

Turning Ideas and Possibilities into Today's LED Lighting



BOREALISSM
INNOVATIVE LED LIGHTING

by PolyBrite International, Inc.







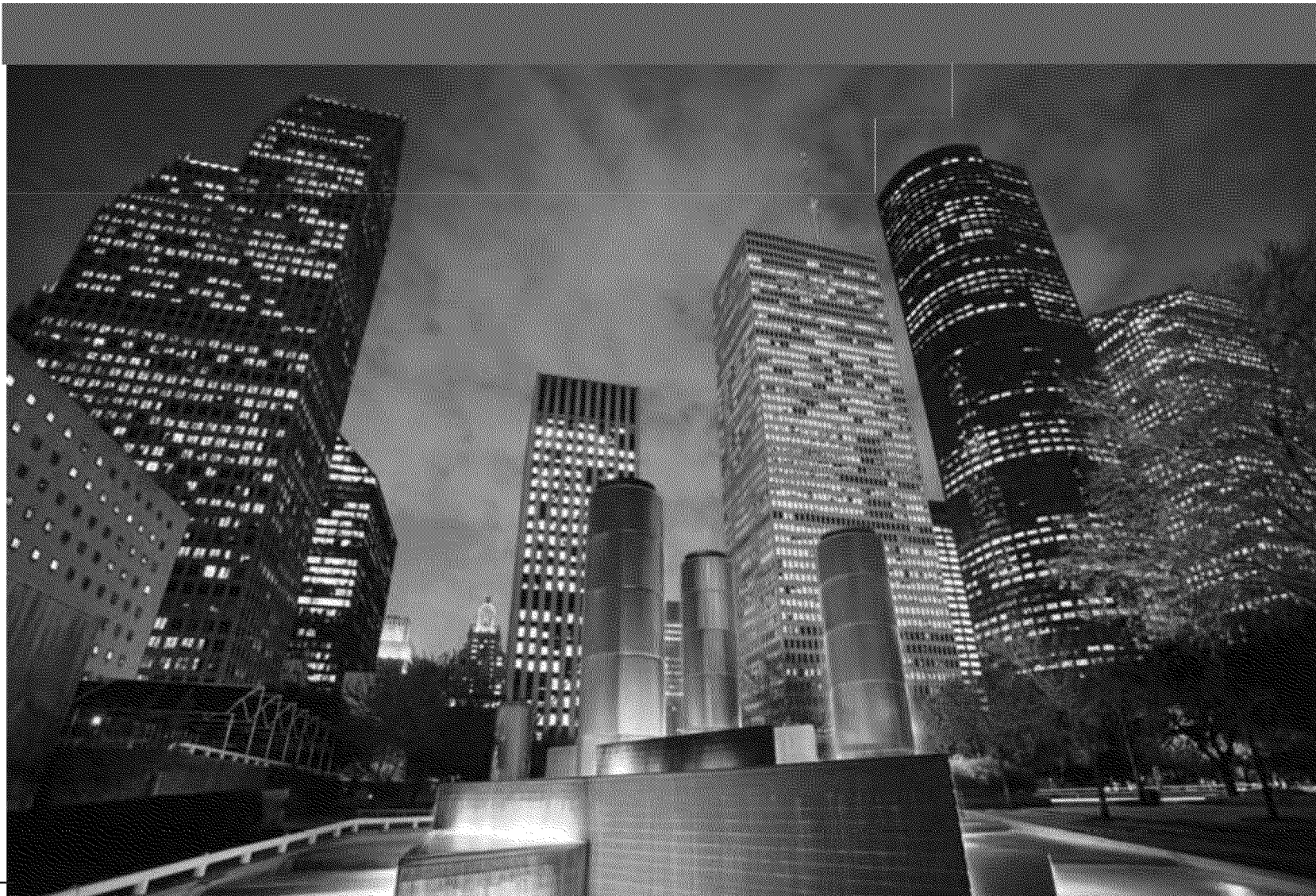
BOREALISSM
INNOVATIVE LED LIGHTING

LED LIGHTING
SOLUTIONS



Established in 1995, PolyBrite International is dedicated to providing SUSTAINABLE LED LIGHTING solutions designed to deliver OUTSTANDING ENERGY REDUCTION without sacrificing performance and light quality. With a strong commitment to minimizing environmental impact, PolyBrite manufactures innovative, energy-efficient LED lighting solutions under its BOREALIS® brand and continues the research, engineering and development of technologies for the future.

PolyBrite maintains complete control of the design, development and manufacturing of its Borealis solid-state lighting products, ensuring the highest quality and reliability. The Borealis brand utilizes PolyBrite's proprietary polymer technology and patented drive circuit and thermal management, bringing the environmental sustainability and economic advantages of LED technology to the marketplace.



BOREALISSM

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PolyBrite's Borealis LED lamps and lighting systems achieve superior performance and efficiency through advanced technologies, proprietary design and thermal management, ensuring reliability and longevity of the Borealis line of products. Borealis products provide a wide range of color temperatures, matching the light quality and brightness of conventional lighting, without burdening the environment and our future with hazardous materials and unnecessary emissions.

