



PROVEN PERFORMANCE  
in LED LIGHTING

**RUUD<sup>®</sup>**  
**LIGHTING**  
RUUD LIGHTING ARABIA

beta  
**LED<sup>®</sup>**





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Link Road – Abu Dhabi



## PROVEN PERFORMANCE

BetaLED is recognized throughout the world for excellence in delivering successful LED luminaires for interior and exterior illumination. Our respected industry leadership is earned through accomplishments that include:

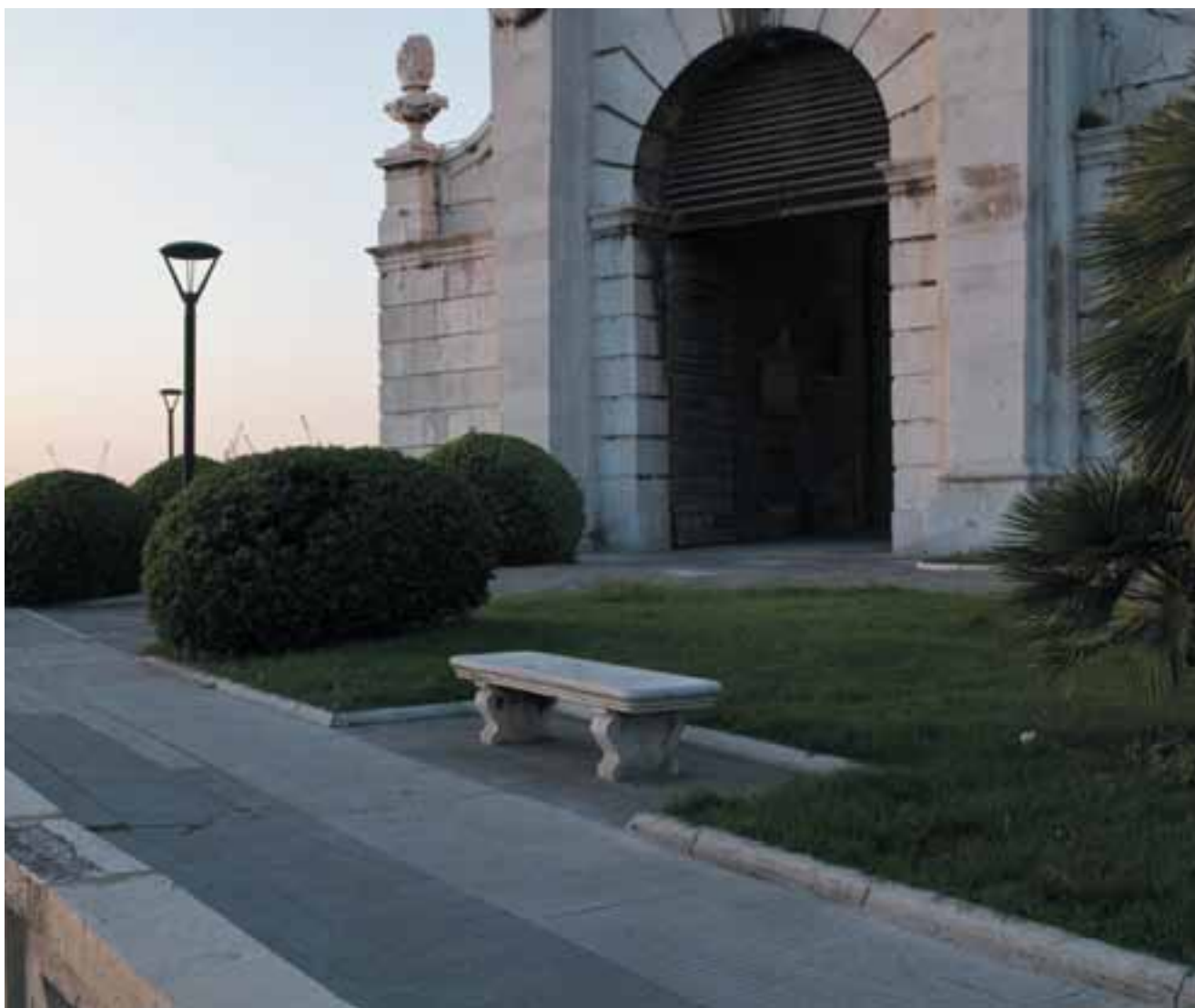
BetaLED leads all other LED luminaire manufacturers in installed luminaire run time with more than one billion hours and counting.<sup>1</sup>

The most credible performance data, proven through independent laboratory testing.

More than 200 patents for state-of-the-art engineering and design of LED luminaires (currently holding and applied for).

The most installed LED External Lighting globally.

<sup>1</sup> Assumes 10 hours of run-time per luminaire per day, as of June 2011.



### Pioneering LED Luminaires

BetaLED delivered the first successful LED luminaires after pioneering the development and advanced manufacturing processes needed to achieve consistent, reliable results. BetaLED luminaires provide improved illumination performance, consume less energy, and require less maintenance than traditional lighting solutions. In fact, many BetaLED advancements have shaped what is standard in the LED lighting industry today.





### Progressing LED Technology

A design built exclusively around maximizing the LED chip package performance is the key to BetaLED's competitive advantage. We didn't incorporate LEDs into existing fixtures – we went straight to the drawing board and invested in ground-breaking product designs that provide safe, reliable and lasting performance in visually-pleasing luminaires.



### Credible Performance Data

BetaLED leads the industry in providing credible and comprehensive product performance data. From photometric reports generated from independent DOE-approved laboratories to meaningful lumen maintenance data, BetaLED provides reliable information you can trust to optimize your product selection process and ensure the highest level of predictable illumination and economic performance.

