

Project		Catalog #		Type	
Prepared by		Notes		Date	



Metalux

22FPX LED Panel

2' x 2' Configurable LED Panel
Recessed in Insulated Ceilings or
Suspended/Surface Mount

Typical Applications

- Commercial Office Spaces • Schools • Healthcare
- Retail Merchandising Areas

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Top Product Features

- Variety of controls and emergency battery pack options in all sizes
- Low profile perfect for renovation or new construction
- Contractor friendly, quick and easy install
- Available in 3000K, 3500K, 4000K, and 5000K CCT
- Standard and high efficacy options available
- Options to meet Trade Agreements Act requirements

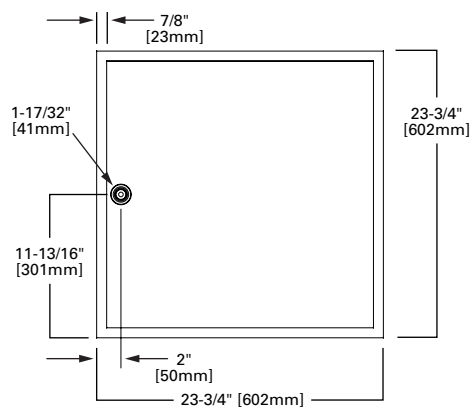
Product Certification



Product Features



Dimensional and Mounting Details



Shown with either Sensor OR Integrated
Emergency test switch.
For units with both Emergency and Sensor
there is one holder on each end.

[additional product diagrams](#)

Order Information

SAMPLE ORDER NUMBER: **22FPX-32-L840-WAB**

Domestic Preferences	Rating	Width/Length	Series	LED Lumen Output	Voltage	Fuse Options	Emergency	CCT
[Blank] =Standard TAA =Trade Agreements Act	[Blank] =Standard ATW-SW4 =Chicago Rated ⁽¹⁾	22=2' x 2'	FPX =Configurable Flat Panel	21 =2100 25 =2500 ⁽⁴⁾ 32 =3200 42 =4200	[Blank] =Universal Voltage 347V =347 Volt ⁽⁶⁾ 48V =48 Volt Low-voltage (Class 2) ^(C)	[Blank] =None GL =Single Element Fuse GM =Double Element Fuse	[Blank] =None EL7W =7-watt 120V-277V emergency battery pack ⁽⁸⁾ EL10W =10-watt 120V-277V emergency battery pack ⁽⁸⁾ EL14W =14-watt 120V-277V emergency battery pack ⁽⁸⁾ EL10WSD =10W emergency battery pack with self-diagnostic installed ^{(8),(20)} ELV7W =Low-voltage system, 7-watt emergency battery pack ^(C) ELV14W =Low-voltage system, 14-watt emergency battery pack ^(C) ETRD =Emergency Transfer Relay with dimming control ^{(9),(10)}	L830 =3000K ⁽¹¹⁾ L835 =3500K L840 =4000K L850 =5000K
Notes ⁽¹⁹⁾ Only product configurations with this designated prefix are built to be compliant with the Trade Agreements Act of 1979 (TAA). Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.	Notes ⁽¹⁾ No sensor or installed FLEX options available with ATW-SW4 option.			Notes ⁽²⁾ Lumens are approximate. Use IES files for actual performance. ⁽⁴⁾ 2500 lumens only available in HE.	Notes ⁽⁵⁾ Products also available in non-US voltages and frequencies for international markets. ⁽⁶⁾ 347V with sensor and/or emergencies only available with HCD or SR. ^(C) Consult WaveLinX Low-Voltage or DLVP system pages for additional details and compatibility.	Notes ⁽⁷⁾ Not available with the CD driver option.	Notes ⁽⁸⁾ Factory installed with integral test switch/indicator/laser test. For approximate delivered lumens multiply the lumens per watt of the desired fixture by the wattage of the emergency battery pack (100 lm/W x 7=700 lumens). IES-format photometry for luminaire under emergency operation available. Battery option increases total height by 1 inch. ⁽⁹⁾ Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others). ETRD option only requires one relay when used on a dimming fixture. 347 not available. ⁽¹⁰⁾ These options are only available with HCD and CD drivers. ⁽²⁰⁾ EL10WSD not available with 347V. ^(C) Consult WaveLinX Low-Voltage or DLVP system pages for additional details and compatibility.	Notes ⁽¹¹⁾ 3000K only available 21 and 32 lumen options.

