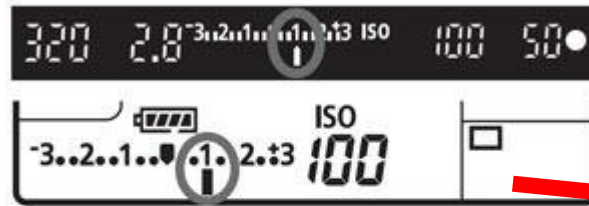




Increased exposure for a brighter image



Decreased exposure for a darker image







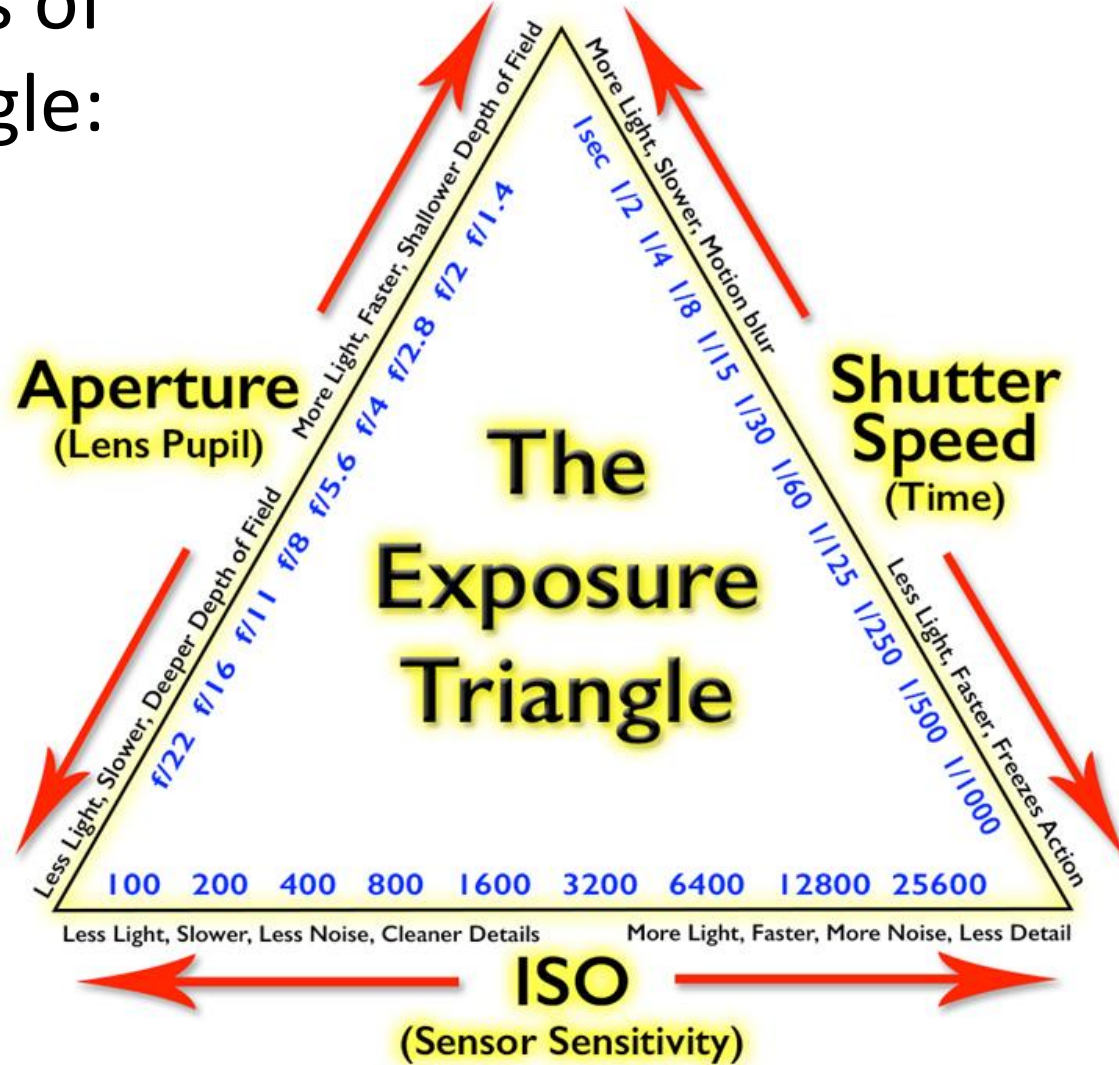
Exposure Control

Using light meter to control the amount of light allowed into camera

What will be introduced

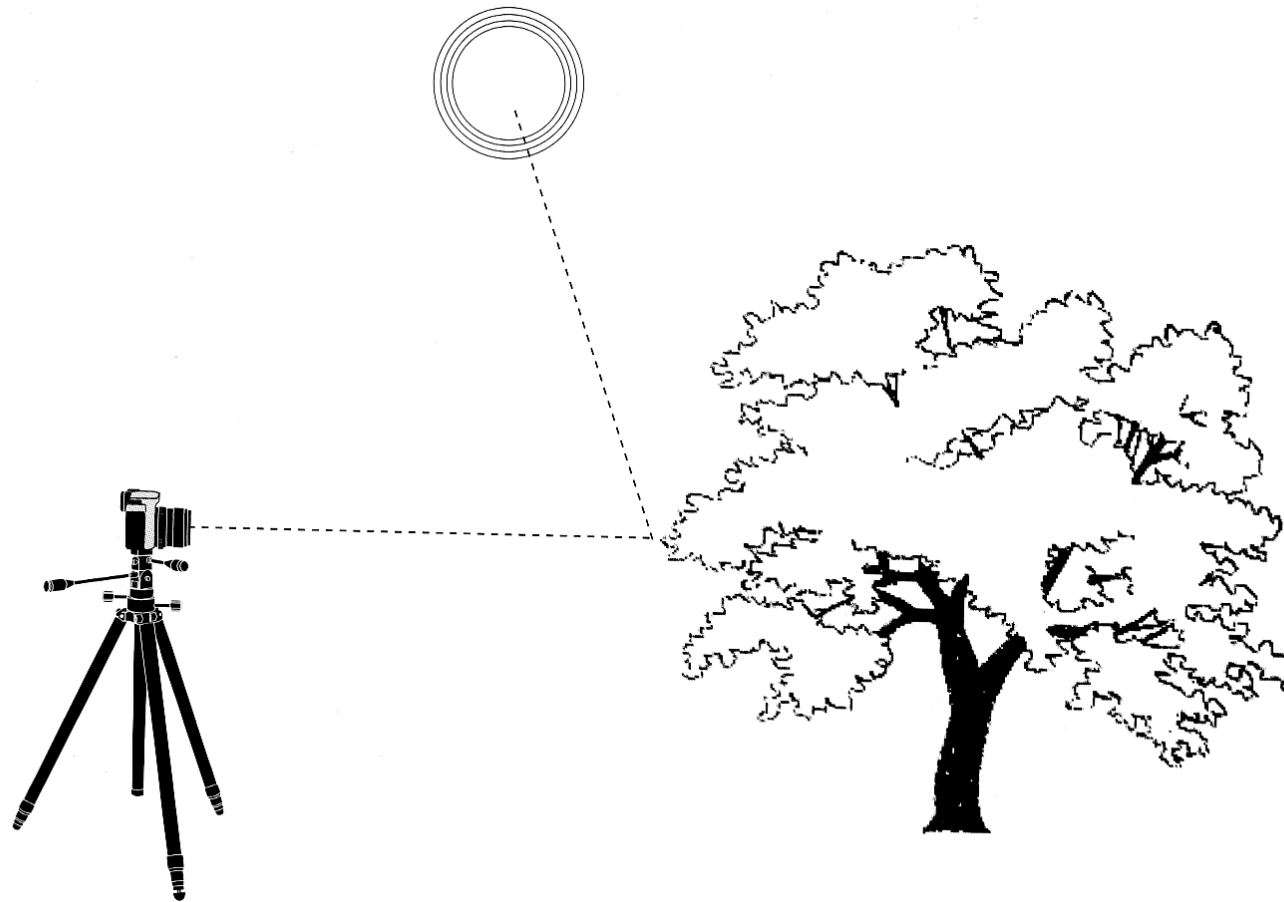
- Exposure Triangle
- Exposure defined
- Light meter function
- 18% gray
- Exposure Compensation
- Define Stop
- Bracketing
- Why are we doing this?

Three functions of Exposure Triangle: Aperture Shutter Speed



Photography – Greek

photo = light
graphy = writing



What is an exposure?

Exposure

- Combined effect of ***volume*** of light hitting the film or sensor and its ***duration***.
- ***Volume*** is controlled by the **aperture** (f-stop) using the size of the opening
- ***Duration*** (time) is controlled by the **shutter speed**

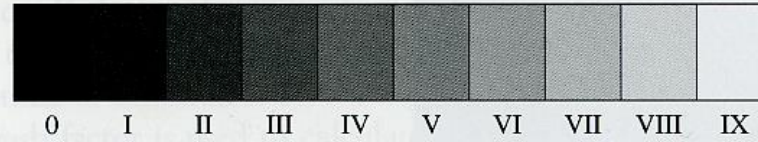




Light Meter

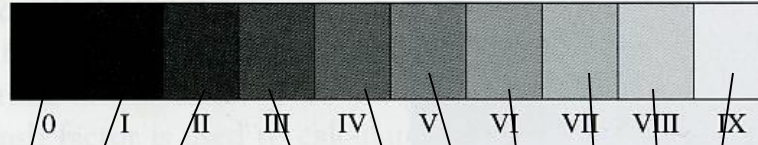
