

Available Light and Night Photography

in Color
and Black
& White

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Elevators in an Atlanta, Georgia hotel lobby

*Chinatown in Boston,
Massachusetts*

Using Window Light

Before getting into the details of creating images at night there is another aspect of photography where we may want to take pictures indoors without the use of direct sunlight or supplementary lighting such as flash or studio lighting. Window light can be a great tool to use for portraiture, which, if coupled with soft focus, can be very romantic for portraits of women if it is controlled by you, the maker. Unless there is a lot of naturally light-toned reflective surfaces in the room you are using, it is to your advantage to have available some type of reflector. You can use white cardboard or matte board, a white projection screen, a piece of white material or a small white umbrella. For a warmer tone you can use a gold color for your reflective material. Using a reflector allows you to soften the shadows so that your photograph will maintain the delicacy of the soft light. Try to have a catch light in the eyes, if at all possible, as it adds life and sparkle to your portraits. If your end result is to be a print, the catch light in the eyes can be added later in retouching by using material such as white correction fluid.

Availing Yourself of Available Light

Just what is available light? Loosely, we can refer to it as being a form of light source that is not direct sunlight, but that may contain illumination with the sun as its source of light, such as light filtering in through a window. It can be an incandescent light, halogen light, mercury vapor, fluorescent, spotlight, arc light or any of more than a dozen other types of artificial light. The use and control of this light is what makes your job as photographer a challenge to your creativity.

Exposure control is of utmost importance. Too much and the final image could have been taken in daylight. Not enough and it all becomes dark and murky with ill-defined shapes. The basic rule is that when using slide film, you should expose for the highlights and let the shadows fall as they may. When you use print film you should expose for the shadow areas where you require some detail and then let the highlights be taken care of when your prints are made.

Knowing how to use your camera proficiently is greatly pronounced when it comes to available light photography. If you are using your camera under full manual control, at times you will find yourself not knowing what aperture and shutter speed are set on your

camera. Know which way to turn your aperture control and shutter speed dial to increase or decrease exposure and practice this until you know it by heart and can set your lens and shutter accurately without looking at your camera. When you purchase a new lens for your camera, it helps to be sure that the direction in which you turn the aperture and focus mechanisms work the same as your other lenses.

What film should you use? Instead, let me ask what film do you want to use? Any film can be used for night pictures, but much will depend on what you want for a final image, and the final quality will be totally dependent on your choice. I personally prefer to use slower speed film and many times will use a film with a speed of 100 ISO or slower. This gives me the opportunity to get extremely fine detail in my images with good contrast.

You should use lenses that have an aperture of at least f/2.8, or faster, for any degree of success with night photography if you want to work without the benefit of a tripod. You will find that there are times when a tripod cannot be used so you should be prepared to work without one by taking advantage of other artifacts that can be used as substitutes. Many



of my most successful images at night were taken without the use of a tripod and by using medium speed film.

If you have a camera that provides for active multi-segment matrix metering, you will be ahead of the game in your exposure control. The computer chips that drive these cameras offer incredibly accurate interpretation of the scene by the camera and you will find that they

Victoria Harbour – illumination of Parliament buildings and the waterfront in Victoria, BC - Canada

Light Vibrations – moving the camera in an arc while photographing red neon tubes at night using a slow shutter speed hand-held.





Arcade X 4 – multiple exposure of a sign photographed 4 times on a single frame of film

will give highly accurate exposures. As a test I set off one evening to take random night images in Boston having loaded a roll of 100 ISO slide film into my camera. Every one of the single shots that I made demonstrated that the camera was able to read the night scene perfectly and gave me an image that had excellent exposure. When I put the camera on auto-bracketing mode (plus and minus at 1 stop intervals for 5 shots) I found that it was the middle exposure that was judged the best image. All the other shots were still good and were within the tolerances of exposure latitude in that slide film.

Starting Points For Exposure

Now let us look at some basic night exposures. The list that follows is based on information

Typical Scene Photographed	ISO 64-100	ISO 400
Full moon on a clear night	f/8-11@1/125	f/11@1/500
Half or quarter moon on a clear night	f/5.6@1/125	f/8@1/500
Floodlit buildings/fountains using tripod	f/4@1/sec	f/2@1/15
Theater/concerts average lighting	f/2@1/30	f/2.8@1/60
Theater/concerts bright such as spotlights	f/2.8@1/60	f/4@1/125
Circus & Ice Shows/arlights – very bright	f/2.8@1/60	f/2.8@1/250
Circus & Ice Shows/floodlights – average light	f/2@1/30	f/2.8@1/60
Night football, soccer, baseball games/racing	f/2@1/60	f/2.8@1/250
Basketball games and bowling with TV lighting	f/2@1/30	f/2.8-4@1/60
Outdoor Fair or carnival at night	f/2@1/15	f/2@1/60
Amusement park patterns (time exposures)	f/16@4/sec	f/16@1/sec
Bright theater district (wet surfaces are great)	f/2.8@1/30	f/4@1/60
Bright street lighting (wet surfaces are great)	f/2@1/30	f/2.8@1/60
Interior of shopping mall or store	f/2.8@1/30	f/4@1/60
Signs/Neon etc. (multi-exposures add interest)	f/4@1/30	f/4@1/125
House of worship interior shots	f/5.6@1/sec	f/2@1/30
Window light portraits using north light	f/5.6-8@1/30	f/5.6-8@1/125
Traffic light patterns	f/16@20/sec	f/22@10/sec

that had been supplied by several film manufacturers (Kodak, Fuji, Agfa) and revised based on my personal tests. Always regard such data as a starting point for your own photography and make sure you test these exposures with your equipment prior to photographing those once in a lifetime images, which cannot be retaken. The base exposures are for film speeds of ISO 64-100 and 400. You can relate to other films by the use of intermediate lens openings, etc. The table gives you the type of scene followed by suggested settings for the two film speeds.

