

## LUXEON Mid-Power White LEDs

High performance and efficacy  
backed by flexible design options

# Mid-Power White LED Product Range

Lumileds offers mid-power white LEDs in a full range of flux and performance levels and packages, all backed by the LUXEON® promise of performance and reliability. Offering high color quality, consistency and lumen maintenance, mid- and low-power white LEDs from Lumileds are an ideal choice for designers and manufacturers of indoor and outdoor lights.



## LUXEON 2835 Architectural

A combination of excellent quality of light, high lumen output and high efficacy. Minimum CRI up to 95, and wide choice of CCT options at forward voltages of 3V, 6V and 9V.

## LUXEON 2835 Commercial

Class-leading flux, color consistency, robustness and reliability. The ideal choice for commercial indoor luminaires.

## LUXEON 2835 with CrispColor Technology

Make fabrics come to life with CrispColor Technology, which gives a higher color gamut and a cleaner white.

## LUXEON 2835 with FreshFocus Technology

LEDs with an engineered spectrum which highlights specific types of produce, meats and fish.

## LUXEON 3014

Uniform light output and reduced spottiness for applications in which space is limited.

## LUXEON 3014 with FreshFocus Technology

LED with an engineered spectrum which highlights the reds in marbled meat.

## LUXEON 3020

Superior thermal performance and high reliability – the ideal LEDs for bulbs and lamps.

## LUXEON 3030 2D

Superior efficacy and reliability in an industry-standard 3030 package footprint.

## LUXEON 3030 HE

High efficacy combined with color consistency.

## LUXEON 3030 HE Plus

The highest efficacy in a standard 3030 package.

## LUXEON 3030 HE Plus – Deep Dimming

Engineered to maintain color consistency and uniformity down to deeply dimmed output levels as low as 0.1% of full brightness.

## LUXEON 3030 HV

LUXEON quality and reliability in a standard 3030 package footprint, and available in forward voltages of 24V or 48V.

## LUXEON 3535L

With three options for flux and efficacy, 1/7th ANSI color binning, and max drive current of 200 mA, designs are ready for ENERGY STAR and meet DLC Premium requirements.

## LUXEON® SkyBlue™

Ready-made kits for circadian lighting consisting of LUXEON SkyBlue LEDs and LUXEON 3030 HE Plus LEDs, factory-matched to give the optimal melanopic ratio.

# LUXEON 2835 Architectural

## High color consistency, lumen output and efficacy

LUXEON 2835 Architectural LEDs offer a superior solution for projects in need of excellent quality of light, high lumen output and high efficacy. Design flexibility is built into this product family: there is a broad range of CCT, CRI and voltage options, as well as 1/9th micro-color bins and 3-, 4-, and 5-step MacAdam ellipse color kit selections.

### FEATURES AND BENEFITS

Full range of CCT and CRI options at forward voltages of 3V, 6V and 9V

Industry-standard footprint for drop-in replacement designs

Maximum drive current of up to 240 mA allows for reduction of LED count

Hot-color targeting and micro-color binning enable tight color control



### PRIMARY APPLICATIONS

Panel/soft lights

Linear lights

Troffers

Downlights

Retrofit lamps



### TECHNICAL SPECIFICATIONS

CCT options: 1800K, 2200K, 2700K, 3000K, 3500K, 4000K, 5000K, 5700K, 6500K

Minimum CRI options: 70, 80, 90, 95

Typical luminous efficacy up to 219 lm/W



Click here for the latest technical specifications and part numbers

# LUXEON 2835 Commercial

## Price/performance leader for commercial indoor luminaires

LUXEON 2835 Commercial family of LEDs leads its class in flux, color consistency, robustness and reliability, making it the ideal choice for commercial indoor luminaires. These mid-power LEDs also offer an outstanding combination of high efficacy (lm/W) and value (lm/\$).

