



# 6" & 8" LED Downlight

## RLF6LED/RLF8LED

120V-277V  
0-10v Dimming

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

### APPLICATIONS:

Retroficient RLF6LED/RLF8LED Series is a 6" & 8" commercial grade Retrofit LED downlight that combines superior brightness control with energy savings and low maintenance costs. The RLFLED is designed specifically to Retrofit into ceilings with existing recessed downlight fixtures without the need to remove the existing fixture. Suitable for a variety of commercial, retail, and institutional applications with ambient temperature up to 40°C (104°F) in open plenum applications.

### HOUSING:

All components are made from quality die cast aluminum or galvanized 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 without tools above or below the ceiling 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.

### INSTALLATION:

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

### 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 RLFLED uses the Philips Fortimo DLM LED Module with remote phosphor technology. This technology provides controlled color

consistency from fixture to fixture. The system is designed for optimal life and lumen maintenance (50,000 hours at 70% lumen maintenance). Both reflector and light engine assembly are mechanically retained to housing. The light engine comes standard with 80 CRI in all Kelvin temperatures.

### LED DRIVER:

The RLFLED utilizes the Philips Fortimo LED Driver specifically designed to optimize efficiency of the Fortimo DLM Module. Driver is designed to match the 50,000 hour minimum life expectancy of the system. Meets UL Class 2, inherent short circuit protection, self limited, overload protected. If critical temperatures are reached on driver or LED module, integrated thermal feedback loop will gradually reduce current to protect system life. Driver is universal 120V-277V.

### DIMMING:

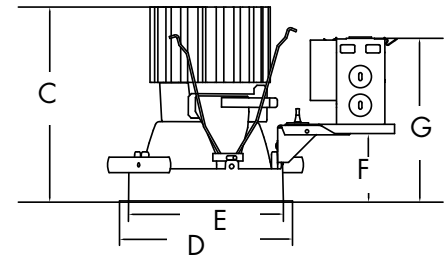
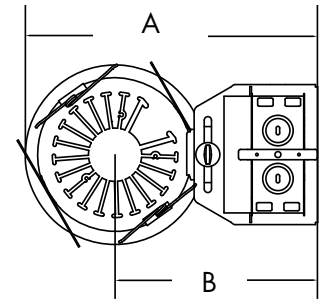
Comes standard with 0-10V dimming capability. Flicker-free dimming to 10%.

### CERTIFICATIONS:

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

### WARRANTY:

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



\*Dimensions shown are for range of adjustability.

	"A"	"B"	"C"	"D"	"E"	"F"	"G"
<b>RLF6 6LFLED5</b>	12-3/4" - 15"	8-7/8" - 10-3/4"	6-3/4"	7"	5-3/4"	2-1/2" - 3-3/4"	6-1/4" - 7-1/2"
<b>RLF8 8LFLED5</b>	13-3/4" - 16"	9-7/8" - 11-3/4"	8-3/4"	9"	7-3/4"	2-1/2" - 3-3/4"	6-1/4" - 7-1/2"
<b>RLF6LED 6LFLED7</b>	12-3/4" - 15"	8-7/8" - 10-3/4"	7-3/4"	7"	5-3/4"	2-1/2" - 3-3/4"	6-1/4" - 7-1/2"
<b>RLF8LED 8LFLED7</b>	13-3/4" - 16"	9-7/8" - 11-3/4"	9-3/4"	9"	7-3/4"	2-1/2" - 3-3/4"	6-1/4" - 7-1/2"

Order housing, reflector, and accessories separately

CATALOG NUMBER:

