Lighting for Style and Sustainability

# LED Lamps

CREE

The environment is rich with natural color.
Color that defines our world and makes it extraordinary.
Color that fuels expression and inspires brilliance.

Bring the appeal of true color inside—into your own space, with Cree® innovation and true craftsmanship.

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# Where Artistry & Engineering Blend to Reveal Natural, Beautiful Color

LBR-30™

INTEGRAL

## Thermal Control

Advanced heat sink and heat piping technologies are integrated to maximize the cooling effectiveness of each lamp, making their high performance and longevity possible.

LRP-38™

HIGH-GRADE

## Materials & LEDs

Inside each lamp are high-grade Cree LEDs, made from the finest materials and grown by experts in our own labs, giving our lamps their unsurpassed CRI and up to 74 LPW.

LRP38-10L

INTELLIGENT

## Electronics

An electronic feedback system is integrated into every lamp to enable active color management. High-efficiency drivers are also incorporated to help maximize energy savings.

LM16

ADVANCED

## Optics

Individually optimized optics are designed for both visual appeal and precise control in order to maximize photometric performance, aesthetics and color rendering all at once.


run

# Proven Performance, Revolutionary Technology

Powered by **Cree TrueWhite® Technology**, only Cree LED lamps can deliver our exclusive combination of 92+ CRI light, industry-leading efficacy and consistent, warm halogen-like color characteristics.

Since the introduction of our very first downlight, the **Cree TrueWhite® Technology** advantage has come from mixing the light from red and Cree unsaturated yellow LEDs—among the highest-performing LEDs on the market. With the introduction of our LED lamp collection, we've now advanced this patented approach further with a revolutionary multi-chip LED that miniaturizes the technology into a single, compact component.

With this reinvention of **Cree TrueWhite® Technology**, our LED lamps can achieve the same precision tuning as our fixtures, but with fewer components needed to deliver their high-quality light—promising you the same lifelong lamp-to-lamp color consistency with no compromise in efficacy.

CREE®
TRUE WHITE
TECHNOLOGY

**The Result:**

# Unmatched Color Rendering


Color is a powerful element in every space. It establishes the tone and personality of our homes and businesses. It not only shapes our moods, it can influence our buying decisions and enhance our ability to learn and interact.

People are naturally drawn to rich colors. Vibrant shades of fruit and produce reveal their freshness. Our own natural skin tones reveal our health and facilitate better human interaction. Colorful settings appeal to our senses, engaging students, shoppers and employees alike.

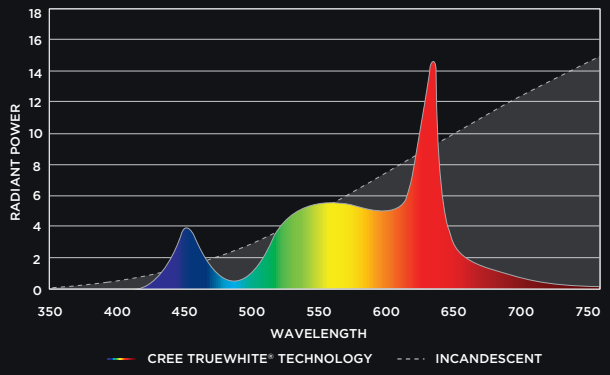
In these ways, the color rendering property of light plays a critical role in creating spaces that appeal, inspire and inform. With up to 92+ CRI, our entire collection of LED lamps beautifully renders the true colors of everything from flowers to apparel, delivering value far beyond their energy savings.


## LIKE HALOGEN, BUT BETTER

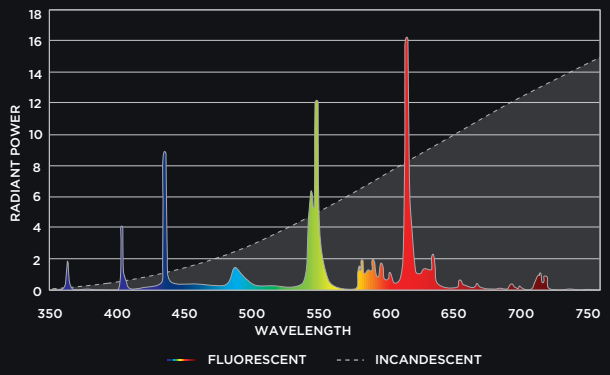
The Spectral Power Distribution (SPD) curves shown here provide a great way to compare the color characteristics of **Cree TrueWhite® Technology** with traditional technologies. At each point across the visible color spectrum, the height of the SPD curve correlates with how accurately that color is rendered by the light source.

The fuller, more continuous curve of Cree TrueWhite® Technology enables our LED lamps to precisely render a much larger color set than CFLs. The similarities in the Cree TrueWhite® Technology and incandescent SPD curves also give our lamps their signature halogen-like light, while still using a fraction of the energy of even CFLs.

**Spectral Power Distribution (Cree LED Lamps)**




**Spectral Power Distribution (CFLs)**



**The Result:**

# Sustainable Return on Investment

Now is the time to lead by example with sustainable building practices that improve not only your business, but our world as well. Cree LED lamps offer significant energy and maintenance savings compared to traditional lighting, helping you create both environmentally and economically sustainable spaces.

## Improve Your Business.

### OPERATIONAL SAVINGS

Installing energy-efficient, long-lasting Cree LED lamps not only shows that your business is environmentally conscious, it also offers valuable financial benefits in the form of lower utility bills and maintenance costs. Unlike with CFLs, which contain toxic mercury, you can feel good that the savings you'll see do not come at the expense of the environment.

### UTILITY REBATES

Cree LED lamps that have earned the ENERGY STAR® label are often eligible for utility rebates across the country. Instant rebates lower the initial cost to upgrade while others offer longer-term discount energy rates, making it even easier for you to begin saving.

