BOREALIS℠

Green Lighting for the Future

BOREALIS® LIGHTING PRESENTS
LED LIGHTING SOLUTIONS

Introducing the New Filament Look LED Lamp
Replacement for Traditional Light Bulbs

POLYBRITE INTERNATIONAL

ABOUT THE COMPANY

► PolyBrite International is based in Naperville, IL with manufacturing facilities in the US and Asia. Its integrated design and manufacturing approach results in the highest-quality, longest lasting LED lamps in the industry today. PolyBrite also provides LED lighting products under private label for several major electronics companies.

The company was founded by Jack Goeken, founder of MCI, Airfone and FTD Mercury Network, and Carl Scianna, inventor of the PolyBrite technology.

► Mr. John D. (Jack) Goeken, Chairman and CEO of The Goeken Group Corp. has built a reputation for founding successful companies including MCI, FTD Mercury Network, Airfone, In-Flight Phone and most recently The Goeken Group Corp. To date, Mr. Goeken and his investors have contributed five years of research and development along with $55 million dollars to advance The Goeken Group's current range of technologies and services.

► Mr. Carl Scianna, CEO/President of PolyBrite International, Inc., and inventor of PolyBrite light technology has a history of creating successful products for the computer, printing, plastics and lighting industries. Prior to partnering with the Goeken Group Corp., his accomplishments included the design and development of computer components, the production of a patented UV finish for plastic, and the invention of the micro-shell technology used in every bicycle helmet manufactured today. Carl is active in the manufacturing, research, development and quality control of all PolyBrite products and technology.

BOREALIS℠

Green Lighting for the Future

ENVIRONMENTALLY FRIENDLY LED LIGHTING SOLUTIONS

COMMERCIAL RESIDENTIAL & RETAIL LED LIGHTING SOLUTIONS

Borealis Lighting, developed by PolyBrite International, offers a breakthrough, patented LED technology beyond that of any other lighting solutions in today's market. Founded in 1995, PolyBrite has developed the most complete collection of LED replacement lamps, with superior light quality through advanced polymer technology.

PolyBrite's patented technology creates unmatched smooth, consistent light dispersion and distribution. Through advanced electronics, PolyBrite's Borealis lamps achieve superior heat management which ensures long life and superior performance. Borealis products combine proprietary solid state electronics with the highest quality high-power semi-conductors available today to achieve maximum brightness, unparalleled performance and unrivaled light quality.

Borealis LED lamps match the brightness of conventional incandescent, halogen and fluorescent bulbs, but without any of the hazardous materials such as mercury. The extreme long-life of our LED lighting products, with long-term light consistency of more than 50,000 hours, results in significantly reduced maintenance costs.

All Borealis lamps are designed to fit into standard fixtures, which simplify the change to LED lighting for energy savings, long life, reduced maintenance and durability.

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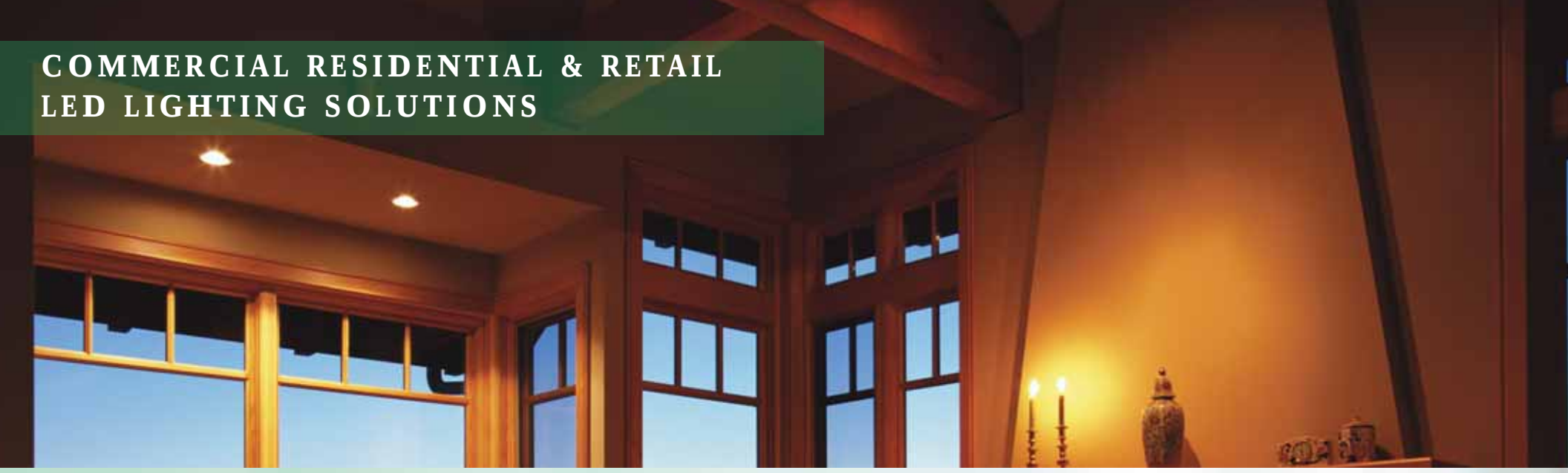
COMMERCIAL RESIDENTIAL & RETAIL LED LIGHTING SOLUTIONS



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COMMERCIAL RESIDENTIAL & RETAIL LED LIGHTING SOLUTIONS

The Borealis Difference

PolyBrite maintains complete control and management of the engineering and design of all components and manufacturing, ensuring the quality and life expectancy of the Borealis line of LED lamps and lighting systems. This allows the company to offer a 5-year warranty – the longest in the industry.

