KarbonCobra® Series

Powering the Future of Urban Infrastructure.

Next-gen streetlights with wireless controls and flexible lumen packages, built to meet the evolving demands of modern cities.

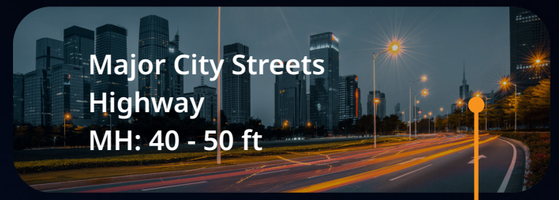
LEOTEK®

www.leotek.com

Built for Cities. Engineered for Savings.

Engineered for utility, municipal, DOT, roadway, and residential applications, KarbonCobra is one of the most carbon-conscious, high-performance cobra head solutions on the market. Its compact size, lighter weight, and reduced maintenance needs drive down total cost of ownership, while minimizing environmental impact.

Available in three sizes with scalable lumen packages (100W–400W HID equivalent), it's built to power the future of urban infrastructure.



KCO

1,200-7,900 lm

Up to 165 lm/W | 5.9 lbs

Dimensions
Length: 15.9" (403 mm)
Width: 7.6" (193 mm)
Height: 4.6" (118 mm)

KC1

2,100-15,700 lm

Up to 176 lm/W | 7.7 lbs

Dimensions
Length: 18.0" (485 mm)
Width: 9.0" (229 mm)
Height: 4.9" (125 mm)

KC2

10,000-29,000 lm

Up to 175 lm/W | 10.6 lbs

Dimensions
Length: 24.4" (619mm)
Width: 10.8" (273 mm)
Height: 4.8" (121 mm)

Total Cost of Ownership (TCO)

Value

- **Fast, Low-Cost Installation & Maintenance**
- **Low Carbon Footprint:** lightweight, high-efficacy design
- **ISO 14061-**1:2018 Carbon Verified
- **Future-Ready:** embedded node and software options
- **Human & Eco-Friendly:** low glare, comfort optics
- **Excellent Customer Support**
- **Optimized Lead Times**

Quality

- **3+ Million Units Deployed** with proven low failure rate
- **10-Year Standard Warranty**
- **Wide Temp Range:** Operates from -40°C to +50°C
- **IK10-Rated:** Maximum impact resistance for optics and housing
- **UL Wet Location Rated** (standard); optional **IP54 protection**
- **ISO 9001** Certified

Performance

- **Up to 176 lm/W** high efficacy
- Lumen output from **1,200 to 29,000 lm**
- **7 optical distributions** available for tailored lighting
- **Standard CCTs** plus customized low blue light options
- **90% of initial output @ 60,000 hours** (per IES LM-80 6x standards)

Single-Cast Housing

The single-cast KarbonCobra housing (KC0, KC1, KC2) uses corrosion-resistant ADC1 aluminum to deliver a continuous thermal path from the LED engine to ambient air, ensuring efficient, passive cooling along the entire luminaire.

This design enables a sleek, low-profile luminaire without compromising thermal efficiency.

All KarbonCobra luminaires pass the 5,000-hour ASTM B-117 salt spray test, thanks to low-copper alloys and a durable multi-stage polyester powder coat finish.

Coastal Paint Finish (Optional)

Optional ASTM G85 coastal finish protects paint integrity for installations within 1 mile of saltwater environments, ensuring long-term durability.

Vandal Resistant Design

- IK10-rated housing, optics, and access door for maximum impact resistance
- Aluminum access door for enhanced durability

Robust, Efficient Light Engines

- **High Efficacy, Low Stress:** Low current draws reduce thermal stress and extends LED lifespan.
- **Premium LED Technology:** Powered by advanced materials from top-tier vendors for long-life performance.
- **Long-Term Brightness:** Maintains 90% of initial output at 60,000 hours (per IES LM-80 6X standards).
- **Eco-Friendly:** RoHS compliant and 100% free of mercury and lead.
- **Durable Optics:** Constructed with UV and impact-resistant optical polymer for lasting clarity.
- **Superior Light Transmission:** One-piece optics outperform flat glass by minimizing light loss.
- **Precision Illumination:** Optimized to meet IESNA RP-8-18 standards, even in challenging environments.
- **Reduced Glare:** IP66-rated light engines use arrays of discrete LEDs offering better glare control than COB designs.
- **Enhanced Visual Comfort:** Distributed light sources improve visibility without sacrificing performance.

Control Ready Receptacle

- **Control-Ready:** Standard NEMA 7-pin receptacle with 0–10V dimming driver
- **Flexible Compatibility:** Supports shorting caps, photocells, and LEOTEK or third-party 0–10V wireless nodes
- **Optional Upgrade:** Zhaga 4-pin top receptacle available (requires D4i driver)

Smart Node (Optional)

- 0–10V plug-and-play smart wireless node
- Seamless integration with LEOTEK's and third-party asset management platforms

Zhaga Book 18 4-Pin Receptacle (Optional)

- Enables flexible, plug-and-play connectivity
- Current and future-ready integration
- D4i driver required
- Protective socket cap included

High Temperature Rating

A patent-pending design optimizes driver thermal dissipation, ensuring reliable performance in ambient temperatures from -40°C to +50°C.

