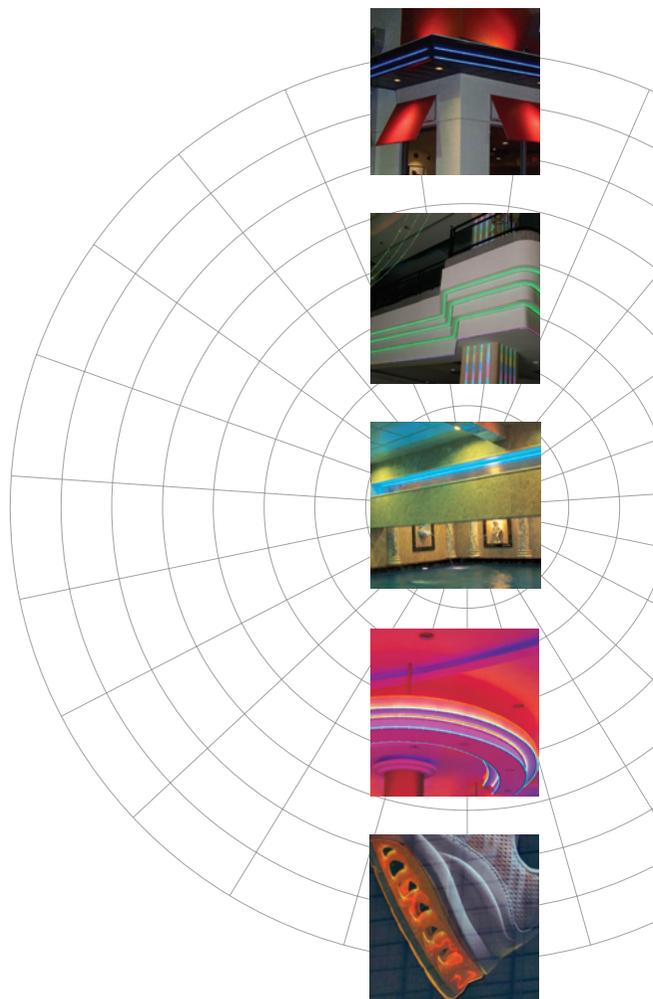


LEDALUX®



# LED-FLEX™ SERIES

LED FLEXIBLE TUBE

# INTRODUCING **LED-FLEX**™

## **The LEDalux FLEX Family**

Our FLEX products provide the ideal energy efficient lighting solution for any architectural, accent or signage application. All products in this category incorporate light emitting diode (LED) technology in a flexible, durable tube that uses a proprietary maximization technique to achieve high brightness while maintaining low energy consumption. Completely sealed and impervious to shock and vibration, the long-life energy saving LED's allow for ease of design, installation and maintenance for both interior and exterior applications. Best yet, LED-Flex is up to 70% more efficient than traditional light sources and provides long years of continuous use.

## **OVERVIEW**

LED-FLEX™ is a professional linear lighting device using LED technology. It looks like Glass neon, but it is flexible, safer, more durable, lasts longer and can be used outdoors. Only a few tools are required for field design and installation. LED-FLEX™ is ideal for permanent, fixed installations requiring minimum maintenance but can also be useful when adding last minute, creative, custom design details. Professionals in the entertainment industry will find practical, functional and creative use of the LED-FLEX™ product in the design of tradeshow booths, special events, merchandising, retail displays and themed environments.

## **LED-FLEX VS. NEON**

Yes, LED-FLEX can be used in place of neon for signage and on building's interiors and exteriors, but it can also be used in many other applications where neon could never be incorporated. LED-FLEX produces relatively no heat and is extremely durable, thus making application possibilities virtually endless.

## **APPLICATIONS**

Our LED-FLEX product brightens:

- High-rise buildings
- Amusement park rides
- Casinos
- Hotels
- Step and path lighting
- Retail store shelves and display cases
- Bridges
- Freezers and refrigerators
- Cruise ships



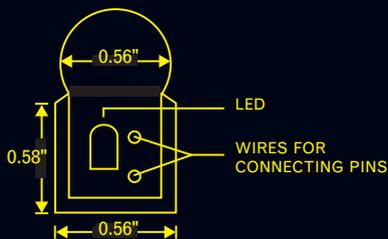
The LED substitute for neon lighting has arrived. Over 2 years of research and development has led to a product that has virtually limitless applications. Our LED-FLEX product looks exactly like traditional neon, but it is so versatile, the possibilities are endless. Architectural Borders, Pathway Lighting, Cove Lighting, and Signage just to name a few.

