

NOMINAL LUMENS	DELIVERED LUMENS	WATTAGE
5000	5090	50 W
4000	4076	40 W

Based on 4000K, 85+ CRI. Actual wattage may vary +/- 5%

**FEATURES**

This fully luminous LED flat panel delivers exceptional performance and aesthetically pleasing optics, optimizing shallow plenum spaces. Perfect for new construction applications or retrofitting existing fluorescent troffer luminaires. It offers a range of dimming, lumen and CCT options. Perfect for either recessed or surface mounted installations, it's an ideal choice for commercial office space, retail merchandising, educational, and healthcare facilities.

LUMENS	4000, 5000
CCT	30K, 35K, 50K
CRI	85+
COLOR QUALITY	3 Step MacAdam Ellipse
SIZE	2'x4', 2'x2', 1'x4'
MOUNTING	Recessed, Suspended, Surface Mount
DIMMING & CONTROL	0-10V Flicker Free 1% Dimming Standard (DIM10)
EMERGENCY	10W - Up to 1000L output (Bodine BSL310) 20W - Up to 2000L output (Bodine BSL20)
LIFETIME	L70 at 60,000 Hours
PHOTOMETRIC TESTS	In Accordance with IES LM79-08, LM80 and TM-30, TM-21





**MAINTENANCE**

The driver is removable and upgradable even after luminaire installation. Luminaire can be regularly and safely wiped down to ensure optimal performance.

**OPTICAL SYSTEM**

The proprietary optical system utilizes a unique combination of reflective and refractive optical components to achieve a uniform, aesthetically pleasing appearance. Use of a light guide plate creates even, glare-free illumination, while maintaining high efficiency.

**CONSTRUCTION**

Heavy duty 20-gauge cold rolled steel back panel and aluminum frame, post-painted and engineered for maximum strength and extended life. All corners interlock to prevent aesthetic damage to the luminaire, with sides and corners uniformly turned in and hemmed to remove sharp edges for safe handling and easy installation. Luminaire is supplied with multiple wiring entrances for easy daisy chain of luminaires, to add power packs, whips, or other accessories in the field, or for continuous row mounting.

**FINISH**

Post-painted with a 93% reflective white coat to improve luminaire efficacy, with all body components seamlessly interlocked for added structural strength.

**MOUNTING**

Luminaires accommodate lay-in ceilings, Slot T, and T-bar suspension systems for 5/8" and 3/8" ceiling thicknesses. Four corner tie points are standard for safety wire support when required, with built-in earthquake clips, standard. Luminaires may be available with flange kits, surface mounted kits, and other options.

**OPTIONS**

Luminaires can be shipped pre-installed with whips, modular wiring systems

**DRIVER ELECTRICAL INFORMATION**

Powered by high-quality constant-current power LED drivers which are rated for 50 to 60Hz at 120/277V input. Available in 347V., produce less than 20% THD, and have a power factor of .90 to 1.00.

**DIMMING & DRIVER INFORMATION**

**DIM10** - Flicker Free 1% Dimming Standard (DIM10) 0-10V dimming on either MVOLT 120, 277 or 347V.

**WARRANTY**

Five-year warranty for parts and components. (Labor not included)

**LISTINGS**

c-UL-us - Listed for Feed Through Wiring.  
Listed for DLC, California Title 24 compliant.

