

S.V ELECTRICALS & INDUSTRIES

C.G/ M.P. PWD Registered

ISO 9001:2015

BIS R-82000256

NABL Certified

WEBSITE : WWW.LUMENLEDLIGHTS.COM

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LUMEN IS AMONGST INDIA'S WIDELY ACCEPTED RESIDENTIAL & INDUSTRIAL LED LIGHTING BRAND.

LUMEN'S SUCCESS LIES IN ITS TECHNOLOGICALLY ADVANCED MANUFACTURING UNIT WHERE WIDE RANGE OF INNOVATIVE LED LIGHTS & DRIVERS ARE MANUFACTURED THAT ARE FAVOURABLE TO INDIAN CONDITIONS.

Facilities offered at a Glance

Raising and Lowering Lighting Masts
 Monopoles for Telecommunication / CCTV
 Street Lighting Poles
 Masts for Special Applications
 Fixed Head Masts for Sports Lighting
 Signage Masts and Mid-Hinged Lighting Masts
 Manufacturing Facilities
 Other Products in the Range





CERTIFICATIONS









TechnIcal Parameters

Material Used

Shaft– High tensile sheet/Plate Equivalent to IS 5986 / IS 2062 : 2011 Gr.E250BR / IS 5986 : 2011 Gr 250, Base Plate- As per IS 2062 2011 Gr.E250A, Foundation Bolt- IS 1367 : 1994 / IS 2062 : 2011 Gr.E250A, Pipe IS 2713 Part (I to III):1980 Standards applies to steel tubular swaged poles for street lighting, Power Transmission Line . It covers a range right from 410 SP 01 to 410 SP 80 & 540 SP 01 to 540 SP 80 .

LUMEN has the full production facility for the sizes:

Galvanizing:- As Per IS 4759 : 1996 / IS 2629 : 1985 / BSEN ISO 1461 : 2009 Wind speed: - As per IS 875 (Part-3):2015/As per customer requirement Design: - As Per IS 875 Part-3:2015, IS 800 : 2007 / IS 6533:1989 (P-2) / BS 5649 : 1985 / EN 40, ILE TR-7:2000. Welding:- As per IS 10178 : 1995/ IS 9595 : 1996 Design safety factor: - As per ILE TR 7:2000. Motor: As per IS 325:1996 (3PH A.C., 415V, 4/6 Pole, 1HP to 3HP) Winch: 350KGS, 500 KGS, 750 KGS (SGDD/DGDD) & 1500 KGS (DGDD). Wire rope: Stainless Steel 6MM, 8MM, AISI 316, 7/19 Construction. Trailing cable: As per IS 9968/P-1:1988 [2.5sg 5/8core, 4sg 5/8core, EPR Insulated, PCP Sheathed. Wiring cable: As per IS 694:1990 Pulley: LM 6 with Self- lubricating PB bush. Hardware: Stainless Steel Feeder pillar box: As per customer requirement Tolerances: As per BS 5649 : 1978/EN 40, IS 1852: 1985

HIGH MAST TOWER

High-Mast is a continuously taper polygonal cross section having one or more segment. It's generally used for Area Lighting Purpose, Mounting National Flag, Signage Board, Stadium Lightning Purpose or other application like chimney etc. It has movable carriage for raising and lowering which is operated with a power tool motor through Winch gear box. It has capping unit comprising with Die cast aluminum Pulley. It is used for large area lighting with the minimum number of obstructions. LUMEN'S High mast has designed to withstand wind speed as per IS 875 (P-3):2015 and can be customized up to 300Kmph. All the mast has Hot Dip Galvanized by single/Double dip seven tank processes. Mast has been designed considering minimum design life of 25 years.







Designer poles may be polygonal/conical/tubular construction. It has decorative luminary mounting attachment. We offering both Hot Dip Galvanized and painted poles to match with the color of luminary.



