

# Press Release



GE Consumer & Industrial  
Lighting

Europe, Middle-East, Africa & India Headquarters  
Váci út 77, H-1340 Budapest, Hungary

## INNOVATIVE LIGHTING TECHNOLOGIES AND SOLUTIONS FROM GE

Frankfurt, 18th April, 2004 – Lighting has come a long way in the 125 years since Thomas Edison first invented the electric light.

At the Frankfurt Light and Building Fair General Electric - a company founded by Thomas Edison - will be showcasing a range of innovative, efficient and energy-saving new lamps and demonstrating just how far lighting has advanced since Edison's day.

As a result of extensive R&D activities, conducted in accordance with GE's Six Sigma standard, GE will be demonstrating a range of lighting sources that provide exceptionally realistic high quality illumination, without sacrificing colour definition, size, compatibility, energy efficiency or long life.

This year, GE Consumer & Industrial presents the following innovative products:

- CMH Super Mini, CMH 20PAR20, CMH TAL, CMH HW protected and 4200K colour versions
- Biax Extra Mini QBX
- 2D New Generation
- Halogen lamp-in-a-lamp technology
- Electronic Ballast and Lamp & Ballast combinations
- New Outdoor Fittings
- Tetra and Tetra BT LEDs

Across the range enhanced performance is matched by increased energy efficiency. ConstantColor CMH lamps with a CRI of 90+ provide a natural, bright light, while GE's energy savings lamps can lower energy consumption by as much as 80% without sacrificing quality of light.

At the same time attention has been paid to ensuring systems compatibility throughout the range.

Meanwhile the extraordinary size reduction of the lamps provides greater flexibility and creativity for

fixture designers. Small size coupled with appropriate lighting features are embodied in GE products to perfectly meet customers' and OEM's needs.

GE also recommends the use of its electronic ballast range to provide the ideal lighting solution and enable a perfect combination of superior light output and long life.

"Using the state of the art technology, our aim is to supply the perfect lighting solutions to our customers ranging from OEMs to end users, to meet their various needs. Fulfilling these requirements we are committed ourselves to four key lighting principles: high colour quality, energy saving solution, long life and system compatibility" – says Darryl Wilson, Chief Commercial Officer, GE Consumer & Industrial EMEA.

To discover all these products, please visit GE Consumer & Industrial, Lighting Stand No. C 60, Hall 4.1.

GE Consumer & Industrial spans the globe as an industry leader in major appliance, lighting and integrated industrial equipment, systems and services. Providing solutions for commercial, industrial and residential use in more than 100 countries, GE Consumer & Industrial uses innovative technologies to deliver comfort, convenience and electrical protection and control.

General Electric (NYSE: GE) brings imagination to work, selling products under the Monogram®, Profile™, Precise ConstantColor™ Biax™, Biax™ 2D™, ConstantColor™ CMH, Lucalox™ and Starcoat™ T5.

For further information, please contact:

Anikó Balogh, GE Consumer & Industrial, Communications

Tel.: +36 1 399 1455      E-mail: [Aniko6.Balogh@lighting.ge.com](mailto:Aniko6.Balogh@lighting.ge.com)

# Press Release



GE Consumer & Industrial  
Lighting

Europe, Middle-East, Africa & India Headquarters  
Váci út 77, H-1340 Budapest, Hungary

## **GE IS LAUNCHING A CMH SUPER MINI 20W LAMP AND EXTENDING PRODUCT RANGE**

Frankfurt, 18th April, 2004 – In terms of long life, reliability and energy savings the 20w CMH Mini capsule lamp launched two years ago by GE has proved so successful that we are now taking the concept further – and making it smaller.

On the one hand this highly efficient compact source is now available in even smaller sizes - in the form of products such as the super-mini capsule. Meanwhile the new 80+ CRI 20W CMH Mini lamps provide a luxurious white light for up to 7,500hours - double the capacity of an equivalent halogen lamp.

Now at a reduced size of 58mm, the CMH Mini is a perfect solution in those areas where halogen lamps were used previously.

GE recommends the use of CMH electronic metal halide ballast with these products as an optimal solution to help cut operating costs even further.

The Mini capsules also allows in-built optic systems such as PAR 20 and 30. GE is planning to develop another reflector CMH version with Twist & Lock (TAL) base, which would enable the new ConstantColor CMH Super Mini 20W lamp to be installed in one simple action, and ensure accurate arctube positioning. A TAL system enables the location of the lamp with one simple, foolproof action. Meanwhile, the new 3000K CMH20W TAL 100, which is a 100mm reflector lamp, also includes all the benefits of its range.

GE is also presenting a CMH Protected Arctube 150W with universal burning position for open rated fixtures, which is a key attribute to application areas such as sports halls.

