



# 8" LED Retrofit Downlight

## RLC8SL

1000/1400/1800 Lumens  
120V-277V  
0-10V Dimming

### APPLICATIONS:

Retroficient® RLC8SL is an 8" commercial grade Retrofit LED downlight with available outputs between 1000-1800 lumens. The RLC8SL is designed specifically to Retrofit into ceilings with existing recessed downlight fixtures without the need to remove the existing fixture. Rated for a minimum of 50,000 hours life (70% lumen maintenance) with ambient plenum temperatures up to 25°C. Free Air Flow around fixture for optimal life performance.

### HOUSING:

All components are made from quality die cast aluminum or galvaneal steel. Pre-wired J-box with snap-on cover for easy access. Snap-in connection from driver compartment allows easy installation of light engine/trim assembly and can be upgraded to accommodate technology improvements. Approved for 8 (4 in/4 out) No. 12 AWG conductors rated for 90°C through wiring.

### REFLECTOR:

High purity aluminum, Alzak, iridescence suppressed, semi-diffuse reflector. Self-trim standard. Painted white self-trim (WT) available as option.

### LED LIGHT ENGINE:

The RLC8SL uses mid power Nichia LEDs, specifically mixed to provide a minimum of 80 CRI with 3 SCDM color consistency. The use of multiple mid power LEDs allows for optimal thermal management by effectively spreading the heat over a larger area and eliminating hot spots on the LEDs. A diffuse, yet highly transmissive lens obscures the view of the LEDs and creates a smooth, even look from below. The light engine is available in multiple Kelvin temperatures and the system is designed to provide optimal life and lumen maintenance (50,000 hours at 70% lumen maintenance). The reflector/light engine assembly is mechanically retained to the housing.

### LED DRIVER:

The RLC8SL utilizes a constant current LED driver. This same driver is capable of running all three different lumen outputs, resulting in a reduction of housing sku and simplified specification. The driver is UL8750, Class II compliant and universal 120V-277V.

### DIMMING:

Comes standard with flicker-free 0-10V dimming to 10%. 0-10V to 1% dimming option is also available. See list of compatible dimmers on page (3). For the sizing of the control circuit, the dimming circuit may require up to 2mA of sink current.

### INSTALLATION:

All installation can be performed from below the ceiling without removing existing fixture.

### CERTIFICATIONS:

CSA certified to US and Canadian safety standards. Suitable for wet locations. Approved for through branch wiring. Non-IC rated. ENERGY STAR Qualified.

This product qualifies as a "designated country construction material" per FAR 52.225-11 Buy American-Construction. Materials under Trade Agreements effective 6/10/2020. See [Buy American Solutions](#).

### WARRANTY:

5 year warranty. See [www.prescolite.com](http://www.prescolite.com) for details.

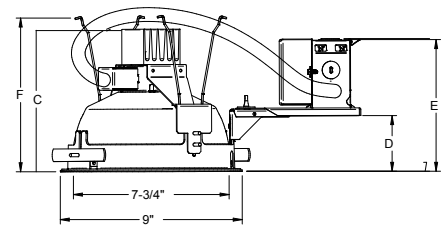
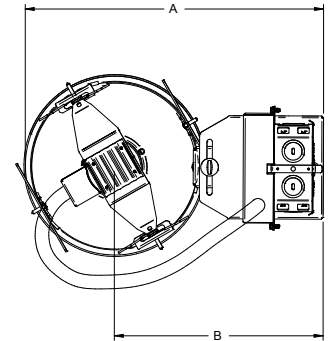
DATE: \_\_\_\_\_ TYPE: \_\_\_\_\_

FIRM NAME: \_\_\_\_\_

PROJECT: \_\_\_\_\_



Ceiling Cutout: see guide  
Maximum Ceiling Thickness 1 1/2"  
For conversion to millimeters,  
multiply inches by 25.4  
Not to Scale



