

LED Lighting Systems and Nozzles
Programmable Light & Water Shows



Złote Tarasy - Poland

Crystal Fountains

International Water Feature Specialists

IDEAS. KNOW HOW. CONNECTION.

Why LED Lighting?

The versatility and efficiency of LED lighting has always been attractive. In earlier years, fixture costs were higher but has become more competitive. LED lighting has the advantages of:

- Low power requirements/Saves energy
- High efficiency/Produces less heat
- Long life/Saves maintenance time & costs
- Limitless Design - Dynamic programming & intensity/variety/specificity of the color



LED Lighting Technology

LED lighting technology requires a systems approach. Crystal Fountains can supply all the components you require and can assist you with product selection, sequenced show programming or technical support.

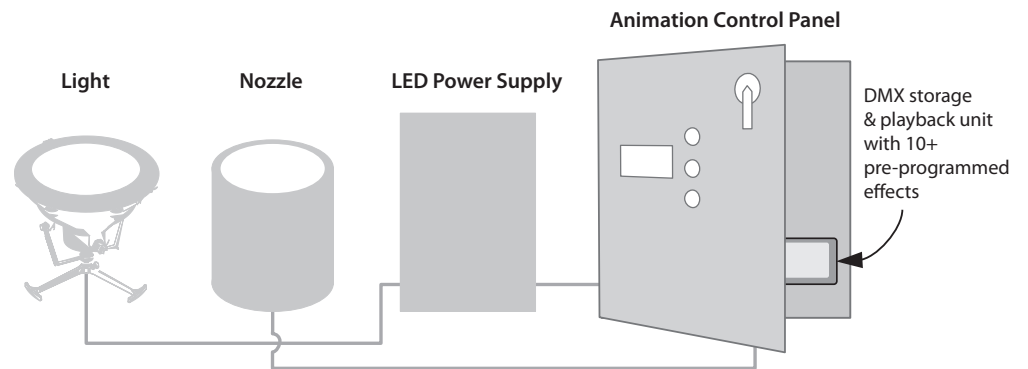
LED Lighting System fixtures work as an integrated total networked lighting system that includes three elements:

- LED Light Fixtures and/or nozzle
- Animation Panel – with Data/Power supply + keypad
- Power/Data cable



Installation Diagram/Components

Contact Crystal Fountains for detailed specification, installation and operation details.



