



* For list of qualified DLC fixture, please consult factory

3000
LUMENS
30
WATT
According to
DLC Test Results

4000
LUMENS
40
WATT
According to
DLC Test Results

5000
LUMENS
50
WATT
According to
DLC Test Results

6000
LUMENS
60
WATT

The FPL1-LED flat led panel is DLC listed, delivers an exceptional 85+ CRI, while achieving approximately 115 lumens per watt. It is available in 3000K, 3500K, 4000K and 5000K CCT options and has 0-10V dimming, which is perfect for new construction applications or retrofitting existing fluorescent troffer fixtures with recessed installations, widely used in office spaces, major retail stores, education, government, healthcare, and hospitality.

LED CHIP - Tested and approved under LM-80 SMD standards. 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 - The proprietary optical system utilizes a unique combination of reflective and refractive optical components to achieve a uniform, aesthetically pleasing appearance. Use of a guide plate laser allows high density pixels to shine, creating an even illumination with no glare, while maintaining 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.

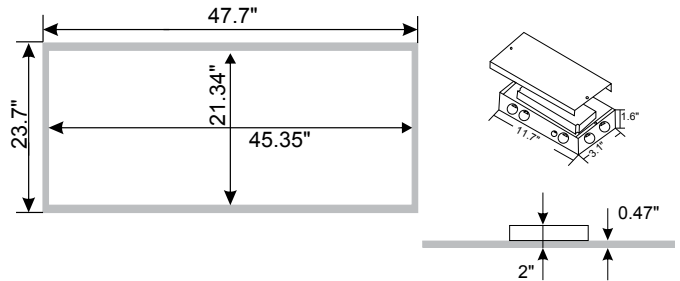
MAINTENANCE - LED engines and driver can be accessed through the bottom by removing hinged door frame and driver box cover. LED engines are removable and upgradable even after fixture installation. Fixture can be regularly and safely wiped down to ensure optimal fixture performance.

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: 24-FPL1-LED-4000L-DIM10-MVOLT-30K-85

FIXTURE SIZE	SERIES	TYPE	LUMENS	DIMMING	VOLTAGE	CCT	CRI	EMERGENCY	OTHER OPTIONS
24 - 2' X 4'	FPL1-Oracle Flat LED Panel	LED	3000L - (3000 lumens) 4000L - (4000 lumens) 5000L - (5000 lumens) 6000L - (6000 lumens)	DIM10 - 0-10V Dimming * DIMST - Step Dimming * LUTH - Lutron Hilume OS-OTI - Osram Optotronic 0-10V Dimming w/ Auxiliary Output ELDO10 - EldoLED 0-10V ELDODALI - EldoLED DALI ELDODMX - EldoLED DMX	MVOLT 347* * Consult factory for details	30K - (3000K) 35K - (3500K) 40K - (4000K) 50K - (5000K)	85	0-EMG-LED	24-FPL1-LED-SMK - Surface Mount Kit LMFC-011 - Digital On/Off/0-10V Dimming Fixture Controller CLM-WCM - Osram Connected Lighting Module w/ Wireless Control Module

* DIMST and LUTH dimming options are only available for the fixtures up to 5000 lumens.

CONTROL OPTIONS

EASYFIT by EnOcean

Controls Options to be Installed on the Fixture

Self-powered sensors and switches, combined with LED fixture controllers and a commissioning tool, permit easy configuration, intelligent local control, and seamless integration into building automation systems.

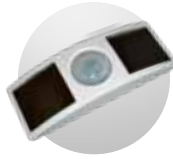


LEDRU
LED Relay Zone
Controller 0-10V



LEDDU
LED Zone
Controller 0-10V

Controls Provided by EnOcean



EOSCU
Occupancy Sensor
Ceiling Mount



EOSWU
Occupancy Sensor
Wall Mount



ELLSU
Daylight Sensor
Ceiling Mount



ESRPU/EDRPU
Wall Switches



LEVITON
Wall Switches
902 MHz category



NWC 300U
Navigan Wireless
Commissioner

PHILIPS EasySense

Philips EasySense sensors provide luminaire-level control with Occupancy sensing, Daylight harvesting, and Field task tuning.