- Purpose = tells you **how much light** is being allowed into the camera based on the current **APERTURE**, **SHUTTER SPEED**, and **ISO settings**
- Averages all light in scene to **18% gray** which is ZONE V on Zone system scale
- Is correct most of the time

Zone Ruler



ZONE	DESCRIPTION
0	Maximum black
I	The first tone distinguishable from black with no detail
II	The first visible texture in a very dark area
III	Black with detail—a highly textured dark area with distinct detail; this zone is considered the shadow detail area for average value metering
IV	Dark gray
V	Middle gray, with 18 percent reflectance
VI	Light gray
VII	White with detail; the lightest area in the photograph that will have distinct texture or detail; this is the highlight area for the average value method
VIII	The brightest tone distinguishable from white
IX	Paper white

Zone Ruler

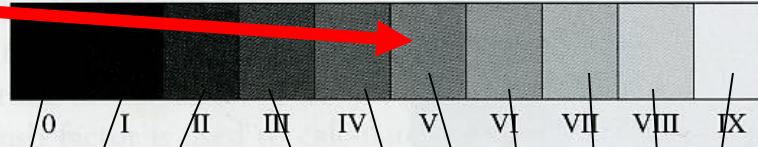


18% gray

- Tone to which all light meters average the light given off by the scene which is being photographed

Zone Ruler

18% gray



This is 18% gray.