	A	B	C	D	E	F
RLC8SL 10L/14L	15"-17"	10-3/4"-12-3/4"	5-5/8"	2-1/2"- 3-3/4"	6-1/4"- 7-1/2"	7-3/4"
RLC8SL 18L	15"-17"	10-3/4"-12-3/4"	7-1/8"	2-1/2"- 3-3/4"	6-1/4"- 7-1/2"	7-3/4"

Order housing, reflector, and accessories separately

CATALOG NUMBER:

EXAMPLE: RLC8SL-8LCSL18L40K8WT

HOUSING	DRIVER OPTIONS	HOUSING OPTIONS	TRIM APERTURE	OUTPUT	KELVIN	CRI	REF. FINISH/ COLOR OPTION	REFLECTOR OPTIONS	ACCESSORIES
<input type="checkbox"/> <b>RLC8SL</b> Standard Lumen 0-10V Dimming to 10% 120V-277V	<input type="checkbox"/> Standard 0-10V 10% Dimming <input type="checkbox"/> <b>DM1</b> 0-10V 1% Dimming	<input type="checkbox"/> <b>SD<sup>2</sup></b> Small Diameter	<input type="checkbox"/> <b>8LCSL</b> Standard Lumen Clear Alzak Reflector	<input type="checkbox"/> <b>10L</b> 1000 Lumen <input type="checkbox"/> <b>14L</b> 1400 Lumen <input type="checkbox"/> <b>18L</b> 1800 Lumen	<input type="checkbox"/> <b>27K</b> 2700 Kelvin <input type="checkbox"/> <b>30K</b> 3000 Kelvin <input type="checkbox"/> <b>35K</b> 3500 Kelvin <input type="checkbox"/> <b>40K</b> 4000 Kelvin <input type="checkbox"/> <b>50K</b> 5000 Kelvin	<input type="checkbox"/> <b>8</b> 80+ CRI <input type="checkbox"/> <b>9</b> 90+ CRI	<input type="checkbox"/> Standard <input type="checkbox"/> Semi-Diffuse <input type="checkbox"/> Clear Alzak <input type="checkbox"/> <b>WH</b> Painted Matte White Reflector and Flange	<input type="checkbox"/> <b>WT</b> Painted White Flange Only <input type="checkbox"/> <b>WF</b> Wide Flange	<input type="checkbox"/> <b>RWD8<sup>2</sup></b> Retrofit wide diameter housing kit 8" <input type="checkbox"/> <b>LiteGear<sup>1</sup></b> Inverter, single phase central lighting, 125VA-250VA <input type="checkbox"/> <b>LPS Series<sup>1</sup></b> LitePower micro-inverter, 20VA-55VA

<sup>1</sup> See Central Inverter compatibility note and web links on page 3.

<sup>2</sup> See housing compatibility guide for hole diameter compatibility on page 3.



In a continuing effort to offer the best product possible we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product.  
Web: [www.prescolite.com](http://www.prescolite.com) • Tech Support: (888) 777-4832

RTF-023

# PHOTOMETRIC DATA

# Retroficient® - 8" RLC8SL Downlight

DRIVER DATA	8LCSL10Lxxx	8LCSL14Lxxx	8LCSL18Lxxx
Input Voltage	120-277V	120-277V	120-277V
Input Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Input Current	0.111 (120v) 0.048 (277v)	0.148 (120v) 0.064 (277v)	0.185 (120v) 0.080 (277v)
Input Power	13.3W	17.7W	22.0W
Constant Current Output	700mA	700mA	700mA
Power Factor	≥0.90	≥0.90	≥0.90
THD	<25%	<20%	<20%
EMI Filtering	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A
Operating Temperature	-30°C to +35°C	-30°C to +28°C	-30°C to +25°C
Dimming	0-10V	0-10V	0-10V
Over-voltage, over-current, short-circuit protected			

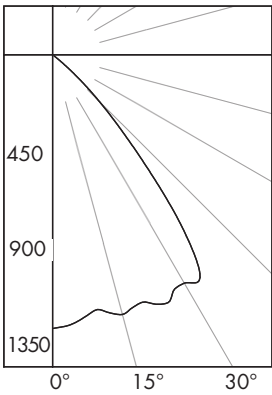
### Lumen Multiplier Table

Photometrics for the RLC8SL are published below at a nominal 3500 Kelvin temperature. This table may be used to approximate the lumen values at different Kelvin temperatures. Power consumption would stay the same.