# Total Systems Approach to your LED Solutions

The BetaLED total systems approach is a comprehensive engineering philosophy that combines the most advanced LED sources, driver technologies, optics and form into each product. The result is highly reliable luminaire solutions that reduce energy consumption and maximize target illumination performance, while meeting optimal operating life and service objectives.



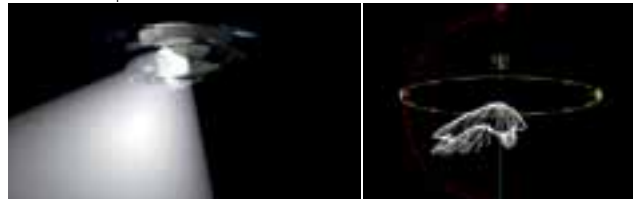
## Over 20 Optic Choices for the Flexibility You Need

Traditional luminaire technologies offered limited choices when it came to optical selections. BetaLED changed that with patented NanoOptic® product technology; highly efficient optics available in more than 20 distributions. BetaLED's wide range of NanoOptics provide new possibilities for highly optimized target illumination performance and the flexibility you need to achieve the specific illumination requirements for each unique application.

Bare LED Package

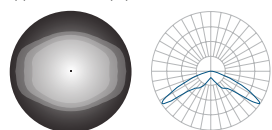


LED NanoOptic® Refractor Control

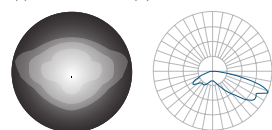


Examples of NanoOptic distributions are depicted below.

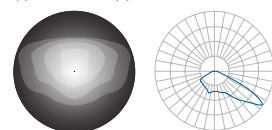
Type I Short (IS)



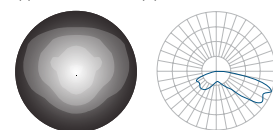
Type II Medium (2)



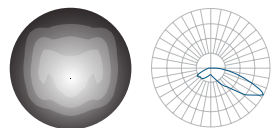
Type II Short (F)



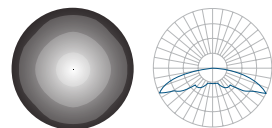
Type III Medium (3)



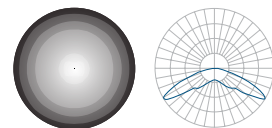
Type IV (4)



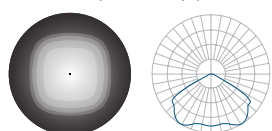
Type V Medium (5)



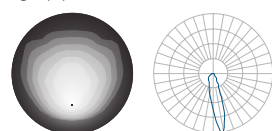
Type V Short (R)



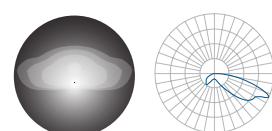
Petroleum Symmetric (A)



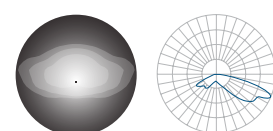
Sign (X)



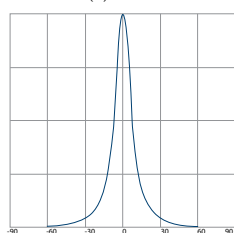
2MB (G)



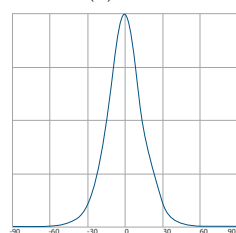
2MP (2P)



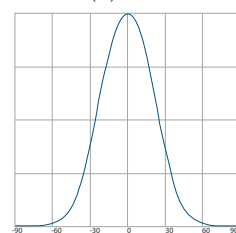
15° Flood (B)



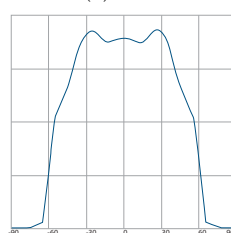
25° Flood (C)



40° Flood (D)



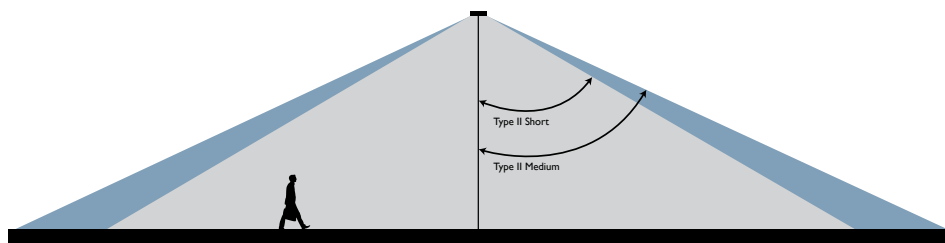
NEMA 6 (A)



The NanoOptic refractor system provides superior light control with:

- More lumens delivered in the target area
- Improved uniformity ratios
- Controlled high angle brightness
- Over 20 optical distribution patterns to choose from

A graphic representation illustrates the LED optical fine tuning range that BetaLED luminaires can provide. The gray area represents Type II Short optic coverage. The Short optic can be utilized to comply with more stringent light spill and high angle brightness specifications or codes by incorporating a lower main beam. The extended blue area indicates the Type II Medium optic coverage. The Medium optic incorporates a slightly higher main beam to allow wider, more economical pole spacing.



# Sustainable Illumination Performance You Need. Reliability You Demand.



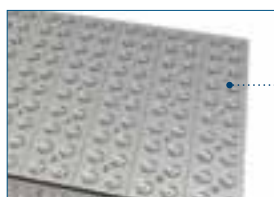
## Sealed Light Engine

With more than one billion LED working hours of operation logged, BetaLED's light engine technology has a proven track record for reliable operation. The success of our luminaires in thousands of varied applications around the globe speaks to the versatility and design integrity of our products. A large part of this success can be attributed to our sealed light engine.



