

KarbonCobra ComfortEnhanced™ LED Streelight Series

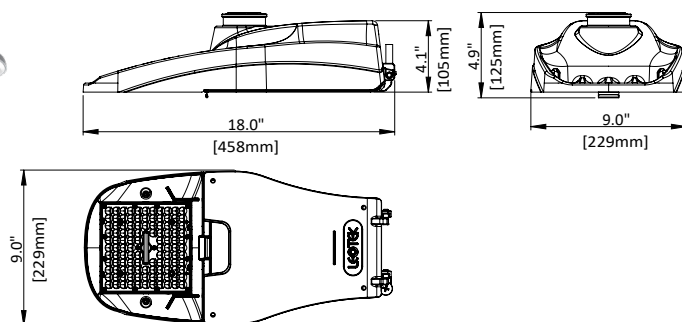
KC1CE Specification Data Sheet



Luminaire Data

Weight 7.8 lbs [3.6kg]

EPA 0.37 ft²



Ordering Information

Sample Catalog No.: KC1CE-112A-MV-30K7-T2R-DB1-CF-P5-SP2-PS-WL1-BBL-PT6

Product	LED Code	Voltage	Color Temp CRI	Optical Distribution	Finish*	Performance Code
KC1CE KarbonCobra Size 1 ComfortEnhanced	112 A 112 LEDs Gen-A	MV 120-277Vac HV 347-480Vac	22K7 2700K, 70CRI 27K7 2700K, 70CRI 30K7 3000K, 70CRI 40K7 4000K, 70CRI 50K7 5000K, 70CRI	T2R Type-2(regular) T3R Type-3(regular)	BK Black DB1 Dark Bronze (RAL8019) GY Gray CF¹ Coastal Finish	P1 to P22 (see Page 3, 4 for details)

Driver & Control Options	General Options
Driver Options (0-10V driver standard) D4i² DALI D4i Driver	Surge (10kV/5kA, Fail-to-On Surge Protection Device standard) LSSP2 20kV/10kA Extreme Surge, Fail-to-Off SP2 20kV/10kA Extreme Surge, Fail-to-On
Receptacle Options (ANSI 7-PIN Control Ready Receptacle standard.) ³ LLPCR No Receptacle On Top of the luminaire TLR4U² D4i DALI 4-PIN Twist Lock Receptacle (Top) TLR4L² D4i DALI 4-PIN Twist Lock Receptacle (Bottom)	Wattage Label WL Wattage Label, ANSI C136.15-2015 compliant WL1 Wattage Label, ANSI C136.15-2020 compliant
Control Options LLPC⁴ Long Life Photocell PS⁵ Field Adjustable Performance Selector SC Shorting Cap (factory installed) ZMSL2⁹ Zhaga Book 18 Motion Sensor w/ L2 Lens ZMSL7⁹ Zhaga Book 18 Motion Sensor w/ L7 Lens	Shields* CSS Cul-De-Sac Shield, Snap-On (factory installed) FSS Front Side Shield, Snap-On (factory installed) HSS House Side Shield, Snap-On (factory installed) VHS 80 Degree Cutoff Shield, Snap-On (factory installed)
	Other BBL Bubble level (inside of the housing) DSC Optional Door Safety Cable DFXXX⁷ Double Fuse ('XXX' = specify 208, 240, 480V) IP54⁶ Luminaire level IP54 PTX⁸ 12 AWG Three-Wire Pigtail with Length in Feet ('X' = specify length 3, 6, 10) RWG Rubber Wildlife Guard SFXXX⁷ Single Fuse ('XXX' = specify 120, 277, 347V)

New Features

- ComfortEnhanced technology provides low glare for enhanced visual comfort and safety.
- 7 Pin ControlReady Receptacle Standard.
- Luminaire-level IP54 rating optional.
- Up to 18 Performance Codes.
- Full dimming capability with PS, up to 2,000+ output options.
- Up to 50°C rating.
- Die-cast aluminum ADC1 housing.
- Single Hand door release, tool free.
- Standard 3-position straight terminal block.

