



# SOLARIS

FILM PHOTOGRAPHY POCKET GUIDE

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# INTRODUCTION

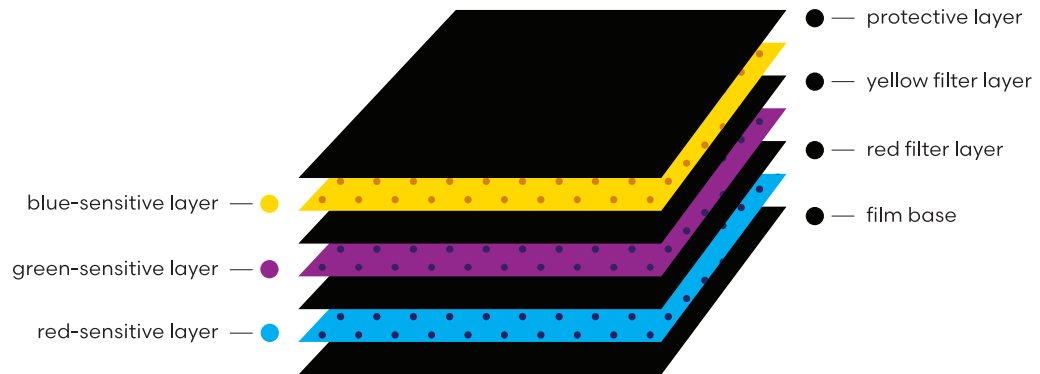
This book is a concise, practical guide for anyone with or interested in getting a film camera that wants to learn more about the process. The contents concentrate on knowledge and tips on how a film camera works. Use this book as a “pocket wisdom”—less biased than an instruction manual, a source of teaching and reference.

All cameras have certain basic features. These include the lens, film, Viewfinder, shutter and aperture. During film photography, a roll of light-sensitive film is placed within the camera. When the shutter of the camera is open, the film is exposed to light and an impression is captured. Light from an object, or subject, passes into the camera through one or more lenses. The lenses focus the light onto film stored in the camera. The chemically coated film reacts to the light and records an image, or picture, of the object. Photographers then remove the film from the camera.

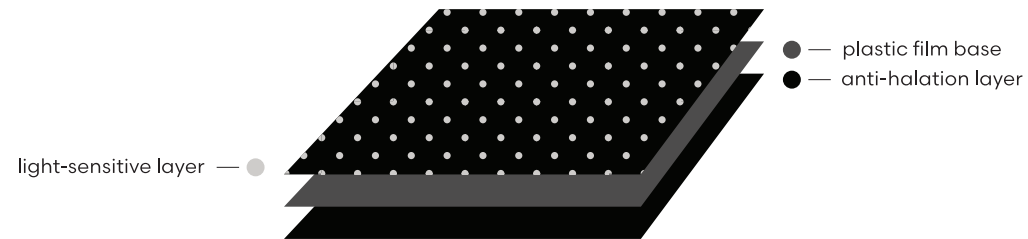
## ABOUT SOLARIS

Solaris is a film company from Phoenix, Arizona that is designed and manufactured in the USA. Our company takes the feeling of film from the 70s and 80s and updates it to a modern and user-friendly design. We focus on usability and accessibility when it comes to teaching about and providing new users with film.

## C-41/COLOR FILM



## BLACK & WHITE FILM



# FILM LAYERS

The f-stop number, or f-number, is the setting that controls the size of the aperture and therefore how much light can pass through the camera lens. F-numbers are determined by the ratio of the diameter of the aperture to the focal length of a lens. A small aperture has a higher f-stop, whereas a large aperture has a small f-stop number. Smaller apertures let in less light, so naturally, larger apertures let in more light.

Aperture adjustments affect the depth of field for your photos—the range between the nearest and farthest objects in focus within a picture. Shallow depth of field, which blurs the background to help pop the in-focus subject of the photo, is achieved with a wide aperture. This effect is known as bokeh. A smaller aperture will give you a larger depth of field, which allows you to keep a larger amount of the frame in focus—ideal for group shots or scenic landscapes, compared to the shallow depth of field photos great for portraits or food photography.



The higher the F-number the smaller the hole created by the aperture blades gets. Allowing less light in but making for a greater depth of field.

# APERTURE

Shutter speed is the speed at which the shutter of the camera opens and closes. A fast shutter speed creates a shorter exposure, the amount of light the camera takes in, and a slow shutter speed gives the photographer a longer exposure. When adjusting shutter speed, consider light and motion. If you leave the shutter open a longer amount of time to capture more light, motion will affect the photo, maybe in ways you don't like. A slow shutter speed can help you illuminate a darker scene, as it brings more light through the lens. But with a faster shutter speed, the lens is open for a shorter length of time, so less light enters the lens. That makes low light a challenge and demonstrates the importance of a well-lit scene. Be mindful of this as you shoot or you could end up with very dark photos that miss what you want to capture.



The slower the shutter speed the harder it is to keep an object from getting motion blur, unless a tripod is used.