Flag Mast is generally used for Hoisting National flag. It has one or more polygonal segments. The Flag is movable type. We can manufacture flag mast as per our design in such a way that the impact or wind will be minimum or Customers design.



Signage Mast is generally used for Advertising. It has one or more polygonal segments. The Signage structure may be movable or fixed type. It has generally two or more face. It is designed in such a way that the impact or wind will be minimum. Special guide has been provided to reduce vibration. For proper balancing of movable ring, balancing screw has been provided.



POLYGONAL/OCTAGONAL POLESER

Polygonal Poles is generally a continuously taper octagonal cross section (can be customized for other sided also) having one or more section. On top it has a bracket to mount the luminary. This Pole used for Highway and Road Light, Hotel Entrance, Petrol Pump, Shopping Mall Entrance etc. It is designed to withstand wind speed as per IS 875 (P-3) and can be customized up to 300Km/h. All the Poles has Hot Dip Galvanized by single dip seven tank process. Pole has been designed considering minimum design life of 25 years. We provide special type internal hinge to prevent theft at site. All poles have manufactured in modern automatic machinery for better quality. Welding has been done by automatic SAW process ensure uniform and proper welding strength.





TRANSMISSION POLES

Transmission/distribution poles are generally polygonal cross section in one or more section with or without flange. We are offering transmission poles with fixed type ladder or detachable ladder. It has arrangement for fixing arms/ insulators. All transmission poles are hot dip galvanized by seven tank single dip process. All holes are done before galvanization.



IS 2713 Part (I to III):1980 Standards applies to steel tubular swaged poles for street lighting, Power Transmission Line . It covers a range right from 410 SP 01 to 410 SP 80 & 540 SP 01 to 540 SP 80 . LUMEN has full production facility for the sizes.

CONICAL POLES

Conical Poles is generally a continuously taper circular cross section having one or more section. On top it has a bracket to mount the luminary. Our Poles are designed to withstand wind speed as per IS 875 (P-3) and can be customized up to 300Km/h. All the poles has Hot Dip Galvanized by single dip seven tank process.
Pole has been designed considering minimum design life of 5 years. We provide special type internal hinge on request to prevent theft at site. All poles have manufactured in modern automatic machinery for better quality. Welding has been done by automatic SAW process ensure proper welding strength.







Solar Poles is generally a continuously taper octagonal/Conical or can be Tubular cross section generally one or more section. On top & side of pole it has a bracket to mount the SOLAR PANEL. Used for Airport Lighting, Hospital Area, Security Light, Commercial Lighting, Industrial Lighting purpose etc. K.P.C. Pole has design to withstand wind speed as per IS 875 (P-3) and can be customized upto 300Km/h. All the Solar Poles has Hot Dip Galvanized by single dip seven tank processes. Pole has been designed considering minimum esign life of 25 years. All poles have manufactured in modern automatic machinery for better quality. Cutting has been done by CNC PLASMA ensure proper cutting line.



WHY LUMEN

• In house Design facilities (Structural & Foundation) with Special

software

- Available both in three point and two point suspension.
- Electroplated rope drum, sprocket and torque limiter which do not

rust.

- Rope drum of winch have one left hand and other right hand groove for better alignment of ring.
- Available both Detachable arm and fixed arm Lantern Ring.
- Seven tanks and zero discharge galvanizing process with Flux tank heated by superheated steam for better Adhesion of zinc coating.
- All testing facility available in plant including Spectrometer for chemical analysis.

• ALL TRAILING CABLES CONFIRM TO IS 9968 (P-1) FOR SAFETY AND DURABILITY.

