Stella Mary's College of Engineering,

Aruthenganvilai, kallukattiJunction,AzhikalPost,Kanyakumari District – 629202

An LED lamp or LED light bulb is an electric light for use in light fixtures that produces light using one or more light-emitting diodes (LEDs). LED lamps have a lifespan many times longer than equivalent incandescent lamps, and are significantly more efficient than most fluorescent lamps, with some LED chips able to emit up to 303 lumens per watt. The most efficient commercially available LED lamps have efficiencies of 200 lumens per watt (Lm/W). Commercially available LED chips have efficiencies of over 220 Lm/W.As of 2016, LEDs use only about 10% of the energy an incandescent lamp requires.

Similar to incandescent lamps (and unlike most fluorescent lamps), LEDs come to full brightness immediately with no warm-up delay. Frequent switching on and off does not reduce life expectancy as with fluorescent lighting. Light output decreases gradually over the lifetime of the LED .The characteristics of the LED lighting also improve and gives a pleasant appearance in Stella Mary's college of Engineering.

Conference Hall with LED Bulbs in Stella Mary's college of Engineering

Canteen with LED Bulbs in Stella Mary's college of Engineering

College Campus with LED Lighting during Night Time

Annual lighting power requirementsMet through LED bulbs

Blocks	Watts/Each LED Bulbs	Quantity	Total power in watts	Daily usage in hrs	WH
Main gate	30	1	30	4	120
	3	18	54	4	216
Office	80	2	160	12	1920
EEE	80	2	160	12	1920
	3	198	594	4	2376
ECE	3	185	555	4	2220
cse	80	1	80	12	960
Hostel	25	2	50	6	300
	15	1	15	6	90
	7	2	14	6	84
	80	3	240	12	2880
Total lighting power per day					**13086**
Annual lighting power requirements Met through LED bulbs (13086x365)					**4776390WH**

Annual lighting power requirements

Sl.No	power requirement	Power requirement/day(WH)	power requirement /year in (WH)
1	**Annual lighting power requirement Met through LED bulbs**	13086	4776390
2	**Annual lighting power requirement Met through tube lights(170tubes each 36 watts)**	6120wx6hr=36720	1340280
Total Annual lighting power			**18179190WH**

Total Annual lighting power requirements = 18179.19 KWH

Total Annual lighting power met through LED bulbs = 4776.390 KWH

Percentage of lighting through LED = (4776.390 /18179.19)KWH x100

= 26.27%

Percentage of lighting power through other sources = 73.73%

PRINCIPAL