Lumière technologies

LUMIERE TECHNOLOGIES AND YOUR ENVIRONMENT

Lumière Technologies believes in taking an active role in environmental stewardship, as sustainability is critical in preservation of our natural resources. We invite you to partner with us in enhancing living spaces, living conditions and our environment, by committing to make use of intelligent, energy efficient products and systems that assist you in reducing your carbon footprint on your environment.

Our green product offerings and solutions encompass technologies such as LED Lighting fixtures, Zigbee Control systems and PV renewable energy systems. Lead by example, take initiative and make the switch today to secure an environment for current and future generations.

LED TECHNOLOGY

The Light Emitting Diodes (LEDs) that we use help us design products that use 50% - 68% less energy compared to incandescent, halogen and compact fluorescent technology. This is a definite criteria in making a decision on lighting technology, considering the rapid escalation of energy supply pricing which of course occurs to secure future energy supply to the economy. (1) (2)

The LEDs are robust and last much longer than existing lighting technologies. Hence the added benefit of offering longer lasting products (min 50 000 hours) thus reducing waste. Less waste materials that are dumped into our already over-utilised landfills. Longer lasting technology also contributes to a lower cost of ownership, lower maintenance and labour cost with less frequent lamp replacements.

Our Emerald range LED modules, are replaceable for future technology upgrades, hence the main power supply and electronics of your system are re-used/re-cycled. Once our product has reached the end of its life, about 80% - 90% is recyclable. The LEDs we use do not make use of environmentally destructive materials such as Mercury, Lead and other toxic compounds, some of which are common in other lighting products that end up in our landfills.

We predominantly use LEDs manufactured by Phillips, a company that is the leader of both LED technology and a committed concern for the environment. Our environment is also affected by transport emissions of pollutants, noise and greenhouse gases. Therefore, an added benefit is that our custom range is locally manufactured, hence a much lower airline/transport carbon footprint on our environment.

1. Incidentally lighting consumes 19% of all electricity in the world. Moreover, the electricity used by lighting is also a major source of CO2 emissions, equivalent to 70% of those from the world's cars. (source IEA)
2. Although energy efficient technologies cost a bit more initially, they have a fast payback period and save a substantial amount of energy/money during their lifetime.

ZIGBEE PRO

ZigBee is being established as the leading wireless self-organising mesh networked, sensing and control standard for use in consumer electronics, energy, health care, home, commercial and industrial areas. It is a low energy device that remains in sleep mode until a switch or command activates the device, after which it goes back into standby mode.

As part of our Emerald range of products it is used to control our lighting fixtures (4), and to provide low level energy monitoring data so that users can make more responsible decisions about their energy usage. It has the potential to change our perception of how we use our planet's resources by actively monitoring a green building's performance.

Due to the fact that each lighting fixture has a Zigbee device, we create an enhanced mesh network for Zigbee compliant devices to relay information. Therefore installation, upgrade and networking of Zigbee compliant devices are simplified, without the need for additional wiring and electrical conduits, hence further reducing the building's carbon footprint.

4. Scene settings and lighting fixture assignments to switches/dimmers do not need any physical wiring connection on installation or during a process of moving a fitting to a different location as this is assigned wirelessly.

BUILDING INTEGRATED PHOTOVOLTAICS

Along with energy reduction, the ability to make use of alternative energy is becoming increasingly important. In a country that has an abundance of sunlight, Building Integrated Photovoltaic (3) (BIPV) systems offer the possibility of clean energy without the need to sacrifice on Architectural elegance. A building therefore that is in harmony with the needs of an environmentally sound design.

BIPV panels are custom manufactured with varying degrees of light permeability, allowing natural lighting during daytime with the added benefit of generating clean energy for nighttime lighting requirements. A relatively small BIPV system may fulfill the 20% required energy needs for lighting of a building. This means a building can start with a small commitment to contribute to big overall changes in being environmentally friendly.

For existing buildings, skylight, canopy/awning and louver blade construction options are also available should you wish to introduce solar energy architecture.

Our Emerald range is both Ac and Dc voltage driven. Our product can be powered by a 48Vdc Photo Voltaic system, bypassing energy conversion losses of Dc to Ac. Therefore a further saving of about 20% in energy can be realized.

3. Through our partner network in Germany we offer tried and tested systems for BIPV installations.

architecture

EMERALD TRUSS-MOUNTED DOWN LIGHT

The Emerald light-range is a unique LED solution that offers:
• Plug-in modules for future technology upgrades
• Plug-in modules also give you the ability to change beam optics and LED colour temperature
• Vast angle adjustability that directs light exactly where it is needed, without sacrificing the beam due to interference with the housing as is often the case
• Dimming control, scene setting and energy usage data capture functions are offered through our Zigbee Pro (Wireless) home automation profile.
• The Truss Mounted unit is ideally suited to buildings with exposed natural trusses, and is surface mountable with the electronic gear contained inside the fitting.

SINGLE DOWN LIGHT

TWIN DOWN LIGHT

TRUSS-MOUNTED DOWN LIGHT

STATIC DOWN LIGHT

WALL CONTROLLER

By using Zigbee Pro software and custom designed hardware components we can offer the user a variety of useful and adaptable control and monitoring functions, as part of a home automation system. The system is ideally suited for use with our newly developed Emerald Range of LED down lights and wall controllers, as it is able to create a neural network of communication between all the light fittings, controllers, zigbee compliant devices and monitoring hardware.

FEATURES

Watts per Module	16 Watt
Watts per Wall Controller	2 Watt
LED Colours	Warm, Neutral & Cool White
Lifetime	Min. 50000h, 70% Lumen Maintenance
AC Input	100 – 240Vac
DC Input (PV Systems)	48 Vdc
IP Rating	IP20
Wireless Control	Zigbee Pro, Home Automation Profile
LED Brand Used	Phillips Lumileds
Warranty	3 Years, Limited
Environment	Dry, Indoor

Parasitic power consumption - Individually addressable fixtures with external control and intelligence shall not exceed a power draw of 0.5 watts when in the off state.