Profile" box (LPIUC) with a lockable In-Use cover (lock not included). A Ground Fault Breaker (GFB) is installed in the decorative pole base for easy reset access. Optional 120V duplex 15A GFI duplex receptacle installed in standard J-box with a lockable In-Use cover (lock not included).
Photocontrols	Button Photocell (On Plate): Optional photocontrol shall be mounted on a plate and installed on the pole shaft. The electronic button type photocontrol is instant on with a 5-10 second turn off, and shall turn on at 1.5 footcandles with a turn-off at 2-3 footcandles.
Wreath Hook	A steel wreath hook is offered to support a variety of decorations. The removable hook attaches to a cast aluminum mount via 2 stainless steel hex head bolts . Not for use to support catenary applications - 40 LB max weight
Drip Irrigation System	Optional concealed irrigation system efficiently waters flora in hanging baskets. The system includes 1" PVC pipe, 1/4" OD clear flexible tubing and a cord grip. The PVC acts as a conduit to separate the water from the power. The 1/4" tubing carries water from the supply line to the flora. The cord grip seals the system, stopping rainwater and debris from entering the pole. This low-maintenance feature can help reduce upkeep costs and conserve water. Plants, planter baskets, and water supply system are by others.

Motion Sensor	The optional passive infra-red (PIR) sensor allows for autonomous management of each luminaire's light levels based on activity within the coverage area. Fully programmable for the specific needs of the site, including an integral photocell for dusk to dawn on/off control. Sensor mounted in 10" long rectangular aluminum arm, available for square and round poles shafts. Offered with 2 optional FSP-Lx lenses. L3 – 40' diameter coverage at 20' MH L7 – 50' diameter coverage at 20' MH Lenses include a WHITE frame with USLT, USL, UWHT, UWH finishes. All other finishes include BLACK frame on lens. Enables compliance with Title 24 for luminaires without integral dimming control.
Banner Arm(s)	"PM" style banner arms use a cast aluminum mount welded to the pole shaft. The removable banner arm includes a flange that attaches to cast mount via 2 stainless steel hex head bolts and a removable cast aluminum ball cap. 1/2" pipe (.84" OD) is used for banner arm lengths up to and including 20" long. 3/4" pipe (1.05" OD) is used for banner arm lengths 21" to 30" •The actual banner width should be 2" smaller than the attachment arm , so an 18" wide banner is assumed to be used with a 20" long arm. All Banners by Others (SBA) - Single Banner Arm (DBA) - Double Banner Arm (SBAR) - Single Banner Arm and Ring "HUB" style banner arms use an aluminum female coupling welded to the pole shaft. The removable banner arm includes a nut and bolt for a "cotter pin" style attachment to hub and a removable cast aluminum ball cap. 3/4" pipe (1.05" OD) is used for banner arm lengths up to and including 30" long. 1" pipe (1.315" OD) is used for banner arm lengths 31" to 38" •The actual banner width should be 2" smaller than the attachment arm , so an 18" wide banner is assumed to be used with a 20" long arm. All Banners by Others (HSBA) - Hub Style Single Banner Arm (HDBA) - Hub Style Double Banner Arm "CLAMP" style banner arms include a decorative 2-piece cast aluminum pole shaft attachment clamp with stainless steel hardware and a removable cast aluminum ball cap. 3/4" pipe (1.05" OD) is used for all sizes. •The actual banner width should be 2" smaller than the attachment arm , so an 18" wide banner is assumed to be used with a 20" long arm. All Banners by Others •They are for use on 4" (C4) or 5" (C5) straight shafts only. (C_SBA) - Single Clamp-Style banner arm, (1) Clamp and (1) Banner arm (C_2BA) - Double Clamp-Style banner arms, (1) Clamp and (2) Banner arms @ 180 degrees "BREAK-AWAY" style banner arms use an aluminum female coupling welded to the pole shaft. The removable banner arm includes a nut and bolt for a "cotter pin" style attachment to hub and a removable cast aluminum ball cap. Engineered with a 60MPH maintained break speed (BDBA6), or a 90MPH maintained break speed (BDBA9). Includes an air-craft cable to hold broken section after incident. 3/4" pipe (1.05" OD) is used for 60 MPH break speed (BDBA6). 1" pipe (1.315" OD) is used for 90 MPH break speed (BDBA9) •The actual banner width should be 2" smaller than the attachment arm , so an 18" wide banner is assumed to be used with a 20" long arm. All Banners by Others •This style is offered in standard sized, consult factory for custom sizes •Standard sizes include: 20"x36", 20"x72", 26"x48", 32"x36", 26"x60" (BDBA6) - Break-Away Style Double Banner Arm, 60MPH break speed (BDBA9) - Break-Away Style Double Banner Arm, 90MPH break speed
Vibration Damper	OPTIONAL Internal canister style vibration damper comes pre-installed from the factory and can help limit pole vibrations.
Finish	Our 6 Stage Polyester Powder coat paint system offers a beautiful high-end finish that holds up to even the most extreme environments. Each part is inspected for quality and consistency before being released for shipment. Our system exceeds AAMA 2604, AAMA 2605, ASTM D523 and ASTM D4214 requirements.

