



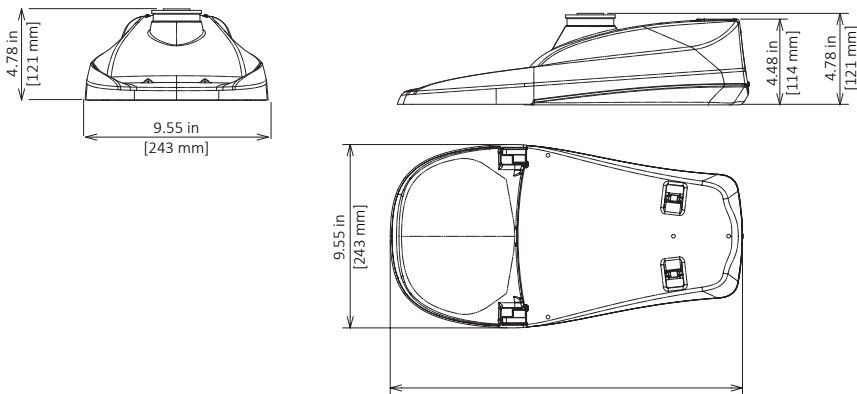
Project
Type
Catalog No.

ComfortView™

Neighborhood LED Streetlight (CV)

Luminaire Data

Weight 8lbs [3.6kg]
EPA 0.39 ft²



Ordering Information

Sample Catalog No. CV1-H-MV-40K-2R-GY-045-PCR7-CR-BABA

Product*	LED Code	Voltage	Color Temperature	Distribution	Finish¹	Output Code²	General Options
CV1 If Build America, Buy America Act (BABA) compliance is required, please refer to 'BABA Domestic Build Option' located under 'General Options' and refer to footnote #13 for additional details.	H	MV 120-277V HV 347-480V	22K 2200K 27K 2700K 30K 3000K 40K 4000K	2R Type 2 3R Type 3	GY Gray DB Dark Bronze BK Black	025 030 035 040 045 050 055 060 070 075 080	FOC³ Fixed Output Code LPCR Less Photocontrol Receptacle PCR7⁴ ANSI 7-wire Photocontrol Receptacle PCR7-CR⁵ Control Ready 7-wire PC Receptacle WL Utility Wattage Label 4B 4-Bolt Mounting Bracket RWG Rubber Wildlife Guard SWTB Straight Wire Terminal Block BBL Bubble Level CF⁶ Coastal Paint Finish LSSP2 20/10 SPD, Fail-to-off BABA¹³ BABA Domestic Build Option Build America, Buy America Act Compliant (meets Oct. 1, 2026 final US assembly, 55% content material requirements) LEOLink ILS™ Intelligent Lighting System¹⁴ * See pg. 5 for additional LEOLink ordering & system details * (refer to LEOLink ILS specification sheets for complete specification & ordering information)

- Notes:
- Gray, Black, and Dark Bronze standard. Consult factory for other finishes.
 - Specified output code is the factory-set lumen performance. Field adjustability is standard via an eight-position output selector. Refer to the output data table in this specification sheet. An illustration of the output selector and its label is shown on page 2. Consult factory if a special output setting is required.
 - Non-field-adjustable, fixed lumen output. Specify the required output code. Not available with the PCR7-CR option.
 - Includes an output selector that enables field adjustability of light levels. Includes connectors to allow easy upgrade of wireless dimming via PCR7. Wireless node by others.
 - Control-ready and wired at the factory for wireless-node dimming (node by others). The output selector is not included, and output cannot be adjusted above the specified output code.
 - Specify the CF option for coastal installation. See warranty for details.
 - Flush-mounted cul-de-sac shield cuts light off at one mounting height behind the luminaire, 1-3/4 in front, and 2-1/4 times the mounting height laterally.
 - Flush-mounted front-side shield cuts light off at approximately 1-1/2 times the mounting height in front of the luminaire (street side) and 2-1/4 times the mounting height laterally.
 - Flush-mounted house-side shield cuts light off at one mounting height behind the luminaire and 2-3/4 times the mounting height laterally.
 - The 80-degree cutoff shield mitigates high-angle glare above 80 degrees from nadir and cuts light off at 1-1/2 times the mounting height behind and 2-1/3 times the mounting height laterally.
 - Specify color (GY, DB, BK).
 - Specify MV (120-277V) or HV (347-480V).
 - The 'BABA' option must be specified to meet Oct. 1, 2026 Build America, Buy America Act (BABA) guidelines. Failure to specify the 'BABA' ordering code will result in receiving non-BABA-compliant product (with no recourse for an RMA, product exchange, or refund).
 - 'NB01P05/10' requires 'PCR7-CR' and is available in 'MV' 120-277V; contact factory for 'HV' 347-480V. A RenAI subscription and network data plan are required; see the LEOLink ordering page for details.