# SHUTTER SPEED

The ISO or ASA is a rating of film's sensitivity to light. The higher the number for the ISO the more sensitive it is to light, making for faster speeds. As compared to films that are of lower speeds. The higher the ISO the less light that you need to properly expose your film. It is always good practice to choose film with an ISO rating that is appropriate for the lighting conditions. Since ISO is one of the most important factors in getting a proper exposure, always be sure that the ISO is set correctly on the camera in correspondence with the ISO of the film that you will be using.



The higher the ISO or ASA a film is, the larger the grain will be on the final image.

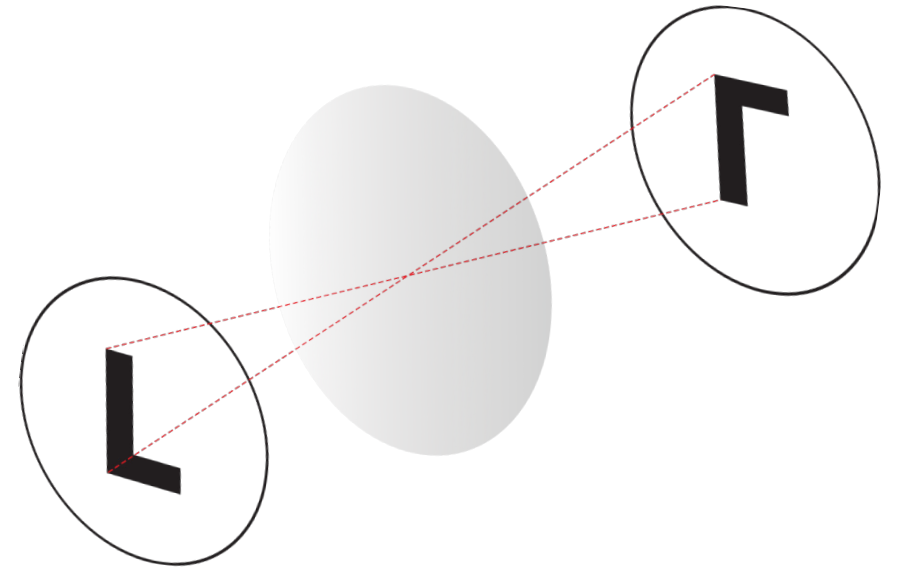
# ISO/ASA

A camera without a lens is useless to a photographer. The lens is what focuses light from what you see through the viewfinder into a spot on the back of your film.

**There are two basic categories of camera lenses:**

- 1.** Prime lenses. Primes have a fixed lens focal length, making them faster and sharper. While prime lenses are less flexible due to the fixed focal length, they are also fast and lightweight, making them easy to travel with.
- 2.** Zoom lenses. Zooms use a series of lenses to allow different focal lengths from a single lens, making them more flexible but not as fast. They contain more glass, which aids in their flexibility, but they also tend to be bigger and heavier than prime lenses.

# CAMERA LENS



The lens forms an image, like a magnifying glass, projects a tiny picture of a scene onto the film. All of the images are formed upside down.



## 135/35mm

35mm film, officially known as 135 film, is probably the most common film format to this day. This format is probably the easiest way to get started in film photography. It comes in 24 and 36 exposure rolls, the latter being the most economical and popular. There is also a wide range of emulsions available to you. You can even get black-and-white film that can be processed in color chemistry.

## 120/MEDIUM FORMAT

Medium format film is the next step up from 35mm. This format is commonly referred to as 120 film. Different medium format cameras shoot variations of this. The film is 6 centimeters wide and comes in 6×4.5, 6×6, 6×7, and panoramic 6×13. Whereas 35mm film comes in a convenient cartridge that's pretty easy to load into your camera, 120 film comes on a spool wrapped in a protective paper that takes a little learning to load, but once you have it down it's easy.

The number of frames you get on each roll is dictated by the size of the frame the camera was designed for. 6×4.5 will give you 16 frames, 120-12 frames, 6×7-10 frames, and 6×13 only 3 frames. The larger frame of the film results in less grain and more detail than a 35mm frame when enlarged.

# FILM SIZES

## 110

The 110 film width is 16 mm. The film is paper-backed; the paper being printed with frame numbers, visible through a small window in the cartridge's rear; a larger window in the film chamber door shows this frame number window plus a label on back of the cartridge giving film details.

The small negative size of 110 film is half the size of 135 (35mm) film and because it's small it can be difficult to enlarge and get high resolution scans and the film is often associated with prints and scans that are grainy and lacking sharpness. Providing a grainy film aesthetic that is continuing to grow in popularity.

# FILM SIZES

## DO

- Research to find out what camera or lens you may want.
- Take the time to think about each shot.
- Test your camera for light leaks or any issues before using.
- Read your cameras manual.
- Have fun.

## DON'T

- Open the camera back with unwound film in the back.
- Start with using expired film.
- Rush the process.
- Store film in a hot environment.
- Worry about making mistakes.

# DOS & DON'TS



[www.solarisfilm.com](http://www.solarisfilm.com)

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