The Borealis line of LED lamps has been designed for use in residential, commercial, hospitality and retail applications. Borealis LED products consume up to 90% less energy than traditional incandescent lighting and provide at least 50,000 hours of operation. Using industry leading polymers, Borealis lamps are virtually unbreakable and shock resistant, resulting in significant reduction in energy consumption and maintenance and recycling costs.

Borealis LED products protect us and our surroundings by eliminating the damaging UV and IR radiation associated with traditional lighting. There is no warm-up time, with instant-on full light output, no flickering and constant, stable color. Designed with dimming capabilities and able to fit into standard fixtures, Borealis has simplified the migration to LED lighting.

*Simplifying the
migration to
LED lighting*



SPECIFICATIONS

A19-40

Power Consumption: 7.5W
Luminous Flux: >500 lm
Efficacy: 70 LPW
CCT: 2700°K / 3000°K
CRI: 85 – 90
Power Factor: 0.93
Input Voltage: 120V
Base: E26

A19-60

Power Consumption: 12W
Luminous Flux 850 lm
Efficacy: 70 LPW
CCT: 3000°K
CRI: 85 –90
Power Factor: 0.93
Input Voltage: 120V
Base: E26

BOREALIS® A19

A19 GENERAL LIGHTING

The innovative yet classical look of the Borealis A19 LED lamp provides an exceptional replacement for traditional incandescent and compact fluorescent lamps. The patent pending design is available in a sophisticated clear filament or frosted lamp, providing the same look and feel as standard household lamps used today. The Borealis A19 lends itself perfectly to any type of lighting fixture that allows for standard Edison screw based lamps and delivers exceptional energy reduction without compromising the quality of light and the environment.



FEATURES

50,000 hours of continuous usage

A19-40 exceeds the 450 lumen requirement of a 40 watt incandescent lamp

A19-60 exceeds the 800 lumen requirement of a 60 watt incandescent lamp

Omnidirectional illumination

Designed to meet UL, CE, RoHS and Energy Star requirements

Dimmable with Triac and Reverse-phase dimmers

Surge protected

Patent pending



*Capturing innovation
and beautifying our
environment*

BOREALIS® B10

B10-15 & 25 – CANDELABRA LIGHTING

The traditional torpedo shape of the Borealis B10 candelabra lamp is the perfect alternative for all conventional candelabra lamps and general lighting needs in chandeliers, wall sconces, ceiling fans, and other decorative lighting fixtures. The patent pending Borealis B10 lamps are available in a classic clear and frosted finish and radiate a captivating light, instantly lending themselves well to standard lighting applications. The standard base and the look and feel of the Borealis B10, allows for incorporation into all compatible fixtures.

FEATURES

- B10-15 replaces 15 watt incandescent lamps
- B10-25 exceeds the 150 lumen requirement of a 25 watt incandescent lamp
- Omnidirectional illumination
- Dimmable with Triac and Reverse-phase dimmers
- Direct AC Drive - No high frequency switching
- No EMI
- Patent pending
- UL File No. E321474 (B10-80)
- UL 1993 Self-Ballasted Lamps and Lamp Adapters
- UL 8750 Light Emitting Diode (LED) Equipment for use in Lighting Products



*Radiance in a
Captivating
Light*

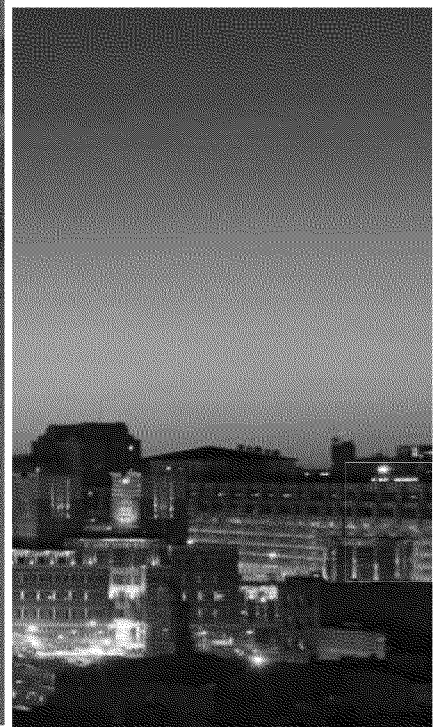
SPECIFICATIONS

B10-15

CCT: 2700°K
Power Factor: 0.93
Power Consumption: 2.1W
Efficacy: 38 LPW
Input Voltage: 120V
Base: E12
CRI: 85
Luminous Flux: 80 lm

B10-25

CCT: 2700°K
Power Factor: 0.94
Power Consumption: 2.13W
Efficacy: 75 LPW
Input Voltage: 120V
Base: E12
CRI: 85
Luminous Flux: 160 lm



