



LED Lighting Solutions... Redefined!!!

Table of Contents

• Company Profile	01
• Energy Saving Needs in India	03
• Technology Benefits / Advantages of LEDs	05
• Technology Comparison Chart	07
• Glossary of Icons	08
• Products	
• Tubelights	09
• Downlights	13
• Cabinet Lights	21
• MR16	23
• High bay Lights	25
• Other Products	29
• Product Comparison - Conventional v/s Ecotek LED	30
• Client List	31
• Project References	32
• FAQs	36

Ecotek Schema Pvt. Ltd. was conceptualized in the year 2007 when the promoters of the company, with current business interests in varied industries, decided to invest in R&D for developing Retrofit LED Lighting solutions for indoor and outdoor applications. With existing experience of managing factories in China for different businesses the promoters of the company decided to go out and invest in a stake in a large manufacturing set up in China with a devoted production capacity for Ecotek India. For 2 years, investments were made in R&D and Ecotek Schema was launched in April 2009 as a specialised company focussed on development and supply of LED general lighting products for Indoor and Outdoor Applications.

With the assistance of talent from within and outside India, Ecotek has succeeded in developing products

ranging from LED Lamps to LED Street Lighting. We offer an array of Products that are Retrofit replacements for conventional lamps which will not only help you in leaving a smaller carbon foot print by reducing CO2 Emissions but also help you save energy between 50% - 90% on the lighting load of your electricity bills. All our LED products are ROHS compliant and CE Certified.

Since Ecotek's inception it has been able to grow organically, drawing into its fold leading Clients from verticals like Retail Stores, Shopping Malls, Hotels, Factories, Corporate Offices, Hospitals etc. We currently operate from our corporate office in Mumbai and have branch offices in Kolkata and Bangalore. The Business Strategy of the company is to accelerate the shift to energy efficiency in designated sectors through innovative measures to make affordable products.





Mission & Vision

VISION:

Ecotek plans to be responsible in terms of energy savings that can be achieved by using the latest technological innovations. Our vision is to develop and produce products which can help conserve energy which in turn can be used for places and people who are deprived of the same

MISSION:

PURPOSE: Conserve Energy

Ecotek aims to combat the challenges of energy crisis that stares the world in the eye. It is therefore committed to reducing carbon footprints for all its clients in all aspects of its business

PEOPLE: Customer Centric Approach

To achieve total customer satisfaction with absolute focus on quality and superior service. Ecotek helps its customers use energy effectively and increase Business productivity with sustainability

PRODUCT: Continuous Technology Up gradation and Product Development

Smarter systems make better use of energy – both to save costs and contribute to a better environment. Ecotek is therefore involved in continuous innovations so as to cater to the ever changing needs of the customer

PRINCIPLE: Working with Integrity

Conducting our operations with integrity and with respect for the many people, organizations and environments our business touches has always been at the heart of our corporate responsibility

Why India needs to focus on saving Energy

Some Facts: While the Government of India has expressed confidence that the country has succeeded in facing the global slowdown better than others, the fact remains that India's power sector faces a massive backlog. There is a huge gap between supply and demand of energy, with as many as 400 million people in India living in the dark. This cost alone is huge. India will need 600 billion euro's (around US\$ 890 billion) in investment in the next two decades. Half of that will go to the cost of power generation and the rest into power distribution and management.

The country has also invested heavily in recent years in renewable energy utilization, especially wind energy. However one of the problems India faces with respect to increasing its power generation is the time it takes to establish power plants. It takes five to six years to

construct and take online a large-scale power plant in India which can go up to 10 years.

To sustain an economic growth rate of 8-9% over the next 25 years, India's installed power generation capacity alone will have to increase more than fivefold.

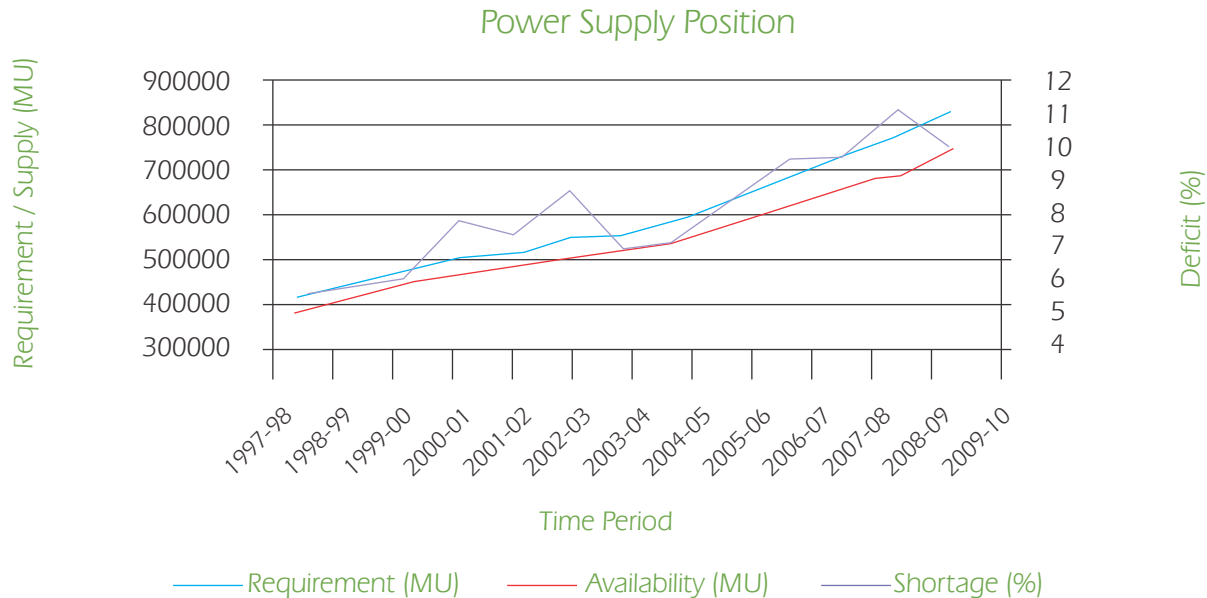
The only two options here are:

1. Increase installed capacities of power generation and distribution.
2. Decrease the demand in energy.

While considering all this an important aspect is left out that is **decreasing the demand in energy**. Yes for a growing country like India it is possible to look beyond conventional approach where Demand in energy can be

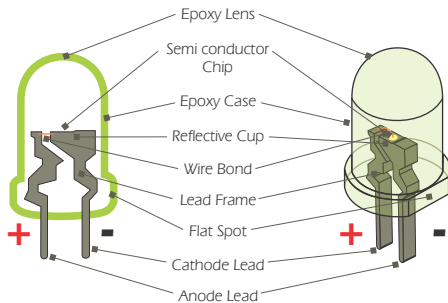
substantially decreased by the use of optimum energy efficient products which will not only help reducing the demand but also save energy and money compared to conventional products that are currently being used in the industry.