5000 Kelvin	1.09
4000 Kelvin	1.00
3500 Kelvin	1.00
3000 Kelvin	0.99
2700 Kelvin	0.96

### RLC8SL 8LCSL18L35K8

LED Light Engine: 3500K, 80+ CRI  
System Wattage: 22.1W  
Fixture Delivered Lumens: 1973  
Fixture Efficacy: 89.3  
Spacing Criteria: 1.2



### CANDELA DISTRIBUTION

DEG	CANDELA
0	1263
5	1239
15	1241
25	1262
35	1158
45	309
55	8
65	3
75	1
85	0
90	0

Test No. 16.03292

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1035	52.5
0-40	1702	86.3
0-60	1968	99.7
0-90	1973	100.0
90-180	0	0.0
0-180	1973	100.0

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	13470
55°	430
65°	219
75°	119
85°	0

### COEFFICIENTS OF UTILIZATION Zonal Cavity Method

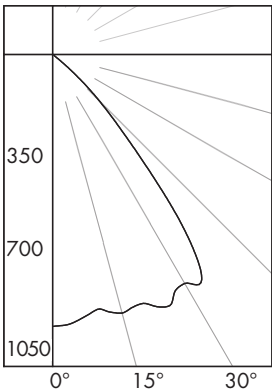
Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%		70%		50%		30%		10%								
	70	50	30	10	70	50	30	10	50	30	10						
% 20% Effective Floor Cavity Reflectance																	
% Wall Reflectance																	
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94
2	107	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86
3	100	93	88	83	98	92	87	82	89	85	81	87	83	80	84	81	79
4	94	86	80	75	92	85	79	74	82	77	74	80	76	73	78	75	72
5	89	79	73	68	87	78	72	68	76	71	67	75	70	66	73	69	66
6	83	73	67	62	82	72	66	61	71	65	61	69	64	61	68	64	60
7	78	68	61	56	77	67	61	56	66	60	56	65	59	56	63	59	55
8	74	63	56	52	72	62	56	52	61	55	51	60	55	51	59	54	51
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47
10	66	55	48	44	64	54	48	44	53	48	44	52	47	43	52	47	43

RLC8SL 8LCSL18L35K8

Test No. 16.03292

### RLC8SL 8LCSL14L35K8

LED Light Engine: 3500K, 80+ CRI  
System Wattage: 17.8W  
Fixture Delivered Lumens: 1547  
Fixture Efficacy: 86.9  
Spacing Criteria: 1.2



### CANDELA DISTRIBUTION

DEG	CANDELA
0	976
5	962
15	961
25	995
35	914
45	245
55	6
65	2
75	1
85	0
90	0

Test No. 16.03293

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	809	52.3
0-40	1333	86.2
0-60	1544	99.8
0-90	1547	100.0
90-180	0	0.0
0-180	1547	100.0

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	10680
55°	322
65°	146
75°	119
85°	0

### COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%		70%		50%		30%		10%								
	70	50	30	10	70	50	30	10	50	30	10						
% 20% Effective Floor Cavity Reflectance																	
% Wall Reflectance																	
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94
2	107	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86
3	100	93	88	83	98	92	87	82	89	85	81	87	83	80	84	81	79
4	94	86	80	75	92	85	79	74	82	77	74	80	76	73	78	75	72
5	89	79	73	68	87	78	72	67	76	71	67	75	70	66	73	69	66
6	83	73	66	62	82	72	66	61	71	65	61	69	64	61	68	64	60
7	78	68	61	56	77	67	61	56	66	60	56	64	59	56	63	59	55
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51
9	69	59	52	47	68	58	52	47	57	51	47	56	51	47	55	50	47
10	66	55	48	44	64	54	48	44	53	47	43	52	47	43	52	47	43

