

LUXFLEX™


FLEXIBLE SHEET

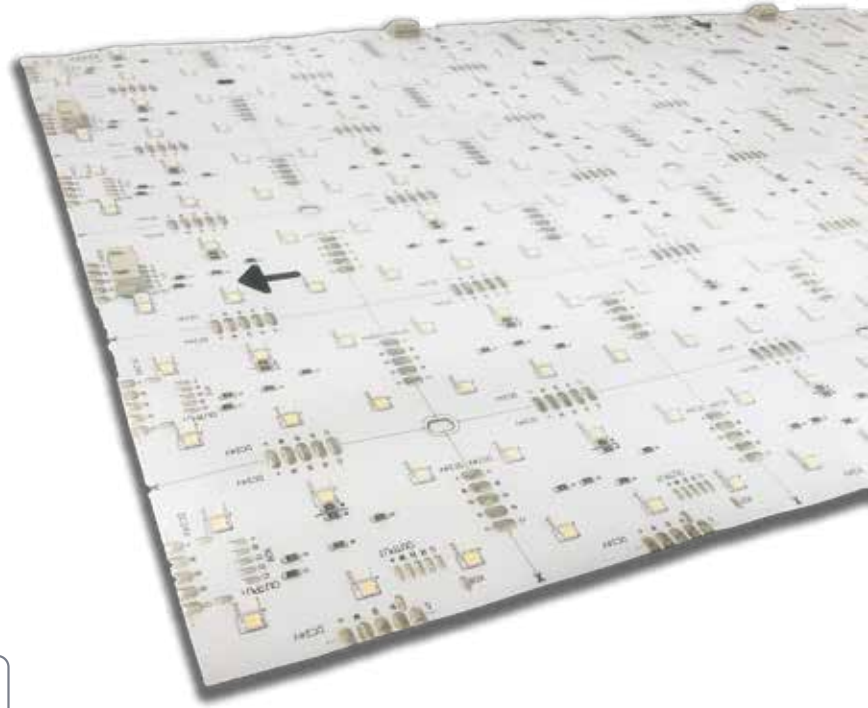
Indoor/Outdoor Series

FLEXIBLE, COLORFUL BACKLIGHTING

For curvy, space-sensitive backlighting applications requiring beautiful color and a controllable, compact lighting, we provide

LUXFLEX RGB+W LED Flexible Sheets.

Great for projects of many sizes, LUXFLEX may be tiled for grand format illumination or cut into pieces as small as 3" x 2" to meet the needs of your indoor or outdoor lighting application. Featherlight and easy to ship, you will save money on power consumption, shipping, and installation with **LUXFLEX RGB+W.**



KEY FEATURES


**ADJUSTABLE
RGB+W COLOR**

**FOR
WHITE ONLY**

**IP65
AVAILABLE**

DIMMABLE

**FLEXIBLE PCB
BOARD (CURVED
APPLICATIONS)**

**TILE SHEETS
FOR GREATER
COVERAGE**

CUTTABLE

**EVEN
ILLUMINATION**

**WIDE BEAM
ANGLE**

**AREA
ILLUMINATION**

**CROSSWIRED
CUT SECTIONS
ILLUMINATE**

**EASY
CONNECTIVITY**

LUXFLEX RGB+W is a flexible & versatile LED lighting solution that is fully customizable in terms of size, color temperature, and control system.

QUICK REFERENCE DATA TABLE FLIP TO PAGE 3 FOR COMPLETE TABLE

SHEET TYPE	CCT	LUMINOUS FLUX		POWER
		lm/sq. ft.	W/sq. ft	
HIGH POWER 32.3W SHEET	3000K White	468.26	4	
	10000K RGB	648.2	12	
	RGB+W	1116.46	16.15	
MEDIUM POWER 22.4W SHEET	3000K White	349	2.8	
	10000K RGB	485	8.4	
	RGB+W	833	11.2	
LOW POWER 16.15W SHEET	3000K White	231	2	
	10000K RGB	392	6	
	RGB+W	624	8.075	

ASSURED QUALITY


E477011

100% QC

**LIMITED
WARRANTY**


PROJECT NAME/NO.	PART NUMBER
SPECIFIED BY	NOTE

**FLEXIBLE SHEET**

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MECHANICAL**PARAMETERS****LED Type** 4040 + 2835 RGB+W**LED Count** 576 LEDs/sheet • 12 LEDs/cut 3" x 2" piece**LED Sheet Dimensions** 24" x 12" (610mm x 305mm).