BOREALIS® MR16

MR16 – GU5.3 & GU10 DISPLAY AND ACCENT LIGHTING

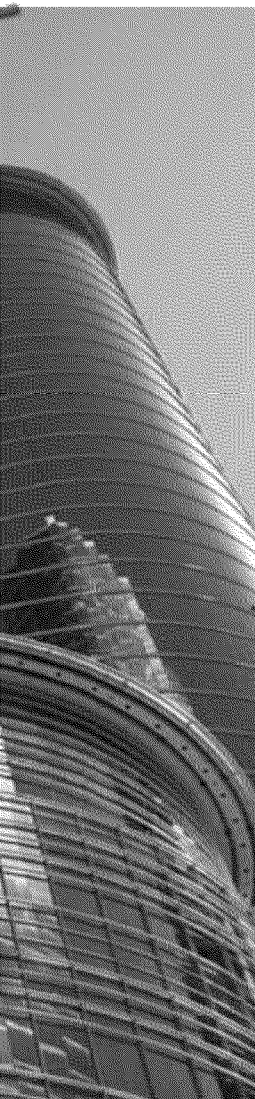
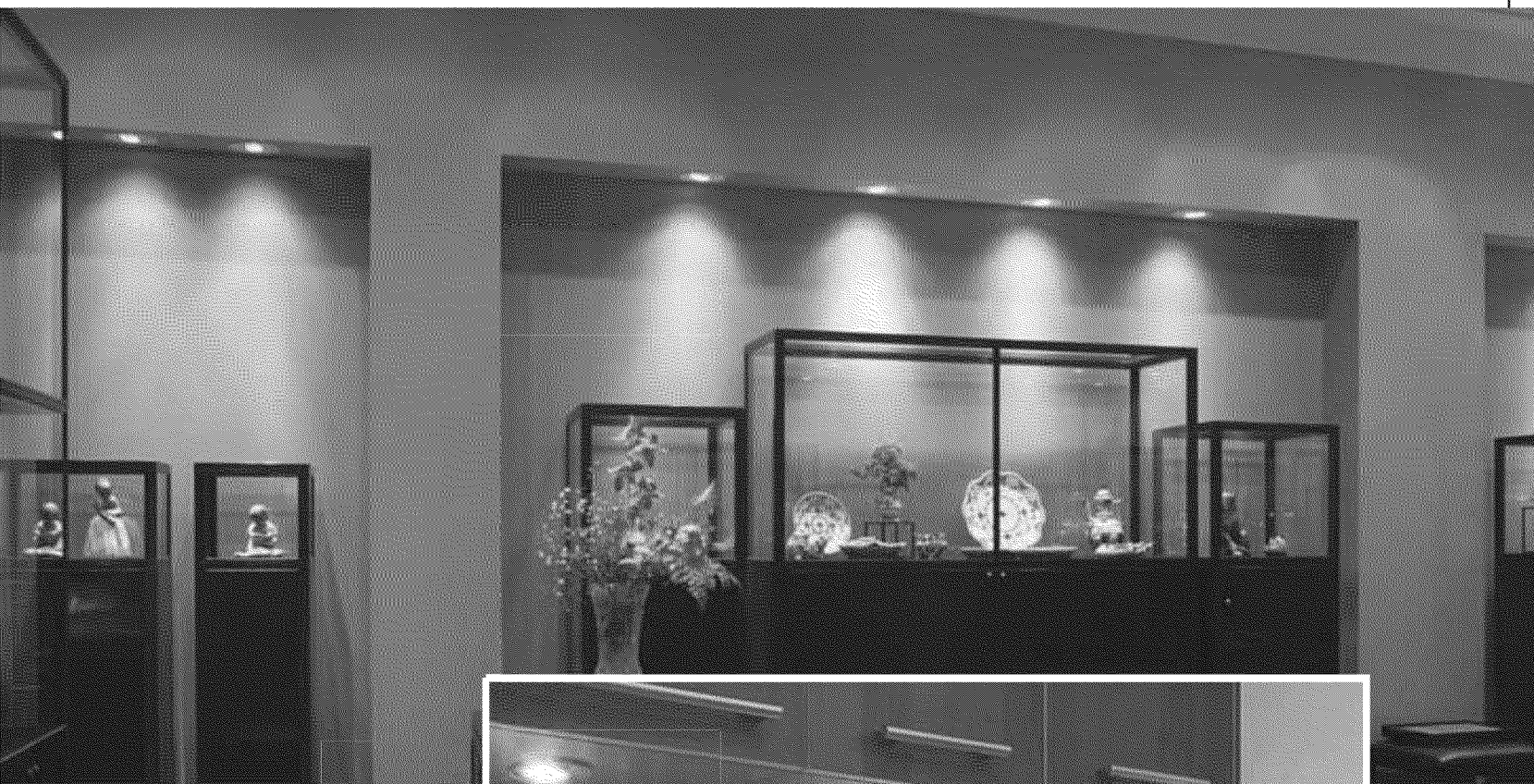
The Borealis MR16 LED lamps provide an efficient alternative for display and accent lighting. The higher light quality of the Borealis MR16 transforms and optimizes product merchandising and environments by producing a crisp, clear light, ideal for highlighting true color. Unlike traditional lighting, the Borealis MR16 lasts at least 50,000 hours and does not radiate UV or IR protecting sensitive merchandise and making it a sustainable display solution.

