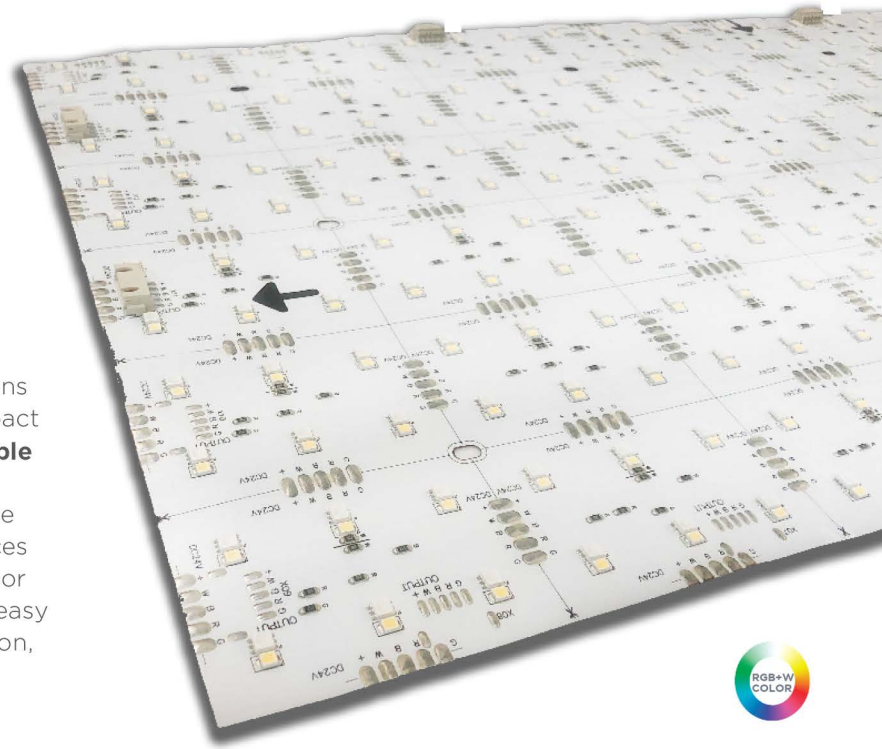


LUXFLEX™



FLEXIBLE SHEET

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 solutions 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	
		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 16.15 W SHEET	3000K White	231	2
	10000K RGB	392	6
	RGB+W	624	8.075

ASSURED QUALITY



E477011

100% QC

LIMITED WARRANTY

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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 (0.22 g)