### FEATURES AND BENEFITS

- Full range of CCT and CRI options at forward voltages of 3V and 6V
- Industry-standard footprint for drop-in replacement designs
- Reliable package design for commercial applications
- 3- and 5-step MacAdam ellipse options give precise color control



### PRIMARY APPLICATIONS

- Panel/soft lights
- Linear lights
- Troffers



### TECHNICAL SPECIFICATIONS

CCT options: 1800K, CCT options: 2700K, 3000K, 3500K, 4000K, 5000K, 5700K, 6500K

Minimum CRI options: 80, 90

Typical luminous efficacy up to 207 lm/W

Maximum current rating: 200 mA

1/5th color bin structure



Click here for the latest technical specifications and part numbers

# LUXEON 2835 with CrispColor Technology and FreshFocus Technology

## The ultimate retail LED solutions for fabrics and produce

Lumileds CrispColor Technology and FreshFocus Technology provide lighting that highlights the appeal of merchandise and produce on display in retail stores.

With CrispColor Technology the contrast of colors has never been so vivid, bringing fabrics to life. A color point below the black body locus creates a cleaner white and supports the production of Class A products.

Lumileds FreshFocus Technology produces an engineered spectrum with focused color points. LUXEON 2835 with FreshFocus Technology LEDs are optimized for meat, bread and pastries, fish, fruit and vegetables.

### FEATURES AND BENEFITS

Industry-standard 2835 footprint for drop-in replacement in existing designs

Maximum drive current of up to 240 mA allows for reduction of LED count

3- and 5-step MacAdam ellipse color kits available

IR- and UV-free, which keeps merchandise fresher longer and prevents meat discoloration



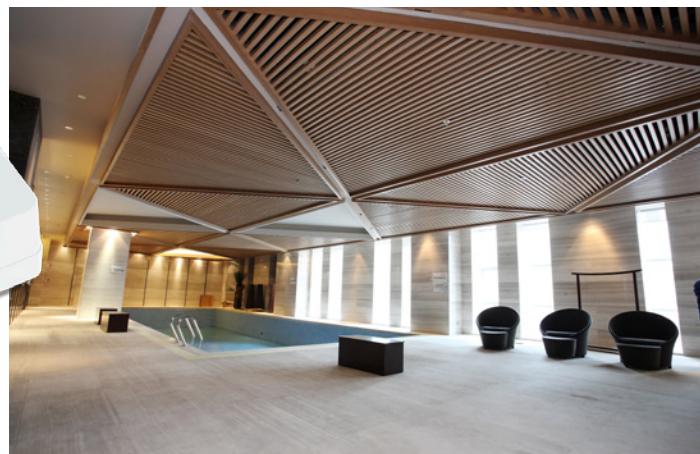
### PRIMARY APPLICATIONS

Downlights

Indoor area lighting

Troffers

Lamps



### TECHNICAL SPECIFICATIONS

CCT options: 2700K, 3000K, 3250K, 3500K, 4000K, 5000K

Minimum CRI: 90 (for LUXEON 2835 with CrispColor Technology)

Typical luminous efficacy up to 139 lm/W

LUXEON 2835 with CrispColor Technology

 Click here for the latest technical specifications and part numbers

LUXEON 2835 with FreshFocus Technology

 Click here for the latest technical specifications and part numbers

# LUXEON 3014

## Compact package for space-constrained applications

Supplied in a compact package measuring 3.0mm x 1.4mm x 0.70mm, LUXEON 3014 LEDs produce a uniform light output and reduced spottiness where space is limited, such as in linear applications, tube lighting and signage.

### FEATURES AND BENEFITS

1/9th ANSI micro-color binning and hot color targeting ensure tight color control

120 mA maximum drive current gives high brightness



### PRIMARY APPLICATIONS

Downlights

Linear lights

Sconce

Wall grazer

Wall wash



### TECHNICAL SPECIFICATIONS

CCT options: 1800K, 2200K, 2500K, 2700K, 3000K, 3500K, 4000K, 5000K, 5700K, 6500K, 8000K, 10000K

Minimum CRI options: 70, 80, 90, 95

Typical luminous efficacy up to 187 lm/W



Click here for the latest technical specifications and part numbers

# LUXEON 3014 with FreshFocus Technology

Accentuate freshness and heighten appeal of fresh food in retail displays

This 3.0mm x 1.4mm LED features FreshFocus Technology and is ideal for accentuating the freshness and visual appeal of marbled meats, fish, and produce.