FEATURES

- Lumen output corresponding to 35 watt halogen lamps
- Dimmable with Triac and Reverse-phase dimmers
- Designed to meet UL, CE, RoHS and Energy Star requirements
- Surge protected
- Patent pending

*Display and
Accentuate the
Sustainable Way*





SPECIFICATIONS

MR16-GU5.3

Power Consumption: 5.5W
Luminous Flux: > 350 lm
Efficacy: 65 LPW
CCT: 3000°K / 3500°K / 4100°K
CRI: 85 – 95
Beam Angle: 35°
Input Voltage: 12V
Base: GU5.3

MR16-GU10

Power Consumption: 5.5W
Luminous Flux: 350 lm
Efficacy: > 65 LPW
CCT: 3000°K / 3500°K / 4100°K
CRI: 85 – 95
Beam Angle: 35°
Input Voltage: 120V
Input Power Factor: > 0.9
Base: GU10



BOREALIS® R20

R20 – FLOOD

The Borealis R20 lamp provides a resilient and efficient down light for indoor lighting matching the brightness of conventional lamps used in recessed and track-lighting fixtures. The patent pending Borealis R20 is a direct, dimmable replacement with the same look and feel of a standard incandescent and compact fluorescent R20 lamp. The vibration and shock resistance feature makes the Borealis R20 ideal for elevator applications, resulting in tremendous maintenance savings.

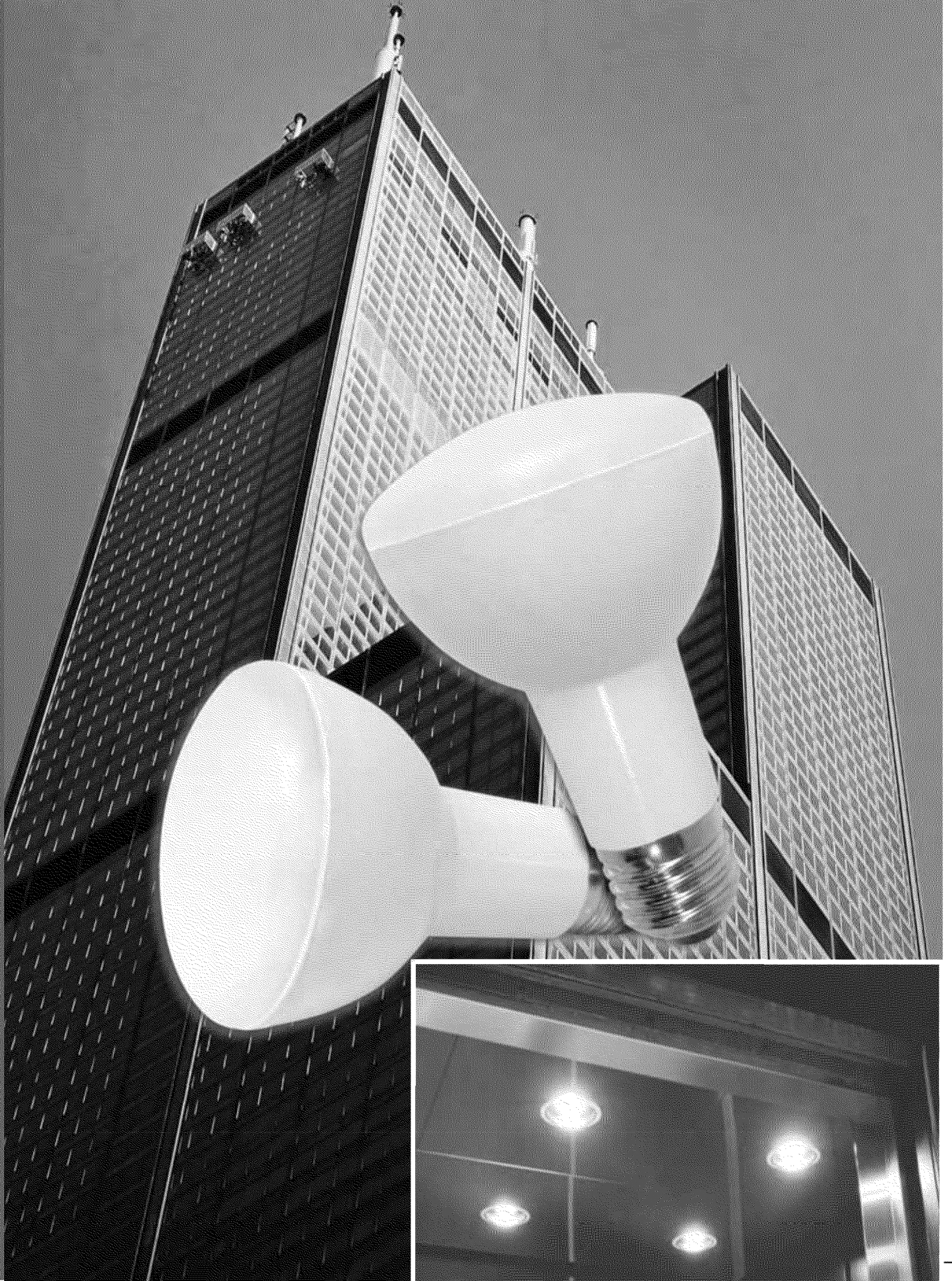
FEATURES

- Lumen output corresponding to 35 watt incandescent or halogen lamps
- Direct AC drive - no high frequency switching
- Dimmable with Triac and Reverse-phase dimmers
- No EMI
- Designed to meet UL, CE, RoHS and Energy Star requirements
- Surge protected
- Patent pending

*Glowing
with
Resilience*

SPECIFICATIONS

- Power Consumption: 6W
- Luminous Flux: 350 lm
- Efficacy: 58 LPW
- CCT: 3000°K / 4000°K
- CRI: 85 – 90
- Power Factor: 0.93
- Input Voltage: 120V
- Base: E26







BOREALIS® PAR38

PAR38 – 75 & 100 MEDIUM

The patent pending Borealis PAR38s 750 and 1000 lumen models, delivering versatility and exceptional color quality for all your lighting applications. The efficient utilization of the driver and LEDs results in improved power dissipation, significantly reducing the size of the heat sink. The Borealis PAR38s do not radiate UV or infrared light, so nothing is sacrificed in display and retail merchandise, making them an unmatched LED replacement for traditional incandescent and compact fluorescent spot and flood lamps.