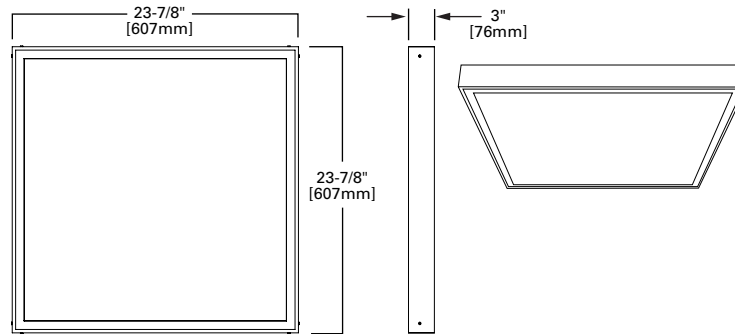
Efficacy	Flex	Driver Type	Number of Drivers
[Blank] =Standard HE =High ⁽¹²⁾	[Blank] =None A3/8-4/18GDIM =Flex pre-installed with 5 conductors including ground and dimming leads A3/8-5/18GDIM =Flex with 0-10V Dimming leads and Blue for alternate wiring. See below for details.	[Blank] =CD HCD =0-10V Driver (1%-100% Dimming) 5LTD =DALI Driver (5%-100% Dimming) 5LTHD =DALI Driver (1%-100% Dimming) LV =Low-voltage System Driver (0%-100% Dimming) ^(C) SD =Step Dimming Driver (50% or 100% Dimming) LH =Lutron HiLume (LDE1 series) 1%-100% EcoSystem Driver with Soft-on Fade to Black dimming ⁽⁷⁾ SR =Sensor-ready Driver (1%-100% Dimming)	[Blank] =1 Driver
Notes ⁽¹²⁾ 2500 lumens only available in HE.	Notes ⁽¹³⁾ Multiple options available in online configurator. See additional notes on Flex below. Flexible Metal Conduit Options Flex options available for 0-10V dimming control, DALI dimming control, emergency and night light functions. 72-inch factory-installed and pre-wired to driver, fitted to luminaire housing access plate with 90° enclosed FMC connector. Not all options may be combined and installation ratings vary by type. A3/8-4/18GDIM series notes: Factory installed dimming option 3/8" flexible metal conduit with 2-#18 power and ground wires and 2-#18 UL-listed jacketed 0-10V +/- control wires. Meets UL 66, 83, 1479, 1569, 1581, 2556, NEC@ 250.118, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645, 72; Federal Specification A-A-59544 (formerly J-C-30B); all applicable OSHA and HUD Requirements. UL Classified 1-, 2-, and 3-hour through penetration with applicable fire stop product (not included). May be surface mounted, fished and/or embedded in plaster. Cable tray and approved raceway rated, install per NEC@; Environmental Air-Handling Space Installation per NEC@ 300.22(C).	Notes ⁽¹⁴⁾ Products also available in non-US voltages and frequencies for international markets. Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following: ^(C) Consult WaveLinX Low-Voltage or DLVP system pages for additional details and compatibility. ^(F) Consult Marketplace Options - Lutron system pages for additional details and compatibility. Compatible only with driver series shown, and may require two or more drivers. Requires field commissioning to operate or dim. Contact Lutron at www.lutron.com	

Integrated Sensing Systems	Options	Packaging
[Blank] =No Sensor WAA =WaveLinX PRO Wireless Integrated Sensor ^{(15),(A)} WPN =WaveLinX PRO Wireless Node without Sensor ^{(15),(A)} WAB =WaveLinX LITE Wireless Integrated Sensor ^{(16),(B)} WLA =Low-voltage Integrated Sensor ^{(17),(C)}	[Blank] =None SUS =Suspension Mount ⁽¹⁸⁾	[Blank] =Unit Pack PAL =Job Pack, out of carton
Notes ⁽¹⁵⁾ WAA sensor and WPN node to be used with CD or HCD driver. ⁽¹⁶⁾ WAB sensor to be used with CD driver. ⁽¹⁷⁾ WLA sensor to be used with LV driver. Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following: ^(A) Consult WaveLinX PRO system pages for additional details and compatibility. ^(B) WaveLinX LITE devices are not currently compatible with the WaveLinX Wireless Area Controller. Consult WaveLinX LITE system pages for additional details and compatibility. ^(C) Consult WaveLinX Low-Voltage or DLVP system pages for additional details and compatibility.	Notes ⁽¹⁸⁾ Option is not required for suspension of the 2x2 but is recommended.	

