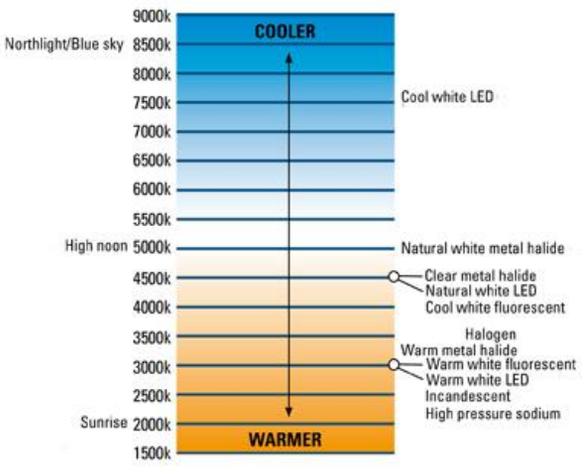


LED stands for Light Emitting Diode. Similar to a standard (incandescent) light bulb, which passes electricity through a burning filament, the LED creates light through a semi-conductor as current passes through. Unlike the standard bulb however, the LED itself can create the desired light color by changing the semi-conductor and current.



Left - Incandescent bulb left with burning filament. Right – LED with visible diodes creating light.



The color produced by lights is measured in temperature expressed in degrees Kelvin as it corresponds to the color spectrum. As LED technology improved, the ability to change the output “temperature” has allowed manufacturers to provide more options in available lights. It was not long ago that LED’s white lights were only available in the blueish (6500 k) hue. Now you will find warm white (3000 k) and pure white (4500 k) along with all other colors of the spectrum. This makes the colored LED bulbs very vibrant as not only is the outer shell colored, but the light produced inside is as well.

The LED is a much more efficient source of light versus the incandescent bulb which wastes 90% of its energy on heat. For this reason the LED costs less to operate and are easier to set up on circuits without blowing fuses. LED’s also last longer with C-9’s rated for 50,000 hrs and minis 200,000 hrs.

While there have been many advances in LED color technology, the price continues to be their biggest drawback to consumers. Quality LED’s can cost up to 10 times as much as comparable incandescent lights. But as LED’s fill up more shelf space in large stores, expect their prices to drop.

LED lights are also popular due to their low impact on the environment. Not only is the lower power consumption a great benefit, but since they last up to 15 times longer than incandescent light sets, there is much less need for disposal. The plastic outer shell of the LED is also more impact resistant than the glass of traditional bulbs and less prone to breakage.



Retrofit C9 – fits into stringer strand, completely customizable, bulbs replaceable, works well for building outlines



5mm Wide Angle – bulb shape intensifies light, nearly indestructible bulb, great for wrapping trees



Fused C7/C9 – less costly, typically in big box stores, cannot remove bulbs or cut strands, no customization



Candle Tip – look of traditional mini, not as bright, more popular for do-it-yourself install



C6 – fused set in between C9/7 and mini, can be more costly, works well in shrubs

There are many types of LED’s available on the market today and Klamfoth, Inc focuses on two: the retrofit C9 and 5mm wide angle mini. Why? The answer is simple, QUALITY. Retrofit C9’s fit into our program of custom fitting strands to roof lines for a clean, professional look. The cheaper fused sets simply do not provide this quality look. The 5mm minis provide the brightest light of all minis due to the refractive shape of the bulb. With brighter light and less power consumption than its counterparts, it is easy to see why the 5mm wide angle is the mini of choice.