Traditional Finish	Traditional paint finishes are available in Sternberg Lighting's Traditional product line. A range of colors help accent the decorative elements on the product. Finishes are available in textured or smooth. Available finishes include: Black, White, Park Green, Architectural Medium Bronze and Dark Bronze
Sternberg Select Finish	The Sternberg Select antique-inspired palette adds a touch of vintage elegance to modern applications. Old World Gray Textured is a 1 part powder coat with metallic flakes. Verde Green and Swedish Iron is a 2 part finish that includes a powder coat base coat with a hand applied antique top coat. The top coat is unique to each application and changes over time.
Custom Finish	Custom finishes are offered to adapt to any application. Rust, Weathered Brown and Cedar are special 1 part powder coat finishes with a distinctive look. Old Iron and Weathered Black are 2 part finishes that includes a powder coat base coat with a hand applied antique top coat. The top coat is unique to each application and changes over time. Two-Tone and Custom Match options available to blend Sternberg product with the site, consult factory for information.
UL Listing	UL listed per UL1598 for the US and Canada.
Warranty	5-year limited warranty (See Website for Terms and Conditions)

Post Caps



Flower Center Cap (FCC)



Ball Center Cap (BCC)



Spike Center Cap (SCC)



Side Spiked Center Cap (SSCC)



Tall Finial Center Cap (TFCC)



Plate Center Cap, Round Flat (PCC)

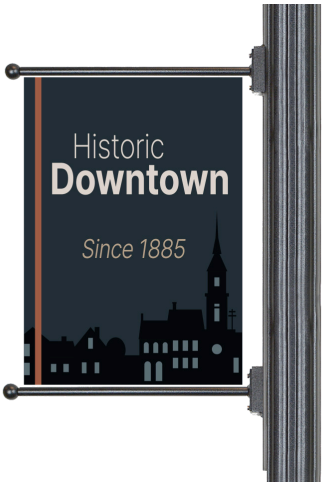


Round Center Cap (RCC)

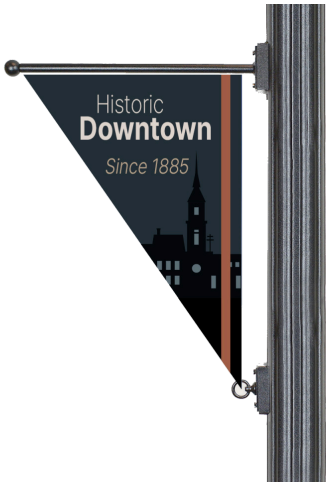
Options



Button Photocell On Door (PCD)



