# LEDs Infographic

#### TIMELINE OF LED LIGHTING

**Rubin Braunstein reports** simple diodes emitting a light when connected to a current.

1955

First red LED created that emitted light on the visible spectrum.

1962

Thomas P. Pearsall develops a high brightness LED that can be used in telecommunications and fiber optics.

LEDs are now common in commercial products and can be used for many applications.

**Present** 

1907

Henry Joseph Round notices yellow light is emitted when potential of 10V applied to silicon carbide crystal.

1961

First patent for infrared LED is received by Gary Pittman and Bob Biard.

M. George Craford creates a yellow LED as well as a brighter red LED.

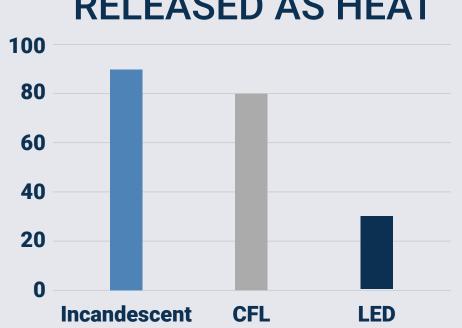
1972

1976

Shuji Nakamura creates first blue LED.

1979

### **PERCENTAGE OF ENERGY RELEASED AS HEAT**



Incandescents Release 90% of Energy as Heat

02

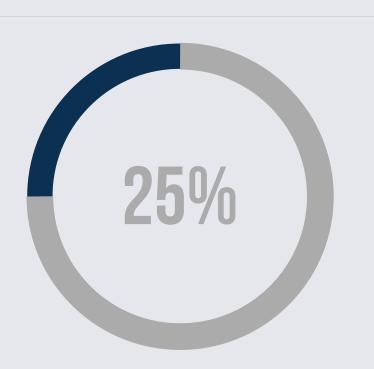
**Compact Fluorescent Lights** Release 80% of Energy as Heat

LEDs release far less heat than Incandescent or CFLs, about 30%

03



**LEDs Can Provide Up to** 50,000 Hours of Light

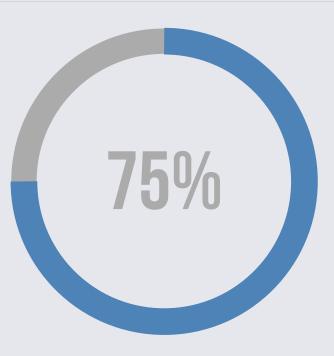


**Long Lasting** 

EDs expected to last

25% Longer

than incandescent



**Less Energy** 

LEDs expected to use

75% Less Energy

than incandescent

#### **WALL'S LED PRODUCTS**

#### **Constant Current & Constant Voltage**

IP20, IP67, IP65 Ratings

20-400 Watts

Switching Power Supplies & LED Drivers

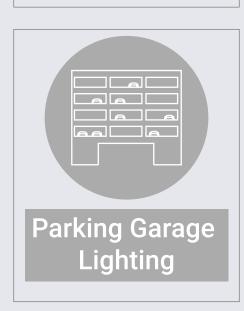
**Active PFC** 

**High Reliability** 

## INDUSTRIAL LED LIGHTING APPLICATIONS

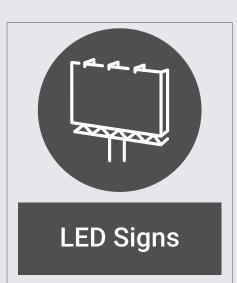


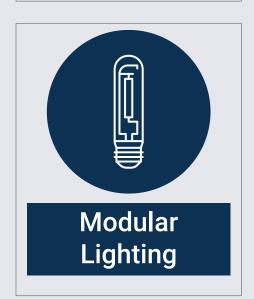
**Street Lighting** 











Statistics via https://www.energy.gov/ Timeline info via: http://www.historyoflighting.net/