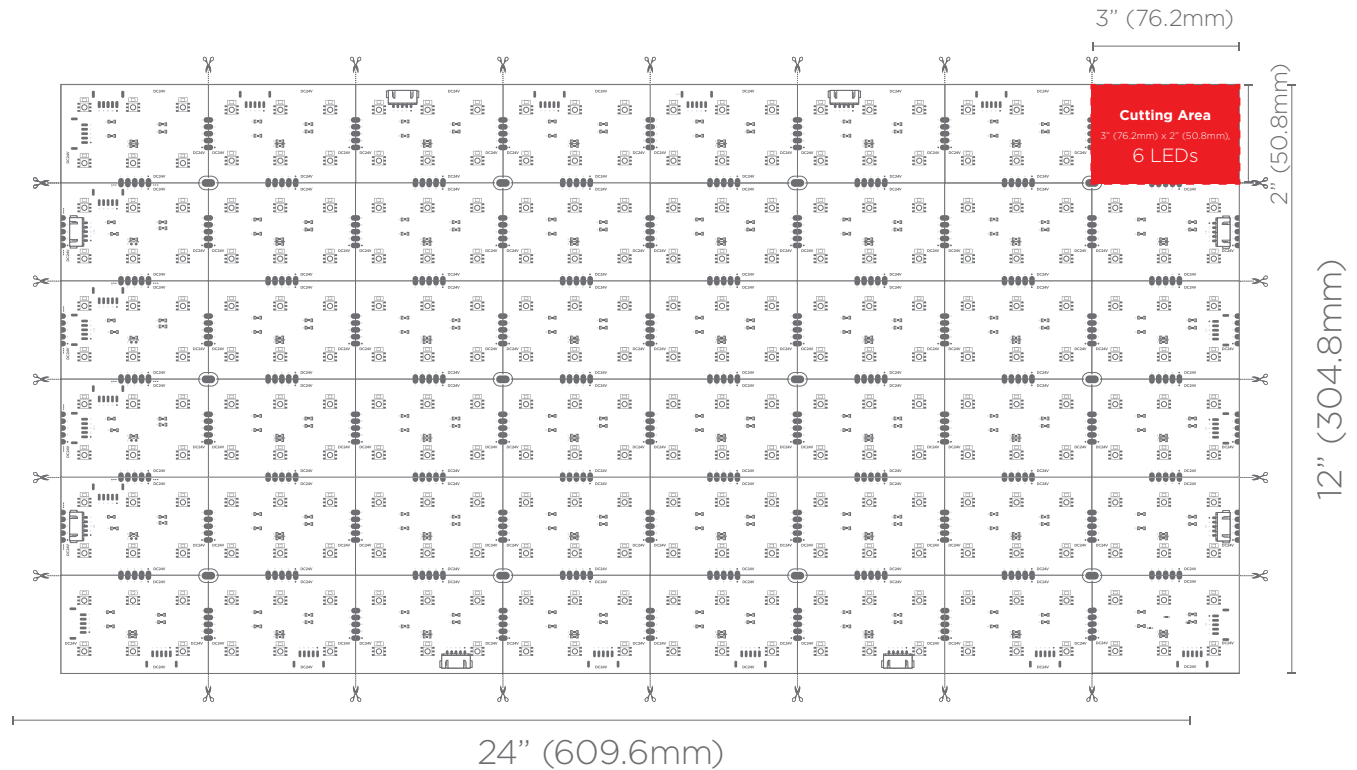
Full sheets and cut pieces may be tiled together for maximum backlighting coverage.

LED Pitch 1" (25.5mm)**LED Sheet Thickness**

- Sheet only: 0.03" (0.70mm)
- LED height: 0.02" (0.5mm)
- Connector height: 0.25" (6.5mm)

LED Node Size 4040 + 2835**Sheet Weight** 7.8 oz (221 g)**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

LED SIZE	OPERATING VOLTAGE	PITCH center-to-center	DIMENSIONS cut grid	CONNECTOR HEIGHT	# LEDs per cut section
4040 + 2835	24V	1" (25mm)	2" x 3" x 0.02" (50.8mm x 76.2mm x 0.5mm)	0.25" (6.5mm)	12

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ELECTRICAL

PHOTOMETRICS

Wide Beam Angle 120°

Lamp Life 54,000+ hours

Color Rendering Index 90+ for the white colors

Standard Color Temperatures 3000K, 4100K, 5300K, and 6500K

Custom Color Temperatures Available for White LED Please inquire for more information

Lumen Output 120-2233 lumens per sheet based on the power type, color selection, and color temperature. Features high brightness with unmatched superior light consistency and quality.