Accessories/Ordering Information ⁽²⁰⁾

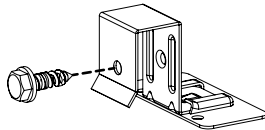
Surface Mount Kit – Surface box with sufficient clearance for all options

Catalog	UPC
FPXSURF22	080083867387
Notes: Surface mount kit is deep enough to fit all available options. Cannot be used with the FPSURF version.	



Ceiling Retention

Catalog	UPC
FPEQ	080083802685
Required by some local codes Order one set for each fixture (Four clips per kit)	



Load Data (CD most common driver)

Thd	14%
Power Factor	0.96
Weight	9.4 lbs.
Low Temp. Start	-20°C

Suspension Kit

Catalog	UPC	Description
FPSUS24	080083258895	2 point Y-hanger suspension kit includes aircraft cable, carabiner, ceiling connection, SO cord, cord connectors and round 4" J-box cover plate
Mounting height from ceiling Min. = 7-1/4" [184mm] Max. = 27" [286mm]		

Shipping Data

Size	Wt.	Pallet (30" x 56")
2' x 2'	12 lbs.	18

Drywall Frame Kit

Catalog	UPC
DF-22W-U	662401232963

Notes: (20) Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

Product Specifications

Construction

- Narrow aluminum bezel is tightly held to a die-formed code gauge steel back plate with flush perimeter and internal gasket
- Seamless corners to maximize the light emitting surface with a refined finish

Mounting

- Integral grid clips and separate suspension clips provided for installation flexibility when additional retention is required
- Junction box constructed of code gauge galvanized steel with an easy access hinged door
- Multiple trade size knockouts provided on the top and sides
- Stock luminaire is less than 2.5" for use in shallow plenum or low ceiling spaces
- Surface mounting kits available
- Suspension options available from factory
- Factory installed flexible cable with dimming leads options available

Limited Warranty

- Five year limited warranty.

Integrated Controls

- Standard with 0-10V dimming driver (10% standard, 1% optional)
- WaveLinx wireless sensor compatible for standalone, controlled, connected, and IoT capability
- Low-voltage sensor and driver compatible for WaveLinx Low-Voltage and DLVP applications
- DALI 2.0, Lutron, and step-dimming available

Electrical

- Standard and High Efficacy models available
- LED's available in 3000K, 3500K, 4000K, and 5000K with a minimum of 80 CRI
- Color accuracy ≤ 3 -Step MacAdam ellipse (SDCM)
- Projected lumen maintenance based on TM21 testing standards is L73 > 60,000 hours

Optical Shielding

- Light guide with specialized features to optimize light extraction
- White frost lens with smooth pattern for uniform illumination
- Scratch and impact resistant

Compliance

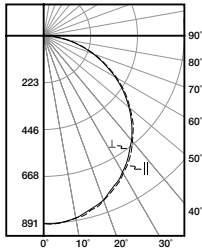
- Indoor luminaires are cULus listed for 25C ambient environments
- IC rated for direct insulation contact
- RoHS compliant
- Damp location listed
- IESNA LM-79 and LM-80 standards compliant
- Can be used for State of California Title 24 high efficacy luminaire
- Meets IP5X rating from the room side with no modification needed
- ATW-SW4 option is available for CCEA (Chicago Plenum) compliance
- Fixture is rated for NSF/ANSI standard 2 - Light fixture for Splash Zone and Non-Food Zone

Emergency Battery Options

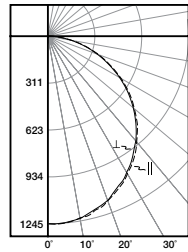
- 120V-277V integral emergency battery pack comes in 7-watts, 10-watt, or 14-watts
- Self-diagnostic emergency battery available in 10 or 14-watts (NFPA 101® Life Safety Code®)
- Constant power to the LED system for controlled, predictable discharge
- Integrated test switch/indicator light visible from floor
- Min. 90-minute backup period for code compliance
- Integral emergency transfer relay available for generator equipped power systems