- Borealis lamps lower energy and maintenance costs and protect the environment.
- Consuming up to 90% less energy than traditional incandescent lighting, Borealis lamps last up to 20 times longer.
- Providing long-term lighting consistency and instant illumination, Borealis lamps will last up to 50,000 hours.
- Borealis lamps are RoHS compliant, 100% green – completely recyclable and contain NO mercury, NO gas or hazardous materials.
- Borealis LED Lamps employ a proprietary heat management process, resulting in additional energy savings in HVAC costs.
- Borealis LED products do not produce damaging UV emissions, normally associated with traditional lighting.
- Offering a wide range of true color temperatures, Borealis lamps match the light quality output of traditional incandescent and halogen lamps.
- Using industry leading polymers, Borealis lamps are virtually unbreakable and shock resistant.
- Borealis proprietary circuitry uses surge suppression circuits to ensure reliability and long life expectancy.

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COMMERCIAL RESIDENTIAL & RETAIL LED LIGHTING SOLUTIONS

The New Borealis Product Line

Efficient: LEDs driven at an optimum level
Matched LED load reduces driver losses
Total efficacy greater than 50 lumens per watt

Robust: Immune to surges
No switching components
Low component count
All surface mount components

Long Life: All components up to 50,000 hrs
No Electrolytic capacitors

Dimmable: Compatible with commercial line dimmers
100% to 5% intensity

No EMI: No high frequency switching devices
Direct AC Drive

High Power Factor: Better than 0.9

Patented Thermal Management System:
Can be installed inside a sealed globe

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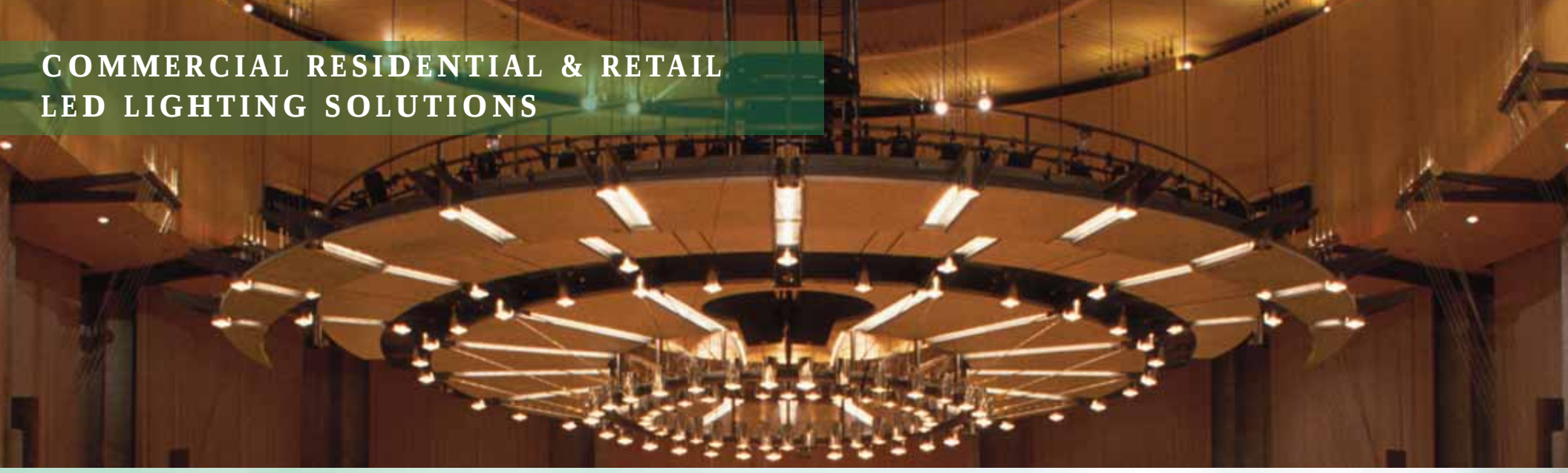
Green Lighting for the Future

ENVIRONMENTALLY FRIENDLY LED LIGHTING SOLUTIONS



COMMERCIAL RESIDENTIAL & RETAIL LED LIGHTING SOLUTIONS

Typical LED switch mode power supply driver

Borealis patented electronic solution

Less components result in longer life expectancy.

