

Project: \_\_\_\_\_  
 Location: \_\_\_\_\_  
 Cat. #: \_\_\_\_\_  
 Type: \_\_\_\_\_  
 Quantity: \_\_\_\_\_



## RCL G2 4 | 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:  $\geq 81,000$  hrs (calculated)
- L90:  $\geq 39,000$  hrs (reported)
- 85% lumen maintenance @ 60,000 hrs (*based on LM80 and insitu laboratory testing*)

### 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.:

- $-30^{\circ}\text{C}$  to  $40^{\circ}\text{C}$

### Warranty:

- 5 year limited system warranty - see [www.LumenFocus.com](http://www.LumenFocus.com) 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.)*



Ordering Guide:

example: RCL G2 4 MD UV FR 940 4.25" ZOSMD EM10

Series	Version	Length	Output	Voltage	Shielding	CRI/CCT	Channel Width	Controls	Options
RCL	G2	4							
RCL	G2 Gen 2	4 4'	LW Low	UV 120-277	Blank No Lenses	930 90 CRI/3000K	x.xx" Specify Channel Width (in inches)	Blank No Controls	Blank No Options
			ML Medium Low	34 347V	FR Frosted Acrylic Diffusers	935 90 CRI/3500K	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>	EXT10 10-Year Extended Warranty <sup>(4)</sup>
			MD Medium			940 90 CRI/4000K		ZOSMD Microwave Occupancy Sensor with Photocell (On/ Off/Dim) <sup>(2)</sup>	EM6 6.5W Emergency Pack <sup>(5)</sup>
			MH Medium High			950 90 CRI/5000K		ZSLFC2 Keystone SmartLoop Wireless Bluetooth Mesh Occupancy/ Daylight Harvesting Smart Sensor <sup>(1)</sup>	EM10 10W Emergency Pack <sup>(5)</sup>
			HI High					ZSLD Leviton Intellect DALI Sensor with Dimming/Occupancy/ Daylight Harvesting with Nework Capabilities <sup>(3)</sup>	EM14 14W Emergency Pack <sup>(5)</sup>
			VH Very High					ZLDS Leviton Intellect 0-10V Sensor with Dimming/Occupancy/ Daylight Harvesting with Nework Capabilities <sup>(3)</sup>	CC Conformal Coating
			SH Super High					ZL7S Leviton Intellect 0-10V Sensor with Dimming/Occupancy/ Daylight Harvesting with Nework Capabilities <sup>(3)</sup>	LVL 0-10V Dimming Leads for Easy Field Access
								ZLDC Leviton Intellect DALI Fixture Controller with Nework Capabilities <sup>(3)</sup>	BAA Buy American Act Compliant
								ZL7C Leviton Intellect 0-10V Fixture Controller with Nework Capabilities <sup>(3)</sup>	
								ZENLC Enlighted Connected Micro Sensor with Dimming/ Occupancy/Daylight Harvesting <sup>(3)</sup>	
								ZENLI Enlighted IoT Micro Sensor with Dimming/Occupancy/ Daylight Harvesting <sup>(3)</sup>	

Notes

- <sup>(1)</sup> See Page 4 for more details.
- <sup>(2)</sup> 120-277V only. See page 4 for more details.
- <sup>(3)</sup> See page 5 for more details.
- <sup>(4)</sup> Not available on all models. Certain conditions apply.  
Consult factory or sales representative for details.
- <sup>(5)</sup> 120-277V / 0°C-55°C ambient. To estimate lumen output in emergency mode, multiply EM wattage by the Lumens per Watt of the luminaire it is installed in.  
ex. RCL G2 4 MD UV 940 EM10 → 149.9 LPW x 10W = 1,499 lm

Accessories (order separately)

STD(480V) 480V to 277V Step Down Transformer

Controls Accessories (order separately)

- 

**For Leviton Intellect Solo Controls**  
ZLSOR-RA1 Wireless IR Programming Tool  
(For ZSOL)
- 

**For Keystone SmartLoop Controls**  
KTSLS-WS1-B-SG/G2 5-Button Bluetooth Wireless Wall Switch  
KTSLS-TK1-USB USB Time Keeper
- 

**For Leviton Intellect Networked Controls**  
DRKDN-U1W 1-Button Wireless Wall Controller  
DRKDN-U2W 2-Button Wireless Wall Controller  
DRKDN-U2W 4-Button Wireless Wall Controller  
DRKDN-U8W 8-Button Wireless Wall Controller
- 

