

How to Photograph Artwork for Reproduction

The goal of these instructions is to help you shoot your work using techniques that minimize photographic image quality problems. We know you want to display your artwork to its best advantage. We're here to help you do just that.

Technique and Equipment

Photographing artwork for reproduction with offset printing—copywork, as it is called—is entirely different from other kinds of photography. Hence, our best advice: hire a professional. Precision, rather than creativity, is the most important aspect of this craft.

Precision is required in:

- Placement of the camera in relation to the artwork
- Placement of lights in relation to the camera and artwork
- Use of the camera to achieve the correct focus and exposure

Symmetrical geometry is the key. For that reason we have included with these instructions several diagrams that illustrate the proper placement of camera, lights, and artwork to achieve the best results.

Why does it matter that you follow these instructions to shoot your artwork? Because reproduction with offset printing is inherently an act of translation. There are inherent compromises at each step that may be perceived as a loss of quality. Some problems that arise include:

- Color shifts
- Uneven lighting
- Distortion of the picture plane
- Specular highlights (gleams)
- Improperly exposed film resulting in overly dark or weak images

When we at THE GUILD reproduce your artwork, we try to capture the *sense* of it – the experience of viewing the original work. We apply the highest professional standards to each step in the production process to achieve this goal. However, we cannot do much to improve images that come to us with inherent problems. Most of these problems stem from poor copywork.

Equipment Needed to Shoot Artwork to Professional Standards

- Work lights (2) on stands, typically 300 watt (cost roughly \$30, available at home improvement stores). If you will be shooting large or three-dimensional artwork, buy at least two more lights.
- Light bulbs for the work lights designed specifically for photographic work
- Camera (digital or film). The camera must be manually operable. If you can't set the shutter speed and aperture manually, do not try to use it for this purpose.
 - If film camera: purchase 35mm slide film for indoor (tungsten balance)
 - If digital, set camera to indoor setting. This may be termed tungsten balance, incandescent, or indoor
- Camera lens should be normal or slightly telephoto in length. DO NOT use a wide angle lens, as it will distort your artwork.
- Tripod
- Cable release
- Tape measure
- Polarizing filters for lights and camera (if reflective surfaces involved)
- Kodak Color Separation guides and grayscale kit. You will shoot this with your artwork for color and tone reference.

Calumet Photo is a good supply house for the materials listed above. You can visit their website at www.calumetphotographic.com.

Follow These Steps to Shoot Your Artwork

(These instructions will help you shoot 2D artwork up to 32" wide. 3D and large-format guidelines follow.)

1. Choose a relatively dark area for your work so you can control the lighting. Mount your artwork to a vertical surface in a way that does not obscure any of the area to be reproduced. Place your Kodak color and gray strips near the artwork. (For example, if your artwork is a long horizontal rectangle, place the strips beneath the rectangle.)
2. Position your camera on its tripod at 90 degrees from the center of the artwork. Back up until the artwork (with color and gray strips) fills the frame with minimal extra area around the artwork. The camera lens must be pointed at the exact center of the artwork.
3. Position your lights following the geometry shown in Diagram A. If your work requires polarizing filters, put them in position now. Refer to Diagram B for the geometry that must be replicated to shoot your artwork properly. Position the lights and the camera at the same height, as shown in Diagram C.
4. With your camera on its tripod, focus the lens on the artwork. Check that the focus is sharp. Choose your exposure by setting the camera's aperture and shutter speed. To do so:
 - a. Place your Kodak gray card where the middle of your artwork will be. (You may remove the artwork to do so.)
 - b. Lock the focus of the camera, then remove the camera from its tripod and approach until the gray card fills the viewfinder. Be careful not to cast any shadow on the gray card. Using the camera's light meter, take a reading on *just* the gray card.
 - c. Set shutter speed and aperture. Start with your aperture (F stop) set to the middle of the camera's range. Adjust shutter speed to obtain your correct exposure. You will expose the film in "brackets"—aperture settings ranging from slightly darker to slightly lighter than the correct exposure indicated by your light meter. This assures you will have a range of images to choose from.
5. Put the camera back on the tripod. If you are using polarizing filters, check for proper alignment.
6. Shoot the artwork. Expose film at a range of five to seven brackets, working out from the exposure you metered in step 4-C. Use a cable release to control the shutter release so you do not move the camera as each exposure is recorded.
7. Take your film to a professional lab with quality control standards for processing.
8. View and critique your processed film. Use a loupe to check that the image is in sharp focus, specular highlights (white voids in the image) or other distortions are not a problem, and that your artwork's colors have reproduced to your satisfaction.

