Exposure and Metering

A reliable way to set the right exposure in daylight is called the **Sunny 16** rule : the exposure for a subject in bright sun is ƒ16 @ 1 / ISO, e.g. if using ISO 100 the exposure is 1/100th @ ƒ16 for subjects in direct sunlight. The rule relies on your ability to judge the brightness of the sun. For subjects in daylight the complete guidelines are:

Bright Sun	(strong shadows)	ƒ16
Hazy Sun	(soft, but distinct shadows)	ƒ11
Cloudy Bright	(Overcast, but can locate sun)	ƒ8
Overcast	(Overcast but cannot locate sun)	ƒ5.6
Dull	(Dark storm clouds)	ƒ4

You don't need a meter to take well-exposed images in daylight if you follow the Sunny 16 rule. Outdoor readings from your light meter should be very close to these exposures. If readings vary more than a stop, you should find out *why*. Your meter may be out of calibration or you may have the wrong ISO set.

Light Meters

The darkness of shadows is subjective and open to variations of personal interpretation. The light meter gives consistency. Proper exposure for indoor subjects and for subjects at night is best determined using a light meter. To get the most accurate readings from a meter, you need to know how much of your subject the meter sees, and how the meter interprets the light reading. How a meter "thinks" will determine how you use it.

Meters that read the light reflected from the subject see every subject as if it were gray. This simulates the typical "Average Subject." These reflected light readings are susceptible to subject failure. Light-toned subjects reflect more light than average and thus cause a higher reading than average and give an underexposed result. A dark-toned subject will cause readings that overexpose. If the subject is much lighter or darker than "average", then you must make a correction to the reading to get the proper exposure.

In-camera meters are the reflective type and can have a single sensor or be designed with multiple sensors. Camera meter sensors can vary from spot-sensitive to center-weighted to multi-pattern interpretive types. Meters that read through the camera lens (TTL) normally have the angle of view of the lens, but some can be changed to selective center-weighted or spot meters.

Hand-held meters could see as much as a 30-degree angle or as little as a 1° angle. The benefit of using a hand-held meter is its ability to take incident readings. Incident readings are made from the subject position back toward the camera and measure the level of the light falling on the subject. The domed receptor on incident meters is not susceptible to errors caused by subject reflectivity found with reflected light meters.

Modern hand-held meters can also measure flash and are accurate to within 1/10th stop.