Decorative Lamp Post
TS45
TAPERED SMOOTH POLE

- Tapered, smooth composite pole shaft
- Direct Embedded and Anchor Base models
- XTREME ${ }^{\circledR}$ elastomeric urethane base cover


## Ordering Information

Sample Catalog Number Logic

|  | B | C | D | E | F |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TS45-D8M | 18 | DE | DGR | 40 |  |
| TS45-D8M | 25 | AB | BLK | 35 | RC |
| BASE \& POLE DESIGN | Above grade HEIGHT | INSTALLATION METHOD | color | $\begin{aligned} & \text { TENON } \\ & \text { O.D. } \end{aligned}$ | OPTIONS |

B Above Grade Height

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

C Installation Method

| Cat No. |  |
| :---: | :--- | Description | DE | Direct Embedded |
| :---: | :--- |
| AB | Anchor Base |

D Color


E Tenon O.D. (outside diameter)

| Cat No. |  |
| :--- | :--- | Description $\quad$| 23 | $23 / 8^{\prime \prime}(60 \mathrm{~mm})$ |
| :--- | :--- |
| 27 | $27 / 8^{\prime \prime}(73 \mathrm{~mm})$ |
| 30 | $3^{\prime \prime}(76 \mathrm{~mm})$ nominal |
| 35 | $31 / 2^{\prime \prime}(89 \mathrm{~mm})$ |
| 40 | $4^{\prime \prime}(102 \mathrm{~mm})$ |

Tenons include a cast decorative ring at the top of the pole.

- For other tenon sizes contact the factory.

F 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.

- Other accessories are shown on the Accessories specification sheet.



## Direct Embedded - DE



| Shaft <br> LENGTH | Embedded <br> DePTH |
| :--- | ---: |
| 10 to 13 feet | $3 \mathrm{ft} / .91 \mathrm{M}$ |
| 14 to 24 feet | $4 \mathrm{ft} / 1.2 \mathrm{M}$ |
| 25 to 27 feet | $5 \mathrm{ft} / 1.5 \mathrm{M}$ |

* Embedded depths may vary per local codes, site soil conditions, drainage and very high wind conditions.
Hand hole is: 2.5 "/62mm x 5 "/ 125 mm .


## Specifications

## POLE SHAFT

The pole shaft shall be round tapered, smooth with a .14 " $/ 3.5 \mathrm{~mm}$ per foot taper. The hand hole shall be 2.5 " $/ 62 \mathrm{~mm} \times 5$ " $/ 125 \mathrm{~mm}$ with a cover. The shaft shall be constructed of continuous fiberglass filament combined with a thermosetting 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 1.5:1 and have a maximum deflection of $15 \%$ 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 1.5:1 and have no more than a $15 \%$ 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. Poles shall be tested and rated per ANSI C136.20-2012.

## DIRECT EMBEDDED INSTALLATION

Direct embedded poles shall have a 2.5 inch ( 62 mm ) by 6 inch ( 152 mm ) slot for conduit entrance 24 inches ( 610 mm ) 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 primed and painted aluminum or galvanized steel. The base shall be factory bonded to the post. The anchor base shall have four holes at ninety degrees, accommodating a bolt circle of 7-9 inches, 9-11 inches or 12 inches.

## POST TOP

A painted aluminum or galvanized steel 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 G-154) to the sun, with no dulling or chalking of the surface.

## ORNAMENTAL BASE COVER

The ornamental decorative 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



## Wind Loading Data for

 Direct Embedded and Anchor Base| Cat No. Description | wind speed (MPH) with 3 SECOND GUST FActo |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | WT | 90 | 100 | 110 | 120 | 130 | 140 | 150 |
| 1010 feet/3.10M | 39 | 14.8 | 11.9 | 9.7 | 8.1 | 6.8 | 5.8 | 5.0 |
| 1111 feet/3.35M | 45 | 15.0 | 12.0 | 9.8 | 8.1 | 6.8 | 5.8 | 5.0 |
| $1212 \mathrm{feet} / 3.66 \mathrm{M}$ | 51 | 14. | 11 | 9.1 | 7.6 | 6.4 | 5.4 | 4.7 |
| 1313 feet/3.96M | 54 | 13.1 | 10.1 | 8.5 | 7.0 | 5.9 | 5.0 |  |
| 1414 feet/4.27M | 58 | 12. | 10 | 8.2 | 6.7 | 5.6 | 4.8 | 4. |
| 1515 feet/4.57M | 65 | 12.5 | 9.9 | 8.0 | 6.6 | 5.5 | 4.7 |  |
| 1616 feet/4.88M | 68 | 12.6 | 10.0 | 8.1 | 6.7 | 5.6 | . 7 | , |
| 1717 feet/5.18M | 72 | 11.3 | 8.9 | 7.2 | 5.9 | 4.9 | 4. | 3.5 |
| 1818 feet/5.49M | 76 | 12.2 | 9.6 | 7.8 | 6.4 | 5.3 | 4.5 |  |
| 1919 feet/5.79M | 80 | 11.0 | 8.7 | 7.0 | 5. | 4. | 4.0 |  |
| 2020 feet/6.10M | 85 | 10.8 | 8.5 | 6.8 | 5.6 | 4.6 | 3.9 |  |
| 2121 feet/6.40M | 102 | 10.9 | 8.6 | 6.9 | 5.6 | 4.7 | 3.9 |  |
| 2222 feet/6.71M | 10 | 8.8 | 6.9 | 5.5 | 4. | 3.6 | 3.0 |  |
| 2323 feet/7.01M | 109 | 8.3 | 5.9 | 5.1 | 4.1 | 3.4 | 2.8 |  |
| 2424 feet/7.32M | 113 | 8.1 | 6.3 | 5.0 | 4.0 | 3.3 | 2.7 |  |
| $\underline{25} 25$ feet/7.62M | 117 | 7.9 | 6.1 | 4.8 | 3.9 | 3.2 | 2.6 | . |
| 2626 feet/7.92M | 121 | 7.7 | 6.0 | 4.7 | 3.8 | 3.1 | 2.5 | . 1. |
| 2727 feet/8.32M | 125 | 6.6 | 5.1 | 4.0 | 3.1 | 2.5 | 2.0 | . 4 |

Wind speed values are for a 3-second gust per ASCE. Calculated per ANSI C136.20-2012. Assumes load 12 inches above the pole top. Safety factor $=1.5: 1$. Maximum weight for tenon mount is 100 lbs .
Contact factory for AASHTO or specific local codes.

