LUXFLEX™
PREMIUM

UPGRADED DESIGN

RE-ENGINEERED FOR HIGHER EFFICACY & CRI

Our **Re-Engineered LUXFLEX™ LED Flexible Sheets** provides higher efficacy, 90+ CRI, and smoother dimming reaching dimming levels as low as 1% or lower. These sheets are great for indoor backlighting projects where a lighting solution that is both thin and bendable may be needed to fit into soft, curving surfaces and spaces. Great for projects of many sizes, LUXFLEX may be tiled for grand format illumination or cut into pieces as small as 2" x 4" to meet the needs of your specific application.

Enjoy smoother dimming as low as 1% or less with LUXFLEX Premium re-engineered

KEY FEATURES

CRI 90+ STRONG COLOR RENDERING	**-140+ lm/W** HIGH EFFICACY	**1%** DIMMABLE TO 1%	EVEN ILLUMINATION
FLEXIBLE PCB BOARD	TILE SHEETS FOR GREATER COVERAGE	CUTTABLE	LONG LED LIFESPAN
LIGHTWEIGHT	**120°** WIDE BEAM ANGLE	CROSSWIRED CUT SECTIONS ILLUMINATE	**x8** EASY CONNECTIVITY

QUICK REFERENCE DATA TABLE

CCT	LUMINOUS FLUX lm/sq. ft.	POWER W/sq. ft
3000K	1782.0	
4100K	1853.0	12.9
5300K	1927.5	
6500K	2004.5	

ASSURED QUALITY

c(UL)us LISTED **E477011**

Quality approved **100% QC**

5 YEAR LIMITED WARRANTY

CE

✓RoHS

PROJECT NAME/NO.	PART NUMBER
SPECIFIED BY	NOTE

LUXFLEX™
PREMIUM

UPGRADED DESIGN

MECHANICAL

PARAMETERS

LED Type EPISTAR 2835
LED Count 288 LEDs/sheet • 8 LEDs/cut 2" x 4" piece
LED Sheet Dimensions 12" x 24" (609.6mm x 304.8mm).
Full sheets and cut pieces may be tiled together for maximum backlighting coverage.
LED Pitch 1" (25.5mm)
LED Sheet Thickness
- Sheet only: 0.02" (0.51mm)
- LED height: 0.04" (1mm)
- Connector height: 0.31" (8mm)

LED Node Size 2835
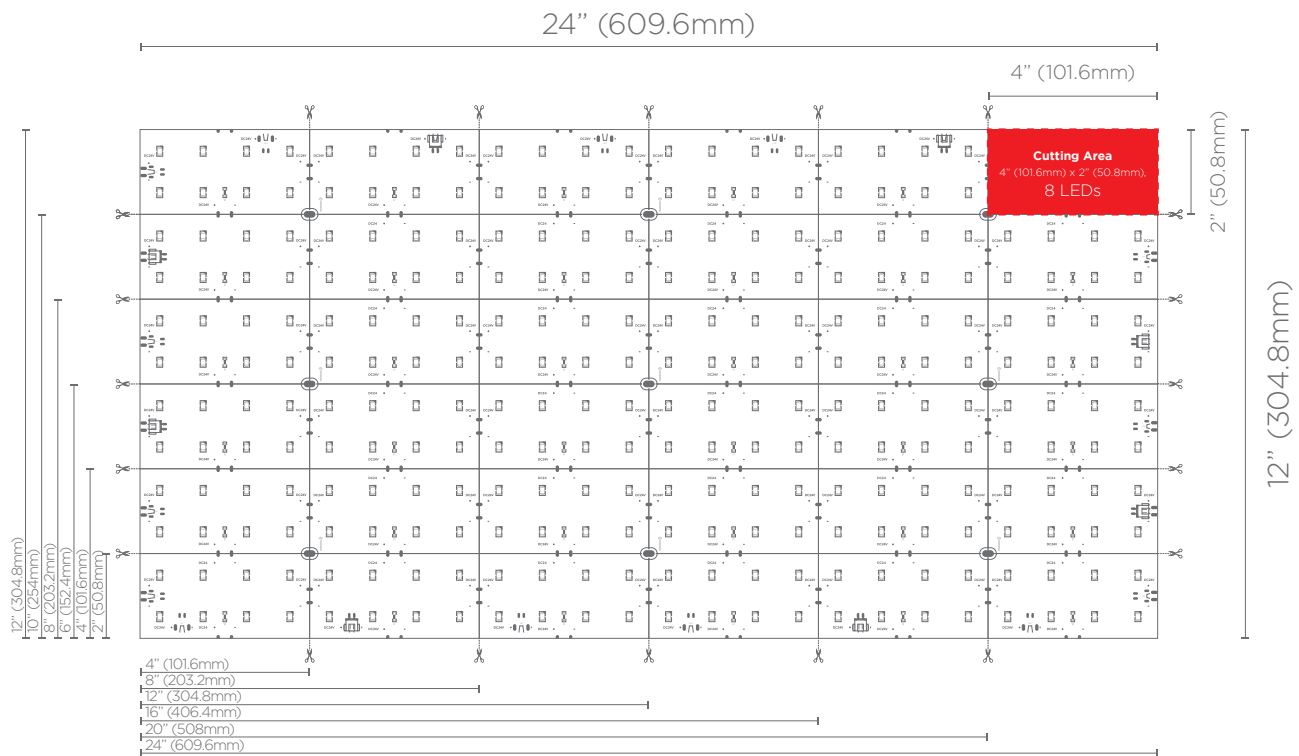**Sheet Weight** 6.4 oz (0.18 kg)