This is where Ecotek comes in!!!



Source : CEA, Power Scenario at a Glance, July 2007

- No Glass
- Flicker Free
- No toxic phosphor, mercury, or lead
- Light output comparable to popular, similar sized conventional lamps
- Recyclable
- No electrical work required for retrofit installation
- 50000 hours life (typical)
- Programmed/instant/rapid/trigger start
- Typical power reduction of 50% or more when compared to conventional lamp
- No "burn out" failure



The future of lighting will soon be the wide spread adoption and use of energy efficient LED lighting. Though the present market for finished LED products is geared mainly towards enthusiasts and early-adopters, the efficiency and cost effectiveness of LED lighting systems will drive demand and revolutionize the way the world is lit.

What is a Light Emitting Diode?

The LED consists of a chip of semiconducting material doped with impurities to create a p-n junction. As in other diodes, current flows easily from the p-side, or anode, to the n-side, or cathode, but not in the reverse direction. Charge carrier electrons and holes flow into the junction from electrodes with different voltages. When an electron meets a hole, it falls into a lower energy level, and releases energy in the form of a photon.

Solid-state lighting is a type of lighting that uses solid state electroluminescence for illumination rather than electrical filaments, plasma or gas and creates visible light with reduced heat generation and dissipation. Most common "white" LEDs convert blue light from a solid-state device to a white light spectrum using photoluminescence, the same principle used in conventional fluorescent tubelights.



The typically small mass of a solid-state electronic lighting device provides for greater resistance to shock and vibration compared to brittle glass tubes/bulbs and long, thin filament wires. They also eliminate filament evaporation, potentially increasing the life span of the illumination device.

The operational life of current LED lamps is 50,000 hours. The long operational life of an led lamp is a stark contrast to the average life of an incandescent bulb, which is approximately 5000 hours. If the lighting device needs to be embedded into a very inaccessible place, using LEDs would virtually eliminate the need for routine bulb replacement.

There is no comparison between the cost of LED lights vs. traditional incandescent options. With incandescent lamps, the true cost of the lamp is the cost of replacing bulbs and the labor expense and time needed to replace them. These are significant factors, especially where there are a large number of installed lamps. For office buildings and skyscrapers, maintenance costs to replace lamps can be enormous. These issues can all be virtually eliminated with the LED option.

The key strength of LED lighting is reduced power consumption. When designed properly, an LED circuit will approach 80% efficiency, which means 80% of the electrical energy is converted to light energy. The remaining 20% is lost as heat energy. Compare that with incandescent bulbs which operate at around 20% efficiency, 80% of the electrical energy is lost as heat.



A wide range of LED lights will help you save between 50-90% on your energy costs and deliver all the added promises of LED technology

Technology Comparison Chart

Comparison

Parameters	LED (6.5W LED bulb)	Incandescent (60W bulb)	CFL (18W cfl)
Formulation	LED Based	Tungsten Filament	Mercury based
Lumens/Watt	80 - 85	17 - 20	70 - 80
Light bulb projected lifespan	50,000 hours	1200 hours	8000 hours
Heat Dissipation	Cool	Extremely Hot	Hot
Toxicity	Eco Friendly	Toxic	Toxic
Illumination Spread	Even, focused and constant	Uneven, fluctuating and spillage	Uneven, fluctuating and spillage
Color rendering index	80 - 85	100	50
KWh of electricity used over 50,000 hours	300	3000	700
Frequent On/Off Cycling	No effect	Some effect	Shortens lifespan
Turns on instantly	Yes	Yes	Slight delay
Durability	Durable	Fragile	Fragile
Heat Emitted	Low	High	Medium
Sensitivity to temperature	No	Some	Yes
Sensitivity to humidity	No	Some	Yes
Hazardous Materials	None	None	5 mg mercury/bulb
Replacement frequency (over 50k hours)	1	40+	6

* Comparison for reference purpose only



Conformité Européenne

Quality test conforming to European standards regarding consumer safety, health or environmental requirements



Upto 50,000 hours life

Products have a life upto 50,000 hours



Restriction of Hazardous Substances Directive

This directive restricts the use of hazardous materials in the manufacture of various types of electronic and electrical equipment



Undimmable



Recyclable

Internationally recognized symbol used to designate recyclable materials



IP65

International Protection Rating



Indoor use only

Products to be used indoors only



Lamp only

Contains only lamp



Two year guarantee

Products have a 2 year guarantee



Complete fixture

Contains lamp and fixture

9W T8 - 2 Feet LED Tubelight



Item Code: **ECODLWF-0026**

Electrical Parameters

Input Voltage
Frequency
P/F
Consumption
Life
Replacement Guarantee

Ac100~240V
50~60Hz
> 0.95
9W
50000Hrs
2yrs



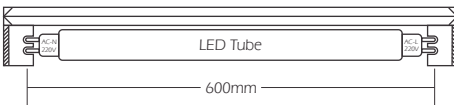
Equivalent to

18W FTL

Optical Parameters

No of LEDs

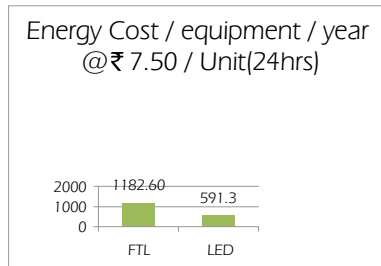
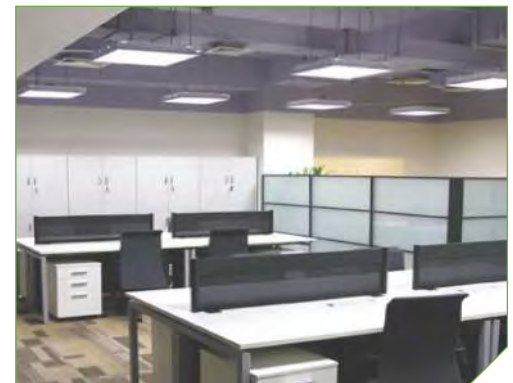
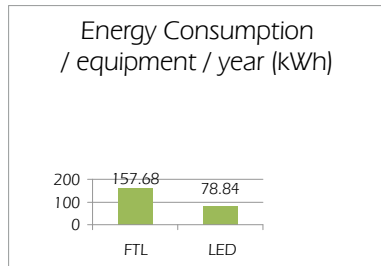
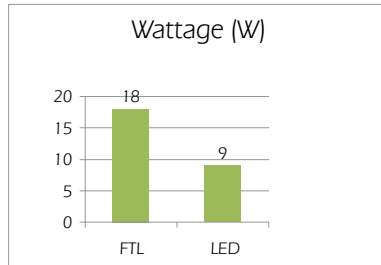
150pcs SMD3528, each LED can reach 7.5lm



