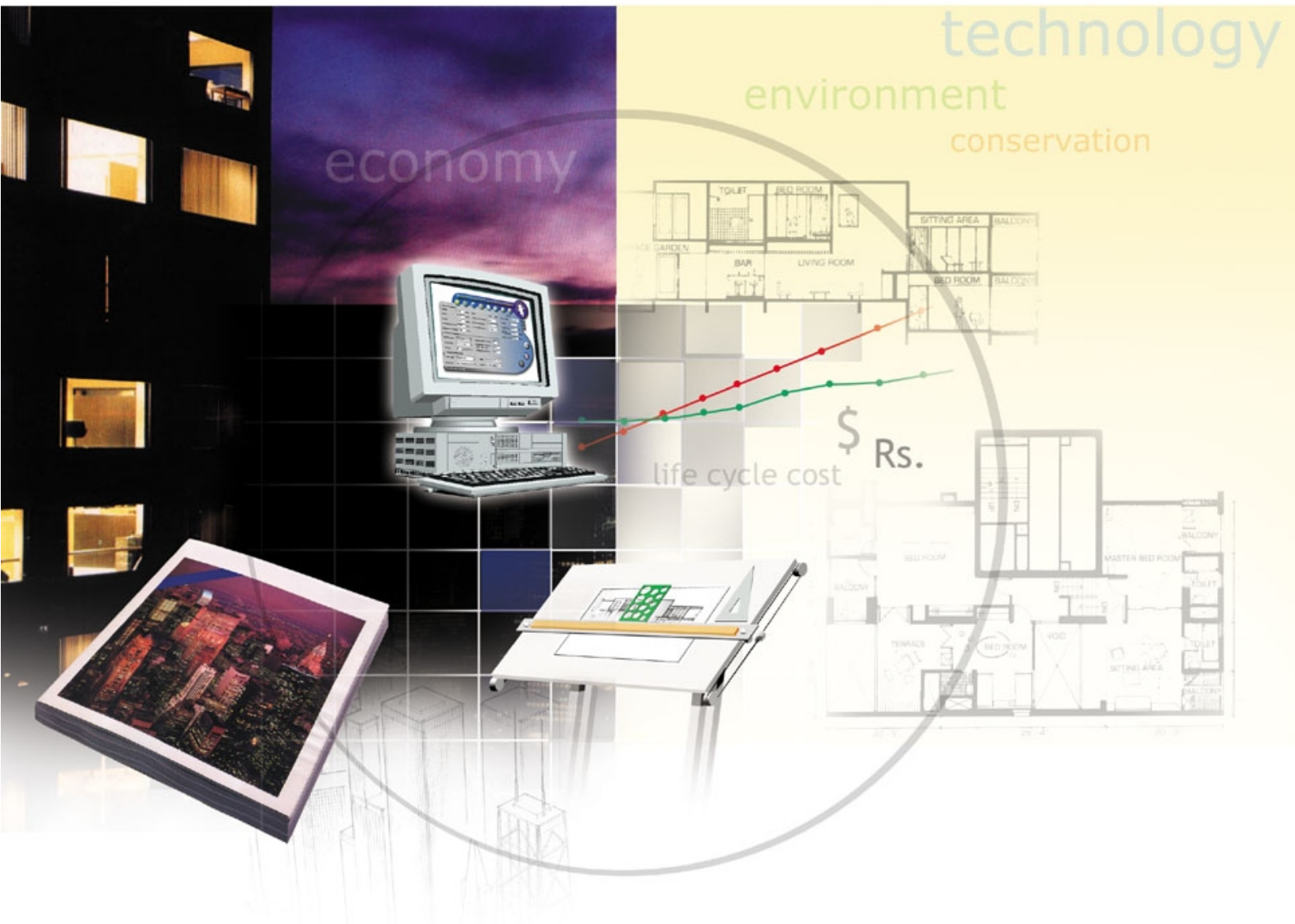




The Energy Efficient Lighting Designer

Energy Efficient Lighting Designs...



...at your convenience



Finally, a tool to eliminate all your lighting design problems.

Traditionally, the process of lighting design has been very complicated, requiring repeated calculations and re-designs. As a result, designers have been left with no choice but to substitute 'thumb rules' for accuracy in order to be able to save computational time.

