



# COMPOSITE POLE

# RT45

TAPERED POLE 4.5 INCHES AT POST TOP

- Smooth, tapered composite pole shaft
- Direct Embedded and Anchor Base models
- XTREME® elastomeric urethane base cover

## Ordering Information

SAMPLE CATALOG NUMBER LOGIC

	B	C	D	E	F	G	H
RT45	16	AB	DBZ	SMS	30	-35	•
RT45	20	DE	BLK	TXT	35	-40	•
POLE	ABOVE GRADE HEIGHT	INSTALLATION METHOD	COLOR	SURFACE FINISH	TENON O.D.	TENON HEIGHT	OPTIONS

### B ABOVE GRADE HEIGHT

Cat No.	Description
RT45-10	10 feet/3.0M
RT45-11	11 feet/3.4M
RT45-12	12 feet/3.7M
RT45-13	13 feet/4.0M
RT45-14	14 feet/4.3M
RT45-15	15 feet/4.6M
RT45-16	16 feet/4.9M
RT45-17	17 feet/5.2M
RT45-18	18 feet/5.5M
RT45-19	19 feet/5.8M
RT45-20	20 feet/6.1M
RT45-21	21 feet/6.40M
RT45-22	22 feet/6.71M
RT45-23	23 feet/7.01M
RT45-24	24 feet/7.32M
RT45-25	25 feet/7.62M
RT45-26	26 feet/7.92M
RT45-27	27 feet/8.32M
RT45-28	28 feet/8.53M
RT45-29	29 feet/8.84M
RT45-30	30 feet/9.14M

### C INSTALLATION METHOD

Cat No.	Description
DE	Direct Embedded
AB	Anchor Base

### D COLOR

Cat No.	Description
BLK	Black
MTB	Matte Black
DBZ	Dark Bronze
DGR	Dark Green
HTG	Hunter Green
SLV	Silver
WHT	White
GRY	Grey
CC	Custom color - Please provide a min. 3" x 3" color chip.
RAL	Please provide a four digit RAL color number.

### E SURFACE FINISH

Cat No.	Description
TXT	Natural texture of the reinforcing strands
SMS	Smooth surface finish

### F TENON O.D. (OUTSIDE DIAMETER)

Cat No.	Description
23	2 3/8" (60 mm)
27	2 7/8" (73mm)
30	3" (76 mm)
35	3 1/2" (89 mm)
40	4" (102 mm)

### G TENON HEIGHT

Cat No.	Description
-30	3.0" (76 mm)
-35	3.5" (89mm)
-40	4.0" (102 mm)
-50	5.0" (127 mm)
-60	6.0" (178mm)

• For other tenon sizes contact the factory.

### H OPTIONS

Cat No.	Description
DTC	Top pole cap and drilling for a side mounted arm(s). Provide template or drawing for hole locations.
FLD	Top pole cap. Field drill to accept a luminaire.
R1	Single receptacle and housing with spring loaded cover. Molded in dark grey color. Standard location is 12"/305mm below the top of the pole.

ABOVE GRADE HEIGHT 20' MODEL SHOWN



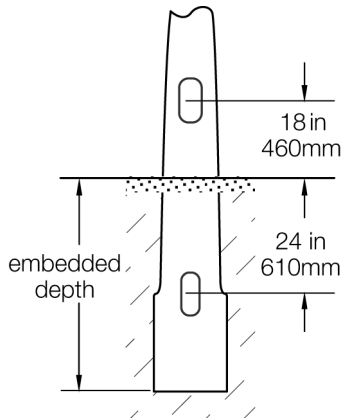
### H OPTIONS

Cat No.	Description
RC	Receptacle housing and a NEC approved cover. GFCI receptacle by others. Standard location is 12"/305mm below the top of the pole.
RBC	XTREME urethane composite base cover for direct embedded (DE) installations. Standard with anchor base AB configuration. Painted to match the pole color.

• Other accessories are shown on the Accessories specification sheet.

TAPERED POLE SHAFT

Direct Embedded - DE



SHAFT LENGTH	EMBEDDED DEPTH
10 to 13 feet	3ft/.91M
14 to 24 feet	4ft/1.2M
25 to 30 feet	5ft/1.5M

\* Embedded depths may vary per local codes, site soil conditions, drainage and very high wind conditions.

Hand hole is:  
2.5"/62mm x 5"/125mm.

Specifications

POLE SHAFT

The pole shaft shall be round tapered, smooth with a .14"/3.5mm per foot taper, with the top of the post at 3.4"/86mm diameter. The hand hole shall be 2.5"/62mm x 5"/125mm with a cover. The shaft shall be constructed of continuous fiberglass filament combined with a thermosetting epoxy resin. The glass filament shall be helically wound at alternating high and low angle layers for maximum compressive and bending strength. The hand hole area and hardware attachment areas shall be reinforced. The poles shall be designed with a minimum safety factor of 2:1 and have a maximum deflection of 10% under full wind loading conditions.

The butt end of the embedded-type post shall be enlarged and oval to increase the resistance to rotation and provide maximum ground bearing resistance (anti-lift). The post shall be non-conductive and chemically inert.

PERFORMANCE CRITERIA

The post shall be designed with a minimum safety factor of 2:1 and have no more than a 10% deflection at full wind loading. The post shall deflect no more than 2.5% of the above-ground length with 100 lbs. of lateral top load (stiffness). Poles shall be tested and rated per ASCE 7-98 and AASHTO 2001 specifications for pole structures.