General Accessories*
Shields* CSSKC1CE Cul-De-Sac Shield, Snap-On* FSSKC1CE Front Side Shield, Snap-On* HSSKC1CE House Side Shield, Snap-On* VHSSKC1CE 80 Degree Cutoff Shield, Snap-On*
Mounting Brackets (Specify finish)** PTB Pole Top Tenon Horizontal Arm Bracket PTB2 Pole Top Tenon Horizontal Arm Bracket (2@180°) RPB Round Pole Horizontal Arm Bracket SPB Square Pole Horizontal Arm Bracket WB Wall Horizontal Arm Bracket
Other** BSK Bird Deterrent Spider Kit LLPCMIV Long Life Photocontrol MV LLPCHV Long Life Photocontrol HV

*Unless specified for field installation, Shields are shipped installed.

**All Mounting and Other Accessories are ordered & shipped separately, not to be included in the luminaire's catalog number.

1. Specify the CF Option for coastal installation. See warranty for details.

2. 'TLR4U' & 'TLR4L' twist lock receptacle option requires 'D4i' DALI driver option to be selected. 'D4i' is only available with 120-277Vac 'MV' option.

3. ANSI 7-PIN Control Ready Receptacle standard, is compatible with 'LLPC', 'SC', and 'PS' and Networked Lighting Controls (NLC) nodes (by LEOTEK or others).

4. 'LLPC' & 'SC' do not ship installed, included w/ luminaire.

5. 'PS' Field Adjustable Performance Selector enables field adjustable light output dimming control from the specified Performance Code (see table on pg.3 and pg.4 for details).

6. When 'IP54' is specified, 'RWG' will be included.

7. For single or double fusing, 'XXX' must specify required voltage.

8. 'PTX' option, 'X' must specify pigtail length in feet.

9. 'ZMSL2', or 'ZMSL7' Zhaga Book 18 motion sensor option require both "D4i" DALI driver option and 'TLR4L' D4i DALI 4-PIN twist lock receptacle (bottom) to be selected.

Top receptacle for use with wireless DALI control node (by LEOTEK or others).



Luminaire Specifications

Housing & Construction

Die-cast aluminum ADC1 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. Mounting provisions meet 3G vibration per ANSI C136.31 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 one stainless steel quick release latch. Provided standard with removable polycarbonate wildlife guard. For additional protection, optional rubber wildlife guard (RWG) which conforms snugly to the mast arm is offered. All exposed hardware and fasteners are corrosion resistant stainless-steel. Entire luminaire is IP54 rated if 'IP54' option is specified.

Light Emitting Diodes

Hi-flux/Hi-power white LEDs produce a minimum of 90% of initial lumen output at 60,000 hours of life based on IES TM-21 (at 25°C) LEDs are tested in accordance with IES LM-80 testing procedures. IES TM-21 lumen maintenance life projection is based on 6X the duration of the LED's IES LM-80 performance data. LED correlated color temperature options of 2200K, 2700K, 3000K, 4000K, or 5000K @ 70CRI. LEDs are 100% mercury and lead free.

Power Supply

IP66 rated power supply with high power factor of > 90%. Auto sensing universal AC input from 120 to 277VAC (MV model) and 347 to 480VAC (HV mode) rated for both line to line and line to neutral applications. Maximum THD rating of 20%. Class 1 or Class 2. Built-in overheating protection mechanism will reduce drive current to LEDs and electrical components if the driver experiences unusual internal overheating situation. Built-in short circuit, voltage overload, and current overload protection with automatic recovery after correction.

Optical Systems

ComfortEnhanced™ low glare LED engine with angled transition plate design. (patent pending). All micro-lens optical systems produce IESNA Type2, 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(HSS) cuts light off at 1/2 mounting height behind luminaire. Front side shield (FSS) cuts light off at approximately one mounting height in front of the luminaire (street side). Cul-de-sac shield (CSS) provides back and side light control for end of cul-de-sac applications. 80 degree cutoff shield (VHS) eliminates very high angle light above 80 degrees from luminaire. All shields are field installable without tools. (see 'Ordering Information' for details).

