## LumenF@cus



Project:	
Location:	
Cat. #:	
Туре:	
Quantity:	



# RCL G2 2 | LED Channel Retrofit Kit

### Features:

- High performance LED technology
- 90+ CRI Standard
- 0-10V dimming drivers standard
- DALI drivers available
- Field replaceable LED boards and drivers
- Frosted diffuser available to help minimize glare and improve aesthetics
- A wide variety of lumen packages and lengths allows for flexibility in design and helps maximize energy savings
- Saves on installation cost, material cost, and waste
- Advanced controls available
- Buy American Act compliant (All base luminaires are BAA compliant. Addition of options may change eligibility. Contact factory for details.)

## Applications:

Suitable for most commercial, industrial and institutional applications

- Office
- Retail
- Warehouse
- Coves
- Valences

## **Predicted Lifetime:**

- L70:  $\geq$  129,000 hrs (calculated)
- L80: ≥ 81,000 hrs (calculated)
- L90: ≥ 39,000 hrs (reported)
- 85% lumen maintenance @ 60,000 hrs (based on LM80 and insitu laboratory testing)



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## Construction:

- Precision brake formed from heavy gauge cold rolled steel
- Highly durable, highly reflective white finish

## Certifications:

- UL 1598 listed for US and Canada, suitable for damp locations
- DesignLights Consortium qualified on specific configurations (refer to DLC qualified products list for exact model numbers) http://designlights.org/



## Ambient Operating Temp.:

• -30°C to 40°C

## Warranty:

- 5 year limited system warranty see <u>www.LumenFocus.com</u> for complete warranty terms and conditions
- 10 year warranty option available on specific models

(Not available on all models. Certain conditions apply. Consult factory or sales representative for details.)









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## Ordering Guide:

example: RCL G2 2 MD UV FR 940 4.25" ZOSMD EM10

	9						example.	RCL GZ Z IVID UV FR 940	4.25 ZUSIVID EIVITU
Series	Version	Length	Output	Voltage	Shielding	CRI/CCT	Channel Width	Controls	Options
RCL	G2	2							
RCL	<b>G2</b> Gen 2	<b>2</b> 2'	LW Low	UV 120-277	Blank No Lenses	<b>930</b> 90 CRI/3000K	<b>X.XX″</b> Specify Channel Width	Blank No Controls	Blank No Options
<sup>(5)</sup> 120-277V emergency of the lumi	only. See p 5 for more able on all n actory or sa / 0°C-55°C y mode, mu inaire it is ins 2 2 MD UV 9	age 4 for r details. nodels. Cei les represe ambient. T ltiply EM wa talled in. 40 EM10 →	rtain conditi intative for c o estimate lu attage by the 138.5 LPW ×	ons apply. details. men output Lumens per x 10W = 1,38!	Watt	935 90 CRI/3500K 940 90 CRI/4000K 950 90 CRI/5000K	(in inches) VAR Variable - Adjusts to fit channel widths from 4.00" to 5.00"	ZSOL Leviton Intellect Solo Programmable PIR/Daylight Harvesting Sensor <sup>(1)</sup> ZOSMD Microwave Occupancy Sensor with Photocell (On/Off/Dim) <sup>(2)</sup> ZSLFC2 Keystone SmartLoop Wireless Bluetooth Mesh Occupancy/ Daylight Harvesting Smart Sensor <sup>(1)</sup> ZLDS Leviton Intellect DALI Sensor with Dimming/Occupancy/ Daylight Harvesting with Newtork Capabilities <sup>(3)</sup> ZLTS Leviton Intellect 0-10V Sensor with Dimming/Occupancy/ Daylight Harvesting with Newtork Capabilities <sup>(3)</sup> ZLDC Leviton Intellect DALI Fixture Controller with Newtork Capabilities <sup>(3)</sup>	EXT10 10-Year Extended Warranty <sup>(4)</sup> EM6 6.5W Emergency Pack <sup>(5)</sup> EM10 10W Emergency Pack <sup>(5)</sup> EM14 14W Emergency Pack <sup>(5)</sup> CC Conformal Coating LVL 0-10V Dimming Leads for Easy Field Access BAA Buy American Act Compliant
STD(480V)			p Down Trar					ZENLC Enlighted Connected Micro Sensor with Dimming/Occupancy/ Daylight Harvesting <sup>(3)</sup>	
Contro	JIS ACC	.essor	ies (ord	er separ	ατειγ)			ZENLI	

### For Leviton Intellect Solo Controls

ZLSOR-RA1

#### For Keystone SmartLoop Controls



KTSL-WS1-B-SG/G25-Button Bluetooth Wireless Wall SwitchKTSL-TK1-USBUSB Time Keeper