CONSTRUCTION & BASE MATERIAL

Substrate Material Flexible PET
Flammability Rated UL 94 V-0
Metal Material Rolled copper for PCB flexibility

COMPLIANCE & REGULATORY APPROVAL

UL E477011 • **cUL** E477011 • **RoHs** • **CE** • **Lead Free** • **Warranty** 5 years

SHEET CUTTING DIAGRAM

24" (609.6mm)

4" (101.6mm)

Cutting Area
4" (101.6mm) x 2" (50.8mm),
8 LEDs

2" (50.8mm)

12" (304.8mm)

12" (304.8mm)
10" (254mm)
8" (203.2mm)
6" (152.4mm)
4" (101.6mm)
2" (50.8mm)

4" (101.6mm)
8" (203.2mm)
12" (304.8mm)
16" (406.4mm)
20" (508mm)
24" (609.6mm)

LED SIZE	OPERATING VOLTAGE	PITCH center-to-center	DIMENSIONS cut grid	CONNECTOR HEIGHT	# LEDS per cut section
2835	24V	1" (25.5mm)	2" x 4" x 0.02" (50.8mm x 101.6mm x 0.51mm)	0.31" (8mm)	8

PROJECT NAME/NO.	PART NUMBER
SPECIFIED BY	NOTE

PSS.22.10.R6

LUXFLEX™

PREMIUM

UPGRADED DESIGN

ELECTRICAL

SAFETY DISCLOSURES

Electric Code Compliance Please make sure to install LUXFLEX in accordance with national and local electrical codes.
Outdoor Usage Suitable for indoor and outdoor applications.
Electrical Connectors LUXFLEX allows for up to 8 connections on a single uncut sheet.[1] Please pay close attention to the polarity (+/-) of the Molex® connectors to successfully illuminate LUXFLEX.
Actual Product Color May Vary Please note that the product color as seen in this specification sheet, photography, and related marketing material for this product may vary slightly from your actual customized product due to photographic and design limitations.
Specifications are Subject to Change Without Notice While we try to make every effort to inform customers of updates to our products, we reserve the right to make modifications and improvements to our fixture specifications and designs without advance notice.
Manufacturer is Not Liable for Matching Fixtures to Pre-Existing

1 Outdoor treatment available, contact customer success team for additional information.

Fixture Installations We cannot guarantee matching the CCT appearance, product design, or lumen output for pre-installed fixtures or reorders.