### NanoOptic Refractor System

A direct-contact refractor provides a level of optical control that cannot be achieved using traditional light source technology methods. The result is excellent target illumination performance. With more than 20 optical choices to choose from you can select the distributions to best fit the needs of your application.



### Modular Design

We don't take a one-size-fits-most approach. BetaLED luminaires feature a modular design that offers the versatility required to provide precise levels of illumination performance. BetaLED's modular light engines provide the ability for luminaires to be fine tuned to meet specific illumination needs in much smaller increments than traditional and competitive LED luminaire designs. This flexibility allows illumination and economic performance to be optimized for each unique application.



### Thermal Management

The benefit of excellent thermal management pays dividends throughout the life of a lighting application. It contributes to highly optimized illumination performance on day one and reduces the impact of lumen depreciation every day thereafter. In addition, effective thermal management leads to greater product reliability. BetaLED's passive thermal management approach utilizes heat sinks to efficiently draw heat away from the LED chip package. Our thermal management design is enhanced further using a unique vented housing that allows air to continually flow through the luminaire. The result is a proven design that maximizes both performance and reliability.



### Reliable and Optimized Driver Performance

The drivers utilized in BetaLED luminaires are specifically designed to our high standards and offer the flexibility needed to optimize performance for your installations. The ability to select from a variety of drive currents provides initial cost and energy savings priorities to be balanced as part of your product selection process. BetaLED products are also available with integrated occupancy sensors and are controls compatible to accommodate a variety of networked and non-networked control systems. The drivers used in BetaLED products are extremely reliable with an expected failure rate of predictably less than one half of one percent at 100,000 hours of operation in the most extreme conditions.



## Style and Performance

BetaLED luminaires incorporate all the critical design elements needed to deliver exceptional performance and reliability without compromising style. BetaLED products provide the performance you need and the reliability you demand in modular, low-profile designs that blend with any architectural style.

# Progressive Product Development

As technology leaders, we're continuously advancing our state-of-the-art LED lighting systems to gain the most power and efficiency from evolving LED technology. Dynamic research and development focuses on conserving energy by maximizing efficiency in every part of the LED lighting system. World-class engineering, highly experienced manufacturing teams, and overall operational excellence combine to produce distinctive lighting products that consistently exceed performance expectations.

## Specify with Confidence

To ensure reliable, consistent real-world performance, BetaLED validates all products throughout production. Every BetaLED luminaire passes a series of extensive tests to meet industry standards and our own strict quality and performance measurements.



Product development and testing are conducted in BetaLED's sophisticated laboratories - equipped with state-of-the-art photometric equipment. Engineers in the UL and TUV certified labs insure compliance with Underwriters Laboratories and European Union requirements, and IEC – EMC performance and electrical surge resistance.

## DeltaGuard® Finish

DeltaGuard is the finest industrial grade finish available, is exclusive to BetaLED products and poles, and carries an industry-leading ten-year warranty. Each product follows an immersion process that includes six cleaning stages, eight pre-treatment stages, and an epoxy e-coat before the topcoat is applied. The baked-on ultra-durable powder topcoat is the last step to a truly outstanding finish that provides:

- Ultraviolet Light Resistance
- Hard Surfacing
- Superior Adhesion
- Corrosion Resistance
- Fade Protection
- Endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B117

### Premium Protection

We back our quality products with one of the best warranties in the industry. Our 5 • 5 • 10 warranty provides a five-year limited warranty on the LED product and driver, a five-year limited warranty on the LED, and a 10-year warranty on our DeltaGuard finish.

**Δ DeltaGuard®**  
10 Year Finishing System



BetaLED luminaires are available in five colorfast DeltaGuard colors: black, bronze, platinum bronze, silver and white

For DeltaGuard finished pole options, visit: <http://www.betalcd.com/us-en/TechnicalLibrary/Deltaguard.asp>





# ARCHITECTURAL

products

BetaLED general illumination products provide efficient lighting options for projects that demand design style and performance.

Our breadth of products and optic choices provide you with versatility and confidence to specify the best LED solution for your projects. The opportunities are limitless.





THE EDGE product family offers diverse lighting opportunities for parking lots and structures, roadways, pathways, security areas and flood applications – just to name a few. Functional and flexible, THE EDGE luminaires are available in numerous configurations for versatility and reliability in any environment. THE EDGE luminaires deliver optimum illumination and unobtrusive architectural blending.

For lasting durability, fixture housings are constructed of low-copper aluminum and feature BetaLED's exclusive DeltaGuard finish and 10-year finish warranty. Also included is an integral, weather-tight LED driver compartment, high performance heat sinks, and 10kV surge suppression. THE EDGE luminaires are International Dark Sky Association (IDA) approved with IES BUG ratings available, UL and cUL listed, and are photometrically tested to IESNA LM-79-08 standards.





(shown) Post Top 5" Round D

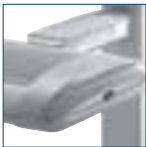
THE EDGE Area Round

THE EDGE architectural area round luminaires are ideal for illuminating any open-space application including pathways, parks, and parking lots. With a low-profile modular design, this aesthetically-pleasing luminaire provides improved illumination performance while reducing energy consumption.