Photometry

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

Electrical

Rated life of electrical components is 100,000 hours. Standard 0-10V dimmable drivers use an isolated power supply with 6kV integral surge standard. Power supply features a minimum power factor of 0.90 and <20% Total Harmonic Distortion (THD). EMC meets or exceeds FCC CFR Part 15. Optional DALI D4i certified LED drivers also available, which complies with IEC 62386 and ANSI C137.4 and DiA. Standard 3-position straight terminal block accommodates 6 to 16 AWG wire. Standard surge protection (10kV/5kA) complies with IEEE/ANSI C62.41 and ANSI C136.2-2015. Optional 'SP2' and 'LSSP2' provides (20kV/ 10kA) extreme level surge protection.

Field Adjustability

Optional Performance Selector 'PS' is an integral 8-step fixed position dial allowing field adjustable lumen and wattage dimming control for added project and design versatility to meet installation specific requirements. The specified Performance Code provides maximum lumen output and will be factory set when the 'PS' option is selected. Only compatible KarbonCobra standard 0-10V drivers. Not compatible with 'D4i' DALI driver option.

Controls

Standard ANSI C136.41 7-wire controls ready receptacle is compatible with shorting cap (SC), photocell (LLPCMV/LLPCHV), wireless control module/node by others and LEOTEK's smart lighting control solutions (contract factory for details and availability). All 7-wire photocontrol receptacles have tool-less rotatable bases with a positive lock to not allow for over-rotation and possible damage to the receptacle. Optional DALI D4i driver configurations are also available for added controllability and design flexibility and design. DALI compatible 'TLR4U' and 'TLR4L' 4-PIN twist lock receptacle options available (wireless DALI control nodes or sensors by others).

Quality Control

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

Finish

Housing receives a fade and abrasion resistant polyester powder coat finish with 3.0 mil nominal thickness. Finish tested to withstand 5000 hours in salt spray exposure per ASTM B117 and Coastal Finish per ASTM G85. 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. IP54 rating is optional. Luminaires are qualified to operate at ambient temperatures of -40°C to 50°C (-40°F to 122°F), some performance codes are qualified to operate at ambient temperatures of -40°C to 40°C (-40°F to 104°F), see details on page 3 and page 4.

Warranty

10-year limited warranty is standard on luminaire and components. See LEOTEK.com for warranty details, terms and conditions.

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

Vandal Resistance

Housing and optics rated to IK10.

Color Specifications

Order Code	Color	RAL #	Pantone Equivalent
GY	Gray	7040	429C
BK	Black	9004	BLACK 6C
DB1	Dark Bronze	8019	412

TM21 Lumen Maintenance per IEC TM21-11 Calculation

Model Number	50,000 Hours	60,000 Hours	80,000 Hours	100,000 Hours
KC1CE 112A (P1-P18)	94%	94%	92%	91%
KC1CE 112A (P19-P22)	87%	85%	82%	78%

Nominal Performance Data 2200K (22K7) (2R optic, 70CRI, standard IK10 rated lens)

All data shown is nominal. Normal tolerance +/- 10% due to factors that include distribution type, LED bin variance and ambient temperatures.

