

**TATA BP SOLAR INDIA LIMITED**  
**PRODUCT SPECIFICATION**  
**SOLAR STREET LIGHT – 30W LED**



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**SYSTEM SPECIFICATION**

- 1nos of 30W LED Lamp giving 3000 Lumen nominal light output
- Automatic Dusk to Dawn Operation
- Independent standalone solar street lighting system
- Powered by 170Wp of solar array
- Two nos of 12V,75Ah@C10 battery backup providing 3 (2+1) days autonomy
- 6m height pole

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**SOLAR MODULE**

- High efficiency Mono / Multi crystalline silicon cells
- 1 No. of 170Wp solar panel
- Designed to withstand tough environment conditions

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**BATTERY - 12-110H**

- Capacity 12V, 75AH (@ C10)
- Low maintenance solar tubular plate battery

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**LAMP**

- 30W LED Lamp
- 3000 Lumens
- 16 lux Average illumination on ground at 6m height
- Aluminium housing with glass/polycarbonate cover

## ELECTRONICS

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**Regulator:** 5A Series regulator with Nominal system voltage 24V DC.

Dusk to Dawn operation

Separately located inside the battery box

**Indications:**

ON Charge

Battery Low

**LED Driver** : High efficiency Constant current driver working on high frequency giving constant illumination and LED maintenance

**Operating Temperature** : 0 to 50°C

**Humidity** : 95 % rh (N.C.)

## LUMINAIRE

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Outdoor Aluminium luminaire with transparent glass/acrylic cover. Fitted with gasket & accessories for weather proof operation.

## POLE & STRUCTURE

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6m MS painted pole and structure for mounting solar panel.

## PROTECTIONS

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- Over charge & deep discharge disconnects
- Short circuit protection for lamp
- Battery reverse connection
- Against discharge through array by blocking diode

## FEATURES

- ♠ Rugged design to operate under worst temperature
  - ♠ Autonomy of 1 (1+1) days
  - ♠ Automatic ON at dusk and OFF at dawn
  - ♠ Integrated design
  - ♠ Insect proof Luminaire
  - ♠ 12m Light spread
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## I – BEAM

### LED FEATURES

- High power state-of-the-art LED with luminous efficiency (> 100 lm/W)
- Wide Uniform spread of light
- Aesthetic design- battery box at top – added safety
- Maintenance free battery with lockable door
- LED lights have long Life, up to 50,000 hours
- Energy Saving, 50% compared to CFL's
- Work under Low-voltage and Low-heat, Perfect Combination with Solar Energy
- Non-toxic: No mercury



Solar Charge Controller



Led Luminaire-I Beam (Front & Back)

### Luminaire Specification:

	Parameters	Specifications
1	Lamp source	White LED (colour temperature of 5000K to 6500K typically) with efficiency of 100lm/W. IP compliant LED
2	Input power consumption	7 Watt
3	Input operating voltage	12V dc nominal (10V to 15V)
4	Driver	Constant current driver
5	Efficiency of driver	80%
6	Protections:	<ul style="list-style-type: none"> <li>• Over Load / short circuit</li> <li>• Input under voltage / over voltage</li> <li>• Driver turned ON with out LEDs (Open circuit)</li> <li>• Adequate thermal design for protection of LEDs and to maintain its colour</li> </ul>
7	Light Output	Minimum of 8 Lux at a height of 12ft covering minimum of 8ft diameter area and spread of light sufficient for 10m spacing between poles (ref fig1) and reduced level of light beyond this area with its distribution pattern.
8	Operating Condition	0degC to +50degC upto 95%rh(NC)

### **Street Light Pole, Luminaire Support Structure and Battery Box**

Material : M.S. & GI construction for all the above.  
Painting : Corrosion Resistant painting with 2 Coats of Primer.

#### **Pole :**

- Grouting : Grouting Bars attached to pole.
- Battery box compartment : Locking arrangement provided

### **Solar Module & Mounting Structure:**

- Solar module : TBP1240M
- Angle of Inclination : 0 to 45° from Horizontal Plane.
- No. Of modules : One
- Mounting : Pole mounting type.

### **Luminaire support arm:**

- Type : Pole mounting.
- Direction adjustability : Yes
- Height adjustability : Yes

### **Luminaire Assembly**

- Application : Outdoor.
- Type : Pole supported.
- No. Of Lamps : One.
- Type of Lamp : 7w(LED)
- Reflector : Provided
- Weather proofing : Provided

### **Battery and box assembly**

- Type of battery : Lead Acid – Sealed Maintenance free battery
- Battery size : 2 nos. 12V-15 AH @ C 20
- Maintenance : Not required
- Battery box : In-line with pole with industrial lock