High Efficacy

Up to 176 lm/W

Choice of Standard Finishes

GY (Gray)

BK (Black)

DB1 (Dark Bronze)

Reliable Housing Design:

- Standard UL wet location rated for reliable outdoor performance in rain and moisture
- Optional IP54 housing adds additional protection against dust and water for enhanced durability in harsh environments

Optional Performance Selector 'PS':

- Allows for easy field adjustment of wattage and lumen output, and reduced SKU complexity (fixed position dial ensures correct output setting)

Surge Protection

- 10kV/5kA standard
- 20kV/10kA optional per ANSI C136.2-2015

Power Supplies:

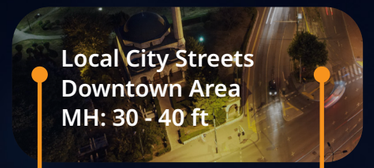
- Rated for 100,000 hours of operation
- Standard 0–10V dimming driver
- Optional D4i-certified DALI driver

Single Hand Tool-less door entry:

Single-Hand Access: Stainless steel latch allows quick, tool-less entry.

ComfortEnhanced™ Optics Technology

Engineered for Visual Comfort. Optimized for Uniformity.



KC1CE

3,000-13,700 lm

Up to 170 lm/W

KC2CE

9,000-25,000 lm

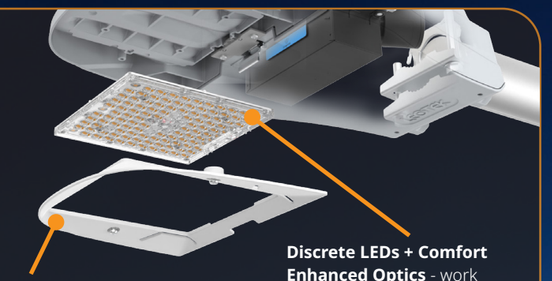
Up to 173 lm/W

LEOTEK's KarbonCobra ComfortEnhanced™ (KCCE)

Night-time streetlight glare can pose significant problems for drivers sometimes creating dangerous situations due to:

- Reduced visibility
- Eye discomfort and fatigue
- Distortion of distance perception
- Delayed reaction times, and more

KCCE streetlights reduce glare while maintaining optical performance for improved driver safety and comfort.



ComfortEnhanced Angled Transition Plate - Enhances light distribution uniformity across the target area.

Discrete LEDs + Comfort Enhanced Optics - work together to reduce harsh points of light and improve overall visual experience.

LEOTEK's Intelligent Lighting System

Standard 7Pin with Shorting Cap, or Photocell

Standard 7Pin with Control Node and Zhaga Bottom

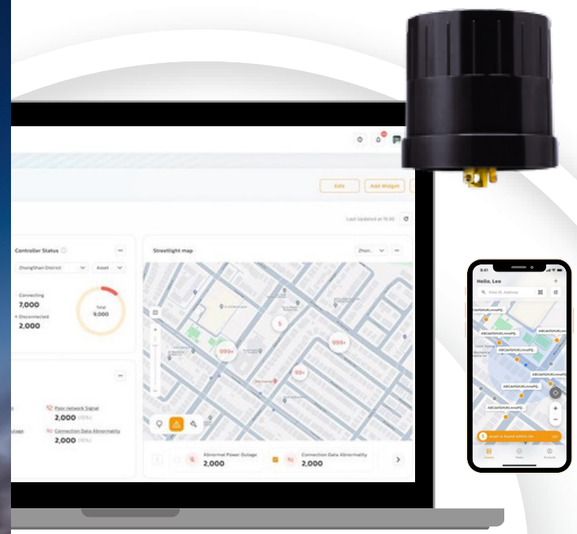
Innovated Embed Node with Zhaga Bottom

LEOTEK's Intelligent Lighting System (ILS) transforms a city's traditional streetlighting infrastructure into a responsive, AI-driven network by integrating its AI-driven RenAI central management platform (CMS). Its intelligent controllers, enable efficient energy use, real-time fault detection, and predictive maintenance across citywide lighting networks.

Easy "plug-and-play" deployment and scalability support municipalities in achieving operational excellence, public safety, and long-term sustainability. With ILS, cities are creating the backbone of a future-ready smart city.

Control Benefits

- Reduce energy usage by approx. 23%.
- Reduce carbon emissions by approx. 24%.
- Reduce outage hours by 92%.



RenAI Key Features

Remote Control
Remotely switch lights ON/OFF and adjust brightness via an intuitive user interface.

Scheduled Dimming
Automatically adjusts brightness levels based on ambient light and pre-set schedules.

Fault Detection & Notification
Monitor streetlight health and status in real time to detect and receive instant fault alerts.

Energy Consumption Management
Track usage, identify trends, and forecast energy needs for optimal efficiency.

Data Analysis & Reporting
Access historical insights, visualize data, and generate reports for informed decision-making.

AI Advisor (LiSA)
LiSA, our AI-powered assistant, is available 24/7 to streamline operations, quickly answer questions, generate charts and tables, and assist with troubleshooting to lighten your team's workload.

Visit LEOTEK.com to learn more about our lighting solutions.

FPO

VERSATEK

LEOTEK's VersaTEK Series is designed for ultimate project versatility for any Flood, Site & Area and OFF-Roadway application. Engineered with the latest LED and driver technologies, VersaTEK luminaires deliver up to 65,000+ lumens and efficacies as high as 190+ LPW.

ARIETA®

Suited for numerous applications, including parking lots, campuses, office complexes, streets and public parks, Arieta® is universally retrofittable. Arieta is available in two housing sizes (AR-13 & AR-18) and a wide range of lumen packages to match the visual scale of multiple mounting heights.

Post Top Colonial

LEOTEK's Post Top Colonial Lantern provides the traditional aesthetic of an old-style lantern with the versatility, cost-savings and benefits of advanced LED technology. The Post Top Colonial is a specification-grade luminaire constructed of durable die-cast aluminum and finished with long-lasting protective powder coat paint. Fasteners are stainless-steel, captive, and tool-less. While traditional in design, the Post Top Colonial incorporates state of the art long-life rated components and is tested to meet rigorous industry standards.

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