- Energy-saving two-level options
- Optional backlight cutoff shield



Adjustable Arm  
3



Direct Arm  
I



Direct Arm Long  
2



Post Top  
F



Post Top 4" Square  
H

PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDS (x10)
XAR	EDR	2	3	04
		F	I	06
		3	2	08
		4	F	10
		5	H	12
		R	D	
		G		
		K		
		H		
		J		

**I**

**Pedestrian and Parking Lot Area Lighting**

The Minneapolis Public Housing Authority (MPHA) retrofitted exterior campus lighting with THE EDGE area round and square luminaires. The retrofit provides a reduction in energy use, virtually zero maintenance with no relamping necessary, and dramatically improved illumination.

Installing an energy efficient lighting solution is an important contribution to the authority's green initiative to reduce energy use. The increased visibility from the enhanced illumination performance THE EDGE luminaires provide is appreciated by MPHA residents.



ROADWAY AREA LIGHTING

THE EDGE Area Square

THE EDGE area square luminaires offer excellent uniformity for applications such as roadways, parking lots and large common spaces for pedestrians and motorists.

- Energy-saving two-level options
- Optional backlight cutoff shield
- Low-profile modular design

For pole options that feature BetaLED’s exclusive DeltaGuard finish, visit the Technical Library at [www.BetaLED.com/ae](http://www.BetaLED.com/ae)



Adjustable Arm



Direct Arm Long  
I



Post Top  
F



Post Top 4" Square  
H

PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDS (×10)
XAL	EDG	IS	3	02
		2	I	04
		F	2	06
		3	F	08
		4	H	10
		5		12
		R		14
		G		16
		K		20
		H		24
		J		
		X		



(shown) Direct Arm Mount I



2

Parking Lot Area Lighting

The TJ Maxx shopping plaza parking lot in Manchester, NH achieved a 58 percent energy savings and an estimated three-year payback with a retrofit to THE EDGE area luminaires.

Using existing poles and pole locations, 25 luminaires, controlled by integral occupancy sensors that vary between high and low light output settings, replaced 28 high pressure sodium and metal halide luminaires. Energy savings is achieved from a combination of a higher efficacy luminaire solution that provides more precise target illumination compared to the previous lighting solution.



THE EDGE Surface Mount Canopy

THE EDGE surface-mount canopy luminaires feature a slim, low-profile design that is easily mounted below canopies and building overhangs. The luminaires provide a clean, safe, and inviting appearance with dramatically improved illumination performance while using significantly less energy than traditional solutions in commercial exterior and interior applications.



(shown) Direct Mount 0



Pendant  
9

PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDS (x10)
XPS	EDG	3	0	02
		5	9	04
		R		06
		A		08
		E		10
		Y		12
		B		14
		C		16
		D		20
				24

3

**Arrival & Departure Roadway Lighting**

THE EDGE surface-mount canopy luminaires were part of a retrofit installation in the arrival and departure roadways at the Palm Beach International Airport (PBIA), West Palm Beach, FL. The retrofitted luminaires will provide an annual energy cost savings of approximately \$34,000 and an annual lighting maintenance savings of over \$27,000 with an anticipated five-year payback period.



THE EDGE Security

THE EDGE security luminaires provide sleek and stylish security and perimeter lighting and feature a low-profile, modular design that provides clean uniform illumination for increased visibility and a secure environment.



PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDS (x10)
XSE	EDG	2	0	02
		F		04
		3		06
		4		08
		G		10
		K		12
		H		
		J		

7

**Security Lighting**

The University of Colorado at Boulder is implementing an LED relighting project with a goal to achieve an overall energy and maintenance savings payback in three to five years. Success is being realized with a 62 percent annual energy reduction. THE EDGE luminaires are installed throughout six locations including pathways that lead to university housing and the top level of a campus parking structure.



THE EDGE Pathway

THE EDGE pathway luminaires provide uniform, shadow-free illumination for building entries and walkways enhancing any architectural style. Multiple height options provide lighting design flexibility for a range of applications.

- Energy-saving two-level high and low options
- Multiple height options
  - 13- and 18-inch landscape fixture
  - 36- and 42-inch pathway fixture
  - 8-foot pedestrian fixture



8  
Pathway Lighting

THE EDGE pathway lighting illuminates sidewalks and courtyards throughout the Milwaukee Area Technical College (MATC) campus in downtown Milwaukee, WI. MATC is pleased with the results that include dramatically improved visibility, reduced energy consumption and lower operational expense. The difference in the appearance of the campus lighting compared to the surrounding downtown area is dramatic and an important improvement.

PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDs (x10)
XBP	EDG	2	0	02
		3	1	
		5	3	
		R	4	
			8	





9



(shown) Adustable Arm Mount 3

THE EDGE Flood

THE EDGE low-profile flood luminaires provide specific distributions of light for showcasing horizontal and vertical sign surfaces and architectural features. The energy-efficient luminaires offer 10-, 15-, 25-, and 40- degree optics. Also available is an adjustable mounting bracket for flexible use in a variety of exterior flood lighting applications.

PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDS (×10)
XAL	EDG	Y	3	02
		B	S	04
		C		06
		D		08
		A		10
				12
				14
				16
				20
				24



Side Arm  
S

9

Exterior Flood Lighting

The impressive 110-foot steeple atop St. Joseph’s Catholic Church shines brightly with THE EDGE flood luminaires. Four flood luminaires with 15-degree flood optics and the latest LED chip technology are mounted with an adjustable-arm mounting bracket for dramatic illumination. Two luminaires are mounted on the school roof and two on 22-foot poles approximately 120-feet from the top of the steeple with a 45-foot set-back. The maximum five footcandles is achieved on the steeple.





