

DESCRIPTION

FPanel LED panel series provide premium performance and pleasing aesthetics. It is optimized for shallow plenum grid ceilings or surface mounting. Developed with Eaton's latest generation of solid state components and electronic driver technologies, these panels are ideal for new construction. Its refined visual optics and integrated grid retention clips provide the features needed for speed and installation flexibility. LED FPanel is an excellent lighting solution for commercial office spaces, schools, healthcare and retail merchandising areas.

SPECIFICATION FEATURES

Construction/Mounting

Narrow aluminum bezel is tightly held to code gauge steel back plate to protect the LEDs and optical area. Corners are seamless to provide a refined finish and maximize the light emitting surface. Integral grid locking clips and separate suspension clips are included on the panel to ensure installation flexibility in ceiling systems and to meet code when additional retention is required. Junction box is constructed of code gage galvanized steel with an easy access hinged door for high voltage and low voltage wiring access and includes trade size knockouts. The stock luminaire is less than 2 inches in depth making it an ideal choice for shallow plenums and low ceilings. May also be surface mounted using the optional kit. Options available to meet IP5X ratings as well as factory installed flexible cable.

Controls

The FPanel is standard with a 0-10V continuous dimming driver which dims to 10% and works with most standard 0-10V control/dimmers. Combine with energy-saving products like wall dimmers, Room Controller, occupancy and daylight sensors, and lighting relay panels. Or, go wireless with optional field installed controls for either WaveLinX or LumaWatt Pro.

Electrical

Long-Life LED system coupled with electrical driver to deliver optimal performance. LED's available in 3500K, 4000K and 5000K with a minimum of 80 CRI and a 90 CRI option that is 3000K. Projected lumen maintenance based on TM21 is L73 > 60,000 hours. Electronic drivers are cULus recognized and available for 120-277V. Emergency battery pack options are available in 7 watts and 14 watts. These emergency battery packs can be factory installed as an

option or field installed for remote mounting.

Optical Shielding

Light guide is constructed of acrylic with specialized features to optimize light extraction providing excellent efficiency. White frost lens with smooth pattern provides uniform illumination as well as scratch and impact resistance.

Compliance

Indoor luminaires are cULus listed for 25°C ambient environments, IC rated for direct insulation contact, RoHS compliant, damp location listed, and comply with IESNA LM-79 and LM-80 standards. NEMA 410 Compliant. DesignLights Consortium® Qualified and classified for DLC Standard, refer to www.designlights.org for details. Can be used for State of California Title 24 high efficacy luminaire.

Warranty

Five year warranty.

| | | | |
|--------------------|--|-------------|--|
| Catalog # | | Type | |
| Project | | Date | |
| Comments | | | |
| Prepared by | | | |