LED COLOR
Color Temperature
Color Rendering Index
LED efficiency
Total Flux
Illuminance at height of 1m
Illuminance at height of 2m
Illuminance at height of 3m
Beam Angle

Warm White	Day Light	Cool White
3000~3500K	4000~4500K	6000~6500K
>80	>75	>75
>81lm/W	>83lm/W	>83lm/W
730lm	750lm	750lm
215lux	230lux	230lux
60lux	75lux	75lux
30lux	38lux	38lux
120	120	120

Consumption & Application Areas



18W T8 - 4 Feet LED Tubelight



Item Code: **ECODLWF-0033**

Electrical Parameters

Input Voltage
Frequency
P/F
Consumption
Life
Replacement Guarantee

Ac100~240V
50~60Hz
> 0.90
18W
50000Hrs
2yrs



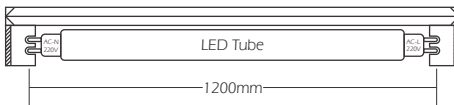
Equivalent to

36W FTL

Optical Parameters

No of LEDs

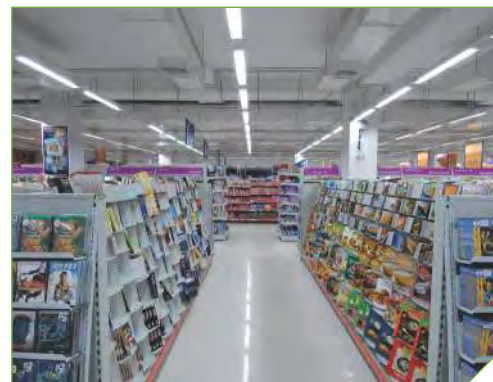
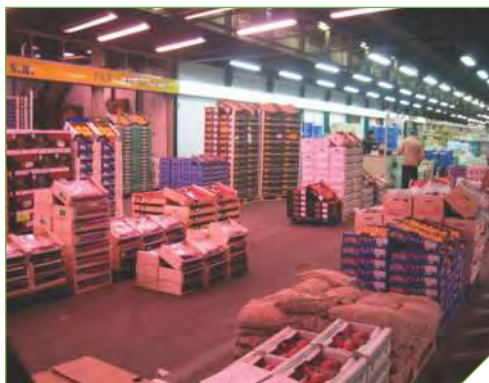
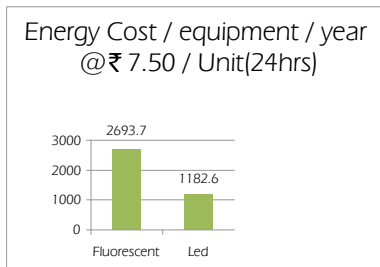
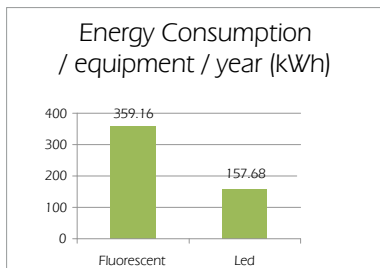
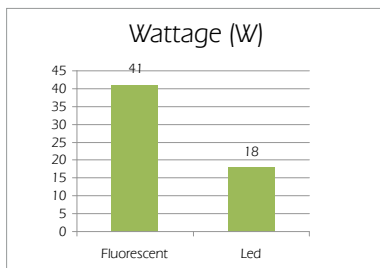
288pcs SMD3528, each LED can reach 7.5lm



LED COLOR
Color Temperature
Color Rendering Index
LED efficiency
Total Flux
Illuminance at height of 1m
Illuminance at height of 2m
Illuminance at height of 3m
Beam Angle

Warm White	Day Light	Cool White
3000~3500K	4000~4500K	6000~6500K
>80	>75	>75
>81lm/W	>83lm/W	>83lm/W
1458lm	1494lm	1494lm
413lux	439lux	439lux
103lux	110lux	110lux
46lux	49lux	49lux
120	120	120