Visit **www.cree.com/lighting** to find rebates in your area.

## While Improving Our World.

### ENERGY STAR®

Every lamp type in our collection that features ENERGY STAR® rating provides efficiency with color consistency that exceeds EPA requirements. Besides reducing your energy load, installing ENERGY STAR® Cree LED lamps can contribute points toward coveted LEED certifications and help you meet rapidly approaching federal energy reduction mandates.

### MERCURY-FREE

With mercury-free components, Cree LED lamps offer a more environmentally safe alternative to other high-efficiency light sources like CFLs and HIDs, which contain toxic mercury vapor. Our lamps are also housed in aluminum materials, which are readily recyclable, further eliminating the potentially hazardous effects of disposal.

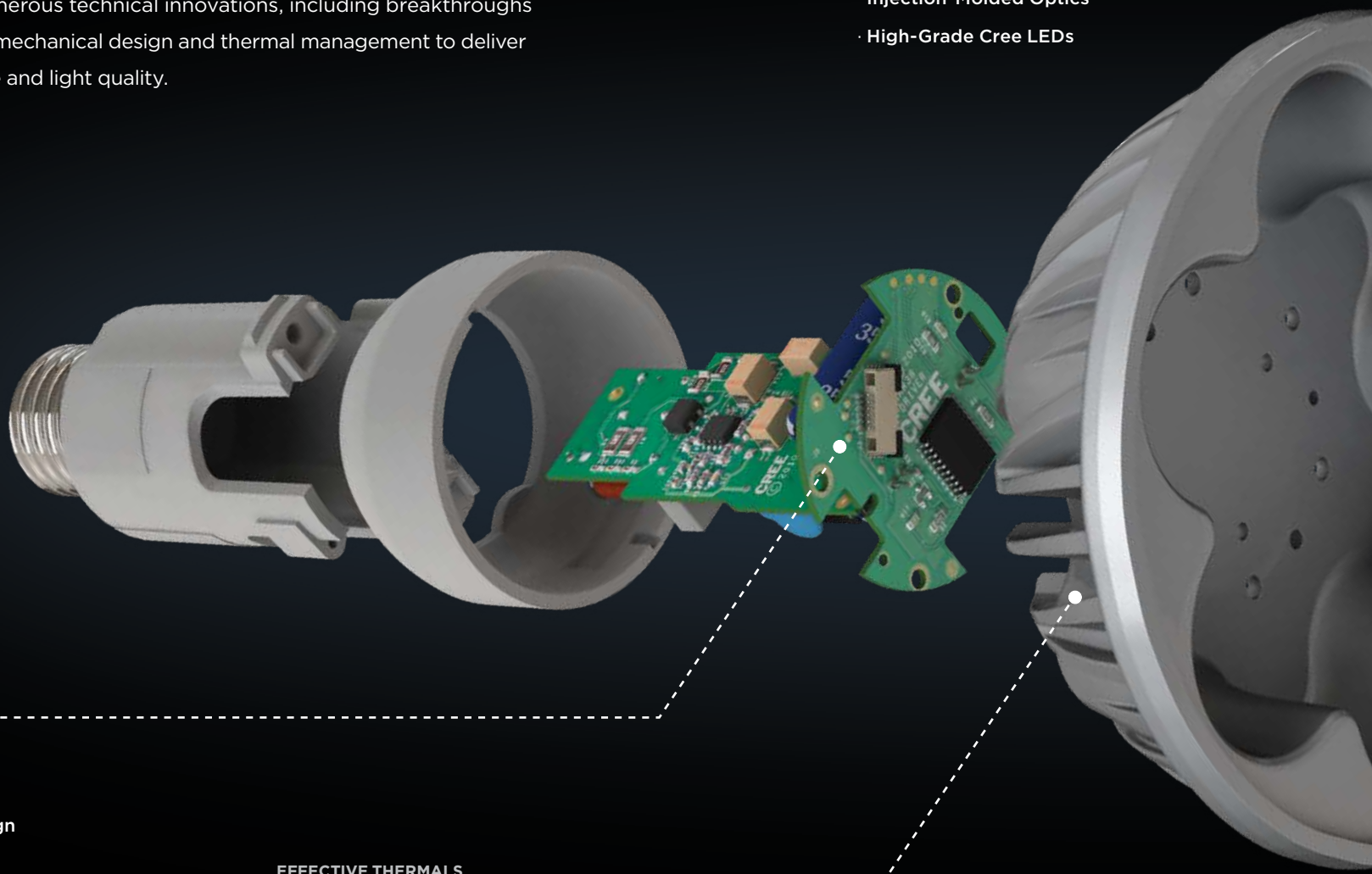
**The Result:**

# Seamless Form and Function

Cree LED lamps combine numerous technical innovations, including breakthroughs in optical design, electronics, mechanical design and thermal management to deliver industry-leading performance and light quality.