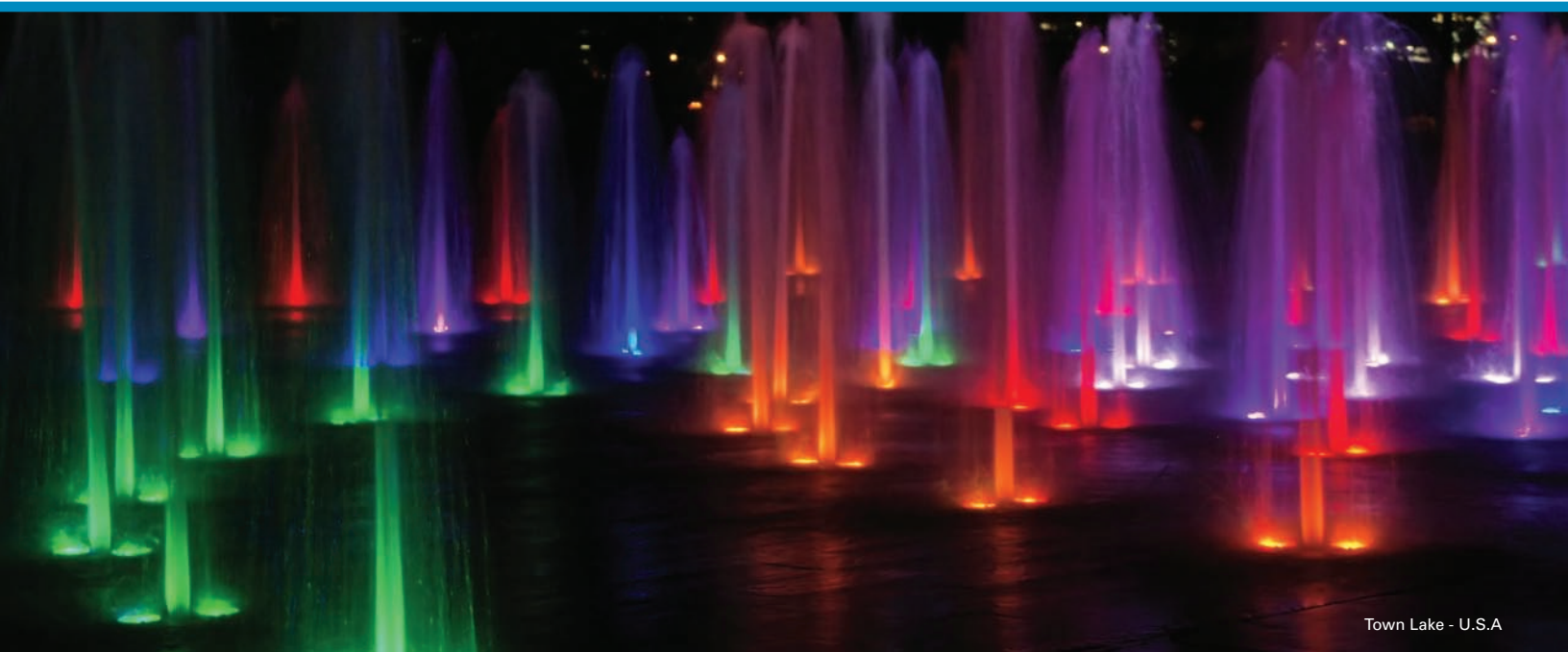
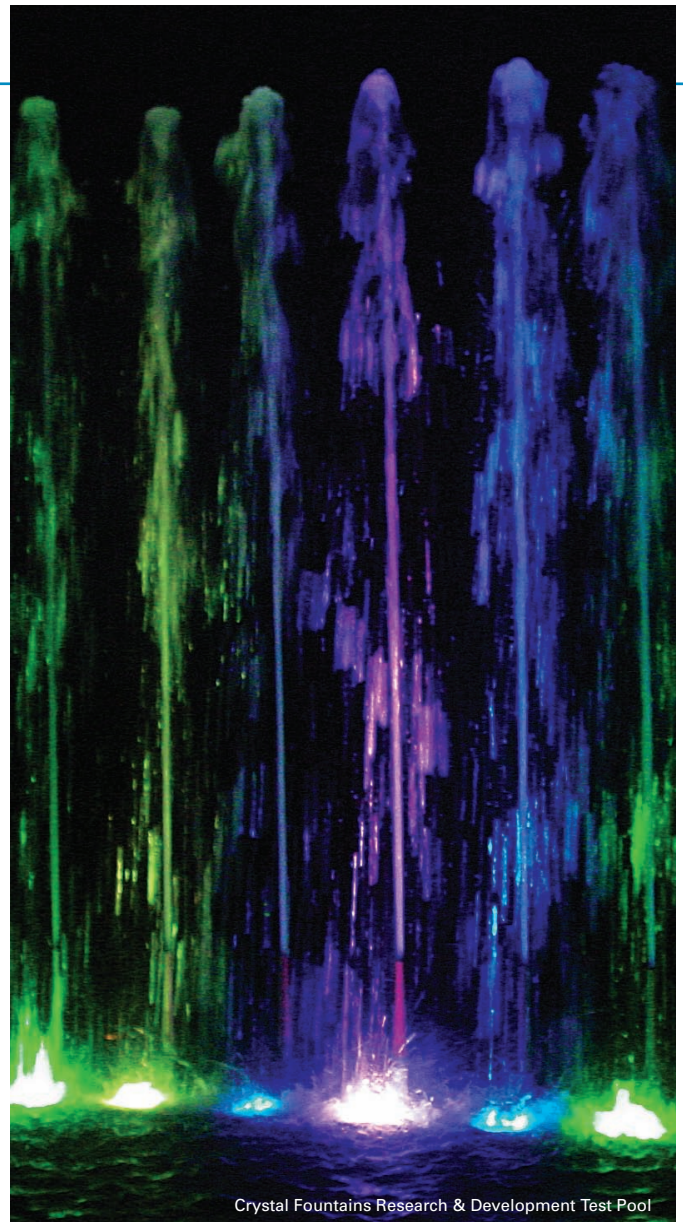
What's an LED Light?

From LED's earliest years, Crystal Fountains has been at the forefront of exploring LED lighting technology for water features.

LED lighting is an exciting new way of thinking about and installing a lighting system. At the heart of each LED (Light Emitting Diode) is a microprocessor that emits light when an electric current passes through it. As each diode can be individually addressed and controlled, digital light shows can switch with incredible speed and accuracy. Output can be digitally controlled and create color washes or pulsing light. Another design benefit is the control of an unlimited color palette of RGB color*. Using an animation panel creates a network, allowing you to synchronize light shows with fast switching, an infinite range of colors and an almost "painterly" technique of color washing.

This creates extremely dynamic, fast moving, and exciting shows for a truly spectacular lighting experience!

*RGB refers to Red, Green, and Blue and can be combined in various proportions and combinations to obtain any color in the visible spectrum including white. The color options are unlimited!





