

## Technical Specifications of Lighting Poles

This specification shows all manufacturing, finishing and inspecting of steel lighting poles used for supporting luminaries at the specified height ranging from 3 to 16m.

- The Lighting poles are manufactured from one segment, tapered type, from hot rolled steel sheets which could formed by press brake and welded longitudinally by submerged arc welding machine.

### Material

- Structural steel for shaft, base plate and anchor bolts comply with the requirements of DIN17100 St 37-2.
- Maximum ultimate tensile strength 520N/mm<sup>2</sup>.
- Minimum ultimate tensile strength 340N/mm<sup>2</sup>
- Minimum yield strength 235N/mm<sup>2</sup>.
- Elongation 26%

### Engineering

- The considered design wind speed is 125 Km/hr acting on the most unfavorable direction, taking into account the effect of the luminaries, which has an effective wind area in addition to the projected area of the bracket.
- Design per AASHTO 2001, (American Association of State Highway and Transportation Officials), Standard Specifications Support for Highway Signs, Luminaries and Traffic signs.

### Welding

- Welding is performed according to the American standard AWS or equivalent.

### Door Opening

- The pole is provided with door opening of suitable dimensions to accommodate the electrical equipment.



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### Base Connection

Two types of connections to concrete footing can be furnished depending on customer requirements:

- Connection via anchor bolts.
- Direct planting of pole into concrete footing.

### Finishing

- Hot dip galvanized is specified to protect the lighting poles against rust or corrosion.
- All components of the column and bracket are hot dip galvanized after completion of the fabrication.
- Prior to hot dip galvanization, provision of vent and drainage holes is carried out.
- The galvanized coating shall be continuous, reasonably smooth free from acids, black spots and zinc spikes
- Minimum thickness coating is  $65 \mu\text{m}$  ( $460 \text{ g/m}^2$ ) for thickness under 5mm and  $86 \mu\text{m}$  ( $610 \text{ g/m}^2$ ) for thickness more than 5mm inside and outside the column as per British standard BS 729
- Any damage of galvanization is rectified during erection by wire brushing the defected area, treating with an approved rust converter to the satisfaction of the customer.
- Painting can be applied instead of galvanization according to customer requirement. One coat of alkyd primer are applied.



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### Carrying Capacity

- One, two, three or four arm brackets to support street lanterns.
- Decorative cross arms.
- Fixtures can be added to support three phases' voltage conductors and earth wire. A fifth conductor can also be added for subsidiary lighting.

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Lighting

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منشية السد العالي - السلام - القاهرة - مصر

ت: ٢٢٩٥٥٤٨٧ - ٢٢٩٥٨٥٣٠

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