**QUALITY COMPONENTS**

- Durable Die-Cast Aluminum
- Injection-Molded Optics
- High-Grade Cree LEDs

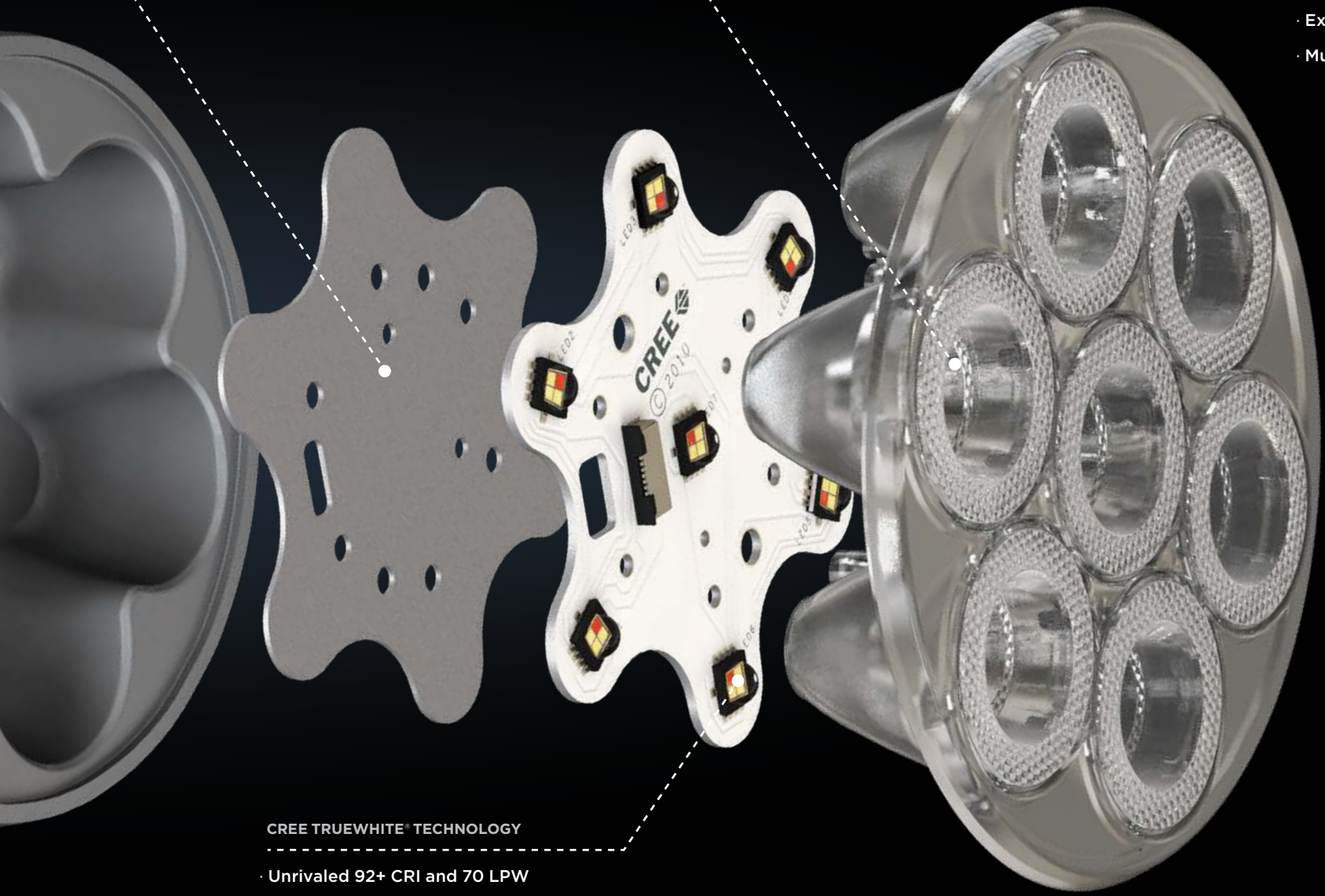


**INTELLIGENT ELECTRONICS**

- Integral, High-Efficiency Driver
- Enables Continuous Dimming
- Optimized, Lamp-Specific Design

**EFFECTIVE THERMALS**

- Helps Maximize Cooling Effectiveness to Optimize Performance and Extend LED Lifetimes

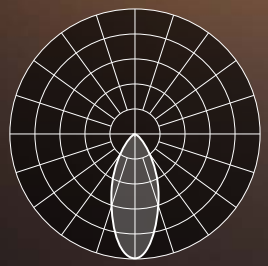



**ADVANCED TIR OPTICS**

- Smooth Light Patterns
- Exceptional Optical Control
- Multiple Beam Angles

**CREE TRUEWHITE® TECHNOLOGY**

- Unrivaled 92+ CRI and 70 LPW
- Warm, Halogen-like Color
- Lifetime Color Consistency



**LBR-3O™**

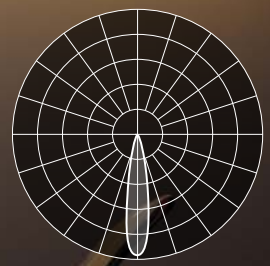
- 600 Lumens
- Warm White (2700K)
- 50° Beam Angle
- 785 CBCP

**LRP-38™**

- 600 Lumens
- Warm White (2700K)
- 20° Beam Angle
- 4800 CBCP

**LRP38-10L-25D**

- 1000 Lumens
- Cool White (3000K)
- 25° Beam Angle
- 4000 CBCP



**LM16**

- 464 & 620 Lumens
- Cool White (3000K)
- 25° Beam Angle
- 2650 CBCP

Inspired by Your Needs

# Soft Accents or Dramatic Highlights

The Cree philosophy of customer-driven innovation has resulted in new ground-breaking LED optics that offer beautiful, high-impact illumination for every lamp application. With a wide variety of beams to choose from, Cree LED lamps open up the possibilities for creative lighting expression, providing the perfect amount of visual interest with varying degrees of dramatic effect.

**LBR-3O™**

Beneath a semi-transparent diffusing lens, the LBR-30 lamp has two integral design elements—a single multi-chip LED and a conical beam enhancer. When in operation, the concentrated high-CRI light from the LED is gradually refracted as it passes through the enhancer, forming a precise beam with exceptional photometric performance and minimal light wasted outside the beam.

