



Introduction

*Alone at night with
Great diversity of light
I hunt and gather.*

The night is not just about darkness. It is about the great diversity of light that exists from dusk to dawn. It is about the interplay between light and shadow. The night is about hopes and dreams, as well as fears and regrets. It is a time to reflect

on the past and ponder the future. Public places become private, the unfamiliar becomes intimate, and the subtle turns dramatic. Details fade, colors are muted, and form is defined simply by the space that surrounds it.

There is more to night photography than meets the eye. The process of developing a sense of photographic night vision is

full of technical and artistic challenges. Long exposures are utilized to create an expanded moment which is seen as a single image. In some instances the unseen becomes seen, and the seen unseen. As a result, nighttime images can be mysterious, intriguing, and evocative.

– Dana Foy

The Craft

The main goal is to become so familiar with your tools that they become an inherent part of your process. This frees you to create images based on your initial response to the subject. The freer your response, the less self-conscious your images. They become a pure reflection of how a scene impacts you personally.

EQUIPMENT

Night photography is not a point and shoot activity. You must be able to control the camera's shutter speed and aperture setting. It is important to make sure you have the right equipment:

- Camera & Lens
- Film
- Sturdy Tripod
- Cable Release
- Flashlight
- Watch
- Light Meter
- Dark Card
- Flash or Lantern
- Lens Tissue
- Cold or Wet Weather Gear

Keep it simple. I use a manual camera and one zoom lens. I use one film, Kodak TMAX 3200, simply because I know how it sees. I keep a flash or lantern handy for fill lighting. Be careful about setting your equipment down and walking away. You may forget to pick it up simply because you cannot see it.



Lighthouse Study # 13

© Dana Foy
f/8 @ 8 sec.

RECIPROCITY FAILURE

The main obstacle to photographing at night is reciprocity failure. Most film is standardized for exposures between 1/1000 and 1 second. Exposure times in this range are reciprocal. A shutter speed of 1/30 second exposes film twice as much as a shutter speed of 1/60 second. As exposure times increase greater than 1 second, the ability of film to capture an image diminishes; reciprocity failure

occurs. As a result, a 60 second exposure does not expose film twice as much as a 30 second exposure.

FILM FACTORS

Reciprocity failure makes it difficult to get exact exposure settings for long exposures. Film manufacturers include film factors with their film, which are general guidelines for increasing shutter speeds for exposures greater than 1 second. This requires the photographer to take exact light meter readings and then apply the film factor to the desired exposure. This creates a problem.

LIGHT METERING

Light meters are generally not sensitive enough to take readings at night, especially in very dark environments. It is also difficult to get accurate light meter readings when light sources are a part of the scene. Direct lighting from light sources will dominate meter readings. The meter will give a reading which renders light sources as middle gray. As a result, the final image will be underexposed.

BRACKETING

The most practical way to compensate for reciprocity failure is to *bracket*. The basic technique is to make a first exposure known as the *starting point* exposure. Then make subsequent exposures by pro-

gressively increasing the exposure time.

The first step is to set your aperture based on the ASA of your film from the following formula:

f-stop = Square Root (ASA x 0.08) which yields:

ASA 50	f/2
ASA 100	f/2.8
ASA 200	f/4
ASA 400	f/5.6
ASA 800	f/8
ASA 1600	f/11

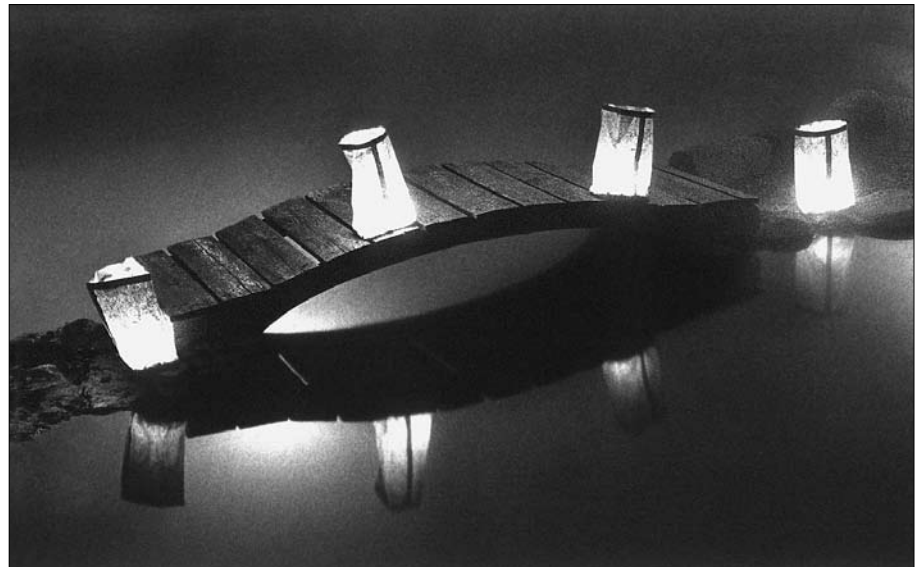
In general, these are good aperture settings for streaks of light created by star trails, fireworks, or moving car headlights. They will produce good streak width in the image. Keep in mind that star trails are best captured on moonless nights.