EXAMPLE: RLF6LED - 6LFLED530K

HOUSING	VOLTAGE	OPTIONS	TRIM	LED COLOR TEMP	REF. FINISH	REF. COLOR	REF. OPTIONS	ACCESSORIES
<input type="checkbox"/> <b>RLF6LED</b> 6" High Efficacy LED Housing with 0-10V Dimming to 10%	<input type="checkbox"/> <b>Blank</b> 120V- 277V	<input type="checkbox"/> <b>SD<sup>1</sup></b> Small Diameter	<input type="checkbox"/> <b>6LFLED5<sup>3</sup></b> 6" Open Reflector/ Light Engine Assembly, Nominal 1100 lumen output	<input type="checkbox"/> <b>30K</b> 3000 Kelvin, 80 CRI	<input type="checkbox"/> <b>Blank</b> Alzak Semi- Diffuse	<input type="checkbox"/> <b>Blank</b> Clear Alzak	<input type="checkbox"/> <b>WT</b> White Trim	<input type="checkbox"/> <b>RWD6<sup>1</sup></b> Retrofit Wide Diameter Housing Kit (6")
<input type="checkbox"/> <b>RLF8LED</b> 8" High Efficacy LED Housing with 0-10V Dimming to 10%			<input type="checkbox"/> <b>8LFLED5<sup>3</sup></b> 8" Open Reflector/ Light Engine Assembly, Nominal 1100 lumen output	<input type="checkbox"/> <b>35K</b> 3500 Kelvin, 80 CRI		<input type="checkbox"/> <b>CG</b> Champagne Gold Alzak	<input type="checkbox"/> <b>WF</b> Wide Flange	<input type="checkbox"/> <b>RWD8<sup>1</sup></b> Retrofit Wide Diameter Housing Kit (8")
			<input type="checkbox"/> <b>6LFLED7<sup>4</sup></b> 6" Open Reflector/ Light Engine Assembly, Nominal 2000 lumen output	<input type="checkbox"/> <b>40K</b> 4000 Kelvin, 80 CRI		<input type="checkbox"/> <b>BL</b> Black Alzak		<input type="checkbox"/> <b>LFSC6</b> 6" reflector screw cover
			<input type="checkbox"/> <b>8LFLED7<sup>4</sup></b> 8" Open Reflector/ Light Engine Assembly, Nominal 2000 lumen output		<sup>1</sup> See housing capability guide for hole diameter compatibility on page 3	<input type="checkbox"/> <b>WE</b> Wheat Alzak		<input type="checkbox"/> <b>LFSC8</b> 8" reflector screw cover
					<sup>2</sup> Requires WT option	<input type="checkbox"/> <b>LW</b> Light Wheat Alzak		<input type="checkbox"/> <b>LG15<sup>5</sup></b> Dual-Lite 100 VA Surface Mount LiteGear Emergency Lighting Inverter
					<sup>3</sup> Phillips Fortimo 1100Lm LED module	<input type="checkbox"/> <b>PW</b> Pewter Alzak		<input type="checkbox"/> <b>LG1R<sup>5</sup></b> Dual-Lite 100 VA Recessed Mount LiteGear Emergency Lighting Inverter
					<sup>4</sup> Phillips Fortimo 2000Lm LED module	<input type="checkbox"/> <b>WH<sup>2</sup></b> White Paint		<input type="checkbox"/> <b>LG1T<sup>5</sup></b> Dual-Lite 100 VA Recessed Ceiling T-Grid Mount LiteGear Emergency Lighting Inverter
					<sup>5</sup> See LFLED and LiteGear Com- patibility Matrix on page 4			<input type="checkbox"/> <b>LG25<sup>5</sup></b> Dual-Lite 250 VA Surface Mount LiteGear Emergency Lighting Inverter

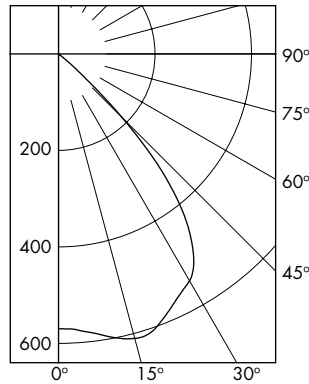
# PHOTOMETRIC DATA

# Retroficient - 6" RLF6LED Downlight

DRIVER DATA	RLF6(8)LED5 30K	RLF6(8)LED5 35K	RLF6(8)LED5 40K	RLF6(8)LED7 30K	RLF6(8)LED7 35K	RLF6(8)LED7 40K
Input Voltage	120-277V	120-277V	120-277V	120-277V	120-277V	120-277V
Input Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Input Current	0.146A (120v)	0.156A (120v)	0.137A (120v)	0.146A (120v)	0.156A (120v)	0.137A (120v)
	0.063 (277v)	0.067 (277v)	0.059 (277v)	0.063 (277v)	0.067 (277v)	0.059 (277v)
Input Power	17.3W	18.5W	16.3W	36W	34W	33W
Constant Current Output	200-700mA	200-700mA	200-700mA	200-700mA	200-700mA	200-700mA
Power Factor	≥0.90	≥0.90	≥0.90	≥0.90	≥0.90	≥0.90
THD	<20%	<20%	<20%	<20%	<20%	<20%
EMI Filtering	FCC 47CFR	FCC 47CFR	FCC 47CFR	FCC 47CFR	FCC 47CFR	FCC 47CFR
	Part 15, Class A	Part 15, Class A	Part 15, Class A	Part 15, Class A	Part 15, Class A	Part 15, Class A
Operating Temperature	-20°C to 55°C	-20°C to 55°C	-20°C to 55°C	-20°C to 55°C	-20°C to 55°C	-20°C to 55°C
Dimming	0-10V	0-10V	0-10V	0-10V	0-10V	0-10V
Over-voltage, over-current, short-circuit protected						

