

small strobes

BIG
RESULTStm

Light is the biggest influence

I use flash to influence the scene,
to improve the photograph, to
guide the eyes
of viewers to areas of the
photo I want them to look at.

**You need to know the relationship
between**

ISO

Shutter Speed

Aperture

Step One

Don't think about the flash

Decide on the background.

Select your Lens and Aperture

Once I have selected my aperture, I
now need to determine my

Shutter Speed
ISO

I then move the shutter speed until
I get what the camera's meter says
is the correct exposure

If your shutter speed becomes too slow to hand hold the camera, move your ISO to a higher setting

Take your available
or ambient light photo

Evaluate the
ambient exposure
on the back of your
camera

Based on the look of the photo that you want, adjust the shutter speed if you need to increase or decrease the amount of ambient light being captured

Remember,
you already selected the
aperture you want to use

Next, Bring out your Speedlights



Place your ambient first, then the flash



THERE ARE
3 THINGS I THINK OF
WHEN IT COMES TO
LIGHT

QUALITY

DIRECTION

COLOR

QUALITY OF LIGHT

SOFT
MEDIUM
HARD

MODIFIERS

TOOLS USED TO SHAPE THE LIGHT

- ✦ Umbrellas
- ✦ SoftBoxes
- ✦ Silks
- ✦ Grids - Snoot's - BarnDoors
- ✦ Bounce

Umbrellas

- ✦ Convertible's - my choice
- ✦ Bounce Into
- ✦ Shoot Through



Umbrellas can be used to light a single person or a group of people.

A 60" Umbrellas is a Huge light that provides a really soft light that can cover a large group of people.

An umbrella is really good for lighting your subject and the environment they are in.



Who says you have to
use an umbrella open?

By collapsing the umbrella,
you have move control
over the amount of
light coming out as well
as controlling unwanted
spill.

Skirting The Light



Shooting through an umbrella allows you to position your light source that much closer to your subject producing a softer light.



Flash Zoom Head Adjustments



Flash head zoomed to 14mm



Flash head zoomed to 105 mm

Softboxes

- ✦ Different Sizes and Shapes
- ✦ Window Light
- ✦ Controls Spill



Softboxes

Softboxes come in all sorts of sizes, small to large. They also come in all sorts of shapes.

They are great tools for keeping a nice soft light source directed to your subject while keeping that light from spilling all over the environment you're shooting in.



The Color Of Light

- ✦ Daylight - 5500 *Kelvin - (flash)
- ✦ Tungsten - 3400 *Kelvin - (incandescent lights)
- ✦ Florescent - 3400 - 5500 *Kelvin (green)

GELS

CONVERSION GELS

CTO - Warm gels for tungsten conversion

CTB - Blue gels for tungsten to daylight conversion

+GREEN - For flurescent conversion

THEATRICAL GELS

Color Effects



Gels - Conversion Gel

- ✦ CTO - Warm gel used to convert daylight to tungsten, these gels come in Full, 1/2, 1/4, 1/8 strengths.
- ✦ CTB - Blue gel used to convert tungsten to daylight, these gels come in Full, 1/2, 1/4, 1/8th strengths.
- ✦ + Green - Used to convert florescent to daylight, these come in Full, 1/2, 1/4, 1/8 strengths.

Grids/Snoot's/BarnDoors

- Restricted Hard Light Source
- Produces Harder Shadow Edge Transfer



Grids



Grids are wonderful modifiers, they produce a circular spot with a feathered edge.

Snoots on the other hand, produce a harder edge from highlight to shadow.

Grids



Snoot's



Beauty
Dish



Barn
Doors





Flash Triggers

Pocket Wizards, Radio Poppers, IR Triggers, Optical Slaves, and PC cords.



Pocket Wizard Transceiver

Sends and Receives
Radio Signal (dummy
trigger)