**LRP-38™**

A precisely-formed specular reflector redirects the high-CRI light from an indirect multi-chip LED to achieve a uniform, comfortable appearance. The LRP-38 lamp's design is elegant, yet incredibly effective, ensuring smooth light patterns are projected with no pixelation. Made from polished aluminum, the reflector offers a beautiful aesthetic even when the lamp is off.

**LRP38-10L**

Injection molded total internal reflection (TIR) optics utilize intricate honey-comb patterns to maximize the light extracted from seven high-CRI LEDs. Each LRP38-10L model features a unique lens design and pattern, optimizing the light distribution for its beam angle. This ensures a low brightness appearance when viewed from off-axis outside of the beam.

**LM16**

With a single LED source and an innovative optical design exclusive to Cree, we have effectively eliminated surface glare that also adds a soft touch of backlight. This is achieved because the LED source does not reside directly on the lens and is easy on the eye. The high-performance LM16 LED lamp delivers an industry-leading center beam candlepower for 25° beam angles—making it ideal for a wide spectrum of applications.

Inspired by Your Needs

# Beautiful Color in Every Setting

At Cree, we understand the importance of quality lighting and operational savings in every business. From a dramatic retail display to a softly lit art gallery, our LED lamps are designed to meet the unique needs of each lighting application. With this, Cree is committed to delivering the high-quality light that our customers' spaces deserve and the payback they demand.

MUSEUM

**Preserve Your Artistic Intentions.**

With industry-leading color rendering and longevity, Cree LED lamps help you capture the true artistic intentions of every exhibit while virtually eliminating maintenance.

RETAIL

**Exceed Customer Expectations.**

Beam options give you the flexibility to stage merchandise with soft accents or dramatic highlights. Warm light characteristics invite shoppers to stay longer, helping to improve sales.

GROCERY


**Reveal Your Freshest Colors.**

Unlike halogens, Cree LED lamps are UV-free, so their light won't contribute to food spoilage. They also use 85% less energy, saving you money with lower power bills—a win-win.

RESTAURANT

**Enhance Dining Experiences.**

Dimmability and color temperature options help you establish the right amount of ambience while optimized light distributions can help you achieve the same great look with less lamps.


How you speak


SIGNALS AND NETWORKS
Digital images
Mobile network
Sampling

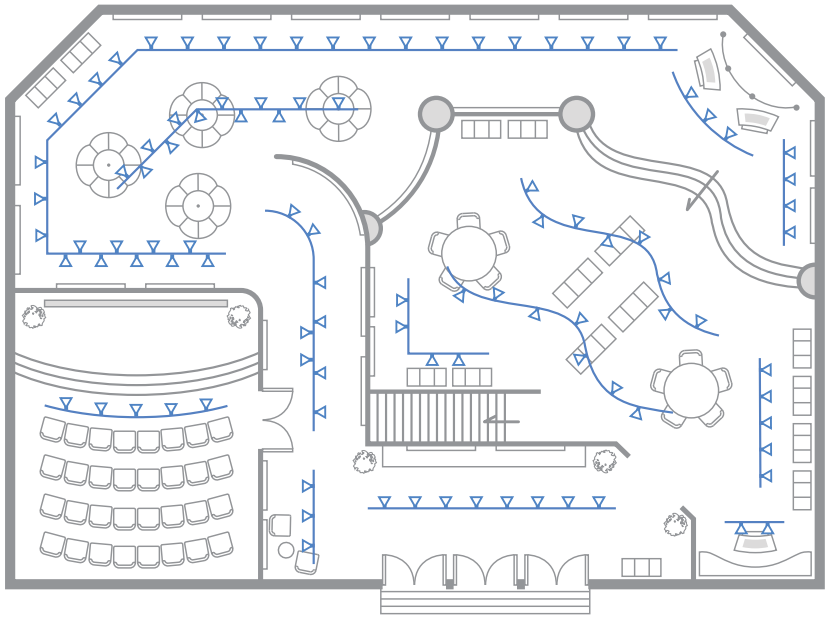
**No Compromise**

# Create Better-Looking Exhibits and Lower Your Operating Costs.

Cree LED lamps deliver an impressive mix of performance, aesthetics and savings to museum settings. Exceptional color rendering and visually-pleasing designs help focus attention on displays while blending in with exhibit elements. With improved efficacy and longevity, our lamps can also significantly lower monthly energy and maintenance costs compared to traditional light sources.

### Application Example:
### Permanent Museum Exhibit

In the example to the right, replacing the existing 100 65W BR30 halogens with 12W LBR-30™ LED lamps can immediately lower operating costs from $247 to just $37 per month. These drastic savings are accompanied by beautiful, 94 CRI light, so you won't have to compromise artistic integrity in order to see operational savings.*



**Estimated Total Savings and Payback***

| | Cree 12W LBR-30™ | 65W Halogen |
|---|---|---|
| Number of Lamps | 100 | 100 |
| Total Watts | 1,200 | 6,500 |
| Lifetime in Years | 13.7 | 0.7 |
| **Total Cost Per Month** | **$37** | **$247** |
| Monthly Energy Cost | $18 | $198 |
| Monthly Add'l HVAC Cost | - | $18 |
| Monthly Relamping Cost | - | $30 |
| **Estimated Total Savings** | | |
| Lifetime Savings | $26,326 | |
| Kilowatt-Hours Saved | 265,000 kWh | |
| Lamp Waste Saved | 2,000 Halogen Bulbs | |
| $CO_2$ Emissions Saved | 172 Tons | |
| **Time to Payback** | **3 Years, 3 Months** | |


*To see how these savings were achieved and to calculate your own, please visit **www.cree.com/payback.**