(For ZSOL)

	For Leviton II
2 <u>1</u>	DRKDN-U1W
-	DRKDN-U2W
-	DRKDN-U4W
_	DRKDN-U8W

## Dr Leviton Intellect Networked Controls RKDN-U1W 1-Button Wireless Wall C

1-Button Wireless Wall Controller 2-Button Wireless Wall Controller 4-Button Wireless Wall Controller

Wireless IR Programming Tool

8-Button Wireless Wall Controller

#### For Enlighted Controls WS-2-00 Enl

Enlighted Remote Control Wall (for Enlighted Connected & IoT)



ZENLI Enlighted IoT Micro Sensor with

Dimming/Occupancy/Daylight Harvesting<sup>(3)</sup>



440

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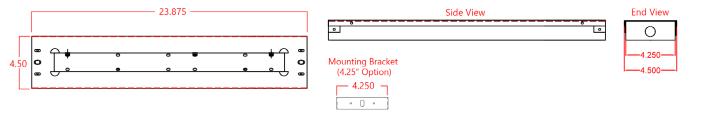
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## Performance Chart:

Catalog #	Watts	Lumens (930)	LPW (930)	Lumens (935)	LPW (935)	Lumens (940)	LPW (940)	Lumens (950)	LPW (950)
RCL G2 2 LW UV FR 9xx	8.5	1050.9	123.5	1055.3	124.0	1080.4	127.0	1080.4	127.0
RCL G2 2 ML UV FR 9xx	12.1	1561.9	129.1	1568.5	129.6	1605.8	132.7	1605.8	132.7
RCL G2 2 MD UV FR 9xx	16.0	2032.9	127.4	2041.5	128.0	2089.9	131.0	2089.9	131.0
RCL G2 2 HI UV FR 9xx	22.6	3092.9	137.1	3105.9	137.7	3179.7	141.0	3179.7	141.0
RCL G2 2 VH UV FR 9xx	29.1	4056.3	139.6	4073.4	140.2	4170.2	143.5	4170.2	143.5
RCL G2 2 SH UV FR 9xx	37.3	5076.3	136.2	5097.6	136.8	5218.7	140.1	5218.7	140.1
RCL G2 2 LW UV 9xx	8.5	1110.8	130.5	1115.4	131.1	1141.9	134.2	1141.9	134.2
RCL G2 2 ML UV 9xx	12.1	1650.9	136.5	1657.9	137.0	1697.3	140.3	1697.3	140.3
RCL G2 2 MD UV 9xx	16.0	2148.7	134.7	2157.7	135.3	2209.0	138.5	2209.0	138.5
RCL G2 2 HI UV 9xx	22.6	3269.0	145.0	3282.8	145.6	3360.8	149.0	3360.8	149.0
RCL G2 2 VH UV 9xx	29.1	4287.4	147.6	4305.5	148.2	4407.7	151.7	4407.7	151.7
RCL G2 2 SH UV 9xx	37.3	5365.4	143.8	5388.0	144.4	5516.0	147.8	5516.0	147.8

### Schematic:





## Re-board ABILITY

The RCL G2 features field replaceable boards and drivers. This allows you to upgrade to more efficient technology in the future. Or, in the rare event of a failure, you can rapidly replace defective components. Re-boardABILITY helps to ensure you won't get stuck with an obsolete light fixture. Learn more about Re-boardABILITY here.



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## **Controls Summary:**

Control Code	Туре	Capabilities	Communication
ZSOL	Motion (PIR), Daylight Harvesting	High/Low/Off	Wired 0-10V, Programmable via IR remote (sold separately)
ZOSMD	Motion (Microwave), Photosensor	On/Low/Off	Wired 1-10V
ZSLFC2	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling, LLLC (Keystone TechSmartLoop)	Wireless Bluetooth Mesh, Programmable via Keystone SmartLoop App for iOS or Android
ZLxS	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling, Demand Response*, BMS Integration*, LLLC (GreenMAX DRC)	Wireless Zigbee 2.4 GHz Mesh, Programmable via GreenMAX DRC app. for iOS or Android along with DRKDN-UxW Wall Controller (sold separately)
ZLxC	Controller, No Sensors	High/Low/Off, High-End Trim, Grouping, Scheduling, Demand Response*, BMS Integration*, LLLC (GreenMAX DRC)	Wireless Zigbee 2.4 GHz Mesh, Programmable via GreenMAX DRC app. for iOS or Android along with DRKDN-UxW Wall Controller (sold separately)
ZENLC	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling*, Energy Monitor- ing*, BMS Integration*, Upgradable to IoT (ZENLI), LLLC (Enlighted IoT)	Wireless Bluetooth Low Energy Mesh, Programmable via Enlighted IoT Software
ZENLI	Motion (PIR), Daylight Harvesting	High/Low/Off, High-End Trim, Grouping, Scheduling*, Energy Monitor- ing*, BMS Integration*, LLLC (Enlighted IoT)*, Space - Building Utilization*, Where - Real Time Location Services*	Wireless Bluetooth Low Energy Mesh, Programmable via Enlighted IoT Software

