EDITOR'S RETREAT 2017

HOW I STOPPED WORRYING AND LEARNED TO LOVE THE ISO

WHO AM I?

ROBBIE COBLENTZ

CEO
BROADCAST MEDIA GROUP

MANAGING PARTNER
TELLŌS CREATIVE

MANAGING PARTNER
COBLENTZ PROPERTIES

MARRIED (20+ YEARS)
2 BOYS (DAVID, MARK THE CHEF)

WHO AM I?

ROBBIE COBLENTZ

BONNIE, MARK, DAVID AND DAK

WHO AM I?

TONY CACCIARELLI

DIRECTOR OF TECHNICAL SALES
VITEC VIDEOCOM

PRODUCT MARKETING MANAGER
AJA

ASSIMILATOR
ASSIMILATE INC.

MARRIED (7/17 YEARS), NO KIDS
PILOT

WHO AM I?

TONY CACCIARELLI

PRIVATE PILOT

- **HELICOPTER**
- **FIXED WING**
- **SEAPLANE**

THE CAMERA

WHAT WILL WE DISCUSS

- **TUESDAY** THEORY & STUFF
- LIGHTS
- **TUESDAY PART 2** CAMERAS
- INTERVIEW SET 1
- **WEDNESDAY AM** INTERVIEW SET 2 & 3

EXPOSURE TRIANGLE

APERTURE

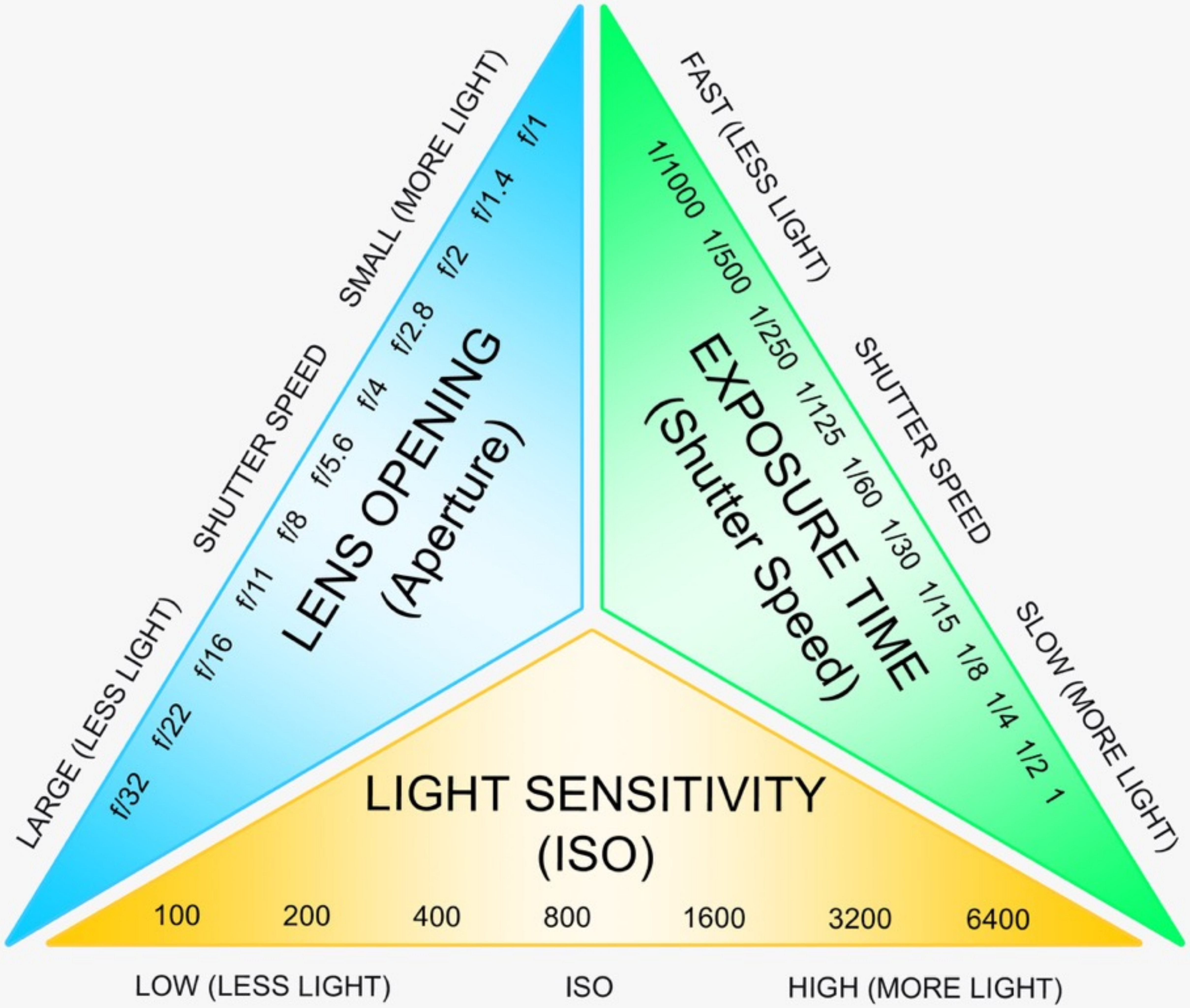
SHUTTER

ISO/SENSITIVITY

https://www.youtube.com/watch?v=zd9oNggNqjQ

THE CAMERA

EXPOSURE TRIANGLE



www.photoaxe.com/exposure-triangle-explained-the-relation-between-aperture-shutter-speed-and-iso/

THE CAMERA

IDEAL SHUTTER SPEED

2X FRAME RATE

DSLR
24FPS 1/50

MOTION
24FPS 1/48

THE CAMERA

IDEAL SHUTTER SPEED

HIGHER?