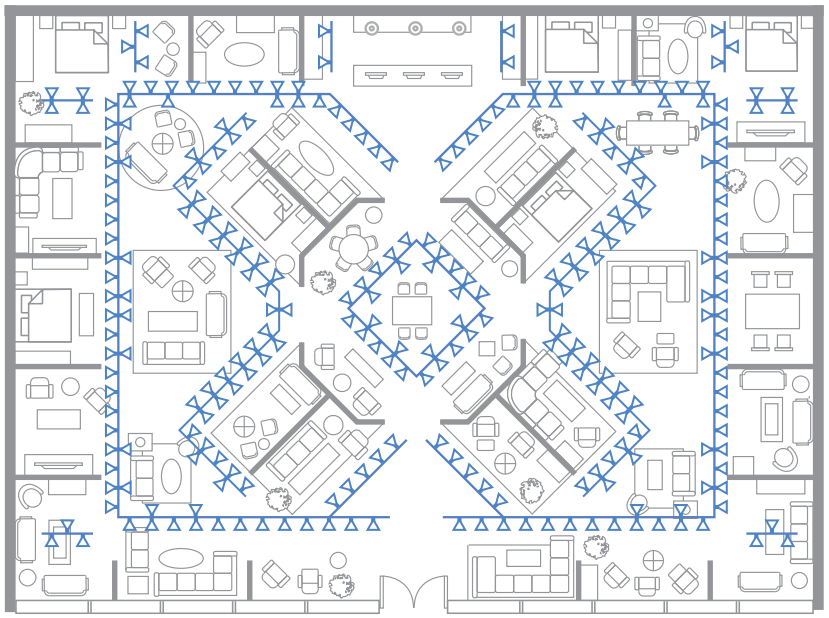
No Compromise

# Help Improve Sales with Virtually No Maintenance.

Next to a dedicated sales team, nothing helps attract shoppers to merchandise more effectively than beautiful, high-impact lighting. Cree LED lamps help accentuate goods with several beam varieties of high-CRI light, providing flexibility as you reveal truer colors, form and texture. With no pesky bulbs to replace, our lamps also free team members to focus on what matters—their customers.

## Application Example:
## Retail Furniture Store

In this example, replacing every 75W halogen with a 12W LRP-38™ LED lamp, designed to last 50,000 hours, will recoup the initial upgrade cost in less than three years. In the meantime, our lamps will deliver the same quality, halogen-like light while saving the store nearly 1,700 hours in relamping.*



**Estimated Total Savings and Payback***

| | Cree 12W LRP-38™ | 75W Halogen |
|---|---|---|
| Number of Lamps | 267 | 267 |
| Total Watts | 3,204 | 20,025 |
| Lifetime in Years | 11.4 | 0.6 |
| **Total Cost Per Month** | **$117** | **$998** |
| Monthly Energy Cost | $117 | $733 |
| Monthly Add'l HVAC Cost | - | $70 |
| Monthly Relamping Cost | - | $195 |
| **Estimated Total Savings** | | |
| Lifetime Savings | $95,239 | |
| Kilowatt-Hours Saved | 841,050 kWh | |
| Lamp Waste Saved | 5,340 Halogen Bulbs | |
| $CO_2$ Emissions Saved | 545 Tons | |
| **Time to Payback** | **2 Years, 5 Months** | |

*To see how these savings were achieved and to calculate your own, please visit **www.cree.com/payback.**


Produce
And delicious.
The way it was meant to be.
$ 1 lb.
$ 1 lb.
freshness
100%
guaranteed

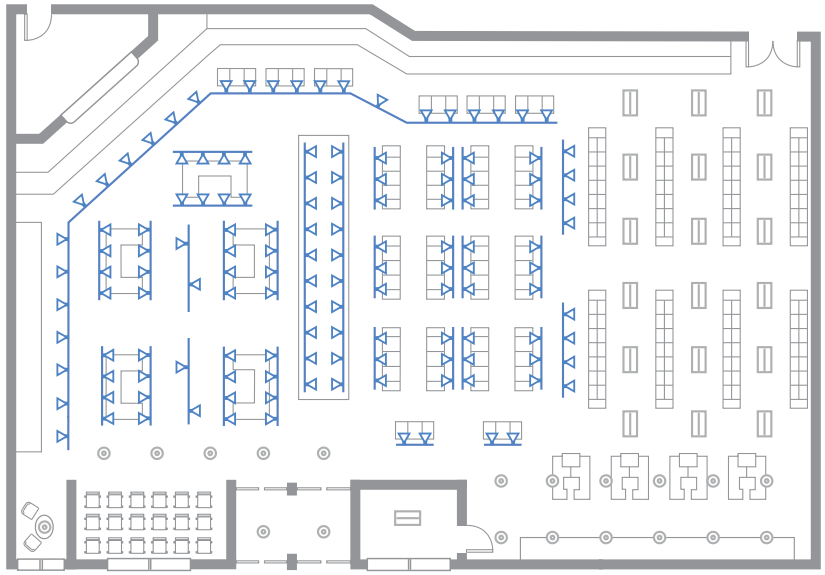
**No Compromise**

# Reveal Fresh, Glowing Produce and Save Energy

Given their relative size and wide variety of consumer areas, grocery stores in particular must pay equal attention to efficiency and light quality. Cree LED lamps deliver bright, UV-free light to attract consumers to goods while helping keep produce and other foods fresher for longer. Using a fraction of the energy of ceramic metal halide (CMH) lamps, our lamps also provide monthly savings that add up quickly.