LED Code	Performance Code	System Wattage (W) WL2	Delivered Lumens(Lm) ¹	Wattage Label WL1 ³	Lumen Label WL1 ³	Efficacy (Lm/W)
112A	P1	21	3,060	20	3,000	3,000
	P2	24	3,509	20	3,000	3,000
	P3	28	3,974	30	4,000	4,000
	P4	31	4,439	30	4,000	4,000
	P5	35	4,895	40	5,000	5,000
	P6	38	5,344	40	5,000	5,000
	P7	41	5,785	40	6,000	6,000
	P8	45	6,219	50	6,000	6,000
	P9	49	6,656	50	7,000	7,000
	P10	52	7,105	50	7,000	7,000
	P11	56	7,555	60	7,000	7,000
	P12	61	7,916	60	8,000	8,000
	P13	64	8,321	60	8,000	8,000
	P14	68	8,718	70	9,000	9,000
	P15	72	9,104	70	9,000	9,000
	P16	76	9,481	80	9,000	9,000
	P17	80	9,849	80	10,000	10,000
	P18	84	10,207	80	10,000	10,000
	P19	87	10,555	90	10,000	10,000
	P20	91	10,894	90	11,000	11,000

Nominal Performance Data 2700K (27K7) (2R optic, 70CRI, standard IK10 rated lens)

All data shown is nominal. Normal tolerance +/- 10% due to factors that include distribution type, LED bin variance and ambient temperatures.

LED Code	Performance Code	System Wattage (W) WL2	Delivered Lumens(Lm) ¹	Wattage Label WL1 ³	Lumen Label WL1 ³	Efficacy (Lm/W)
112A	P1	21	3,351	20	3,000	156
	P2	24	3,844	20	4,000	156
	P3	28	4,353	30	4,000	152
	P4	31	4,861	30	5,000	153
	P5	35	5,361	40	5,000	150
	P6	38	5,853	40	6,000	150
	P7	41	6,336	40	6,000	151
	P8	45	6,811	50	7,000	148
	P9	49	7,290	50	7,000	145
	P10	52	7,782	50	8,000	146
	P11	56	8,274	60	8,000	144
	P12	61	8,669	60	8,000	139
	P13	64	9,114	60	9,000	139
	P14	68	9,548	70	9,000	137
	P15	72	9,971	70	10,000	135
	P16	76	10,384	80	10,000	133
	P17	80	10,787	80	11,000	132
	P18	84	11,179	80	11,000	130
	P19	87	11,560	90	11,000	130
	P20	91	11,931	90	12,000	128
	P21	95	12,292	100	12,000	126

Notes:

1. Nominal lumens. Normal tolerance $\pm$ 10% due to factors including distribution type, LED bin variance, and ambient temperatures
2. WL- Wattage Label, ANSI C136.15-2015 compliant.
Wattage- is rounded to the nearest value multiples of 10.
3. WL1- Wattage Label, ANSI C136.15-2020 compliant:
Wattage- is rounded to the nearest value multiples of 10.
Lumens- is rounded to the nearest value multiples of 1,000 lumens. (up to 24,000 lumens).
4. Maximum LED drive current is 500mA.

Nominal Performance Data 3000K (30K7) (2R optic, 70CRI, standard IK10 rated lens)

All data shown is nominal. Normal tolerance +/- 10% due to factors that include distribution type, LED bin variance and ambient temperatures.

LED Code	Performance Code	System Wattage (W) WL2	Delivered Lumens(Lm) ¹	Wattage Label WL1 ³	Lumen Label WL1 ³	Efficacy (Lm/W)
112A	P1	21	3,497	20	3,000	163
	P2	24	4,011	20	4,000	163
	P3	28	4,542	30	4,000	158
	P4	31	5,073	30	5,000	160
	P5	35	5,595	40	5,000	156
	P6	38	6,108	40	6,000	157
	P7	41	6,612	40	6,000	158
	P8	45	7,107	50	7,000	154
	P9	49	7,607	50	7,000	152
	P10	52	8,120	50	8,000	153
	P11	56	8,634	60	8,000	151
	P12	61	9,046	60	9,000	145
	P13	64	9,510	60	9,000	145
	P14	68	9,963	70	10,000	143
	P15	72	10,405	70	10,000	141
	P16	76	10,836	80	11,000	139
	P17	80	11,256	80	11,000	137
	P18	84	11,665	80	11,000	136
	P19	87	12,063	90	12,000	135
	P20	91	12,450	90	12,000	134
	P21	95	12,826	100	13,000	132

Nominal Performance Data 4000K (40K7) / 5000K (50K7) (2R optic, 70CRI, standard IK10 rated lens)

All data shown is nominal. Normal tolerance +/- 10% due to factors that include distribution type, LED bin variance and ambient temperatures.