Controls Installed on the Fixture



SRB

Fixture will be Shipped Sensor Ready with SRB Bridge . Fixture will be Compatible with EasySense Sensor SNS200-CMP which can be Added in the Field for Remote Mounting. Fixture May Only be Controlled with Philips Field App or Wireless Switches or any 0-10V. Wall Box Dimmer.



PHILIPS-XSR + SNS200-CMP

Fixture will be Shipped Sensor Ready with PHILIPS-XSR driver and EasySense SNS200-CMP Sensor which is Included to be Remote Mounted. Fixture May Only be Controlled with Philips Field App or Wireless Switches



SRB + SNS200-CMP

Fixture Will be Shipped Sensor Ready with PHILIPS SRB Bridge and EasySense SNS200-CMP Sensor which is Included to be Remote Mounted. Fixture May Only be Controlled with Philips Field App or Wireless Switches or any 0-10V. Wall Box Dimmer.

Controls Provided by Philips



ZBT-S1AWH **ZBT-S2AWH**

Illumra Wireless Switches



Philips Field App

LED

Control Options

CONTROL OPTIONS



Controls Installed on the Fixture



FCJS-010
Individual
Fixture Control

Fixture Will be Shipped LUTRON VIVE Enabled with LUTRON FCJS-010 0-10V Control Module Installed on the Fixture. Fixtures will be compatible with Lutron FC-SENSOR Occupancy/Daylight Sensor or FC-VSENSOR Vacancy/Daylight Sensor which can be Added in the Field for Remote Mounting. Fixture May be Controlled with any Vive control systems. Fixtures must be ordered with a 0-10V. Driver.



FCJS-ECO
Individual
Fixture Control

Fixture Will be Shipped LUTRON VIVE Enabled with LUTRON FCJS-ECO EcoSystem Control Module Control Module Installed on the Fixture. Fixtures will be compatible with Lutron FC-SENSOR Occupancy/Daylight Sensor or FC-VSENSOR Vacancy/Daylight Sensor which can be Added in the Field for Remote Mounting. Fixture May be Controlled with any Vive control systems. Fixtures must be ordered with a Lutron Driver.

Controls Provided by Lutron



Lutron
App



Vive Wireless Hub



DayLight
Sensor



Ceiling Mount
Occupancy Sensor



Ceiling Mount
Occupancy/Daylight
Sensor



Wall Mount
Occupancy Sensor



Wall Mount
Switch



Pico
Remote

PHOTOMETRY DATA

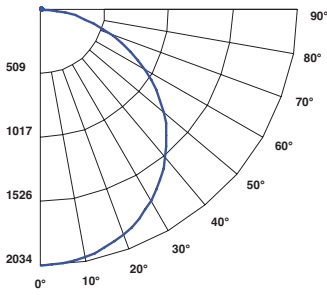
24-FPL1-LED-6000L-DIM10-MVOLT-40K-80

WATTAGE: 51.1

LUMENS: 6028

TOTAL LUMINAIRE EFFICACY: 118

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-30°	1577.99	26.20	26.20
0-40°	2592.47	43.00	43.00
0-60°	4626.62	76.80	76.80
0-90°	5977.1	99.20	99.20
0-180°	6028.06	100.00	100.00

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0°	Average 45°	Average 90°
45°	2676	2609	2581
55°	2615	2542	2503
65°	2495	2397	2353
75°	2255	2143	2105
85°	1904	1767	1694

Candela Tabulation

	0	45	90
0	2034.262	2034.262	2034.262
5	2022.370	2019.360	2019.640
15	1958.620	1946.460	1942.370
25	1832.490	1811.040	1801.880
35	1648.600	1617.170	1605.300
45	1407.590	1372.240	1357.610
55	1115.670	1084.650	1067.850
65	784.310	753.580	739.920
75	434.160	412.710	405.320
85	123.450	114.550	109.810
90	7.810	7.090	11.490

Spacing Criteria

0-180	: 1.28
90-270	: 1.26
Diagonal	: 1.40

EFFICACY: 118 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	101	99	99	99	99			
1	108	103	99	95	105	101	97	93	95	93	90	92	90	87	89	86	84	82	82	82	82	82			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	77	74	70	68	68	68	68	68			
3	89	79	70	64	87	77	69	63	74	67	62	71	65	60	68	63	59	57	57	57	57	57			
4	82	69	60	54	79	68	60	53	65	58	52	63	57	52	61	55	51	49	49	49	49	49			
5	75	62	53	46	73	61	52	46	59	51	45	56	50	45	54	49	44	42	42	42	42	42			
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	49	43	39	36	36	36	36	36			
7	64	50	42	35	62	50	41	35	48	40	35	46	40	35	45	39	34	32	32	32	32	32			
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29	29	29	29	29			
9	56	42	34	28	54	42	34	28	40	33	28	39	32	28	38	32	28	26	26	26	26	26			
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	35	29	25	23	23	23	23	23			