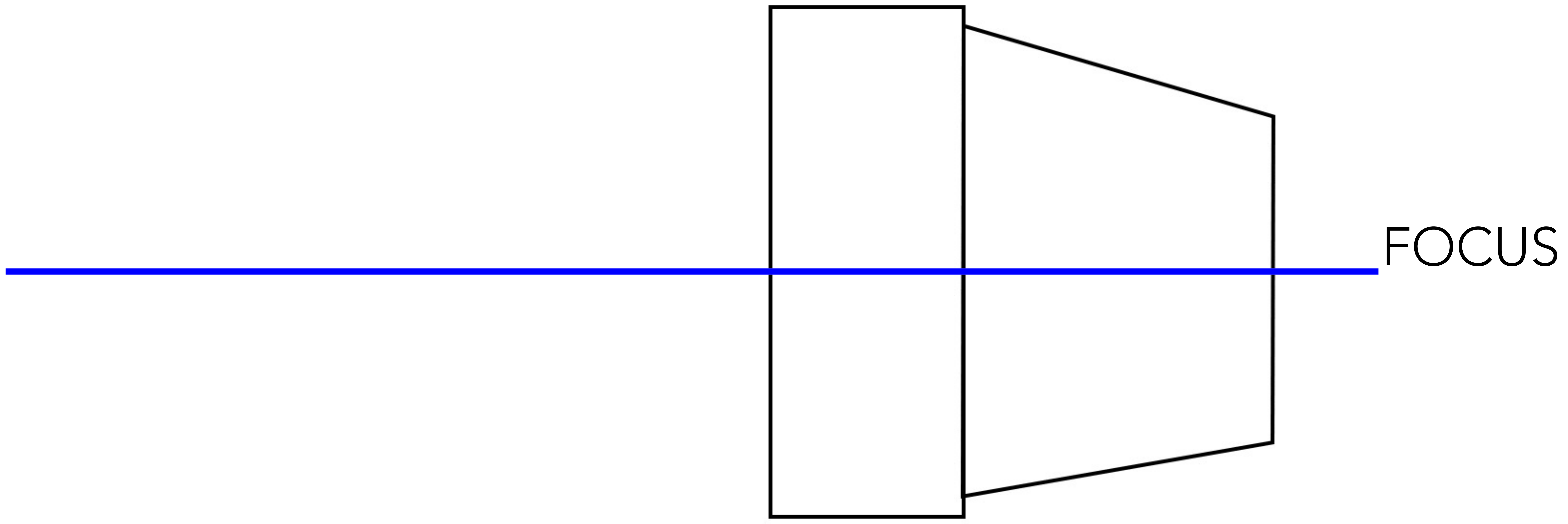
24FPS 1/96
24FPS 1/198

THE CAMERA

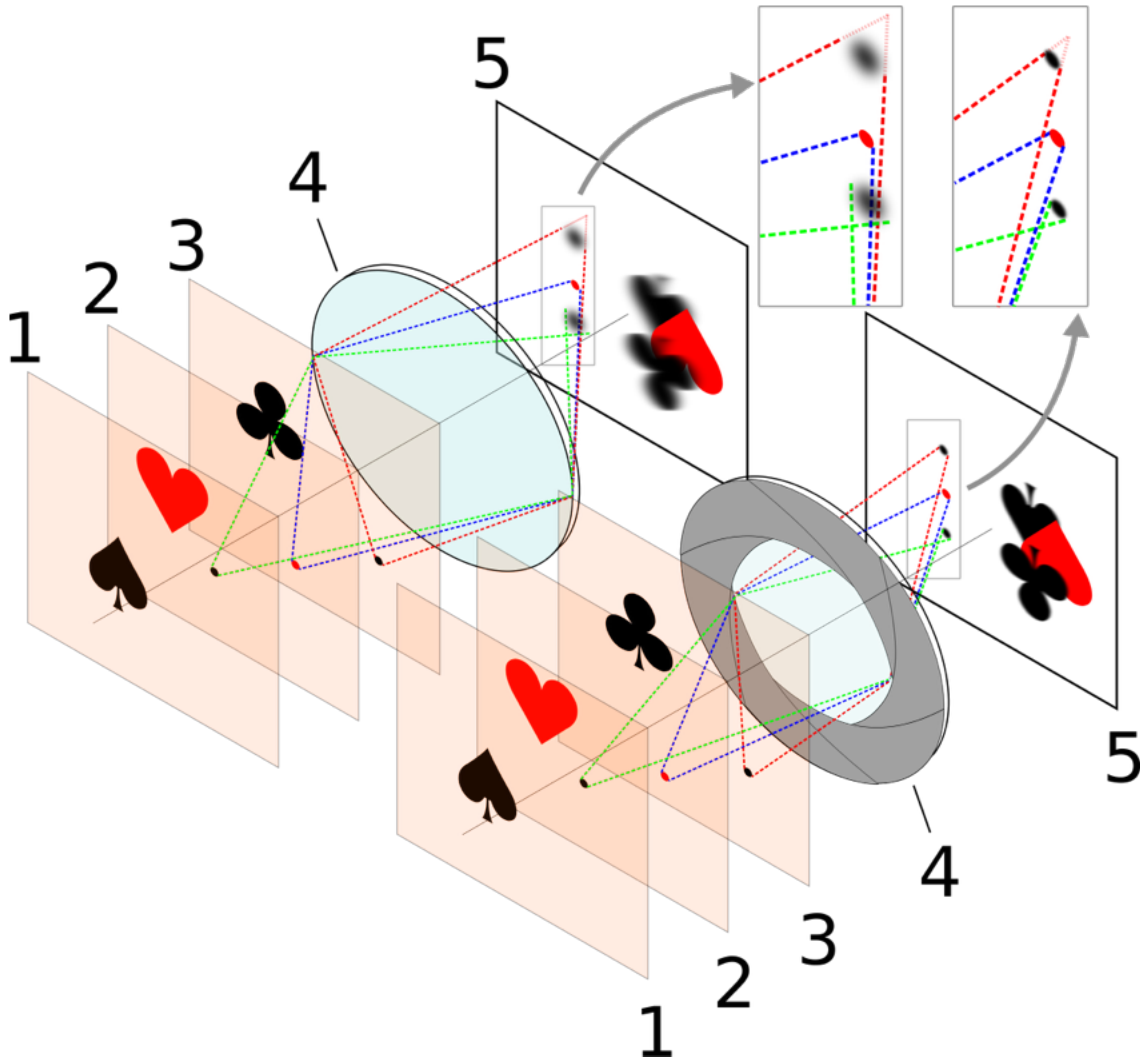
APERTURE & DOF

THE CAMERA

APERTURE - DOF



APERTURE - DOF



https://commons.wikimedia.org/wiki/Depth_of_field

F-STOP VS T-STOP

THE F-STOP IS THE **RATIO** OF THE **LENS'S FOCAL LENGTH** TO THE DIAMETER OF THE APERTURE.

F-STOP VS T-STOP

FOCAL LENGTH 50MM

APERTURE OPEN 25MM

50/25 = f2

F-STOP VS T-STOP

A T-STOP (TRANSMISSION STOPS) IS AN **F-NUMBER** ADJUSTED TO ACCOUNT FOR **LIGHT TRANSMISSION EFFICIENCY**

