

# 4" LED Downlight

## LF4LED

120V-277V

High Efficacy  
0-10V Dimming

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

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

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



**wiHUBB** Ceiling Cutout: 5"  
Maximum Ceiling Thickness 1 1/4"  
For conversion to millimeters,  
multiply inches by 25.4  
Not to Scale

### APPLICATIONS:

Liteframe LF4LED is a 4" commercial grade LED downlight that utilizes remote phosphor technology to obtain color consistency, energy savings, and low maintenance costs. 50,000 hours minimum life up to 35°C (95°F) in open plenum applications.

### HOUSING:

One-piece 22 gauge non-corrosive steel platform. 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.

### 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 LF4LED 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.

Order housing, reflector, and accessories separately

### LED DRIVER:

The LF4LED 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%.

### INSTALLATION:

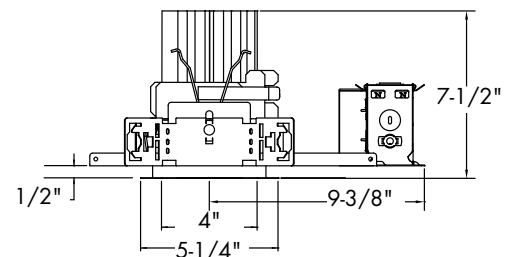
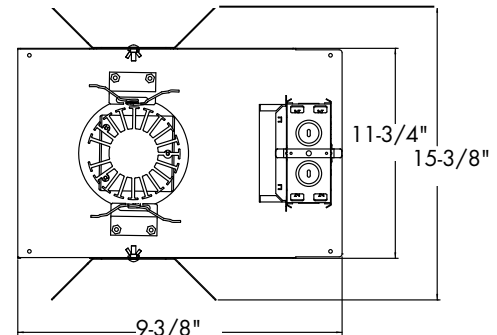
Light commercial bar hangers included. Universal adjustable mounting brackets also accept 1/2" EMT conduit or 1 1/2" or 3/4" lathing channel (by others) or Prescolite 24" bar hangers (B24 or B6).

### 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.



CATALOG NUMBER:

EXAMPLE: LF4LED-4LFLED5 30K

HOUSING/LED GENERATION	VOLTAGE	OPTIONS	TRIM	LED COLOR TEMP	REF. FINISH	REF. COLOR	REF. OPTIONS	ACCESSORIES
<input type="checkbox"/> <b>LF4LED</b> 4" High Efficacy LED Housing with 0-10V Dimming to 10%	<input type="checkbox"/> <b>Blank</b> 120V- 277V	<input type="checkbox"/> <b>wiH</b> wiHUBB® Enabled (see page 4)	<input type="checkbox"/> <b>4LFLED5<sup>2</sup></b> 4" Open Reflector/ Light Engine Assembly, 1100 lumen module <input type="checkbox"/> <b>4LFLED7<sup>3</sup></b> 4" Open Reflector/ Light Engine Assembly, 2000 Lumen Module	<input type="checkbox"/> <b>30K</b> 3000 Kelvin, 80 CRI <input type="checkbox"/> <b>35K</b> 3500 Kelvin, 80 CRI <input type="checkbox"/> <b>40K</b> 4000 Kelvin, 80 CRI	<input type="checkbox"/> <b>Blank</b> Alzak Semi- Diffuse	<input type="checkbox"/> <b>Blank</b> Clear Alzak <input type="checkbox"/> <b>CG</b> Champagne Gold Alzak <input type="checkbox"/> <b>BL</b> Black Alzak <input type="checkbox"/> <b>WE</b> Wheat Alzak <input type="checkbox"/> <b>LW</b> Light Wheat Alzak <input type="checkbox"/> <b>PW</b> Pewter Alzak <input type="checkbox"/> <b>WH<sup>1</sup></b> White Paint	<input type="checkbox"/> <b>WT</b> White Trim <input type="checkbox"/> <b>TRG</b> Trim Ring Gasket (factory installed)	<input type="checkbox"/> <b>B24</b> Set of two(2) 24" bar hangers for T-bar ceilings <input type="checkbox"/> <b>B6</b> Set of two (2) bar hangers for ceiling joist up to 24" centers <input type="checkbox"/> <b>LG15<sup>4</sup></b> Dual-Lite 100VA Surface Wall Mount LiteGear Emergency Lighting Inverter <input type="checkbox"/> <b>LG1R<sup>4</sup></b> Dual-Lite 100VA Recessed Wall Mount LiteGear Emergency Lighting Inverter <input type="checkbox"/> <b>LG1T<sup>4</sup></b> Dual-Lite 100VA Recessed Ceiling T-Grid LiteGear Emergency Lighting Inverter <input type="checkbox"/> <b>LG25<sup>4</sup></b> Dual-Lite 250 VA Surface Wall Mount LiteGear Emergency Lighting Inverter