EXPOSURE CONTROLS

FIVE VARIABLES

Shutter Speed

Aperture

Flash Power

Flash to Subject Distance

ISO

SHUTTER SPEED

controls ambient exposure















1/250 SECOND

F/5.6



1/125 SECOND

F/5.6



1/60 SECOND

F/5.6



1/30 SECOND

F/5.6



1/15 SECOND

F/5.6



1/8 SECOND

F/5.6



1/4 SECOND

F/5.6



SYNC SPEED

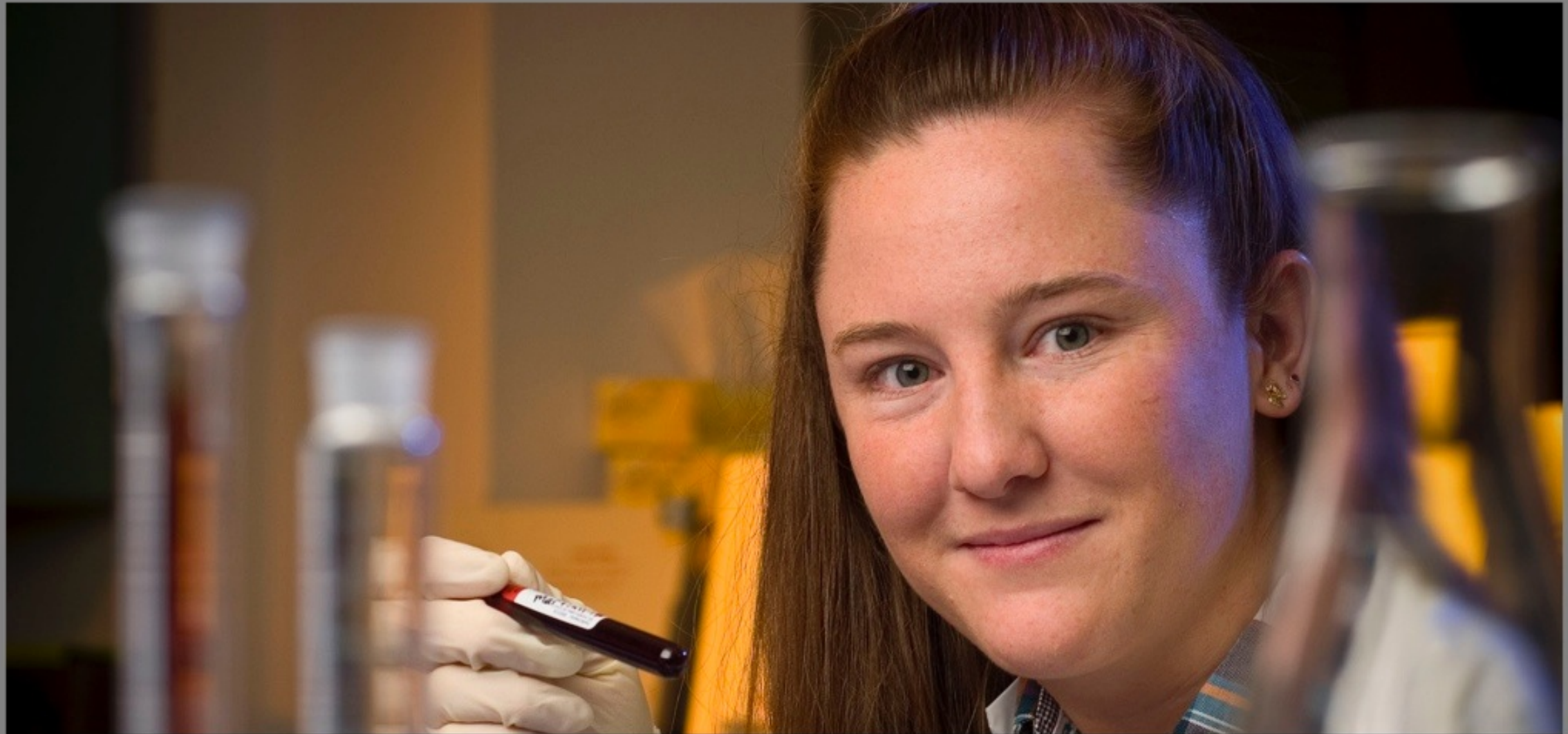


First Curtain Goes Up



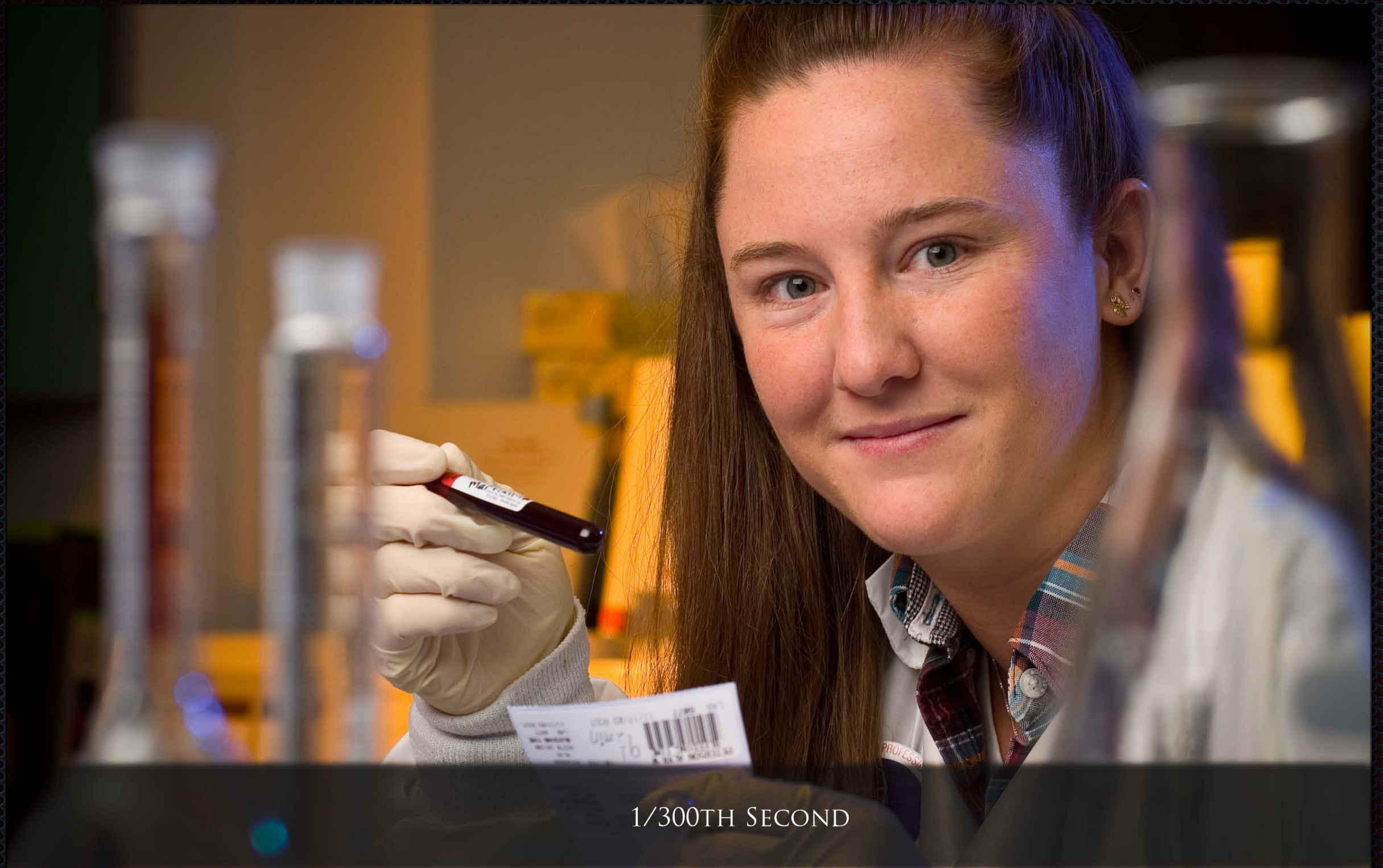
CURTAINS COMPLETELY OPEN
SENSOR FULLY EXPOSED
TO RECEIVE FLASH





Second Curtain Goes Up





1/300TH SECOND

When your out of Sync!



