

NOMINAL LUMENS	DELIVERED LUMENS	WATTAGE
4000	4392	39 W
3000	3309	30 W
2000	2213	19 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	2000, 3000, 4000
CCT	30K, 35K, 40K
CRI	85+
UGR	<19
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. SMK required if suspending the fixture.

**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

**WARRANTY**

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

**LISTINGS**

c-UL-us - Listed for Feed Through Wiring.

Listed for DLC.

Can be used to comply with Title 24, non residential listing requirements.

Example: **22-FPL1-LED-2000L-DIM10-MVOLT-30K-85**

22	FPL1	LED								
FIXTURE SIZE	SERIES	TYPE	LUMENS	DIMMING	VOLTAGE	CCT	CRI	EMERGENCY	OTHER OPTIONS	
22 - 2' X 2'	FPL1 - LED Flat Panel	LED	2000L 3000L 4000L	DIM10 - 0-10V Dimming	MVOLT	30K 35K 40K	85	0-EMG-LED-10W 0-EMG-LED-20W	<b>22FK</b> - 2'x2' Flange Kit <b>22-FPL1-LED-SMK</b> - 2'x2' Surface Mount Kit <b>FBF</b> - Internal Slow Blow Fuse <b>SBF</b> - Radio Interference Suppressor <b>RIS</b> - Radio Interference Suppressor <b>USA</b> - Made in America Compliance <b>LMFC-011</b> - Digital Lighting Manager	

#### 22-FPL1-LED-2000L-DIM10-MVOLT-40K-85

INPUT WATTS: 19.9

LUMENS: 2123

CRI: 85

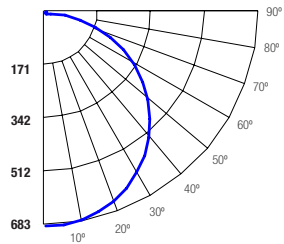
EFFICACY: 107

CCT: 4000K

TEST NO.: EL101860

SPACING CRITERIA: 1.42

#### Candle Power Distribution (Candelas)



Cone of Light		
4.0	2.36 fc	56.8 ft
8.0	0.59 fc	113.6 ft
12.0	0.26 fc	170.3 ft
16.0	0.15 fc	227.1 ft
20.0	0.09 fc	283.9 ft
24.0	0.07 fc	340.7 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	250.71	N.A.	11.80
0-30	535.14	N.A.	25.20
0-40	882.74	N.A.	41.60
0-60	1591.37	N.A.	75.00
0-80	2036.24	N.A.	95.90
0-90	2100.89	N.A.	99.00

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

Angle in Degrees	Average		
	0°	45°	90°
45	1816	1812	1814
55	1798	1790	1792
65	1762	1751	1751
75	1722	1705	1699
85	1872	1813	1770

#### Lumens Per Zone

Zone	Lumens
0-10	64.69
10-20	186.03
20-30	284.42
30-40	347.61
40-50	367.48
50-60	341.15
60-70	272.10
70-80	172.77
80-90	64.65

#### Candela Tabulation

Q		Q	
0	683.251	0	101
5	681.767	5	83
15	660.601	15	67
25	618.754	25	56
35	556.861	35	47
45	477.622	45	31
55	383.572	55	25
65	276.934	65	22
75	165.746	75	24
85	60.686	85	24
90	16.796	90	22

#### 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%	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	101	101	101	99		
1	108	103	98	94	105	100	96	92	96	92	89	89	92	89	86	88	86	83	81	81	81	81		
2	98	89	82	76	95	87	80	75	83	77	73	73	80	75	71	76	73	69	67	67	67			
3	89	78	69	62	86	76	68	62	73	66	60	60	70	64	59	67	62	58	56	56	56			
4	81	69	59	52	79	67	59	52	64	57	51	51	62	56	50	60	54	50	47	47	47			
5	74	61	52	45	72	60	51	45	58	50	44	44	55	49	43	53	48	43	41	41	41			
6	69	55	46	39	67	54	45	39	52	44	38	38	50	43	38	48	42	38	35	35	35			
7	64	50	41	34	62	49	40	34	47	39	34	34	46	39	34	44	38	33	31	31	31			
8	59	45	37	31	57	45	36	30	43	36	30	30	42	35	30	40	34	30	28	28	28			
9	55	41	33	27	54	41	33	27	40	32	27	27	38	32	27	37	31	27	25	25	25			
10	52	38	30	25	50	38	30	25	37	29	25	25	36	29	24	35	29	24	22	22	22			

RC - Ceiling Cavity Reflectance RW - Wall Reflectance

#### 22-FPL1-LED-3000L-DIM10-MVOLT-40K-85

INPUT WATTS: 30

LUMENS: 3309

CRI: 85

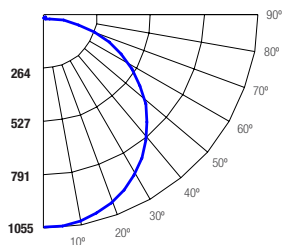
EFFICACY: 110

CCT: 4000K

TEST NO.: EL101859

SPACING CRITERIA: 1.42

#### Candle Power Distribution (Candelas)



Cone of Light		
4.0	3.65 fc	57.1 ft
8.0	0.91 fc	114.2 ft
12.0	0.41 fc	171.2 ft
16.0	0.23 fc	228.3 ft
20.0	0.15 fc	285.4 ft
24.0	0.1 fc	342.5 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	387.15	N.A.	11.70
0-30	827.45	N.A.	25.00
0-40	1368.93	N.A.	41.40
0-60	2473.8	N.A.	74.80
0-80	3171.31	N.A.	95.80
0-90	3273.53	N.A.	98.90