If your artwork is larger than 32" wide or is deeper than about 3", you will need a larger work area and more pairs of lights. Large paintings may be reproduced with the same steps described here, as long as the geometry in Diagram B is maintained. Add lights in pairs until your light meter tells you there is adequate light. You must use enough lights to achieve a blend at the central focal point, with no fall-off into shadow at the edges of the artwork.

If your artwork is three-dimensional, the reproduction process demands that it be translated onto a two-dimensional sheet of film. Most artists pose their work in front of a photographer's sweep to create a neutral space for the object to occupy. Lighting is used to create mood and reveal details about the work. This is a challenge best given to professional photographers. If you attempt it yourself, shoot and critique a "practice round" before you expect to capture the perfect image displaying your artwork.

Some Art Materials are Problematic

Artwork that is glossy, highly textured, multi-dimensional, metallic, or colored with fluorescing dyes (like some fabrics) can be difficult to reproduce. Use the procedures described here to minimize these problems.

Shiny and/or highly dimensional art materials require polarizing filters. Oil and acrylic paint surfaces often have a glossy surface. Thick application of paint results in a textured surface that increases the difficulty of reproduction. If you shoot reflective surfaces without a filter, the image will include specular highlights. A few of these can be pleasing, as they communicate the shiny nature of the object reproduced. But too many can be distracting and can even obscure the color and detail of the artwork. To eliminate specular highlights, use polarizing filters. Metallic objects are difficult to shoot even with the best equipment. This type of artwork should be photographed by professionals familiar with this medium.

Some fabrics require a digital camera. Most fabrics reproduce well, but two problems can occur. Colors that are “shimmery” are achieved with fluorescent dyes, which do not reproduce well. Digital cameras are better for this situation, as traditional film can’t respond to the range of colors produced by fluorescent dyes. Some textured weaves can introduce an undesirable pattern when reproduced in four-color printing, as the screen mesh of the fabric interacts with the graphic screens used in the printing process. There is little you can do to control this in shooting the artwork. If the woven texture of your work is a significant element that must be reproduced to show your artwork well, please point this out when you submit your slides.

Common Problems and How to Fix Them

- Dark Corners – Your lights are too close.
- Uneven illumination – Your artwork is skewed.
- Bad color – Incorrect combination of film and light bulbs.
 - Too blue? You used tungsten (indoor) film with daylight-balanced light bulbs.
 - Too yellow or orange? You used daylight film with tungsten light.
 - Too green or magenta? You encountered bad film processing.
- Too dark or too light? Your exposure is wrong. Change the shutter speed, but use the same aperture settings.
- Blurry image? Your lens was improperly focused, or your camera moved. Try focusing on a high-contrast image, like the Kodak color strip, rather than your artwork. Try using a cable shutter release.

Communication is Key

Reproducing artwork requires subjective judgments. Color, texture, line, and form are just some of the elements that interact to make your original creations the unique works they are. In the reproduction process, we must sometimes make trade-offs to achieve the best possible quality. A photo of a sculpture might require compromising color in a shadowy area of the image in order to show the form of the sculpture to its best advantage.