## FEATURES AND BENEFITS

Industry-standard footprint and package compatible with existing designs

1/9th ANSI micro-color binning enables tight color control

Rectangular package design allows for increased uniformity

120 mA maximum drive current for reduced LED count



## PRIMARY APPLICATIONS

Retail lighting

Specialty lighting for fresh food



## TECHNICAL SPECIFICATIONS

Minimum CRI: 80

Typical luminous efficacy: 86 lm/W

Typical luminous flux: 17 lm



Click here for the latest technical specifications and part numbers

# LUXEON 3020

## Outstanding value with superior reliability and lumen maintenance

An EMC-based 3.0mm x 2.0mm QFN package gives LUXEON 3020 superior thermal properties and reliability. Offering excellent value, these LEDs enable mass production of affordable and reliable bulbs and lamps, while hot color targeting simplifies system design.

### FEATURES AND BENEFITS

- High efficacy
- Superior lumen maintenance
- 1/9th ANSI micro-color binning enables tight color control
- Hot color targeted at 85°C for better color accuracy



### PRIMARY APPLICATIONS

- Architectural lighting
- Indoor area lighting
- Lamps
- Specialty lighting
- Downlights



### TECHNICAL SPECIFICATIONS

CCT options: 2200K, 2500K, 2700K, 3000K, 3500K, 4000K, 5000K, 5700K, 6500K

Minimum CRI options: 70, 80, 90

Typical luminous efficacy up to 153 lm/W at 120 mA and  $T_j = 25^\circ\text{C}$



Click here for the latest technical specifications and part numbers

# LUXEON 3030 2D

## High flux, efficacy, and reliability for indoor and outdoor lighting

LUXEON 3030 2D line is a high-flux, hot color targeted mid-power product that is available in a wide range of CCTs.

### FEATURES AND BENEFITS

- Industry-standard 3030 package enables drop-in replacement in existing designs
- 1/9th micro-color binning enables tight color control
- Superior luminous flux at maximum current for reduced LED count
- Hot color targeting ensures that color is within ANSI bin at typical application conditions
- 3-, 4- and 5-step MacAdam ellipse custom binning kits available

### PRIMARY APPLICATIONS

- Troffers
- Downlights
- High-bay lighting
- Low-bay lighting
- Floodlights



### TECHNICAL SPECIFICATIONS

Round or square light-emitting surface

CCT options: 2200K, 2700K, 3000K, 3500K, 4000K, 5000K, 5700K, 6500K

Typical luminous flux up to 132 lm at 120 mA and  $T_j = 25^\circ\text{C}$

Typical luminous efficacy up to 183 lm/W at 120 mA and  $T_j = 25^\circ\text{C}$



Click here for the latest technical specifications and part numbers

# LUXEON 3030 HE

## High efficacy and long operating lifetime

LUXEON 3030 HE (High Efficacy) LEDs, built on the legacy of LUXEON 3030 product line, offer superior lm/W performance and long lifetime in indoor and outdoor fixtures.

LUXEON 3030 HE line is binned in a quadrant structure to within a 3-step Macadam ellipse. Two-step selections are available with custom binning kits.