THE CAMERA

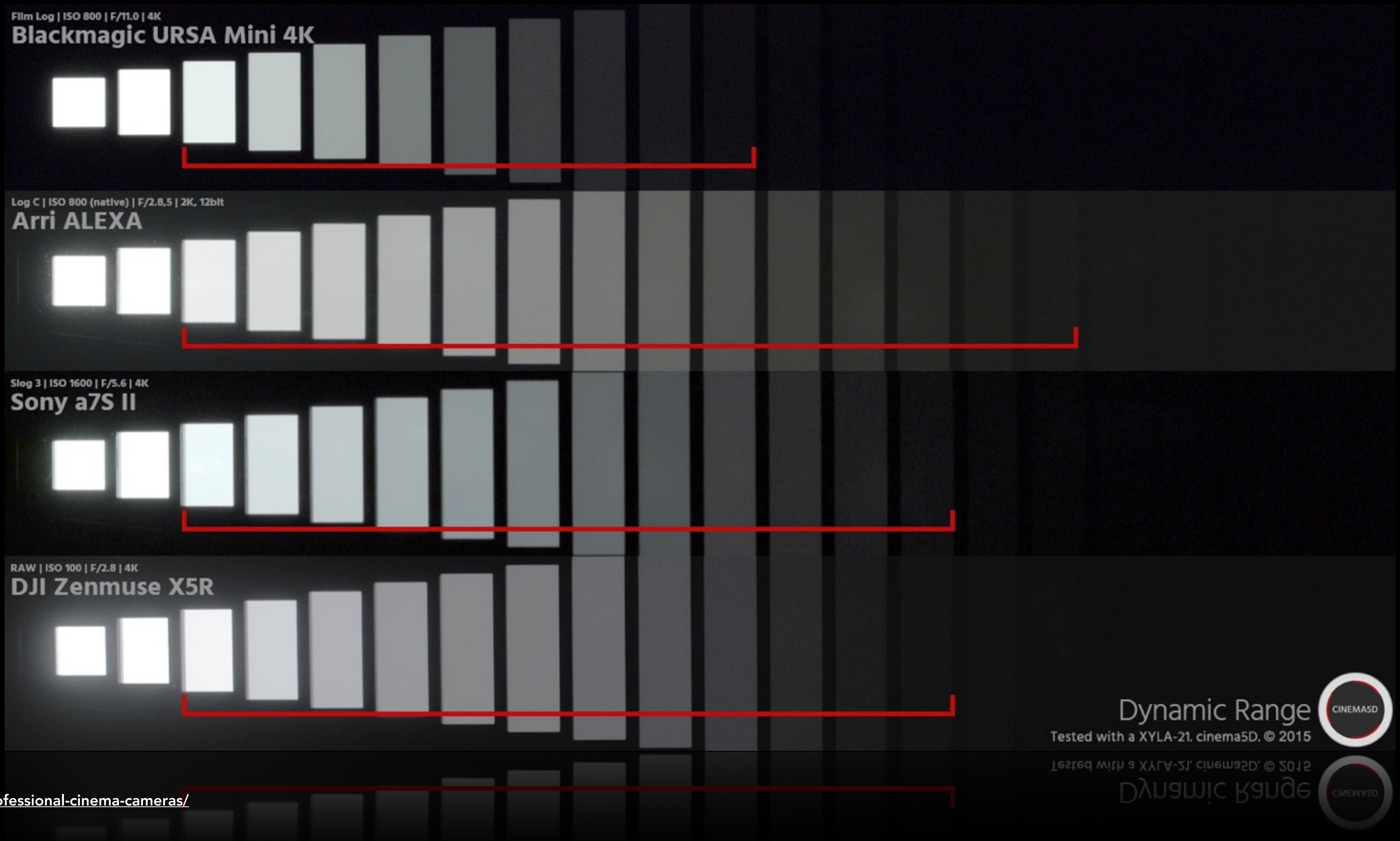
DYNAMIC RANGE

9 STOPS

15 STOPS

12 STOPS

12 STOPS



https://www.cinema5d.com/osmo-raw-compared-to-professional-cinema-cameras/

FLAT VS RAW

"FLAT" REFERS TO COLOR AND LUMINANCE COMPRESSED INTO SPECIFIC RANGE TO BE EXPANDED IN POST OR "YUCKY WITH NO GRADE"

FLAT VS RAW

"RAW" REFERS TO CAPTURING THE COMPLETE VIDEO SIGNAL WITH NO COMPRESSION OR "GONNA NEED A LOT OF FAST STORAGE."