LLLC = Luminaire Level Lighting Control

\* Additional equipment required. Contact LumenFocus representative for details

## Keystone SmartLoop Wireless Control System

The SmartLoop wireless lighting control system by Keystone is a Bluetooth mesh lighting control system that allows you to set up and manage your lighting ecosystem guickly and easily. It's powerful enough to run a space with multiple lighting zones, but simple enough to program in minutes with your smartphone – perfect for warehouses, offices, schools, and auditoriums, whether new construction or retrofit.

- Wireless Bluetooth 2.4 GHz mesh network
- Supports up to 100 devices on a single region, with unlimited regions
- Independent per-fixture control: Occupancy, Daylight Harvesting, Task Tuning, Grouping, Scene Setting, Scheduling
- Commissioned via SmartLoop mobile app for iPhone and Android



- Low voltage individual fixture controller for SmartLoop system
- Integrated daylight and PIR motion sensors
- Up to 16' mounting height. 16' radius at 16' height.
- Works with 0-10V dim-to-off drivers with 12V aux. power

## SmartLoop Accessories

- Bluetooth Wireless Wall Switch: KTSL-WS1-B-SG/G2
  - Battery Powered: 2x CR2032 5 Button: Power Toggle, Dimming,
  - Automatic Sensor/Preset Level Operation, Scene Activation



#### USB Time Keeper: **KTSL-TK1-USB**

- Relays time to system components after a power loss
- Powered by standard USB charging port Internal CR1220 battery backup



### Microwave Occupancy Sensor (ZOSMD)

The Leviton OSM3D-DDW (or equivalent) detects motion through low density materials using high frequency electromagnetic waves. This means it can sit

discretely behind the RCL G2's frosted lens. The ZOSMD features automatic switching based on motion and ambient light level. ZOSMD option adds step-dimming functionality - standby dimming level 10% / 20% / 30% / 50%. Max mounting height for ZOSMD 40 feet.



### Leviton Intellect Solo Dimming Sensor (ZSOL)

The RCL G2 can be equipped with an integrated Leviton Intellect Solo Sensor ("ZSOL" option). This is a 0-10V dimming Passive Infrared (PIR) occupancy and daylight harvesting sensor.

Other features:

- Partial-on
- Partial-off
- 8' to 10' mounting height
- IP20 rated
- Detection angle: 120 degrees • IR remote available for

programming sensor from the floor (sold separately)

• Can be used to comply with IECC, ASHRAE 90.1 and 2019 Title 24, Part 6 dimming, occupancy/vacancy sensing and daylight harvesting requirements.





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## GreenMAX DRC Wireless Networked Control System

### with Leviton Intellect Sensors & Controllers

The GreenMAX DRC Wireless Keypad Room Controllers are used as the brain of the system, managing the fixture integrated Leviton Intellect sensors & controllers. Wirelessly commission, configure, control, monitor and provision the GreenMAX DRC system using the GreenMAX DRC App and an Android or iOS smart device.

- Occupancy/Vacancy Sensing
- Multi-Level Lighting, Partial-On, Partial-Off
- Daylight Harvesting
- Task Tuning
- Scheduling
- Grouping
- Demand Response
- BMS Integration
- ZigBee 2.4 GHz Wireless Mesh Network
- Up to 75' between devices

\* DRKDN-UxW room controller required for full functionality and programming of Intellect sensors & controllers





- PIR Occupancy Sensor
- Daylight Sensor
- 0-10V or DALI
- Up to 20' mounting height



Wireless fixture controller, no sensor0-10V or DALI

### DRKDN-UxW Room Controllers



- 1-, 2-, 4-, and 8-button configurations
- Line voltage powered: 120-277V
- Max capacity: 60 devices
- Programmable: On/Off/Raise/Lower/ Toggle/Scene
- Use any Android or iOS device for configuration using the GreenMAX DRC App

## Enlighted: All-in-one sensors, upgradeable systems

Enlighted

Connected (ZENLC)

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Enlighted IoT (ZENLI)

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Enlighted's SMART Micro Sensor is an all-in-one unit: task tuning, high-end trimming, daylight harvesting, and occupancy/vacancy detection. Max installation height is 15 feet.