FEATURES

- Lumen output corresponding to 75 and 100 watt incandescent lamps
- Surge protected
- Designed to meet UL, CE, RoHS and Energy Star requirements
- Dimmable with Triac and Reverse-phase dimmers
- Patent pending

SPECIFICATIONS

PAR38-75

- CCT: 3000°K / 4000°K
- Input Power Factor: 0.93
- Power Consumption: 11W
- Efficacy: 67 LPW
- Input Voltage: 120V
- Base: E26
- CRI: 85 – 90
- Luminous Flux: 750 lm

PAR38-100

- CCT: 3000°K / 4000°K
- Input Power Factor: 0.93
- Power Consumption: 15W
- Efficacy: 67 LPW
- Input Voltage: 120V
- Base: E26
- CRI: 85 – 90
- Luminous Flux: 1000 lm

*Reflecting on
Versatility in
Innovation*



BOREALIS® PAR30

PAR30-50 – FLOOD LIGHTING

The patent pending Borealis PAR30 is available with a wide beam angle, delivering versatility and exceptional color quality for all your lighting applications. The efficient utilization of the driver and LEDs results in improved power dissipation, significantly reducing the size of the heat sink. The Borealis PAR30s do not radiate UV or infrared light, so nothing is sacrificed in display and retail merchandise, making them an unmatched LED replacement for traditional incandescent and compact fluorescent flood lamps.



*Brilliant
Ambience*



FEATURES

- Lumen output corresponding to 50 watt incandescent or halogen lamps
- Direct AC drive - No high frequency switching
- Designed to meet UL, CE, RoHS and Energy Star requirements
- Dimmable with Triac and Reverse-phase dimmers
- No EMI
- Surge protected
- Patent pending

SPECIFICATIONS

- CCT: 3000°K / 4100°K
- Input Power Factor: 0.93
- Power Consumption: 8W
- Efficacy: 62 LPW
- Input Voltage: 120V
- Base: E26
- CRI: 85 - 90
- Luminous Flux: 500 lm

BOREALIS® PANEL LIGHTING

1 x 4 & 2 x 2 CEILING PANEL LIGHTING

Borealis LED panel lighting has been designed to replace traditional power consuming fluorescent and incandescent lighting in standard drop ceiling and surface mount fixtures. A highly reflective diffusing lens produces a soft, consistent light to effectively illuminate surfaces and ensures uniform and optimal light distribution without glare or pixilation. Borealis LED panels significantly reduce energy consumption, and the fully interchangeable panels are easy to install and have no bulbs or ballasts to replace resulting in lower maintenance costs. The Borealis panels have no mercury, no hazardous gases and no disposal requirements, eliminating recycling costs associated with traditional tube lighting.

FEATURES

Average LED lifespan up to 50,000 hours with lifelong color consistency vs. average fluorescent lifespan of 10,000 hours

Environmentally friendly

- No mercury or hazardous gases
- No disposal requirements

Energy Savings

- Up to 90% less heat
- Low Power Consumption

Low Maintenance & Easy Installation – No bulbs or ballasts to replace

Dimming Capacity – 0—10V dimmer

Meets NEMA Codes

UL File Nos.:

E346638 – UL 8750 Light-emitting-diode Recessed Luminaires

E321474 – UL 8750 Light Emitting Diode (LED) Equipment for use in Lighting Products

E345269 – UL 1598 Luminaires

SPECIFICATIONS

2' x 2' (595 x 595mm)

1' x 4' (300 x 1200mm)

Luminous Flux: Bright White 3291 lm

Daylight 3362 lm

Efficacy:

2x2 Bright White - 64 LPW

2x2 Daylight - 65 LPW

1x4 Bright White - 64 LPW

1x4 Daylight - 65 LPW

CRI: 85

CCT: 3500°K Warm White

5000°K Cool White

Power Consumption: 51W

Input Voltage: 100-277V

Operating Temperature:

-20°C ~ +60°C / -4°F ~ +140°F





*Uniformity
in
Lighting*



BOREALIS® T8

T8 TUBE LIGHTS

Borealis T8 LED Tube Lighting is an energy efficient replacement for traditional fluorescent tube lamps. The virtually unbreakable Borealis LED Tube eliminates the need for ballasts in any retrofit or new installation significantly reducing maintenance costs. The Borealis T8 tubes provide a high quality, uniform light and do not contain Mercury, UV or other hazardous substances so recycling costs associated with traditional tube lighting are eliminated.