ISO

"ISO" REFERS TO INTERNATIONAL ORGANIZATION FOR STANDARDIZATION. IT BECAME SYNONYMOUS WITH FILM SENSITIVITY.

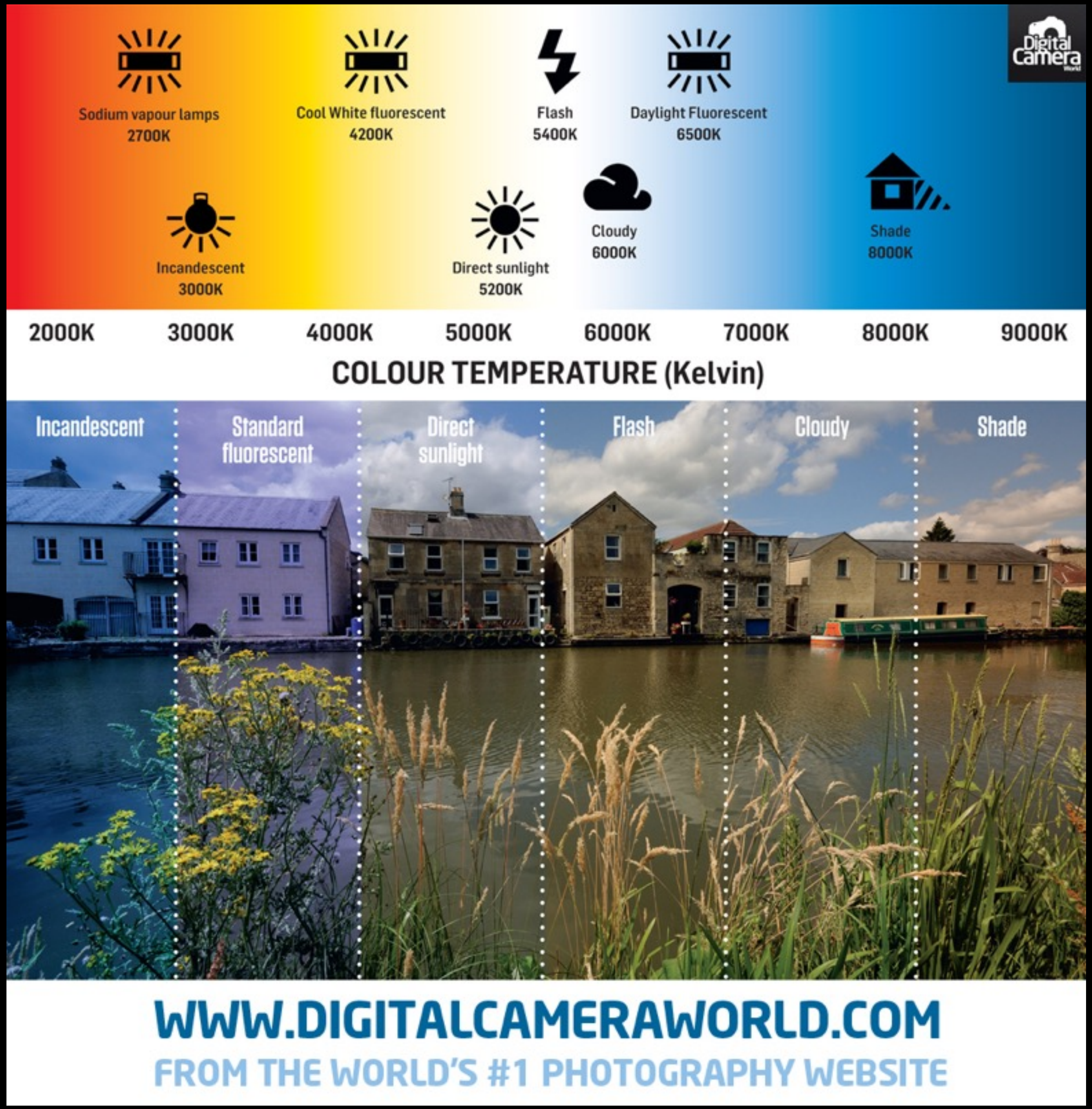
ISO

https://www.magiclantern.fm/forum/index.php?topic=5609.0

THE CAMERA

WHITE BALANCE

WARM



COOL

http://www.techradar.com/how-to/photography-video-capture/cameras/white-balance-explained-how-cameras-correct-the-color-of-different-types-of-light-1320993