LED Code	Performance Code	System Wattage (W) WL2	Delivered Lumens(Lm) ¹	Wattage Label WL1 ³	Lumen Label WL1 ³	Efficacy (Lm/W)
112A	P1	21	3,643	20	4,000	169
	P2	24	4,178	20	4,000	170
	P3	28	4,731	30	5,000	165
	P4	31	5,284	30	5,000	166
	P5	35	5,828	40	6,000	163
	P6	38	6,362	40	6,000	164
	P7	41	6,887	40	7,000	164
	P8	45	7,403	50	7,000	161
	P9	49	7,923	50	8,000	158
	P10	52	8,459	50	8,000	159
	P11	56	8,994	60	9,000	157
	P12	61	9,423	60	9,000	151
	P13	64	9,906	60	10,000	151
	P14	68	10,378	70	10,000	149
	P15	72	10,839	70	11,000	147
	P16	76	11,287	80	11,000	145
	P17	80	11,725	80	11,000	143
	P18	84	12,151	80	12,000	141
	P19	87	12,566	90	12,000	141
	P20	91	12,969	90	13,000	139
	P21	95	13,361	100	13,000	137
	P22	98	13,741	100	13,000	137

Notes:

1. Nominal lumens. Normal tolerance $\pm$ 10% due to factors including distribution type, LED bin variance, and ambient temperatures
2. WL- Wattage Label, ANSI C136.15-2015 compliant.
Wattage- is rounded to the nearest value multiples of 10.
3. WL1- Wattage Label, ANSI C136.15-2020 compliant:
Wattage- is rounded to the nearest value multiples of 10.
Lumens- is rounded to the nearest value multiples of 1,000 lumens. (up to 24,000 lumens).
4. Maximum LED drive current is 500mA.

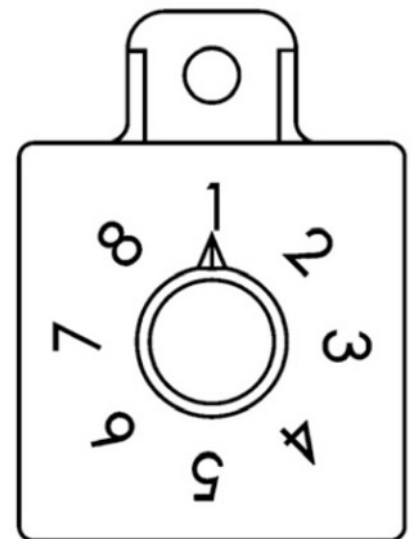
Field Adjustable Performance Selector 'PS'

The optional Performance Selector is an integral dial that allows for field adjustable lumen/wattage dimming control for added design versatility. Normal tolerance +/- 5%. 'PS' dial ships from the factory at the maximum 100% output setting #8 which equals the customer specified Performance Code.

PS Position	Lumen Output %	P1 Wattage	P2 Wattage	P3 Wattage	P4 Wattage	P5 Wattage	P6 Wattage	P7 Wattage	P8 Wattage	P9 Wattage	P10 Wattage
8	100%	21	24	28	31	35	38	41	45	49	52
7	90%	19	22	25	28	32	34	37	41	44	47
6	80%	17	19	22	25	28	30	33	36	39	42
5	70%	15	17	20	22	25	27	29	32	34	36
4	60%	13	14	17	19	21	23	25	27	29	31
3	50%	11	12	14	16	18	19	21	23	25	26
2	40%	8	10	11	12	14	15	16	18	20	21
1	30%	6	7	8	9	11	11	12	14	15	16