## ADVANTAGES OF LED

LED's bring several advantages to the lighting industry, including high efficiency and durability, and, with superior life over other lamp sources, their required maintenance is greatly reduced. This translates into energy savings, maintenance savings and an overall reduction in ownership costs for the product's lifetime.

### LED's have a variety of advantages over other light sources:

- High-levels of brightness and intensity
- High-efficiency
- Low-voltage and current requirements
- Low radiated heat
- High reliability (resistant to shock and vibration)
- No UV Rays
- Long source life
- Easily controlled and programmed



VARIOUS LOCATIONS, UNITED STATES

## INGENUITY.....

The next generation LED lighting solution from LEDalux opens a wide spectrum of possibilities in exterior and interior accent lighting design. The patented LED-FLEX Series creates a bright, even glow that is safe and cool to the touch. LED-FLEX is a durable, versatile and extremely energy-efficient product that can accent linear and curved surfaces or highlight architectural details. The LED-FLEX Series offers ease of installation and a shatter-resistant construction that make it the easy choice as an alternative to neon.

## FLEXIBILITY and beyond.....

The innovative LED-FLEX Series allows the user to transform, add interest, and highlight architectural environments and corporate identities.

Featuring an even light output, low energy consumption and a low profile to fit most applications, our versatile LED-FLEX product line provides an unparalleled accent lighting solution.

Want to add a soft glow to an interior cove or brilliant vertical or horizontal lines of light on a building's façade? The LED-FLEX Series is the answer. Virtually limitless in terms of cutting lengths and power supply loading capabilities, LED-FLEX products can be used almost anywhere visual interest is desired.

## THE EFFICIENT, FLEXIBLE ALTERNATIVE

## LED-FLEX

Our patented LED-FLEX is a versatile, flexible LED lighting product that offers neon-like brightness and uniformity in a variety of rich colors. This user-friendly, energy efficient product can be cut and formed in the field to install easily in our provided channels to flat or curved surfaces. Architectural delineation and unique designs can be created for both interior and exterior applications.

## LED-COLOR FLEX

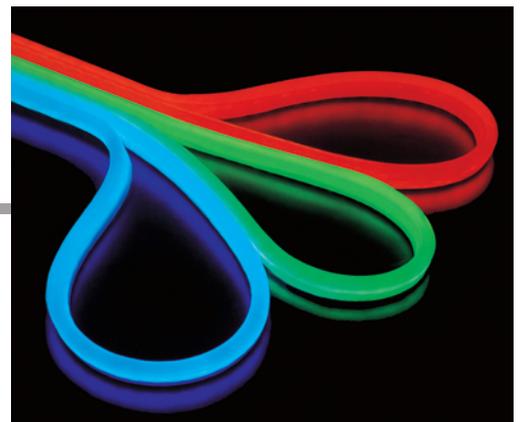
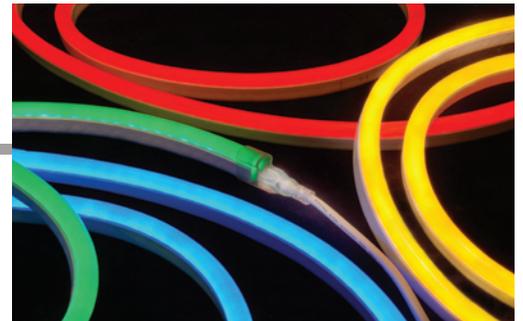
LED-COLOR FLEX shines bright both day and night. Exterior lighting often gets “washed-out” by sunlight, but by coloring the housing of the LED-COLOR FLEX to match the LED color, we have been able to offset this process. This is ideal for installations where a vibrant light output is needed during daylight hours. At night, the COLOR FLEX product appears as bright as our original LED-FLEX. Another valuable benefit to adding color is the product appears to be lit even when the power is off.