FEATURES

- 50,000 hours of operating life
- Available in 2ft, 4ft, 5ft and 8ft models
- No UV, Mercury or other hazardous substances
- Bi-Pin Available - Single Pin on custom orders only
- Shatterproof UV stabilized V1 rated carbon proof tube
- Tightly binned LED selection to ensure uniformity of color from tube to tube
- Clear and frosted tubes available
- Every tube serial numbered and in data base
- Suitable for refrigeration T8 applications (not freezers)
- 5 year warranty
- Power surge protection up to 1000V with automatic shut down
- RoHS compliant
- Meets V1 flame rating
- ANSI/NF 2 Food service standard
- IES LM-79 tested. Independent laboratory
- UL File Nos.:
- E321474 – UL 1993 Self-Ballasted Lamps and Lamp Adapters
- UL 8750 Light Emitting Diode (LED) Equipment for use in Lighting Products
- E345269 – UL 153 Portable Electric Luminaires
- UL 1598 Luminaires
- UL 1598B Luminaire Reflector Kits for Installation on Previously Installed Fluorescent Luminaires
- E303143 – UL 879 Electric Sign Components

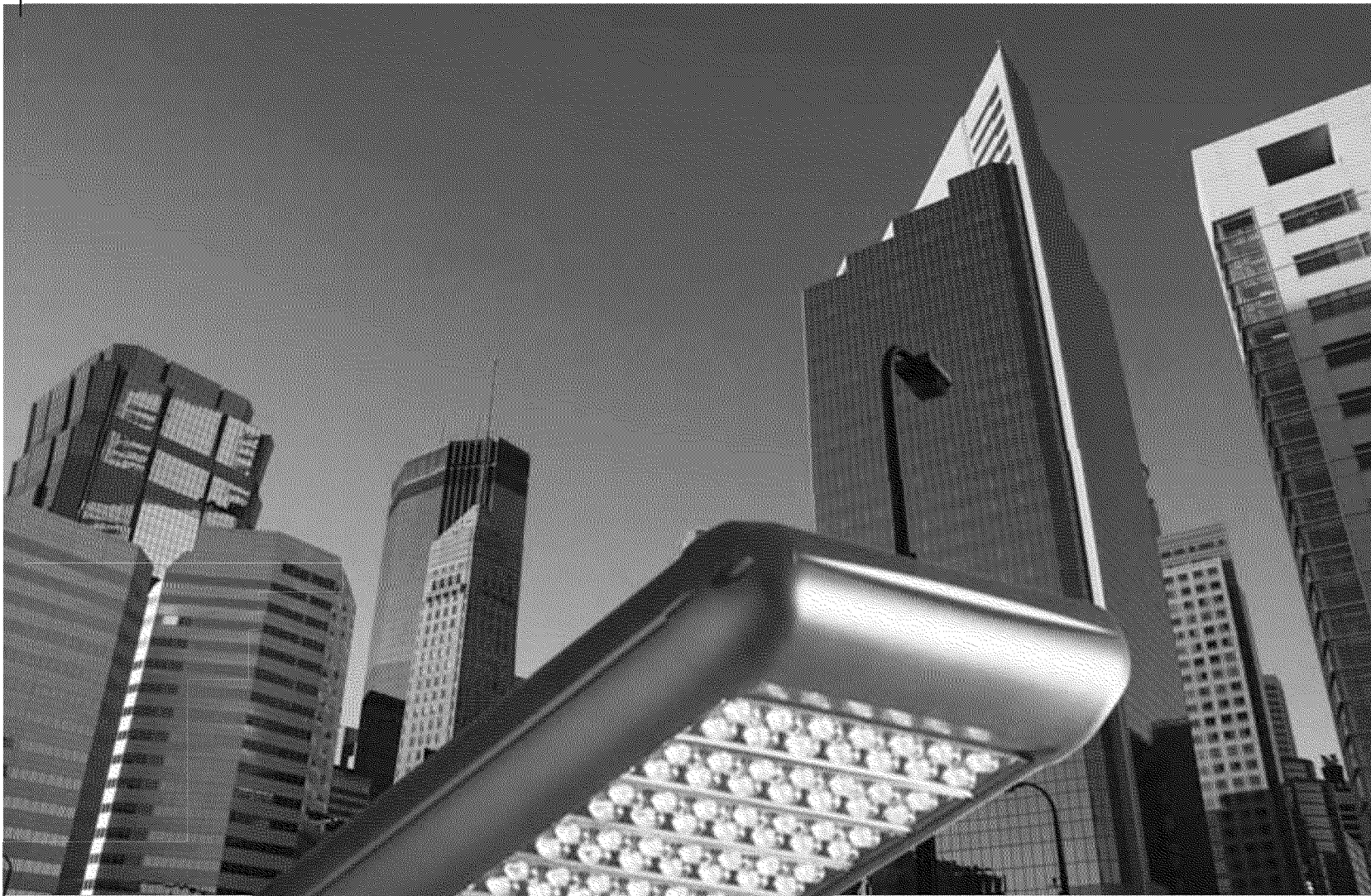
SPECIFICATIONS

- 120° beam pattern
- CCT: 3000°K – 5000°K*
- Luminous flux: 800 – 3700 lm*
- CRI: 80
- LPW >90
- Universal voltage: 100V – 277V_{AC}
- Power factor >0.94
- Operating temperature –15°C to +45°C
- Operating humidity 10%~70%

* Depending on model

*Harnessing
Innovation*





BOREALIS® STREET LIGHT

Borealis LED Street Lighting is the environmentally friendly, energy saving replacement solution for conventional HPS or HID street lamps. Borealis LED Lighting provides a sharp, accurate color rendering of objects which creates better visibility enhancing safety outdoors. By providing more control over what is illuminated, Borealis reduces light pollution making it ideal for public lighting. Borealis lighting features an instant "on" with no cold starting as compared to HPS lights, and is better equipped to withstand extreme temperature variations, reducing maintenance and bulb replacement. Motion sensors and lighting controls can also be used with Borealis to further reduce operating costs.