This is 18% gray.

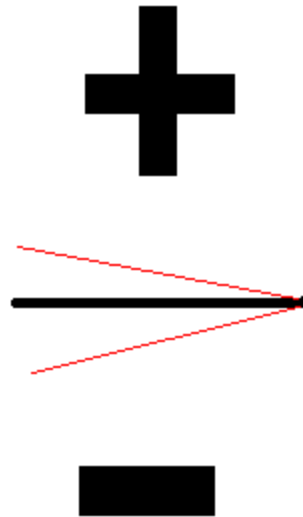
Bruce DeBonis
TravelThroughPictures.com

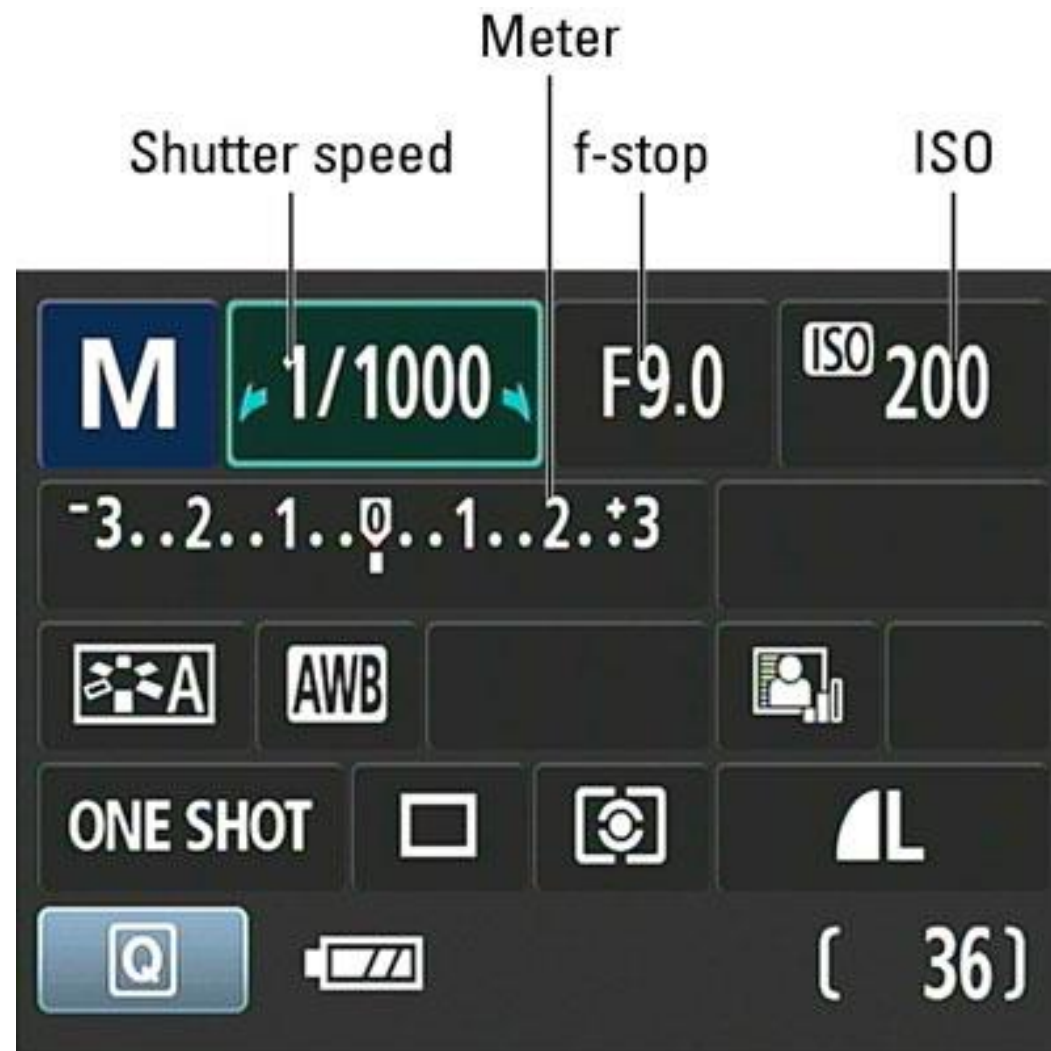


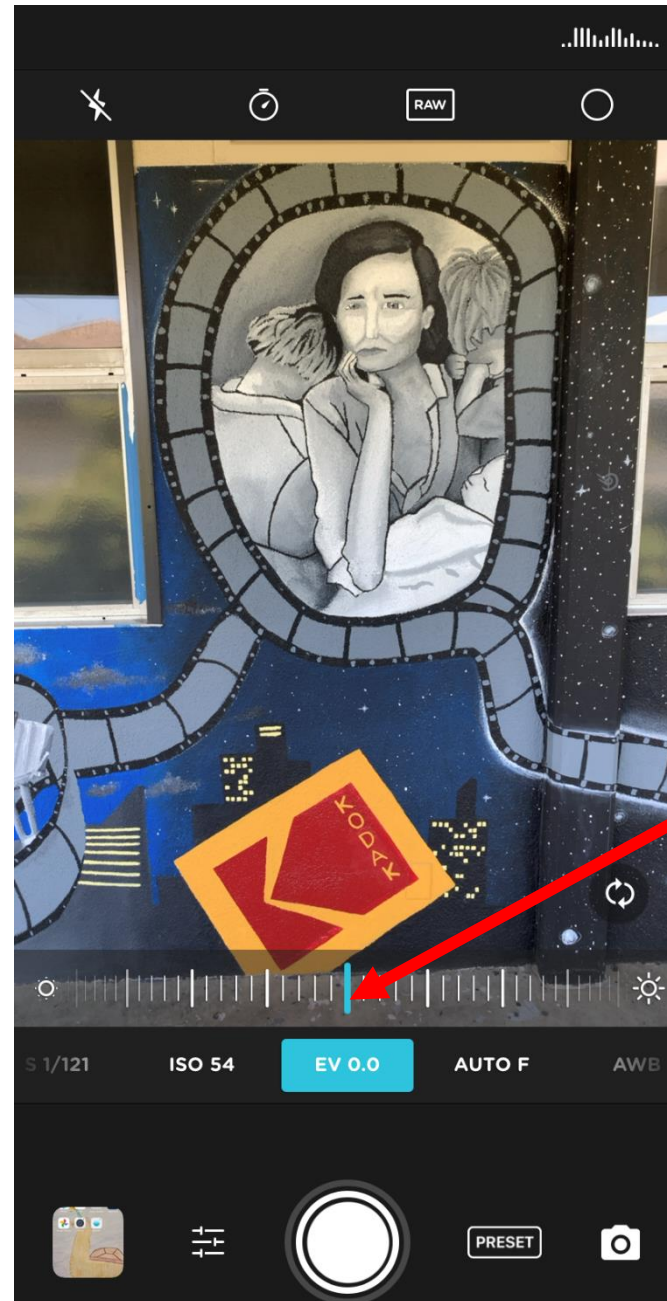
What Light Meters Look Like



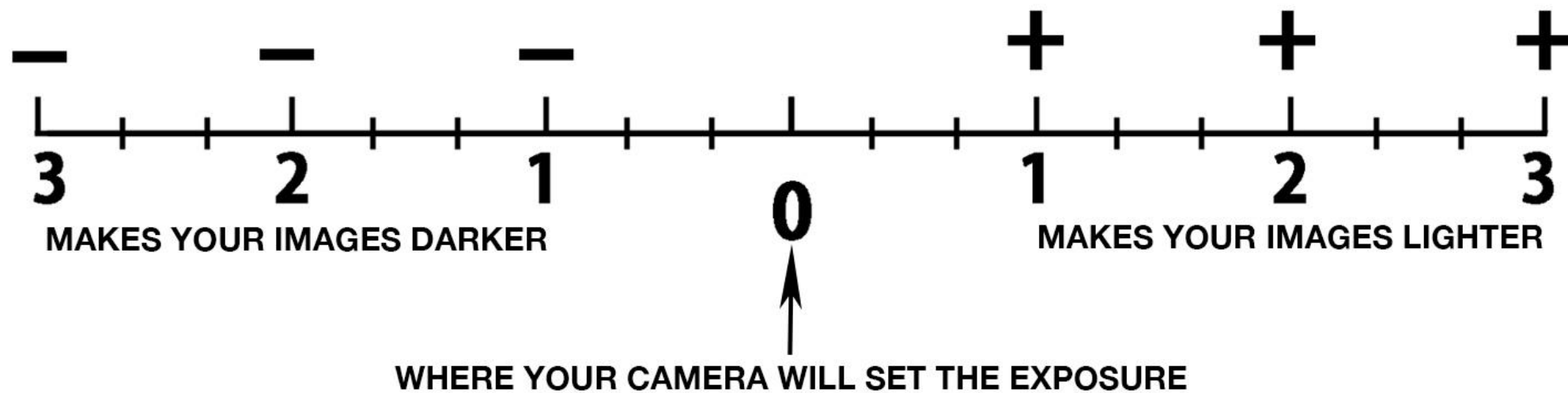
Needle light meter

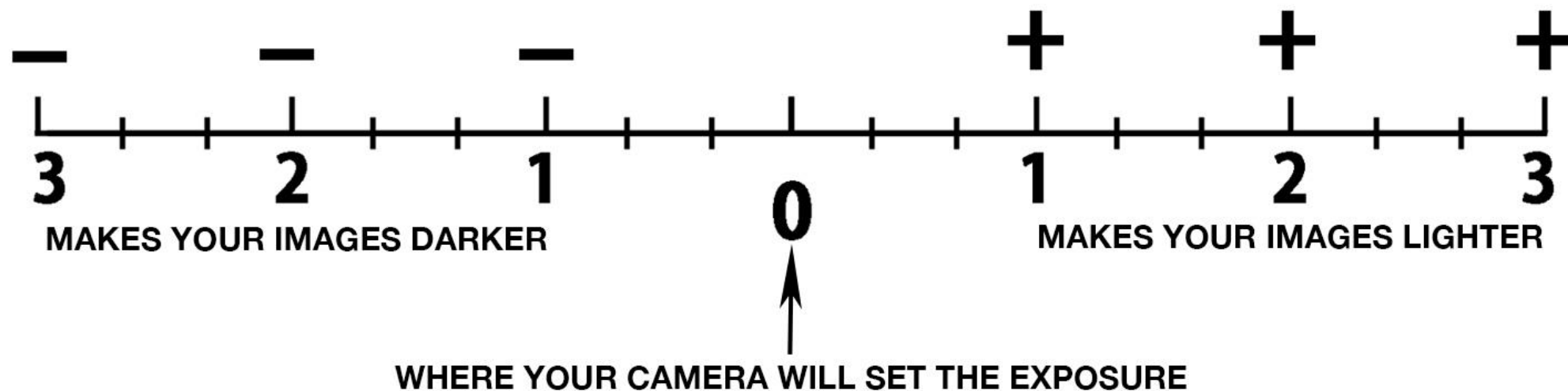






Light Meter on Moment app
EV stands for Exposure Value





Underexposure

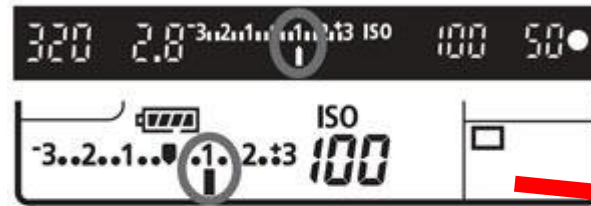
Overexposure

Why is learning about
exposure important?

To possess control of light as
it is expressed in your image



Increased exposure for a brighter image



Decreased exposure for a darker image



Exposure Compensation



Exposure Compensation

Technique for adjusting the exposure indicated by a photographic exposure meter, in consideration of factors that may cause the indicated exposure to result in a less-than-optimal image.



Exposure Compensation

Shot on auto meter



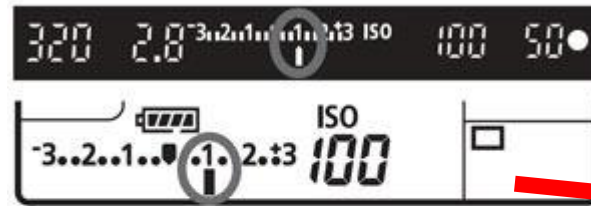
Shot to overexpose so that shadow detail is visible (more light is allowed into camera)