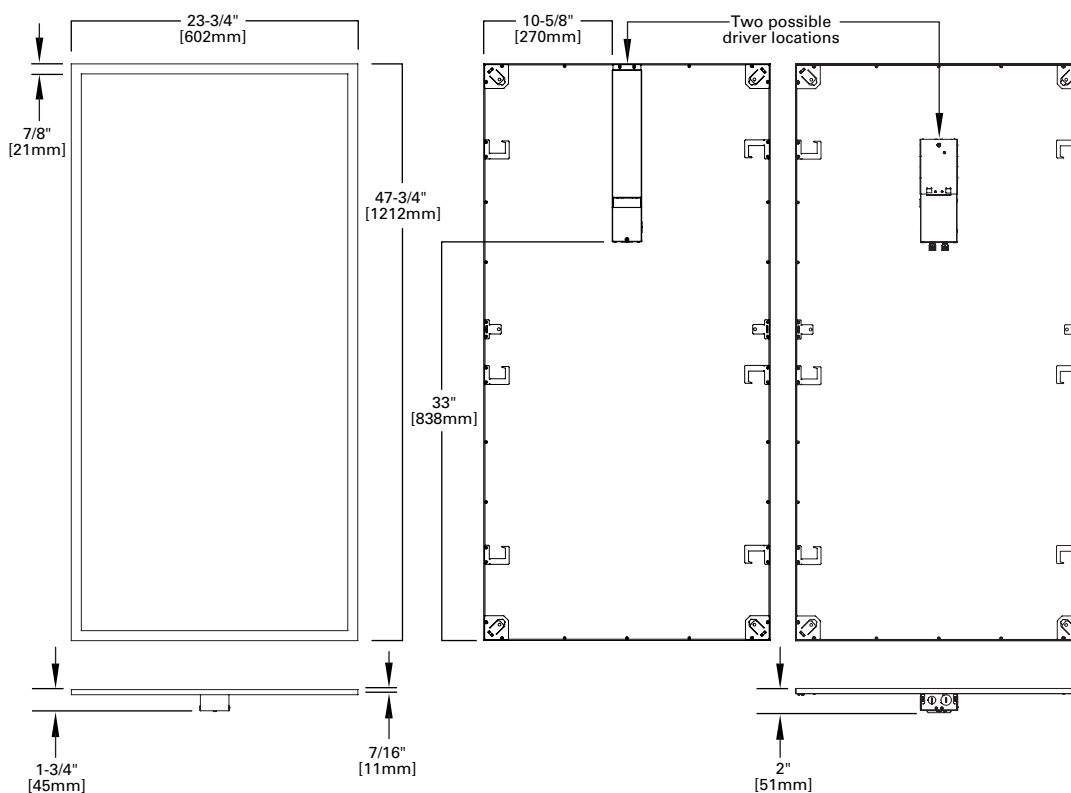
**24FP
LED**

2' X 4' LED PANEL

General LED Panel.
Recessed in Insulated
Ceilings or Surface Mount



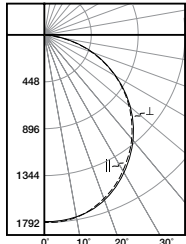
DIMENSIONS



LOAD DATA (STOCK PRODUCT)

| | |
|------------------------|-------|
| Thd | 13% |
| Power Factor | 0.96 |
| Weight | 18.5 |
| Low Temp. Start | -20°C |

PHOTOMETRICS



24FP4735C
 Electronic Driver
 Linear LED 3500K
 Spacing criterion:
 (||) 1.24 x mounting
 height, (⊥) 1.26 x
 mounting height
 Lumens: 5073
 Input Watts: 40W
 Efficacy: 126 lm/W
 Test Report:
 24FP4735C.IES

| Candlepower | | | |
|-------------|-------|------|----------|
| Angle | Along | 45° | Across ⊥ |
| 0 | 1785 | 1785 | 1785 |
| 5 | 1786 | 1774 | 1785 |
| 10 | 1761 | 1751 | 1764 |
| 15 | 1718 | 1711 | 1726 |
| 20 | 1657 | 1655 | 1670 |
| 25 | 1582 | 1582 | 1598 |
| 30 | 1495 | 1497 | 1516 |
| 35 | 1396 | 1400 | 1418 |
| 40 | 1284 | 1290 | 1311 |
| 45 | 1167 | 1173 | 1191 |
| 50 | 1040 | 1046 | 1060 |
| 55 | 906 | 912 | 926 |
| 60 | 768 | 772 | 784 |
| 65 | 626 | 628 | 637 |
| 70 | 481 | 483 | 491 |
| 75 | 340 | 340 | 348 |
| 80 | 206 | 206 | 212 |
| 85 | 92 | 90 | 94 |
| 90 | 0 | 0 | 0 |

Coefficients of Utilization

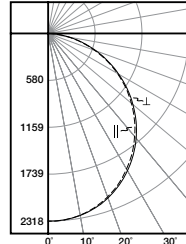
| rc rw RCR | Effective floor cavity reflectance 20% | | | | | | | | | | | | | | | | | |
|-----------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0% | | |
| | 70 | 50 | 30 | 70 | 50 | 30 | 70 | 50 | 30 | 70 | 50 | 30 | 70 | 50 | 30 | 0 | | |
| 0 | 119 | 119 | 119 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | |
| 1 | 109 | 104 | 99 | 96 | 106 | 101 | 98 | 94 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 88 | 86 | 83 |
| 2 | 99 | 90 | 83 | 78 | 96 | 88 | 82 | 77 | 85 | 80 | 75 | 82 | 77 | 73 | 79 | 75 | 72 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 66 | 62 | 69 | 65 | 61 | 58 |
| 4 | 82 | 70 | 61 | 55 | 80 | 69 | 61 | 54 | 66 | 59 | 53 | 64 | 58 | 53 | 62 | 56 | 52 | 50 |
| 5 | 76 | 63 | 54 | 47 | 74 | 62 | 53 | 47 | 59 | 52 | 46 | 57 | 51 | 46 | 56 | 50 | 45 | 43 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 41 | 54 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 40 | 38 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 36 | 47 | 41 | 35 | 46 | 40 | 35 | 33 |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 31 | 30 |
| 9 | 56 | 43 | 35 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 28 | 27 |
| 10 | 53 | 39 | 32 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 31 | 26 | 36 | 30 | 26 | 24 |