PS Position	Lumen Output %	P11 Wattage	P12 Wattage	P13 Wattage	P14 Wattage	P15 Wattage	P16 Wattage	P17 Wattage	P18 Wattage	P19 Wattage	P20 Wattage
8	100%	56	61	64	68	72	76	80	84	87	91
7	90%	50	55	58	61	65	68	72	76	78	82
6	80%	45	49	51	54	58	61	64	67	70	73
5	70%	39	43	45	48	50	53	56	59	61	64
4	60%	34	37	38	41	43	46	48	50	52	55
3	50%	28	31	32	34	36	38	40	42	44	46
2	40%	22	24	26	27	29	30	32	34	35	36
1	30%	17	18	19	20	22	23	24	25	26	27

PS Position	Lumen Output %	P21 Wattage	P22 Wattage
8	100%	95	98
7	90%	86	88
6	80%	76	78
5	70%	67	69
4	60%	57	59
3	50%	48	49
2	40%	38	39
1	30%	29	29



Example of Field Adjustable Selector (PS) and Label.

BUG Ratings: 2200K (22K7)

Product & LED Code	Performance Code	Type 2R	Type 3R
		BUG Rating	BUG Rating
KC1CE-112A	P1	B1-U0-G1	B1-U0-G1
	P2	B1-U0-G1	B1-U0-G1
	P3	B1-U0-G1	B1-U0-G1
	P4	B1-U0-G1	B1-U0-G1
	P5	B1-U0-G1	B1-U0-G1
	P6	B1-U0-G1	B1-U0-G1
	P7	B1-U0-G1	B1-U0-G1
	P8	B1-U0-G1	B1-U0-G1
	P9	B2-U0-G1	B1-U0-G1
	P10	B2-U0-G2	B2-U0-G1
	P11	B2-U0-G2	B2-U0-G1
	P12	B2-U0-G2	B2-U0-G1
	P13	B2-U0-G2	B2-U0-G2
	P14	B2-U0-G2	B2-U0-G2
	P15	B2-U0-G2	B2-U0-G2
	P16	B2-U0-G2	B2-U0-G2
	P17	B2-U0-G2	B2-U0-G2
	P18	B2-U0-G2	B2-U0-G2
	P19	B2-U0-G2	B2-U0-G2
	P20	B2-U0-G2	B2-U0-G2

BUG Ratings: 3000K (30K7)

Product & LED Code	Performance Code	Type 2R	Type 3R
		BUG Rating	BUG Rating
KC1CE-112A	P1	B1-U0-G1	B1-U0-G1
	P2	B1-U0-G1	B1-U0-G1
	P3	B1-U0-G1	B1-U0-G1
	P4	B1-U0-G1	B1-U0-G1
	P5	B1-U0-G1	B1-U0-G1
	P6	B2-U0-G1	B2-U0-G1
	P7	B2-U0-G2	B2-U0-G1
	P8	B2-U0-G2	B2-U0-G1
	P9	B2-U0-G2	B2-U0-G2
	P10	B2-U0-G2	B2-U0-G2
	P11	B2-U0-G2	B2-U0-G2
	P12	B2-U0-G2	B2-U0-G2
	P13	B2-U0-G2	B2-U0-G2
	P14	B2-U0-G2	B2-U0-G2
	P15	B2-U0-G2	B2-U0-G2
	P16	B2-U0-G2	B2-U0-G2
	P17	B2-U0-G2	B2-U0-G2
	P18	B2-U0-G2	B3-U0-G2
	P19	B2-U0-G2	B3-U0-G2
	P20	B2-U0-G2	B3-U0-G2
	P21	B3-U0-G3	B3-U0-G2

BUG Ratings: 2700K (27K7)

