

For material code: TCXW0090017 4
TCXW00900125

Indent No.20186174Y

PQR (Pre- Qualification Requirement)

1. The party should be manufacturer of LED Light Product with base manufacturer or their authorized distributor/ dealer/ supplier.
2. Name of manufacture should be clearly mentioned in the offer.
3. The party shall have the experience for LED Light Product supply to any Govt./PSU for a quantity 500 nos or more(in a single order)) and provide the supporting documents of the same (The copy of PO/ Work Order. The PO/Work Order must not be older than 03 Years from the date of opening of tender).
4. PO/Work Order submitted should be in name of manufacturer/ distributor/ dealer/ supplier.
5. Authorized distributor/dealer/supplier of LED Light Product shall submit authorization letter from concerned manufacturer.
6. Authorization latter submitted should not be later than enquiry floating date of BHEL

Note: BHEL reserves the right to verify the submitted certificate from issuing authority at any stage of tender.

19/04/2019
(atc - m/sur)

19/04/19
Manager (HR-Top)

20/04/19
(25/04/19)
(30/04/19)

Technical Data Sheet LED Streetlight

Description

Energy saving Industrial 4 feet 18Watt $\pm 10\%$, 50 HZ, 240 volt AC LED Tube. Working lifetime of LED tube should be over 50000 burning hours. LED tube should be self-blasted with integrated electronic gear (electronic drive) having active power factor correction (APFC). Heat sink should have sufficient Heat Sink area for dissipate heat. LED tube should meet the following specification:

Mechanical & Construnctional Specifications

1.	Housing	Extruded Engineering Plastic
2.	Glass/Doom	Polycarbonate diffuser
3.	Internal Wiring	Multistrand Cu wire
4.	Lamp Cap	Polycarbonate
5.	Control Gear	Integral - Electronic driver

LED Specifications

1.	LED	NICHIA/ OSRAM/ CREE/ PHILIPS/ SEOUL/ LUMILED/EDISON or Equivalent
2.		
3.	Beam Angle	$> 120^\circ$
4.	LED Efficacy (lm/W)*	> 120
5.	Lumen Maintenance*	$> 70\%$ at 50000 Hrs
6.	Color Temperature (K)	5000-6000 K
7.	Operating Temperature ($^{\circ}\text{C}$)	-10°C to $+45^{\circ}\text{C}$
8.	Color Rendering	> 70
9.	Luminous Flux	> 1800 Lm
10.	Test Compliance	LM80

Electrical Specifications

1.	Operating Voltage Range (V)	140 - 270V
2.	Frequency (Hz)	$50 \pm 3\text{Hz}$
3.	Input wattage (W)	$18\text{W} \pm 10\%$
4.	Power Factor	> 0.9
5.	THD (%)	$< 20\%$
6.	Driver	APFC, Constant Current Type
7.	Driver Efficiency	$> 85\%$
8.	Protections	Overvoltage Protection, Short-circuit Protection, Reverse Polarity Protection
9.	Standard Compliance	IEC 61000
10.	Working Humidity	RH 10% to 90%
11.	IP Protection	IP20 for fitting
12.	Test Compliance	LM79

Guarantee/warranty: 2 year from date of dispatch.

19/04/2019
(atc-informer)

(Invaen Meenda)
Dy. Manager (HR-Tex)

20/04/19
(30th 20/19 05:09)
(30th 20/19 05:09)

Technical Data Sheet LED Streetlight BASE

Description

Luminaire housing of CRCA box type suitable for LED 4 feet 18Watt $\pm$ 10% complete with all accessories.

Housing: Pre-treated CRCA MS with epoxy white powder coated finish.

Cover Plate: Pre-treated CRCA MS with epoxy white powder coated finish.

Lamp Holder Bracket : White engineering plastic

Lamp Holder : bi-pin

Internal Wiring: PVC insulated single strand copper conductor.

Mains Terminal: 10 amps. suitable for terminal for terminating 2.5 sq.mm. conductor.

Earthing: 1 No. inside, suitable for 2.5 sq. mm conductor earthing .