Zonal Lumen Summary

| Zone | Lumens | % Fixture |
|-------|--------|-----------|
| 0-30 | 1384 | 27.3 |
| 0-40 | 2261 | 44.6 |
| 0-60 | 3983 | 78.5 |
| 0-90 | 5073 | 100.0 |
| 0-180 | 5073 | 100.0 |

Luminance Data

| Angle in Deg | Average 0-Deg cd/sm | Average 45-Deg cd/sm | Average 90-Deg cd/sm |
|--------------|---------------------|----------------------|----------------------|
| 45 | 2221 | 2232 | 2266 |
| 55 | 2125 | 2139 | 2172 |
| 65 | 1993 | 1999 | 2028 |
| 75 | 1768 | 1768 | 1809 |
| 85 | 1420 | 1389 | 1451 |



24FP6440C
 Electronic Driver
 Linear LED 4000K
 Spacing criterion:
 (||) 1.25 x mounting
 height, (⊥) 1.26 x
 mounting height
 Lumens: 6611.3
 Input Watts: 59.4W
 Efficacy: 111.3 lm/W
 Test Report:
 24FP6440C.IES

| Candlepower | | | |
|-------------|-------|------|----------|
| Angle | Along | 45° | Across ⊥ |
| 0 | 2316 | 2316 | 2316 |
| 5 | 2312 | 2309 | 2308 |
| 10 | 2279 | 2279 | 2282 |
| 15 | 2225 | 2229 | 2233 |
| 20 | 2150 | 2156 | 2163 |
| 25 | 2056 | 2062 | 2072 |
| 30 | 1939 | 1951 | 1963 |
| 35 | 1814 | 1824 | 1838 |
| 40 | 1668 | 1683 | 1698 |
| 45 | 1516 | 1530 | 1544 |
| 50 | 1351 | 1364 | 1376 |
| 55 | 1182 | 1191 | 1202 |
| 60 | 998 | 1007 | 1014 |
| 65 | 812 | 820 | 827 |
| 70 | 622 | 629 | 642 |
| 75 | 438 | 445 | 456 |
| 80 | 266 | 274 | 282 |
| 85 | 116 | 121 | 126 |
| 90 | 0 | 0 | 0 |

Coefficients of Utilization

| rc rw RCR | Effective floor cavity reflectance 20% | | | | | | | | | | | | | | | | | |
|-----------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| | 80% | | | 70% | | | 50% | | | 30% | | | 10% | | | 0% | | |
| | 70 | 50 | 30 | 70 | 50 | 30 | 70 | 50 | 30 | 70 | 50 | 30 | 70 | 50 | 30 | 0 | | |
| 0 | 119 | 119 | 119 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | |
| 1 | 109 | 104 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 88 | 86 | 83 |
| 2 | 99 | 90 | 83 | 78 | 96 | 88 | 82 | 77 | 85 | 79 | 75 | 82 | 77 | 73 | 78 | 75 | 71 | 69 |
| 3 | 90 | 79 | 71 | 64 | 87 | 78 | 70 | 64 | 75 | 68 | 63 | 72 | 66 | 62 | 69 | 65 | 60 | 58 |
| 4 | 82 | 70 | 61 | 54 | 80 | 69 | 60 | 54 | 66 | 59 | 53 | 64 | 58 | 53 | 62 | 56 | 52 | 50 |
| 5 | 76 | 63 | 54 | 47 | 73 | 61 | 53 | 47 | 59 | 52 | 46 | 57 | 51 | 46 | 56 | 50 | 45 | 43 |
| 6 | 70 | 56 | 47 | 41 | 68 | 55 | 47 | 41 | 54 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 40 | 37 |
| 7 | 65 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 49 | 41 | 36 | 47 | 40 | 35 | 46 | 40 | 35 | 33 |
| 8 | 60 | 47 | 38 | 32 | 59 | 46 | 38 | 32 | 45 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 31 | 30 |
| 9 | 56 | 43 | 35 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 33 | 29 | 39 | 33 | 28 | 27 |
| 10 | 53 | 39 | 32 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 26 | 24 |

Zonal Lumen Summary

| Zone | Lumens | % Fixture |
|-------|--------|-----------|
| 0-30 | 1798.9 | 27.2 |
| 0-40 | 2940.9 | 44.5 |
| 0-60 | 5186.4 | 78.4 |
| 0-90 | 6611.3 | 100.0 |
| 0-180 | 6611.3 | 100.0 |