Accessories*	
CSSCV⁷ FSSCV⁸ HSSCV⁹ VHCS¹⁰	Cul-De-Sac Side Shield, Snap-On* Front Side Shield, Snap-On* House Side Shield, Snap-On* 80 Degree Cutoff Shield, Grey*
PTB¹¹ PTB2¹¹ RPB¹¹ SPB¹¹ WB¹¹	Pole Top Tenon Horizontal Arm Bracket Pole Top Tenon Horizontal Arm Bracket (2@180°) Round Pole Horizontal Arm Bracket Square Pole Horizontal Arm Bracket Wall Horizontal Arm Bracket
LLPC¹² SC	Long-Life Twist Lock Photocontrol Twist Lock Shorting Cap
BSK	Bird Deterrent Spider Kit

*Accessories are ordered separately and not to be included in the catalog number. For factory installed HSSCV, CSSCV, FSSCV and VHCS specify as option in luminaire catalog number. HSSCV, CSSCV, FSSCV can be installed without a tool, but a tool is required for removal. 80 Degree Cutoff Shield (VHCS) requires a Phillips head screwdriver for installation.



Luminaire Specifications

Housing

Die cast aluminum housing with universal two-bolt slip fitter mounts to 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter mast arm. One-piece aluminum housing provides passive heat-sinking of the LEDs and has upper surfaces that shed precipitation. Four-bolt mounting bracket (4B option) is available. Mounting provisions meet 3G vibration per ANSI C136.31-2010 Normal Application, Bridge & Overpass by independent lab. Mounting has leveling adjustment from $\pm 5^\circ$ in 2.5° steps. All hardware is stainless steel. Electrical components are accessed without tools via die cast aluminum door with stainless steel quick release latches. Provided standard with removable polycarbonate wildlife guard. For additional protection, optional rubber wildlife guard (RWG) which conforms snugly to the mast arm is offered.

Light Emitting Diodes

Hi-flux/Hi-power white LEDs produce a minimum of 90% of initial intensity at 100,000 hours of life based on IES TM-21 (L90 $\geq$ 100k hours). LEDs are tested in accordance with IES LM-80 testing procedures. LEDs have correlated color temperature of 2200K (22K), 2700 (27K), 3000 (30K), 4000 (40K), and 70 CRI minimum. LEDs are 100% mercury and lead free.

Field Adjustability

LED lumen output can be changed in the field to adjust light output for local conditions (not available with PCR7-CR option). The specified output code will be the factory set output. Field adjustments can be made with the output selector included in the fixture. Field adjustable range shown in performance data table.

Quality Control

Every luminaire is performance tested before and after a 2-hour burn-in period. Assembled in the USA.

Optical Systems

Two-stage reflective optics produce IESNA Type 2 or Type 3 distributions and are fully sealed to maintain an IP66 rating. Luminaire produces 0% total lumens above 90° (BUG Rating, U=0). Optional house side shield cuts light off at 1/2 mounting height behind luminaire. Cul-de-sac shield provides back and side light control for end of cul-de-sac applications. Front side shield cuts light off at approximately one mounting height in front of luminaire (street side). 80 degree cutoff shield eliminates very high angle glare above 80 degrees from nadir. All shields are field installable without tools.