COMPATIBLE CONTROL

- DMX control
- Pulse-width modulation (PWM)

POWER SUPPLY

Input Voltage 24VDC constant voltage

Input Current¹ 0.17-0.67A/ft² (High Power), 0.12-0.47 A/ft² (Med Power), 0.08-0.34 A/ft² (Low Power)

Power Consumption 4-32.3 W/sheet (2-16.1 W/ft²) based on the power type.

Wire Size 20 AWG 5 Wire

Please Use Only with Class 2 Power Supply

No. of Standard Connectors 8

Connector Type Molex®

¹ Max. input current for a single LED (uncombined): 7mA

SAFETY DISCLOSURES

Electric Code Compliance Please make sure to install LUX FLEX in accordance with standard 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. Please pay close attention to the polarity (+/-) of the Molex® connectors to successfully illuminate LUXFLEX.

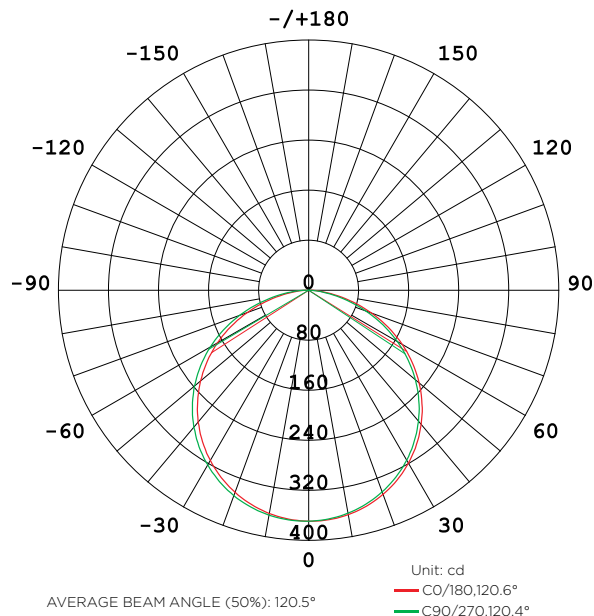
Actual Product Color May Vary Please note that the product color as seen in this specification sheet, photography, and related marketing material for this product may vary slightly from your actual customized product due to photographic and design limitations.

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

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

PHOTOMETRICS



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SPECIFIED BY	NOTE





















FLEXIBLE SHEET

Indoor/Outdoor Series

PHOTOMETRICS

PHOTOMETRIC DATA TABLE

SHEET TYPE	CCT	EFFICACY		LUMINOUS FLUX		POWER		
		lm/W	lm/sq. ft.	lm/sheet	lm/2" x 3" section	W/sq. ft	W/sheet	W/2" x 3" section
HIGH POWER 32.3W SHEET	 625nm Red	30	120	240	5	4	8	0.17
	 525nm Green	85	340	680	14			
	 465nm Blue	18	72	144	3			
	 3000K Warm White	91	468.26	936.52	20			
	 10000K RGB	45	648.2	1296.4	27	12	24	0.50
	 RGB+W	56	1116.46	2232.92	47	16.15	32.3	0.67
MEDIUM POWER 22.4W SHEET	 625nm Red	30	84	168	3.5	2.8	5.6	0.12
	 525nm Green	85	265	476	10			
	 465nm Blue	18	56	101	2			
	 3000K Warm White	125	349	698	15			
	 10000K RGB	58	485	969	20	8.4	16.8	0.35
	 RGB+W	74	833	1667	35	11.2	22.4	0.47
LOW POWER 16.15W SHEET	 625nm Red	30	60	120	2.5	2	4	0.08
	 525nm Green	85	189	340	7			
	 465nm Blue	18	40	72	2			
	 3000K Warm White	116	231	463	10			
	 10000K RGB	65	392	785	16	6	12	0.25
	 RGB+W	77	624	1247	26	8.075	16.15	0.34

PROJECT NAME/NO.

PART NUMBER

SPECIFIED BY

NOTE

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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 3" x 2" or 76.2mm x 50.8mm. LUXFLEX is fully adaptable for backlighting applications of many sizes and shapes.

Environment Indoor and outdoor location safe. For best performance, avoid mounting LUX FLEX LED sheets in direct sunlight, near direct water contact, or by surfaces subject to puddling caused by rainfall or sprinkler sprays. For LUXCANVAS™ Luminous Ceiling & Wall applications powered by LUXFLEX LED sheets, our craftsmen make every effort to customize and assemble your lighting solution. Even so, dust, debris, water, or moisture may still creep into the adjoining pieces over time.