PHOTOMETRICS

Wide Beam Angle 120°
**Lamp Life** 54,000+ hours
Color Rendering Index 90+ across all color temperatures
Standard Color Temperatures 3000K • 4100K • 5300K • 6500K
Custom Color Temperatures Available Please inquire for more information
Lumen Output 3564 to 4009 lumens per sheet based on the power type. Features high brightness with unmatched superior light consistency and quality.

PHOTOMETRIC DATA TABLE

CCT	EFFICACY	BEAM ANGLE	LUMINOUS FLUX		POWER	
			per sheet	per 2″ x 4″ pc	per sheet	per 2″ x 4″ pc
3000K Warm White	138 lm/W		3564 lm/sheet	99 lm/pc		
4100K Neutral White	143 lm/W	120°	3706 lm/sheet	103 lm/pc	25.92 W/sheet	0.72 W/pc
5300K Daylight	149 lm/W		3855 lm/sheet	107 lm/pc		
6500K Cool White	155 lm/W		4009 lm/sheet	111 lm/pc		

PROJECT NAME/NO.	PART NUMBER
SPECIFIED BY	NOTE

PSS.22.10.R6

LUXFLEX™
PREMIUM

UPGRADED DESIGN

ELECTRICAL

DIMMING
· **Pulse-width modulation dimming (PWM)**
· **0-10V dimming**
· **Magnetic low voltage (MLV)**

POWER SUPPLY
Input Voltage 24VDC constant voltage
Input Current 0.54A/ft²

Power Consumption Power Consumption 25.92 W/sheet
(12.96 W/sq ft) based on the power type.
Wire Size 20 AWG 2 Wire
Please Use Only with Class 2 Power Supply
No. of Standard Connectors 8
Connector Type Molex®

Current ◉ Compatible

NX

· Energy Savings
· Versatile
· Scalable
· Outdoor Rated
· Wired, Wireless or Hybrid

Contact us to inquire about other compatible controls

DMX DECODER + NICOLAUDIE ESA

BRIGHTNESS LEVEL (%)	DMX STEP	VOLTAGE (V)	LUX (X10)
100%	255	24.1	1315
90%	236	23.7	1190
80%	211	23.1	1052
70%	180	22.4	920
60%	147	21.6	789
50%	122	21.1	657.5
40%	100	20.5	526
30%	79	20.1	394.5
20%	53	19.4	263
10%	25	18.8	131.5
1%	1	18.2	12

Magnitude (0-10V) Minimum Voltage Before Turning Off	18.6V
Amperor (0-10V) Minimum Voltage (10% Brightness)	19.2V

PROJECT NAME/NO.	PART NUMBER
SPECIFIED BY	NOTE

PSS.22.10.R6

LUXFLEX™

PREMIUM

UPGRADED DESIGN

INSTALLATION

Field Cuttable LUXFLEX is fully field cuttable and may be cut horizontally or vertically along the designated cutting lines. The smallest piece that may be cut measures 2" x 4" or 50.8mm x 101.6mm. LUXFLEX is fully adaptable for backlighting applications of many sizes and shapes.

Environment Indoor location safe only. For best performance, avoid mounting LUXFLEX LED sheets in direct sunlight, near direct water contact, or by surfaces subject to puddling caused by rainfall or sprinkler sprays.

Custimizable Wattage Available Please reach out to our team for applications requiring specific wattage requests.

Operating Temperature -13˚F ~ +140˚F (-25˚C ~ +60˚C)

Ambient Temperature -13˚F ~ +158˚F (-25˚C ~ +70˚C)

Mounting May be mounted with 3M adhesives or with standard screws. All LUXFLEX sheets feature 3M adhesive on the reverse side of the sheet and 9 holes per sheet for mounting with screws.

Heat Sink Not required for installation. LUXFLEX illuminates spaces with reduced thermal consumption and output, which makes it perfect for placement behind a diffuser in a compact space.

Tiling Multiple Sheets Each LUXFLEX sheet is designed for tiling multiple full and partial sheets in a series and connecting them to one another. To tile LUXFLEX identify the female Molex® connector and match the polarity of the connecting wire according to the polarity indicated next to the connector. Red wire is positive. Black wire is negative. The front of the male Molex connector, indicated in the images below, must always be facing up when inserting the wire into the connector. LEDs will immediately light up if the wiring is correct.