Consumption & Application Areas



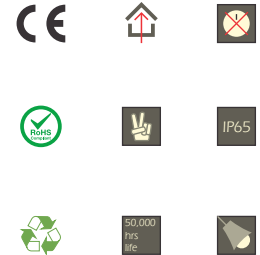


Item Code: **ECODL01-5001**

Electrical Parameters

Input Voltage
Frequency
P/F
Consumption
Life
Replacement Guarantee

Ac100~240V
50~60Hz
> 0.92
8W
50000Hrs
2yrs



Equivalent to

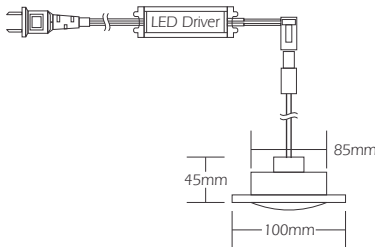
11W / 13W CFL

Optical Parameters

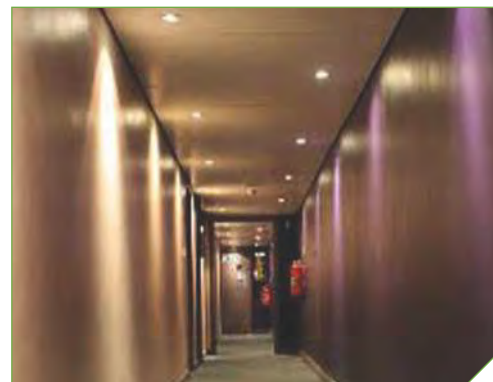
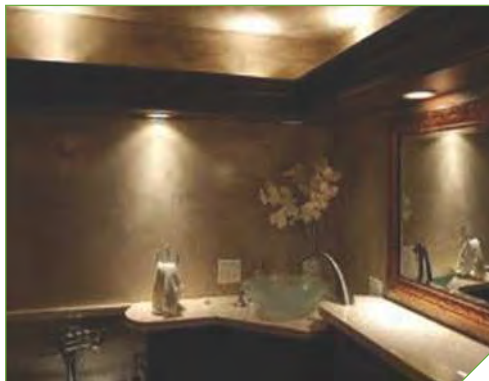
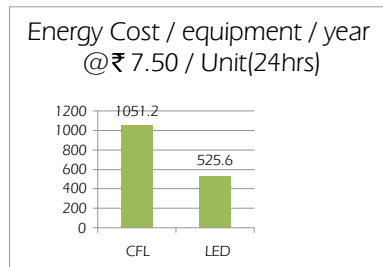
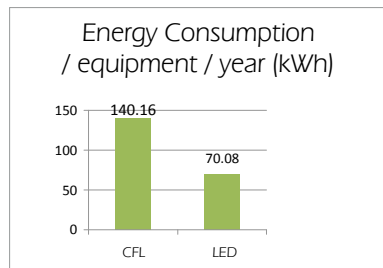
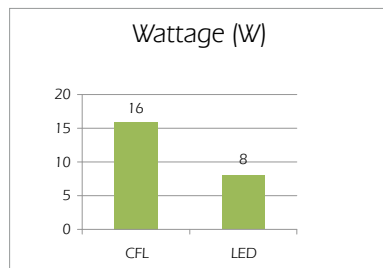
No of LEDs

LED COLOR
Color Temperature
Color Rendering Index
LED efficiency
Total Flux
Illuminance at height of 1m
Illuminance at height of 2m
Illuminance at height of 3m
Beam Angle

48pcs SMD3014		
Warm White	Day Light	Cool White
3000~3500K	4000~4500K	6000~6500K
>80	>75	>75
>70lm/W	>71lm/W	>72.4lm/W
347lm	355lm	362lm
150lux	152lux	158lux
37lux	38lux	42lux
18lux	19lux	20lux
100	100	100



Consumption & Application Areas



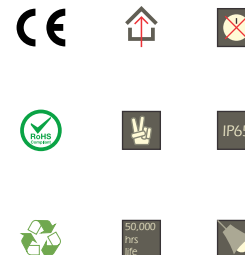


Item Code: **ECODL01-5002**

Electrical Parameters

Input Voltage
Frequency
P/F
Consumption
Life
Replacement Guarantee

Ac100~240V
50~60Hz
> 0.92
13W
50000Hrs
2yrs



Equivalent to

11W x 2 / 13W x 2 CFL

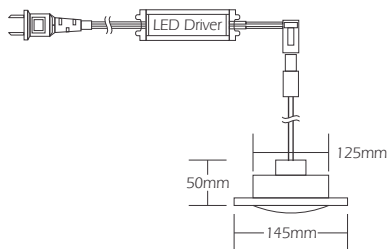
Optical Parameters

No of LEDs

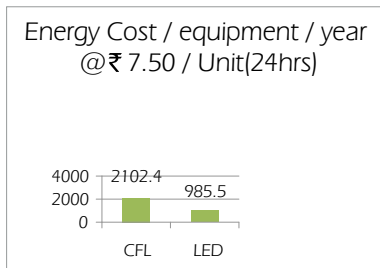
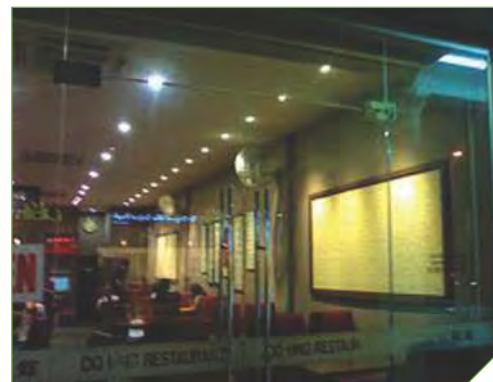
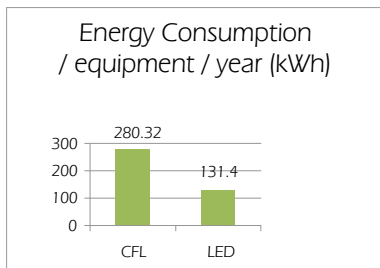
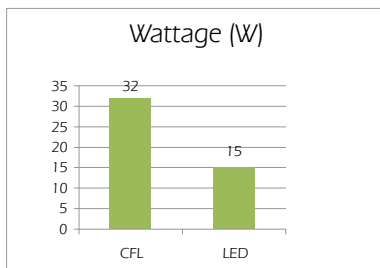
90pcs SMD3014

LED COLOR
Color Temperature
Color Rendering Index
LED efficiency
Total Flux
Illuminance at height of 1m
Illuminance at height of 2m
Illuminance at height of 3m
Beam Angle

Warm White	Day Light	Cool White
3000~3500K	4000~4500K	6000~6500K
>80	>75	>75
>66.4lm/W	>68lm/W	>70lm/W
664lm	680lm	700lm
265lux	272lux	276lux
67lux	69lux	71lux
30lux	31lux	32lux
100	100	100



Consumption & Application Areas



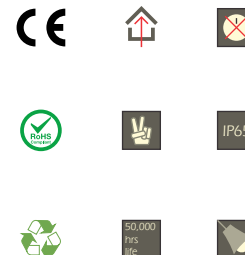


Item Code: **ECODL01-5003**

Electrical Parameters

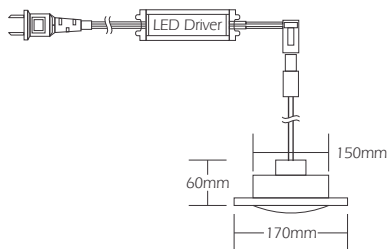
Input Voltage
Frequency
P/F
Consumption
Life
Replacement Guarantee

