

8" LED Downlight

RLF8SL

120V-277V
0-10V Dimming

APPLICATIONS:

LiteFrame Retroficient® RLF8SL is a 8" specification grade Retrofit LED retrofit downlight that combines superior brightness control with energy savings and low maintenance costs. The RLF8SL 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 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 without tools above or below the ceiling and can be upgraded to accommodate technology improvements. Approve 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 RLF8SL uses the Philips Fortimo DLM LED Module. This module provides controlled color consistency (3 SDCM) from fixture to fixture. The system is designed for optional life and lumen maintenance (>50,000 hours at 70% lumen maintenance). Both reflector and light engine assembly are mechanically retained to housing.

LED DRIVER:

The RLF8SL 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. Optional Lutron Series A driver is also available.

DIMMING:

Comes standard with 0-10V dimming capability. Flicker-free dimming to 10%. 0-10V control may consume up to 1mA. 0-10V, Lutron 2 wire and EcoSystem dimming available to 1%..

CERTIFICATIONS:

CSA certified to US and Canadian safety standards. Suitable for wet locations. Approved for through wiring. ENERGY STAR qualified with open clear Alzak reflector.

WARRANTY:

5 year warranty. See www.prescolite.com for details.

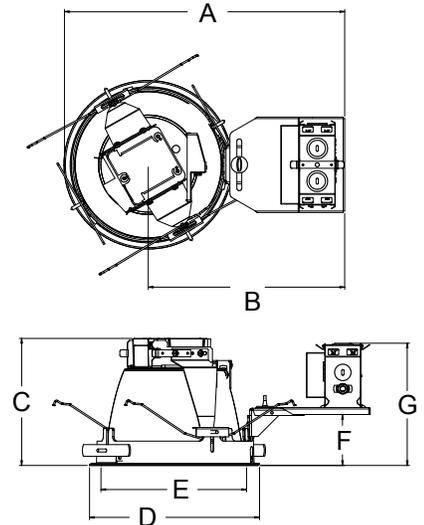
DATE: _____ TYPE: _____

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



*Dimensions shown are for range of adjustability.

"A"	"B"	"C"	"D"	"E"	"F"	"G"
13-3/4" - 16"	9-7/8" - 11-3/4"	7-1/4"	9"	7-3/4"	2-1/2" - 3-3/4"	6-1/4" - 7-1/2"

See page 4 for NX(W)E line art

CATALOG NUMBER:

EXAMPLE: RLF8SL-8LFLS15L35K8WT

Order housing, reflector, and accessories separately

HOUSING	DRIVER OPTION	HOUSING OPTIONS	TRIM APERTURE	OUTPUT	KELVIN	CRI	REF. COLOR OPTIONS	ACCESSORIES
<input type="checkbox"/> RLF8SL Standard Lumen 0-10V 10% dimming 120-277V	Standard 0-10V 10% Dimming <input type="checkbox"/> DM1 0-10V dimming at 1% <input type="checkbox"/> DMT5,6 SpectraSync™ Tunable White <input type="checkbox"/> DMTW7 SpectraSync™ Tunable Dim to Warm	<input type="checkbox"/> SD2 Small Diameter <input type="checkbox"/> LV4 Lutron Vive Enabled, 0-10V, 120-277V <input type="checkbox"/> NXWE9,10 NX Wireless Enabled <input type="checkbox"/> NXE9,10 NX Enabled, Dual SmartPorts	<input type="checkbox"/> 8LFLS Semi-Diffuse Clear Alzak	<input type="checkbox"/> 11L Lumen Module <input type="checkbox"/> 15L Lumen Module <input type="checkbox"/> 20L8 Lumen Module	<input type="checkbox"/> 27K 2700 Kelvin <input type="checkbox"/> 30K 3000 Kelvin <input type="checkbox"/> 35K 3500 Kelvin <input type="checkbox"/> 40K 4000 Kelvin <input type="checkbox"/> 50K 5000 Kelvin <input type="checkbox"/> 2230TD11 2200K-3000K SpectraSync™ Dim to Warm <input type="checkbox"/> 2750T11 2700K-5000K SpectraSync™ Tunable White <input type="checkbox"/> 2765T11 2700K-6500K SpectraSync™ Tunable White	<input type="checkbox"/> 8 80+ CRI <input type="checkbox"/> 9 90+ CRI REF. FINISH OPTIONS Standard Semi-Diffuse <input type="checkbox"/> SP Specular <input type="checkbox"/> SS Semi-Specular <input type="checkbox"/> MFC American Matte™ <input type="checkbox"/> V Kurt Versen Specular <input type="checkbox"/> VS Kurt Versen Softglow® <input type="checkbox"/> VSS Kurt Versen SoftSheen™	Standard Clear Alzak <input type="checkbox"/> CG Champagne Gold Alzak <input type="checkbox"/> GD Gold Alzak <input type="checkbox"/> BL Black Alzak <input type="checkbox"/> WE Wheat Alzak <input type="checkbox"/> LW Light Wheat Alzak <input type="checkbox"/> PW Pewter Alzak <input type="checkbox"/> WH Painted Matte White Reflector and Flange <input type="checkbox"/> BC Painted Black Reflector and Flange TRIM OPTIONS <input type="checkbox"/> WT Painted White Flange Only <input type="checkbox"/> WF Wide Flange	<input type="checkbox"/> LFSC8 8" Reflector screw cover <input type="checkbox"/> LiteGear3 Inverter, single phase central lighting, 125VA-250VA <input type="checkbox"/> LPS Series3 LitePower micro-inverter, 20VA-55VA <input type="checkbox"/> RWDS Retrofit wide housing kit
<input type="checkbox"/> RLF8SL11L <input type="checkbox"/> RLF8SL15L <input type="checkbox"/> RLF8SL20L	<input type="checkbox"/> EDM1 Hi-Lume 1% EcoSystem LED Driver <input type="checkbox"/> 2DM1 Hi-Lume 1% 2-wire LED Driver (120V only)	<input type="checkbox"/> 120 120V <input type="checkbox"/> 277 277V	<input type="checkbox"/> LVE (EDM Only) Lutron Vive Enabled, EcoSystem					Notes: 1 For EDM and 2DM options, housing output must match trim output 2 See housing compatibility guide on page 3. 3 See Central Inverter compatibility note and web links on page 3 4 LV requires standard dimming or DM1 5 Must select either 2750T or 2765T Kelvin with DMT driver option 6 Not available with LV or LVE 7 Must select 2230TD with DMTW driver option 8 Not compatible with DMT or DMTW 9 Not available with EDM or 2DM 10 Not available with LV or LVE 11 Only available in 90+ CRI

Use with EDM/2DM/DMX dimming option:
Match Housing to Trim Output

STANDARD 0-10V DIMMING

ALTERNATIVE DIMMING TO 1% & 0.1%



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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.
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RTF-012

PHOTOMETRIC DATA

Retroficient® - 8" RLF8SL Downlight

DRIVER DATA	8LFSL20L	8LFSL15L	8LFSL11L
Input Voltage	120-277V	120-277V	120-277V
Input Frequency	50/60 Hz	50/60 Hz	50/60 Hz
Input Current	0.105A (120V) 0.045A (277V)	0.133A (120V) 0.058A (277V)	0.184A (120V) 0.08A (277V)
Input Power	22.1W	16.0W	12.5W
Power Factor	≥0.90	≥0.90	≥0.90
THD	<20%	<20%	<20%
EMI Filtering	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A
Operating Temperature	-20°C to 40°C	-20°C to 40°C	-20°C to 40°C
Dimming	0-10V	0-10V	0-10V

Over-voltage, over-current, short-circuit protected

*Power consumption and photometric output may vary slightly with various driver and CRI options.

Lumen Multiplier Table

Photometrics published below are for the 3000K, 80 CRI. This table may be used to approximate the lumen values at different Kelvin temperatures and CRI.

4000 Kelvin	1.07
3500 Kelvin	1.00
3000 Kelvin	1.00
2700 Kelvin	0.95
80 CRI.....	1.00
90 CRI.....	0.91

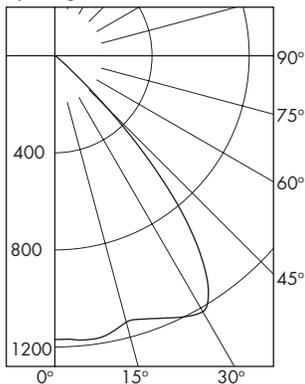
Delivered Lumens

The table below shows the delivered lumens for the various lumen outputs.