Luminance Data

| Angle in Deg | Average 0-Deg cd/sm | Average 45-Deg cd/sm | Average 90-Deg cd/sm |
|--------------|---------------------|----------------------|----------------------|
| 45 | 2885 | 2911 | 2938 |
| 55 | 2773 | 2794 | 2820 |
| 65 | 2585 | 2611 | 2633 |
| 75 | 2277 | 2313 | 2371 |
| 85 | 1791 | 1868 | 1945 |

ORDERING INFORMATION/PERFORMANCE

| Catalog | UPC | CCT | CRI (Min) | Delivered Nominal Lumens | Watts | Efficacy (lm/W) | Input Current (A) | |
|---------------------------|--------------|-------|-----------|--------------------------|-------|-----------------|-------------------|------|
| | | | | | | | 120V | 277V |
| 24FP4735C | 080083833641 | 3500K | 80 | 4990 | 40.4 | 124 | .36 | .15 |
| 24FP4740C | 080083833665 | 4000K | 80 | 4858 | 40.3 | 121 | | |
| 24FP4750C | 080083833689 | 5000K | 80 | 5005 | 40.3 | 124 | | |
| 24FP6435C | 080083833702 | 3500K | 80 | 6602 | 58.8 | 112 | .51 | .22 |
| 24FP6440C | 080083833726 | 4000K | 80 | 6611 | 59.4 | 111 | | |
| 24FP6450C | 080083833740 | 5000K | 80 | 6746 | 59.4 | 114 | | |
| 24FP3830C9 ⁽¹⁾ | 080083833825 | 3000K | 90 | 3886 | 40.3 | 96 | .36 | .15 |
| 24FP5830C9 ⁽¹⁾ | 080083833849 | 3000K | 90 | 5282 | 58.2 | 91 | .51 | .22 |

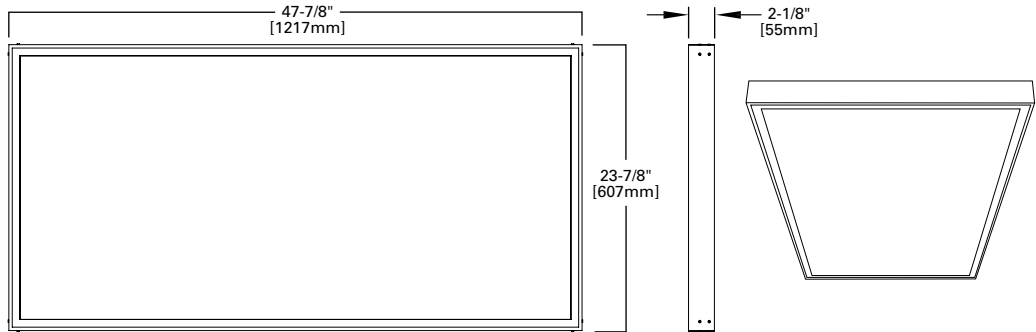
OPTIONS/ORDERING INFORMATION

| |
|--|
| <p>IP5X=IP5X rating Example catalog number=24FP4740C-IP5X</p> |
| <p>EL14W=EBPLED14W battery installed ⁽²⁾ EL7W=EBPLED7W battery installed ⁽²⁾ Example catalog number=24FP4740C-EL14W</p> |
| <p>A3/8-5D/18G=6' 3/8" flex with dimming leads installed Example catalog number=24FP4740C-A3/8-5D/18G</p> |

ACCESSORIES/ORDERING INFORMATION

SURFACE MOUNT KIT ⁽³⁾

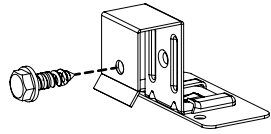
| Catalog | UPC |
|----------|--------------|
| FPSURF24 | 080083802746 |



CEILING RETENTION ⁽²⁾

| Catalog | UPC |
|---------|--------------|
| FPEQ | 080083802685 |

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



DRYWALL FRAME KIT

| Catalog | UPC |
|----------|--------------|
| DF-24W-U | 662401232970 |

Notes:

- ⁽¹⁾ May have extended lead-times.
- ⁽²⁾ Indicator/test switch to be installed separately. 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).
- ⁽³⁾ May not be used with EL7W or EL14W options

SHIPPING DATA

| Size | Wt. | Pallet (30" x 56") |
|---------|---------|--------------------|
| 2' x 4' | 22 lbs. | 17 |