RLC8SL 8LCSL14L35K8

Test No. 16.03293

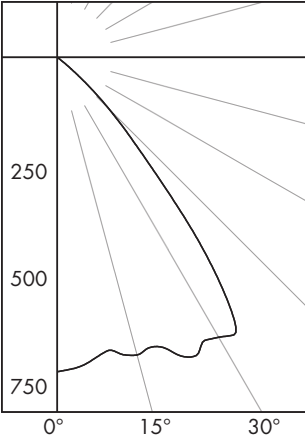


# PHOTOMETRIC DATA

# Retroficient® - RLC8SL Downlight

## RLC8SL 8LCSL10L35K8

LED Light Engine: 3500K, 80+ CRI  
 System Wattage: 13.4W  
 Fixture Delivered Lumens: 1126  
 Fixture Efficacy: 84.0  
 Spacing Criteria: 1.2



### CANDELA DISTRIBUTION

DEG	CANDELA
0	709
5	696
15	695
25	742
35	669
45	166
55	4
65	2
75	1
85	0
90	0

### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	597	53.0
0-40	982	87.2
0-60	1124	99.8
0-90	1126	100.0
90-180	0	0.0
0-180	1126	100.0

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	7236
55°	215
65°	146
75°	119
85°	0

### COEFFICIENTS OF UTILIZATION

Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80%			70%			50%			30%			10%				
	70	50	30	70	50	30	70	50	30	70	50	30	70	50	30		
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94
2	107	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86
3	100	93	88	83	98	92	87	83	89	85	81	87	83	80	84	81	79
4	94	86	80	75	92	85	79	75	83	78	74	80	76	73	79	75	72
5	89	79	73	68	87	78	72	68	77	71	67	75	70	66	73	69	66
6	83	73	67	62	82	73	66	62	71	65	61	70	65	61	68	64	60
7	78	68	61	57	77	67	61	56	66	60	56	65	60	56	63	59	55
8	74	63	56	52	72	63	56	51	61	56	51	60	55	51	59	54	51
9	70	59	52	48	68	58	52	48	57	51	47	56	51	47	55	51	47
10	66	55	48	44	65	54	48	44	53	48	44	53	47	44	52	47	43

RLC8SL 8LCSL10L35K8

Test No. 16.03294

Test No. 16.03294

Tested at 25°C Ambient in accordance to IESNA LM-79-2008

## Dimming Compatibility Table

Dimming Ballast	Manufacturer	Web Link
DM/DM1	Lutron DTV	<a href="http://bit.ly/11jSvZg">http://bit.ly/11jSvZg</a>
DM/DM1	Leviton AWRMG-7xx, AWSMG-7xx, AWSMT-7xx	<a href="http://bit.ly/1BJn2R9">http://bit.ly/1BJn2R9</a>

## Central Inverters

For full fixture output in back-up mode, we recommend you visit [www.dual-lite.com](http://www.dual-lite.com) for your Central Lighting Inverter options. Please contact your local Hubbell representative for any assistance with proper sizing and loading of your inverter selection. Central lighting inverters must be ordered separately.

**LiteGear:** [www.dual-lite.com/products/litegear\\_lg\\_series](http://www.dual-lite.com/products/litegear_lg_series)

**LPS Series:** [www.dual-lite.com/products/lps](http://www.dual-lite.com/products/lps)

HOUSING COMPATIBILITY GUIDE		
ORDERING GUIDELINES	8 INCH	
	MIN	MAX
REQUIRES SD HOUSING OPTION	7-15/16	8-1/8
ALL STANDARD HOUSINGS	8-1/8	8-3/4
REQUIRES RWD KIT ACCESSORY & WF REFLECTOR OPTION	8-3/4	9-1/8

Dimensions shown are for the diameter of the frame flange at it's narrowest point

