

# Poles

## Installation, Use and Maintenance Guidelines



### Application

K-Lite has a passion to create a distinctive atmosphere in towns & cities by using the most advanced technology to develop innovative lighting solutions. K-Lite poles can stylishly convey the identity of any landscape, the solutions offered are people centric and designed to enhance the urban beauty. Aesthetically designed and sturdy construction ensures a long life against all weather conditions, maintaining initial performances through the lifetime of the installation.



Note : Technical amendments reserved.

### Installation Recommendation

- This product is suitable for Outdoor application.
- Installation and maintenance of the poles should be carried out by qualified person only in accordance with good electrical practice and appropriate accessories.
- Poles should be handled with belts & proper safety equipments during installation. Dragging / Mishandling could result in damages and scratches in the GI / Paint coating, making it vulnerable to adverse climatic conditions and corrosion.
- It is very important to follow these instructions to enable the poles to be installed correctly. Failure to follow this will void all warranty on the product.
- Please retain installation guidelines for future reference.

### Technical Specifications

#### Material

K-Lite poles are highly corrosion resistant to various adverse atmospheric conditions

In order to ensure quality, K-Lite uses material that are tested and comply with the following standards.

- Material for tubes : Steel of grade YSt 240 to IS:1239 (Part-I) 1979/IS 3601:1994
- Material for base plate : Steel of grade Fe 410 to IS 2062 : 1999 in galvanised condition
- Material for Aluminum tubes : BS EN 12020 series & BS EN 755 series
- The base and control gear box (complete set) is hot dip galvanised post fabrication to thickness > 85 microns.

## Control Gear Box

- Integral control gear box with in-built frame work.
- Die cast aluminium door is contoured to the shape of the pole with silicon rubber gasket to make it IP54.
- GI chain link is provided to interlink the pole with the door cover to eliminate the possibility of theft / misplacing during regular maintenance.
- User friendly control gear tray is prewired with MCB connector and loop in loop out terminal block.

## Foundation Details

- Our poles are designed with a surface mounting base plate, dimensions and thickness of which are determined based on the pole and wind load.
- Provision of gussets and the circumferential fillet welding of base plate with the pole shaft, from inside and outside have been done from the ruggedness and stability point of view.
- The foundation bolt holes in the base plate are designed to be elongated for fine adjustments / alignment of the pole during installation.
- Hot dip GI foundation bolts and nuts are supplied with the poles.

## Bracket Options

- Our poles can be fitted with single or multi arms brackets in order to install one or more light sources. Wall mounted options are also available under this series.
- Our unique demounted bracket construction and pole orientation, ensures easy transportation and simple self-assembly and installation.

## Finishing Options

- A wide range of shades available with exceptional finishing options
- Poles are coated with an epoxy zinc rich penetrating primer and finished with polyurethane base paint for a long lasting finish.
- For special finish of antique gold, copper or any metallic colours an additional coat of lacquer is provided.

## Safety

- For Safety, always ensure power supply is disconnected before regular maintenance.
- Installation and operation of this pole are subject to national safety regulations. The manufacturer is discharged from liability when damage is caused by improper use or installation.
- Any modification to this pole without authorization will void all warranty and the persons responsible for the modification shall be considered as manufacturer.

## Installation

- Poles should be handled with belts & proper safety equipments during unloading and installation. Dragging / Mishandling could result in damages and scratches in the GI / Paint coating, making it vulnerable to adverse climatic conditions and corrosion.
- Depending on the mode of application, the size and weight of the luminaire, the pole must be stably fixed on a foundation.
- The size of the foundation depends on the topography, condition of the soil, wind load and must be determined based on site condition.
- Height of foundation above ground level (150mm) may be revised to suit the site conditions especially considering the expected water level stagnation.
- Template supplied is suggested to be used for locating the centre to centre (CC) distance of foundation bolts.
- Foundation bolts have to be oriented (located), while casting the foundation such that the door of the electrical junction box face the required direction for easy installation and maintenance.
- Use only hot dip galvanised foundation bolt & nuts in order to avoid corrosion.
- UG cable has to be routed through the bottom base plate (cable entry hole).
- Please ensure that the wires are connected to the right polarity [Phase, Neutral & Earth]. For 3Phase Loopin Loopout connections, use appropriate Red, Yellow, Blue for Phase, Black for Neutral and Green for Earthing Terminals.

