

HauntMaven.com - Wolfstone's Haunted Halloween Site



<http://wolfstone.halloweenhost.com/HalloweenTech/bltfx BlackLightFixture.html>

Black Light Fixture

I got a nice e-mail from a reader asking how we generate the black light for Halloween 2000.

I answered politely, but with a little shame, because it is so *easy*.

If you need a confidence-builder, we'll walk you through the steps necessary to build your own easy, inexpensive, and very effective black light fixture.

Just for reference, the Halloween 2000 display uses three of these fixtures. The giant spider on the roof has a fixture on the right and one on the left, each of which holds a single lamp. At ground level, one fixture holds two lamps, illuminating the giant spider web, and the FCG.



Overview

This project is effective, easy, and most of all inexpensive. It is an excellent starter project.

All you will be doing is:

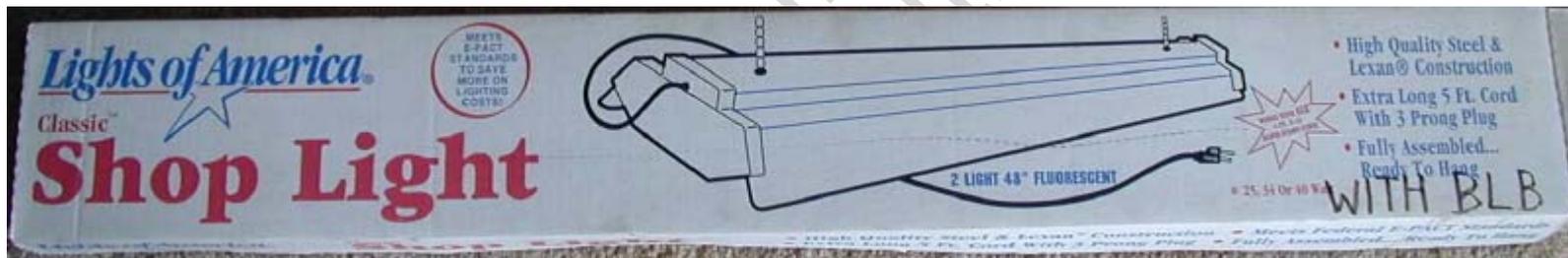
- buy a cheap shop-light fixture
- buy some special black-light lamps
- paint the fixture [optional]
- install the lamps

Shopping

Everything you need is available at your local giant home improvement store. I use Home Depot.

The shopping list is as follows:

item	quantity	cost	comments
fluorescent "shop light" fixture	1	\$7-\$9	
black light lamp	1 or 2	\$12 each	must have at least one
flat black spray paint	1/2 can	1	optional
silver spray paint	1/2 can	\$2	optional



Here is the box my fixtures came in. [Save the box for later storage!]

These particular fixtures are made by Lights of America. We suspect that other brands of inexpensive "shop light" fixtures will work as well.

It is important that the fixtures be 4-feet long, and two-lamp units. This is because such fixtures are sold in huge quantities, bringing down the price. You can get smaller fixtures that you think should be cheaper - but they are more expensive. You can get fixtures made for a single lamp that you think should be cheaper - they are more expensive.

Make sure fixtures are rated to run the wattage of tubes you are going to use, probably 40W each. Many shop light fixtures these days are made for cheap lesser wattage tubes, like 25W, and will work poorly or not at all with full power 40W tubes.



I use only General Electric black light lamps. Here we see four such lamps, each one showing a different side of the packing sleeve.

Before going to the checkout stand, *check every lamp* by slipping it out of the packing sleeve.



Make sure that the glass used for the tube is dark purple in color.

At one end of the lamp is a label etched into the glass. Find it and make sure it says "BLB" somewhere in it. Here's what the label looks like for General Electric lamps.

If you don't see the "BLB" designation, or the glass isn't dark purple, you have the wrong type of lamp. Put it back and try another. Sometimes the wrong lamps end up in the right packages.

When you get home, immediately open the fixtures, install the lamps, and try them out. Ideally, you will have two lamps per fixture. This is a good time to find out whether or not your two-lamp fixture will still operate with only one lamp. Most do, but you might have a design that doesn't.

Installing and removing lamps



There is one tiny trick to inserting and removing the large tubular lamps from the fixture.

On each side of the fixture is a slot. At the bottom of the slot is a ring carved in the plastic.



You must carefully align the ends of the lamp so that the two pins are in a line with the slot. Once the pins are properly aligned, slip the lamp into the fixture. Slide the right pins into the right slot, and the left pins into the left slot at the same time.

Gently press the lamp all the way into the slot, so that the bottom pins hit the bottom of the slot.

Then gently twist the lamp 90-degrees. This rotates the pins in the ring-shaped carving, locking the lamp into place.

Painting

There are two reasons why you might want paint: (a) make it harder to see the light fixture (b) make the fixture more reflective so more light gets projected.



These are two identical fixtures. The one on the right looks the way it came from the factory - a white baked-on enamel finish on metal. White plastic for other parts.

The one on the left has *silver paint* on all surfaces facing in towards the lamps. This is intended to increase reflectivity, so more useful light gets to the target. This is optional, because the white finish from the factory actually works pretty well.

The fixture on the left also has *flat black paint* on all non-reflecting surfaces. This is intended to make the fixture harder to see in the dark.



You don't want to get any paint on any electrical connections. Here, a short piece of ordinary masking tape was slapped over the lamp connectors before painting.

Storage



The cheap fluorescent fixtures are flimsy. You must protect them during moving and storage, or they will get twisted out of shape.

We like storing the fixtures in the original cardboard box they came in. If you are careful, this box will last for many years.

We store lamps in the fixtures: the box protects the fixture, and the fixture protects the lamps. But we leave the shipping sleeves on the lamps for additional protection.

This probably requires that you trim half an inch from the ends of the sleeves.



Most home improvement stores sell clear plastic tubes to go over fluorescent lamps. These tubes are intended to be used while the lamp is operating - if the lamp breaks during use, the clear tube holds the fragments together.

They aren't a good idea during use of black light tubes because the seemingly clear plastic actually blocks a part of the black light.

But they are great for storage.

Assorted notes

- Cheap fluorescent fixtures like this often have trouble starting up when they are very cold. You are only likely to have this problem if (a) the fixture is outside and (b) you live someplace cold. Once the lamp is started up, it runs fine, it just doesn't like to start.
- This type of fixture is not waterproof. You can get away with running them outdoors, if things are dry. But they are not suitable if snow, rain, or other wet weather is expected.

Obtained from
Omarshauntedtrail.com