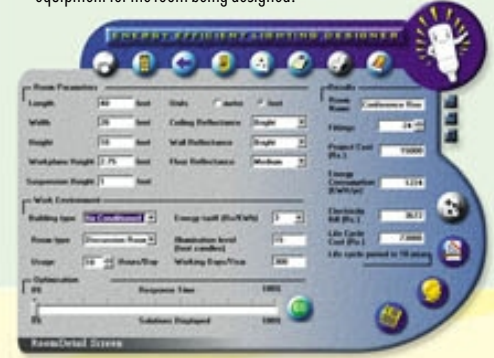
Eco Lumen™, on the other hand, helps you create scientific lighting designs, easily and instantaneously.

The use of Eco Lumen™ can reduce the time required to create the lighting design of a facility by as much as 80% when compared to the traditional approach. At the same time, designs created in Eco Lumen™ are accurate, optimized and efficient.

Eco Lumen™ is ideal for building designers - architects, interior designers, lighting and electrical consultants - of commercial, industrial as well as residential facilities.

Inputs

Designed for simplicity of use, in spite of the complex processing involved, Eco Lumen™, requires elementary input parameters such as room parameters, room usage pattern and the desired lighting products for the room. Based on these Eco Lumen™ recommends the optimal number of fittings for the room, annual energy consumption, initial cost and life cycle cost of the lighting system selected. The 'Optimization' option of Eco Lumen™, compares the various lighting products available in the vast database, and recommends the most appropriate combinations of equipment for the room being designed.



Eco Lumen



Lighting Layouts

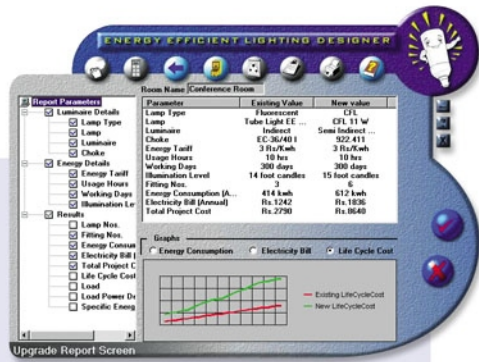
The extensive time and effort required to manually design lighting layouts force the designer to choose one of the first 2-3 designs conceptualized. Eco Lumen™, however, has changed this scenario altogether. Numerous lighting layout options - which integrate aesthetics with scientific lighting design practices - are available to the designer for easy comparison at the click of a button. The user can view the room from various angles (top, front and side views) and also obtain the lighting distribution in the room with the exact amount of light available at any given point on the working surface.

ECO LUMEN™, the professional design tool

The primary advantage of Eco Lumen™ lies in the reduction of paper work and time for the facility designer. An extremely user friendly interface guides the designer through the various aspects of lighting design, including the room specifications, selection of appropriate light fixtures and the optimization of the energy consumption. Eco Lumen eliminates the time consuming re-work required for every change in the design parameters, thus providing the facility designer freedom to experiment with various facility designs before selecting the optimal design. Design changes are very easily and quickly implemented.

The flexible report generation module provides the designers an option to customize the reports as per the requirements of their clients. These reports are highly professional, offering 'at-a-glance' information about the designed rooms, as well as detailed listing of the design parameters, including the location of the light fittings in the room and the illumination levels for the room.

Eco Lumen is also equipped with an extensive database of products from leading lighting companies. Eco Lumen provides designers easy access to the technical details of the individual components such as lamps and fittings, as well as to the standards used in the calculations such as the illumination levels (based on the IS 3646 Standard) Designers can also add new lighting products to the database, either by specifying the technical parameters of the product or by importing the photometric files.



Upgrade Evaluation

While the importance of implementing energy efficient lighting design practices in the first place can hardly be over-emphasized, the benefits of upgrading existing facilities to greater energy efficiency cannot be ignored. Eco Lumen™ provides numerous options for upgrades where the user can select the most appropriate option according to his priorities. The 'Optimization' option automatically recommends the most appropriate upgrade choices to the designer for the room being designed. The designer can also reduce the initial investment by selecting to re-use the applicable existing fittings.

Eco Lumen™ takes the concept of implementing Energy Efficiency in facilities, beyond merely the designing of new facilities. This revolutionary product allows the designer to upgrade existing facilities to greater efficiency at minimum replacement costs. This feature gives designers the flexibility to compare various options for a room and then allows them to select the appropriate design after considering the investment as well as recurring costs. The software also includes features for calculating life cycle costs and payback period for different upgrade options.

Eco Lumen™ is packaged with a powerful Help option, which not only guides the designer in usage of the software, but also informs them of the various methods that can be used to save energy in all aspects of facilities, including lighting design. It is also equipped with additional utilities such as the Energy Calculator and the Unit Converter to assist professionals with the complexities of their routine calculations.