Output	CRI	Lens	Delivered Lumens	Input Watts	Lumens Per Watt	Full Catalog String
11L	80	Open	1085	12.5	87	RLF8SL-8LFSL11L30K8
15L	80	Open	1454	16.0	91	RLF8SL-8LFSL15L30K8
20L	80	Open	1916	22.1	87	RLF8SL-8LFSL20L30K8
11L	90	Open	1038	14.1	74	RLF8SL-8LFSL11L30K9
15L	90	Open	1406	19.4	72	RLF8SL-8LFSL15L30K9
20L	90	Open	1853	25.5	73	RLF8SL-8LFSL20L30K9

RLF8SL-8LFSL20L30K8

LED Light Engine: 3000K, 80 CRI
System Wattage: 22.1W
Fixture Delivered Lumens: 1916
Fixture Efficacy: 87
Spacing Criteria: 1.2



CANDELA DISTRIBUTION

DEG	CANDELA
0	1169
5	1176
15	1136
25	1190
35	1079
45	309
55	12
65	2
75	0
85	0
90	0

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	988	51.6
0-40	1639	85.5
0-60	1913	99.9
0-90	1916	100.0
90-180	0	0.0
0-180	1916	100.0

LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average
45°	14359
55°	687
65°	155
75°	0
85°	0

COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80				70				50				30				
	70	50	30	10	70	50	30	10	70	50	30	10	70	50	30	10	
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94
2	106	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86
3	100	93	87	83	98	92	86	82	89	85	81	86	83	80	84	81	78
4	94	86	79	75	92	84	79	74	82	77	73	80	76	72	78	75	72
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65
6	83	73	66	61	81	72	66	61	71	65	61	69	64	60	68	63	60
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55
8	73	63	56	51	72	62	56	51	61	55	51	60	55	51	59	54	50
RLF8SL-8LFSL20L30K8	68	58	51	47	57	51	47	43	56	50	47	55	50	47	54	49	45
10	65	54	48	43	64	54	48	43	53	47	43	52	47	43	51	46	43

Test No. 18.00336

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



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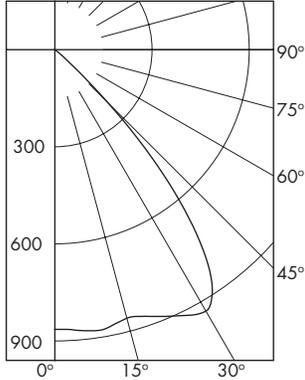


PHOTOMETRIC DATA

Retroficient® - 8" RLF8SL Downlight

RLF8SL-8LFSL15L30K8

LED Light Engine: 3000K, 80 CRI
System Wattage: 16.0W
Fixture Delivered Lumens: 1916
Fixture Efficacy: 81
Spacing Criteria: 1.2



CANDELA DISTRIBUTION

DEG	CANDELA
0	864
5	871
15	859
25	907
35	833
45	230
55	7
65	1
75	0
85	0
90	0

Test No. 18.00335

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

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	750	51.5
0-40	1249	85.9
0-60	1453	99.9
0-90	1454	100.0
90-180	0	0.0
0-180	1454	100.0

LUMINANCE DATA IN CANDELA/ SQ. METER

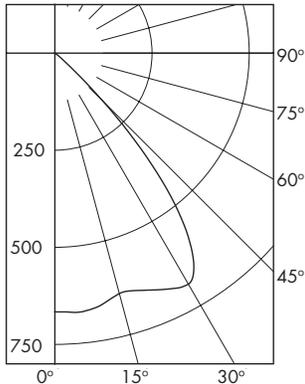
Angle in Vertical	Average
45°	10688
55°	401
65°	78
75°	0
85°	0

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						
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	87	83	98	92	86	82	89	85	81	86	83	80	84	81	78
4	94	86	79	75	92	85	79	74	82	77	73	80	76	72	78	75	72
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65
6	83	73	66	61	81	72	66	61	71	65	61	69	64	60	68	63	60
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55
8	73	63	56	51	72	62	56	51	61	55	51	60	55	51	59	54	50
RLF8SL-8LFSL15L30K8	68	58	51	47	57	51	47	56	50	47	43	51	46	43	51	46	43
10	65	54	48	43	64	54	48	43	53	47	43	52	47	43	51	46	43

RLF8SL-8LFSL11L30K8

LED Light Engine: 3000K, 80 CRI
System Wattage: 12.5W
Fixture Delivered Lumens: 1085
Fixture Efficacy: 87
Spacing Criteria: 1.2