**Example: 14-FPL1-LED-4000L-DIM10-MVOLT-30K-85**

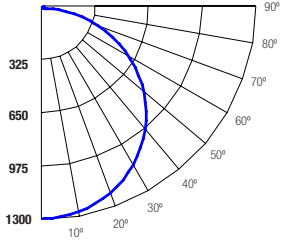
14	FPL1	LED								
FIXTURE SIZE	SERIES	TYPE	LUMENS	DIMMING	VOLTAGE	CCT	CRI	EMERGENCY	OTHER OPTIONS	
14 - 1' X 4'	FPL1 - LED Flat Panel	LED	4000L - 4000 lumens 5000L - 5000 lumens	DIM10 - 0-10V Dimming	MVOLT 347* <small>*Consult factory for details</small>	30K 35K 50K	85	0-EMG-LED-10W 0-EMG-LED-20W	14-FPL1-LED-SMK	14FK - 1'x4' Flange Kit FBF - Internal Slow Blow Fuse SBF - Radio Interference RIS - Suppressor USA - Made in America Compliance LMFC-011 - Digital Lighting Manager

#### 14-FPL1-LED-4000L-DIM10-MVOLT-40K-85

TEST NO.: **EL101853**

INPUT WATTS: **40** LUMENS: **4076** CRI: **85** EFFICACY: **102** CCT: **4000K** SPACING CRITERIA: **1.42**

#### Candle Power Distribution (Candelas)



Cone of Light		
4.0	4.49 fc	59 ft
8.0	1.12 fc	117.9 ft
12.0	0.5 fc	176.9 ft
16.0	0.28 fc	235.9 ft
20.0	0.18 fc	294.8 ft
24.0	0.12 fc	353.8 ft
Distance to Plane	Initial Footcandle at Nadir	Beam diameter

BEAM DIA. MEASURED AT 50% OF NADIR F.C.

#### Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	476.94	N.A.	11.70
0-30	1019.56	N.A.	25.00
0-40	1685.34	N.A.	41.30
0-60	3059.21	N.A.	75.10
0-80	3918.58	N.A.	96.10
0-90	4035.15	N.A.	99.00

#### Luminance (Average candela/M<sup>2</sup>)

Angle in Degrees	Average		
	0°	45°	90°
45	3585	3507	3439
55	3594	3491	3397
65	3556	3423	3300
75	3513	3316	3129
85	3725	3378	3051

#### Lumens Per Zone

Zone	Lumens
0-10	122.95
10-20	353.99
20-30	542.62
30-40	665.78
40-50	708.62
50-60	665.25
60-70	529.46
70-80	329.92
80-90	116.57

#### Candela Tabulation

0	0	1298.659
5	5	1296.331
15	15	1261.865
25	25	1191.119
35	35	1083.703
45	45	942.962
55	55	766.691
65	65	559.055
75	75	338.237
85	85	120.744
90	90	33.189

#### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

RC	80%					70%				50%			30%			10%			0%	
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%	
ROOM CAVITY RATIO	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99	
1	108	103	98	94	105	100	96	92	89	92	89	86	88	86	88	86	86	84	81	
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	76	73	69	67		
3	89	78	69	62	86	76	68	62	73	66	60	70	64	59	67	62	58	56		
4	81	69	59	52	79	67	59	52	64	57	51	62	56	50	60	54	50	47		
5	74	61	52	45	72	60	51	45	58	50	44	55	49	43	53	48	43	41		
6	68	55	46	39	66	54	45	39	52	44	38	50	43	38	48	42	37	35		
7	63	50	41	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31		
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28		
9	55	41	33	27	54	41	33	27	40	32	27	38	32	27	37	31	27	25		
10	52	38	30	25	50	38	30	25	37	29	24	35	29	24	35	29	24	22		

RC - Ceiling Cavity Reflectance

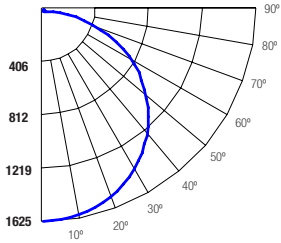
RW - Wall Reflectance

#### 14-FPL1-LED-5000L-DIM10-MVOLT-40K-85

TEST NO.: **EL101854**

INPUT WATTS: **50.6** LUMENS: **5090** CRI: **85** EFFICACY: **101** CCT: **4000K** SPACING CRITERIA: **1.42**

#### Candle Power Distribution (Candelas)



Cone of Light		
4.0	5.62 fc	58.9 ft
8.0	1.4 fc	117.8 ft
12.0	0.62 fc	176.6 ft
16.0	0.35 fc	235.5 ft
20.0	0.22 fc	294.4 ft
24.0	0.16 fc	353.3 ft
Distance to Plane	Initial Footcandle at Nadir	Beam diameter

BEAM DIA. MEASURED AT 50% OF NADIR F.C.

#### Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	596.51	N.A.	11.70
0-30	1275.23	N.A.	25.10
0-40	2108.01	N.A.	41.40
0-60	3820.45	N.A.	75.10
0-80	4893.19	N.A.	96.10
0-90	5039.04	N.A.	99.00

#### Luminance (Average candela/M<sup>2</sup>)

Angle in Degrees	Average		
	0°	45°	90°
45	4408	4355	4330
55	4387	4326	4296
65	4288	4218	4188
75	4060	3998	3979
85	4017	3965	4021

#### Lumens Per Zone

Zone	Lumens
0-10	153.78
10-20	442.73
20-30	678.72
30-40	832.78
40-50	884.98
50-60	827.46
60-70	661.84
70-80	410.90
80-90	145.85

#### Candela Tabulation

0	0	1623.748
5	5	1617.700
15	15	1570.470
25	25	1478.910
35	35	1340.760
45	45	1159.300
55	55	935.970
65	65	674.120
75	75	390.820
85	85	130.230
90	90	25.970

#### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

RC	80%					70%				50%			30%			10%			0%	
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%	
ROOM CAVITY RATIO	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99	
1	108	103	98	94	105	100	96	92	89	92	89	86	88	86	88	86	86	84	81	
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	76	73	69	67		
3	89	78	69	62	86	76	68	62	73	66	60	70	64	59	67	62	58	56		
4	81	69	59	52	79	67	59	52	64	57	51	62	56	50	60	54	50	47		
5	74	61	52	45	72	60	51	45	58	50	44	55	49	43	53	48	43	41		
6	68	55	46	39	66	54	45	39	52	44	38	50	43	38	48	42	38	35		
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31		
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28		
9	55	41	33	27	54	41	33	27	40	32	27	38	32	27	37	31	27	25		
10	52	38	30	25	50	38	30	25	37	29	25	36	29	24	35	29	24	22		

RC - Ceiling Cavity Reflectance

RW - Wall Reflectance

1- Luminaire will be shipped with Powerpacks pre-installed, ready to be integrated to designated contol systems

2- Luminaire will be shipped with Sensors installed on the luminaire, allowing for individual luminaire control. Luminaires will be ready to be integrated with designated control systems

3- Luminaire will be shipped with Sensors to be remotely installed on the ceiling. Luminaires will be ready to be integrated with designated control systems