Curved Applications LUXFLEX may be flexed for curved or radius applications to best fit your environment.
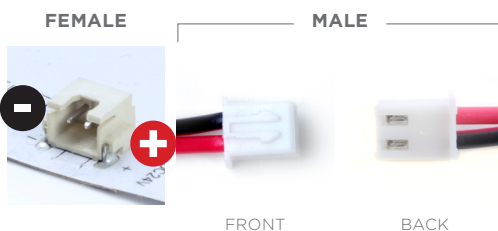
WIRING THE MOLEX® CONNECTOR
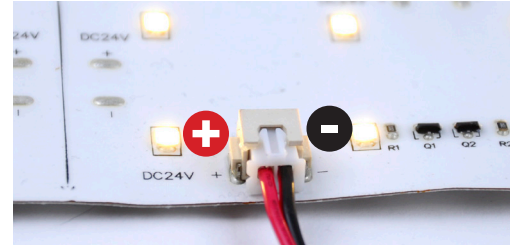
Red wiring should always be aligned to the positive charge. Black wiring should always be aligned to the negative charge.
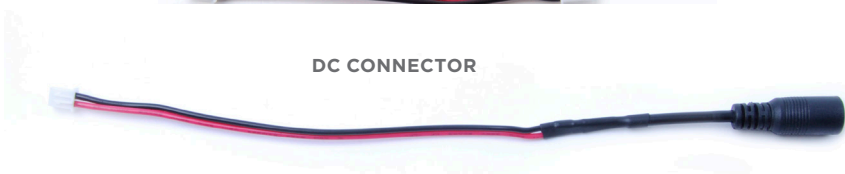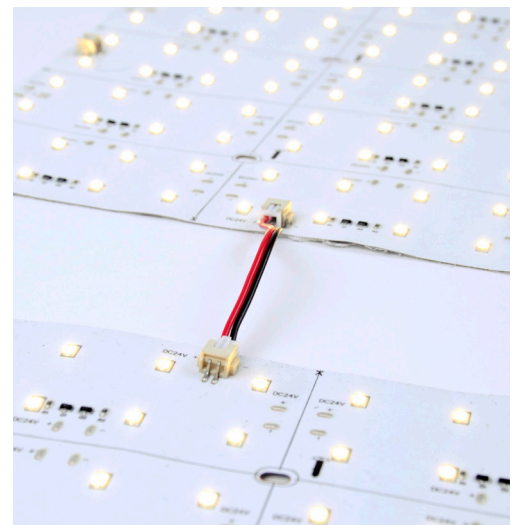

RED WIRE IS POSITIVE.
BLACK WIRE IS NEGATIVE.

TILING LUXFLEX SHEETS OR PIECES

MOLEX® CONNECTOR

FEMALE   **MALE**

FRONT   BACK

TILING CONNECTOR

DC CONNECTOR

PROJECT NAME/NO.		PART NUMBER	
SPECIFIED BY		NOTE	

PSS.22.10.R6
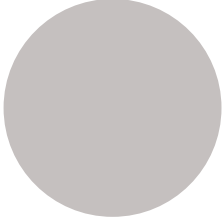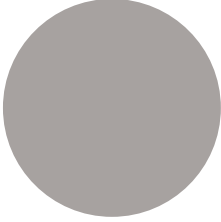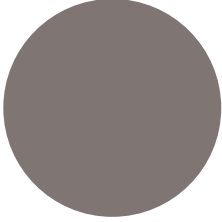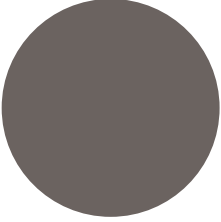
LUXFLEX™
PREMIUM

To Avoid Hotspots, Plan Your Setoff (Airgap) Depth To prevent hotspots, we recommend installing LUXFLEX with a setoff or airgap anywhere from 1-4" away from your diffuser or face material. This setoff or airgap depth will vary depending on the nature of your diffuser or illuminated surface. Review the table below for general guidelines to follow during installation.

