

# ISO

ISO (International Standards Organization) refers to the organization that helped set a standard by which to rate photographic materials' sensitivity to light.

The ISO value refers to the sensitivity of a DSLR's sensor to light. It is measured by the ability to record shadow density at lower levels of exposure.

Faster ISO values (with larger numbers) record shadow density with less exposure than slow films, therefore they are more sensitive to light. However, the higher the ISO value, the greater the amount of noise (grittiness) and that results in a loss of sharpness

Slower ISO values (with smaller numbers) require more exposure in the same scene to render shadow detail, therefore being less sensitive to light. However, the lower the ISO value, the greater the amount of detail is rendered and that results in a sharper image.

On most DSLRs, ISO values are valued in thirds of a step, meaning that each time you change the number, the camera is being made 33% more or less sensitive to light. ISO values include:

L1 (100) L0.7 L0.3 **200** 250 320 **400** 500 640 **800** 1000 1250 **1600** 2000 2500 **3200** H0.3 H0.7 H1 (6400)

Each doubling of the ISO value indicates a doubling of the camera's sensitivity to light. For example, the same scene could be rendered with the same exact exposure density the following ways through changing ISO settings:

ISO	1200	400	800	1600	3200
Aperture	f8	f8	f8	f8	f8
Shutter Speed	30	60	125	250	500

The ISO value indicated by L (for Low) or H (for High) do not truly increase or decrease your camera's sensitivity to light. In the case of L1, the exposure is made at ISO 200 but then the image is corrected in-camera to compensate for the underexposure. Conversely, H1 is an image made at ISO 3200 and then corrected in-camera to compensate for the overexposure. Despite advances made in noise reduction processing and in-camera editing, images made at these ISO values will be less sharp; images made at the L values will have less detail in the shadows while image made at the H values will have less detail in the highlights. Use these ISO values sparingly.