CONSTRUCTION & BASE MATERIAL

Substrate Material Flexible PET

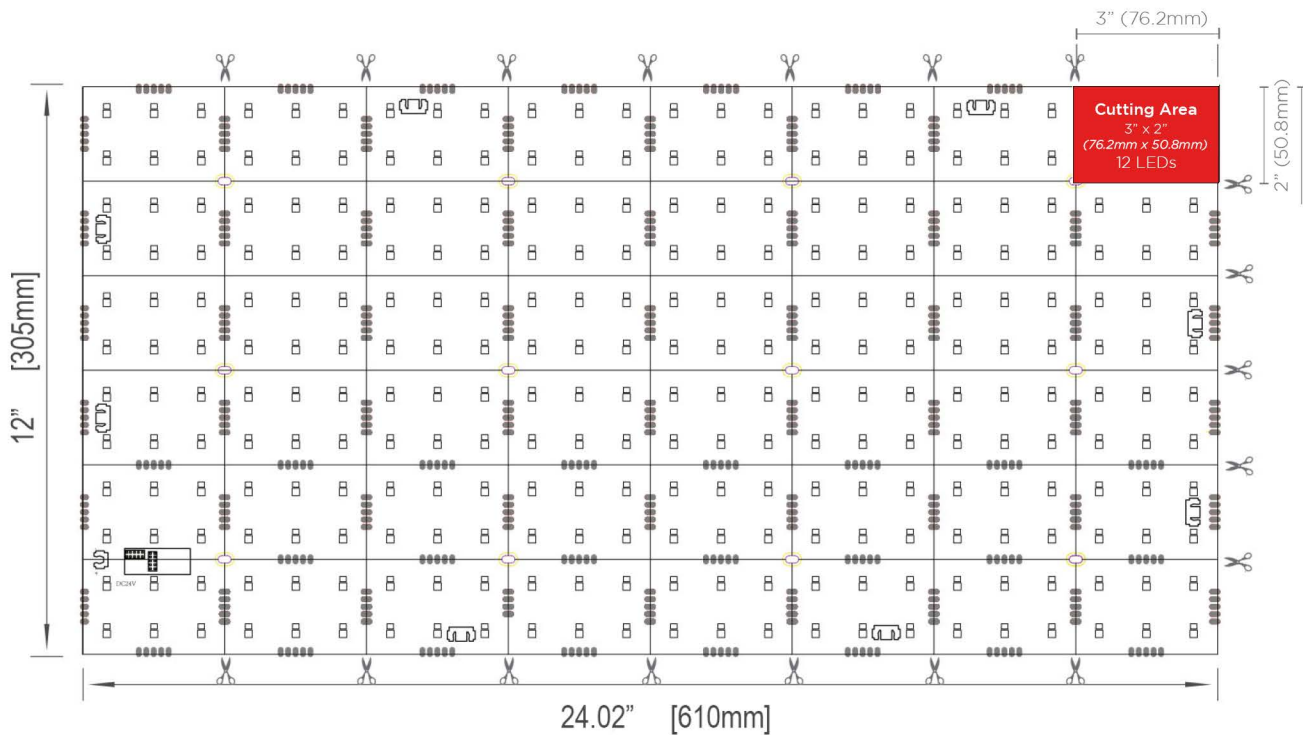
Flammability Rated UL 94 V-0

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	1.0" (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)

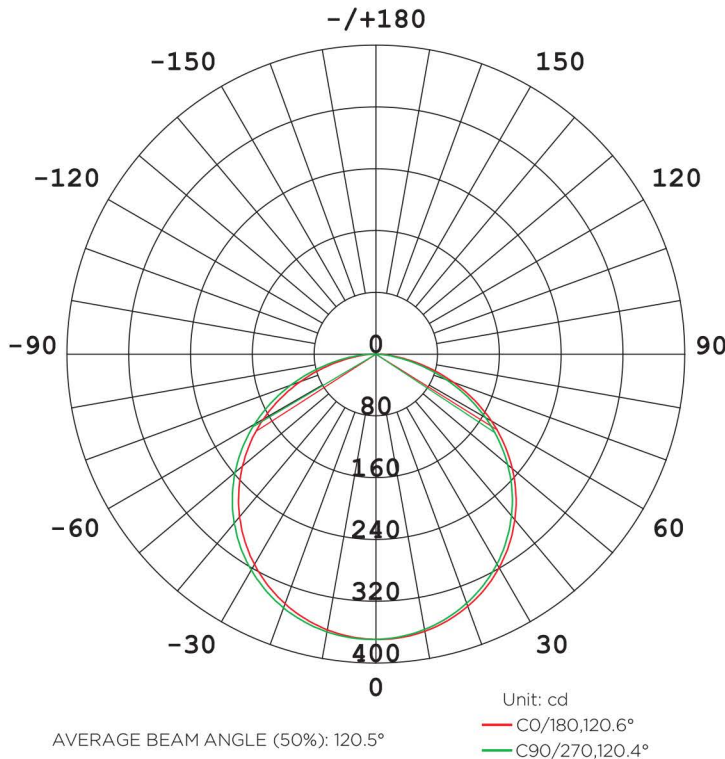
Power Consumption 4-32.3 W/sheet (2-16.1 W/ft²) based on the power type.

Wire Size 20 AWG 5 Wire

Please Use Only with Class 2 Power Supply

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

PHOTOMETRICS



No. of Standard Connectors 8
Connector Type Molex®

SAFETY DISCLOSURES

Electric Code Compliance Please make sure to install LUXFLEX 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.

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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	298	698	15						
	 10000K RGB	58	394	969	20				8.4	16.8	0.35
	 RGB+W	74	672	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	213	463	10						
	 10000K RGB	65	282	785	16				6	12	0.25
	 RGB+W	77	480	1247	26				8.075	16.15	0.34

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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 LUXFLEX 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 RGBW 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.