Electrical

Rated life of electrical components is 100,000 hours. Uses isolated power supply that is 1-10V dimmable. Power supply is wired with quick-disconnect terminals. Power supply features a minimum power factor of .90 and <20% Total Harmonic Distortion (THD). EMC meets or exceeds FCC CFR Part 15. Terminal block accommodates 6 to 14 gauge wire. Surge protection complies with IEEE/ANSI C62.41 Category C High, 20kV/10kA and ANSI C136.2-2015, 20kV/10kA.

LEOLink Intelligent Lighting System

With PCR7-CR and an NB01P05/10 controller, LEOLink RenAI provides remote monitoring, fault alerts, energy data, scheduling, and performance control. RenAI and cellular data subscriptions are required. See page 5.

Finish

Housing receives a durable, fade-resistant polyester powder coat finish with 3.0 mil nominal thickness. Standard finish tested to withstand 5000 hours in salt spray exposure per ASTM B117 and Coastal Finish per ASTM G85. Finish meets scribe creepage rating 8 per ASTM D1654. Finish tested 500 hours in UV exposure per ASTM G154 and meets ASTM D523 gloss retention.

Listings/Ratings/Labels

Luminaires are UL listed for use in wet locations in the United States and Canada. International Dark Sky Association listed. 2700 and 3000K ComfortView fixtures are certified as Community Friendly Lighting Equipment by the Smart Outdoor Lighting Alliance (SOLA). Luminaire is qualified to operate at ambient temperatures of -40°C to 40°C .

Photometry

Luminaire photometrics are tested by certified independent testing laboratories in accordance with IES LM-79 testing procedures.

Warranty

10-year limited warranty is standard on the luminaire and components. LEOLink Controllers can be specified with 5-year and 10-year limited warranties. See LEOTEK.com for details, terms, and conditions.

Vandal Resistance

Housing and optics rated to IK10

Government Procurement Compliance

BAA- Buy America(n) Act: All LEOTEK luminaires qualify as a "Domestic End Product" per the Buy American Act as governed by FAR and DFARS.

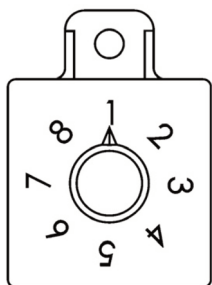
BABA- Build America Buy America: All LEOTEK luminaires ordered with the 'BABA' option code are compliant per BABA requirements as outlined per the Federal Highway Administration (FHWA).

Standards

Luminaire complies with:

ANSI: C136.2, C136.3, C136.10, C136.13, C136.15, C136.22, C136.31, C136.35, C136.37, C136.41, C62.41, C78.377, C82.77

Other: FCC 47 CFR, IEC 60598, ROHS II, UL 1449, UL 1598



Refer to the Performance Data Tables (below) for the lumen output corresponding to the output selector value.

Performance Data¹

All data nominal. IES files for all CCTs available at leotek.com.

Product	Color Temperature (CCT)	Output Code	Dial Selection	System Wattage (W)	Delivered Lumens (Lm) ²	Efficacy (Lm/W)	Field Adjustable Output Range
CV1-H	2200 (22K)	020	1	19	2087	110	↑
		025	2	24	2693	112	
		030	3	29	3224	111	
		040	4	34	3876	114	
		043	5	38	4222	111	
		045	6	43	4653	108	
		050	7	48	5101	106	
		065	8	66	6722	102	
	2700K (27K)	025	1	19	2242	118	↑
		030	2	24	2892	120	
		035	3	29	3463	119	
		040	4	34	4163	122	
		045	5	38	4535	119	
		050	6	43	4998	116	
		055	7	48	5479	114	
		070	8	66	7220	110	
	3000K (30K)	025	1	19	2412	127	↑
		030	2	24	3073	128	
		035	3	29	3676	127	
		045	4	35	4423	128	
		050	5	38	4777	126	
		055	6	45	5561	124	
		060	7	49	5800	118	
		075	8	67	7722	115	
	4000K (40K)	025	1	19	2675	139	↑
		035	2	24	3294	137	
		040	3	29	3930	136	
		045	4	34	4561	134	
		050	5	38	5059	133	
		055	6	43	5594	130	
		060	7	48	6147	128	
		080	8	67	8227	123	

