FLEXIBLE, COLORFUL BACKLIGHTING

For curvy, space-sensitive backlighting applications requiring beautiful color and a controllable, compact lighting, we provide **LUXFLEX™ 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 RGBW.

**KEY FEATURES**

- **VERSATILE BACKLIGHTING SOLUTION**
- **ASSURED QUALITY**
- **ADJUSTABLE RGBW Color**
- **DIMMABLE**
- **WIDE BEAM ANGLE**
- **IP65 AVAILABLE**
- **FLEXIBLE PCB BOARD (CURVED APPLICATIONS)**
- **TILE SHEETS FOR GREATER COVERAGE**
- **CUTTABLE**
- **EVEN ILLUMINATION**
- **LIGHTWEIGHT**
- **AREA ILLUMINATION**
- **CROSSWIRED CUT SECTIONS ILLUMINATE**
- **EASY CONNECTIVITY**
- **RGBW**
- **LUXFLEX™ Indoor/Outdoor Series**
- **FLEXIBLE SHEET**
- **RGBW LUXFLEX™ Indoor/Outdoor Series Flexible Sheet**

**VERSATILE BACKLIGHTING SOLUTION**

Consider using LUXFLEX with translucent surface materials such as these materials listed below.

- Duratrans
- Vinyl
- Fabrics
- Onyx
- Translucent Stone
- Glass
- Acrylic
- Resin

**ASSURED QUALITY**

- **UL LISTED**
- **100% QC**
- **LIMITED WARRANTY**
- **RoHS**

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PROJECT NAME/NO. | PART NUMBER
--- | ---
SPECIFIED BY | NOTE
**MECHANICAL**

**PARAMETERS**
- **LED Type**: EPISTAR 5050 RGBW 4-in-1
- **LED Count**: 288 LEDs/sheet • 6 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**: 5050
- **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**

<table>
<thead>
<tr>
<th>LED SIZE</th>
<th>OPERATING VOLTAGE</th>
<th>PITCH center-to-center</th>
<th>DIMENSIONS cut grid</th>
<th>CONNECTOR HEIGHT</th>
<th># LEDS per cut section</th>
</tr>
</thead>
<tbody>
<tr>
<td>5050</td>
<td>24V</td>
<td>0.1” (25mm)</td>
<td>2” x 3” x 0.02” (50.8mm x 76.2mm x 0.5mm)</td>
<td>0.25” (6.5mm)</td>
<td>6</td>
</tr>
</tbody>
</table>

**PROJECT NAME/NO.**

**PART NUMBER**

**SPECIFIED BY**

**NOTE**
**ELECTRICAL**

**PHOTOMETRICS**
- Wide Beam Angle: 120°
- Lamp Life: 54,000+ hours
- Color Rendering Index: 80+ for 3000K (Warm White) only
- Standard Color Temperatures: Red 625nm, Green 525nm, Blue 465nm, Warm White 3000K, RGB 10000K
- Custom Color Temperatures Available: Please inquire for more information

**Lumen Output**
- 900-1550 lumens per sheet. Features superior light consistency and quality.

**COMPATIBLE CONTOL**
- DMX control
- Pulse-width modulation (PWM)

**POWER SUPPLY**
- Input Voltage: 24VDC constant voltage
- Input Current: RGB 1 A/sheet, RGBW 1.35 A/sheet
- Power Consumption (Max.): RGBW 32.3 W/sheet
- Wire Size: 20 AWG 2 Wire
- Please Use Only with Class 2 Power Supply
- No. of Standard Connectors: 8
- Connector Type: Molex®

**SAFETY DISCLOSURES**
- 1 Max. input current for a single LED (uncombined): 7mA

**PHOTOMETRIC DATA TABLE**

<table>
<thead>
<tr>
<th>CCT</th>
<th>RA</th>
<th>Efficacy</th>
<th>Beam Angle</th>
<th>Luminous Flux</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>625nm Red</td>
<td></td>
<td></td>
<td></td>
<td>210 lm/sheet</td>
<td>0.33 W/sheet</td>
</tr>
<tr>
<td>525nm Green</td>
<td>N/A</td>
<td></td>
<td></td>
<td>590 lm/sheet</td>
<td>0.17 W/sheet</td>
</tr>
<tr>
<td>465nm Blue</td>
<td></td>
<td></td>
<td></td>
<td>120 lm/sheet</td>
<td>0.25 W/sheet</td>
</tr>
<tr>
<td>3000K Warm White</td>
<td>80+</td>
<td>90 lm/W</td>
<td>120°*</td>
<td>724 lm/sheet</td>
<td>0.15 W/sheet</td>
</tr>
<tr>
<td>10000K RGB</td>
<td></td>
<td></td>
<td></td>
<td>900 lm/sheet</td>
<td>0.50 W/sheet</td>
</tr>
<tr>
<td>RGBW</td>
<td></td>
<td></td>
<td></td>
<td>1550 lm/sheet</td>
<td>0.67 W/sheet</td>
</tr>
</tbody>
</table>

**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.
LUXFLEX™
FLEXIBLE SHEET
Indoor/Outdoor Series
PHOTOMETRICS

AVERAGE BEAM ANGLE (50%): 120.5°

Unit: cd
- C0/180,120.6°
- C90/270,120.4°
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.

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

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.
**LUXFLEX RGBW FLEXIBLE SHEET PART NUMBER**

**EXAMPLE**

<table>
<thead>
<tr>
<th>PRODUCT LINE</th>
<th>LUXFLEX RGBW</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMENSIONS (IN INCHES)</td>
<td>LENGTH (VARIIES)</td>
</tr>
<tr>
<td>LLWW</td>
<td></td>
</tr>
</tbody>
</table>

**BUILD IT!**

<table>
<thead>
<tr>
<th>PRODUCT LINE</th>
<th>LUXFLEX RGBW</th>
</tr>
</thead>
<tbody>
<tr>
<td>DIMENSIONS (LENGTH X WIDTH)</td>
<td></td>
</tr>
<tr>
<td>6&quot; X 24&quot;</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>COLOR TEMPERATURE (CCT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>W</td>
</tr>
<tr>
<td>V</td>
</tr>
<tr>
<td>Y</td>
</tr>
<tr>
<td>Z</td>
</tr>
<tr>
<td>C</td>
</tr>
</tbody>
</table>

**CONNECTOR**

<table>
<thead>
<tr>
<th>OUTDOOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPLICATION TYPE</td>
</tr>
<tr>
<td>O</td>
</tr>
</tbody>
</table>

| OPTIONAL |
| OMIT IF N/A |

**APPLICATIONS**

- High-End Residential
- Onyx/Stone Bars & Countertops
- Nightclubs & Restaurants
- Entertainment Accent Lighting
- Theaters
- Theme Park Rides & Attractions
- Architectural Indoor & Outdoor Entrance Facade
- Luminous Ceilings & Walls
- Indoor Ad Signage
- Outdoor Ad Signage
- Backlighting
- Architectural Accent Lighting
- Curved Applications
- Compact, Space-Sensitive Applications
- Retail Environments & Applications
- ...And Many More!