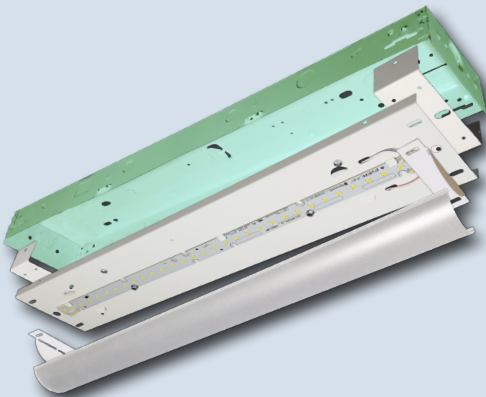
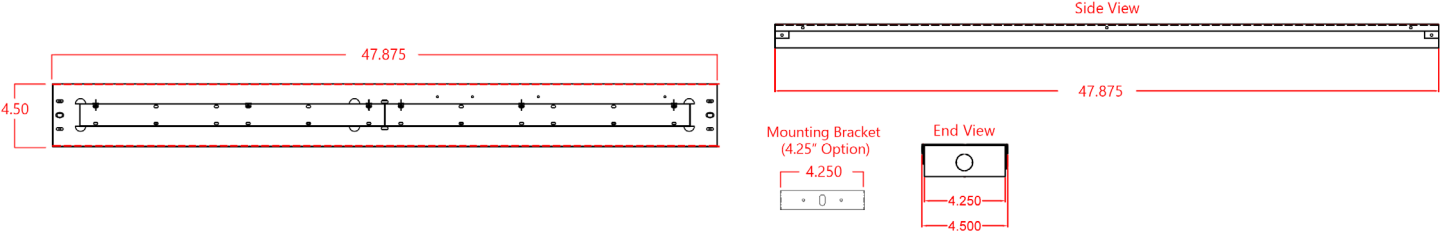
**For Enlighted Controls**  
WS-2-00 Enlighted Remote Control Wall  
(for Enlighted Connected & IoT)



Performance Chart:

Catalog #	Watts	Lumens (930)	LPW (930)	Lumens (935)	LPW (935)	Lumens (940)	LPW (940)	Lumens (950)	LPW (950)
RCL G2 4 LW UV FR 9xx	15.4	2124.9	138.2	2133.9	138.8	2184.6	142.1	2184.6	142.1
RCL G2 4 ML UV FR 9xx	22.3	3158.3	141.7	3171.6	142.3	3246.9	145.7	3246.9	145.7
RCL G2 4 MD UV FR 9xx	29.6	4110.6	138.7	4127.9	139.3	4225.9	142.6	4225.9	142.6
RCL G2 4 MH UV FR 9xx	34.2	5054.2	147.8	5075.5	148.4	5196.1	151.9	5196.1	151.9
RCL G2 4 HI UV FR 9xx	43.5	6253.9	143.8	6280.2	144.4	6429.4	147.9	6429.4	147.9
RCL G2 4 VH UV FR 9xx	56.3	8202.0	145.7	8236.6	146.4	8432.2	149.8	8432.2	149.8
RCL G2 4 SH UV FR 9xx	73.0	10264.3	140.6	10307.6	141.2	10552.4	144.6	10552.4	144.6
RCL G2 4 LW UV 9xx	15.4	2233.5	145.2	2243.0	145.9	2296.2	149.3	2296.2	149.3
RCL G2 4 ML UV 9xx	22.3	3319.7	149.0	3333.7	149.6	3412.9	153.2	3412.9	153.2
RCL G2 4 MD UV 9xx	29.6	4320.6	145.8	4338.9	146.4	4441.9	149.9	4441.9	149.9
RCL G2 4 MH UV 9xx	34.2	5312.6	155.3	5334.9	156.0	5461.7	159.7	5461.7	159.7
RCL G2 4 HI UV 9xx	43.5	6573.5	151.2	6601.2	151.8	6758.0	155.4	6758.0	155.4
RCL G2 4 VH UV 9xx	56.3	8621.2	153.2	8657.6	153.8	8863.2	157.5	8863.2	157.5
RCL G2 4 SH UV 9xx	73.2	10788.9	147.5	10834.4	148.1	11091.7	151.6	11091.7	151.6

Schematic:



LUMENFOCUS  
Re-boardABILITY

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.](#)



Controls Summary:

Control Code	Type	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 Tech.-SmartLoop)	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 Monitoring*, 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 Monitoring*, 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 quickly and easily. It's powerful enough to run a space with multiple lighting zones, but simple enough to program in minutes with your smart-phone – 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.



