



BHARAT HEAVY ELECTRICALS LIMITED  
RAMACHANDRAPURAM : HYDERABAD – 502 032

**SPECIFICATIONS OF LED STREET LIGHT LUMINARIES**

**PROCUREMENT OF LED Street light LUMINARIES of 70W/72W FOR BHEL Hyderabad.**

**1. OBJECTIVE:**

To procure LED street Light luminaries for BHEL, Hyderabad of 70W/72W Luminaires.

**2. BRIEF DESCRIPTION:**

2.1 **Supply & installation of LED street Light luminaries** for BHEL Hyderabad, fixed at height 8-10 meters, to be used for lighting purpose in the Township sub roads.

**DETAILED SCOPE AND GENERAL TERMS & CONDITIONS FOR PROCUREMENT OF LED STREET LIGHT LUMINARIES**

| Specifications |                                                                                                                                                                                                                                          | Supplier's confirmation |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| 3.1            | Supplier to confirm supply & installation of LED Street Lighting Luminaire of 70 W/72W Luminaires. The LED driver should be BIS Approved driver. Note: In case the supplier has any deviation the supplier will be technically rejected. |                         |
| 3.2            | Supplier should be Original manufacturer of LED luminaries or Authorised dealer of the original manufacturer of LED Luminaries. <b><i>Supporting documents should be submitted along with Technical bid</i></b>                          |                         |
| 3.3            | The vendor should have executed at least two orders for supply of LED Street Light Luminaire. PO copies for the same may be <b><i>submitted along with technical bid.</i></b>                                                            |                         |
|                | Technical Details: Fixture<br>make:HPL/Crompton/GE/WIPRO/Bajaj/Phillips/Havells                                                                                                                                                          |                         |
| 4.1            | LED Street Light luminaries consisting of in built electronic control gear and wiring up to terminals.<br>Input Wattage 70W/72W, Input frequency 45~55HZ                                                                                 |                         |



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|      |                                                                                                                                                                                                                             |  |
|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 4.2  | Input Voltage range shall be 1 phase, 210 - 240 Volts AC, 50 Hz. Operating voltage 140V-270V AC.                                                                                                                            |  |
| 4.3  | LEDs used in manufacturing of Luminaries should be of Cree, Nichia, Seoul, Osram, Samsung, and Lumileds makes only.                                                                                                         |  |
| 4.4  | Powered by integral, isolated electronic LED driver(SMPS based constant current supply) with lower THD, Output open/short circuit protection, over voltage protection, phase to phase protection, surge voltage protection. |  |
| 4.5  | System lumens should be more than or equal to 100lm/W. High efficiency long life LED module with SMD LED package mounted on MCPCB.                                                                                          |  |
| 4.6  | Total lumens should be more than or equal 7000 lumens. LED should contains PC lens with multiple LEDs.                                                                                                                      |  |
| 4.7  | LM79 test report from NABL accredited laboratory for the Luminaries offered, should be <b><i>attached along with material supply. The offered luminaire should be the same as LM79 report.</i></b>                          |  |
| 4.8  | LM80 test report of LED's from Manufacturer should be <b><i>attached along material supply.</i></b> Also the Lot to be mentioned.                                                                                           |  |
| 4.9  | IP65 test report for the luminaries from NABL accredited laboratory should be <b><i>attached along with material supply.</i></b>                                                                                            |  |
| 4.10 | P.F (Power Factor) should be greater than or equal to 0.95                                                                                                                                                                  |  |
| 4.11 | THD (Total Harmonic Distortion) should be less than or equal to 10%. LED beam angle 120 degrees                                                                                                                             |  |
| 4.12 | Internal Surge Protection for the luminaries for at least 4KV should be provided.                                                                                                                                           |  |
| 4.13 | External Surge Protection for the luminaire for 10 KV should be provided                                                                                                                                                    |  |
| 4.14 | The Fixture should be compatible retrofitted on existing pole arm. Vendor may visit BHEL premises and look the existing poles and extensions.                                                                               |  |



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|      |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |
|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| 4.15 | LED colour temperature should be between 5500K to 6500K                                                                                                                                                                                                                                                                                                                                                                                         |  |
| 4.16 | Pre-despatch inspection will be conducted at the discretion of BHEL.                                                                                                                                                                                                                                                                                                                                                                            |  |
| 4.17 | Driver Safety requirement standards: IS15885-2-13, Driver performance requirements: IS 16104, Photo biological safety norms: IS 16108. Built in potted IP 67 electronic LED driver with APFC.                                                                                                                                                                                                                                                   |  |
| 4.18 | Material for fixture: fixture made of pressure die-cast aluminium alloy for housing(heat sink) for effective thermal management, sturdiness, excellent corrosion resistant. Cable gland is used for maintaining ingress protection. Polyester power coated grey finish after phosphochromate treatment. Tempered protective custom moulded polycarbonate diffuser, thermal shock and impact resistant(IK-07) fixed to the housing by SS screws. |  |
|      | Warranty clause:                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| 5    | A 5 year warranty to be provided for the LED street lights after commissioning. Supplier shall confirm availability of spares and their replicability for the independent parts of the luminaire in case of any fault within 48 hours of complaint during 5 years warranty duration. Vendor shall repair the luminaires INSITU. Vendor to provide service contact mobile no./landline no after placement of purchase order                      |  |
|      | Certificates                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| 6.   | Warranty certificates to be submitted along with material supplied.                                                                                                                                                                                                                                                                                                                                                                             |  |