RC - Ceiling Cavity Reflectance

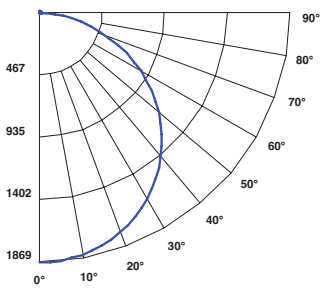
24-FPL1-LED-5000L-DIM10-MVOLT-40K-80

WATTAGE: 52.4

LUMENS: 5591

TOTAL LUMINAIRE EFFICACY: 107

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-30°	1458.82	26.10	26.10
0-40°	2401.23	43.00	43.00
0-60°	4297.57	76.90	76.90
0-90°	5547.12	99.20	99.20
0-180°	5590.75	100.00	100.00

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0°	Average 45°	Average 90°
45°	2455	2390	2365
55°	2397	2320	2291
65°	2276	2198	2166
75°	2050	1969	1937
85°	1709	1619	1608

Candela Tabulation

	0	45	90
0	1867.845	1867.845	1867.845
5	1863.210	1855.830	1854.330
15	1802.730	1786.210	1781.300
25	1685.070	1660.210	1651.200
35	1513.610	1482.190	1470.310
45	1291.570	1257.290	1244.160
55	1022.620	990.090	977.670
65	715.560	691.100	680.850
75	394.620	379.110	372.990
85	110.810	104.990	104.240
90	6.560	6.500	10.660

Spacing Criteria

0-180	: 1.28
90-270	: 1.26
Diagonal	: 1.40

EFFICACY: 107 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	101	99	99	99	99			
1	108	103	99	95	105	101	97	93	97	93	90	92	90	87	89	87	85	82	82	82	82	82			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	77	74	70	68	68	68	68	68			
3	89	79	70	64	87	77	69	63	74	67	62	71	65	61	68	63	59	57	57	57	57	57			
4	82	69	60	54	79	68	60	53	65	58	52	63	57	52	61	55	51	49	49	49	49	49			
5	75	62	53	46	73	61	52	46	59	51	45	56	50	45	54	49	44	42	42	42	42	42			
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	49	43	39	36	36	36	36	36			
7	64	50	42	35	62	50	41	35	48	40	35	46	40	34	45	39	34	32	32	32	32	32			
8	60	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	31	29	29	29	29	29			
9	56	42	34	28	54	41	34	28	40	33	28	39	32	28	38	32	28	26	26	26	26	26			
10	52	39	31	26	51	38	31	25	37	30	25	36	30	25	35	29	25	23	23	23	23	23			

RC - Ceiling Cavity Reflectance

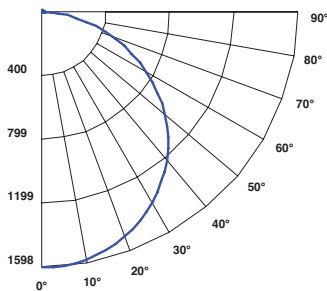
24-FPL1-LED-4000L-DIM10-MVOLT-40K-80

WATTAGE: 41.5

LUMENS: 4775

TOTAL LUMINAIRE EFFICACY: 115

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-30°	1245.6	26.10	26.10
0-40°	2050.1	42.90	42.90
0-60°	3671.17	76.90	76.90
0-90°	4738.36	99.30	99.20
0-180°	4775.06	100.00	100.00

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0°	Average 45°	Average 90°
45°	2111	2064	2035
55°	2065	2005	1969
65°	1970	1899	1853
75°	1807	1718	1662
85°	1542	1427	1369