BRAND	EASYFIT by EnOcean	LUTRON	enlighted	LEVITON	OSRAM	PHILIPS EasySense	legrand®
CONTROL UNIT	<input type="checkbox"/> LEDRU LED Relay Zone Controller 0-10V <sup>1</sup>  <input type="checkbox"/> LEDDU LED Zone Controller 0-10V <sup>1</sup>	<input type="checkbox"/> FCJS-010 Lutron Vive 0-10V Individual Pow Pak (Luminaire is shipped Vive Enabled) <sup>14</sup>  <input type="checkbox"/> FCJS-ECO Lutron Vive Eco-system Pow Pak (Luminaire is shipped Vive Enabled) <sup>14</sup>	<input type="checkbox"/> CU-4E-FMH Fixture Mount Control Unit <sup>15</sup>	<input type="checkbox"/> ZL027 –NOW Intellect Power Control Module <sup>16</sup>  <input type="checkbox"/> ZL027 –NOW Intellect Power Control Module <sup>16</sup>	<input type="checkbox"/> EN-WCM2-ZB-DR Wireless Control Module <sup>17</sup>  <input type="checkbox"/> EN- ALC-ZB-BK-DR Wireless Area Lighting Control Module <sup>17</sup>  <input type="checkbox"/> ZBHA-CLM-DIM-ENC Connected Lighting Module DIM <sup>17</sup>	<input type="checkbox"/> SBR -BS Xitanium SR Bridge <sup>18</sup>	<input type="checkbox"/> LMFC-011 ON/OFF/0-10V dimming fixture controller <sup>19</sup>
INTEGRAT SENSOR	N/A	N/A	N/A	N/A	N/A	N/A	N/A
*WIRELESS OCCUPANCY SENSOR	<input type="checkbox"/> EOSCU-W-EO Occupancy Sensor - Ceiling Mounted (Must be specified with LEDRU or LEDDU control unit) <sup>3</sup>	N/A	N/A	N/A	N/A	N/A	<input type="checkbox"/> LMDC-100 Dual technology PIR Ceiling Mount Occupancy Sensor <sup>3</sup>
*WIRELESS DAYLIGHT SENSOR	<input type="checkbox"/> ELLSU-W-EO Light Level Sensor - Ceiling Mounted (Must be specified with LEDRU or LEDDU control unit) <sup>3</sup>	N/A	N/A	N/A	N/A	N/A	<input type="checkbox"/> LMLS-400 Single zone switching and dimming digital photosensor <sup>3</sup>
*WIRELESS OCCUPANCY & DAYLIGHT SENSOR	N/A	N/A	<input type="checkbox"/> SU-5E-IoT IoT Node Micro Sensor <sup>3</sup> <input type="checkbox"/> SU-5E-CL Connected Lighting Micro Sensor <sup>3</sup> <input type="checkbox"/> SU-5E-IL Independent Lighting / Enlighted One Micro Sensor <sup>3</sup> <input type="checkbox"/> SU-5S-H-(IoT/CL/IL) Surface Mount Sensor <sup>3</sup>  (Must be specified with CU- 4E-FMH Control Unit)	<input type="checkbox"/> ZL00J -TOW Intellect Intelligent Fixture Control System <sup>3</sup>  (Must be specified with ZL027 –NOW Control Unit)	<input type="checkbox"/> EN-CLM-PIR-DD-ZB SensiLUM™ Wireless Integrated Sensor <input type="checkbox"/> EN-SCPPH-1500-ZB Wireless Passive Infrared Occupancy and Photo Sensors <sup>3</sup>  (Must be specified with EN-WCM2-ZB-DR or EN- ALC-ZB-BK-DR Control Unit)	<input type="checkbox"/> SNS200- CMP SNS200 for grouping <sup>3</sup>	N/A
ACCESORIES	N/A	N/A	<input type="checkbox"/> TMC-SU-5E Tile Mount Carrier <input type="checkbox"/> CBL-5E-CU4-30N 30 inch Sensor Cable for CU-4 and IoT Ready™ drivers <input type="checkbox"/> CBL-5E-CU4-7F 7 foot Sensor Cable for CU-4 and IoT Ready™ drivers	N/A	N/A	N/A	N/A
NOTES	N/A	4- Luminaire will be compatible with Lutron LRF2-OCR2B-P-WH Ceiling mount 360° occupancy/vacancy sensor & LRF2-DCRB-WH Ceiling-mount daylight sensor. Sensors must be ordered through Lutron.	5- Luminaire will be compatible with ENLIGHTED SU-5E-IoT, SU-5E-CL, SU-5E-IL, SU-5S-H, Sensors.	6-Luminaire will be compatible with Leviton Intellect App & Keypad Room Controller	7-Luminaire will be compatible with EN-SCPPH-1500-ZB Wireless Passive Infrared Occupancy and Photo Sensors	8-Luminaire will be compatible with Philips field and wireless switch.	9-Luminaire will be compatible with DLM Room control system LMPB-100. DLM control system must be orderd through Legrand.