(shown) Pendant Mount 9

THE EDGE Interior Round

THE EDGE interior round luminaires are ideal for illuminating retail and commercial applications. The pendant-mount and hook and cord-mount luminaires provide direct uniform illumination that enhances interior aisles and displays and delivers a safe appealing atmosphere. With a low-profile, modular design, this stylish luminaire provides improved illumination performance while reducing energy consumption.

3

Interior Area Lighting

The Better Day BP petroleum station in Racine, WI installed THE EDGE interior round pendant-mount luminaires to provide uniform illumination for their newly constructed convenience store. The luminaires deliver an environmentally friendly, low- to no-maintenance, and cost-effective lighting solution for the retail application.



Hook & Cord  
8

PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDS (x10)
XHR	EDR	D	9	04
			8	06
				08
				10
				12
		A		



## OL™ SERIES

OL Series linear luminaires offer new opportunities for energy efficient lighting. If you're considering traditional light source technologies, compare the advantages of OL Series luminaires. You'll see superior performance in energy savings, illumination quality and reduced maintenance.



SIGN

OL Series

The OL Series luminaire provides exceptional lighting for exterior façade and sign illumination. OL Series luminaires are designed with BetaLED’s total systems approach, integrating best-in-class LEDs, driver technology, optics and style optimized to meet operating life and service objectives.

OL Series luminaires’ versatile illumination opportunities include:

- 360-degree adjustability in 5-degree increments for flexibility in any application environment
- Linear, low-profile design available in 2-, 4- and 8-foot lengths for high and low density needs
- Step- and continuous-dimming options accommodate a variety of on-board and network-based controls system protocols
- UL and cUL Wet Listed and IP66 Rated

Outstanding lumen maintenance in exterior applications provides long, reliable target illumination performance in a wide range of environmental conditions.

OL Series luminaires significantly reduce energy consumption compared to traditional lighting solutions. The low-maintenance luminaires provide uniform illumination with lower Lighting Power Density (LPD), maximize target lighting performance and provide better than 85 percent predicted lumen maintenance at 50,000 hours at 25° C.



Flexible Mounting Options

Arm extensions provide spacing versatility in varied application environments. Mounting extensions are available in 9-inch, 12-inch and 18-inch options.

Exterior Accent Lighting Options

Outstanding lumen maintenance in exterior applications provides long, reliable target illumination performance in a wide range of environmental conditions.

Superior Sign Lighting Performance

OL Series luminaires feature a new sign optic that provides uniform illumination on target for optimal lighting performance. A wide variety of NanoOptic choices are available for flexibility in designing applications.

PRODUCT	FAMILY	OPTIC	MOUNTING (Length in feet)	NUMBER OF LED's (per foot)
X40	OL	B	0	07
		A	0	14
		X	0	



INDIRECT



**Flexible Mounting Options**

Arm extensions provide spacing versatility in varied application environments. Mounting extensions are available in 9-inch, 12-inch and 18-inch options.

**Interior Versatility**

OL Series luminaires provide interior architectural lighting solutions including wall-wash, indirect and accent lighting and dramatic illumination for ceilings. Designed with BetaLED's total systems approach, OL Series luminaires integrate best-in-class LEDs, driver technology, optics and style optimized to meet operating life and service objectives.

OL Series luminaires' versatile illumination opportunities include:

- 360-degree adjustability in 5-degree increments for flexibility in any application
- Linear, low-profile design available in 2-, 4- and 8-foot lengths for high and low density needs
- Step- and continuous-dimming options accommodate a variety of on-board and network-based controls system protocols
- UL and cUL Wet Listed and IP66 Rated

OL Series luminaires significantly reduce energy consumption compared to traditional lighting solutions. The low-maintenance luminaires provide uniform illumination with lower Lighting Power Density (LPD), maximize target lighting performance, and provide better than 85 percent predicted lumen maintenance at 50,000 hours at 25° C.

**Consistent Color Quality**

The needs and concerns regarding color quality, consistency and stability as they relate to interior spaces are paramount to a successful interior lighting design.

OL Series luminaire color performance data:		
Correlated Color Temperature (CCT)	Color Rendering Index (CRI)	Initial Color Point Variance
5700K	70	4 MacAdam
4000K	80	2 MacAdam
3500K	80	2 MacAdam
Consult factory for 3000K and 2700K		

BetaLED delivers color quality performance that meets or exceeds the expectations of best-in-class traditional light source technologies. The unique LED blending technique utilized for the OL Series luminaires allows us to create products that provide initial color consistency within a 2-step MacAdam Ellipse from the initial specified color point.

BetaLED is committed to providing luminaire color point stability over time, within a 2-step MacAdam Ellipse to the predicted L<sub>70</sub> point (in hours). BetaLED's patented NanoOptic technology enables us to provide color spatial uniformity that meets the requirements demanded by the most discriminating lighting designers.

PRODUCT	FAMILY	OPTIC	MOUNTING (Length in feet)	NUMBER OF LED's (per foot)
XAO	OL	B	0	07
		N6 (A)	0	14
		SN (X)	0	





## BetaLED SLM™ IP66

BetaLED SLM™ IP66 Area Luminaire with its distinctive, slim, low-profile design offers architectural character for exterior applications. The combination of a unique modular design with light bar scalability and patented NanoOptic technology contributes to exceptional lighting performance, unparalleled longevity and reduced energy use in a variety of applications.

BetaLED SLM IP66 area luminaires are designed with BetaLED's total systems approach, integrating best-in-class LED packages, driver technology, optics and style. Extended operating life and exceptional lumen maintenance are achieved in a wide range of environmental conditions.



Outstanding Thermal Management

This low-maintenance luminaire significantly reduces energy consumption compared to traditional lighting technology, provides optimum target illumination performance and provides better than 85 percent predicted lumen maintenance at 50,000 hours at 25° C.