Notes:

1 Data shown above is for type 2 optic. For type 3 optic, consult IES files for specific data at Leotek.com

2 Nominal lumens. Normal tolerance ± 10% due to factors including LED bin variance, and ambient temperatures.

BUG Ratings

All data nominal. IES files for all CCTs available at leotek.com.

Product	Color Temperature (CCT)	Output Code	Dial Selection	Type 2R	Type 3R
				BUG Rating	BUG Rating
CV1-H	2200K (22K)	020	1	B1-U0-G1	B1-U0-G1
		025	2	B1-U0-G1	B1-U0-G1
		030	3	B1-U0-G1	B1-U0-G1
		040	4	B1-U0-G1	B1-U0-G1
		043	5	B1-U0-G1	B1-U0-G1
		045	6	B1-U0-G1	B2-U0-G1
		050	7	B1-U0-G1	B2-U0-G1
		065	8	B2-U0-G1	B2-U0-G2
	2700K (27K)	025	1	B1-U0-G1	B1-U0-G1
		030	2	B1-U0-G1	B1-U0-G1
		035	3	B1-U0-G1	B1-U0-G1
		040	4	B1-U0-G1	B1-U0-G1
		045	5	B1-U0-G1	B2-U0-G1
		050	6	B1-U0-G1	B2-U0-G1
		055	7	B1-U0-G1	B2-U0-G1
		070	8	B2-U0-G1	B2-U0-G2
	3000K (30K)	025	1	B1-U0-G1	B1-U0-G1
		030	2	B1-U0-G1	B1-U0-G1
		035	3	B1-U0-G1	B1-U0-G1
		045	4	B1-U0-G1	B1-U0-G1
		050	5	B1-U0-G1	B2-U0-G1
		055	6	B1-U0-G1	B1-U0-G1
		060	7	B1-U0-G1	B2-U0-G1
		075	8	B2-U0-G1	B2-U0-G2
	4000K (40K)	025	1	B1-U0-G1	B1-U0-G1
		035	2	B1-U0-G1	B1-U0-G1
		040	3	B1-U0-G1	B1-U0-G1
		045	4	B1-U0-G1	B2-U0-G1
		050	5	B1-U0-G1	B2-U0-G1
		055	6	B1-U0-G1	B2-U0-G1
		060	7	B2-U0-G1	B2-U0-G1
		080	8	B2-U0-G1	B3-U0-G2

LEOLink ILS™ Intelligent Lighting System for Tomorrow's Smart & Sustainable Cities

Smart...Scalable...Effortless

LEOLink ILS is the next evolution in street lighting, integrating AI and IoT to transform a city's traditional outdoor lighting infrastructure into a smart, adaptive network. It empowers municipalities and utilities with real-time control, predictive maintenance, and rapid scalability, all with unmatched simplicity.

Integrating LEOTEK's AI-driven centralized management platform (LEOLink RenAI) with intelligent streetlight controllers, LEOLink ILS provides 24x7 visibility into the status and performance of streetlights enabling efficient energy use, real-time fault detection, and predictive maintenance across city-wide lighting networks. Easy "plug-and-play" deployment and scalability support users in achieving operational excellence, public safety, and long-term sustainability. With LEOLink ILS, cities are creating the backbone of a future-ready smart city.

Key Functions

Centralized, Remote Management

Gain complete control of your city's smart lighting infrastructure from a single, intuitive platform.