DIRECT EMBEDDED INSTALLATION

Direct embedded poles shall have a 2.5 inch (62mm) by 5 inch (125mm) slot for conduit entrance 24 inches (610mm) below finished grade. Embedded depths may vary per local codes, site soil conditions, drainage and very high wind conditions.

ANCHOR BASE

Anchor bases shall be constructed of steel or aluminum base plate. The base shall be factory bonded to the post.

POST TOP

A painted 6061-T6 aluminum tenon shall be firmly bonded to the pole for mounting a post-top luminaire or arm.

FINISH

The surface of the post shall be uniform and consistent for the entire length of the post. A UV-resistant catalyzed urethane coating shall be extremely durable and retains its gloss after a 5000 hour exposure test (ASTM) to the sun, with no dulling or chalking of the surface.

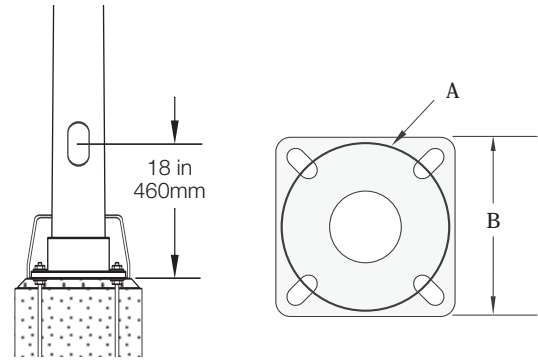
BASE COVER

The base cover shall be one or two piece and constructed of a proprietary elastomeric urethane and finished to match the post. The base shall be corrosion free and extremely resistant to impact and chipping.

WARRANTY

The products shall be warranted to be free of defects for three years from the date of shipment from the factory.

Anchor Base Installation - AB



Anchor Base Dimensions for RT45

- Hand hole is 2.5"/62mm x 5"/125mm
- Mounting slots are .75"/19mm x 1.5"/38mm for 8" bolt circle and 1"/25mm x 1.5"/38mm for 10" & 12" bolt circle
- Conduit entry hole in base plate is 4.0"/100mm

SHAFT LENGTH	BOLT CIRCLE (A)	BASE PLATE SIZE (B)	ANCHOR BOLTS
6'-7'	8"/203MM	7.5"/190MM	5/8" x 21"
8'-21'	10"/254MM	10"/254MM	3/4" x 21"
22'-30'	12"/304MM	11.5"/292MM	3/4" x 21"

Wind Loading Data

for Direct Embedded and Anchor Base

Cat No.	Description	WT	WIND SPEED (MPH) WITH 3 SECOND GUST FACTOR						
			90	100	110	120	130	140	150
10	10 feet/3.10M	49	10.0	8.0	6.5	5.4	4.5	3.9	3.3
11	11 feet/3.35M	52	10.0	8.0	6.5	5.4	4.5	3.8	3.3
12	12 feet/3.66M	55	10.0	8.0	6.5	5.4	4.5	3.8	3.3
13	13 feet/3.96M	58	10.0	7.9	6.4	5.3	4.4	3.8	3.2
14	14 feet/4.27M	61	9.9	7.9	6.4	5.3	4.4	3.7	3.2
15	15 feet/4.57M	64	9.9	7.8	6.3	5.2	4.3	3.6	3.1
16	16 feet/4.88M	67	9.1	7.2	5.8	4.7	3.9	3.3	2.8
17	17 feet/5.18M	70	9.0	7.1	5.7	4.7	3.9	3.2	2.8
18	18 feet/5.49M	74	8.8	7.0	5.6	4.6	3.8	3.2	2.7
19	19 feet/5.79M	77	8.7	6.9	5.5	4.5	3.7	3.1	2.6
20	20 feet/6.10M	79	8.6	6.7	5.4	4.4	3.6	3.0	2.5
21	21 feet/6.40M	83	8.5	6.6	5.3	4.3	3.5	2.9	2.5
22	22 feet/6.71M	86	8.3	6.5	5.2	4.2	3.4	2.9	2.4
23	23 feet/7.01M	89	8.2	6.4	5.1	4.1	3.4	2.8	2.3
24	24 feet/7.32M	92	7.6	5.9	4.7	3.8	3.1	2.5	2.1
25	25 feet/7.62M	96	7.5	5.8	4.6	3.7	3.0	2.5	2.0
26	26 feet/7.92M	99	7.3	5.7	4.5	3.6	2.9	2.4	1.9
27	27 feet/8.32M	102	7.2	5.5	4.3	3.5	2.8	2.3	1.8
28	28 feet/8.53M	106	7.0	5.4	4.2	3.4	2.7	2.2	1.7
29	29 feet/8.84M	110	6.9	5.3	4.1	3.3	2.6	2.1	1.5
30	30 feet/9.14M	113	6.7	5.0	4.0	3.2	2.5	2.1	1.4

Wind speed values are for a 3-second gust per ASCE 7-98 and AASHTO 2001. Calculated per ASCE 7-98, 50-year recurrence interval, 1.0 Importance factor. Assumes load 12 inches above the pole top. Safety factor = 2.0. Maximum fixture weight is 150 pounds.