The unique design of the BetaLED SLM IP66 lends to maintaining lower operating temperatures that contribute to the longevity of the luminaire. A patented flow-through housing design incorporates heat sinks within the body of the fixture, allowing flow-through ventilation that maximizes a cooling surface.

Light Bar Scalability

The linear light engine of the BetaLED SLM IP66 area luminaire accommodates LED light bar modules in multiples of 10 LEDs - accommodating up to 60 LEDs. The light bar scalability contributes to tailored illumination for specific applications.

- 20, 30, 40, 50 and 60 LED counts available
- Flood and area optics

Step- and continuous-dimming options are available to accommodate a variety of on-board and network-based controls system protocols.

Architectural Finish

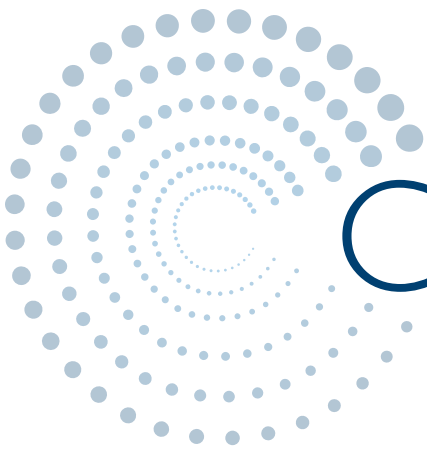
Light engine extrusion and luminaire are finished in an array of color options: silver, black, bronze, platinum bronze and white.



Horizontal/Vertical  
HV

PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDs (x10)
BETA	SLM66	IS	I HV	02
		2		03
		F		04
		3		06
		4		
		5		
		R		
		6		
		K		
		H		
		J		





# COMMERCIAL

## products

BetaLED parking structure, canopy and soffit luminaires deliver high-performance illumination for a variety of exterior and interior applications – petroleum station canopies, parking structures, building overhangs and transportation sign lighting. For new construction or remodels, achieve a clean, updated appearance with luminaires that provide superior illumination performance while using less energy than traditional fixtures.

### Energy-Saving Two-Level Option

THE EDGE luminaires are a controls-ready lighting solution designed for compatibility with a variety of system protocols utilizing wireless and power-line carrier technologies. BetaLED offers an optional integrated occupancy sensor on area luminaires which can further reduce energy use through motion detection.





(shown) Direct Mount 0



INTERIOR HIGH BAY LIGHTING

THE EDGE Parking Structure

THE EDGE parking structure luminaires are designed to provide improved color rendition and uniformity for parking garages, underpasses and other confined-space applications. These luminaires feature an optional multi-level sensor that can contribute to an excess of 80 percent energy savings compared to best-in-class traditional technologies.

Additional benefits of THE EDGE parking structure luminaires:

- Low-profile modular design
- Optional integrated occupancy sensor for additional energy savings
- Compatible with a variety of networked-based controls systems

THE EDGE parking structure luminaires are a versatile lighting solution for high performance in exterior and interior applications.



Pendant  
9

PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDS (×10)
XPS	EDG	5	0	02
		R	9	04
		A		06
		Y		08
		B		10
		C		
		D		

10

Exterior Parking Structure Lighting

THE EDGE parking structure luminaires controlled with an integrated wireless outdoor dimming system are part of the energy efficient lighting solutions that will drive California State University at Fullerton (CSUF) toward its goal to become an all-LED campus. CSUF expects more than an 80 percent energy savings from THE EDGE parking structure luminaires over the previous traditional fluorescent parking structure lighting.



## 304 Series™

304 Series luminaires can be configured to achieve superior target efficacy and lumen maintenance for significant reduction in energy use. An optional integrated multi-level dimming occupancy sensor provides opportunities to further lower energy use.

- Multiple mounting options for application versatility and ease of installation
- Convenient electrical compartment access from below the luminaire
- Through-wiring capability



All 304 Series luminaires are International Dark Sky Association (IDA) approved with IES BUG ratings available and are Photometric tested to IESNA-79-08 standards.





304 Series Parking Structure

The 304 Series parking structure luminaires provide exceptional performance in confined-space installations. The low-profile modular design contributes to a discreet appearance.



(shown) Direct Mount 0



UNDERPASS LIGHTING

PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDS (x10)
XCP	304	5	0	04
		R	8	06
		A	9	
		E		
		C		
		D		



Hook & Cord  
8



Pendant  
9

II

Underpass Lighting

Port Columbus International Airport, Columbus, OH reduced energy consumption by nearly 60 percent by replacing 344 metal halide fixtures with BetaLED 304 Series luminaires - recessed canopy and surface-mount - featuring the latest LED chip package technology.

The airport sought to install one-for-one replacements that would meet or exceed expected operating life of the previous high intensity discharge system that was costly to maintain. After retrofitting to the 304 Series luminaires, improved lighting levels, a short payback period, and energy and maintenance savings were all achieved.



304 Series Recessed Canopy

The 304 Series luminaires in exterior recessed canopy applications are ideal for single- or double-deck canopies and building soffit applications. 304 Series recessed luminaires provide tremendous performance for interior new construction and drop ceiling installations. Retrofit kits are available.



(shown) Recessed Single Skin/Double Skin 1/2



PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDS (×10)
XCP	304	5	1	04
		R	2	06
		A	RT1-5	
	304	E		
		5	F/E/R/S	04
		R		06
		A		
		E		

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**Recessed Canopy Lighting**

A Laredo, TX Shell petroleum station saves 78 percent in energy use with BetaLED 304 Series recessed canopy luminaires. The previous high intensity discharge lighting fixtures consuming 368 total system watts were replaced with BetaLED 304 Series luminaires consuming 142 total system watts for impressive energy savings.