Enlighted Connected ("ZENLC") offers many features, including motion and switch groups, daylight harvesting, energy reporting, and more. The Enlighted IoT ("ZENLI") option allows the full implementation of Enlighted's services. Enlighted Connected can be fully upgraded to the next tier in the future. So if you start with ZENLC but want to add the functionality of the ZENLI option, you can.

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low	
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2	

### Real-time data analytics

Enlighted's control units compile data in real-time, which can be viewed via the Energy Manager. The Energy Manager is part of the Enlighted Connected and Enlighted IoT configurations.

- Real-time measurements and verification of energy savings
- Space analytics data can be compiled into motion trails
- and heat mapsAnalyze traffic density and congestion in a space



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Enlighted Capabilities\*

Motion and Switch Groups

Energy Reporting & Optimization

Where & Space Applications

Future App & API Ready

Environment Data & Lighting Controls API

Building Management System Integration

Location & Occupancy APIs & Beaconing

Davlight Harvesting

Schedule Lighting

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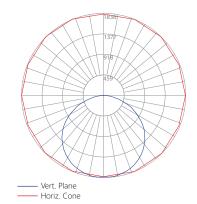
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## Photometric Data:

RCL G2 2 SH UV 950	Luminance Data (cd/sq.m)								
Test No.: LLIA001735-012A	Angle In Dearees	Average 0-Deg	Average 45-Deg	Average 90-Deg					
Luminaire Lumens: 5,516 lm	45	26197	25361	25281					
Luminaire Watts: 37.3W Efficacy: 147.8 LPW	55	25667	24530	24031					
Spacing Criterion (0-180): 1.30	65 75	24107 20356	22269 17428	21675 17040					
Spacing Criterion (90-270): 1.32	85	11213	7741	7259					

#### **Coefficients Of Utilization - Zonal Cavity Method** Effective Floor Cavity Reflectance 0.20

RC		80				70				50			30	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88
2	99	90	83	78	96	88	82	77	85	79	75	81	77	73
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45
6	69	56	47	40	67	55	46	40	53	45	40	51	45	39
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25



#### Zonal Lumen Summary Zone Lumens

Zone	Lumens	%Fixt
0-20	674.90	12.20
0-30	1445.02	26.20
0-40	2391.81	43.40
0-60	4324.81	78.40
0-80	5425.51	98.40
0-90	5515.51	100.00
90-120	0.51	0.00
90-130	0.51	0.00
90-150	0.51	0.00
90-180	0.51	0.00
0-180	5516.02	100.00

Tested in accordance with IES standards utilizing absolute photometry per LM-79-08

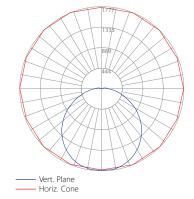
#### **RCL G2 2 SH UV FR 950**

Test No.: LLIA001735-014 Luminaire Lumens: 5,219 lm Luminaire Watts: 37.3W Efficacy: 140.1 LPW Spacing Criterion (0-180): 1.24 Spacing Criterion (90-270): 1.28

#### Luminance Data (cd/sq.m) Average Angle In Average Average 90-Deg 0-Deg 45-Deg Degrees 21651 18581 21287 19553 45 21091 19027 55 65 75 14656 17296 16516 14715 10407 13966 85 5463 12715 13022

#### **Coefficients Of Utilization - Zonal Cavity Method** Effective Floor Cavity Reflectance 0.20

RC		80				70				50			30	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10
0	119	119	119	119	116	116	116	116	110	110	110	105	105	105
1	108	103	98	94	105	100	96	92	95	92	89	91	88	86
2	98	89	82	76	95	87	81	75	83	78	73	80	75	71
3	89	78	70	63	86	77	69	63	73	67	61	70	65	60
4	82	69	60	54	79	68	60	53	65	58	52	63	56	51
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39
7	64	51	42	36	62	50	41	35	48	40	35	46	40	35
8	60	46	38	32	58	45	37	32	44	37	31	42	36	31
9	56	42	34	29	54	42	34	28	40	33	28	39	33	28
10	52	39	31	26	51	38	31	26	37	30	26	36	30	25



Zonal Lumen Summary									
Zone	Lumens	%Fixt							
0-20	650.53	12.50							
0-30	1383.00	26.50							
0-40	2263.42	43.40							
0-60	3961.89	75.90							
0-80	4933.95	94.50							
0-90	5123.07	98.20							
90-120	95.78	1.80							
90-130	95.78	1.80							
90-150	95.78	1.80							
90-180	95.78	1.80							
0-180	5218.86	100.00							

Tested in accordance with IES standards utilizing absolute photometry per LM-79-08