Double Banner Arms (DBA)



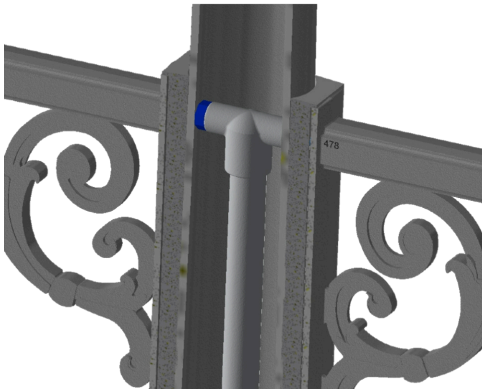
Single Banner Arm and Ring (SBAR)



Hub Style Banner Arm, Single Arm (HSBA)



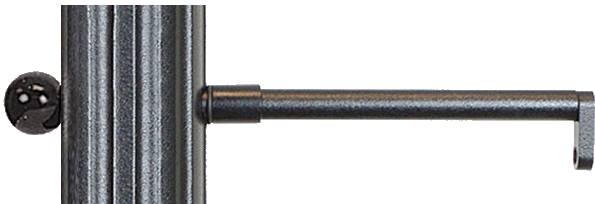
Break-Away Banner Arm Detail (BDBA6 & BDBA9)



Drip Irrigation System (DIS)



Double Hooked Planter Arm (DHPA)



Single Hooked Planter Arm (SHPA)



Double Stepped Planter Arm (DSPA)



Single Stepped Planter Arm (SSPA)



Speaker Hub (**SH_**)



Sign Bracket (**SB**)



Wreath Hook (**WHK**)



Low-Profile In-Use Cover
(**GFI LPIUC/USB LPIUC**)



Standard In-Use Cover (**GFI IUC**)



Flag Holder (**FH**)
(For 1" diameter poles)



Sign Arm Banner Arm (**SABA**) (24" Channel)



Sign Arm, "78" style (**SA78**) (24" Channel)



Decorative Planter Arm, "478" style (**PA478**)



Motion Sensor in Arm **(MSA)**



Clamp on Banner Arm, Two arms @ 180° **(C_2BA)**



Clamp on Banner Arm, One arm **(C_SBA)**



15A Ground Fault Interrupter, in base **(GFI IB)**



15A Ground Fault Breaker, in base **(GFB)**

EPA Chart(s)

EPA Chart Based on AASHTO 2009 - EPA values expressed in square feet - Consult factory for other heights