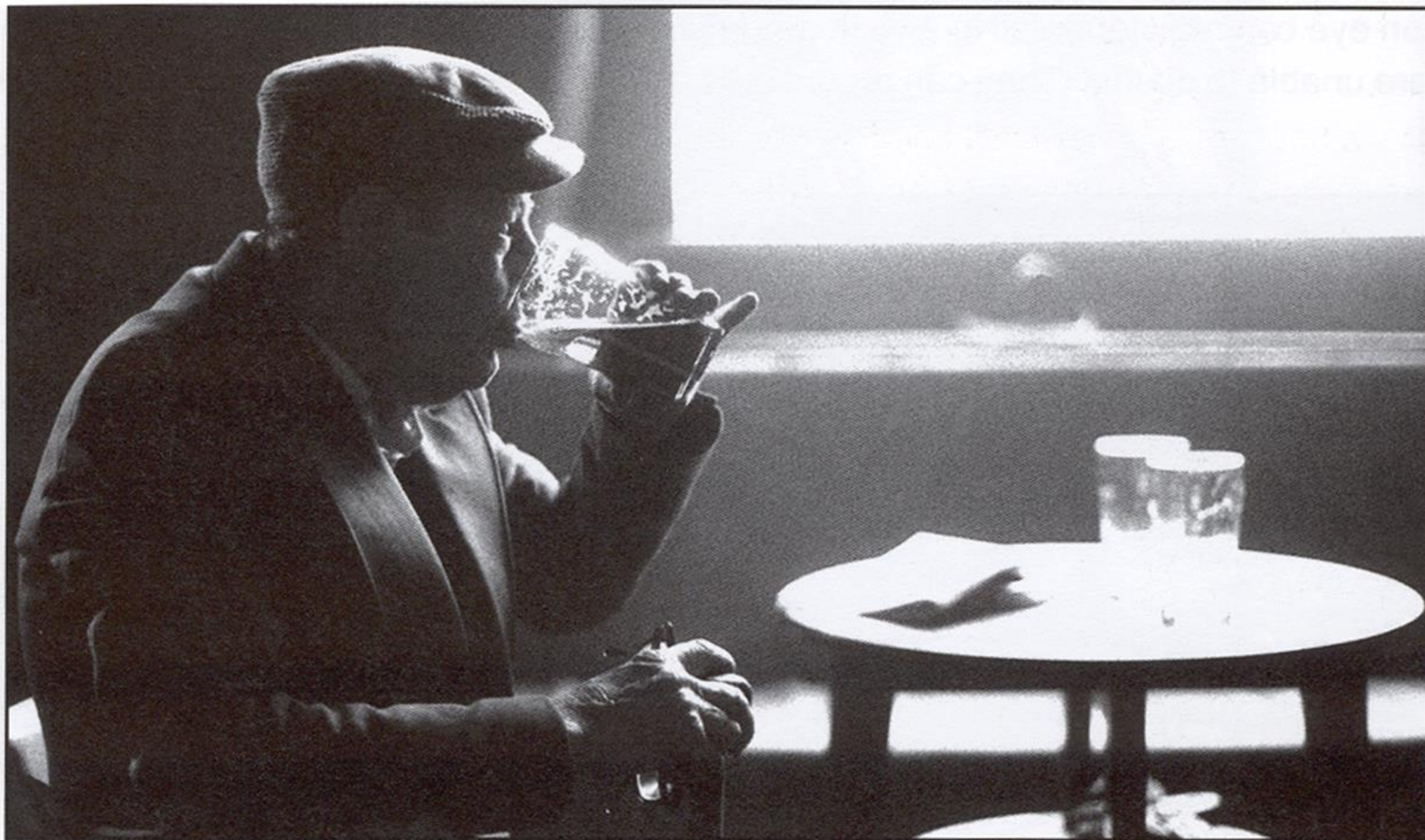


Increased exposure for a brighter image



Decreased exposure for a darker image





The Rhondda - Mark Galer

ONE-OF-A-KIND EXPERIENCES FOR YOUR NEXT ADVENTURE

California

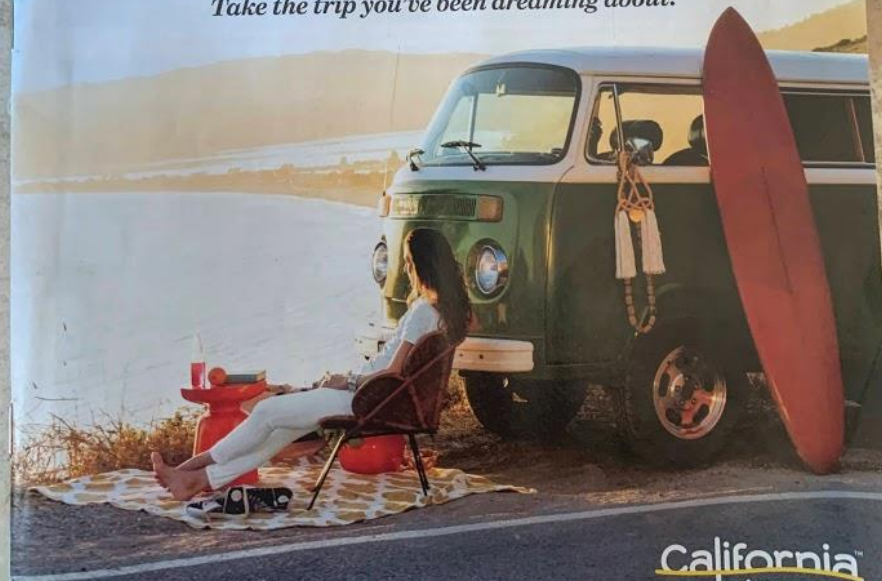
VISITCALIFORNIA.COM

ROAD TRIPS

11

UNFORGETTABLE DRIVES

*Take the wheel. Take control.
Take the trip you've been dreaming about.*



California
dream
big

Stinson Beach

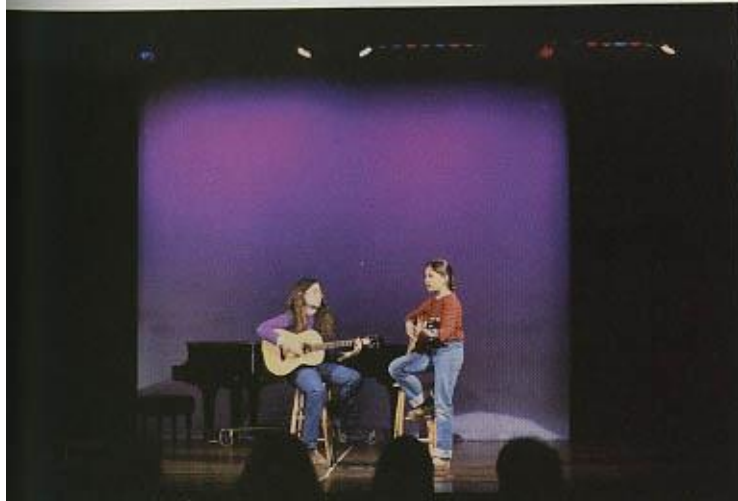


f/8 at 1/250