- ALL THE HARDWARE SUPPLIED ARE STAINLESS STEEL FOR BETTER LIFE.
- OUR HEAD FRAME HAVE STAINLESS STEEL AXLE WITH ANTI ROTATION CLAMP TO PREVENT DAMAGE OF AXLE AND STAINLESS STEEL GUIDE ROLLER FOR SMOOTH ROLLING OF CABLE AND ROPE.
- HEAVY DUTY DRIVE CHAIN (1/2 INCH PITCH) FOR LIFTING THE RING.
- WE PROVIDE SAFETY LOCKING ROPE FOR HIGH MAST SAFETY.
 WE PROVIDE DOUBLE SAFETY PROTECTION OF MOTOR (ONE MECHANICAL AND ONE ELECTRICAL)
- OPTIONALLY WE PROVIDE ANTI THIEF NUT FOR FOUNDATION BOLT WITH SPECIALLY DEVELOPED WRENCH FOR HIGH MAST.
 • CAN PROVIDE BOTH PVC AND HDPE BUFFER ARRANGEMENT
 - FOR LANTERN RING.
 - ALL WINCH & MOTOR TESTED WITH PROPER LOAD BEFORE DISPATCH.
 - STRUCTURAL DESIGN IS CHECKED FOR ALL ORDERS BEFORE PRODUCTION.





RAW MATERIALS CAN BE REVIEWED OR WITNESS FROM OUR TESTING HOUSE OF FROM NABL APPROVED LAB

GALVANISING TEST

GALVANIZING COATING CAN BE MEASURED BY ELCO METER OR TESTED FROM OUR TESTING HOUSE OF FROM NABL APPROVED LAB





WELDING TEST

- Distribution: Weld material is distributed equally between the two materials that were joined.
- Waste: The weld is free of waste materials such as slag. The slag after cooling should peel away from the project. It should be removed easily. In Mig welding, any residue from the shielding gas should also be removed with little problem. Tig, being the cleanest process, should also be waste free. In Tig, if you see waste, it usually means that the material being welded was not cleaned thoroughly.
- Porosity: The weld surface should not have any irregularities or any porous holes (called porosity). Holes contribute to weakness. If you see holes it usually indicates that the base metal was dirty or had an oxide coating. If you are using Mig or Tig, porosity indicates that more shielding gas is needed when welding. Porosity in aluminum welds is a key indicator of not using enough gas.

TIGHTNESS: IF THE JOINT IS NOT TIGHT, THIS INDICATES A WELD PROBLEM. IN OXYACETYLENE WELDING IF USING AUTOGENOUS WELDING, WHERE THERE IS NO FILLER MATERIAL, THE WELD MUST BE TIGHT.SAME FOR TIG AUTOGENOUS WELDING. THE GAP IS NOT AS CRITICAL IN OTHER TYPES OF WELDS SINCE ANY GAP IS FILLED IN BY THE FILLER MATERIAL. THAT SAID, GAPS IN GENERAL INDICATE A POTENTIAL QUALITY PROBLEM. LEAK PROOF: IF YOU ARE REPAIRING AN ITEM THAT CONTAINS LIQUID, A LEAK IS A SURE FIRE WAY (AND **OBVIOUS WAY) TO SEE THAT THERE IS A PROBLEM. SAME FOR** SOMETHING THAT WILL CONTAIN A GAS. ONE TESTING METHOD IS TO USE SOAP BUBBLES TO CHECK FOR PROBLEMS (CAN BE EASILY APPLIED WITH A SQUIRT BOTTLE. STRENGTH: MOST WELDS NEED TO DEMONSTRATE THE **REQUIRED STRENGTH. ONE WAY TO ENSURE PROPER** STRENGTH IS TO START WITH A FILLER METAL AND ELECTRODE RATING THAT IS HIGHER THAN YOUR STRENGTH









Vertically free fall from 2 mtrs height for 3 time . the pole shall not show telescoping & loosing at joints.

DEFLECTION TEST

The pole shall be loaded as a cantilever, and the appropriate deflection load (as per table) at the right angles to the axis of pole. The temporary deflection due to the applied load at the point of application shall not exceed 157.5mm.



Test shall be done as per designation standard table and maximum deviation exceed 13 mm



Painted with black bituminous paint up to planting depth and remaining portion painted with red oxide primer.