OPACITY				
OPACITY PERCENTAGE	<12%	15% - 20%	20% - 35%	>35%
MINIMUM SET OFF DEPTH	4"	2.5"	1.5"	1"
EXAMPLE MATERIALS	• 1/16" PC diffuser • White fabric	1/16" Acrylic diffuser	1/8" Acrylic diffuser	• Dark/color print on vinyl/fabric • Mosaic, stone

*Please notice that **face material testing** is necessary to give final air gap confirmation and the chart above is for reference only but applicable for most applications.

APPLICATIONS

· Architectural Indoor & Outdoor Entrance Facade
· Luminous Ceilings & Walls
· Indoor Ad Signage
· Outdoor Ad Signage
· Backlighting
· Architectural Lighting
· Curved Applications
· Compact, Space-Sensitive Applications
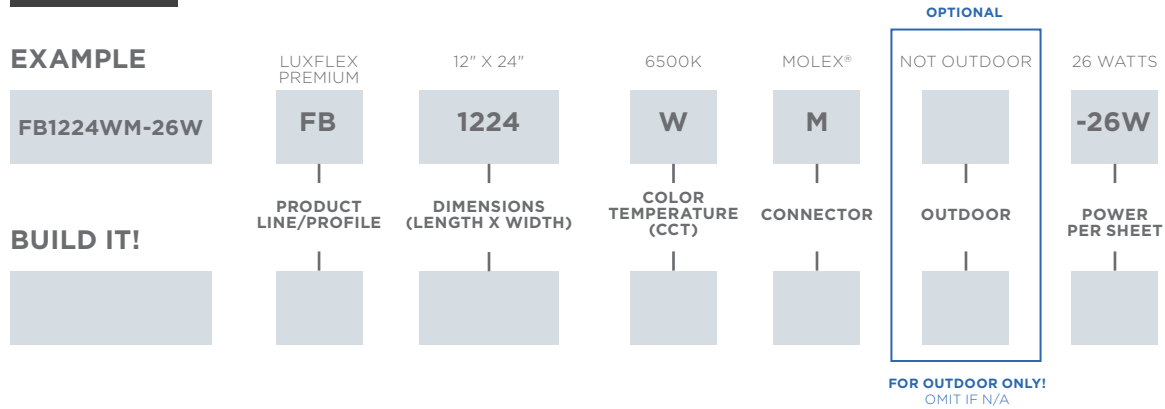· Retail Applications
  ...And Many More!

PROJECT NAME/NO.	PART NUMBER
SPECIFIED BY	NOTE

PSS.22.10.R6

LUXFLEX™
PREMIUM

UPGRADED DESIGN

LUXFLEX™ PREMIUM PART NUMBER

EXAMPLE

FB1224WM-26W

BUILD IT!

LUXFLEX PREMIUM	12" X 24"	6500K	MOLEX®	OPTIONAL NOT OUTDOOR	26 WATTS
FB	**1224**	**W**	**M**		**-26W**
PRODUCT LINE/PROFILE	DIMENSIONS (LENGTH X WIDTH)	COLOR TEMPERATURE (CCT)	CONNECTOR	OUTDOOR	POWER PER SHEET

FOR OUTDOOR ONLY!
OMIT IF N/A

*Custom lumen outputs and wattages are available for this product. Please contact us for more information.

PRODUCT LINE

FB   LUXFLEX™ PREMIUM

DIMENSIONS (IN INCHES)

LLWW   LENGTH (VARIES)

COLOR TEMPERATURE (CCT)

W   6500K

V   5300K

Y   4100K

Z   3000K

C   CUSTOM CCT

CONNECTOR

B   DC BARREL JACK

M   MOLEX®

H   HARDWIRE

OUTDOOR (OPTIONAL)

O   OUTDOOR (OMIT IF N/A)

POWER PER SHEET

-26W   26 WATTS

-XXW   CUSTOM WATTAGE

PROJECT NAME/NO.	PART NUMBER
SPECIFIED BY	NOTE

PSS.22.10.R6