



<http://www.scottbrunell.com/halloween/blacklight.htm>

BLACK LIGHT BASICS

The many styles and sizes of black lights that are available often make people confused. Hopefully the text on these pages, which was compiled from a number of sources, will answer many of the most common questions regarding Black Light.

For a quick example of how black light can change the appearance of an object, compare the two images on my [FCG page](#).

What is Black Light?

Black Light is high-frequency Ultra Violet (UV) light. Black Light sources are labeled "Black Light", "Black Light Blue" or "BLB".

Black Light Makes Things Glow

The property of "glowing" when exposed to Black Light is called "fluorescence". Simply put, the invisible UV light energy is absorbed by a surface and released as visible light.

Some Common Items that Glow when Exposed to Black Light:

- Laundry Detergent (and hence light colored clothes that have been washed in laundry detergent)
- Tonic Water
- Fluorescent paint
- White Paper
- Highlighter Pens (highlighter ink)
- RIT Whitener & Brightener (a fabric dye)

What Kind of Black Light Source Works Best?

Incandescent Bulbs vs. Fluorescent Tubes

Simply put, fluorescent tubes are vastly superior to incandescent bulbs. Incandescent black light bulbs produce little to no glow even when held just a few inches away from an object. They also get insanely hot; hot enough to melt plastic light fixtures. Do yourself a favor, play it safe, and

stick with fluorescent tubes. Fluorescent tubes come in a range of sizes, from four inches to four feet, and they can even be found in compact fluorescent form.



Incandescent
Black Light Bulb



Fluorescent Black Light Tube

Fluorescent Tubes

Generally speaking, the bigger the better.

- 5 inch tubes work well on objects a few inches away
- 18 inch tubes will work for a small room
- 48 inch tubes (4 foot) will illuminate objects up to 40 feet away

Gels or Filters

"Filtering out" a specific wavelength of light (in this case black light) from a non-UV light source is inefficient and ineffective, especially when compared to a source of UV light such as a fluorescent tube. If you start out with an extremely powerful light you may end up with enough black light for a visible glow, but this technique is far less effective than fluorescent black light tubes.

Flood Lights

A Flood Light is another form of an incandescent light bulb, albeit more powerful. It will produce a faint glow on a nearby object, but will not come close to the glow produced by an 18 inch fluorescent black light at the same distance.

Where Can I Buy Them? How Much Do They Cost?

Fluorescent black light tubes and fixtures are fairly common. Don't even bother with the incandescent bulbs. If your desire is to produce a glowing effect the incandescent bulbs are a waste of time and money.

- Wal-Mart - 4 foot tubes are about \$12-14 each
- Home Depot - 4 foot tubes are about \$12-14 each
- Spencers' - 4 foot tubes are about \$15 each
- Party Stores - 4 foot tubes are about \$15 each
- Radio Shack - 18 inch black light fixtures for \$25

18 inch fluorescent black lights are available in all the same places and cost about \$20 for the fixture and tube. Near Halloween they are available in more stores (K-Mart, Target) and occasionally at better prices.

Do I Need to Buy a Special Fixture?

No. Stores often sell black colored fixtures along with black lights, but this is more of a marketing ploy than anything else. Almost any fluorescent light fixture that the tubes fit in will work fine (do be cautious of wattage; make sure the fixture and tube have the same rating).

The most cost effective method is usually to purchase a basic "shop light" fixture from a home improvement store, typically \$8-10, and add one or two four-foot black light tubes for about \$12 each.

Note that some party stores will let you rent black light fixtures for just a few dollars.

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