## LED-CRYSTAL FLEX

Our brightest “Flex” product is LED-CRYSTAL FLEX. Instead of utilizing an opaque or colored housing, the LED-CRYSTAL FLEX has a completely transparent housing which allows for an intense light output. The effect is a brilliant faceted diamond look when viewed within one hundred feet. Viewed from afar, the LED-CRYSTAL FLEX appears as a uniform, ultra-bright light strip. LED-CRYSTAL FLEX is ideal for structures that are intended to be viewed from long distances such as bridges and skyscrapers.

## LED-MINI FLEX

LED-MINI FLEX shines bright both day and night. Exterior lighting often gets “washed-out” by sunlight, but by coloring the housing of the LED-MINI FLEX to match the LED color, we have been able to offset this process. Featuring a smaller profile to facilitate additional types of applications, LED-MINI FLEX is ideal for installations where a vibrant light output is needed during daylight hours. Another valuable benefit to adding color is the product appears to be lit even when the power is off.



## BENEFITS & FEATURES

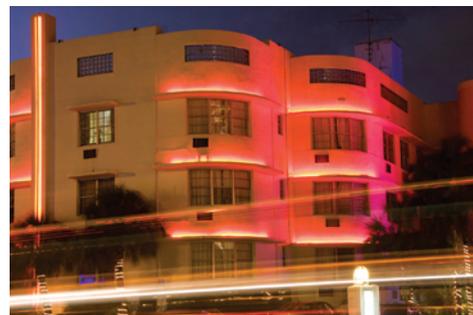
- Can save up to 70% in energy costs over traditional neon
- Opaque housing for use with white or colored LED's
- Cool to the touch, low heat LED's available in Blue, Green, Orange, Red, Yellow, Hot Pink, White & Warm White
- LEDs spaced .50" apart produce uniform illumination
- Flexible plastic housing is field-cutable and bendable
- Installs easily into linear aluminum "U" channel and/or mini-channel clips
- Extensive offering of connectors for easy in-field installation
- Superior water resistant 90° and 180° corner connectors and a wide variety of power feeds, channel and accessories
- Improved smaller profile, weatherproof sealed bi-pin connectors for seamless illumination without shadows
- Soft Start option available
- Voltage: 120V line voltage (no transformer required)  
24V low voltage (transformer required)
- LED life: 100,000 hours for Orange, Red, Yellow; 40,000- hours for Blue, White (5500° +/-300°K), Warm White (3000° +/-300°K) and Green.
- Limited One Year Warranty
- IP65 Rated for wet location
- UL and CUL Listed



TIMES SQUARE, NEW YORK CITY

## Mean Time Between Failures (MTBF) for LED's

LEDalux utilizes LED's provided by industry leading vendors. These are electrical components with a calculated mean time between failure (MTBF). MTBF for LED's typically exceeds 100,000 hours. MTBF indicates the point at which 50% of the LED's will lose 50% of their original brightness. Conditions such as excessive voltage, vibration, heat, and other adverse environments may negatively effect the life of LED's.



CASPER, WYOMING

## Cost Comparison

case study - national restaurant chain with 1,500-sites

	NEON	LED-FLEX	SAVINGS
Typical length/site (feet)	350	350	
Watts per foot	8.75	1.92	6.83
Power consumption (kW)	3.1	0.67	2.43
Hours of illumination/day	15	15	
kWh per month	1,395	302	1,093
Total kWh consumption per year/ALL 1,500 sites	25,110,000	5,436,000	19,674,000
Average Electricity Price	\$0.08	\$0.08	
Electricity Cost (per site/per year)	\$1,339	\$290	\$1,049
Electricity Cost (ALL 1,500 sites/per year)	\$2,008,500	\$435,000	\$1,573,500
Estimated maintenance costs (per site/per year)	\$900	\$200	\$700
Est. maintenance costs (ALL 1,500 sites/per year)	\$1,350,000	\$300,000	\$1,050,000
Total Estimated Savings — ALL sites/per year			\$2,623,500



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**LEDalux, a Division of Mule Lighting, Inc. is committed to growth through the continued advancement of LED technology. Our products will significantly reduce energy consumption and provide superior lighting solutions to the global lighting market.**



**Mixed Sources**  
Product group from well-managed  
forests and other controlled sources  
[www.fsc.org](http://www.fsc.org) Cert no. SW-COC-003372  
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