

Highlight Weighted Metering

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Most cameras provide several variations on metering starting with a simple average of the luminance over the entire image. The next refinement is center weighted metering that gives more weight to the center of the image. Spot metering concentrates on a small area in the image and finally matrix metering (also known as Multi, evaluative, etc.) assigns weights to different areas in the image to calculate a weighted average luminance.

Highlight weighted metering (HWM) is available on newer Nikon, Sony, Pentax and Ricoh models but not on Fuji, Canon or Olympus. It is a variation on matrix metering where the highlights are given more weight regardless of their location in the image. The goal is to minimize or eliminate the overexposure (blowing out) of raw pixels. The result can be a darker image but, since HWM is intended to be used along with raw development on the computer, this is not a problem.

If the highlights are not bright enough to darken the image then the exposure will look like an exposure using matrix metering. The image will not be brighter.

HWM is not perfect. It still might allow raw highlights to blow out if they show up in very small parts of an otherwise much darker scene. An example of this would be a nighttime shot of the moon in a dark sky. The moon will get blown out. If you want the moon to look normal, you are better off manually setting the exposure to 1/ISO seconds at F/11 or equivalent (Loony eleven is a variation in Sunny 16).

It works better if the luminance of the brightest area (like a white bird in daylight) is just a few stops brighter than the rest of the image. But HWM can work in more extreme cases.



ISO 400

Specular highlights are reflection a light source like the sun or other bright light sources off of glass, metal, water, etc. They can also be the light source itself. HWM might ignore some of them and let some of those highlights blow out.



ISO 4000

Blown out highlights are not necessarily defects, any more than very dark shadows.

Light reflected from feathers is not specular unless they are very wet.



ISO 400

In most situations, HWM can be a better solution than ETTR (exposing to the right) since it is much easier to use. Since it reverts to matrix metering when ETTR is unnecessary, there will never be any bright images that need to be darkened. But there may be dark images that need to be lightened.

The photographer still needs to keep in mind that more exposure leads to less noise and lower ISO settings will help. One way to overcome the noise that will be inevitable with high ISO settings is to let the shadows remain dark and help frame the subjects that are lit.



ISO 4000

It also helps if you don't enlarge the image too much and invite pixel peeping.