Pole Height	90 MPH	100 MPH	110 MPH	120 MPH	130 MPH	140 MPH	150 MPH
(P5) - Straight Smooth Shaft, 5" - .188 Wall Thickness							
8	14.24	11.21	9.15	7.61	6.42	5.47	4.72
10	10.39	8.00	6.47	5.33	4.46	3.77	3.23
12	7.71	5.75	4.57	3.72	3.07	2.56	2.15
14	5.69	4.02	3.11	2.47	1.98	1.61	1.31
16	4.06	2.61	1.92	1.45	1.09	0.83	0.62
(P5) - Straight Smooth Shaft, 5" - .250 Wall Thickness							
10	10.40	8.01	6.48	5.34	4.46	3.78	3.23
12	7.72	5.75	4.58	3.73	3.07	2.56	2.16
14	5.70	4.03	3.12	2.48	1.99	1.61	1.32
16	4.07	2.62	1.93	1.46	1.10	0.83	0.63
18	2.62	1.36	0.86	0.53			
(P6) - Straight Smooth Shaft, 6" - .188 Wall Thickness							
10	10.80	8.64	7.05	5.85	4.92	4.19	3.61
12	8.21	6.51	5.28	4.34	3.63	3.07	2.62
14	6.27	4.92	3.94	3.20	2.64	2.21	1.86
16	4.73	3.65	2.87	2.29	1.85	1.51	1.25
18	3.35	2.51	1.91	1.47	1.14	0.89	0.69
(P6) - Straight Smooth Shaft, 6" - .250 Wall Thickness							
12	8.21	6.51	5.28	4.34	3.63	3.07	2.62
14	6.27	4.92	3.94	3.21	2.65	2.21	1.86
16	4.73	3.65	2.87	2.29	1.85	1.51	1.25
18	3.36	2.52	1.91	1.47	1.14	0.89	0.70
20	2.14	1.51	1.06	0.74	0.51	0.33	
(FP5) - Straight Fluted Shaft, 5" - .188 Wall Thickness							
8	14.24	11.21	9.15	7.61	6.42	5.47	4.72
10	10.39	8.00	6.47	5.33	4.46	3.77	3.23
12	7.71	5.75	4.57	3.72	3.07	2.56	2.15
14	5.69	4.02	3.11	2.47	1.98	1.61	1.31
16	4.06	2.61	1.92	1.45	1.09	0.83	0.62
(FP5) - Straight Fluted Shaft, 5" - .250 Wall Thickness							
10	10.40	8.01	6.48	5.34	4.46	3.78	3.23
12	7.72	5.75	4.58	3.73	3.07	2.56	2.16
14	5.70	4.03	3.12	2.48	1.99	1.61	1.32
16	4.07	2.62	1.93	1.46	1.10	0.83	0.63
18	2.62	1.36	0.86	0.53			
(FP6) - Straight Fluted Shaft, 6" - .250 Wall Thickness							
12	8.21	6.51	5.28	4.34	3.63	3.07	2.62
14	6.27	4.92	3.94	3.21	2.65	2.21	1.86
16	4.73	3.65	2.87	2.29	1.85	1.51	1.25
18	3.36	2.52	1.91	1.47	1.14	0.89	0.70
20	2.14	1.51	1.06	0.74	0.51	0.33	
(T5) - Tapered Smooth Shaft, 5"-3" - .125 Wall Thickness							
8	14.59	11.57	9.47	7.90	6.68	5.72	4.94
10	10.83	8.46	6.88	5.70	4.79	4.08	3.51
12	8.24	6.30	5.07	4.17	3.47	2.93	2.49
14	6.31	4.66	3.70	2.99	2.46	2.04	1.71
16	4.77	3.35	2.59	2.05	1.64	1.32	1.08