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

Angle in Degrees	Average		
	0°	45°	90°
45	2806	2804	2803
55	2775	2773	2773
65	2729	2724	2718
75	2700	2684	2672
85	2939	2874	2799

#### Lumens Per Zone

Zone	Lumens
0-10	99.86
10-20	287.29
20-30	440.30
30-40	541.48
40-50	572.81
50-60	532.06
60-70	425.60
70-80	271.91
80-90	102.22

#### Candela Tabulation

Q		Q	
0	1054.636	0	101
5	1052.348	5	83
15	1020.076	15	67
25	956.021	25	56
35	860.762	35	47
45	738.137	45	31
55	592.137	55	25
65	429.028	65	22
75	259.966	75	24
85	95.280	85	24
90	25.801	90	22

#### 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%	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	101	101	101	99		
1	108	102	98	94	105	100	96	92	96	92	89	89	91	89	86	88	85	83	81	81	81	81		
2	97	89	82	76	95	87	80	74	83	77	73	73	80	75	71	76	73	69	67	67	67			
3	89	78	69	62	86	76	68	62	73	66	60	60	70	64	59	67	62	58	56	56	56			
4	81	68	59	52	78	67	58	52	64	57	51	51	62	55	50	59	54	49	47	47	47			
5	74	61	52	45	72	60	51	45	57	50	44	44	55	49	43	53	47	43	41	41	41			
6	68	55	46	39	66	54	45	39	52	44	38	38	50	43	38	48	42	37	35	35	35			
7	63	50	41	34	62	49	40	34	47	39	34	34	45	39	33	44	38	33	31	31	31			
8	59	45	36	30	57	44	36	30	43	35	30	30	42	35	30	40	34	30	28	28	28			
9	55	41	33	27	54	41	33	27	39	32	27	27	38	32	27	37	31	27	25	25	25			
10	52	38	30	25	50	38	30	25	36	29	24	24	35	29	24	35	28	24	22	22	22			

RC - Ceiling Cavity Reflectance RW - Wall Reflectance

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

INPUT WATTS: 39

LUMENS: 4392

CRI: 85

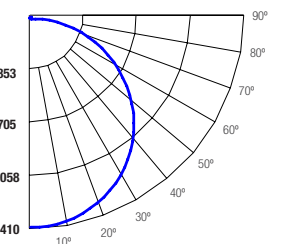
EFFICACY: 113

CCT: 4000K

TEST NO.: EL101857

SPACING CRITERIA: 1.42

#### Candle Power Distribution (Candelas)



Cone of Light		
4.0	4.87 fc	57 ft
8.0	1.22 fc	114 ft
12.0	0.54 fc	171 ft
16.0	0.3 fc	228 ft
20.0	0.19 fc	285 ft
24.0	0.14 fc	342 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	516.46	N.A.	11.80
0-30	1102.49	N.A.	25.10
0-40	1818.83	N.A.	41.40
0-60	3286.59	N.A.	74.80
0-80	4213.79	N.A.	95.90
0-90	4348.25	N.A.	99.00

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

Angle in Degrees	Average		
	0°	45°	90°
45	3783	3754	3723
55	3750	3718	3678
65	3683	3643	3597
75	3654	3607	3535
85	3911	3878	3760

#### Lumens Per Zone

Zone	Lumens
0-10	133.25
10-20	383.21
20-30	586.02
30-40	716.34
40-50	758.35
50-60	709.41
60-70	566.21
70-80	360.98
80-90	134.46

#### Candela Tabulation

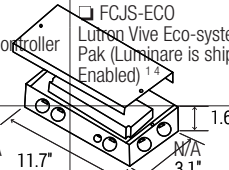
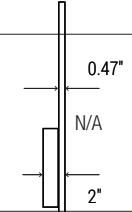
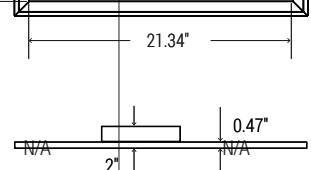
Q		Q	
0	1407.571	0	101
5	1406.410	5	83
15	1364.518	15	67
25	1280.786	25	56
35	1155.796	35	47
45	994.888	45	31
55	800.109	55	25
65	579.028	65	22
75	351.769	75	24
85	126.780	85	24
90	30.424	90	22

#### Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

RC	80%				70%				50%				30%</			
----	-----	--	--	--	-----	--	--	--	-----	--	--	--	-------	--	--	--

- 1- Luminaire will be shipped with Powerpacks pre-installed, ready to be integrated to designated control 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	 <p>N/A</p>	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	<input type="checkbox"/> LMLS-400 Single zone switching and dimming digital photosensor <sup>3</sup>
*WIRELESS OCCUPANCY & DAYLIGHT SENSOR		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>  <b>(Must be specified with CU- 4E-FMH Control Unit)</b>	<input type="checkbox"/> ZL00J -T0W Intellect Intelligent Fixture Control System <sup>3</sup>  <b>(Must be specified with ZL027 -NOW Control Unit)</b>	<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>  <b>(Must be specified with EN-WCM2-ZB-DR or EN- ALC-ZB-BK-DR Control Unit)</b>	<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 ordered through Legrand.