Crystal Fountains LED Products

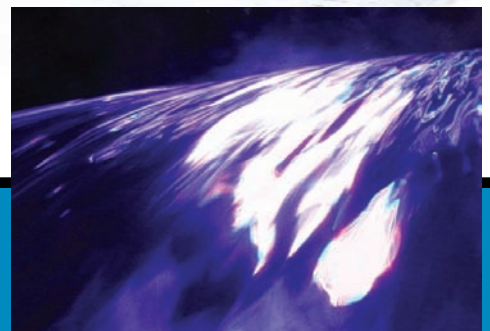
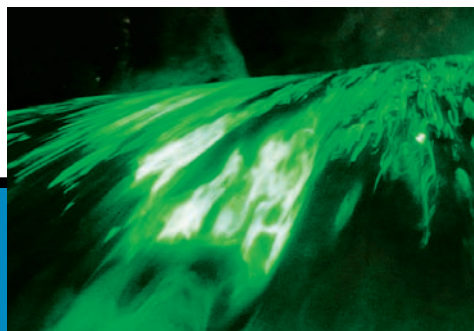
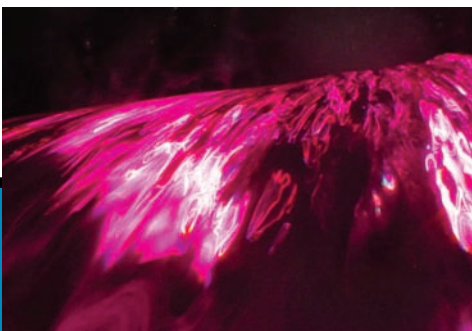
Crystal Fountains manufactures a range of leading LED lighting products that can stand alone as lighting fixtures for various applications or have a combination light and nozzle effect all in one:

Lights

Non-Sequencing Water Nozzle + LED light

Sequencing Water Nozzle + LED light

So many options to meet a range of applications!
For more detailed technical information visit our web site at www.crystalfountains.com to view up to date technical data on each product.



LED Sequencing Water Nozzle

LED Power/System Requirements - Recommended for ALL LED components



Crystal Fountains
Animation Control Panel
with LED Power Data Supply



Deck Level LED ChoreoSwitch®

LED110

LED120 - Niche

Features/ Benefits

- Flush mounted for pedestrian friendly interactive fountains - no toe entrapment
- Adjustable nozzle feature allows for up to 5 degrees installation variance
- Low voltage lighting LED light 24V DC/ 5 watt each
- Choreoswitch® 12V AC max. 5 watt - sequencing as fast as 10 times per second

Application

- Poured deck or suspended deck solutions
- Safe for interactive play at 20'/ 6 m per second
- 6'/ 1.8 m high

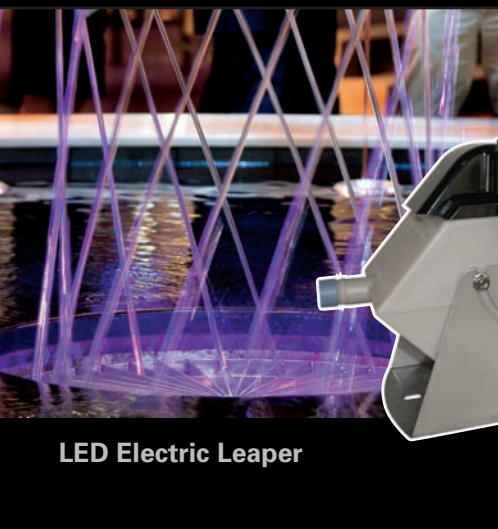
Electrical Rating

LED light 2 fixtures @ 24V DC/ 5 watt each

Choreoswitch® nozzle 12V AC

Maximum Distance from LED Power Data Supply

40'/ 13 m



LED Electric Leaper

Features/ Benefits

- Creates dynamic jumping water displays
- Available in 3 models (LED140, 142, 144)
- Optional niche + lid for poured deck solution
- Optional animation panel with 10+ pre-programmed water & light shows, or can be customized
- Water stream diameter .5"/ 13 mm

Application

- Can be installed in a classic water feature or deck mounted shooting into a pool
- Run no higher than 6'/ 1.8 m for optimal lighting

Electrical Rating

LED light 1 fixture @ 24V DC/ 8 watt

Leaper nozzle 12V DC

Maximum Distance from LED Power Data Supply

LED140 _____ 9'/ 3 m

LED142 _____ 20'/ 6 m

LED144 _____ 60'/ 18 m

LED Non-Sequencing Water Nozzle



Deck Level LED Nozzle



LED130



LED115 - Niche

Features/ Benefits

- Flush mounted for pedestrian friendly interactive fountains - no toe entrapment
- Adjustable nozzle feature allows for up to 5 degrees installation variance
- Constant flow nozzle, not sequenceable
- 4 different nozzle effects available

Application

- Poured deck or suspended deck solutions
- Safe for interactive play at 20' / 6 m per second