The problem here is the opposite of that caused by the sky in the first photo. The dark background so dominates the frame that the light meter measurement overexposes the figure (above, left). A close-up reading of the man's face gave correct exposure.



f/8 at 1/250





1/11 at 1/250

The bright sky occupying half the picture produced an initial reading that underexposed the sheep and the farm above, (left). Aiming the camera lower to exclude the sky gave a correct exposure for the main subjects (right).



1/8 at 1/250



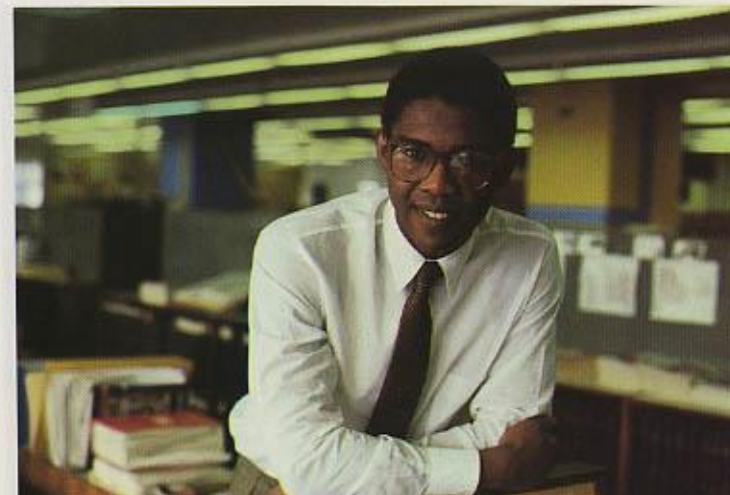
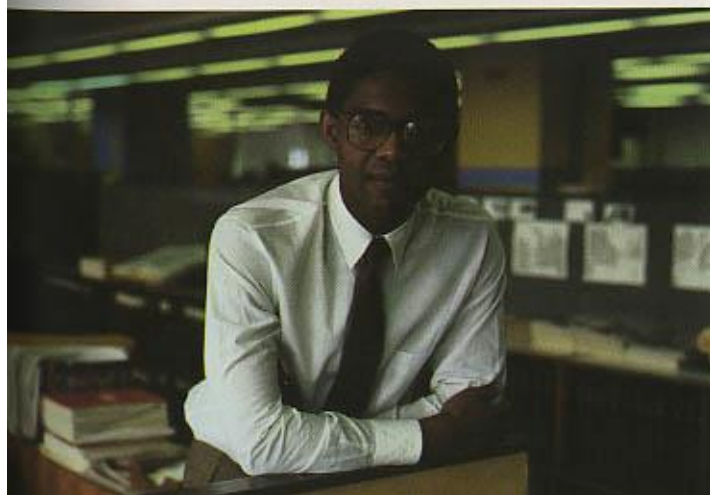