Photometric Data

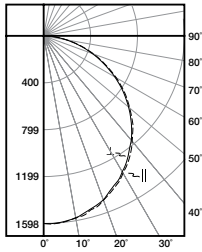
[View IES files](#)



22FPX-25-L840-HE-SWPD1
 Electronic Driver
 Linear LED 4000K
 Spacing criterion: (H) 1.25 x mounting height,
 (L) 1.24 x mounting height
 Lumens: 2539
 Input Watts: 19.8W
 Efficacy: 128.2 LPW
 Test Report: 22FPX-25-L840-HE-SWPD1.IES



22FPX-32-L840-SWPD1
 Electronic Driver
 Linear LED 4000K
 Spacing criterion: (H) 1.25 x mounting height,
 (L) 1.24 x mounting height
 Lumens: 3543
 Input Watts: 30.4W
 Efficacy: 116.6 LPW
 Test Report: 22FPX-32-L840-SWPD1.IES

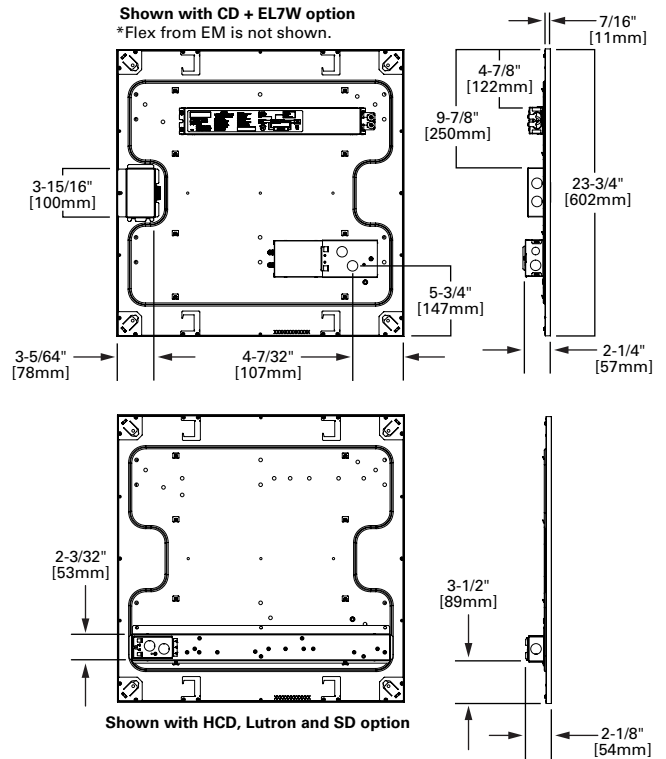


22FPX-42-L840-SWPD1
 Electronic Driver
 Linear LED 4000K
 Spacing criterion: (H) 1.25 x mounting height,
 (L) 1.24 x mounting height
 Lumens: 4545
 Input Watts: 40.3W
 Efficacy: 112.8 LPW
 Test Report: 22FPX-42-L840-SWPD1.IES

Energy and Performance Data by Catalog Number

Catalog	Delivered Nominal Lumens	Watts	Efficacy (lm/W)	Input Current (A)	
				120V	277V
22FPX-21-L840-HCD	2494	21.5	116.0	.18	.08
22FPX-25-L840-HE-HCD	2551	20.5	124.6	.17	.07
22FPX-32-L840-HCD	3560	31.2	114.1	.26	.11
22FPX-42-L840-HCD	4567	41.5	110.1	.35	.15
22FPX-32-L840-SWPD1	3543	30.4	116.2	.25	.11
22FPX-42-L840-SWPD1	4545	40.3	112.8	.34	.15