Energy Calculator

Eco Lumen™ also provides the user with additional tools such as the Energy Calculator and Unit Converter. The Energy Calculator facilitates easy computations for the total energy consumption in any facility. This tool also provides a graphical comparison of the energy consumed by various equipment, thus identifying the areas where energy saving can be achieved.



THE ECO LUMEN™ GALLERY

Eco Lumen™ was first launched on Earth Day 2000 in the form of a freeware, as part of Tata Infotech's energy management promotion plan, in order to bring the benefits of energy efficient lighting designs to every energy conscious individual.

Since then, Eco Lumen™ has received great acclaim from various organisations in the field of energy management as well as Information Technology. It has received a 5 star rating from TuCows.com and a 4 star rating from ZDNet, USA indicating a 'very good program, with some outstanding features'. The Eco Lumen™ team has also won the Computer Society of India's Young IT Professional 2000 award where it was adjudged on various criteria including innovation, quality and customer satisfaction. This is the only software to have been elected for the LightBytes 2001 workshop at Light Fair International in Las Vegas, USA.

Eco Lumen™ has been featured in various energy management related publications including Energy Productivity News (the international newsletter of 'Council of Energy Efficiency Companies'), the 'Bulletin of Energy Efficiency' (the IREDA newsletter) and the CADDET (Centres for the Analysis and Dissemination of Demonstrated Energy Technologies) newsletter.



Energy Efficient Lighting Designs

Eco Lumen™ is equipped with the BIS recommended standards for illumination levels of various rooms, based on the usage of the rooms. Based on these standards, Eco Lumen™ recommends the appropriate number of the selected light fittings required for the room, thus optimizing not only the electricity bills but also adding to the productivity of the occupants and creates a lively atmosphere, further reducing fatigue. Eco Lumen™ also recommends the use of (and shows the lighting layouts for) multiple level illumination switching for low occupancy hours, thus further reducing electricity bills. Designs created using Eco Lumen™ have the potential to save as much as 30% of the lighting related electricity bills for any facility.



The Energy Efficient Lighting Designer



The Energy Efficient Lighting Designer

What You Get

- More clients to cater to :
Due to time and effort saved by instantaneous calculations for creating lighting designs
- Greater customer satisfaction :
By reducing their lighting electricity bills to the tune of 30%
- Simplicity of use :
Requires elementary inputs such as room parameters and usage pattern
- Aesthetic Designs :
Numerous layout options available for each room to suit individual taste
- Enhanced visualization :
Multiple views and light distribution contours for determining illumination level at any point on working surface
- Optimization :
Recommends the most appropriate lighting products based on user requirements
- Power of knowledge :
Financial analyses provide basis for reliable decisions
- Enhanced ability :
To create scientific, accurate lighting designs instantaneously
- Reduced dependence :
On reference material, since standards are built into Eco Lumen™
- Add-on utilities :
Measurement Units Converter and Energy Calculator for total electricity bills

Eco Lumen™ Future Versions	
Interface with CAD for 3D views	Moving of individual fittings
Task Lighting	Polygonal Rooms
Outdoor lighting	Web-enabled database updates

Tata Infotech Limited is one of India's leading Information Technology companies. Established in 1978, it is a part of the US\$9 billion Tata group of companies. It is truly an Indian Multinational with operations in over 50 countries, with over 5000 projects across diverse platforms. Tata Infotech is uniquely positioned as a Total Systems Integrator in the Indian market and a software solutions provider in the overseas market.

The Systems Integration Division of Tata Infotech has achieved the coveted SEI CMM Level 4.) This division, along with the Education Services and Manufacturing Divisions, is also ISO-9000 certified. Tata Infotech has a broad portfolio of services, technologies and alliances, needed to deliver the benefits of information technology.

The Products division of Tata Infotech aims to develop high quality, cost-effective offerings through innovation and collaboration. Satisfying the customer by offering Total Solutions, Total Commitment has been the long-standing motto of the company. Towards this end, Tata Infotech works on various path breaking technologies and solution.

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System Requirements		
	Minimum	Recommended
Operating System	Windows 9x	Windows 9x
RAM (Memory)	32 MB	32 MB
Hard Disk Space	50 MB	100 MB
Processor	486 or equivalent	Intel Pentium processor or equivalent
Screen Resolution	16 bit color monitor & 800 x 600 resolution	24 bit color monitor & 800 x 600 resolution

For more information about our services and products, mail us at ecolumen.info@tatainfotech.com or visit us at www.ecolumen.com or please get in touch with us at any of the following addresses:

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