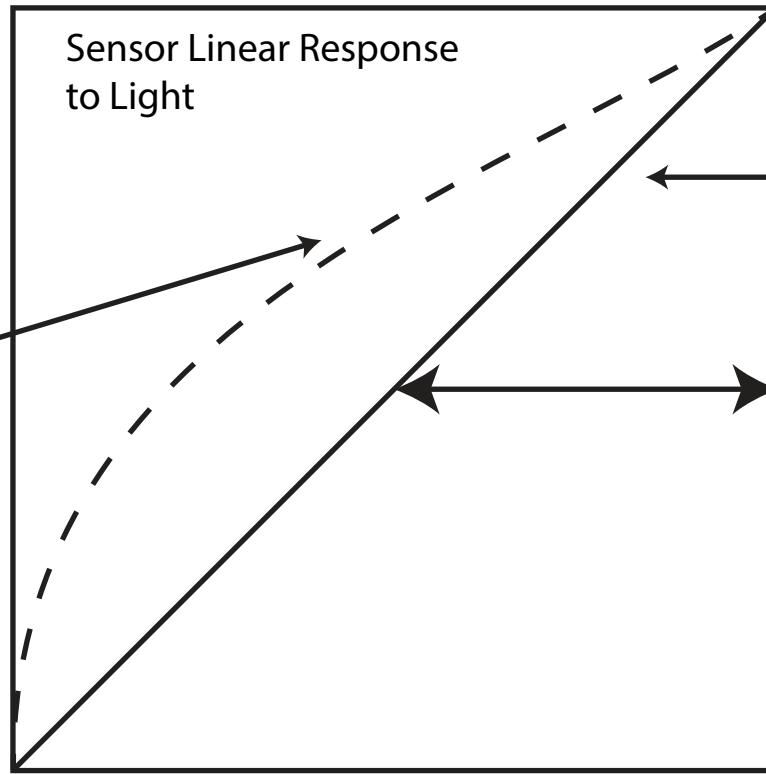


Immediately after sensor data is collected it is converted to digital information in process known as "analog to digital conversion."

This process also applies a Gamma (midtone contrast) adjustment to the sensor data to give it the level of brightness expected by human observers.



A sensor's response to light is linear. That is, like a straight line. The more light a sensor receives, the more information (tonal data) it generates.

Three-fourth of the sensor's information is collected from Midpoint to White Point. This is why some photographers "Push Highlights" to obtain the maximum amount of data.

Black Point      3/4 Tones      Midtones      1/4 Tones      White Point  
Shadows      Midpoint      Middle Gray (18% Reflected Light)      Highlights      Spectral Highlights

Dynamic Range of image

← →

Welcome to the dark side. A sensor is only 1/4 as capable of collecting data (tonal information) in this area because it is so dark!

Higher ISO settings reveal more digital noise in this area. The "signal to noise ratio" is low here.