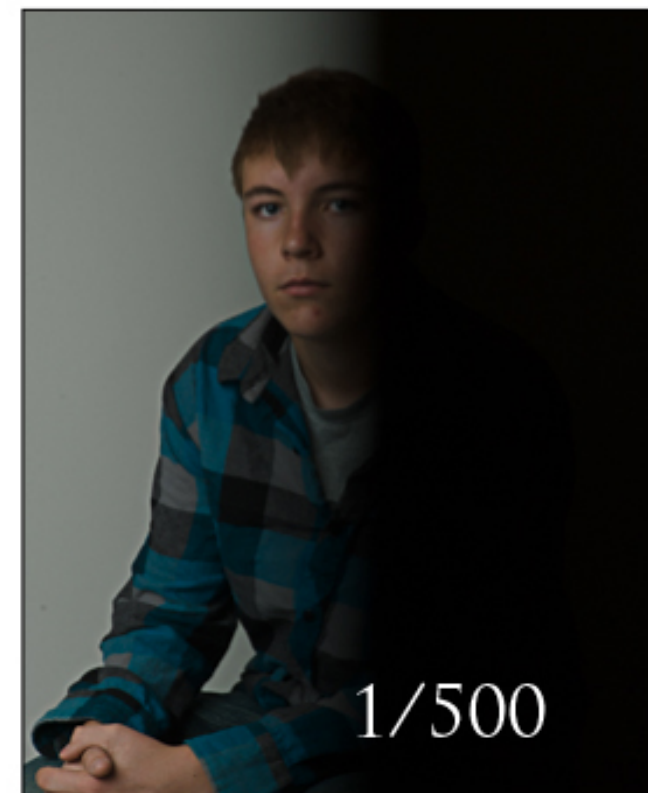
Shutter Speed @ 1 / 1000



Flash Exposes Only Between
The Two Curtains



CAMERA SYNC SPEED TEST W/POCKETWIZARDS



High-speed sync

Shutter curtain
Low Speed



Flash wave form



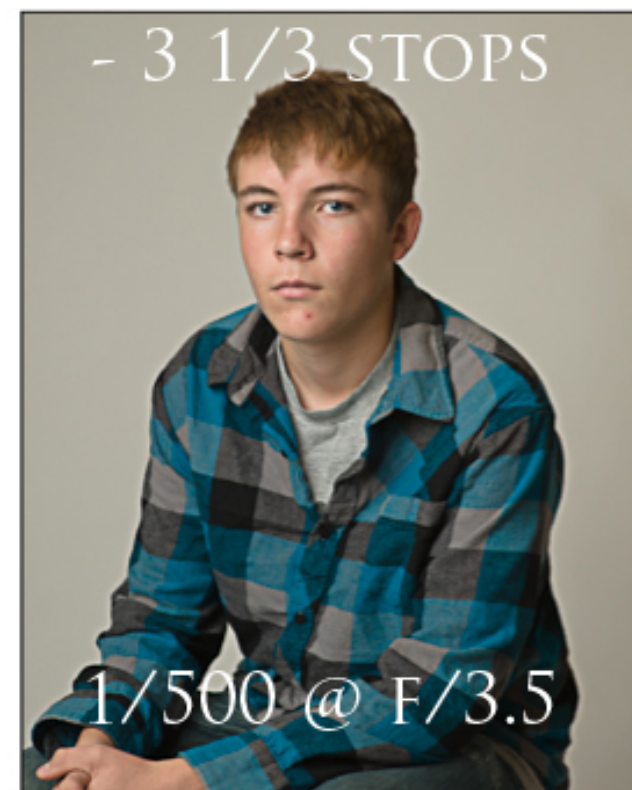
Shutter curtain
High Speed



Flash wave form



HIGH SPEED SYNC



APERTURE

controls flash exposure, controls flash exposure, controls flash exposure,
controls flash exposure, controls flash exposure, controls flash exposure,
controls flash exposure, controls flash exposure, controls flash exposure

2 TYPES OF LIGHTING SITUATIONS

- ✦ **Studio Scenario** - Light provided by photographer
- ✦ **Environmental Scenario** - Light is blending with ambient



Studio Scenarios



Studio Scenarios
are situations
when the
photographer
provides all the
light in a particular
scene.



If ambient light is present, you can drive it down using your shutter speed to a point where it does not contribute to the exposure in anyway.

THE KEY TO WORKING WITH SMALL STROBES ON LOCATION

Let the ambient light do most of the
heavy lifting for you.



Environmental Scenarios



Environmental Scenarios



Are situations
when we use
our flash with
the existing
ambient light.

We control the
amount of
ambient light
using our
shutter speed.

BUILDING THE PHOTOGRAPH

- ✦ Location assessment - existing light/color/direction
- ✦ Lens selection - aperture choice
- ✦ Quality of light - hard/soft
- ✦ Which modifiers to use - bounce/umbrella/grid/softbox
- ✦ Color of light - mood



First place your ambient!