Operating Temperature -4°F ~ +140°F (-20°C ~ +60°C)

Ambient Temperature -4°F ~ +158°F (-20°C ~ +70°C)

IP65 Waterproof Available LUXFLEX RGB+W fixtures that are ordered with IP65 treatment are dust tight and protect against water contact caused by water sprayed from any angle. **Please make sure to add silicon all around the Molex® connector to prevent any water from entering.**

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 12 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.

Avoiding Hotspots To prevent hotspots, we recommend installing LUXFLEX at least 1-2" away from the diffuser or illuminated surface. Heat dissipation from LUXFLEX is minimal and reaches low heat temperatures of only 85°F.

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. 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



Make sure that the order of the colored wires corresponds to the order of the letters near the Molex® connector.

G GREEN WIRE

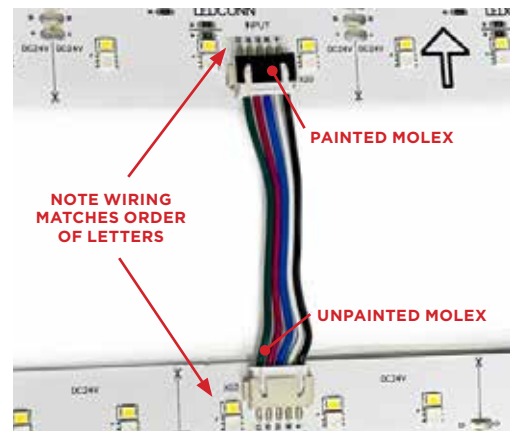
R RED WIRE

B BLUE WIRE

W WHITE WIRE

+ BLACK WIRE

TILING LUXFLEX SHEETS OR PIECES



LIMITLESS TILING = ENDLESS CREATIVITY

When connecting sheets with the tiling connector, make sure that the input wire corresponds to the letter indicated near the connector. **Every tiling connector should be input into 1 painted and 1 unpainted Molex.** Please note that if both ends of a tiling connector are ever input into Molex of the same color, the fixture will not illuminate due to incorrect charges.

MOLEX® CONNECTOR



TILING CONNECTOR



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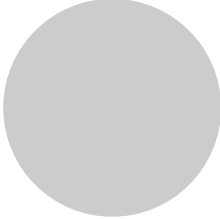
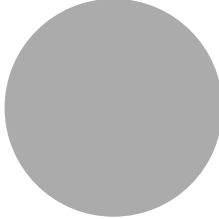
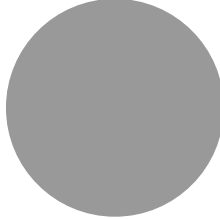
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To Avoid Hotspots, Plan Your Setoff (Airgap) Depth To prevent hotspots, we recommend installing LUX FLEX with a setoff or airgap anywhere from 1-4" away from your diffuser or face material. This setoff or airgap depth will vary depending on the nature 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	<ul style="list-style-type: none"> • 1/16" PC diffuser • White fabric 			<ul style="list-style-type: none"> • 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!



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LUXFLEX RGB+W FLEXIBLE SHEET PART NUMBER

EXAMPLE**FRD1224YM**LUXFLEX
RGB+W**FRD**

12" X 24"

1224

4100K

Y

MOLEX®

M

OUTDOOR

O

LOW POWER

-16.15W**BUILD IT!**PRODUCT
LINE/PROFILEDIMENSIONS
(LENGTH X WIDTH)COLOR
TEMPERATURE
(CCT)

CONNECTOR

APPLICATION
TYPEPOWER
PER SHEETOPTIONAL
OMIT IF N/A**PRODUCT LINE****FRD** LUXFLEX RGB+W**DIMENSIONS (IN INCHES)****LLWW** LENGTH (VARIES)**COLOR TEMPERATURE (CCT)****W** 6500K**V** 5300K**Y** 4100K**Z** 3000K**C** CUSTOM CCT**CONNECTOR****M** MOLEX®**H** HARDWIRE**C** CUSTOM CCT**APPLICATION TYPE****O** IP 65 RATING (OMIT IF N/A)**POWER PER SHEET****-16.15W** LOW POWER**-22.4W** MEDIUM POWER**-32.3W** HIGH POWER**-XXW** CUSTOM WATTAGE

PROJECT NAME/NO.	PART NUMBER
SPECIFIED BY	NOTE