Candela Tabulation

	0	45	90
0	1594.868	1594.868	1594.868
5	1593.790	1588.060	1585.600
15	1544.100	1532.360	1526.630
25	1445.030	1427.270	1417.440
35	1299.500	1276.960	1263.580
45	1110.520	1085.520	1070.370
55	880.920	855.370	840.070
65	619.200	597.040	582.430
75	347.990	330.710	320.000
85	99.980	92.490	88.730
90	5.810	4.630	5.080

Spacing Criteria

0-180	: 1.30
90-270	: 1.26
Diagonal	: 1.40

EFFICACY: 115 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	101	99	99	99	99			
1	108	103	99	95	105	101	97	93	97	93	90	92	90	87	89	87	85	82	82	82	82	82			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	77	74	70	68	68	68	68	68			
3	89	79	70																						



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3000
LUMENS
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WATT
According to
DLC Test Results

4000
LUMENS
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WATT
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6000
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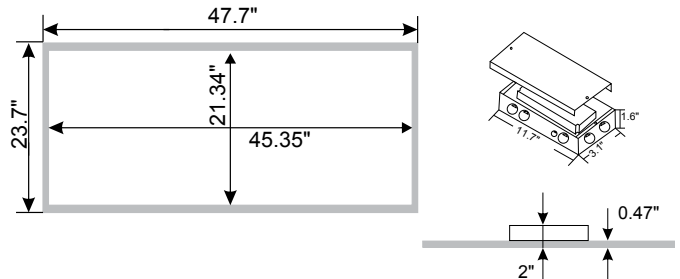
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Listed for Damp Location

WARRANTY - Limited 5 Year Warranty



LED
2'X4'
FPL1

Flat LED Panel Luminaire



Ordering Information: Example: 24-FPL1-LED-4000L-DIM10-MVOLT-30K-85

FIXTURE SIZE	SERIES	TYPE	LUMENS	DIMMING	VOLTAGE	CCT	CRI	EMERGENCY	OTHER OPTIONS
24 - 2' X 4'	FPL1-Oracle Flat LED Panel	LED	3000L - (3000 lumens) 4000L - (4000 lumens) 5000L - (5000 lumens) 6000L - (6000 lumens)	DIM10 - 0-10V Dimming * DIMST - Step Dimming * LUTH - Lutron Hilume OS-OTI - Osram Optotronic 0-10V Dimming w/ Auxiliary Output ELDO10 - EldoLED 0-10V ELDODALI - EldoLED DALI ELDODMX - EldoLED DMX	MVOLT 347* * Consult factory for details	30K - (3000K) 35K - (3500K) 40K - (4000K) 50K - (5000K)	85	0-EMG-LED	24-FPL1-LED-SMK - Surface Mount Kit LMFC-011 - Digital On/Off/0-10V Dimming Fixture Controller CLM-WCM - Osram Connected Lighting Module w/ Wireless Control Module

* DIMST and LUTH dimming options are only available for the fixtures up to 5000 lumens.

CONTROL OPTIONS

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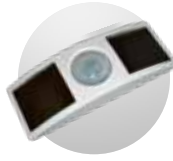


LEDRU
LED Relay Zone
Controller 0-10V



LEDDU
LED Zone
Controller 0-10V

Controls Provided by EnOcean



EOSCU
Occupancy Sensor
Ceiling Mount



EOSWU
Occupancy Sensor
Wall Mount



ELLSU
Daylight Sensor
Ceiling Mount



ESRPU/ EDRPU
Wall Switches



LEVITON
Wall Switches
902 MHz category



NWC 300U
Navigan Wireless
Commissioner

PHILIPS EasySense

Philips EasySense sensors provide luminaire-level control with Occupancy sensing, Daylight harvesting, and Field task tuning.

Controls Installed on the Fixture



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PHILIPS-XSR + SNS200-CMP

Fixture will be Shipped Sensor Ready with PHILIPS-XSR driver and EasySense SNS200-CMP Sensor which is Included to be Remote Mounted. Fixture May Only be Controlled with Philips Field App or Wireless Switches



SRB + SNS200-CMP

Fixture Will be Shipped Sensor Ready with PHILIPS SRB Bridge and EasySense SNS200-CMP Sensor which is Included to be Remote Mounted. Fixture May Only be Controlled with Philips Field App or Wireless Switches or any 0-10V. Wall Box Dimmer.