Next: Turn on your flash

FLASH SETTINGS MODE

TTL OR MANUAL

MANUAL = CONSISTENCY

FLASH POWER SETTINGS

1/1 full power

1/2

1/4

1/8

1/16

1/32

1/64

1/128

Flash Power	Full Power	1/2 Power	1/4 Power	1/8 Power	1/16 Power
Aperture	f/8.0	f/5.6	f/4.0	f/2.8	f/2.0

Flash Power	Full Power	1/2 Power	1/4 Power	1/8 Power	1/16 Power
Aperture	f/8.0	f/5.6	f/4.0	f/2.8	f/2.0

Flash Power	Full Power	1/2 Power	1/4 Power	1/8 Power	1/16 Power
Aperture	f/8.0	f/5.6	f/4.0	f/2.8	f/2.0

Flash Power	Full Power	1/2 Power	1/4 Power	1/8 Power	1/16 Power
Aperture	f/8.0	f/5.6	f/4.0	f/2.8	f/2.0

Flash Power	Full Power	1/2 Power	1/4 Power	1/8 Power	1/16 Power
Aperture	f/8.0	f/5.6	f/4.0	f/2.8	f/2.0

ISO SETTING	100	200	400	800
FULL POWER	f/8.0	f/11	f/16	f/22
1/2 POWER	f/5.6	f/8.0	f/11	f/16
1/4 POWER	f/4.0	f/5.6	f/8.0	f/11
1/8 POWER	f/2.8	f/4.0	f/5.6	f/8.0
1/6 POWER	f/2.0	f/2.8	f/4.0	f/5.6
1/32 POWER	f/1.4	f/2.0	f/2.8	f/4.0



f5.6



f5.6



f8.0



f5.6



f8.0



f11.0



f5.6



f8.0



f11.0



f16.0



f5.6 = \$320.00



f8.0 = \$640.00



f11.0 = \$1280.00



f16.0 = \$2560.00

Inverse Square Law

An equation that relates the intensity of a light source to the illumination it produces at a given distance.

Light diminishes over distance in accordance with the inverse square law, which states that doubling the flash-to-subject distance reduces the light falling on the subject to one-quarter





Light has depth of field as well!

The closer you are to the light source the faster the light falls off
The further you are from the light source the larger the area of equal intensity

THE INVERSE SQUARE LAW

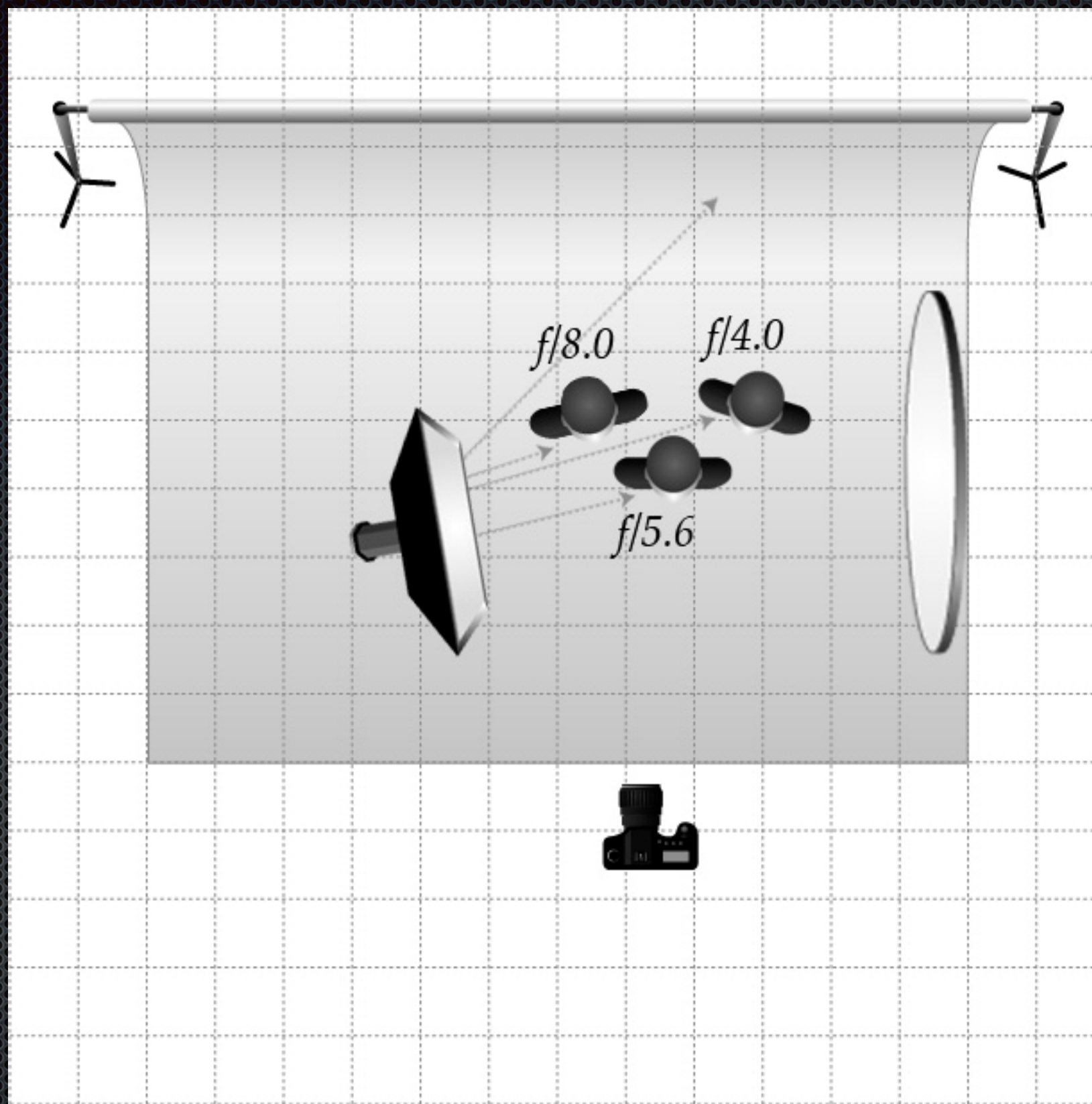
An object that is twice the distance from the light source will receive a quarter of the amount of illumination