## Application Example:
## Neighborhood Super Market

In the example to the right, building with 13.5W LRP38-10L LED lamps, instead of 39W CMH lamps, offers comparable light output and quality while reducing your energy use by more than half. The over $400 you could save each month helps recoup the initial upgrade cost in just over one year and contributes to the nearly $33,000 you could save over the entire life of the lamps.*



**Estimated Total Savings and Payback***

| | Cree 13.5W LRP38-10L | 39W CMH |
|---|---|---|
| Number of Lamps | 136 | 136 |
| Total Watts | 1,836 | 5,304 |
| Lifetime in Years | 7.6 | 1.5 |
| **Total Cost Per Month** | **$101** | **$536** |
| Monthly Energy Cost | $101 | $291 |
| Monthly Add'l HVAC Cost | - | $21 |
| Monthly Relamping Cost | - | $231 |
| **Estimated Total Savings** | | |
| Lifetime Savings | $32,949 | |
| Kilowatt-Hours Saved | 173,400 kWh | |
| Lamp Waste Saved | 680 CMH Bulbs | |
| $CO_2$ Emissions Saved | 112 Tons | |
| **Time to Payback** | **1 Year, 3.5 Months** | |


*To see how these savings were achieved and to calculate your own, please visit **www.cree.com/payback.**

# LBR-30™

**BR30 LED Lamp**

## PERFORMANCE SUMMARY

Utilizes Cree TrueWhite® Technology

Active Color Management

ENERGY STAR® qualified to last at least 25,000 hours

**DELIVERED LIGHT OUTPUT:** 600 lumens

**INPUT POWER:** 12 watts

**CRI:** 94

**CCT:** 2700K

**BEAM ANGLE:** 25°, 50°

**CBCP:** 1940 (25°), 785 (50°)

**WARRANTY:** 3 year limited warranty†

**LIFETIME:** Designed to last 50,000 hours in open fixtures

**NON-IC LIFETIME:** Designed to last 35,000 hours in non-IC recessed downlights

**DIMMING:** Dimmable to 20% with ELV dimmers

## PRODUCT DESCRIPTION

The LBR-30 LED BR30 lamp delivers up to 600 lumens of exceptional 94 CRI light while achieving 50 lumens per watt. It is available in a warm color temperature with 25° or 50° beam angles, and Edison or GU24 bases.

## CONSTRUCTION & MATERIALS

Durable die-cast aluminum housing with lens protects LEDs and optical system. Thermal management system uses integral heat sink to conduct heat away from LEDs and transfer it to the surrounding environment for optimal performance. Housing conforms to ANSI standards for BR30 lamp envelopes. Available with Edison or GU24 base. Compatible with Cree TL lamp holder.

**Dimensions:** Ø 4.25" x 5.5"

## OPTICAL SYSTEM

Combination of diffusing lens and internal beam enhancer redirects light to achieve a uniform, comfortable appearance that eliminates pixelation and direct view of unshielded LEDs. This ensures smooth light patterns are projected with no hot spots and minimal striations. Innovative beam enhancer is precisely designed for exceptional optical control, enabling 25° or 50° beam angles with almost no light wasted outside of the beam. This ensures low brightness appearance when viewed from off-axis and outside of the beam.

## ELECTRICAL SYSTEM

Integral, high-efficiency driver and power supply. Power factor > 0.9 nominal. Input voltage: 120V, 60Hz. Dimmable to 20% with ELV dimmers.

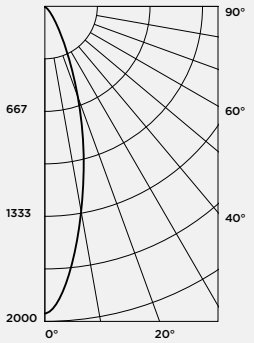
## QUALIFICATIONS

- ENERGY STAR® qualified
- cULus listed
- California Title-24 compliant (GU24 only)
- Suitable for damp locations

†Consult www.cree.com/lighting for warranty terms.

## PHOTOMETRY

**LBR30A92-25D** Based on OnSpex #: 30015498-1



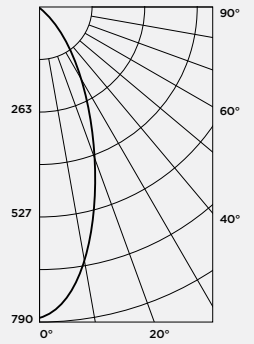

**Zonal Lumen Summary**

| Zone | Lumens | % Lamp |
|---|---|---|
| 0-30 | 454 | 75.67% |
| 0-40 | 512 | 85.33% |
| 0-60 | 577 | 96.17% |
| 0-90 | 600 | 100% |

**Intensity (Candlepower) Summary**

| Angle | Mean CP |
|---|---|
| 0° | 1940 |
| 5° | 1822 |
| 15° | 796 |
| 25° | 277 |
| 35° | 89 |
| 45° | 51 |
| 55° | 29 |
| 65° | 15 |
| 75° | 7 |
| 85° | 3 |
| 90° | 2 |

**LBR30A92-50D** Based on OnSpex #: 30015498-2




**Zonal Lumen Summary**

| Zone | Lumens | % Lamp |
|---|---|---|
| 0-30 | 365 | 60.83% |
| 0-40 | 470 | 78.33% |
| 0-60 | 572 | 95.33% |
| 0-90 | 600 | 100% |

**Intensity (Candlepower) Summary**

| Angle | Mean CP |
|---|---|
| 0° | 785 |
| 5° | 748 |
| 15° | 537 |
| 25° | 302 |
| 35° | 154 |
| 45° | 76 |
| 55° | 39 |
| 65° | 19 |
| 75° | 7 |
| 85° | 1 |
| 90° | 0 |

# LRP-38™

PAR38 LED Lamp

## PERFORMANCE SUMMARY

Utilizes Cree TrueWhite® Technology

Active Color Management

ENERGY STAR® qualified to last at least 25,000 hours

**DELIVERED LIGHT OUTPUT:** 600 lumens

**INPUT POWER:** 12 watts

**CRI:** 94

**CCT:** 2700K

**BEAM ANGLE:** 20°

**CBCP:** 4800

**WARRANTY:** 3 year limited warranty†

**LIFETIME:** Designed to last 25,000 hours in open fixtures

**NON-IC LIFETIME:** Designed to last 25,000 hours in non-IC recessed downlights

**DIMMING:** Dimmable to 20% with ELV dimmers

## PRODUCT DESCRIPTION

The LRP-38 LED PAR38 lamp delivers 600 lumens of exceptional 94 CRI light while achieving 50 lumens per watt. It is available in a warm color temperature with a 20° beam angle, and Edison or GU24 bases.

