



* For list of qualified DLC fixture, please consult factory



2000 LUMENS	3000 LUMENS	4000 LUMENS	5000 LUMENS
20 WATT	30 WATT	40 WATT	50 WATT

The FPL1-LED flat led panel are DLC Listed, delivers high Lumen of exceptional 80+ CRI light while achieving about 100 lumens per watt. It is available in 4000k,5000k DLC CCT options and has 0-10V dimming, which is perfect for new construction applications or retrofitting existing fluorescent troffer fixtures with recessed installation,widely used in office spaces, major retail stores, education,government, healthcare, and hospitality

LED CHIP - Use approved LM-80 SMD packing,Active color management maintains superior color consistency over time and temperature.Every fixture is tuned as a complete system to the optimal color point before shipment,ensuring fixture-to-fixture color consistency.

HEAT SINK - The source and radiator distribution in fixture around, heat source distribution placed solve heat concentration, quantity of heat conduction of each other and radiation, effective to solve thermal management system design of the cooling.This enables the LEDs to consistently run cooler, providing significant boosts to lifetime, efficacy, and color consistency.

OPTICAL SYSTEM - Proprietary optical system utilizes a unique combination of reflective and refractive optical components to achieve a uniform, comfortable appearance. Use guide plate laser high density pixels to shine, and has the light even, high lum maintenance, shiny surface, no shelter Angle, and no glare, high efficacy.

THERMAL MANAGEMENT - LED light engines are attached directly to the housing which keeps the engines cool. Our advanced thermal management system allows the light output of the LED engines to be maintained at 70% of initial lumens at 83,000 hours of operation.

DIMMING - The FPL1-LED comes standard with 0-10V dimming on either 120 or 277V. Dimmable down to 1% of initial lumens. Also available in Lutron dimming options. Consult factory for dimmer compatibility.

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

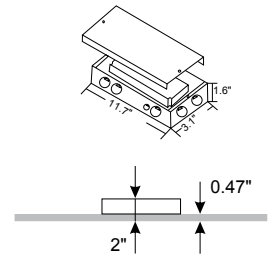
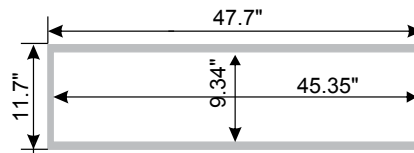
MAINTENANCE - LED engines and driver can be accessed through the bottom by removing hinged door frame and driver box cover. LED engines are removable and upgradable even after fixture installation. Fixture can be regularly and safely wiped down to ensure optimal fixture performance.

OPTIONS - Fixtures can be shipped pre-installed with daylight harvesting controls, occupancy sensors, and/or power pack. Available manufacturer options include Leviton, Wattstopper, Hubble Automation, and others.

QUALITY CONTROL - Every fixture is turned on and rigorously tested by our QC Department before shipping.

LISTING - UL/C-UL listed to US and Canadian standards. Listed for Damp Location

WARRANTY - Limited 5 Year Warranty



Flat LED Panel Luminaire

Ordering Information: Example: 14-FPL1-LED-4000L-DIM10-MVOLT-30K-80

FIXTURE SIZE	SERIES	TYPE	LUMENS	DIMMING	VOLTAGE	CCT	CRI	EMERGENCY	OTHER OPTIONS
14 -1' X 4'	FPL1-Oracle Flat LED Panel	LED	2000L - (2000 lumens) 3000L - (3000 lumens) 4000L - (4000 lumens) 5000L - (5000 lumens)	DIM10 - 0-10V Dimming DIMST - Step Dimming LUTH - Lutron Hilume OS-OTI - Osram Optotronic 0-10V Dimming w/ Auxiliary Output	MVOLT 347* <small>* Consult factory for details</small>	30K - (3000K) 35K - (3500K) 40K - (4000K) 50K - (5000K)	80	0-EMG-LED	14-FPL1-LED-SMK - Surface Mount Kit FS-355 - Line Voltage Motion Sensor LMFC-011 - Digital On/Off/0-10V Dimming Fixture Controller CLM-WCM - Osram Connected Lighting Module w/ Wireless Control Module

PHOTOMETRY DATA

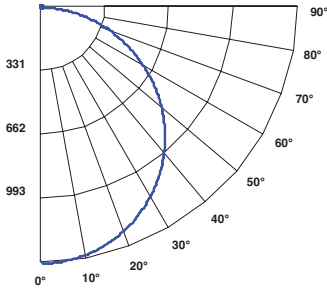
14-FPL1-LED-4000L-DIM10-MVOLT-40K-80

WATTAGE: **39.8**

LUMENS: **3998**

TOTAL LUMINAIRE EFFICACY: **100**

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-30°	1027.5	25.70	25.70
0-40°	1691.32	42.30	42.30
0-60°	3035.72	75.90	75.90
0-90°	3961.78	99.00	99.10
0-180°	3998.37	100.00	100.00

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0°	Average 45°	Average 90°
45°	3441	3397	3388
55°	3371	3305	3286
65°	3263	3170	3126
75°	3128	3015	2934
85°	3001	2865	2700

Candela Tabulation

	0	45	90
0	1314.688	1314.688	1314.688
5	1317.951	1311.793	1309.982
15	1273.256	1265.298	1264.039
25	1186.997	1178.199	1177.217
35	1062.856	1053.066	1051.531
45	904.997	893.396	891.033
55	719.179	705.205	701.011
65	512.891	498.354	491.378
75	301.171	290.256	282.440
85	97.277	92.888	87.538
90	11.765	10.547	8.368