The second step is to decide on the starting point shutter speed based on lighting condition. Here are some suggested exposure times:

Neon Signs	1/60 sec
Brightly Lit Streets	1/30 sec
Home Interiors (bright lights)	1/15 sec
Home Interiors (average lights)	1/4 sec
Floodlit Buildings & Monuments	1/2 sec
Close-ups (with candle light)	1 sec
City Skylines	1 sec
Fireworks	1-4 secs
Landscape (nearby lighting)	30 secs
Moonlit Landscape (full moon)	1 min
Moonlit Landscape (half moon)	2 mins
Landscape (close to city lights)	10 mins
Landscape (total darkness)	30 mins
Star Trails	10-15 mins

The third step is to take your first exposure based on your starting point. Then make 3 to 5 subsequent exposures, each twice as long as the previous. Remember that the f-stop remains the same during all exposures.

Typically the first (starting point) exposure will be underexposed and a subsequent exposure will yield the correct exposure. With experience you will develop a set of starting points that work best for you.



Reflections

© Dana Foy
f/16 @ 30 sec.

A light meter can still be a useful tool at night, but it is a good idea to think of it as giving you a reasonable starting point, not an exact exposure. As you gain experience, you can change your aperture, especially if you want to increase depth of field or make use of longer exposure times. Just remember to compensate by changing your starting point shutter speed as well. Film is cheap, especially compared to travel costs. Don't get lazy! Take plenty of exposures. It is better to end up with too many exposures than not enough, or not the right ones.

DAYLIGHT FILMS & COLOR CORRECTION

Daylight color film is color balanced for daylight and strobes. Artificial lighting causes color shifts in daylight film. This can be adjusted by using color correction filters:

	Color	Correcting	Increase
Light	Cast	Filter	Sh. Speed
Tungsten	Orange	80A	2 stops
Fluorescent	Green	FL-D	1 stop

Unfortunately, there is not a 'one size fits all' filter that balances all artificial light. The rule of thumb is to use a color correction filter based on the lighting that dominates the scene. Most artificial light sources look similar to the eye. Photographing in an unfamiliar location makes it difficult to judge how to correct the lighting. This may yield unexpected results, especially if there is a mixture of lighting. The good news is that various color shifts in your film may produce a desirable result from an artistic standpoint.

Be aware that as exposure times increase, warm colors begin to saturate color film faster than cool colors. The effect is similar to shooting by tungsten light, but not as dramatic. Also remember that moonlight is reflected sunlight. If you apply an 80A correction filter for nearby tungsten lighting, anything lit by moonlight will turn out blue due to the color of the filter.

About the Author: Dana Foy

Dana Foy is an award-winning fine art photographer with 25 years experience. Since 1990, he has photographed exclusively at night and is self-taught in the art and craft of night photography. Dana teaches "The Art of Night Photography" at the University of New Mexico in

Albuquerque. He also gives workshops and lectures on the same subject. He has exhibited his work internationally in both solo and juried group shows. He is a member of the Texas Photographic Society and active in the Enchanted Lens Camera Club in Albuquerque, NM.



The Texas Photographic Society is a nonprofit organization of amateur and professional photographers whose purpose "is to support contemporary photography as a means for creative expression and cultural insight." With over 650 active members from 24 states, TPS focuses on the education and artistic develop-

ment of its members and the community by providing exhibitions, publications, education, and outreach programs.

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