

The Wildfire Effect Explained: Defining The Signature Black Light Effects

Black light effects take advantage of the property of fluorescence by shining long-wave ultraviolet light (a.k.a. black light) on certain materials that fluoresce under it.

Fluorescent materials include special luminescent paint, water-dye, screen ink, makeup, and many other natural or man-made materials.

The classic black light effects include fluorescent visible images, invisible images, dual images, day/night transitions, and 3-D images.

Visible Fluorescent Effects

Visible fluorescent images (whether created by paint, makeup, water-dye, or other materials) appear a bright color under normal light, and fluoresce brilliantly under black light.

Fluorescent images can be enhanced under black light by surrounding the fluorescent material with black, or completely non-fluorescent material. Any non-fluorescent material will appear black under true black light, and will help create a more defined image.

This is put to dramatic use with fluorescent body paint lit only by long throw black light fixtures. What little visible light is produced doesn't quite reach the stage. The body will appear black—almost completely unseen—while the body paint fluoresces under the black light.

Invisible Fluorescent Effects

Invisible images appear white (or clear) or otherwise non-descript under normal light, and appear only when black light is applied. This property is often used to verify currency, identification, or other official documents. It's also used to dramatic effect in the entertainment industry.



Invisible fluorescent materials typically need shorter-wavelength black light in order to brilliantly fluoresce. While many visible fluorescent materials will glow even at 400nm (a high energy visible violet), invisible materials will respond better at a shorter 365nm wavelength, which is produced only by quality metal-halide or fluorescent black light lamps.

Dual Image Effects

Dual images are a special type of invisible image. One image will appear under normal light, while a different image appears only under black light. The black light artist will work on both images simultaneously, alternating between working in normal light and black light.



Day/Night Transition Effects

Day/night transition effects are common in a lot of black light images. It's a type of dual image effect where a day scene appears under normal light, turning into a night scene under black light.

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3-D Effects

The property of fluorescence can create dramatic 3-D effects. 3-D glasses enhance this effect and make lighter colors appear closer, while darker colors appear to be further away.