### FEATURES AND BENEFITS

High efficacy at rated current

Reliable package design for long application lifetime

Industry-standard 3030 package allows drop-in replacement in existing designs

### PRIMARY APPLICATIONS

Downlights

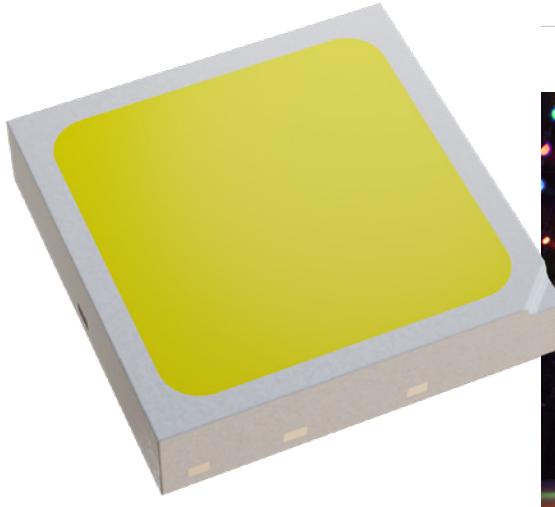
Linear lights

Panel/soft lights

Spotlights

Troffers

Wall pack



### TECHNICAL SPECIFICATIONS

CCT options: 2700K, 3000K, 3500K, 4000K, 5000K, 5700K, 6500K

Minimum CRI options: 80, 90

Typical luminous efficacy at 65 mA and  $T_j = 25^\circ\text{C}$  up to 201 lm/W



Click here for the latest technical specifications and part numbers

# LUXEON 3030 HE Plus

## The highest efficacy in a 3030 package

LUXEON 3030 HE Plus LEDs offer higher efficacy than any other LUXEON LEDs in a standard 3030 package.

LUXEON 3030 HE Plus line is binned in a quadrant structure to within a 3-step Macadam ellipse. Two-step selections are available with custom binning kits.

### FEATURES AND BENEFITS

High efficacy at rated current

Reliable package design for long application lifetime

Industry-standard 3030 package allows drop-in replacement in existing designs

Robust coating for enhanced sulfur protection

### PRIMARY APPLICATIONS

Downlights

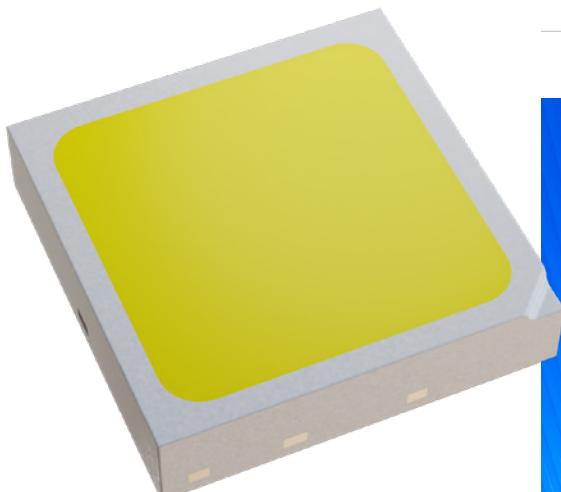
Linear lights

Panel/soft lights

Spotlights

Troffers

Wall pack



### TECHNICAL SPECIFICATIONS

CCT options: 2200K, 2700K, 3000K, 3500K, 4000K, 5000K, 5700K, 6500K

Minimum CRI options: 70, 80, 90

Typical luminous efficacy at 65 mA and  $T_j = 25^\circ\text{C}$  up to 224 lm/W



Click here for the latest technical specifications and part numbers

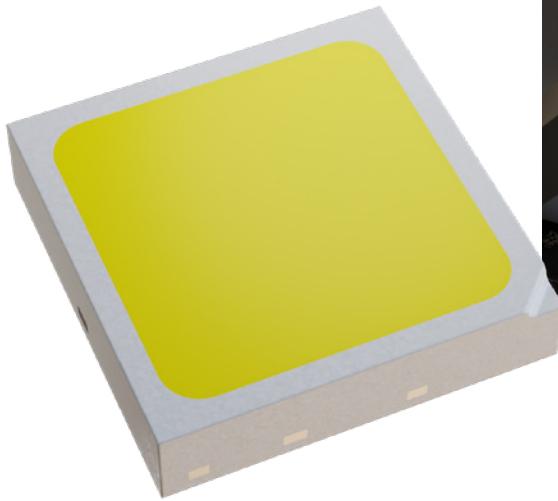
# LUXEON 3030 HE Plus - Deep Dimming

## Outstanding color uniformity even when dimmed to 0.1%

For dimming applications which require uniform light output throughout both rated and deep dimming operating conditions, including dimming down to 0.1%. These LEDs share the same high efficacy and long lifetime as LUXEON 3030 HE and LUXEON 3030 HE Plus.