Additional benefits beyond the visible improvement of light output include cost-savings associated with nearly no maintenance from long-life LED performance and eco-friendly elimination of hazardous mercury disposal found in traditional light sources like metal halide and fluorescent fixtures.



13



(shown) Yoke Mount 4

304 Series Flood

304 Series flood luminaires are ideal for up lighting or down lighting applications such as transportation signs and underpasses. An adjustable yoke mounting bracket provides flexibility in a variety of application settings.

PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDS (×10)
XCP	304	2	4	40
		3		60
		5		
		R		
		Y		
		B		
		C		
		D		
		A		
		X		

13

Exterior Flood Lighting

The Port Columbus Airport in Columbus, OH improved lighting performance and lowered energy costs from a lighting retrofit in a covered pedestrian walkway. BetaLED 304 Series wall-mounted flood luminaires featuring the latest LED chip package brilliantly illuminate the walkway providing increased visibility and safety for pedestrians.

The retrofit to an LED lighting solution from the previously installed metal halide lighting contributes to the Columbus Regional Airport Authority's energy reduction goal of 15 percent energy reduction by 2015.





## 227 Series™

227 Series luminaires are a sustainable high performance lighting solution. The 227 Series luminaires are designed for multipurpose use in exterior canopies such as petroleum stations, drive-thru banks and restaurants, and indoor retail or industrial spaces. The flexible 30 to 120 LED configurations allow for increased visibility and safety below canopies and around building perimeters. The 90 and 120 LED luminaires are ideal for areas requiring high illuminance levels.

*Available in 30, 60, 90 and 120 LED configurations for installation in 12- and 16-inch applications.*



All 227 Series luminaires are International Dark Sky Association (IDA) approved with IES BUG ratings available and are Photometric tested to IESNA-79-08 standards.



14



(shown) Canopy Recessed Mount



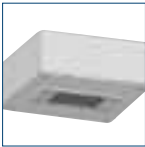
SOFFIT LIGHTING

227 Series Canopy & Soffit

227 Series recessed and low-profile surface-mount luminaires deliver high-performance illumination for petroleum station canopy applications and building soffits.

30, 60, 90 and 120 LED luminaires are rated non-IC; 30-LED soffit luminaires are rated Type IC. UL listed and wet listed for covered ceiling applications. There is a retrofit option available for the recessed canopy 30 LED version.

- Easy to mount from below or above the canopy deck
- Low-profile modular design for a clean appearance



Canopy Retrofit Kit  
RTI-RT5



Soffit New  
Construction - F/E/R/S

PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDS (x10)
XCR	227	5	F/E/R/S	03
		R	RTI - RTS	06
		A		09
		E		12
SFT	227	3	F/E/R/S	03
		5		06
		R		09
		A		
		E		12

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Exterior Recessed Canopy Lighting

The Circle K petroleum station in Columbus, IN boasts a complete exterior LED lighting installation that features BetaLED 227 Series exterior recessed canopy luminaires. 227 Series luminaires provide excellent visibility on fuel pumps with clean white illumination. Significantly reduced energy use and superior lumen maintenance deliver a cost-effective, long-life lighting solution.

The Circle K station has received numerous compliments on the 227 Series recessed canopy lights. Customers are welcomed into the entry roadway and parking lot with safe, inviting light.



# MUNICIPAL

products

Budgets have never been tighter for utilities and municipalities across the United States. Escalating costs and decreased revenue require managers to implement scalable cost-saving projects and initiatives. By delivering lower total cost of ownership, BetaLED luminaires allow flexibility of operating and/or capital expenses. Typical energy savings of 30 to 70 percent, near zero maintenance costs, and fast payback provide an opportunity for redistribution of funds toward other high priority projects.

Invest in the future of your community.







LEDway®

Street & Roadway

#### The Difference You Can See

Engineered for energy efficiency and environmental sustainability, LEDway is a versatile, high-performance street lighting solution from BetaLED designed specifically for street and roadway applications. Easily retrofit onto existing mounting systems, it's simple and affordable to invest in state-of-the-art technology.

Show the world your community is environmentally conscious and leading the charge to reduce energy demand and greenhouse gas emissions. BetaLED technology helps you set the example, achieve sustainability goals and improve your community's quality of life.



(shown) Horizontal Mount 0

LEDway® Streetlight

LEDway streetlights are built to the exact standards required by your application. With more than 20 optical distributions, flexible drive currents, numerous optional features, and the option to choose from up to 120 LEDs in 10 LED increments, we offer the most versatile streetlight on the market.

Key standard features of LEDway streetlights include:

- Drive current flexibility
- ±5° vertical adjustment w/ 2 ½° steps positions
- Surge suppression rated up to 10kV
- Toolless entry and quick disconnect harness
- Compatible with networked and non-networked lighting control systems
- IDA approved, UL, cUL listed, RoHS compliant
- DLC listed product



Adjustable Arm  
3

PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDS (x10)
XSL	LWY	IS	0	02
XIL		2	3	03
		F		04
		3		05
		4		06
		5		07
		G		08
		K		09
		H		10
		J		11
		2P		12
		FP		
		3P		
		4P		

Lighting Control Capabilities

Advancements in lighting control and monitoring technology make it easy for municipalities to realize benefits above and beyond the significant energy savings already gained through the use of LED street lighting.

Non-Networked Controls (on-board)

BetaLED offers the following non-networked controls with most products:

- Multi-level dimming control with integrated sensor
- NEMA receptacle

Networked Controls (adaptive)

BetaLED products are compatible with a variety of adaptive lighting control systems.