GE is also offering 4200K to those application areas where cool white light is essential.

GE Consumer & Industrial spans the globe as an industry leader in major appliance, lighting and integrated industrial equipment, systems and services. Providing solutions for commercial, industrial and residential use in more than 100 countries, GE Consumer & Industrial uses innovative technologies to deliver comfort, convenience and electrical protection and control.

General Electric (NYSE: GE) brings imagination to work, selling products under the Monogram®, Profile™, Precise ConstantColor™ Biax™, Biax™ 2D™, ConstantColor™ CMH, Lucalox™ and Starcoat™ T5.

For further information, please contact:

Anikó Balogh, GE Consumer & Industrial, Communications  
Tel.: +36 1 399 1455 E-mail: Aniko6.Balogh@lighting.ge.com

# Press Release



GE Consumer & Industrial  
Lighting

Europe, Middle-East, Africa & India Headquarters  
Váci út 77, H-1340 Budapest, Hungary

## **NEW SHAPES AND SOLUTIONS - BIAX EXTRA MINI QBX RANGE EXTENSION**

Frankfurt, 18th April, 2004 – Since their introduction in 2003 Biax Extra Mini compact fluorescent lamps have proved themselves to be the designer's friend – the lighting industry's most miniaturized and complete range to date.

Now, GE is further extending the product range with 20W and 23W versions.

Second generation technology means the original hexagonal shape has become octagonal to enable the lamp's size to be reduced to 135mm of the 20W Biax Lamp (while lumen maintenance and average rated life will stay at 1200lm and 15,000hours respectively).

To provide designers with additional choices, GE is offering Biax Extra Mini's in decorative shapes.

Biax Candle follows the original shape of a GLS candle, whilst offering enhanced performance.

Reflectors are designed to provide soft, diffuse downlighting. The lumen output of the decorative types ranges up to 1250 lm.

Even the largest of the range, the 149mm 23W lamp is small enough to allow designers wide flexibility (on the technical side, the lumen output is higher by 300 lm than the 20W type, but has similar average rated life). This revolutionary product is a top-quality CFL, 10 to 15 percent smaller than the previous generation.

The special shape and cap of these lamps make these the natural direct replacement for incandescent bulbs – especially since they are driving the switch towards the energy efficient lighting solutions by offering up to 80 percent saved energy costs and dramatic savings in maintenance and disposal costs.

For a true revolution in shape design there's also the 42W Spiral Biax. It's a breakthrough light source providing true 150W light output from an extraordinary shape.

These exciting new developments are expected to be on the market as from Q4 2004.

GE Consumer & Industrial spans the globe as an industry leader in major appliance, lighting and integrated industrial equipment, systems and services. Providing solutions for commercial, industrial and residential use in more than 100 countries, GE Consumer & Industrial uses innovative technologies to deliver comfort, convenience and electrical protection and control.

General Electric (NYSE: GE) brings imagination to work, selling products under the Monogram®, Profile™, Precise ConstantColor™ Biax™, Biax™ 2D™, ConstantColor™ CMH, Lucalox™ and Starcoat™ T5.

For further information, please contact:

Anikó Balogh, GE Consumer & Industrial, Communications

Tel.: +36 1 399 1455      E-mail: [Aniko6.Balogh@lighting.ge.com](mailto:Aniko6.Balogh@lighting.ge.com)

# Press Release



GE Consumer & Industrial  
Lighting

Europe, Middle-East, Africa & India Headquarters  
Váci út 77, H-1340 Budapest, Hungary

## **ELECTRONIC BALLASTS ARE NOW COMPLEMENTING GE PRODUCT PORTFOLIO**

Frankfurt, 18th April, 2004 – Efficiency, easy installation, and flexibility for designers: all these are features of GE's recently introduced electronic ballast range for CMH, CFL and T5 lamps - the ideal option for the OEM market.

GE CMH electronic ballasts, using the latest microprocessor control technology ensure high level of performance and long life for interior use. Extensive versatility enables GE ballasts to give more freedom to designers, as they can be installed up to 10 to 25 metres away from lamps (depending on lamp type).

On the one hand, the remote version – with its terminal cover and strain relief offers a perfect solution to locate the ballast outside the luminarie, thus enabling smaller fitting designs.

On the other, an integral version with open terminals allows installation inside luminaries.

The broad selection of ballasts offered for CMH lamps including the 20W compact design, is ideal for track mounted spotlights, enhancing the possibility for different application use and provides an excellent return on investment.

The CFL multiwatt ballast is engineered to operate GE Biax™ Q/E 57W and 70W compact fluorescent lamps.

Easy installation, economical lighting, and high output are the key demands for today's lighting market place; GE meets these demands with the introduction of this new compact fluorescent system solution.