at 1/30 second

white subject reflected so much light that the meter
ally recommended an underexposure that dulled it to
y (above, left). A reading from an 18 per cent gray card
e an exposure that revealed true whites (right).



1/4 at 1/30 second







Tyler Chandler

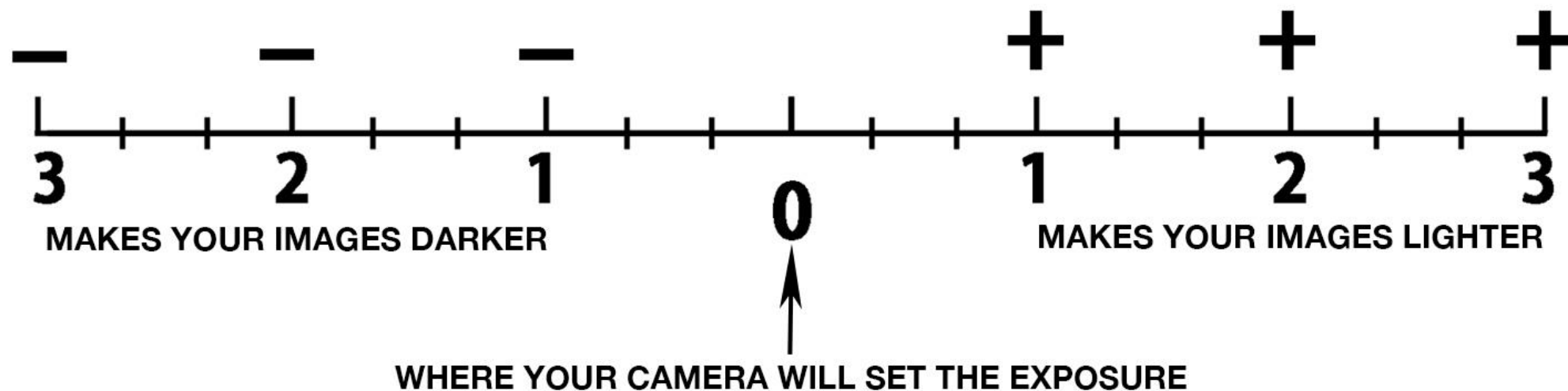


What is a Stop?

- A change in an exposure setting, either aperture, shutter speed, or ISO that either doubles or halves exposure