LEDway SLM™ Streetlight

LEDway SLM incorporates scalable light modules designed to be an aesthetic and economic alternative to high-pressure sodium and metal halide cobraheads. NanoOptic product technology delivers industry-leading optimized target illumination performance. LEDway SLM is UL compliant and can be direct-mounted to a variety of existing pole configurations.

Key standard features of LEDway SLM streetlights include:

- Sleek, low-profile form factor
- Drive current flexibility
- ±5° vertical adjustment w/ 2 ½° steps positions
- Surge suppression rated up to 10kV
- Toolless entry and quick disconnect harness
- Compatible with networked and non-networked lighting control systems
- UL, cUL listed, RoHS compliant



(shown) Horizontal Mount 0

LEDway SLM™ IP66 Streetlight

With more available options, the LEDway SLM IP66, an IP66 rated version of the LEDway SLM, can be mounted to a vertical or horizontal tenon for increased flexibility. In addition, LEDway SLM IP66 is UL, cUL, ENEC, and CE compliant. Product options include an occupancy sensor, dimming capabilities, and painted extrusion.

Key standard features of LEDway SLM streetlights include:

- Sleek, low-profile form factor
- Drive current flexibility
- Vertical or horizontal tenon mount
- Surge suppression up to 10kV
- Toolless entry and quick disconnect harness
- Compatible with networked and non-networked lighting control systems
- UL, cUL listed, ENEC, CE, and RoHS compliant



(shown) Horizontal Vertical Mount HV

PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDS (x10)
X5S	SLM	IS	0	02
X6S	SLM 66	2	HV	03
X6A		F		04
		3		05
		4		06
		5		
		R		
		G		
		K		
		H		
		J		
		2P		
		FP		
3P				
4P				



THE EDGETSP (Transportation Mount)

THE EDGETSP is designed for bridges, overpasses, roadways and tunnels. THE EDGE transportation mount luminaire helps reduce costs associated with maintaining high-traveled areas. Visibility and safety for vehicular and pedestrian traffic can be dramatically increased with overall improvements in illumination performance.

Key features of THE EDGETSP include:

- Mounting options; direct, catenary or pendant
- Through-wiring for easy installation
- Two-level option
- UL and cUL isted

PRODUCT	FAMILY	OPTIC	MOUNTING	NUMBER OF LEDS (x10)
TSP	EDG	5	0	02
		R	9	04
		A	HCP	06
		C		08
		D		10
				12
				14
				16
				20
				24

15  
THE EDGETSP  
(Transportation Mount)

Al Sowwah Island in Abu Dhabi, recently constructed an underpass and pedestrian walkway that runs from the main portion of the city to the island. THE EDGETSP luminaires with Type V Medium optics are installed under the elevated roadway. The luminaires are on 24/7 providing excellent visibility in the partially-enclosed roadway – an application that demands a low maintenance and cost-effective lighting solution. More than 55 percent energy savings and substantial reductions in maintenance costs were achieved.

# BetaLED is Your Trusted Partner

BetaLED delivers quality and experience to demanding professionals. Our knowledgeable application engineers and product representatives objectively assist you in considering your lighting solution options. We offer design layouts that optimize lighting performance and assist in selecting the best luminaire for each unique application.

Specify your architectural projects with confidence by selecting proven BetaLED lighting solutions. We provide the best quality, value and service available and honorably guarantee our products. For 30 years, parent company Ruud Lighting, Inc. has delivered lighting excellence and since 2007, has continued to lead the industry with ground-breaking BetaLED advancements.



Sowwah Street – Abu Dhabi

BetaLED is committed to providing industry-current educational information to guide you in understanding competitive performance claims so you can make informed buying decisions.

Be an informed decision maker with our Five Tips to a Fair Comparison:

1. Compare performance at the application level
2. Request certified photometric data
3. Validate lumen depreciation
4. Apply the appropriate light loss factors
5. Evaluate lifetime luminaire value

Find out more about Five Tips to a Fair Comparison at [www.BetaLED.com/ae](http://www.BetaLED.com/ae).

## Global Lighting Safety & Standards

BetaLED is committed to developing and manufacturing quality LED luminaires that meet industry lighting standards and guidelines set forth by organizations and agencies such as the International Dark-Sky Association, Underwriters Laboratories and the U.S. Environmental Protection Agency's (EPA) Energy Star program.



### Premier Illuminance

The Illuminating Engineering Society of North America (IESNA) new Backlight, Uplight, Glare or BUG standard of measurement provides improved performance descriptions and measurement for LED luminaires. This TM-15 Luminaire Classification System (LCS) for Outdoor Luminaires classifies luminaire photometric performance related to light trespass, sky glow, and high angle brightness control.



All Solid State Lighting (SSL) should meet the requirements of accepted safety standards through the independent testing of a Nationally Recognized Testing Laboratory (NRTL).



As an Energy Star partner and Department of Energy SSL Quality Advocate, BetaLED is committed to upholding program standards through testing and reporting. We are committed to delivering products that perform to these high agency standards.



### UL and cUL Wet Listed

All BetaLED products meet safety certifications through Underwriters Laboratories and are suitable for use in wet locations.



### International Dark Sky Association Compliance

All BetaLED products are International Dark-Sky Association (IDA) approved and are measured for performance using IESNA standards and guidelines including the IES BUG rating system which supersedes the former cut-off classification system.



### Environmentally Responsible

BetaLED offers a number of environmental advantages over traditional light sources. Our luminaires are lead-free, mercury-free and meet Restriction of Hazardous Substances (RoHS) regulations.



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LIGHTING  
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