### RLF6LED 6LFLED5 35K

LED Light Engine: 3500K, 80 CRI  
 System Wattage: 18.5W  
 Fixture Delivered Lumens: 916  
 Fixture Efficacy: 50  
 Spacing Criteria: 1.2



CANDELA DISTRIBUTION		
DEG	CANDELA	LUMENS
0	573	
5	584	56
15	606	170
25	562	259
35	469	289
45	179	136
55	3	4
65	1	1
75	0	0
85	0	0
90	0	0

Test No. 3604

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

### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	486	53.0
0-40	775	84.6
0-60	915	99.9
0-90	916	100.0
90-180	0	0.0
0-180	916	100.0

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average - 0°
45°	15105
55°	312
65°	141
75°	0
85°	0

### COEFFICIENTS OF UTILIZATION Zonal Cavity Method

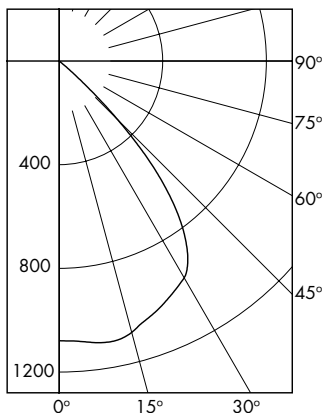
Room Cavity Ratio	% Effective Floor Cavity Reflectance																
	80%			70%			50%			30%			10%				
	20% Effective Floor Cavity Reflectance																
													% Wall Reflectance				
	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	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	64	59	55
8	74	63	56	52	73	63	56	52	61	56	51	60	55	51	59	55	51
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44

RLF6LED 6LFLED5 35K

Test No. 3604

### RLF6LED 6LFLED7 35K

LED Light Engine: 3500K, 80 CRI  
 System Wattage: 32.4W  
 Fixture Delivered Lumens: 1656  
 Fixture Efficacy: 50  
 Spacing Criteria: 1.2



CANDELA DISTRIBUTION		
DEG	CANDELA	LUMENS
0	1079	
5	1087	104
15	1084	305
25	1006	465
35	855	526
45	322	246
55	6	8
65	2	1
75	0	1
85	0	0
90	0	0

Test No. 3796

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

### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	874	52.8
0-40	1401	84.6
0-60	1654	99.9
0-90	1656	100.0
90-180	0	0.0
0-180	1656	100.0

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average - 0°
45°	24955
55°	573
65°	259
75°	0
85°	0

### COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Floor Cavity Reflectance																
	80%			70%			50%			30%			10%				
	20% Effective Floor Cavity Reflectance																
													% Wall Reflectance				
	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
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	76	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	64	59	55
8	74	63	56	52	73	63	56	52	61	56	51	60	55	51	59	55	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	54	48	44	53	48	44	52	47	44

RLF6LED 6LFLED7 35K

Test No. 3796



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# PHOTOMETRIC DATA

## Retroficient - 8" RLF8LED Downlight

### RLF8LED 8LFLED5 35K

LED Light Engine: 3500K, 80 CRI  
 System Wattage: 18.5W  
 Fixture Delivered Lumens: 895  
 Fixture Efficacy: 48  
 Spacing Criteria: 1.2

### ZONAL LUMEN SUMMARY

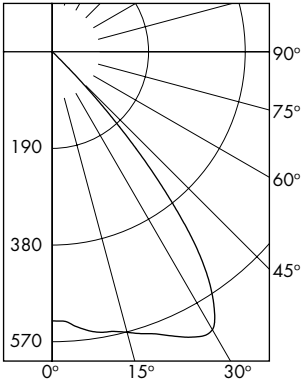
ZONE	LUMENS	%LUMINAIRE
0-30	501	56.0
0-40	820	91.7
0-60	894	99.9
0-90	895	100.0
90-180	0	0.0
0-180	895	100.0

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average - 0°
45°	15105
55°	312
65°	141
75°	0
85°	0