<sup>1</sup>Requires WT option  
<sup>2</sup>Philips Fortimo 1100 Lm LED module  
<sup>3</sup>Philips Fortimo 2000Lm LED module  
<sup>4</sup>See LF4LED & LiteGear compatibility  
Guide 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.  
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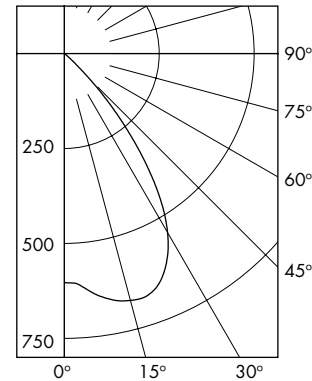
LFR-LED-003

# PHOTOMETRIC DATA

DRIVER DATA	LF4LED5 30K	LF4LED5 35K	LF4LED5 40K	LF4LED7 30K	LF4LED7 35K	LF4LED7 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) 0.063 (277v)	0.156A (120v) 0.067 (277v)	0.137A (120v) 0.059 (277v)	0.30A (120v) 0.13 (277v)	0.28A (120v) 0.12 (277v)	0.28A (120v) 0.12 (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 Part 15, Class A	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A	FCC 47CFR Part 15, Class A	FCC 47CFR 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						

## LF4LED 4LFLED5 35K

LED Light Engine: 3500K, 80 CRI  
System Wattage: 17.3W  
Fixture Delivered Lumens: 877  
Fixture Efficacy: 51  
Spacing Criteria: 1.2



### CANDELA DISTRIBUTION

DEG	CANDELA	LUMENS
0	603	
5	620	60
15	673	191
25	627	287
35	412	253
45	94	78
55	5	6
65	2	1
75	0	0
85	0	0
90	0	

Test No. 3739

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

### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	538	61.3
0-40	791	90.2
0-60	875	99.8
0-90	877	100.0
90-180	0	0.0
0-180	877	100.0

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average - 0°
45°	16391
55°	1075
65°	584
75°	0
85°	0

### COEFFICIENTS OF UTILIZATION

Zonal Cavity Method

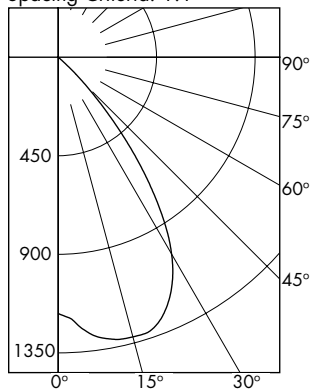
Room Cavity Ratio	% Effective Floor Cavity Reflectance																			
	80%				70%				50%				30%				10%			
	20% Effective Floor Cavity Reflectance																			
	% Wall Reflectance																			
	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10			
1	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95			
2	107	102	98	94	105	100	96	93	97	94	91	94	91	89	91	89	87			
3	101	94	89	85	99	93	88	84	90	86	83	88	85	82	86	83	80			
4	96	88	82	77	94	86	81	77	84	80	76	82	78	75	80	77	74			
5	90	81	75	71	89	80	75	70	79	73	70	77	72	69	75	71	68			
6	85	76	69	65	84	75	69	64	73	68	64	72	67	64	71	66	63			
7	80	71	64	60	79	70	64	59	69	63	59	67	62	59	66	62	58			
8	76	66	59	55	75	65	59	55	64	59	55	63	58	54	62	58	54			
9	72	62	55	51	71	61	55	51	60	55	51	59	54	51	58	54	50			
10	68	58	52	47	67	57	51	47	56	51	47	56	51	47	55	50	47			