Electrical Rating

LED light 2 fixtures @ 24V DC/ 5 watt each

Maximum Distance from LED Power Data Supply

40' / 13 m



LED Starburst Laminar



Features/ Benefits

- Continuous glass-like rod of water, virtually sound/splash-free
- With valve adjuster, lit starburst appears to travel along the water stream
- Optional animation panel with 10+ pre-programmed water & light shows, or can be customized
- Water stream diameter .5" / 13 mm
- Optional niche/lid
- Available in 3 models (LED107, 108, 109)

Application

- Can be installed in a classic water feature or deck mounted shooting into a pool
- Run no higher than 6' / 1.8 m for optimal lighting

Electrical Rating

LED light 1 fixture @ 24V DC/ 8 watt

Maximum Cable Length from LED Power Data Supply

LED107	_____	9' / 3 m
LED108	_____	20' / 6 m
LED109	_____	60' / 18 m



LED Dynamite Blast



LED150

Features/ Benefits

- Produces a huge volume of water at a diameter of 10.5" / 266 mm
- Constant flow nozzle, not sequenceable
- Also available in unlit and halogen options

Application

- Water column illuminates up to 3' / 1 m high
- Best when additional lighting installed
- Safe for interactive play running up to 6' / 2 m high
- Poured deck solution pedestrian friendly

Electrical Rating

LED light 24V DC/ 15 watt

Maximum Distance from LED Power Data Supply

40' / 13 m

LED Lighting Products



LED005 Light

Features/ Benefits

- Simple
- Low voltage
- Ultra compact to fit closer to nozzles
- Flood or spot lamps available
- Standard rock guard included
- 4 different mounting options
 - with stand
 - suspended deck
 - dual light slab hanger
 - niche for poured deck solution

Application

- Best used to light no higher than 6'/ 2 m
- Wet or dry
- Pedestrian friendly when used in niche

Electrical Rating

24V DC/ 5 watt

Maximum Distance from LED Power Data Supply

40'/ 13 m



LED030 Light

Features/ Benefits

- Low profile
- Low voltage
- Flood or spot lamps available
- Optional hinged rock guard
- A variety of mounting options
 - low profile free-standing or floor mount
 - niche for poured deck solutions
 - slab hanger for suspended deck solutions

Application

- Best used to light no higher than 10'/ 3 m
- Ideal for lighting heavy water
- Wet or dry
- Suitable for traditional basin fountains (Not pedestrian friendly)

Electrical Rating

24V DC/ 15 watt

Maximum Distance from LED Power Data Supply

40'/ 13 m



LED051 Light

Features/ Benefits

- Heavy-duty
- Low voltage
- Optional hinged rock guard
- Flood or Spot lamps available
- Optional niche
- 3 mounting options for any application
 - basic, low profile floor mounting, freestanding or floor mounting
 - stand
 - niched for poured deck solutions, pedestrian friendly niche

Application

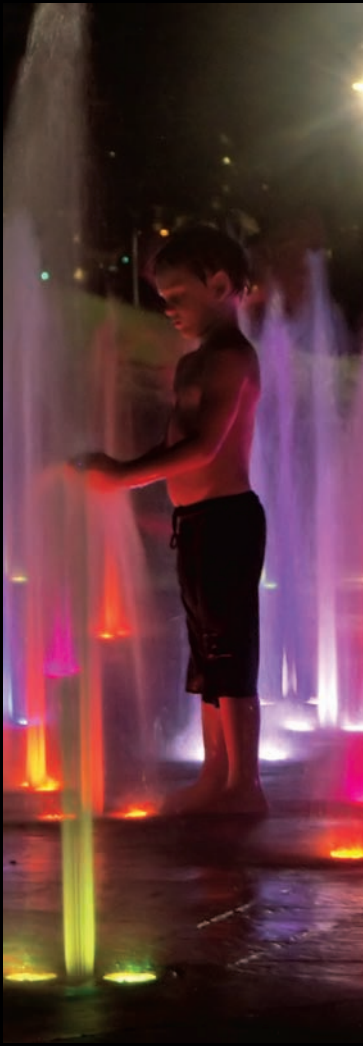
- Best used to light no higher than 20'/ 6 m
- Wet or dry
- Suitable for traditional basin fountains (Not pedestrian friendly)
- Ideal for lighting higher, heavier water

Electrical Rating

24V DC/ 25 watt

Maximum Distance from LED Power Data Supply

Approx. 100'/ 30 m depending upon the configuration of the lights and junction boxes. See Crystal Fountains for design assistance.



Crystal Fountains is one of the world's leading designers, manufacturers and consultants of dramatic water features. Since 1967, the company has been animating public and private spaces with its innovative designs around the world, across six continents and in more than 30 different countries.

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International Water Feature Specialists

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See: Sequencing Effects, LED lighting
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