Controls Provided by Philips



ZBT-S1AWH ZBT-S2AWH

Illumra Wireless Switches



Philips Field App

LED

Control Options

CONTROL OPTIONS



Controls Installed on the Fixture



FCJS-010
Individual
Fixture Control

Fixture Will be Shipped LUTRON VIVE Enabled with LUTRON FCJS-010 0-10V Control Module Installed on the Fixture. Fixtures will be compatible with Lutron FC-SENSOR Occupancy/Daylight Sensor or FC-VSENSOR Vacancy/Daylight Sensor which can be Added in the Field for Remote Mounting. Fixture May be Controlled with any Vive control systems. Fixtures must be ordered with a 0-10V. Driver.



FCJS-ECO
Individual
Fixture Control

Fixture Will be Shipped LUTRON VIVE Enabled with LUTRON FCJS-ECO EcoSystem Control Module Control Module Installed on the Fixture. Fixtures will be compatible with Lutron FC-SENSOR Occupancy/Daylight Sensor or FC-VSENSOR Vacancy/Daylight Sensor which can be Added in the Field for Remote Mounting. Fixture May be Controlled with any Vive control systems. Fixtures must be ordered with a Lutron Driver.

Controls Provided by Lutron



Lutron
App



Vive Wireless Hub



DayLight
Sensor



Ceiling Mount
Occupancy Sensor



Ceiling Mount
Occupancy/Daylight
Sensor



Wall Mount
Occupancy Sensor



Wall Mount
Switch



Pico
Remote

LED

Control Options

PHOTOMETRY DATA

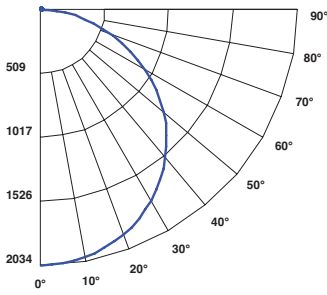
24-FPL1-LED-6000L-DIM10-MVOLT-40K-80

WATTAGE: 51.1

LUMENS: 6028

TOTAL LUMINAIRE EFFICACY: 118

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-30°	1577.99	26.20	26.20
0-40°	2592.47	43.00	43.00
0-60°	4626.62	76.80	76.80
0-90°	5977.1	99.20	99.20
0-180°	6028.06	100.00	100.00

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0°	Average 45°	Average 90°
45°	2676	2609	2581
55°	2615	2542	2503
65°	2495	2397	2353
75°	2255	2143	2105
85°	1904	1767	1694

Candela Tabulation

	0	45	90
0	2034.262	2034.262	2034.262
5	2022.370	2019.360	2019.640
15	1958.620	1946.460	1942.370
25	1832.490	1811.040	1801.880
35	1648.600	1617.170	1605.300
45	1407.590	1372.240	1357.610
55	1115.670	1084.650	1067.850
65	784.310	753.580	739.920
75	434.160	412.710	405.320
85	123.450	114.550	109.810
90	7.810	7.090	11.490

Spacing Criteria

0-180	: 1.28
90-270	: 1.26
Diagonal	: 1.40

EFFICACY: 118 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%	0%	50%	30%	10%	0%		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	101	99	99	99	99	99		
1	108	103	99	95	105	101	97	93	95	93	90	92	90	87	89	86	84	82	82	82	82	82	82		
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	77	74	70	68	68	68	68	68	68		
3	89	79	70	64	87	77	69	63	74	67	62	71	65	60	68	63	59	57	57	57	57	57	57		
4	82	69	60	54	79	68	60	53	65	58	52	63	57	52	61	55	51	49	49	49	49	49	49		
5	75	62	53	46	73	61	52	46	59	51	45	56	50	45	54	49	44	42	42	42	42	42	42		
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	49	43	39	36	36	36	36	36	36		
7	64	50	42	35	62	50	41	35	48	40	35	46	40	35	45	39	34	32	32	32	32	32	32		
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29	29	29	29	29	29		
9	56	42	34	28	54	42	34	28	40	33	28	39	32	28	38	32	28	26	26	26	26	26	26		
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	35	29	25	23	23	23	23	23	23		