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*



ZLxS



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

ZLxC



- Wireless fixture controller, no sensor
- 0-10V 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'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.

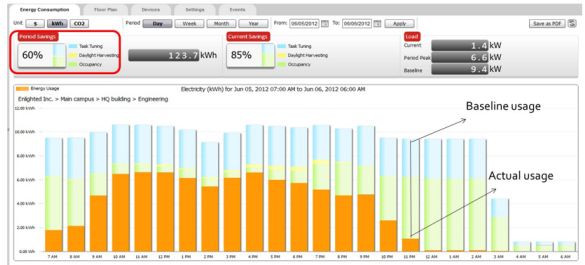


Enlighted Capabilities*	Enlighted Connected (ZENLC)	Enlighted IoT (ZENLI)
Motion and Switch Groups	✓	✓
Daylight Harvesting	✓	✓
Schedule Lighting	✓	✓
Energy Reporting & Optimization	✓	✓
Environment Data & Lighting Controls API	✓	✓
Building Management System Integration	✓	✓
Where & Space Applications		✓
Location & Occupancy APIs & Beacons		✓
Future App & API Ready		✓

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 maps
- Analyze traffic density and congestion in a space



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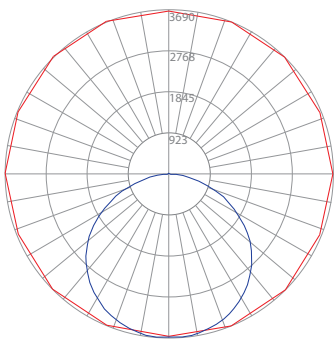


Photometric Data:

RCL G2 4 SH UV 950

Test No.: LLIA001735-017  
Luminaire Lumens: 11,092 lm  
Luminaire Watts: 73.2W  
Efficacy: 151.6 LPW  
Spacing Criterion (0-180): 1.30  
Spacing Criterion (90-270): 1.32

Luminance Data (cd/sq.m)			
Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	26364	25480	25318
55	25916	24719	24038
65	24491	22492	21673
75	20865	17646	16519
85	11718	7923	7122



— Vert. Plane  
— Horiz. Cone

Zonal Lumen Summary

Zone	Lumens	%Fixt
0-20	1356.53	12.20
0-30	2905.02	26.20
0-40	4809.58	43.40
0-60	8701.86	78.50
0-80	10912.54	98.40
0-90	11090.75	100.00
90-120	0.97	0.00
90-130	0.97	0.00
90-150	0.97	0.00
90-180	0.97	0.00
0-180	11091.72	100.00

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

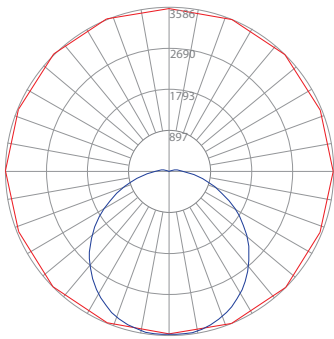
RC		80				70				50				30			
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106			
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88			
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73			
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61			
4	82	70	61	54	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	68	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			

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

RCL G2 4 SH UV FR 950

Test No.: LLIA001735-019  
Luminaire Lumens: 10,553 lm  
Luminaire Watts: 73.0W  
Efficacy: 144.6 LPW  
Spacing Criterion (0-180): 1.26  
Spacing Criterion (90-270): 1.30

Luminance Data (cd/sq.m)			
Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	22229	21400	21380
55	19375	19420	19637
65	15573	16982	17334
75	11302	14513	14676
85	6483	13505	12873



— Vert. Plane  
— Horiz. Cone

Zonal Lumen Summary

Zone	Lumens	%Fixt
0-20	1311.98	12.40
0-30	2790.06	26.40
0-40	4568.43	43.30
0-60	8008.15	75.90
0-80	9982.62	94.60
0-90	10364.20	98.20
90-120	188.48	1.80
90-130	188.48	1.80
90-150	188.48	1.80
90-180	188.48	1.80
0-180	10552.68	100.00

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	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	39	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	36	31	42	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			

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