Spacing Criteria

0-180	1.28
90-270	1.28
Diagonal	1.40

EFFICACY: 100 LM/W

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20% = PF

RC	RW	80%				70%				50%				30%				10%				0%			
		70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%			
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99	99	99	99	99			
1	108	103	98	98	105	101	96	93	96	93	90	92	89	87	88	86	84	82	82	82	82	82			
2	98	89	82	76	95	87	81	75	84	78	73	80	75	71	77	73	70	67	67	67	67	67			
3	89	78	70	63	86	76	69	62	73	67	61	70	65	60	68	63	59	56	56	56	56	56			
4	81	69	60	53	79	68	59	53	65	58	52	62	56	51	60	55	50	48	48	48	48	48			
5	75	61	52	45	72	60	52	45	58	50	45	56	49	44	54	48	43	41	41	41	41	41			
6	69	55	46	40	67	54	46	39	52	45	39	51	44	39	49	43	38	36	36	36	36	36			
7	64	50	41	35	62	49	41	35	48	40	34	46	39	34	45	38	34	32	32	32	32	32			
8	59	46	37	31	58	45	37	31	43	36	31	42	35	30	41	35	30	28	28	28	28	28			
9	55	42	33	28	54	41	33	28	40	33	28	39	32	27	38	32	27	25	25	25	25	25			
10	52	39	31	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23	23	23	23	23			

RC - Ceiling Cavity Reflectance

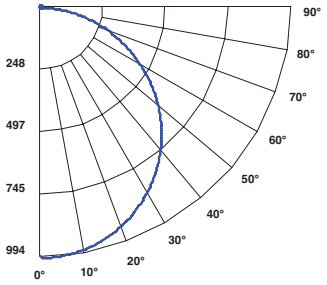
14-FPL1-LED-3000L-DIM10-MVOLT-40K-80

WATTAGE: **29.8**

LUMENS: **3000**

TOTAL LUMINAIRE EFFICACY: **101**

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-30°	770.98	25.70	25.70
0-40°	1269.07	42.30	42.30
0-60°	2277.83	75.90	75.90
0-90°	2972.69	99.10	99.10
0-180°	3000.14	100.00	100.00

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0°	Average 45°	Average 90°
45°	2582	2549	2542
55°	2529	2480	2465
65°	2448	2379	2345
75°	2347	2262	2201
85°	2252	2150	2026

Candela Tabulation

	0	45	90
0	986.466	986.466	986.466
5	988.914	984.293	982.935
15	955.386	949.406	948.462
25	890.654	884.053	883.316
35	797.506	790.160	789.008
45	679.057	670.353	668.580
55	539.630	529.145	525.998
65	384.844	373.936	368.701
75	225.981	217.791	211.927
85	72.991	69.698	65.684
90	8.827	7.914	6.279

Spacing Criteria

0-180	1.28
90-270	1.28
Diagonal	1.40

EFFICACY: 101 LM/W

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20% = PF

RC	RW	80%				70%				50%				30%				10%				0%			
		70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%			
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99	99	99	99	99			
1	108	103	98	94	105	101	96	93	96	93	90	92	89	87	88	86	84	82	82	82	82	82			
2	98	89	82	76	95	87	81	75	84	78	73	80	75	71	77	73	70	67	67	67	67	67			
3	89	78	70	63	86	76	69	62	73	67	61	70	65	60	68	63	59	56	56	56	56	56			
4	81	69	60	53	79	68	59	53	65	58	52	62	56	51	60	55	50	48	48	48	48	48			
5	75	62	52	46	72	60	52	45	58	50	45	56	49	44	54	48	43	41	41	41	41	41			
6	69	55	46	40	67	54	46	39	52	45	39	51	44	39	49	43	38	36	36	36	36	36			
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10	52	39	31	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23	23	23	23	23			

RC - Ceiling Cavity Reflectance

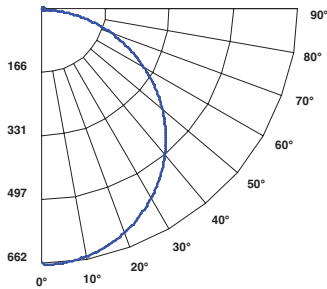
14-FPL1-LED-2000L-DIM10-MVOLT-40K-80

WATTAGE: **19.8**

LUMENS: **2000**

TOTAL LUMINAIRE EFFICACY: **101**

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-30°	513.95	25.70	25.70
0-40°	845.99	42.30	42.30
0-60°	1518.45	75.90	75.90
0-90°	1981.66	99.10	99.10
0-180°	1999.96	100.00	100.00

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0°	Average 45°	Average 90°
45°	1721	1699	1695
55°	1686	1653	1644
65°	1632	1586	1564
75°	1565	1508	1467
85°	1501	1433	1351

Candela Tabulation

	0	45	90
0	657.601	657.601	657.601
5	659.233	656.153	655.247
15	636.882	632.896	632.267
25	593.731	589.330	588.839
35	531.636	526.739	525.971
45	452.675	446.873	445.691
55	359.730	352.740	350.642
65	256.546	249.275	245.785
75	150.644	145.185	141.275
85	48.658	46.462	43.786
90	5.885	5.276	4.186

Spacing Criteria

0-180	1.28
90-270	1.28
Diagonal	1.40

EFFICACY: 101 LM/W

Coefficients of Utilization - Zonal Cavity Method

Effective Floor Cavity Reflectance 20% = PF

RC	RW	80%				70%				50%				30%				10%				0%			
		70%	50%	30%	10%	70%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0%			
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99	99	99	99	99			
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2	98	89	82	76	95	87	81	75	84	78	73	80	75	71	77	73	70	67	67	67	67	67			
3	89	78	70	63	86	76	69	62	73	67	61	70	65	60	68	63	59	56	56	56	56	56			
4	81	69	60	53	79	68	59	53	65	58	52	62	56	51	60	55	50	48	48</						