In many cases CFL lighting provides an excellent alternative to low watt HID lighting because of operational and installation advantages. Now, applying the new High Watt CFL package, additional power

means fewer luminaries are required.

A single compact fluorescent lamp and electronic ballast together can provide up to 5,200 lumens.

As a new, range specific feature, the GE multiwatt T5 ballast enable to reduce the number of ballasts needed. This means that just 12 ballasts are enough to create 21 combinations from 14 to 80W, covering the full T5 range.

Single and twin multiwatt ballasts are available for lamp categories: High Efficiency and High Output lamps. The ballasts for High Efficiency lamps are available in a complete range of wattages: 14W, 21W, 28W and 35W. The dual output ballasts help to design a single luminaire for two lamps for the same length. The built-in microprocessor makes the ballast automatically recognise and operate the lamp type connected. The full range of High Output ballasts includes two models, the 3x24W and the 2x80W type.

All this helps let designers use their imaginations to the full without restriction as most of the ballasts are only 21.5 mm high. When added to 16mm diameter Starcoat T5 lamps, this makes way for ultra-slim luminaries.

As a result of its extremely energy efficient and environment friendly features, the new GE T5 electronic ballasts deliver significant cost savings - up to 20 percent over standard ballasted T8 systems.

GE Consumer & Industrial spans the globe as an industry leader in major appliance, lighting and integrated industrial equipment, systems and services. Providing solutions for commercial, industrial and residential use in more than 100 countries, GE Consumer & Industrial uses innovative technologies to deliver comfort, convenience and electrical protection and control.

General Electric (NYSE: GE) brings imagination to work, selling products under the

Monogram®, Profile™, Precise ConstantColor™ Biax™, Biax™ 2D™, ConstantColor™ CMH, Lucalox™ and Starcoat™ T5.

For further information, please contact:

Anikó Balogh, GE Consumer & Industrial, Communications

Tel.: +36 1 399 1455      E-mail: Aniko6.Balogh@lighting.ge.com

# Press Release



GE Consumer & Industrial  
Lighting

Europe, Middle-East, Africa & India Headquarters  
Váci út 77, H-1340 Budapest, Hungary

## NEW DECORATIVE OUTDOOR FITTINGS FROM GE

Frankfurt, 18th April, 2004 – As the pace of life accelerates in the modern world, cities everywhere are increasingly requiring 24 hours of light a day to keep them stylish and safe.

GE – as one of the leaders in roadway and tunnel illumination - is helping meet the challenge by showcasing three new types of fitting for urban lighting to the European market: IBERIA, SYRA, and DUNA to help keep cities well-lit round the clock.

“The versatile range of luminaires in the Iberia, Duna and Syra range, combined with our technical and aesthetic response to the demands of our clients, provide an extensive number of possibilities to local councils and architects”

says Calogero Di Gesu, General Manager for Fittings and Ballast, GE Consumer & Industrial, Lighting.

To start with, the IBERIA range offers a wide range of configuration options, with 3 housing units, 7 lens and 10 different mounting devices. This, along, with multiple photometric data, enables the fittings to be easily combined with a range of poles. From an urban design perspective this helps integrate new lighting with existing design features and increase the quality of life in our urban environments.

The IBERIA series is suitable for mercury vapour, high-pressure sodium and metal halide lamps up to 250W.

The SYRA fixture type is available in two sizes (up to 150W and 250W) for mercury vapour, high-pressure sodium lamps and metal halide lamps. These three options cover all applications in city amenity lighting.

The DUNA is suitable for mercury vapor, high-pressure sodium and metal halide lamps up to 150W.

Common characteristics throughout the range are as follows:

The fixture housing is one-piece spun aluminium, which makes the fixture light and durable. A die-cast

aluminium piece in the top of housing supports the electrical unit and the mounting device. A hinged door allows access to the optical assembly and electrical unit without the need for tools. The control gear is mounted on an easily removable universal tray, with a terminal block for wires up to 4mm<sup>2</sup> and the optical part of the fixture is extremely easy to remove. The one-piece formed reflector provides asymmetric distribution with minimum light emission towards the upper hemisphere, aiding airflows. Spherical, elliptical or drop lens types are available as well as optionally tempered flat glass, which is resistant to thermal and mechanical shock ensuring safe operation in spite of heavy traffic.

GE's fixtures for use in all types of outdoor areas offer long-life, durable construction, and an assortment of light beam spreads to meet a wide variety of energy-efficient exterior lighting needs.

GE Consumer & Industrial spans the globe as an industry leader in major appliance, lighting and integrated industrial equipment, systems and services. Providing solutions for commercial, industrial and residential use in more than 100 countries, GE Consumer & Industrial uses innovative technologies to deliver comfort, convenience and electrical protection and control.