## CONSTRUCTION & MATERIALS

Durable die-cast aluminum housing with lens protects LEDs and optical system. Thermal management system uses a combination of heat pipe technology and integral heat sink to conduct heat away from LEDs and transfer it to the surrounding environment for optimal performance. Housing conforms to ANSI standards for PAR38 lamp envelopes. Available with Edison or GU24 base. Compatible with Cree TL lamp holder and TG38 gimbal ring.

**Dimensions:** Ø 4.812" x 5.187"

## OPTICAL SYSTEM

Specular reflector redirects light from an indirect LED to achieve a uniform, comfortable appearance that eliminates pixelation and direct view of unshielded LED. This ensures smooth light patterns are projected with no hot spots and minimal striations. Specular reflector is precisely formed for exceptional optical control, enabling 20° beam angle with almost no light wasted outside of the beam. This ensures low brightness appearance when viewed from off-axis and outside of the beam.

## ELECTRICAL SYSTEM

Integral, high-efficiency driver and power supply. Power factor > 0.9 nominal. Input voltage: 120V, 60Hz. Dimmable to 20% with ELV dimmers.

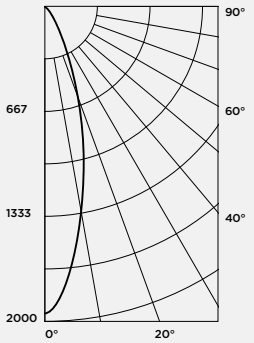
## QUALIFICATIONS

- ENERGY STAR® qualified
- cULus listed
- NSF certified
- California Title-24 compliant (GU24 only)
- Suitable for damp locations

†Consult www.cree.com/lighting for warranty terms.

## PHOTOMETRY

**LRP38A92-20D40** Based on OnSpex #: 30014165




**Zonal Lumen Summary**

| Zone | Lumens | % Lamp |
|---|---|---|
| **0-30** | 572 | 95.26% |
| **0-40** | 579 | 96.43% |
| **0-60** | 591 | 98.52% |
| **0-90** | 600 | 100% |

**Intensity (Candlepower) Summary**

| Angle | Mean CP |
|---|---|
| **0°** | 4800 |
| **5°** | 3955 |
| **15°** | 679 |
| **25°** | 85 |
| **35°** | 10 |
| **45°** | 8 |
| **55°** | 8 |
| **65°** | 9 |
| **75°** | 1 |
| **85°** | 0 |
| **90°** | 0 |

# LRP38-10L

**High Output PAR38 LED Lamp**

12°

## PERFORMANCE SUMMARY

Utilizes Cree TrueWhite® Technology

Active Color Management

ENERGY STAR® qualified to last at least 35,000 hours*

**DELIVERED LIGHT OUTPUT:** 1000 lumens (3000K), 950 lumens (2700K)

**INPUT POWER:** 13.5 watts

**CRI:** 92

**CCT:** 3000K, 2700K

**BEAM ANGLE:** 12°, 25°

**CBCP:** 13220 (12°), 4000 (25°)

**WARRANTY:** 3 year limited warranty†

**LIFETIME:** Designed to last 50,000 hours in open fixtures

**NON-IC LIFETIME:** Designed to last 35,000 hours in non-IC recessed downlights

**DIMMING:** Dimmable to 20% with ELV dimmers

## PRODUCT DESCRIPTION

The LRP38-10L LED high output PAR38 lamp delivers up to 1000 lumens of exceptional 92 CRI light while achieving over 70 lumens per watt. It is available in warm or neutral color temperatures with 12° or 25° beam angles, and Edison or GU24 bases.

## CONSTRUCTION & MATERIALS

Durable die-cast aluminum housing with lens protects LEDs and optical system. Thermal management system uses integral heat sink to conduct heat away from LEDs and transfer it to the surrounding environment for optimal performance. Housing conforms to ANSI standards for PAR38 lamp envelopes. Available with Edison or GU24 base. Compatible with Cree TL lamp holder and TG38 gimbal ring.

## OPTICAL SYSTEM

Injection molded total internal reflection (TIR) optics redirects light to achieve a uniform, comfortable appearance that eliminates pixelation and direct view of unshielded LEDs. This ensures smooth light patterns are projected with no hot spots and minimal striations. TIR optical patterns and stair-step design (25°) are precisely designed for exceptional optical control, enabling 12° or 25° beam angles with almost no light wasted outside of the beam. This ensures low brightness appearance when viewed from off-axis and outside of the beam.

## ELECTRICAL SYSTEM

Integral, high-efficiency driver and power supply. Power factor > 0.9 nominal. Input voltage: 120V, 60Hz. Dimmable to 20% with ELV dimmers.

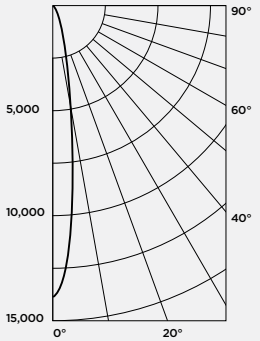
## QUALIFICATIONS

- ENERGY STAR® qualified on select models*
- cULus listed
- California Title-24 compliant (GU24 only)
- Suitable for damp locations

*Consult www.cree.com/lighting for availability.
†Consult www.cree.com/lighting for warranty terms.