Ac100~240V
50~60Hz
> 0.92
18W
50000Hrs
2yrs



Equivalent to

18W x 2 CFL



Optical Parameters

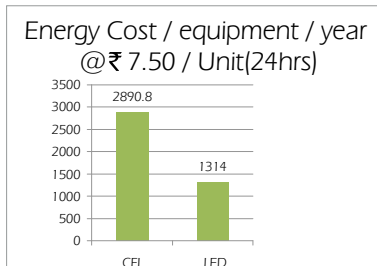
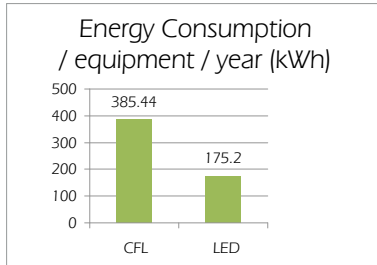
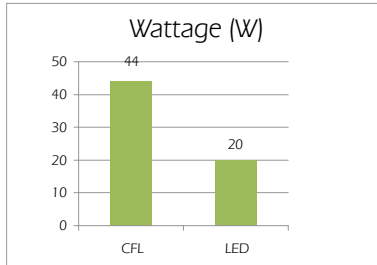
No of LEDs

132pcs SMD3014 LEDs

LED COLOR
Color Temperature
Color Rendering Index
LED efficiency
Total Flux
Illuminance at height of 1m
Illuminance at height of 2m
Illuminance at height of 3m
Beam Angle

Warm White	Day Light	Cool White
3000~3500K	4000~4500K	6000~6500K
>80	>75	>75
>65.6lm/W	>67lm/W	>68lm/W
986lm	1005lm	1020lm
393lux	396lux	397lux
99lux	102lux	103lux
44lux	46lux	47lux
100	100	100

Consumption & Application Areas



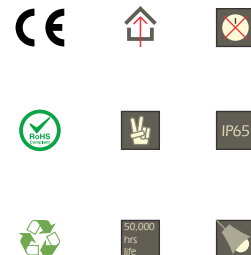


Item Code: **ECODL01-5004**

Electrical Parameters

Input Voltage
Frequency
P/F
Consumption
Life
Replacement Guarantee

Ac100~240V
50~60Hz
> 0.85
32W
50000Hrs
2yrs



Equivalent to

70W CDMT / 26W x 2 CFL

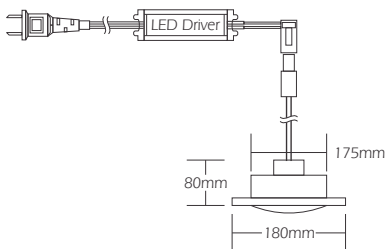
Optical Parameters

No of LEDs

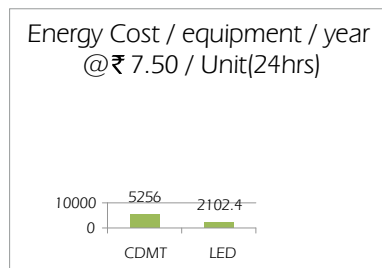
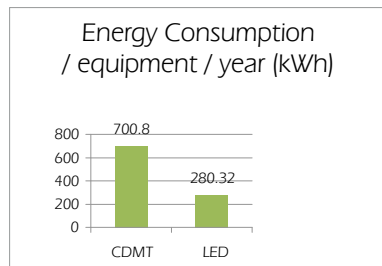
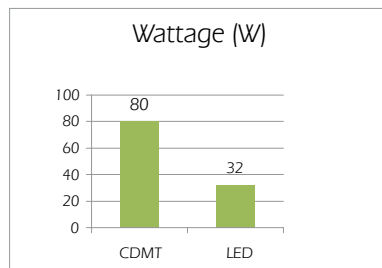
24pcs High power 1W LEDs

LED COLOR
Color Temperature
Color Rendering Index
LED efficiency
Total Flux
Illuminance at height of 1m
Illuminance at height of 2m
Illuminance at height of 3m
Beam Angle

Warm White	Cool White
3000~3500K	6000~6500K
> 78	> 73
> 47lm/W	> 50lm/W
1480lm	1600lm
554lux	583lux
136lux	145lux
61lux	65lux
110	110



Consumption & Application Areas



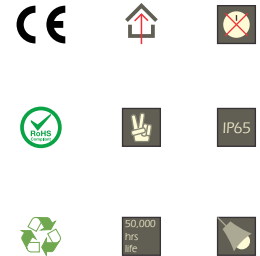


Item Code: **ECOMR01-2001**

Electrical Parameters

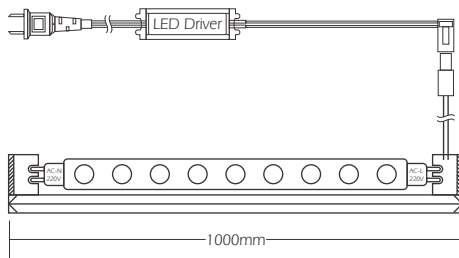
Input Voltage
Frequency
P/F
Consumption
Life
Replacement Guarantee

Ac100~240V
50~60Hz
> 0.95
12W
50000Hrs
2yrs



Equivalent to

12V 50W x 2 Halogen

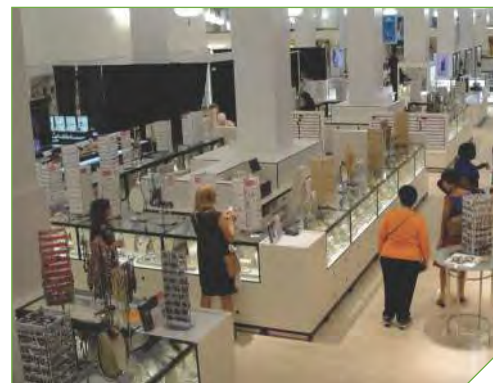
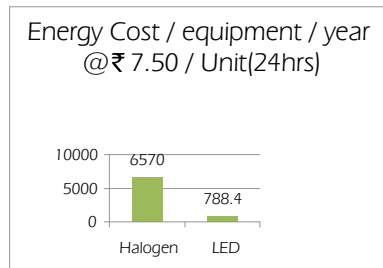
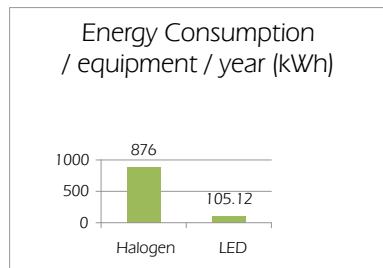
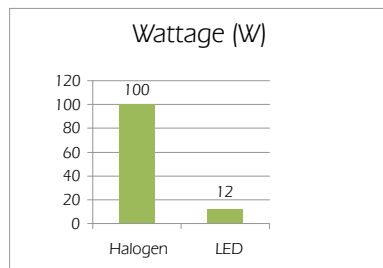