Pole Height	90 MPH	100 MPH	110 MPH	120 MPH	130 MPH	140 MPH	150 MPH
(T5) - Tapered Smooth Shaft, 5"-3" - .188 Wall Thickness							
10	10.88	8.49	6.91	5.73	4.82	4.10	3.52
12	8.30	6.34	5.11	4.20	3.50	2.95	2.51
14	6.37	4.71	3.74	3.03	2.49	2.07	1.74
16	4.84	3.41	2.64	2.09	1.68	1.36	1.11
18	3.49	2.25	1.65	1.25	0.94	0.71	0.53
(T5) - Tapered Smooth Shaft, 5"-3" - .250 Wall Thickness							
12	8.32	6.36	5.12	4.21	3.51	2.96	2.52
14	6.40	4.74	3.76	3.05	2.50	2.08	1.75
16	4.88	3.44	2.66	2.11	1.69	1.37	1.12
18	3.53	2.28	1.68	1.27	0.96	0.73	0.55
20	2.33	1.24	0.80	0.51	0.30		
(T54) - Tapered Smooth Shaft, 5"-4" - .125 Wall Thickness							
8	14.42	11.39	9.31	7.75	6.55	5.60	4.83
10	10.61	8.23	6.68	5.52	4.63	3.93	3.37
12	7.98	6.02	4.82	3.94	3.27	2.74	2.32
14	5.99	4.34	3.41	2.73	2.22	1.83	1.51
16	4.41	2.98	2.26	1.75	1.37	1.08	0.85
(T54) - Tapered Smooth Shaft, 5"-4" - .188 Wall Thickness							
10	10.64	8.26	6.70	5.54	4.64	3.94	3.38
12	8.02	6.05	4.85	3.97	3.29	2.76	2.34
14	6.04	4.38	3.44	2.76	2.25	1.85	1.53
16	4.46	3.02	2.29	1.78	1.39	1.10	0.87
18	3.06	1.81	1.26	0.89	0.62	0.42	
(T54) - Tapered Smooth Shaft, 5"-4" - .250 Wall Thickness							
12	8.05	6.08	4.87	3.98	3.30	2.77	2.35
14	6.08	4.41	3.46	2.78	2.26	1.86	1.55
16	4.51	3.06	2.32	1.80	1.41	1.12	0.89
18	3.11	1.85	1.29	0.92	0.65	0.44	
20	1.86	0.76	0.37				
(T6) - Tapered Smooth Shaft, 6"-3" - .125 Wall Thickness							
10	11.40	9.16	7.51	6.27	5.30	4.54	3.93
12	8.93	7.15	5.84	4.85	4.09	3.48	3.00
14	7.11	5.66	4.60	3.80	3.18	2.70	2.31
16	5.70	4.50	3.63	2.97	2.47	2.07	1.76
18	4.45	3.47	2.77	2.24	1.84	1.52	1.28
(T6) - Tapered Smooth Shaft, 6"-3" - .188 Wall Thickness							
12	8.97	7.18	5.86	4.87	4.10	3.50	3.01
14	7.16	5.70	4.63	3.82	3.20	2.71	2.32
16	5.75	4.54	3.66	3.00	2.49	2.09	1.78
18	4.51	3.52	2.80	2.27	1.86	1.55	1.30
20	3.42	2.62	2.05	1.63	1.31	1.06	0.87
(T6) - Tapered Smooth Shaft, 6"-3" - .250 Wall Thickness							
14	7.17	5.71	4.64	3.83	3.21	2.72	2.33
16	5.77	4.55	3.67	3.01	2.50	2.10	1.79
18	4.53	3.54	2.82	2.28	1.87	1.56	1.30
20	3.45	2.65	2.07	1.64	1.32	1.07	0.88
22	2.53	1.89	1.43	1.10	0.85	0.66	0.51

Pole Height	90 MPH	100 MPH	110 MPH	120 MPH	130 MPH	140 MPH	150 MPH
(T64) - Tapered Smooth Shaft, 6"-4" - .125 Wall Thickness							
10	11.22	9.00	7.37	6.14	5.18	4.43	3.83
12	8.71	6.95	5.66	4.69	3.94	3.35	2.88
14	6.85	5.43	4.39	3.61	3.01	2.54	2.17
16	5.39	4.23	3.39	2.76	2.27	1.90	1.60
18	4.11	3.17	2.50	2.00	1.62	1.32	1.09
(T64) - Tapered Smooth Shaft, 6"-4" - .188 Wall Thickness							
12	8.73	6.97	5.68	4.70	3.95	3.36	2.89
14	6.88	5.45	4.41	3.63	3.03	2.55	2.18
16	5.43	4.26	3.41	2.78	2.29	1.91	1.61
18	4.15	3.20	2.52	2.02	1.64	1.34	1.11
20	3.02	2.27	1.74	1.35	1.06	0.83	0.66
(T64) - Tapered Smooth Shaft, 6"-4" - .250 Wall Thickness							
14	6.91	5.48	4.43	3.65	3.04	2.57	2.19
16	5.47	4.29	3.44	2.80	2.31	1.93	1.63
18	4.19	3.24	2.55	2.04	1.66	1.36	1.12
20	3.07	2.31	1.77	1.38	1.08	0.85	0.67
22	2.11	1.52	1.10	0.80	0.58	0.41	