CANDELA DISTRIBUTION

DEG	CANDELA
0	666
5	670
15	641
25	671
35	612
45	176
55	7
65	1
75	0
85	0
90	0

Test No. 18.00334

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

ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	558	51.4
0-40	926	85.4
0-60	1083	99.9
0-90	1085	100.0
90-180	0	0.0
0-180	1085	100.0

LUMINANCE DATA IN CANDELA/ SQ. METER

Angle in Vertical	Average
45°	8178
55°	401
65°	78
75°	0
85°	0

COEFFICIENTS OF UTILIZATION ZONAL CAVITY METHOD

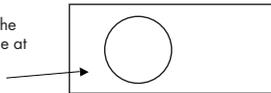
Room Cavity Ratio	% Effective Ceiling Cavity Reflectance																
	80		70		50		30		10								
	70	50	30	10	70	50	30	10	50	30	10						
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94
2	106	101	97	93	104	99	95	92	96	93	90	93	90	88	90	88	86
3	100	93	87	83	98	92	86	82	89	85	81	86	83	80	84	81	78
4	94	86	79	75	92	84	79	74	82	77	73	80	76	72	78	75	72
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65
6	83	73	66	61	81	72	66	61	71	65	61	69	64	60	68	63	60
7	78	68	61	56	77	67	60	56	65	60	55	64	59	55	63	58	55
8	73	63	56	51	72	62	56	51	61	55	51	60	54	51	59	54	50
RLF8SL-8LFSL11L30K8	68	58	51	47	57	51	47	56	50	47	43	51	46	43	51	46	43
10	65	54	48	43	64	54	48	43	53	47	43	52	47	43	51	46	43



Retroficient® - 8" RLF8SL Downlight

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 its narrowest point



Dimming Compatibility Table

Dimming Ballast	Manufacturer	Web Link
DM/DM1	Lutron DDTV	http://bit.ly/11jSvZg
DM/DM1	Leviton AWRMG-7xx, AWSMG-7xx, AWSMT-7xx	http://bit.ly/1BIn2R9
EDM	Lutron	http://bit.ly/1vtjHAL
2DM	Lutron	http://bit.ly/1nF4Zp1

Central Inverters

For full fixture output in back-up mode, we recommend you visit 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

LPS Series: www.dual-lite.com/products/lps

SpectraSync™ Color Tuning Technology:

Control your space based on the needs of the application, specific activities throughout the day and preferences of the occupants with two distinct SpectraSync™ Color Tuning Technology.

Dim to Warm: Dim to Warm mimics the familiar warming effect that occurs with traditional incandescent sources as they are dimmed. (Available with 2200K-3000K).

Tunable White: Tunable White offers users the ability to tailor CCT to their personal preference, enhancing task visibility, material and colors or the aesthetics of the space. (Available with 2700K-5000K or 2700K-6500K).

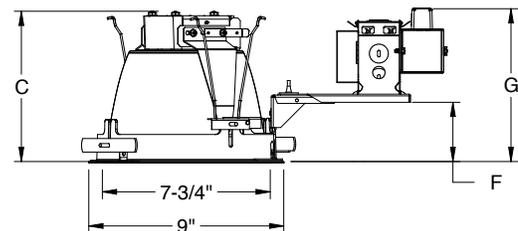
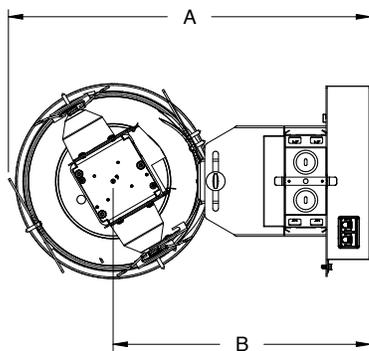
See separate [SpectraSync™ Tech Sheet](#) for additional details.

NX Distributed Intelligence:

Supports indoor and outdoor applications, wired, wireless and hybrid networked NX lighting control deployments and enables emerging applications such as Hubbell Lighting's SpectraSync™ color tuning technology.

See separate [NX™ Solutions Guide](#) for additional details.

See Hubbell Controls Solution [NX Brochure](#).



	"A"	"B"	"C"	"F"	"G"
RLF8SL NX(W)E	15-3/4" - 18"	11-7/8" - 13-3/4"	7-1/4"	2-1/2" - 3-3/4"	6-3/4" - 8"

RLF8SL NX(W)E



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