Optical Parameters

No of LEDs
LED COLOR
Color Temperature
Color Rendering Index
LED efficiency
Total Flux
Illuminance at height of 0.25m
Illuminance at height of 0.50m
Illuminance at height of 1.00m
Beam Angle

96pcs SMD3014			
Warm White	Day Light	Cool White	
3000~3500K	4000~4500K	6000~6500K	
>80	>75	>75	
>80lm/W	>83lm/W	>83lm/W	
900lm	750lm	750lm	
2500lux	3000lux	3000lux	
1400lux	1600lux	1600lux	
900lux	1000lux	1000lux	
60	60	60	

Consumption & Application Areas





Item Code: **ECOMR01-1001**

Electrical Parameters

Input Voltage	Ac100~240V
Frequency	50~60Hz
P/F	> 0.95
Consumption	6.5W
Life	50000Hrs
Replacement Guarantee	2yrs

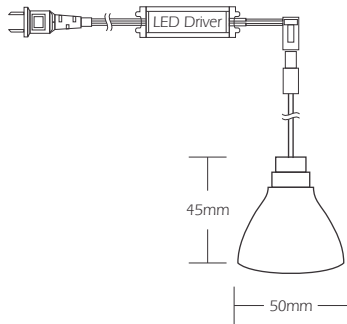


Equivalent to

12V 50W Halogen

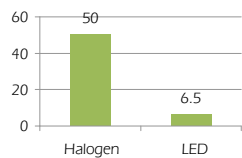
Optical Parameters

No of LEDs	4x1W each		
LED COLOR	Warm White	Day Light	Cool White
Color Temperature	3000~3500K	4000~4500K	6000~6500K
Color Rendering Index	>85	>75	>75
LED efficiency	>75lm/W	>80lm/W	>80lm/W
Total Flux	300lm	320lm	320lm
Illuminance at height of 0.25m	800lux	900lux	900lux
Illuminance at height of 0.50m	275lux	300lux	300lux
Illuminance at height of 1.00m	90lux	100lux	100lux
Beam Angle	28	28	28

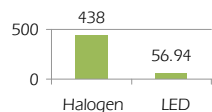


Consumption & Application Areas

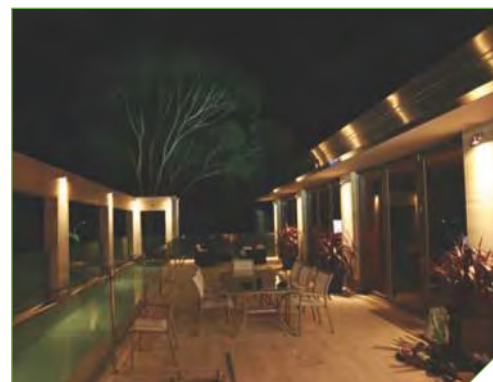
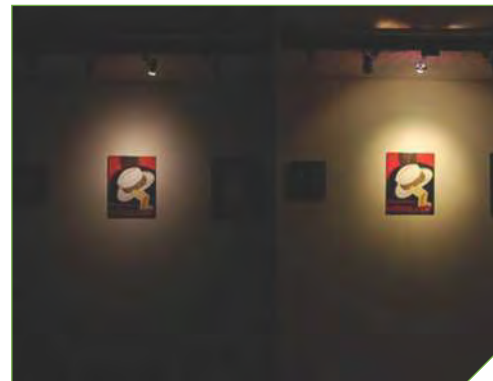
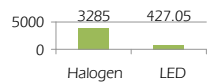
Wattage (W)



Energy Consumption / equipment / year (kWh)



Energy Cost / equipment / year
@ ₹ 7.50 / Unit(24hrs)



60W LED Highbay Light

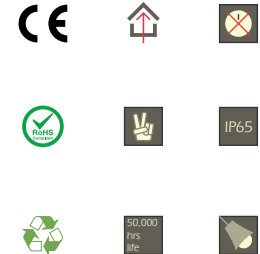


Item Code: **ECOHL01-9001**

Electrical Parameters

Input Voltage
Frequency
P/F
Consumption
Life
Replacement Guarantee

Ac100~240V
50~60Hz
> 0.82
65W
50000Hrs
2yrs



Equivalent to

**150 - 200W HPSV /
Mercury Vapour**

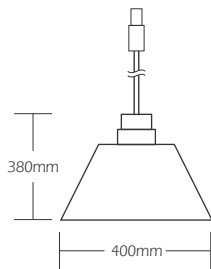
Optical Parameters

No of LEDs

LED COLOR
Color Temperature
Color Rendering Index
LED efficiency
Total Flux
Illuminance at height of 3m
Illuminance at height of 4m
Illuminance at height of 5m
Beam Angle

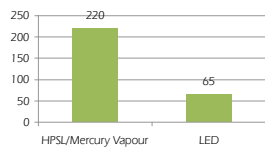
60pcs High Power 1W LEDs

Warm White	Cool White
3000~3500K	6000~6500k
>78	>71
>63lm/W	>66lm/W
4100lm	4300lm
360lux	392lux
190lux	220lux
115lux	140lux
75	75

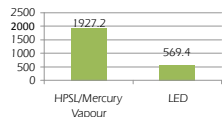


Consumption & Application Areas

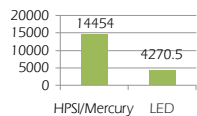
Wattage (W)



Energy Consumption / equipment / year (kWh)



Energy Cost / equipment / year
@ ₹ 7.50 / Unit(24hrs)



90W LED Highbay Light



Item Code: **ECOHL01-9002**

Electrical Parameters

Input Voltage
Frequency
P/F
Consumption
Life
Replacement Guarantee

Ac100~240V
50~60Hz
> 0.85
102W
50000Hrs
2yrs



Equivalent to

**250W HPSSL /
Mercury Vapour**

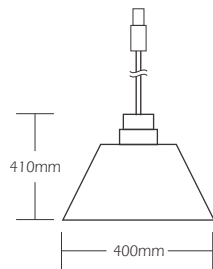
Optical Parameters

No of LEDs

LED COLOR
Color Temperature
Color Rendering Index
LED efficiency
Total Flux
Illuminance at height of 3m
Illuminance at height of 4m
Illuminance at height of 5m
Beam Angle

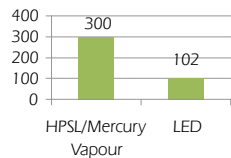
90pcs High Power 1W LEDs

Warm White	Cool White
3000~3500K	6000~6500k
>78	>71
>67lm/W	>72lm/W
6900lm	7203lm
810lux	850lux
430lux	475lux
265lux	305lux
75	75

