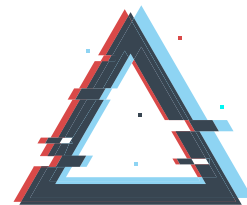


BRIGHTNESS BARS

created by Wolf Amri



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The SIZE of each of these 4 bars stands for the amount of brightness this component contributes to the image. The bigger the bar, the more brightness it contributes.

Scene Luminance

Aperture

Shutter Speed

ISO¹

well exposed

No matter how much each of the components contributes to image brightness, if all of them are well balanced, we get a **well exposed** image. So if one of the components contributes less brightness and another one compensates for that loss you can still get a well exposed image. Therefore you can get the same image brightness with a lot of different settings.

SUNNY

f/16

1/100sec

100

HAZY

f/11

1/100sec

100

OVERCAST

f/5.6

1/200sec

200

underexposed

If one component contributes **less** brightness and it is not fully compensated by the others, the image will be **too dark** - photographers call that **underexposed**.

NIGHT

f/11

1/100sec

100

overexposed

If one component contributes **more** brightness and is not fully compensated by the others, the image will be **too bright** - photographers call that **overexposed**.

CLOUDY

f/11

1/50sec

400

UNDEREXPOSED

WELL EXPOSED

OVEREXPOSED

1 **ISO is technically not a part of the exposure**, but it has the same influence on image brightness.

ISO is the gain that is applied by the camera's processor, after the image is taken. Similar to what is done when you brighten an image in your editing software.

EXPOSURE in photography is the amount of light captured by the camera sensor. That amount will directly influence the brightness of your image.

Exposure contains the word "expose". The camera is exposed to light. How much light it is exposed to, is determined by:

1. **luminance of the scene** (available light)
2. **aperture**
3. **shutter speed**

You can change the brightness of your image by:

1. **changing aperture** (like closing window blinds)
2. **changing shutter speed** (the duration that your sensor is exposed to the light)
3. **changing ISO** (amplifying the light)
4. theoretically you can also **change the luminance** of the scene
e.g. switch on lights, use flash or reflectors.