Dimensional and Mounting Details



Lumen Calculator

CCT Multiplier	80 CRI
3000K	0.94
3500K	1.00
4000K	1.00
5000K	1.03

Example of Lumen Adjustment Calculation

22FPX-32-L830-HCD
 at 3000K

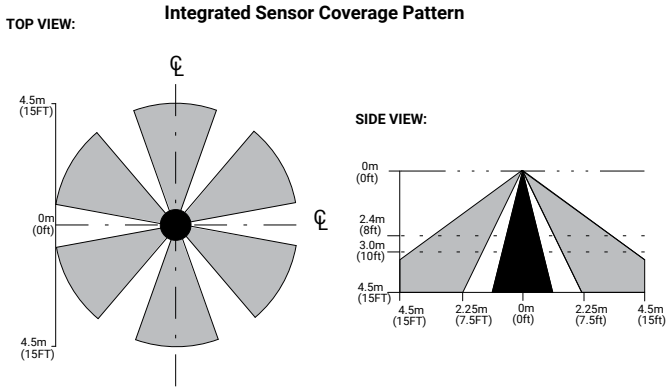
Lumen Adjustment Factor = 0.94

Total Light Output =
 3,560 lm x 0.94 = 3,360 lm

Efficacy = $\frac{3,360 \text{ lm}}{31.2 \text{ W}}$ = 107.7 lm/W

Control Systems

- WaveLinX PRO Wireless
- WaveLinX LITE Wireless
- WaveLinX Wired



Note: Installation of integrated sensors within 3-ft (1m) of HVAC air vents is not recommended. The pattern shown is intended solely as a general guide and is not to scale.

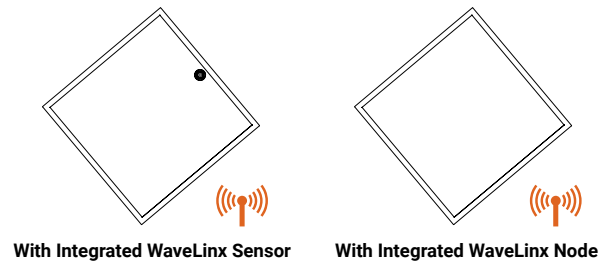
The FPX with WaveLinX offers no-hassle lighting control with multiple luminaire level control solutions.

WaveLinX PRO is used for applications where spaces need to be connected to a lighting or building management system and to help building owners improve their operations, building environment, and tenants' experience by leveraging the data generated by the sensors. The WaveLinX PRO devices communicate with each other via the WaveLinX Area Controller which coordinates the data traffic between the devices, lighting apps and CORE platform. The WaveLinX Area Controller also hosts the time clock required if spaces need to be turned on/off at a specific time.

The WaveLinX PRO Sensor offers built-in occupancy and daylighting controls as well as luminaire level control including white tuning while the WaveLinX PRO Node offers luminaire level control and white tuning. If opting for the WaveLinX PRO Node option, a PRO Ceiling Sensor will most likely be needed within the space to control the lights based on occupancy and daylight levels.

WaveLinX LITE is used for single spaces where there is no need to manage the spaces remotely or exchange the sensor data with other sub-systems within the building or smart applications.

The WaveLinX LITE Sensor offers built-in occupancy and daylighting controls as well as luminaire level control.

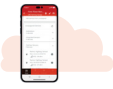


Systems comparison chart

Cooper Lighting Solutions provides many lighting system solutions designed to satisfy code requirements and meet the unique needs of any project.



Luminaire with standalone sensor



Standalone Spaces WaveLinX LITE



Networked Spaces WaveLinX PRO



Enterprise WaveLinX CORE

	Luminaire with standalone sensor	Standalone Spaces WaveLinX LITE	Networked Spaces WaveLinX PRO	Enterprise WaveLinX CORE
Occupancy	Yes	Yes	Yes	Yes
Daylighting	Yes	Yes	Yes	Yes
Wallstations	-	Yes	Yes	Yes
Gateways	-	-	1 WAC	300 WACs
Devices (MAX)	-	50 per Area (1400 per site)	200 per WAC2	32,500 per CORE Enterprise
Software	-	WaveLinX LITE Mobile App	WaveLinX Mobile App	CORE
Areas	-	28 per Site	50 per WAC2	up to 3,000
Zones	-	16 per Area	16 per Area	up to 9,000
Scheduling	-	-	Local	Global
VividTune™	-	-	Yes	Yes
Plug-Load Control	-	-	Yes	Yes
Low-Voltage Power	-	-	Yes	Yes
Integration	-	-	-	BACnet, API
Dashboards	-	-	-	Energy, Occupancy
Configuration	-	Installer	Technician	Technician / IT

SCALABILITY