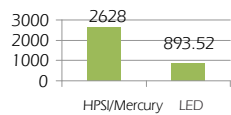


Consumption & Application Areas

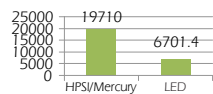
Wattage (W)



Energy Consumption / equipment / year (kWh)



Energy Cost / equipment / year
@ ₹ 7.50 / Unit(24hrs)



Other Products



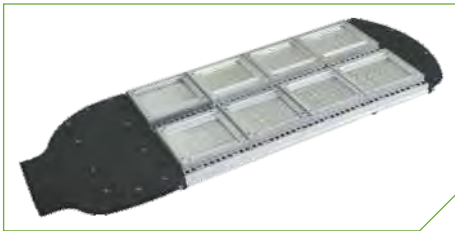
56 x 1W LED Streetlight
Item Code: **ECOSTWF-0008**



112 x 1W LED Streetlight
Item Code: **ECOSTWF-0007**



168 x 1W LED Streetlight
Item Code: **ECOSTWF-0006**



224 x 1W LED Streetlight
Item Code: **ECOSTWF-0005**



48 x 1W LED Floodlight
Item Code: **ECOPRWF-0002**



6.5W LED Bulb
Item Code: **ECOBUWF-0401**



18 x 1W LED Wallwasher
Item Code: **ECOWWRT-1001**



7W LED Par 30
Item Code: **ECOSPWF-0204**



14W LED Par 38
Item Code: **ECOSPWF-0207**

Comparison

Product Comparison of Conventional Light with Ecotek LED light

No.	Conventional Product	Watt Consumed	Ecotek LED replacement	Watt Consumed	%
1	2 ft Fluorescent Tubelight T8 (18W / 20W)	21W - 24W with Electronic Ballast 26W - 28W with Copper/ Electromagnetic Ballast	2 ft T8 LED Tube with built-in Driver (Clear / Frosted)	9w	69%
2	4 ft Fluorescent Tubelight T8 (36W / 40W)	39W - 42W with Electronic Ballast 44W - 48W with Copper/ Electromagnetic Ballast	4 ft T8 LED Tube with built-in Driver (Clear / Frosted)	18W	62%
3	2 ft Slim Fluorescent Tubelight T5 (14W)	16W - 18W with Ballast	2 ft T8 LED Tube with built-in Driver	9w	50%
4	4 ft Slim Fluorescent Tubelight T5 (28W)	31W - 32W with Ballast	4 ft T8 LED Tube with built-in Driver	18W	50%
5	2x26W PL fitting	58W - 60W with Ballast	15W LED Downlight with External Driver	20W	60%
6	2x18W PL fitting	42W - 46W with Ballast	24LED Downlight with External Driver	32W	64%
7	1x18W PL fitting	22W - 24W with Ballast	10W LED Downlight with External Driver	13W	64%
8	2x13W PL fitting	32W - 34W with Ballast	10W LED Downlight with External Driver	15W	53%
9	2x11W PL fitting	26W - 28W with Ballast	10W LED Downlight with External Driver	13W	69%
10	1x36W PL fitting	40W - 42W with Ballast	2x9w 2 ft T8 LED Tube fitting with built-in Driver	18W	62%
11	2x36W PL fitting	80W - 84W with Ballast	4x9w 2 ft T8 LED Tube fitting with built-in Driver	36w	60%
12	3x36W PL fitting	118W - 122W with Ballast	4x9W 2 ft T8 LED Tube fitting with built-in Driver	36w	73%
13	35W MR16 halogen	35W with Ballast	4x1W LED MR16 with External Driver	6.5W	86%
14	50W MR16 halogen	50W with Ballast	4x1W LED MR16 with External Driver	6.5W	90%
15	70W CDMT Spotlight	83W - 87W with Ballast	18w LED spotlight/ wall washer	22w	89%
16	150W Flood Light	165W - 172W with Ballast	48x1W LED Flood Light with built-in Driver	52W	68%
17	72W HPS Street Light	85W with Ballast	28x1W LED Street Light with built-in Driver	32W	62%
18	150W HPS Street Light	170W with Ballast	56x1W LED Street Light with built-in Driver	72W	58%
19	300W HPS Street Light	330W with Ballast	112x1W LED Street Light with built-in Driver	145W	56%
20	500W HPS Street Light	530W - 540W with Ballast	168x1W LED Street Light with built-in Driver	220W	58%
21	60W Incandescent Bulb	60W	6.5W LED Bulb with built-in Driver	7W - 8W	87%

Client List

Proud to be associated with



**Bharat
Petroleum**

Carrefour



Turn to the Experts.



HSBC



The world's local bank



**GODFREY PHILLIPS
— INDIA LIMITED —**

Godrej

Honeywell



**RAMADA
PLAZA
PALM GROVE**

SHOPPERS STOP

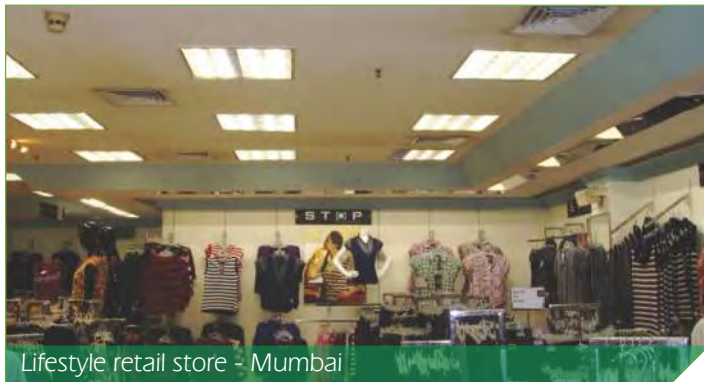
START SOMETHING NEW

TAJ
Luxury Hotels



Pacific.