LF4LED 4LFLED5 35K

Test No. 3739

## LF4LED 4LFLED7 35K

LED Light Engine: 3500K, 80 CRI  
System Wattage: 32.9W  
Fixture Delivered Lumens: 1673  
Fixture Efficacy: 50  
Spacing Criteria: 1.1



### CANDELA DISTRIBUTION

DEG	CANDELA	LUMENS
0	1170	
5	1242	120
15	1322	375
25	1208	552
35	766	472
45	172	141
55	9	10
65	3	2
75	1	1
85	1	0
90	0	

Test No. 4149

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

### ZONAL LUMEN SUMMARY

ZONE	LUMENS	%LUMINAIRE
0-30	1047	62.6
0-40	1519	90.8
0-60	1670	99.8
0-90	1673	100.0
90-180	0	0.0
0-180	1673	100.0

### LUMINANCE DATA IN CANDELA/SQ. METER

Angle in Vertical	Average - 0°
45°	13330
55°	860
65°	389
75°	212
85°	629

### COEFFICIENTS OF UTILIZATION

Zonal Cavity Method

Room Cavity Ratio	% Effective Ceiling 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	50	30	10			
1	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95			
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87			
3	101	95	89	85	99	93	88	85	91	87	83	88	85	82	86	83	81			
4	96	88	82	78	94	87	81	77	85	80	76	82	78	75	81	77	74			
5	91	82	75	71	89	81	75	71	79	74	70	77	73	69	76	72	69			
6	86	76	70	65	84	75	69	65	74	68	64	72	68	64	71	67	64			
7	81	71	65	60	79	70	64	60	69	64	60	68	63	59	67	62	59			
8	76	66	60	56	75	66	60	55	65	59	55	64	59	55	63	63	55			
9	72	62	56	52	71	62	56	51	61	55	51	60	55	51	59	59	51			
10	69	58	52	48	68	58	52	48	57	52	48	56	51	48	55	55	47			

LF4LED 4LFLED7 35K

Test No. 4149



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Hubbell Lighting, Inc.

# PHOTOMETRIC DATA

**DIMMING COMPATIBILITY TABLE (VERIFY WITH VENDOR)**

Control Manufacturer	Wallbox Dimmer	Power Booster Available
Douglas Lighting Controls	WPC 5721	
Entertainment Technology	Tap Glide TG600FAM120 (120V) Tap Glide Heatsink TGH1500fam120 (120V) Oasis DA2000FAMU (120/277V)	
Honeywell, Inc.	EL731A1019 and EL7315A1009	EL7305A1010
HUNT Dimming	Preset Slide: PS-010-IV-120V and PS-010-WH-120V Preset Slide: PS-010-3W-IV-120V and PS-010-3W-WH-120V Preset Slide: PS-010-IV-277V and PS-010-WH-277V Preset Slide: PS-010-3W-IV-277V and PS-010-3W-WH-277V Preset Slide, controls FD-010: PS-1FC-010-IV- and PS-1FC-010-32-WH-120/277V Preset Slide, controls FD-010: PS-1FC-010-32-IV- and PS-1FC-010-3W-WH-120/277V Remoted mounted unit: FD-010120V and FD-010-277V	
Lehigh Electric Products Co.	Solitaire	PBX
Leviton Lighting Controls Div.	Leviton Centura Fluorescent Control System IllumaTech™ IP7 Series	CN100 PE300
Lutron Electronics Co., Inc.	Visit <a href="http://www.lutron.com/advance">www.lutron.com/advance</a> for the latest control information and selection	
PDM Electrical products	WPC-5721	
Starfield Controls	TR61 with DALI Interface port	RT03 DALInet Router
The Watt Stopper, Inc.	LS-4 used with LCD-101 and LCD-103	

## 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

## NOTES

⊕ vs Denotes a Virtual Source reflector.

Refer to [www.prescolite.com](http://www.prescolite.com) for additional photometric tests (IES Files).



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# PHOTOMETRIC DATA

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## wiHUBB®

Fixture comes with a pre-installed In-Fixture Module (1 relay, 0-10V) compatible with the HBA wiHUBB system. Actual dimming requires the selection of 0-10V dimming ballast as well. Consult factory for compatibility with EM fixtures.



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