**Loose connections, wrong polarity connections will damage the luminaire and can cause electrocution.**

- Please remove the packing material from pole after installation before commissioning. Do not use knife or sharp blades on the painted surface.
- If paint has been scratched or chipped of during installation please ensure the touch up is done on site after proper surface cleaning as soon as the installation is complete.
- Failure to do so will make the pole vulnerable to adverse climatic conditions and corrosion.
- Door Keys and Allen Keys for the entire lot of poles supplied are packed and kept inside the base pole (Indicated by colour sticker)
- While mounting the luminaires / brackets, tighten all the stainless steel grub screw/bolts evenly to ensure that, the luminaire / bracket is in correct alignment with the base pole. Don't over tighten.
- Lock and unlock the screws following an alternative sequence, tightening all screws evenly.
- Install luminaire as required.

### **Cleaning and care**

- After installation and removal of packing material, the pole should first be wiped and cleaned.
- Building dust, residues from pressure-sensitive adhesives, paint splatter and rust film must be completely removed. Never use cleaning implements made of normal steel, steel brushes or steel wool because they cause extraneous rust to form.
- Cleaning agents containing hydrochloric acid and chlorides should never be used.
- Do not use high pressure cleaners

### **Accessories**

- Hot dip GI foundation bolts and nuts are supplied with K-Lite poles.
- Foundation template is provided on request.

### **Storage**

If site is not ready for installation, store the material in proper warehouse facilities. K-Lite is not responsible for the damages caused due to the mishandling of material at site.



### **Important Note**

To ensure proper installation, kindly translate / communicate the installation instructions to the local qualified electrician in their respective local language.

### **Customer Service**

If Klite agrees to receive back some poles for Lab Testing and further analysis please ensure to disconnect the power line and ship the product as is unless otherwise specified.

Please contact [customercare@klite.in](mailto:customercare@klite.in) for more information.

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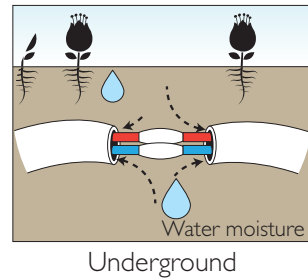
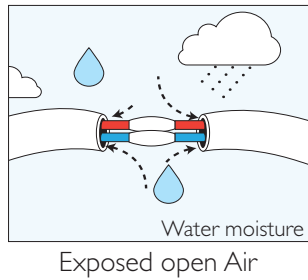
Circuit diagram in electrical junction box for 415V, 50Hz, ac three phase, four wire system with Ramanuj stud - Connector

Please ensure that the wires are connected to the right polarity [Phase, Neutral & Earth]. For 3Phase Loopin Loopout connections, use appropriate Red, Yellow, Blue for Phase, Black for Neutral and Green for Earthing Terminals.

# How to Install your outdoor luminaire correctly with connectors



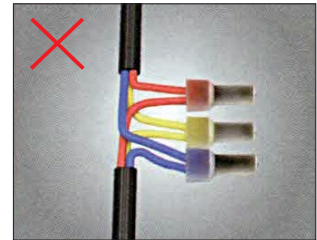
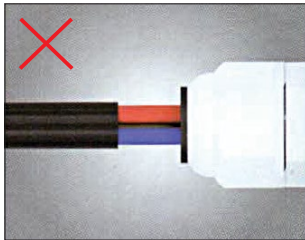
Water infiltration is one of the biggest reasons of damage to outdoors fixtures. The main reason being no proper water proof connectors being used during installation.



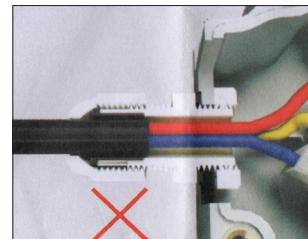
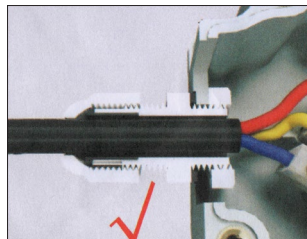
## Why use the water - proof connector ?

When the fixture is turned on, the inside temperature will increase as the operating time goes. Conversely when the lamp stops working, the temperature will drop slowly. This phenomenon will cause "The siphon effect". Thermal expansion and contraction makes the inside and outside air pressure different. The air which includes water vapour will infiltrate to the housing through the wire entry as soon as the internal air pressure is lesser than the external pressure. The infiltration is caused by several incorrect connections like the picture below. This water vapour will then become droplets of water that will be seen inside the fixture.

## Incorrect Installation

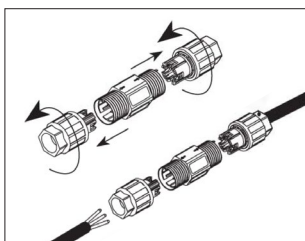


When the wire is connected into the fixture through cable gland, the cable must be more than 10mm inside. Please refer to the images below.



The best and easiest ways to prevent the water filtration are by IP rated connectors

We recommend using the water-proof connectors as shown below for all outdoor fixtures. Installers should prepare the appropriate main cables of suitable rating and diameter with the right IP rated connectors.



One input & two output