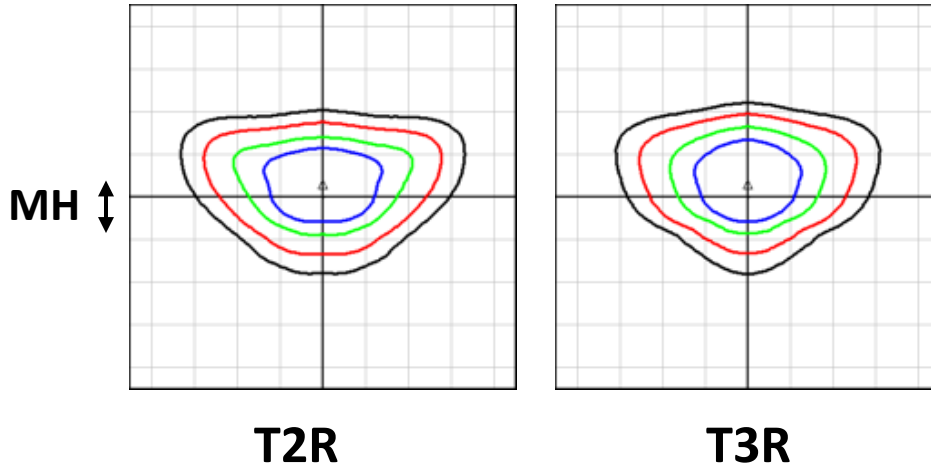
Product & LED Code	Performance Code	Type 2R	Type 3R
		BUG Rating	BUG Rating
KC1CE-112A	P1	B1-U0-G1	B1-U0-G1
	P2	B1-U0-G1	B1-U0-G1
	P3	B1-U0-G1	B1-U0-G1
	P4	B1-U0-G1	B1-U0-G1
	P5	B1-U0-G1	B1-U0-G1
	P6	B1-U0-G1	B2-U0-G1
	P7	B2-U0-G2	B2-U0-G1
	P8	B2-U0-G2	B2-U0-G1
	P9	B2-U0-G2	B2-U0-G1
	P10	B2-U0-G2	B2-U0-G2
	P11	B2-U0-G2	B2-U0-G2
	P12	B2-U0-G2	B2-U0-G2
	P13	B2-U0-G2	B2-U0-G2
	P14	B2-U0-G2	B2-U0-G2
	P15	B2-U0-G2	B2-U0-G2
	P16	B2-U0-G2	B2-U0-G2
	P17	B2-U0-G2	B2-U0-G2
	P18	B2-U0-G2	B2-U0-G2
	P19	B2-U0-G2	B3-U0-G2
	P20	B2-U0-G2	B3-U0-G2
	P21	B2-U0-G2	B3-U0-G2

BUG Ratings: 4000K (40K7) / 5000K (50K7)

Product & LED Code	Performance Code	Type 2R	Type 3R
		BUG Rating	BUG Rating
KC1CE-112A	P1	B1-U0-G1	B1-U0-G1
	P2	B1-U0-G1	B1-U0-G1
	P3	B1-U0-G1	B1-U0-G1
	P4	B1-U0-G1	B1-U0-G1
	P5	B1-U0-G1	B2-U0-G1
	P6	B2-U0-G2	B2-U0-G1
	P7	B2-U0-G2	B2-U0-G1
	P8	B2-U0-G2	B2-U0-G2
	P9	B2-U0-G2	B2-U0-G2
	P10	B2-U0-G2	B2-U0-G2
	P11	B2-U0-G2	B2-U0-G2
	P12	B2-U0-G2	B2-U0-G2
	P13	B2-U0-G2	B2-U0-G2
	P14	B2-U0-G2	B2-U0-G2
	P15	B2-U0-G2	B2-U0-G2
	P16	B2-U0-G2	B2-U0-G2
	P17	B2-U0-G2	B3-U0-G2
	P18	B2-U0-G2	B3-U0-G2
	P19	B2-U0-G2	B3-U0-G2
	P20	B3-U0-G3	B3-U0-G2
	P21	B3-U0-G3	B3-U0-G2
	P22	B3-U0-G3	B3-U0-G2

Optical Distribution

(Each square block represents one mounting height, MH)



MH = 30ft

- 0.1 Fc
- 0.2 Fc
- 0.5 Fc
- 1.0 Fc

Motion Sensor (Optional) Specifications*

'ZMSL2', or 'ZMSL7' 4 pin (for Zhaga Book 18 installation) motion sensor option require both "D4i" DALI driver option and 'TLR4L' D4i DALI 4-PIN twist lock receptacle (bottom) to be selected. Top receptacle for use with wireless DALI control node (by LEOTEK or others).