### FEATURES AND BENEFITS

- Dedicated Deep Dimming bin achieves best-in-class dimming effects
- 3-step Macadam ellipse color binning for color consistency
- Narrow forward voltage binning for driver compatibility
- High efficacy at rated current
- Reliable package gives long lifetime in the application
- Industry-standard 3030 package allows drop-in replacement in existing designs



### PRIMARY APPLICATIONS

- Panel lights
- Linear lights
- Troffers



### TECHNICAL SPECIFICATIONS

CCT options: 2700K, 3000K, 3500K, 4000K, 5000K, 5700K, 6500K

Minimum CRI options: 80, 90

Typical luminous efficacy: up to 210 lm/W



Click here for the latest technical specifications and part numbers

# LUXEON 3030 HV

## Enables use of more efficient, cost-effective drivers

Available with forward voltage ratings of 24V or 48V, LUXEON 3030 HV LEDs' high-voltage/low-current architecture is compatible with more efficient and cost-effective drivers. Narrow color binning supports tight color control. These LEDs are hot color targeted to ensure that they are within their color target at application conditions.

### FEATURES AND BENEFITS

- 1/9th micro-color binning for tight color control
- 85°C hot color targeting gives predictable color in application conditions
- EMC-based package for lumen maintenance and long lifetime



### PRIMARY APPLICATIONS

- Downlights
- Lamps
- Spotlights



### TECHNICAL SPECIFICATIONS

Forward voltage options: 24V or 48V

CCT options: 2700K, 3000K, 3500K, 4000K, 5000K, 5700K, 6500K

Minimum CRI options: 80, 90

Typical luminous efficacy up to 145 lm/W



Click here for the latest technical specifications and part numbers

# LUXEON 3535L

## Freedom to optimize for unit cost or flux and efficacy

LUXEON 3535L products provide the greatest possible design flexibility. Sharing a common footprint of 3.5mm x 3.7mm, LUXEON 3535L Line offers a wide range of CCT and CRI options, and in addition is available in three versions:

- LUXEON 3535L for entry-level flux and efficacy
- LUXEON 3535L HE for median flux and efficacy
- LUXEON 3535L HE Plus for high flux and highest efficacy

### FEATURES AND BENEFITS

Supports ENERGY STAR lumen maintenance certification requirements

Meets DLC Premium requirements

Maximum drive current of 200 mA enables reduced LED count

1/7th ANSI color binning delivers tight color control

Enables Ts points of 105°C, which allows for higher board temperature

UL recognized component



### PRIMARY APPLICATIONS

Architectural lighting

Downlights

High-bay lighting

Low-bay lighting

Indoor area lighting

Lamps

Outdoor lighting



### TECHNICAL SPECIFICATIONS

CCT options: 2200K, 2700K, 3000K, 3500K, 4000K, 5000K, 5700K, 6500K

Minimum CRI options: 70, 80, 90

Typical luminous efficacy up to 204 lm/W at 100 mA, T<sub>j</sub> = 25°C



Click here for the latest technical specifications and part numbers

# LUXEON SkyBlue

## Factory-matched LED kits for circadian illumination

LUXEON SkyBlue Kit is comprised of LUXEON SkyBlue LEDs and white LUXEON 3030 HE Plus LEDs which are factory-matched to provide the optimal melanopic ratio, superior efficacy, and light output of exceptional uniformity. The kits simplify the analysis and engineering development necessary to produce a circadian illumination system for human-centric lighting.

### FEATURES AND BENEFITS

Superior melanopic ratio for high-efficacy circadian LED lighting

- MDER up to 0.85 at 4000K
- MEER up to 0.94 at 4000K

Easy to implement for fast time to market

Industry-standard 3030 packaging

Very high CRI and R9 values with low Cyanosis Observation Index

3-step MacAdam ellipse binning for tight color control



### PRIMARY APPLICATIONS

Healthcare settings

Schools

Offices

Factories



### TECHNICAL SPECIFICATIONS

CCT options: 3000K, 3500K, 4000K

Minimum CRI: 83 or 85

Minimum R9: 90

Typical luminous efficacy up to 160 lm/W



Click here for the latest technical specifications and part numbers

## About Lumileds

Lumileds is the global leader in light engine technology. The company develops, manufactures and distributes groundbreaking LEDs and automotive lighting products that shatter the status quo and help customers gain and maintain a competitive edge.

With a rich history of industry “firsts,” Lumileds is uniquely positioned to deliver lighting advancements well into the future by maintaining an unwavering focus on quality, innovation and reliability.

To learn more about our portfolio of light sources and solutions, visit [lumileds.com](https://lumileds.com)



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