... and growing





Cash & Carry Store - Delhi



Cash & Carry Store - Delhi



Cash & Carry Store - Delhi



Cash & Carry Store - Delhi



Corporate Office - Gurgaon



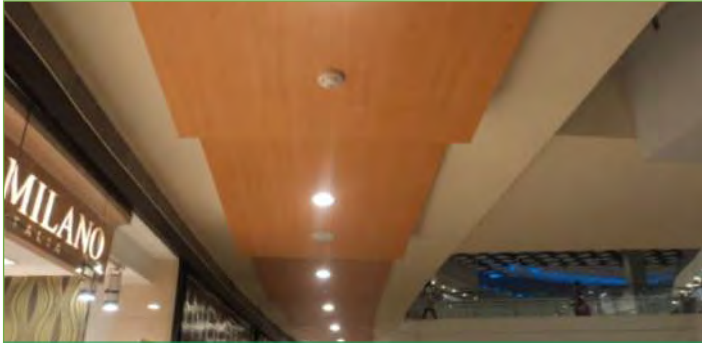
Luxury Hotel - Goa



Hypermarket - Ahmedabad



Lifestyle retail store - Mumbai



Shopping Mall - Delhi



Retail Store - Bangalore



Retail store - Bangalore



Shopping Mall - Delhi



Why LED's?

As a rule, LED lamps use upto 90% less electricity than standard bulbs. They have an unparalleled even spectrum of light and have a lifespan beyond ten years. LED's provide us the most efficient way to save energy and conserve our natural resources. If LED's were implemented right now universally, we would not need to build another power plant. LEDs would actually eliminate the need for over 30 existing power plants.

Do LED Lights contain mercury?

No. LED Lights do not contain mercury. They can actually be recycled with relative ease since they do not contain any hazardous substances.

How do LED light bulbs compare to CFL bulbs?

Studies show LED light bulbs use 50% less energy than CFL bulbs and in many cases last 10 times longer than CFL light bulbs. They are much more durable, environmentally friendly, vibration and shock resistant and offer excellent light quality, both indoor and outdoor.

Do LED Lights produce as much heat as CFL or Incandescent bulbs?

LED Lights emit much less heat than a CFL or incandescent light. In many cases, you can actually feel the temperature difference just by being near the light. LED lights will always operate at a lower temperature than a CFL or incandescent which has immediate benefits in reduced air conditioning load and hence reduced electricity bills.

What type of plastic is the cover made out of?

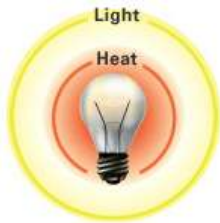
The transparent cover is made of Polycarbonate. Polycarbonates are a particular group of thermoplastic polymers that are easily worked, molded and thermoformed that are temperature resistant and impact resistant.

Is LED light a different type of light?

Yes, LED light is said to be a safer, healthier light. LEDs do NOT produce any sort of ultraviolet radiation which causes fabric fading, color fading in Art, carpeting and other soft goods. There is none of the 'buzzing' or 'flickering' that many people are sensitive to with LED Lights. Residential and especially commercial and industrial plants, stores libraries, galleries, and warehouses can immediately benefit from LED Lighting.

LED lighting is more efficient, durable, versatile and longer lasting than incandescent and fluorescent lighting. LEDs emit light in a specific direction, whereas an incandescent or fluorescent bulb emits light and heat in all directions. LED lighting uses energy more efficiently.

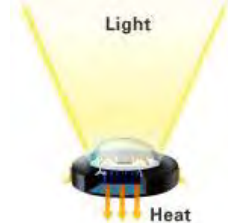
For example, an incandescent or compact fluorescent (CFL) bulb inside of a recessed can will waste about half of the light that it produces, while a recessed down light with LEDs only produces light where it's needed in the room below.



Incandescent bulbs create light by passing electricity through a metal filament until it becomes so hot that it glows. Incandescent bulbs release 80% of their energy as heat.



In a CFL, an electric current is driven through a tube containing gases. This reaction produces ultraviolet light that gets transformed into visible light by the fluorescent coating (called phosphor) on the inside of the tube. A CFL releases about 50% of its energy as heat.



LED lighting products use light emitting diodes to produce light very efficiently. The movement of electrons through a semiconductor material illuminates the tiny light sources we call LEDs. A small amount of heat is released backwards, into a heat sink, in a well-designed product; LEDs are basically cool to the touch.



Why are LED lights more expensive?

LED light bulbs use an actual circuit board to operate and are made of electronic components. Essentially, they could be considered as an electronic device. This technology continues to gain advantage almost daily. The manufacturing and supply/demand of general lighting products are gearing up today, and we will see costs continue to decline as the adoption rate of LED Lighting increases.

How long do LEDs for general lighting really last?

The longevity of LED Lighting can be 100,000 hours. LED's are Solid State devices (SSL – or “solid state lighting”); they will not burn out. Life expectancy for SSL lighting is upwards of 50,000 to 100,000 hours or more which means no maintenance costs for facilities workers to replace lights. Over time, the cost of the fluorescent or incandescent bulbs themselves can add up to a significant savings when converting to LED's. An incandescent light bulb is rated for about 1000 hours. CFLs or Fluorescent Tube lights are rated for 6000-8000 hours.

How long is 50,000 hours?

Based on how long a fixture is illuminated per day, here's what 50,000 works out to:

Hours of Operation: 50,000 hours is:

Hours of operation per day	Life in years
24 hours	5.7 years
18 hours	7.6 years
12 hours	11.4 years
8 hours	17 years

Can the Ecotek LED Lights be disposed of safely?

As a matter of fact, yes they can, unlike CFLs that contain mercury and have strict disposal laws, ECOTEK LED LIGHTS can be safely disposed off with no worries of contaminating the environment.

Do Ecotek LED Lights conform to safety standards?

ECOTEK conforms to CE, RoHs in all their products and UL in certain products.

What can ECOTEK do for our existing premises?

Ecotek will do an energy audit of your lighting load for the current premises and determine the total energy cost due to lighting currently. We will then propose LED replacements for them and show you a complete ROI model with savings that can be achieved by switching over to LED Lights and the total investment needed for LED lights. Once confirmed, Ecotek will take the complete project on turnkey basis, where the removal of the existing lights and installation of the new LED lights will be done by our expert technicians and electricians and you can Simply Start Saving on Energy Costs.

What can ECOTEK do for a new project?

We will take your existing layout and make a lighting layout suited to your requirement and suggest the best possible options for you with LED Lights to achieve the desired Lux Levels, Ecotek will then show you a comparison of investment between Conventional Lighting and LED Lighting and the cost that you would incur in terms of electricity cost for both Conventional and LED Lighting for you to make a choice.

ECOTEK SCHEMA PVT. LTD.

A 211, 2nd Floor,
R.R. Realty, Tank Road,
Off LBS Marg,
Bhandup (W),
Mumbai 400 078 India.

Phone: +91 22 67746000
Fax: + 91 22 67746099
Email: info@ecotek.in
Website: www.ecotek.in