SPECIFICATIONS

Efficacy: > 80 LPW

CCT:

4500°K – 5500°K - Pure White

6000°K – 7000°K - Cool White

CRI: Ra > 75

Power factor: > 0.99

Input voltage:

100 – 277V_{AC}, 50/60 Hz*

Working Conditions: 50,000 hrs

Temperature -40°F ~ 122°F

Humidity 10% ~ 95%

* Depending on model

*Enhancing
our
Surroundings*

FEATURES

150W–400W HPS replacement*

Typical mounting height of 15–50 feet*

Patented heat dissipation design, achieves optimum efficiency

UL File Nos.

E345269 - UL 1598 Luminaires

E321474 - UL 8750 Light Emitting Diode (LED)

Equipment for use in Lighting Products

IP rating: IP66 - water and vapor tight

Lab listed and testing in accordance with IES standards CE/LVD, CE/EMC, RoHS

Knuckle angle can be adjusted from 0 to 90°

Die-cast Aluminum housing available in black or white.

Custom built colors available

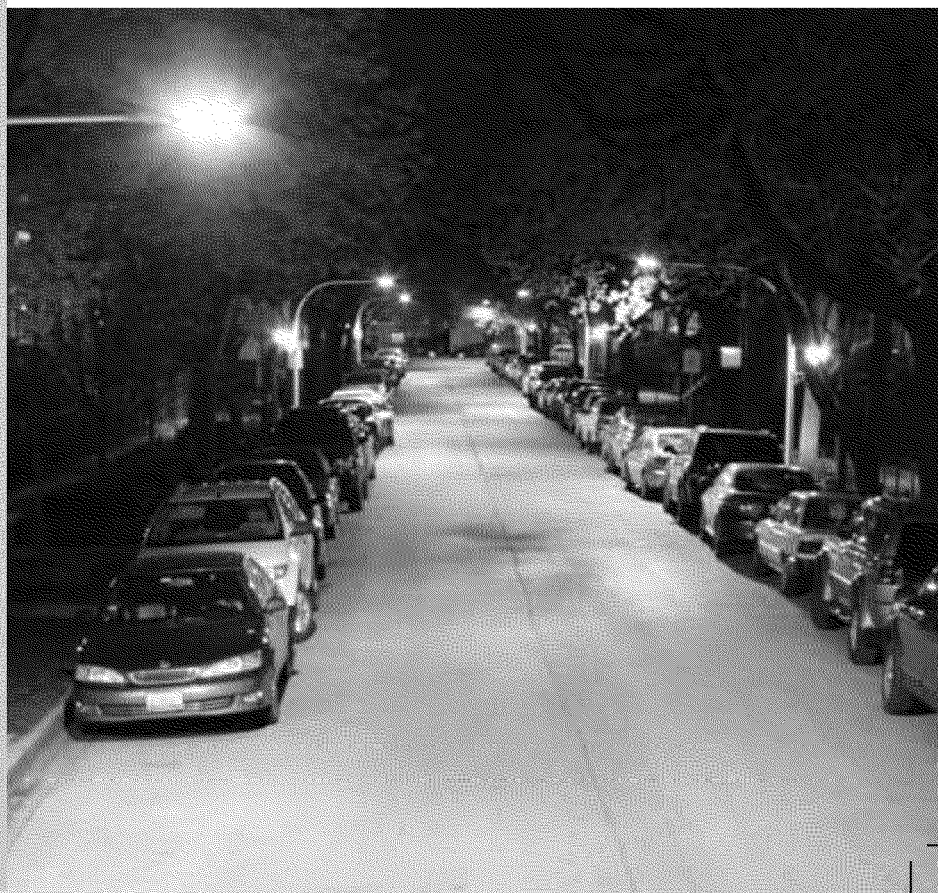
Wireless control system available for additional energy saving

Models available with photosensor

Vandal resistant

5 year warranty

* Depending on model



BOREALIS® CL SERIES

CANOPY LIGHTING SERIES

Borealis LED Canopy Lighting is the environmentally friendly, energy saving solution for replacing conventional fluorescent, HPS and metal halide lighting in parking lot, tunnel, canopy and high bay lighting applications. Borealis Canopy Lights produce a higher CRI, resulting in a sharp, accurate color rendering of objects which creates better visibility and enhances safety in industrial and commercial spaces. Borealis lighting features an instant “on” with no cold starting as compared to HPS lights, is not affected by vibration and is better equipped to withstand extreme temperature variations, reducing maintenance and bulb replacement. In addition to its lower energy usage, motion sensors and lighting controls can also be used with Borealis to further reduce operating costs.

