

NOMINAL LUMENS	DELIVERED LUMENS	WATTAGE
5000	5090	50 W
4000	4076	40 W
3000	3280	31 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	3000, 4000, 5000
CCT	30K, 35K, 50K
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.

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, California Title 24 compliant.

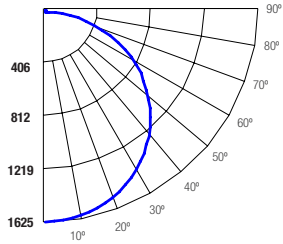
Example: 14-FPL1-LED-4000L-DIM10-MVOLT-30K-85

14	FPL1	LED								
FIXTURE SIZE	SERIES	TYPE	LUMENS	DIMMING	VOLTAGE	CCT	CRI	EMERGENCY	OTHER OPTIONS	
14 - 1' X 4'	FPL1 - LED Flat Panel	LED	3000L - 3000 lumens 4000L - 4000 lumens 5000L - 5000 lumens	DIM10 - 0-10V Dimming	MVOLT	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-5000L-DIM10-MVOLT-40K-85

INPUT WATTS: 50.6 LUMENS: 5090 CRI: 85 EFFICACY: 101 CCT: 4000K TEST NO.: EL101854 SPACING CRITERIA: 1.42

Candle Power Distribution (Candelas)



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/M²)

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

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

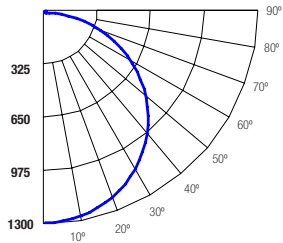
RC	80%				70%				50%				30%				10%				0%			
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%		
ROOM CAVITY RATIO	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99					
	1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	81					
	2	98	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	69	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	31	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

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

INPUT WATTS: 40 LUMENS: 4076 CRI: 85 EFFICACY: 102 CCT: 4000K TEST NO.: EL101853 SPACING CRITERIA: 1.42

Candle Power Distribution (Candelas)



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/M²)

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

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 0.20

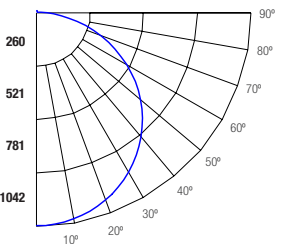
RC	80%				70%				50%				30%				10%				0%			
	RW	70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%		
ROOM CAVITY RATIO	0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99					
	1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	81					
	2	98	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-3000L-DIM10-MVOLT-40K-85

INPUT WATTS: 31 LUMENS: 3280 CRI: 85 EFFICACY: 106 CCT: 4000K TEST NO.: EL101855 SPACING CRITERIA: 1.42

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-20	382.68	11.70	11.70
0-30	818.20	25.00	24.90
0-40	1356.1	41.40	41.30
0-60	2462.64	75.10	75.10
0-80	3153.8	96.20	96.10
0-90	3247.68	99.00	99.00

Luminance (Average candela/M²)

Angle in Degrees	Average		
	0°	45°	90°
45	2843	2817	2784
55	2841	2807	2762
65	2792	2752	2695
75	2721	2662	2580
85	2768	2700	2587

Lumens Per Zone

Zone	Lumens
0-10	98.64
10-20	284.04
20-30	435.52
30-40	537.90
40-50	572.49
50-60	534.06
60-70	425.77
70-80	265.39
80-90	93.88

Candela Tabulation

0	0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	75.0	85.0	90.0										
0	1041.364	5.0	1037.070	15.0	1008.410	25.0	950.740	35.0	862.560	45.0	747.870	55.0	606.120	65.0	438.900	75.0	261.990	85.0	89.730	90.0	21.840

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	99					
	1	108	103	98	94	105	100	96	92	96	92	89	92	89	86	88	86	84	81					
	2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	76	73	69	67					
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	6	69	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																		



- 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 <small>by EnOcean</small>	LUTRON	enlighted	LEVITON	OSRAM	PHILIPS <small>EasySense</small>	legrand®
CONTROL UNIT	<input type="checkbox"/> LEDRU LED Relay Zone Controller 0-10V ¹ <input type="checkbox"/> LEDDU LED Zone Controller 0-10V ¹	<input type="checkbox"/> FCJS-010 Lutron Vive 0-10V Individual Pow Pak (Luminaire is shipped Vive Enabled) ¹⁴ <input type="checkbox"/> FCJS-ECO Lutron Vive Eco-system Pow Pak (Luminaire is shipped Vive Enabled) ¹⁴	<input type="checkbox"/> CU-4E-FMH Fixture Mount Control Unit ¹⁵	<input type="checkbox"/> ZL027 –NOW Intellect Power Control Module ¹⁶ <input type="checkbox"/> ZL027 –NOW Intellect Power Control Module ¹⁶	<input type="checkbox"/> EN-WCM2-ZB-DR Wireless Control Module ¹⁷ <input type="checkbox"/> EN- ALC-ZB-BK-DR Wireless Area Lighting Control Module ¹⁷ <input type="checkbox"/> ZBHA-CLM-DIM-ENC Connected Lighting Module DIM ¹⁷	<input type="checkbox"/> SBR -BS Xitanium SR Bridge ¹⁸	<input type="checkbox"/> LMFC-011 ON/OFF/0-10V dimming fixture controller ¹⁹
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) ³	N/A	N/A	N/A	N/A	N/A	<input type="checkbox"/> LMDC-100 Dual technology PIR Ceiling Mount Occupancy Sensor ³
*WIRELESS DAYLIGHT SENSOR	<input type="checkbox"/> ELLSU-W-EO Light Level Sensor - Ceiling Mounted (Must be specified with LEDRU or LEDDU control unit) ³	N/A	N/A	N/A	N/A	N/A	<input type="checkbox"/> LMLS-400 Single zone switching and dimming digital photosensor ³
*WIRELESS OCCUPANCY & DAYLIGHT SENSOR	N/A	N/A	<input type="checkbox"/> SU-5E-IoT IoT Node Micro Sensor ³ <input type="checkbox"/> SU-5E-CL Connected Lighting Micro Sensor ³ <input type="checkbox"/> SU-5E-IL Independent Lighting / Enlighted One Micro Sensor ³ <input type="checkbox"/> SU-5S-H-(IoT/CL/IL) Surface Mount Sensor ³ (Must be specified with CU-4E-FMH Control Unit)	<input type="checkbox"/> ZL00J -TOW Intellect Intelligent Fixture Control System ³ (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 ³ (Must be specified with EN-WCM2-ZB-DR or EN-ALC-ZB-BK-DR Control Unit)	<input type="checkbox"/> SNS200-CMP SNS200 for grouping ³	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.