Instant Response to Anomalies

Automatically identify and respond to abnormal lighting behavior in real-time.

AI-Powered Predictive Maintenance

Detect and address faults before they occur, minimizing downtime and maintenance costs.

Actionable Insights Through Data Visualization

Monitor asset performance and energy trends with clear, interactive dashboards and reports.

Energy Efficiency & Cost Savings

Optimize energy usage with intelligent scheduling and dimming, reducing operational expenses.

LEOLink Controllers Key Features & Benefits

The smartest fit for 7-PIN NEMA fixtures. Engineered to deliver seamless performance, trusted security, and plug-and-play simplicity, all in one powerful, next-generation controller.



Self-Monitoring & Fault Detection

Controllers continuously monitor the luminaire's operational status, identifying power outages, failures, and abnormal energy patterns for fast diagnostics and improved maintenance efficiency.



Ultra-High Connectivity

Dual-mode cellular communication using the world's most reliable and secure carriers ensures a 99.5% connection success rate, delivering reliable continuous data transmission even in challenging environments.



Built-In Surge Protection

Advanced surge protection against lightning and voltage spikes safeguards critical streetlight infrastructure.



AI-Driven Adaptive Dimming

Participates with LEOLink RenAI to enable intelligent dimming strategies, including human-centric lighting adjustments based on real-time traffic, weather, and pedestrian activity.



Predictive Maintenance & Analytics

Advanced failure analysis and predictive diagnostics move cities from reactive to preventative maintenance strategies that reduce downtime and operational costs.



*LEOLink 'NB01P05/10' Smart Controller

LEOLink RenAI Central Management System Key Features & Benefits

RenAI is an AI-powered, cloud-based Central Management System (CMS) that turns streetlighting into a dynamic, adaptive, and self-optimizing network. Using a native AI foundation, it analyzes both real-time and historical data—surpassing traditional CMS capabilities—to address the complex needs of modern roadway infrastructure. The result: improved energy efficiency, reduced operational costs, and enhanced public safety for utilities and municipalities.



LiSA (LEOTEK intelligent Service Advisor)

LiSA, our AI-powered assistant, is available 24/7 to streamline operations, quickly answering questions, generating charts and tables, and assisting with troubleshooting to lighten your team's workload.



Asset Management

Collect and track roadway infrastructure asset information such as streetlight fixtures, poles and controllers to drive operational efficiencies from field maintenance to life cycle management.



Remote Control

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



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.



Scheduled Dimming

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



LEOLink Intelligent Lighting System (ILS) Ordering Information*

(*add to end of luminaire catalog number to ship controller with the luminaire)

Sample Catalog No. Luminaire w/ Controller: CV1-H-MV-40K-2R-GY-045-PCR7-CR-BABA-**NB01P10-R10-D10** (controllers will ship included with the luminaire)

Sample Catalog No. for Controller Only: **NB01P05-R05-D05** (controllers will ship separately from the luminaire)

LEOLink Smart Controllers		RenAI CMS Subscription		Network Data Plan	
NB01P05 ¹	LEOLink 7-PIN Controller, 5YR Warranty (120-277V)	R01	RenAI, One Year SaaS Subscription	D01	Data Plan, One Year Subscription
NB01P10 ¹	LEOLink 7-PIN Controller, 10YR Warranty (120-277V)	R05	RenAI, Five Year SaaS Subscription	D05	Data Plan, Five Year Subscription
		R10	RenAI, Ten Year SaaS Subscription	D10	Data Plan, Ten Year Subscription
		R00 ²	RenAI, No SaaS Subscription	D00 ²	Data Plan, No Subscription

1. For each controller, a RenAI CMS Subscription "RXX" and Network Data Plan "DXX" is required. Please refer to the LEOLink ILS specification sheets and ordering guide for complete ordering and specification details.

2. "R00" and "D00" options require prior approval from LEOTEK. Please contact factory for details.