General Electric (NYSE: GE) brings imagination to work, selling products under the Monogram®, Profile™, Precise ConstantColor™ Biax™, Biax™ 2D™, ConstantColor™ CMH, Lucalox™ and Starcoat™ T5.

For further information, please contact:

Anikó Balogh, GE Consumer & Industrial, Communications

Tel.: +36 1 399 1455      E-mail: Aniko6.Balogh@lighting.ge.com

# Press Release



GE Consumer & Industrial  
Lighting

Europe, Middle-East, Africa & India Headquarters  
Váci út 77, H-1340 Budapest, Hungary

## TETRA™ & TETRA™ BT LEDS FROM GELCORE

Frankfurt, 18th April, 2004 – Durable, easy to install, energy-efficient and virtually maintenance-free – the new GE Tetra™ LED lighting system from GELcore LLC, a joint venture between General Electric Company and EMCORE Corporation, offers a supremely convenient alternative to neon.

As the Tetra™ system uses solid state LEDs, there are no tubes to be broken, broken bulbs or tubes to replace, and no failed transformers to switch – unlike with neon.

The system, which is available for use in a variety of applications, including outdoor and indoor channel letter signage and building borders, uses high-brightness LED modules connected to a flexible, heavy-duty, 14-gauge wire packaged in reel form so it can be cut to any length.

The low-voltage Tetra™ is a protected system that is thermally managed and more resistant to vibration than neon, providing more durability while maximizing LED life. It has also been safely and reliably designed with the sign industry's first patented, non-printed circuit board solution.

Additionally the Tetra™ system's unique forward-facing LED design reduces reflection loss, providing more usable lumens.

None of this extensive list of benefits comes at the expense of the energy efficiency -Tetra™ will allow users to save approximately 90 percent in energy costs over neon.

"It's a one-to-one replacement for standard 15mm neon," says GELcore Product Manager Joe Melchior. "The Tetra cove lighting system is simple to install. It provides uniformity of light in a variety of colors - Yellow-Amber, Red, Red-Orange, Blue, Cyan and Green - for a clean, even look. The system's patent-pending design enables it to be used in a wide variety of new and retrofit cove applications".

Additional benefits include a longer rated life (up to 100,000 hours), fewer system changes, lower maintenance costs and fewer disruptions during the life of the LED system. The system is designed to operate under extreme weather conditions (-40°C to +85°C).

## **GE TETRA™ BT LED Border Tube System delivers reduced maintenance and 80 percent energy savings compared to neon**

GELcore is also introducing GE Tetra™ BT, an energy-efficient LED border tube system designed to replace neon in interior and exterior border lighting applications. Targeted end-users include quick-serve and casual restaurant chains; hospitality chains; and petroleum, convenience and retail chains. "We're excited about the tremendous potential of GE Tetra™ BT", says Scott Hearn, president and CEO of GELcore. "Since the GE Tetra™ BT design is based on our highly successful LED channel lighting product, Tetra™, we leverage our credibility in the marketplace with a proven and reliable LED technology. With approximately 10,000 worldwide installations of Tetra™, end-user and sign-company executives can clearly see the long-term benefits of energy savings and reduced maintenance that LED products such as GE Tetra™ BT can provide." GE Tetra™ BT offers 80 percent energy savings compared to neon. Its robust, low-voltage design offers opportunities for a significant reduction in maintenance costs over the life of the system. In addition to offering years of maintenance-free operation - LEDs are solid-state devices with no moving parts, bulbs or tubes to fail - GE Tetra™ BT compares favourably to neon for ease of installation and maintenance. Made of weather-, impact- and UV-resistant material, the GE Tetra™ BT's modular quick-snap design features pre-manufactured corners and easy-to-cut 8-foot sections. Depending on colour, this low-voltage system uses only six 1.0-watt or 1.5-watt LED modules per foot of Tetra Strip. Installation is simplified because it requires no gluing or soldering. Patent-pending GE Tetra™ BT reflective technology delivers unrivalled brightness and uniformity of colour, even along seams. Five available lens colours include red, amber, green, lime green and blue.

GE Consumer & Industrial spans the globe as an industry leader in major appliance, lighting and integrated industrial equipment, systems and services. Providing solutions for commercial, industrial and residential use in more than 100 countries, GE Consumer & Industrial uses innovative technologies to deliver comfort, convenience and electrical protection and control.

General Electric (NYSE: GE) brings imagination to work, selling products under the Monogram®, Profile™, Precise ConstantColor™ Biax™, Biax™ 2D™, ConstantColor™ CMH, Lucalox™ and Starcoat™ T5.

For further information, please contact:

Anikó Balogh, GE Consumer & Industrial, Communications  
Tel.: +36 1 399 1455 E-mail: Aniko6.Balogh@lighting.ge.com