Description

Digital passive infrared luminaire 4-PIN outdoor occupancy sensor provides high/low/off control based on motion detection. Initial setup and subsequent sensor adjustments are made using the iOS or Android Sensor Configuration App (search for Wattstopper Sensor Configuration App) or through compatible DALI devices and outdoor lighting controllers conforming to Zhaga or DiiA standards (103 and 303*) remotely. Available with both MV or HV input voltage options.

Operation

Standard factory setting will dim the luminaire to 50% until motion is sensed and then it will power to 100%. When motion is not detected for five minutes, the luminaire will dim back to 50%. Ramp up and fade down times are adjustable, but initially set to NONE. The percent dimming and time durations may be field adjusted using the iOS or Android Sensor Configuration App by Bluetooth* low energy technology commissioning (search for Wattstopper Sensor Configuration App) or through compatible DALI devices and outdoor lighting controllers conforming to Zhaga or DiiA standards (103 and 303*) remotely.

*Devices with Bluetooth 5.0, iPhone 8 and Samsung Galaxy S8 and later devices are recommended for optimal performance.

**DALI 303 features are continually released. Please consult Wattstopper for a list of current features.

Optical System

Multi-cell, multi-tier Fresnel lens with a 360 degree view detects unobstructed motion within one mounting height, up lens configurations for 8-15 ft. ('ZMSL2') or up to 40 ft. ('ZMSL7'). Consult factory for higher mounting height requirements.

Finish

Sensor exterior ring and lens are gray polycarbonate, UV and impact resistant.

Listings/Ratings

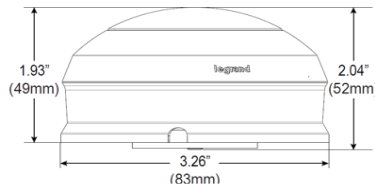
Sensor is UL and cUL listed(E101196), IP65 rated and CE compliant.

Warranty

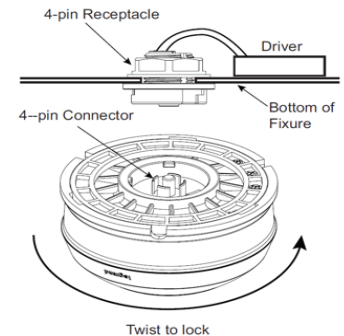
5-year limited warranty on luminaires and components with a motion sensor.

Motion Sensor (Optional) Data

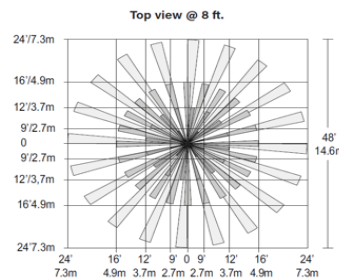
ZMSL2/ZMSL7 Dimensions



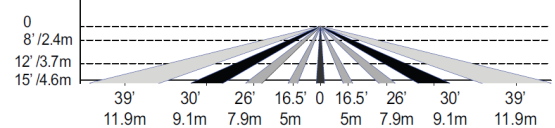
ZMSL2/ZMSL7 Installation



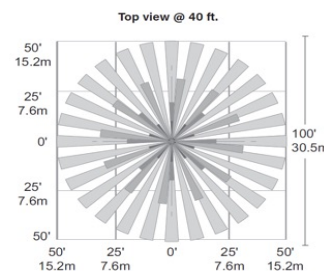
L2 Lens Coverage Top View



L2 Lens Coverage Side View



L7 Lens Coverage Top View



L7 Lens Coverage Side View