### CANDELA DISTRIBUTION

DEG	CANDELA	LUMENS
0	529	
5	542	52
15	571	163
25	619	286
35	529	319
45	62	71
55	4	4
65	1	0
75	0	0
85	0	0
90	0	



Test No 3517

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

### COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Floor Cavity Reflectance																
	80%			70%			50%			30%			10%				
	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
1	113	110	107	105	111	108	106	103	104	102	100	100	99	97	97	96	94
2	107	102	97	94	105	100	96	91	97	93	91	94	91	89	91	89	87
3	101	94	89	84	99	92	88	82	90	86	82	87	84	81	85	82	80
4	95	87	81	76	93	86	80	75	83	79	75	81	77	74	79	76	73
5	89	80	74	69	88	79	73	68	77	72	68	76	71	68	74	70	67
6	84	74	68	63	83	74	67	62	72	67	62	71	66	62	69	65	62
7	79	69	62	58	78	68	62	57	67	61	57	66	61	57	65	60	57
8	75	64	58	53	73	64	57	53	63	57	53	61	56	53	60	56	52
9	71	60	53	49	69	59	53	49	58	53	49	57	52	49	57	52	48
10	67	56	50	45	66	55	49	45	55	49	45	54	49	45	53	48	45

RLF8LED 8LFLED5 35K

Test No. 3517

### RLF8LED 8LFLED7 35K

LED Light Engine: 3500K, 80 CRI  
 System Wattage: 32.9W  
 Fixture Delivered Lumens: 1650  
 Fixture Efficacy: 50 lm/watt  
 Spacing Criteria: 1.2

### ZONAL LUMEN SUMMARY

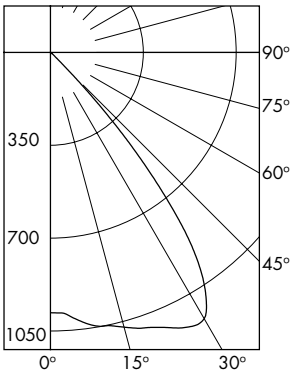
ZONE	LUMENS	%LUMINAIRE
0-30	932	56.5
0-40	1518	92.0
0-60	1649	99.9
0-90	1650	100.0
90-180	0	0.0
0-180	1650	100.0

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average - 0°
45°	4413
55°	401
65°	78
75°	0
85°	0

### CANDELA DISTRIBUTION

DEG	CANDELA	LUMENS
0	981	
5	1005	97
15	1072	305
25	1146	530
35	975	586
45	95	124
55	7	7
65	1	1
75	0	0
85	0	0
90	0	



Test No. 3795

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

### COEFFICIENTS OF UTILIZATION Zonal Cavity Method

Room Cavity Ratio	% Effective Floor Cavity Reflectance																
	80%			70%			50%			30%			10%				
	70	50	30	10	70	50	30	10	50	30	10	50	30	10			
1	113	110	108	105	111	108	106	103	104	102	100	100	99	97	97	96	94
2	107	102	97	94	105	100	96	93	97	93	91	94	91	89	91	89	87
3	101	94	89	84	99	93	88	84	90	86	82	87	84	81	85	82	80
4	95	87	81	76	93	86	80	76	84	79	75	81	77	74	80	76	73
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67
6	84	75	68	63	83	74	68	63	72	67	63	71	66	62	69	65	62
7	79	69	63	58	78	69	62	58	67	62	58	66	61	57	65	60	57
8	75	64	58	53	74	64	58	53	63	57	53	62	57	53	61	56	53
9	71	60	54	49	70	60	53	49	59	53	49	58	52	49	57	52	49
10	67	56	50	46	66	55	50	45	55	49	45	54	49	45	53	48	45

RLF8LED 8LFLED7 35K

Test No. 3795

### HOUSING COMPATIBILITY GUIDE

ORDERING GUIDELINES	6 INCH		8 INCH	
	MIN	MAX	MIN	MAX
REQUIRES SD HOUSING OPTION	5-15/16	6-1/8	7-15/16	8-1/8
ALL STANDARD HOUSINGS	6-1/8	6-1/2	8-1/8	8-3/4
REQUIRES RWD KIT ACCESSORY & WF REFLECTOR OPTION	6-1/2	6-7/8	8-3/4	9-1/8

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



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# PHOTOMETRIC DATA

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## **Central Inverters**

For fixture full light output in back-up mode, Prescolite and Dual-lite have jointly tested the LiteFrame LED with the 100 (LG1) and 250 (LG2) VA LiteGear inverters. Below is a chart that shows the maximum number of LiteFrame LED products that can be wired to a single LiteGear. (Note: Not for use with integral EM option). For more information on LiteGear go to [www.dual-lite.com](http://www.dual-lite.com)

<b>LiteFrame LED &amp; Dual-Lite LiteGear Compatibility Matrix</b>		
Maximum Number of LiteFrame LED Downlights that can be wired to a single LiteGear Inverter.		
	<b>LED5</b>	<b>LED7</b>
<b>LG1</b>	3	2
<b>LG2</b>	8	5