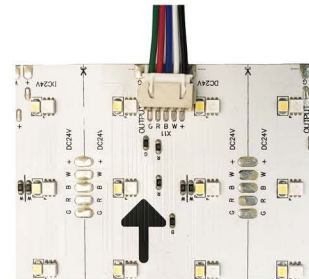
MOLEX® CONNECTOR



TILING CONNECTOR



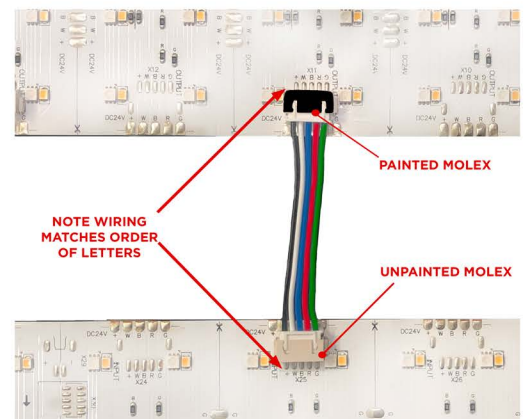
WIRING THE MOLEX® CONNECTOR



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.

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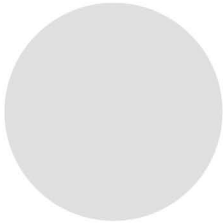
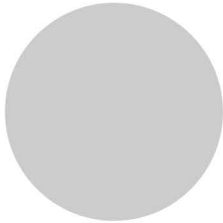
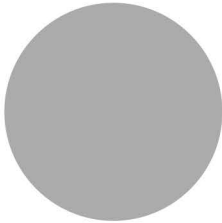
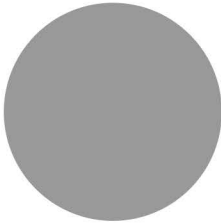
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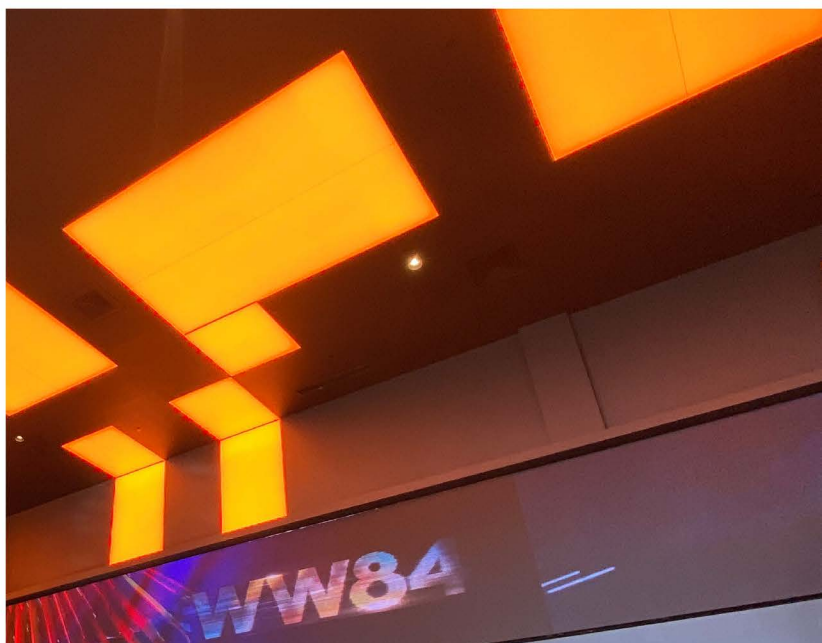
To Avoid Hotspots, Plan Your Setoff (Airgap) Depth To prevent hotspots, we recommend installing LUXFLEX with a setoff or airgap anywhere from 1-4" away from your diffuser or face material. This setoff or airgap depth will vary depending on the nature of your diffuser or illuminated surface. Review the 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	<ul style="list-style-type: none"> 1/16" PC diffuser White fabric 	1/16" Acrylic diffuser	1/8" Acrylic diffuser	<ul style="list-style-type: none"> 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

FRD624YM

LUXFLEX
RGB+W

FRD

PRODUCT
LINE/PROFILE

6" X 24"

0624

DIMENSIONS
(LENGTH X WIDTH)

4100K

Y

COLOR
TEMPERATURE
(CCT)

MOLEX®

M

CONNECTOR

OUTDOOR

O

APPLICATION
TYPE

LOW POWER

-16.15W

POWER
PER SHEET

OPTIONAL
OMIT IF N/A

BUILD IT!

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 CONNECTOR

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

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