THE CAMERA

WHITE BALANCE

PRESET: 3200°/5500°

WHITE/BLUE CARD

MANUALLY DIAL

AUTO

LENSES

PRIME LENS

A LENS WHOSE FOCAL LENGTH IS FIXED

HEAVIER, HIGHER QUALITY, EXPENSIVE

THE CAMERA

LENSES

PRIME LENS

COMMON LENGTHS

14 MM
24 MM
35 MM
50 MM
85 MM
135 MM

THE CAMERA

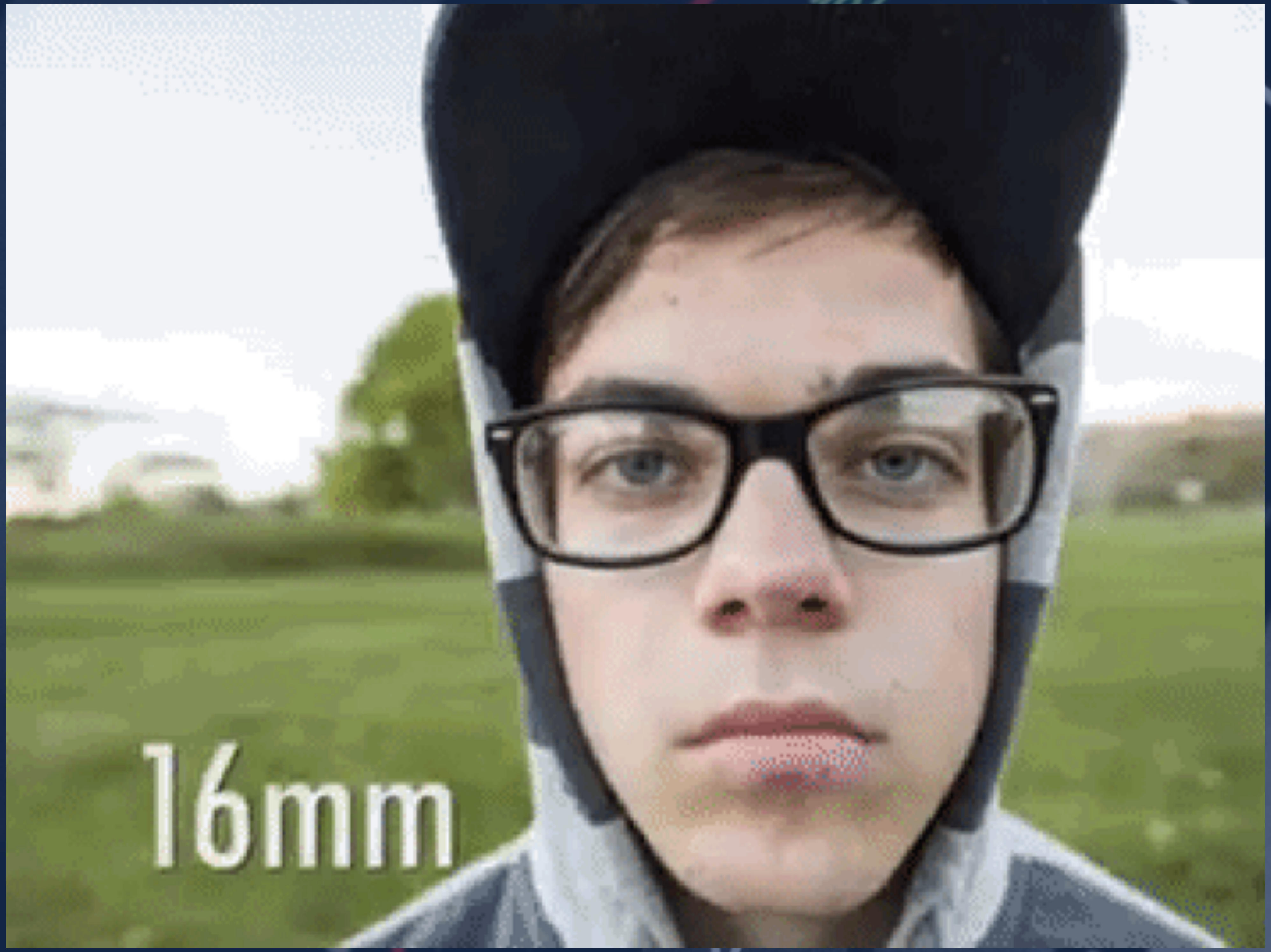
LENSES

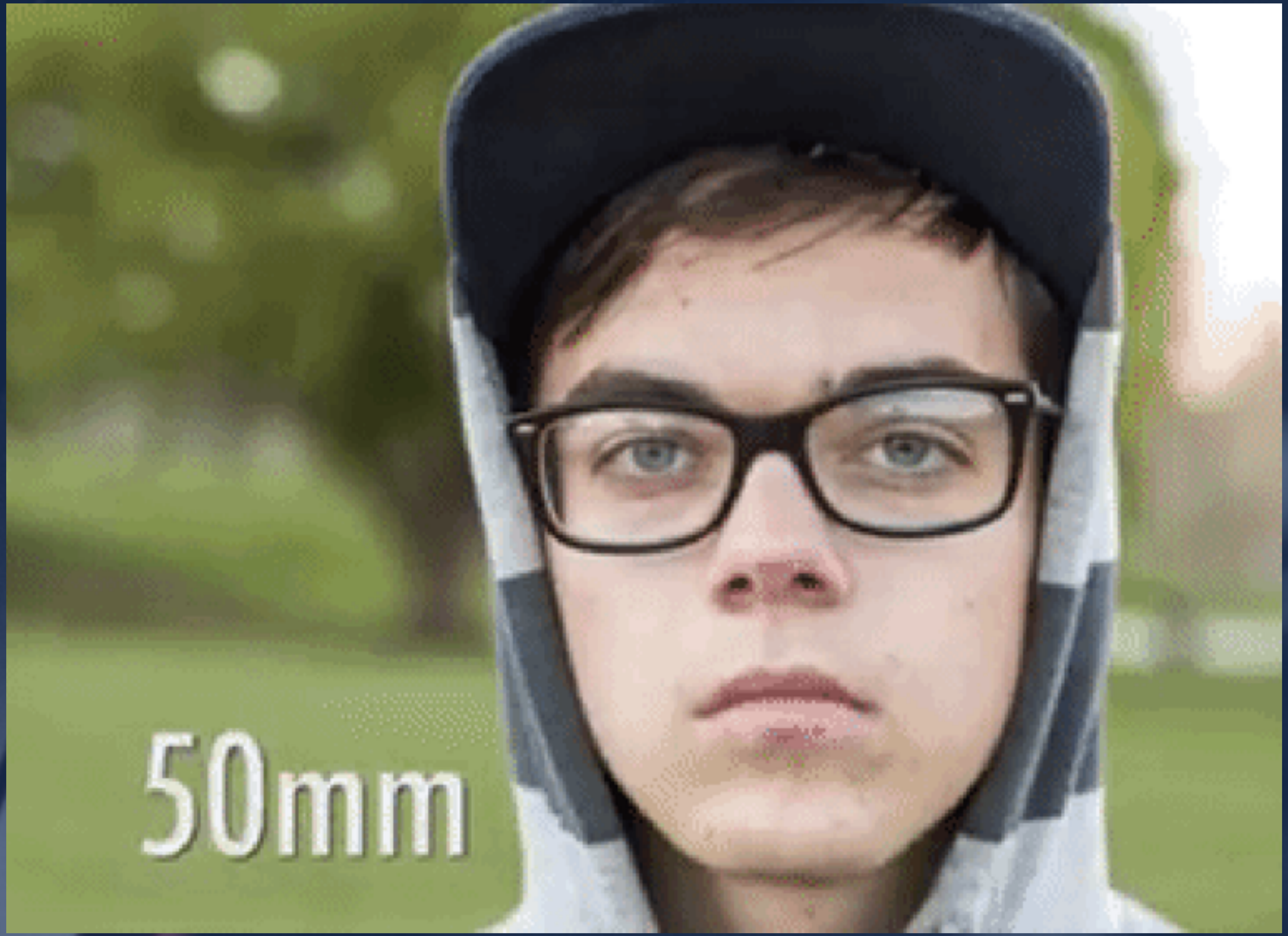
EFFECT ON FACES

http://i.imgur.com/XBIOEvZ.gifv

THE CAMERA

LENSES





EFFECT ON FACES

THE CAMERA

LENSES

ZOOM LENS

A MECHANICAL ASSEMBLY OF LENS ELEMENTS FOR WHICH THE FOCAL LENGTH (AND THUS ANGLE OF VIEW) CAN BE VARIED

THE CAMERA

LENSES

ZOOM LENS

COMMON RANGES

- 16 MM - 35 MM
- 24 MM - 70 MM
- 70 MM - 200 MM

THE CAMERA

LENSES

MOUNTS

COMMON MOUNTS

EF	CANON
PL	CINEMA
E	SONY
M43	PANA/BMD

THE CAMERAS

UNITS WORKING WITH

CANON C300 MII

RED EPIC

SONY FS-5

SONY A7S2+A6500

THE CAMERAS

CANON C300 MII

- -FULL 4K
- -AVC XF 410MBPS
- -AMAZING AF
- -WARM/CANON

THE CAMERAS

RED EPIC

- -5K RAW
- -REDCODE
- -120 FPS 5K/4.5K
- -CLOSET TO FILM?

THE CAMERAS

SONY FS-5

- -UHD 3840 X 2160
- -8-BIT, 4:2:0 XAVC-L
- -VARIABLE ND
- -BLUE & SMALL

THE CAMERAS

SONY A7S2/A6500

- UHD 3840 X 2160
- 100 MBPS XAVC-S
- *GREAT* LOW LIGHT
- BEST VALUE

THE IMPORTANCE OF GOOD LIGHTING

Image Courtesy: wistia.com

LIGHTING

WHAT IS A "STOP" OF LIGHT?