Indt
19/08/2019
(at - m/s)


Chawren Mander
Dy. manager Cnn-TeX


20/04/19
(30th 40 (190 30 9
6744)

for material code: TCXW00900109

Indent No.20190130Y

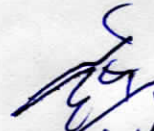
PQR (Pre- Qualification Requirement)

1. The party should be manufacturer of LED Light Product or their authorized distributor/ dealer/ supplier.
2. Name of manufacture should be clearly mentioned in the offer.
3. The party shall have the experience for LED Light Product supply to any Govt./PSU for a quantity 150 nos or more (in a single order) and provide the supporting documents of the same (The copy of PO/ Work Order. The PO/Work Order must not be older than 03 Years from the date of opening of tender).
4. PO/Work Order submitted should be in name of manufacturer/ distributor/ dealer/ supplier.
5. Authorized distributor/dealer/supplier of LED Light Product shall submit authorization letter from concerned manufacturer.
6. Authorization latter submitted should not be later than enquiry floating date of BHEL

Note: BHEL reserves the right to verify the submitted certificate from issuing authority at any stage of tender.

Date
19/04/2019
(अति. अधिकारी)


(Dy. Manager (Inv-Gen))


20/04/19
(अति. अधिकारी)
(अति. अधिकारी)
(अति. अधिकारी)

Technical Data Sheet

LED Streetlight

Description

Energy saving LED street light fitting of 60 watt $\pm$ 10%, 50 HZ, 240 volt AC. Luminaire housing is of die cast Aluminium alloy for housing (heat shrink) with higher thermal conductivity for better heat dissipation. Body must be Corrosion Resistant Powder Coated Working lifetime of fitting should be over 50000 burning hours and it use active power factor correction (APFC) electronic gear (electronic drive). Fitting should be suitable for pole dia up to 50mm. Fitting should meet the following specification:

Mechanical & Constructional Specifications

1.	Housing	Aluminium Die cast, Powder Coated
2.	Glass	Glass Heat Resistant Toughened Glass
3.	Internal Wiring	Multistrand Cu wire
4.	Gasket	Silicon
5.	Control Gear	Integral - Electronic driver with complete wiring
6.	Heat Sink	Scientifically designed, Die cast Aluminum heavy body renders as heat sink to maintain junction temperature for optimum LED life.

LED Specifications

1.	LED	NICHIA/ OSRAM/ CREE/ PHILIPS/ SEOUL/ LUMILED/EDISON or Equivalent
2.	Type of LED	High Power LEDs
3.	Beam Angle	> 120°
4.	LED Efficacy (lm/W)*	> 120
5.	Lumen Maintenance*	> 70% at 50000 Hrs
6.	Color Temperature (K)	5000-6000 K
7.	Operating Temperature (°C)	-10°C to +45°C
8.	Color Rendering	> 70
9.	Luminous Flux	> 4000 Lm
10.	LED driver current	< 750 mA
11.	Test Compliance	LM80

Electrical Specifications

1.	Operating Voltage Range (V)	140 - 270V
2.	Frequency (Hz)	50 $\pm$ 3Hz
3.	Input wattage (W)	60W $\pm$ 10%
4.	Power Factor	> 0.95
5.	THD (%)	< 15 %
6.	Driver	APFC, Constant Current Type
7.	Protections	Overvoltage Protection, Short-circuit Protection, Reverse Polarity Protection
8.	Standard Compliance	IEC 61000, IEC 61547
9.	Working Humidity	RH 10% to 90%
10.	Test Compliance	LM79

Installation

1.	Cable Entry	Through mounting pipe
2.	Pipe Mounting	50mm (OD)
3.	IP Protection	IP66 for fitting

Guarantee/warranty: 3 year from date of dispatch.

Final
19/04/2019
(at 2-21/3/2019)

Naureen Meinda
Jy. Naureen (HR-T&X)

20/04/17
(39 3mc 21/17)
(36 7p 1p/19203)
(5mc)