A good rule to follow is - if in doubt - BRACKET YOUR SHOTS. Take one shot at the basic exposure, and then a second shot would be taken with the lens open one more stop and a third with one less stop. If you want to be super safe then do a fourth shot at two stops more and a fifth at two stops less and you should find the perfect shot somewhere within the five shots you have taken.

Many of the modern SLRs, with built-in flash, and many of the point and shoot cameras have a special setting to allow you to get interesting flash shots at night. These cameras are programmed to analyze the background lighting, such as Times Square in New York or at theme parks such as Disneyland, or a carnival. They will then adjust the shutter speed to record some of that background so that the flash will record the foreground and the background will have enough exposure to be included in the scene. A cautionary note is in order. If you are using an external meter such as the Gossen, which can read the light of the moon, then remember that they are designed to analyze the scene to give you an exposure based on a neutral gray card. A friend went to a famous farm in Vermont to record it by moonlight after a fresh fallen snow. He used Tri-X in his camera, set the aperture at f/4, and proceeded to take a 2-hour exposure of the scene. He was amazed to find that the resulting picture was as though it had been taken in broad daylight when the sun was out, but did not have any strong shadows due to the movement of the moon in the night sky. Fortunately, the programs in our modern, active matrix metering, cameras will eliminate this situation and I have found them to be highly reliable for night photography.

Type of Equipment to Use

Ideally you should have lenses of at least f/2.0 if you want to include people in

your night images so that you can use a shutter speed of at least 1/60 to help stop action. The faster lenses are also good when you use finer grained film. The majority of my night photography is based on film that has an ISO between 64 and 100, which allows for great magnification. Of course, an f/1.4 lens will give you a greater margin to work in, but some f/1.4 lenses are not very good for the night photographer due to optical problems in the design. The faster f/1.0 or f/1.1 lenses have a narrow depth of field when used wide open and are therefore better suited to photojournalism under poor lighting conditions, rather than using them for competition-type night photography. Some of the higher quality zoom lenses have apertures of f/2.8, which can be used for night imaging. Be sure that if you use lenses other than those made by your camera maker, they all focus in the same direction. Also, have the aperture setting operate in the same way so as to avoid confusion in darkness. Always carry a penlight with you, a high quality table tripod with ball and socket head, a quality cable release and a lens hood for each of the lenses you use. If you want to use a standard size tripod for your night images, my best advice is to be sure that it is sturdy and that it is not one of the lightweight versions that seem to be very popular these days. It never hurts to carry a small notepad so that you can record relevant information about exposure for comparison when your images are returned from the processing lab. And, for emergency photographic situations, a small beanbag can give you some very solid support for your camera. Always carry one with you in your car and it will prove useful at one time or another.

Special Effects

If you do not own a camera with a built-in flash that has the night photography setting you can still achieve some interesting images with a separate flash unit. Your best bet is to use a low power unit with automatic flash control. Base your exposure on the background, using the aperture that the flash will use for the flash shot. For example: Your flash is set for f/4 and the background requires an exposure of 1/30 @ f/2. This will translate into 1/8 @ f/4. Set the shutter speed at 1/8, the lens at f/4 and, with the flash ready, shoot your shot holding the camera steady as possible. The results can be most rewarding.

You can also do time exposures to record the movement of traffic. The longer the exposure, the more interesting these images can be, but you then have to bracket by full

stops due to reciprocity failure of film when it is exposed longer than normal. Try tripod shots of the moving ferris wheel at a carnival and other moving rides. The results can be spectacular. Zooming a lens during a time exposure can give you some very interesting images and there is a real difference in the final image between zooming in and zooming out during the exposure. I have even had fun by placing the camera on the dashboard of the car setting it to a 30-second time exposure as I moved through a traffic tunnel at night or traveled down a brightly lit city street. Another feature of night photography is that you can use the dark background to good advantage with multiple exposures without having to change your aperture or shutter speed.

In Closing

Unless you are in a public place, you do not necessarily have the right to take photographs. If in doubt - ask! A mall, store, theater, concert hall, etc., are private property and you must respect the owners' rules. Most theaters and concert halls restrict the use of cameras, but you might be able to get shots during rehearsals with permission from the management. Shopping malls are private areas and they can prevent you from taking pictures. Even outdoor areas such as Central Park in New York or the Faneuil Hall Marketplace in Boston are restricted and will not allow the use of tripods due to the hazards they present to the walking public. Respect the rights of others and, if asked, don't take the picture. The real secret is to go out, have lots of fun, and create some great images at night. 📷



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[Photos © Robert Gorrill, APSA]

Trafalgar Fountain – the fountains of Trafalgar Square in London, England with the National Gallery in the background.