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ENVIRONMENTALLY FRIENDLY LED LIGHTING SOLUTIONS

*Pure*Luminance LED
▶ A19

- 4W and 8W power consumption
- Light output up to 600 lumens, corresponding to between a 30 and 60 watt incandescent lamp
- Better than 0.91 Power Factor
- 85 CRI
- Efficacy better than 60 lumens per watt
- Designed to comply with Energy Star criteria
- Same look and feel as a standard household lamp
- Dimmable with commercial line dimmers

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Green Lighting for the Future

ENVIRONMENTALLY FRIENDLY LED LIGHTING SOLUTIONS

*Pure*Luminance LED
▶ B10

- 2W and 3W power consumption
- Light output 100 and 250 lumens, corresponding to a 15 watt and 25 watt incandescent lamp
- Better than 0.91 Power Factor
- 85 CRI
- Efficacy better than 50 lumens per watt
- Designed to comply with Energy Star criteria
- Same look and feel as a standard household lamp
- Dimmable with commercial line dimmers

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Green Lighting for the Future

ENVIRONMENTALLY FRIENDLY LED LIGHTING SOLUTIONS

*Pure*Luminance LED
▶ PAR38

- Energy Usage - 15 watts and 20 watts
- Light output of 600 lumens and 1,000 lumens
- Corresponding incandescent lumens - 60 watts and 100 watts
- Voltage - 120 & 220 volts
- Beam angle - 45˚ and 85˚
- Base - E26 & E27

- Color Temperatures 3,000K – 5,500K

- UL listed components
- CE pending
- RoHS compliant

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ENVIRONMENTALLY FRIENDLY LED LIGHTING SOLUTIONS

*Pure*Luminance LED
▶ MR16

- 4W power consumption
- Light output 250 lumens, corresponding to a 20 watt halogen lamp
- Better than 0.91 Power Factor
- 85 CRI
- Efficacy better than 60 lumens per watt
- Designed to comply with Energy Star criteria
- Same look and feel as a standard household lamp
- Dimmable with commercial line dimmers

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ENVIRONMENTALLY FRIENDLY LED LIGHTING SOLUTIONS

*Pure*Luminance LED
▶ R20

- 5W power consumption
- Light output over 300 lumens, corresponding to between a 30 and 40 watt incandescent lamp
- Better than 0.91 Power Factor
- 85 CRI
- Efficacy better than 50 lumens per watt
- Designed to comply with Energy Star criteria
- Same look and feel as a standard household lamp
- Dimmable with commercial line dimmers

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ENVIRONMENTALLY FRIENDLY LED LIGHTING SOLUTIONS

*Aurora*Radiance LED
▶ S14

- 2W power consumption
- Light output 100 lumens, corresponding to a 10 watt incandescent lamp
- Better than 0.91 Power Factor
- 85 CRI
- Efficacy better than 50 lumens per watt
- Designed to comply with Energy Star criteria
- Same look and feel as a standard household lamp
- Dimmable with commercial line dimmers
- Decorative applications for signage, theatre, amusement parks and gaming

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ENVIRONMENTALLY FRIENDLY LED LIGHTING SOLUTIONS

*Pure*Luminance LED
TUBE LIGHT – T8-120 & T8-60

T8-120
- 18W power consumption
- Light output corresponding to a 32–40 watt fluorescent lamp
- Light output 2,000 lumens

T8-60
- 8W power consumption
- Light output corresponding to a 16–20 watt fluorescent lamp
- Light output 1,000 lumens

120 & 220 volts

Available in warm white and cool white

Fully interchangeable replacement for fluorescent T8

Allows for easy installation

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ENVIRONMENTALLY FRIENDLY LED LIGHTING SOLUTIONS

*Pure*Luminance LED PANEL LIGHTING

2ft x 2ft

- 50 watts and 80 watts
- Light output up to 3,800 lumens and 5,400 lumens

1ft x 4ft

- 50 watts and 80 watts
- Light output up to 3,800 lumens and 5,400 lumens

CRI - 85

Voltage - 120-277V

Fully interchangeable replacement for fluorescent T8

Allows for easy installation

UL listed

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ENVIRONMENTALLY FRIENDLY LED LIGHTING SOLUTIONS

*Pure*Luminance LED STREET LIGHTING

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ENVIRONMENTALLY FRIENDLY LED LIGHTING SOLUTIONS

Voltage: AC120 ~ 277V, 50/60 Hz
Power factor > 0.98 (Efficiency: > 80%)
Color temperature: 5,000 ~ 6,350K Natural ~ Cool White (NCW)
3,500 ~ 4,500K Warm White (WW)

PW-30W
- 30 watt power consumption
- 2,100 lumens (NCW), 1,780 lumens (WW)

ST-60W
- 60 watt power consumption
- 6,300 lumens (NCW), 4,800 lumens (WW)

ST-80W
- 80 watt power consumption
- 8,000 lumens (NCW), 6,400 lumens (WW)

ST100W
- 100 watt power consumption
- 9,600 lumens (NCW), 8,530 lumens (WW)

ST-120W
- 120 watt power consumption
- 10,800 lumens (NCW), 9,600 lumens (WW)

Thank You

BOREALIS® LIGHTING
by PolyBrite International
1751 West Diehl Road, Suite 110
Naperville, IL 60563
800.320.3801
www.BorealisLighting.com

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