## PHOTOMETRY

**LRP38-10L-12D** Based on OnSpex #: 2472807



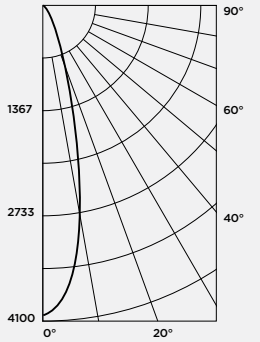

**Zonal Lumen Summary**

| Zone | Lumens | % Lamp |
|---|---|---|
| 0-30 | 1067 | 87.1% |
| 0-40 | 1150 | 93.9% |
| 0-60 | 1214 | 99.2% |
| 60-90 | 10 | 0.8% |

**Intensity (Candlepower) Summary**

| Angle | Mean CP |
|---|---|
| 0° | 13220 |
| 5° | 9064 |
| 15° | 910 |
| 25° | 163 |
| 35° | 127 |
| 45° | 64 |
| 55° | 14 |
| 65° | 9 |
| 75° | 7 |
| 85° | 6 |
| 90° | 5 |

**LRP38-10L-25D** Based on OnSpex #: 30017011




**Zonal Lumen Summary**

| Zone | Lumens | % Lamp |
|---|---|---|
| 0-30 | 789 | 81.3% |
| 0-40 | 850 | 87.6% |
| 0-60 | 925 | 95.2% |
| 0-90 | 971 | 100% |

**Intensity (Candlepower) Summary**

| Angle | Mean CP |
|---|---|
| 0° | 4034 |
| 5° | 3631 |
| 15° | 1285 |
| 25° | 241 |
| 35° | 95 |
| 45° | 55 |
| 55° | 35 |
| 65° | 24 |
| 75° | 15 |
| 85° | 6 |
| 90° | 2 |

# LM16

LED MR16 Lamp

## PERFORMANCE SUMMARY

**DELIVERED LIGHT OUTPUT:** 464 lumens (35W eq); 620 lumens (50W eq)

**INPUT POWER:** 7 watts (35W eq); 9 watts (50W eq)

**CRI:** 83; R9 > 0

**CCT:** 3000K

**BEAM ANGLE:** 17°, 25° and 40°

**CBCP:** 35W eq 17°: 2862, 35W eq 25°: 1995, 35W eq 40°:728
50W eq 17°: 4152, 50W eq 25°: 2650, 50W eq 40°: 1057

**WARRANTY:** 3 year limited warranty†

**LIFETIME:** Designed to last 25,000 hours in open fixtures and non-IC downlights

**DIMMING:** Dimmable to 5%*

## PRODUCT DESCRIPTION

The LM16 LED lamp is up to 80% more efficient than traditional 50 watt and 35 watt MR16 halogen lamps. The 50 watt halogen equivalent delivers 620 lumens, while consuming only 9 watts, and the 35 watt halogen equivalent delivers 464 lumens, while consuming only 7 watts. It is available in a neutral color temperature with a 17°, 25° or 40° beam angle.

## CONSTRUCTION & MATERIALS

Durable die-cast aluminum housing, along with the lens, protects LEDs and the optical system. Fanless housing design and smart thermal circuit design with embedded intelligent software properly monitors the operating temperature range. Housing is ANSI form factor compliant for halogen lamps.

**Dimensions:** Ø 1.97" x 1.94"

## OPTICAL SYSTEM

Single LED source. Proprietary in-house designed lens is available in three beam angles of 17° spot, 25° flood and 40° wide flood. The lens effectively eliminates surface glare and adds a pleasant touch of soft backlight.

## ELECTRICAL SYSTEM

Power factor > 0.9 nominal. Input voltage: 12Vac. Dimmable with a number of industry standard dimmers and transformers. Reference www.cree.com/lighting for a complete list.

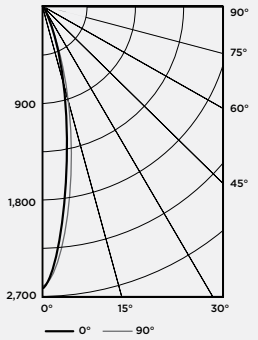
## QUALIFICATIONS

- cULus listed
- Suitable for damp locations

*Consult www.cree.com/lighting for dimming compatibility.
†Consult www.cree.com/lighting for warranty terms.

## PHOTOMETRY

**LM16-50-30K-25D** 50W eq, 3000K, 25° flood




**Intensity (Candlepower) Summary**

| Angle | Mean CP |
|---|---|
| 0° | 2650 |
| 5° | 2265 |
| 15° | 735 |
| 25° | 191 |
| 35° | 54 |
| 45° | 15 |
| 55° | 9 |
| 65° | 6 |
| 75° | 5 |
| 85° | 4 |
| 90° | 3 |

**Zonal Lumen Summary**

| Zone | Lumens | % Lamp |
|---|---|---|
| 0-30 | 493 | 86% |
| 0-40 | 535 | 93% |
| 0-60 | 560 | 97% |
| 0-90 | 600 | 3% |

**Illuminance at a Distance**

| | Center Beam fc | Beam Width |
|---|---|---|
| 2.0 ft | 642.7 fc | 0.8 ft |
| 4.0 ft | 160.7 fc | 1.5 ft |
| 6.0 ft | 71.4 fc | 2.3 ft |
| 8.0 ft | 40.2 fc | 3.1 ft |
| 10.0 ft | 25.7 fc | 3.8 ft |

Cree **IS** LED Lighting.

Visit **www.cree.com/lighting** or contact a Cree lighting representative to learn more.



Rev. Date 06/25/2013