RC - Ceiling Cavity Reflectance

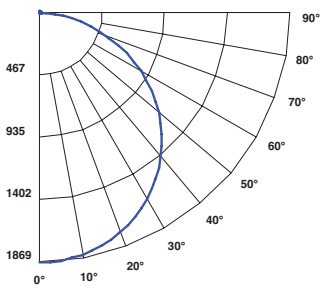
24-FPL1-LED-5000L-DIM10-MVOLT-40K-80

WATTAGE: 52.4

LUMENS: 5591

TOTAL LUMINAIRE EFFICACY: 107

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-30°	1458.82	26.10	26.10
0-40°	2401.23	43.00	43.00
0-60°	4297.57	76.90	76.90
0-90°	5547.12	99.20	99.20
0-180°	5590.75	100.00	100.00

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0°	Average 45°	Average 90°
45°	2455	2390	2365
55°	2397	2320	2291
65°	2276	2198	2166
75°	2050	1969	1937
85°	1709	1619	1608

Candela Tabulation

	0	45	90
0	1867.845	1867.845	1867.845
5	1863.210	1855.830	1854.330
15	1802.730	1786.210	1781.300
25	1685.070	1660.210	1651.200
35	1513.610	1482.190	1470.310
45	1291.570	1257.290	1244.160
55	1022.620	990.090	977.670
65	715.560	691.100	680.850
75	394.620	379.110	372.990
85	110.810	104.990	104.240
90	6.560	6.500	10.660

Spacing Criteria

0-180	: 1.28
90-270	: 1.26
Diagonal	: 1.40

EFFICACY: 107 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%	0%	50%	30%	10%	0%		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	101	99	99	99	99	99		
1	108	103	99	95	105	101	97	93	97	93	90	92	90	87	89	87	85	82	82	82	82	82	82		
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	77	74	70	68	68	68	68	68	68		
3	89	79	70	64	87	77	69	63	74	67	62	71	65	61	68	63	59	57	57	57	57	57	57		
4	82	69	60	54	79	68	60	53	65	58	52	63	57	52	61	55	51	49	49	49	49	49	49		
5	75	62	53	46	73	61	52	46	59	51	45	56	50	45	54	49	44	42	42	42	42	42	42		
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	49	43	39	36	36	36	36	36	36		
7	64	50	42	35	62	50	41	35	48	40	35	46	40	34	45	39	34	32	32	32	32	32	32		
8	60	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	31	29	29	29	29	29	29		
9	56	42	34	28	54	41	34	28	40	33	28	39	32	28	38	32	28	26	26	26	26	26	26		
10	52	39	31	26	51	38	31	25	37	30	25	36	30	25	35	29	25	23	23	23	23	23	23		

RC - Ceiling Cavity Reflectance

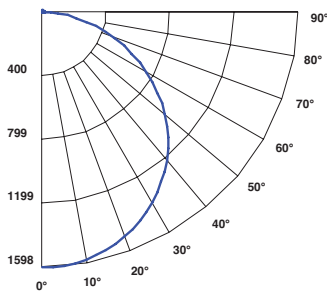
24-FPL1-LED-4000L-DIM10-MVOLT-40K-80

WATTAGE: 41.5

LUMENS: 4775

TOTAL LUMINAIRE EFFICACY: 115

Candle Power Distribution (Candelas)



Zonal Lumens Summary

Zone	Lumens	%Lamp	%Fixt
0-30°	1245.6	26.10	26.10
0-40°	2050.1	42.90	42.90
0-60°	3671.17	76.90	76.90
0-90°	4738.36	99.30	99.20
0-180°	4775.06	100.00	100.00

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0°	Average 45°	Average 90°
45°	2111	2064	2035
55°	2065	2005	1969
65°	1970	1899	1853
75°	1807	1718	1662
85°	1542	1427	1369

Candela Tabulation

	0	45	90
0	1594.868	1594.868	1594.868
5	1593.790	1588.060	1585.600
15	1544.100	1532.360	1526.630
25	1445.030	1427.270	1417.440
35	1299.500	1276.960	1263.580
45	1110.520	1085.520	1070.370
55	880.920	855.370	840.070
65	619.200	597.040	582.430
75	347.990	330.710	320.000
85	99.980	92.490	88.730
90	5.810	4.630	5.080

Spacing Criteria

0-180	: 1.30
90-270	: 1.26
Diagonal	: 1.40

EFFICACY: 115 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%	0%	50%	30%	10%	0%		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	101	99	99	99	99	99		
1	108	103	99	95	105	101	97	93	97	93	90	92	90	87	89	87	85	82	82	82	82	82	82		
2																									