The more you communicate about how you see your work, the closer we can come to matching your vision when we reproduce it. If other printers have reproduced the work you are submitting, please submit those reproductions to us. Have you printed promotional postcards or brochures? Has your work appeared in a magazine? Send these printed samples along. We can return them to you along with your artwork at the end of our process.

Following these instructions for shooting and submitting your artwork will help us reproduce your artwork accurately. Let’s work together to make your artwork’s appearance in THE GUILD publications a success.

DIAGRAM A: Placement for Steps 1 through 3. The position of the lights must be symmetrical. This positioning ensures the lights cast a smooth pool of light across the entire artwork surface, without fall-off toward the outside edges.

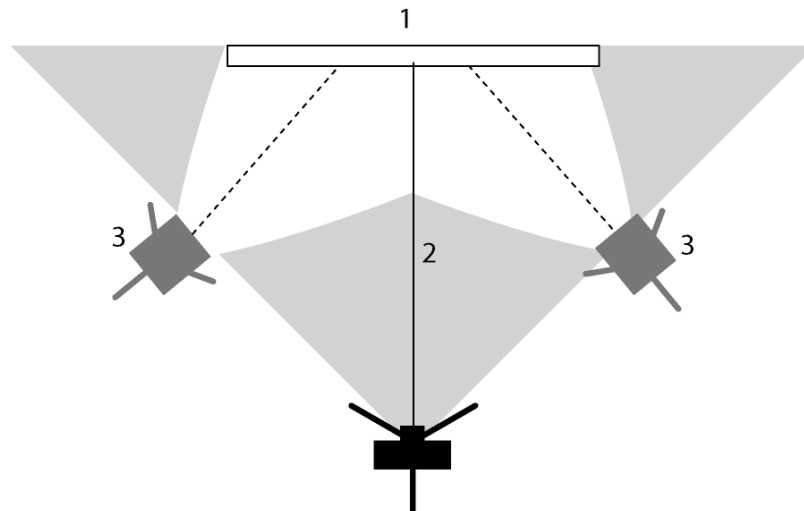


DIAGRAM B: Geometry for proper illumination of artwork. This geometry must be replicated exactly in shooting your work.

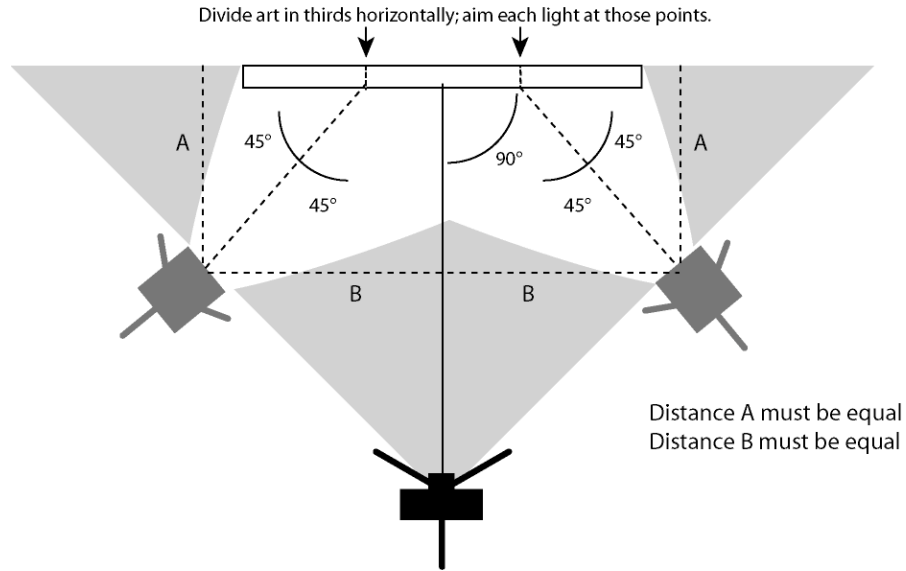


DIAGRAM C: Alignment of Lights and Camera Lens. Position the center of the lights and the center of the camera lens at precisely the same height.