A DOUBLING OR HALVING OF THE AMOUNT OF LIGHT GATHERED

Images Courtesy: www.photographymad.com/

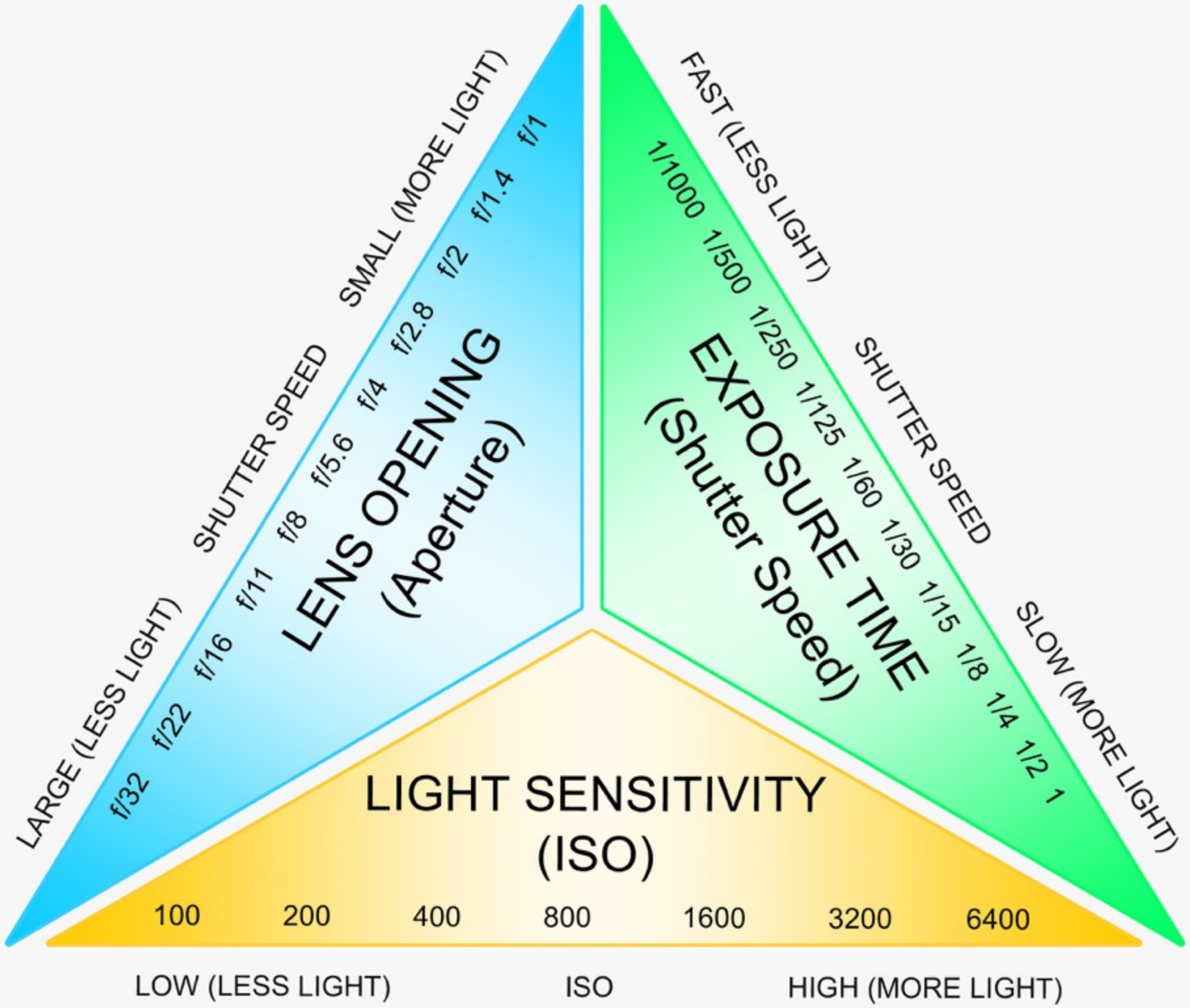
WHAT IS A "STOP" OF LIGHT?

UNIFIES HOW WE TALK ABOUT EXPOSURE

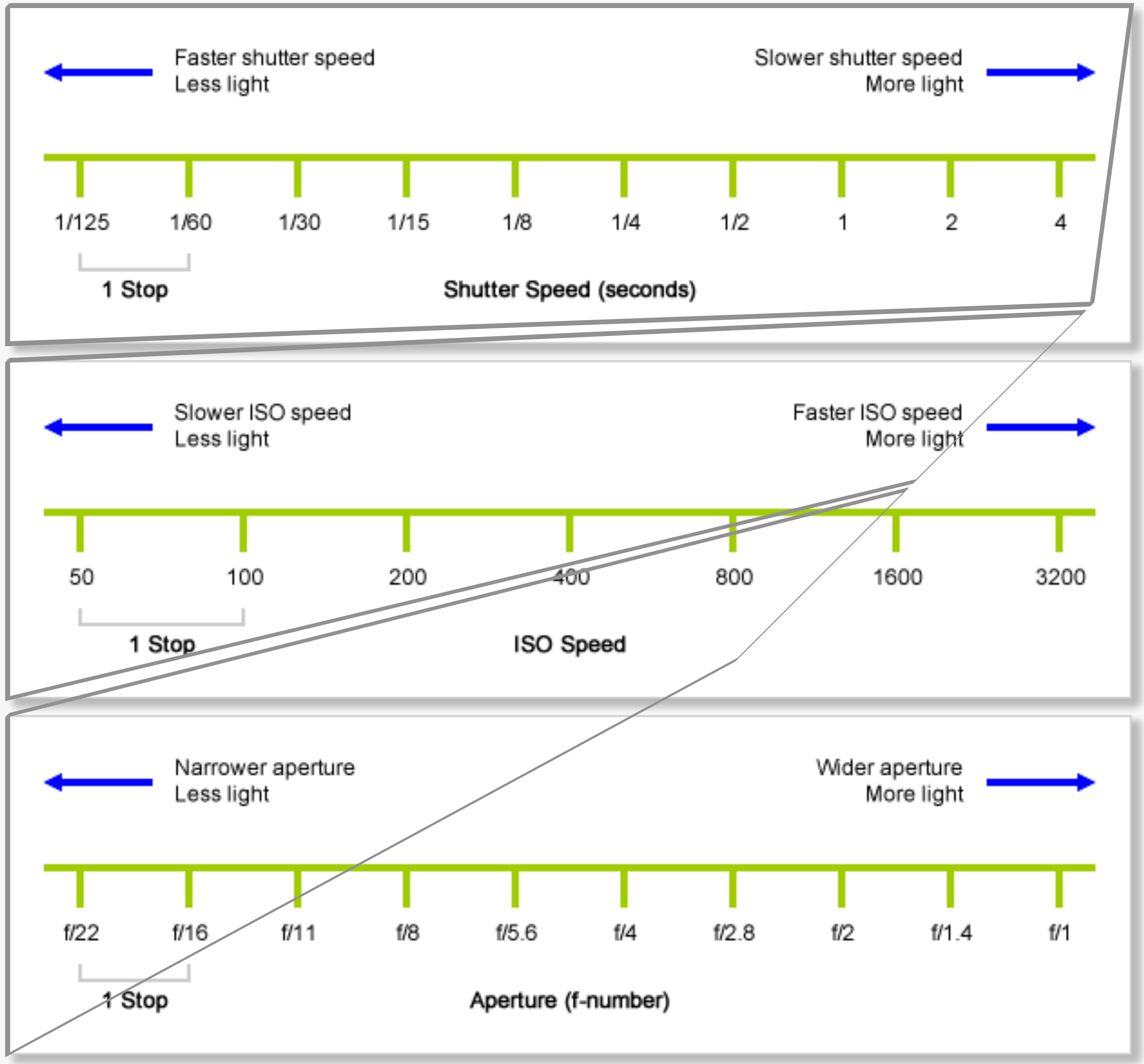
Images Courtesy: www.photographymad.com/