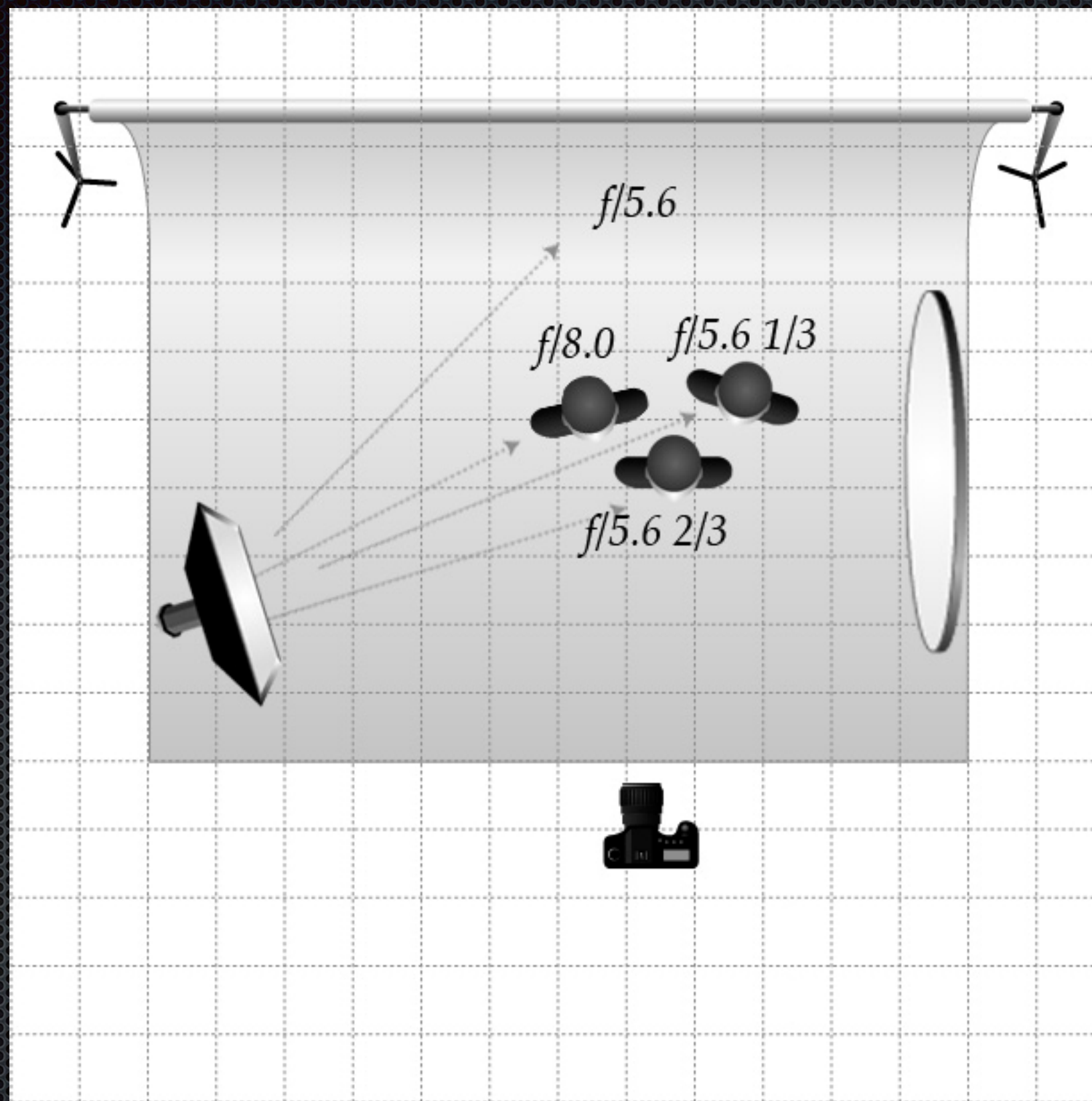


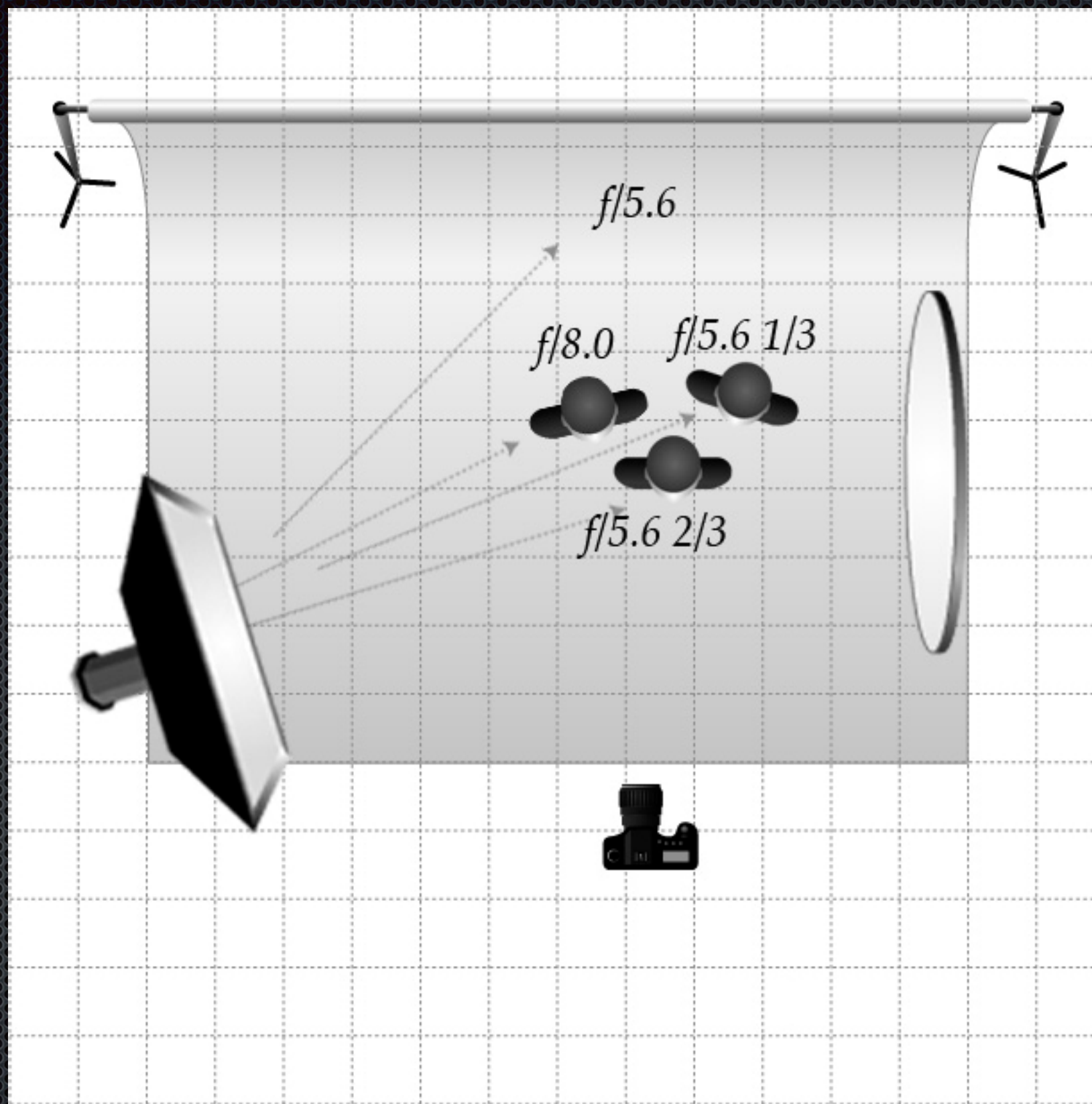
f/16.0

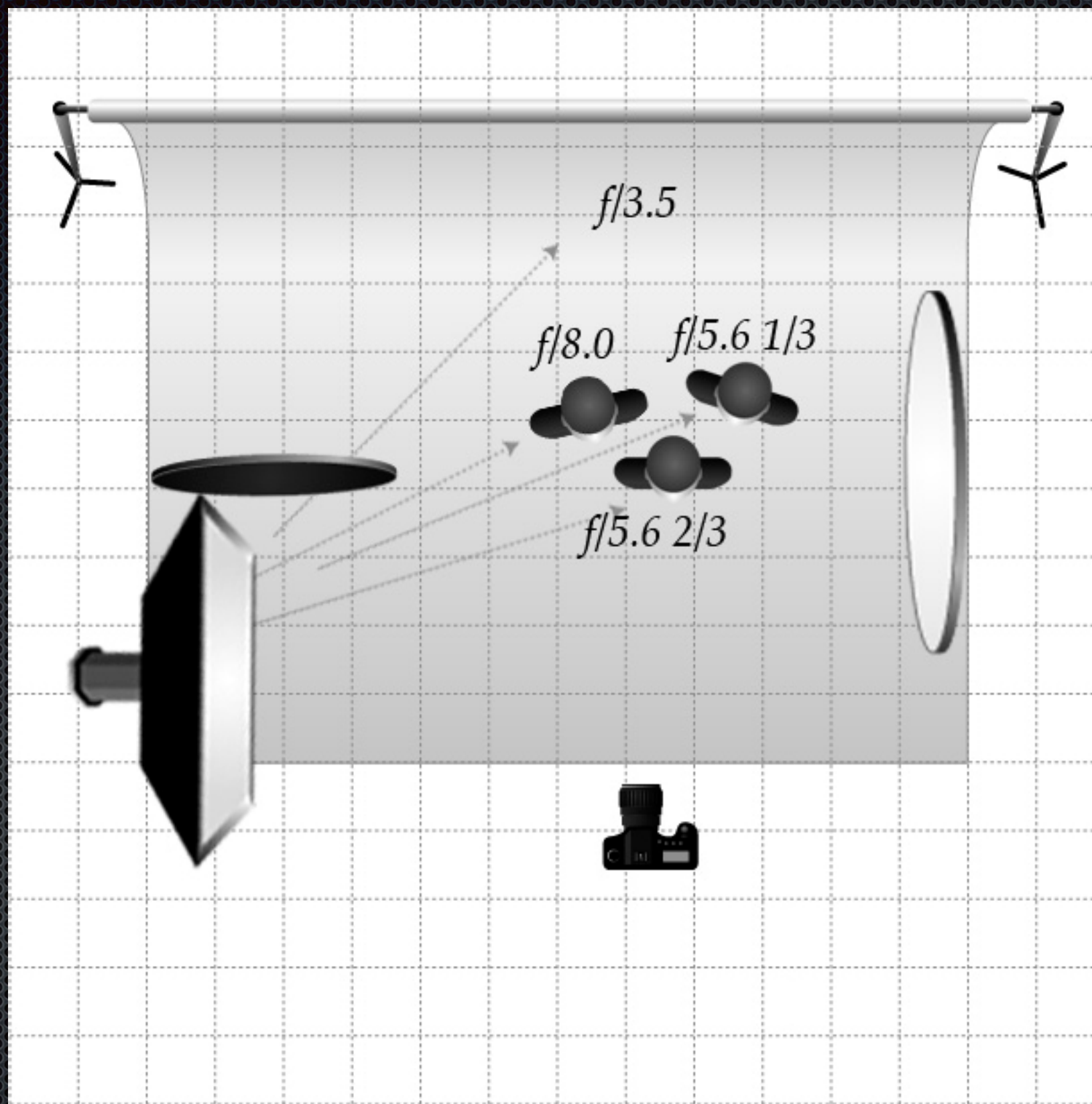
f/8.0

f/5.6









The closer the
the light is to
your subject,
the faster the
light falls off.



Bounce



Bounced at 45 degrees off ceiling



Bounced behind at ceiling & wall



Bounced off the wall



Flag the light off the subject





Key light is flagged off subject





Key light is flagged off subject







Day for Night



























Artificial Sunlight









Light Break Patterns
<http://www.lightbreak.com>







