TECHNICAL SPECIFICATIONS FOR LED VILLAGE CAMPAIGN

1. TECHNICAL REQUIREMENTS FOR REPLACINFG A BULB OR CFL WITH LED LAMP IN A RETROFIT SITUATION FOR HOME LIGHTING.

Supply Source	180-240 volt. However, conditions for voltage fluctuations should be considered and the system should be robust enough to withstand such variation in supply source.
Total Harmonics Distortion (THD)	Should be less than 15%
Lamp Requirement	The lamp should be similar in shape to the existing incandescent lamp. Higher viewing angle allows more light distribution in a room.
Usage	Continuous
Power Consumption	5W, 6W,7W & 8W @50 lm/W
Power Factor	Greater than 0.90
Life Expectancy	About 50,000 burning hours at a 35ºC ambient temperature with 70% lumen maintenance.
Control Circuit	Compatible to LED
Base	E26/27 or B22
Colour Rendering Index	Minimum CRI of 70
Correlated Colour Temperature	4000-6000K

2. TECHNICAL REQUIREMENTS OF LED FOR VILLAGE STREET LIGHTING

Minimum technical specifications for replacing the existing street lights in villages with LEDs.

Supply Source	180-240 volt. However, conditions for voltage fluctuations should be considered and the system should be robust enough to withstand such variation in supply source.
Frequency	50+/- 1Hz
Luminaire Efficacy	The luminaries should have system efficacy of greater than 55m/W.
LED requirement	High power LED with correlated color temperature of 4000K or 6500K +/- 500K.
Luminaire technical requirement	The viewing angle of the luminaire shall be 120 x 70 Deg optimized for Street lighting application to achieve the uniformity. The LED luminaire should be suitable for road lighting application and should provide similar lumen output to that of the existing light.
Usage Hours	12 hrs per day
Power Consumption	Preferable 12W, 14W, 16W & 18W @55lm/W. However, wattage may vary depending upon the existing street light.
Power Factor	Greater than 0.95
Life Expectancy	About 50,000 burning hours at a 35ºC ambient temperature with 70% lumen maintenance.
Colour Rendering Index	Minimum CRI of 75
Control Circuit	Compatible with LED
Construction	Cast Aluminum with Toughened Glass sealed to IP65 with SS Toggles.

3. GUARANTEED TECHNICAL PARTICULARS (TO BE SUBMITTED BY THE BIDDER).

Sl. No.	Parameters	Guaranteed Value
1	LED Operating Current	
2	Output Luminous Flux of Luminaire	
3	Beam Angle of Luminaire	
4	Avg. Lux Level of Luminaire	
5	Uniformity	
6	Photometric Curve	
7	Material of Luminaire & Diffuser	
8	Dimension	
9	Weight	
10	Conformity with IP-65 Fixtures	
11	LED Life	