LIGHTING

EXPOSURE TRIANGLE



A STOP OF LIGHT



Images Courtesy: www.photographymad.com/

LIGHTING

LOGARITHMIC FALLOFF

The Inverse Square Law

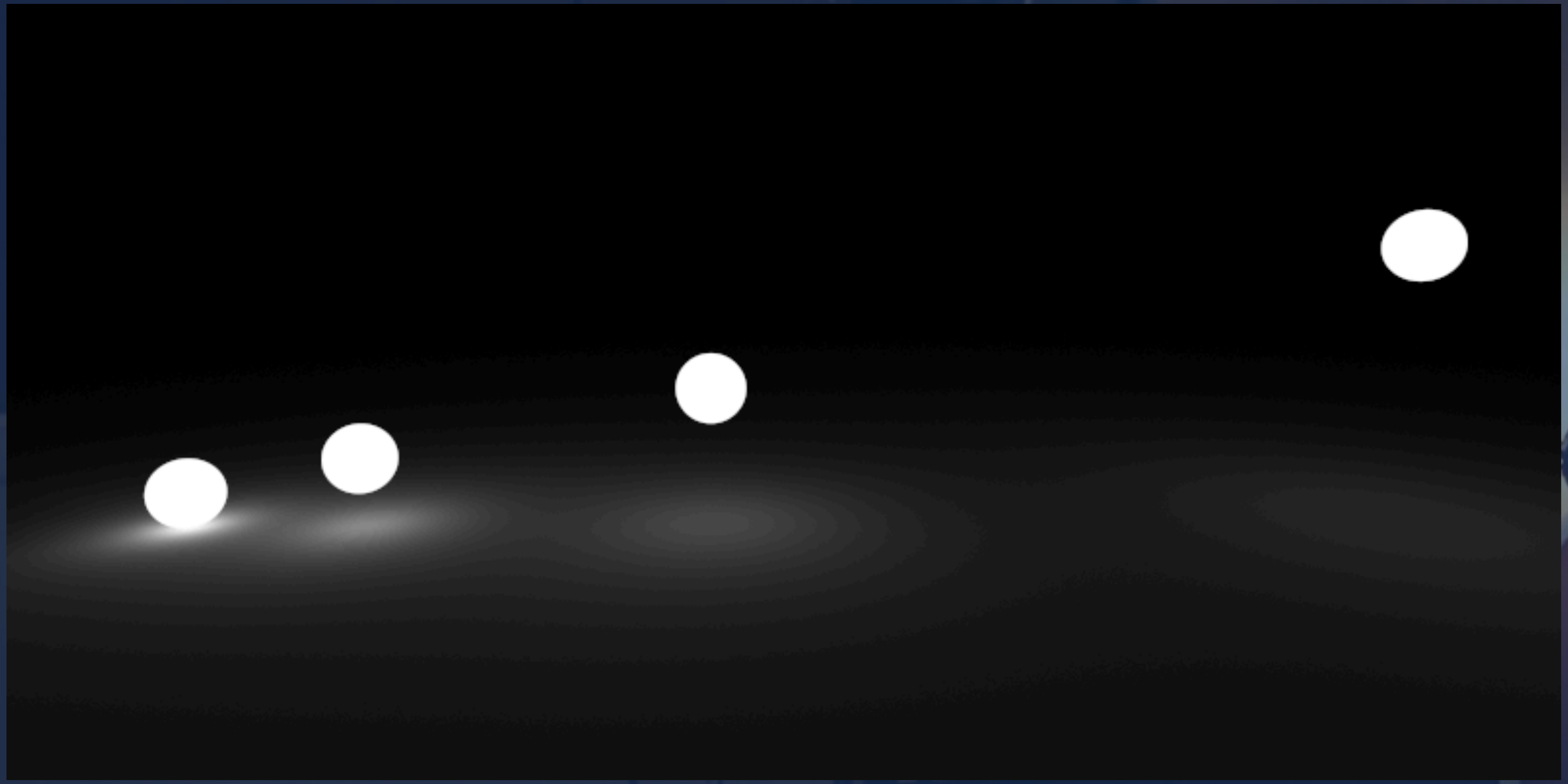
$$I = \frac{k}{d^2}$$

I WAS TOLD THERE WOULD BE NO MATH

LIGHTING

LOGARITHMIC FALLOFF

The Inverse Square Law



AN OBJECT TWICE THE DISTANCE FROM A LIGHT RECEIVES 1/4 THE AMOUNT OF LIGHT (TWO STOPS LESS)

Image Courtesy: imdoingitwrong.wordpress.com

LIGHTING

TYPES OF BULBS

- INCANDESCENT
- HMI™
- LED
- HOME DEPOT

LIGHTING

DAYLIGHT VS TUNGSTEN

DAYLIGHT

- COOL - 5600K
- SUNLIGHT/OUTDOORS

TUNGSTEN

- WARM - 3200K
- INCANDESCENT/INDOORS

LIGHTING TECHNIQUES

- *HARD* LIGHTS
- DIFFUSION
- REFLECTION
- GELS
- CUCOLORIS (COOKIES)


LIGHTING
DISC
DIRECTION
INTENISTY
SOFTNESS
COLOR

BIG FINISH

HOW TO CONTACT

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