*A Clear
Perspective*



FEATURES

150W–400W HPS replacement*

Typical mounting height of 15–50 feet*

CE/LVD, CE/EMC, RoHS

High color rendition for improved visibility

Greater control of light dispersion reducing light pollution

Produces a sharp, pure color without glare

Compatible with motion sensors and

lighting controls

Vandal resistant

* Depending on model

Available CL Series Products and Uses	
BY2GP	High Bay - Pendant
FL2G	Flood Light - Hanging Arm
BY2G	Canopy Light - Ceiling
BY2H	Canopy Light - Recessed
RL2T	Street Light - Pole
FL2F	Parking Lot - Wall Pack
TL2R	Tunnel Light - Wall



SPECIFICATIONS

CCT: 2700°K – 3300°K, 3700°K – 4300°K,
4700°K – 5300°K, 5700°K – 6300°K

CRI: >75

Power factor: 0.99

Input voltage: 120V – 277V_{AC},

Working current: 700mA

Power supply frequency: 50–60 Hz

IP rating: IP65

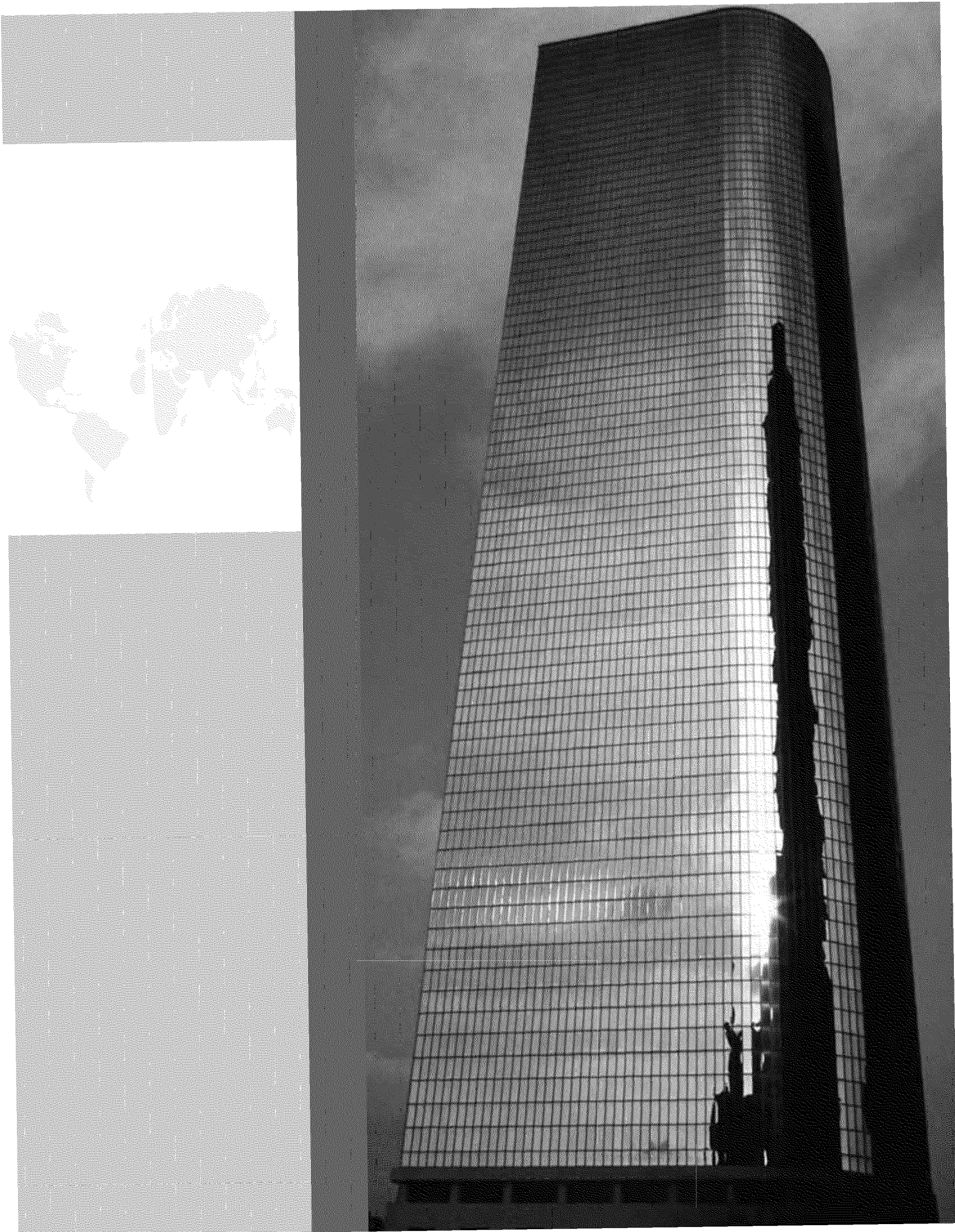
Efficacy: >75 LPW

Working temperature: –40°F ~ 122°F
(–40°C ~ 50°C)

Working humidity: 10% ~ 95%

Lamp body material: Aluminium Alloy







BOREALISSM
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by PolyBrite International, Inc.

1751 West Diehl Road, Suite 110,
Naperville, IL 60563
Tel: 1.800.320.3801
www.borealislighting.com

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