- $\times 2$

- or $\frac{1}{2}$



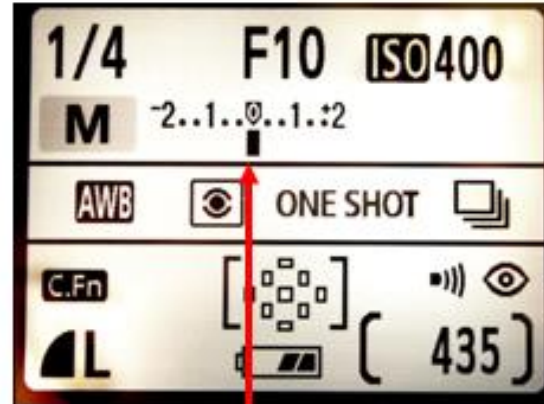
Underexposure

Overexposure

Bracketing



-1



+1



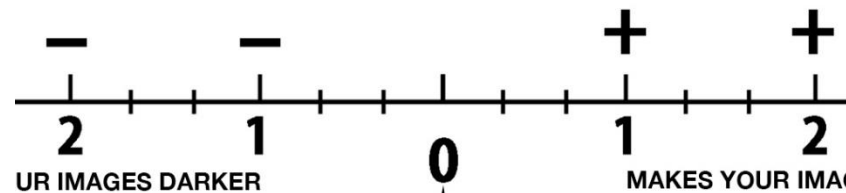
-2

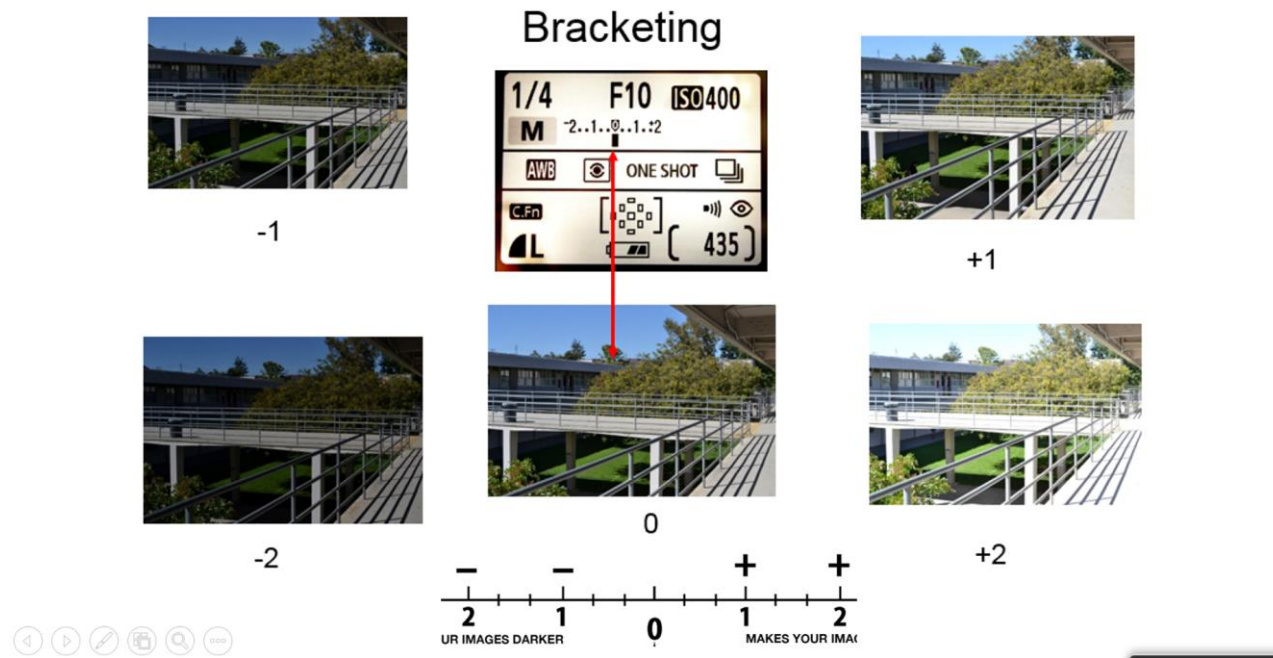


0



+2





Bracketing - Shooting the same scene at different stop settings to get different amounts of exposure



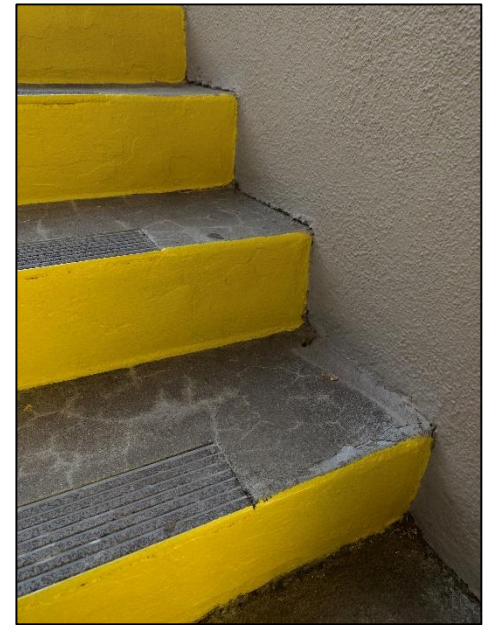
+2
Cannot
usually
go this far
with a
cellphone
camera due
to aperture
size limit



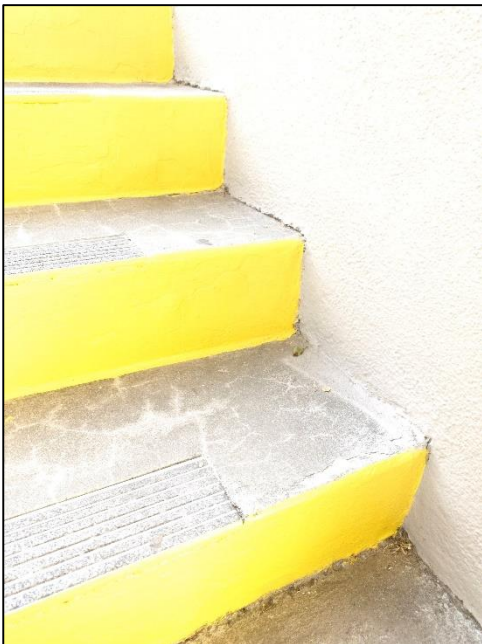
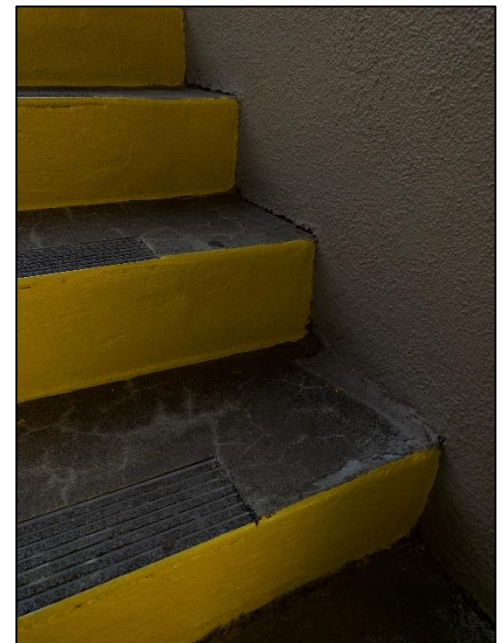
0

18% gray

-1



-2



+1

