

The Factice Studies

A Photographic Study of Portrait Lighting for Small Studios

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Issue 1 – Volume 1

Broad Lighting

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The Factice Studies

Some notes on this series:

I've read it on every forum. I don't have the room to set up a studio. You just might be surprised. The goal of these studies is to work out just how much you can do in the smallest possible space with just basic lights and a reflector.

All of the sample images in this study were shot at the exact same camera settings. The images are 100% untouched out of the camera except for resizing for presentation. The only thing that changes is the light that is on the subject.

All images were shot with a Canon 5D, Canon 70-200 f2.8 L at 120mm, 1/125 @ f11.

The lights are 3 Alien Bee 800 strobes with 40, 30, 20 and 10 degree grids.

The studio layout diagrams are correct to scale. Each large square is 1 foot by one foot. The subject is 4 feet in front of the background, the camera is 6 feet in front of the subject.

The angles showing the effects of grids on the strobes are also correctly to scale.

By no means do I assume that these studies are gospel. I invite all who read them to add your experiences to the reply. I am doing them for my own practice and ongoing growth as a photographer, as well as the hope that these studies help some people grow in their hobby, and that they foster debate between us all.

With that said... on to the first study.

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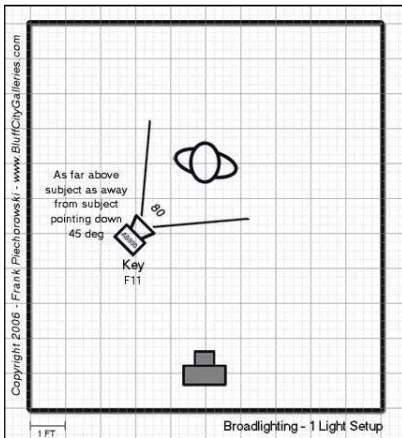
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Broad Light - 1 Light

For the first series of studies we will start with the most basic of basic.

At it's most basic, a shot is broad lit when the light is falling on the side of the subject that faces the camera and the shadow is on the side of the face that is away.



We cant get any more basic then 1 (one) light, the subject and a camera.

The subject is posed 4 feet in front of the background.

Our key light (heck... our ONLY light) is placed 2 (two) feet from our subject at a 45 degree angle. The height of the light is the height of the subject + 2 (two) feet. 2 feet out and 2 feet up, that means our light will be pointing down at our subject at a 45 degree angle.

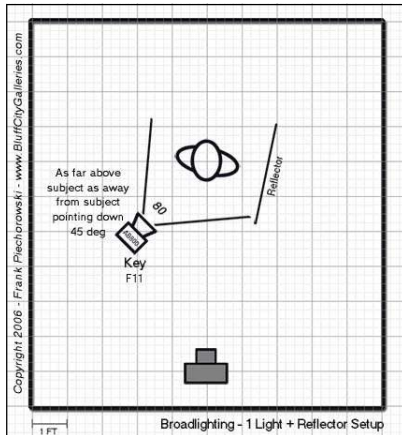


As you can see from the resulting image, this setup makes for a very contrasty image with very bright highlights and very, deep dark shadows.

Those shadows are really dark. We should probably try to get some light into them so we can see some detail on that side of her face...

Our next installment, 1 Light + Reflector

Broadlight - 1 Light + Reflector



In the last study, we lit Factice with a single strobe, high and to camera left. This gave us a very high contrast image with very dark shadows.

In this study we are going to try to add some light to dark side of her face using a reflector. The reflector I used is a standard 48" 5 way reflector disk using the white side. You don't need to use a reflector like I did. You could just as easily use a bookend, a piece of white foam core or even a wall.

Our setup is the same as in the last study with the addition of the reflector.

For comparison, the first image is the image from study 1 with no reflector, the other three images are images WITH a reflector.



Notice how much light we were able to introduce to the dark side of the image. We brought out a lot of detail. Notice the difference in the light between the three images. This was achieved simply by the angle in which we were holding the reflector in relation to the light from the strobe.

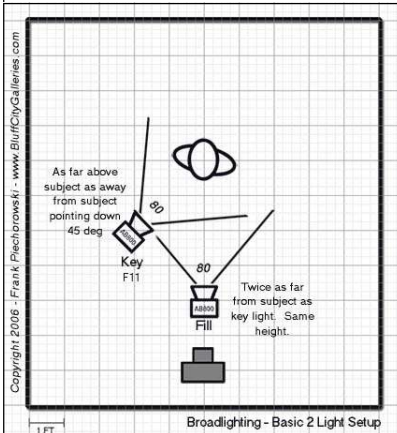
Using a reflector to add fill light is not the only one way to fill in the shadows.

You can also add fill light using another strobe...

Our next installment, 2 Lights.

Broad Light - 2 Lights + Modifiers

In the last study, we lit Factice with a single strobe and added fill using a reflector. This helped us to open up the shadows a bit. Now we will look at using a second strobe, with various modifiers to add some fill light to our image.



For our first setup, I added a second AB800 with no modifiers, just the standard 80 deg reflector that is on the strobe by default. The light was centered over the camera on a boom at the same height as our key light but somewhat farther back.

Setting the lights at a 1:1 ratio, I got this image:



Well, that surely added fill for us, but it shows a few problems. First, because our key light and our fill light are both hitting Factice directly in the face, her face is coming up hot.

KEY CONCEPT: Where ever you have both lights hitting together, the power from those two lights add to each other... thusly it's showing up hot.

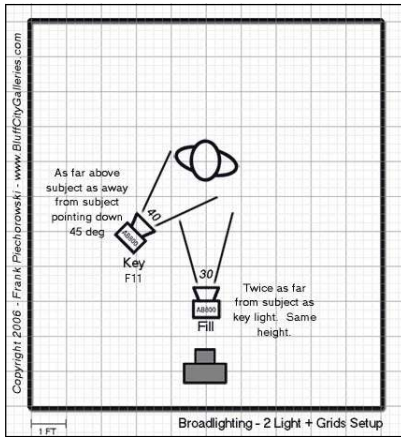
To bring this back in line, I dialed the fill back to give me a 1:3 (fill light 1 1/2 stop less than key) to get her face back into f11 and give myself some nice shadow contours.

That's looking a bit better, but not quite there yet.

Now, because I have my fill light at the same height as my key light and I'm pointing directly at my backdrop, I'm getting a lot of spill. You can see in those two images (especially number 1) that I'm getting some of her shadow on the backdrop... Very distracting.



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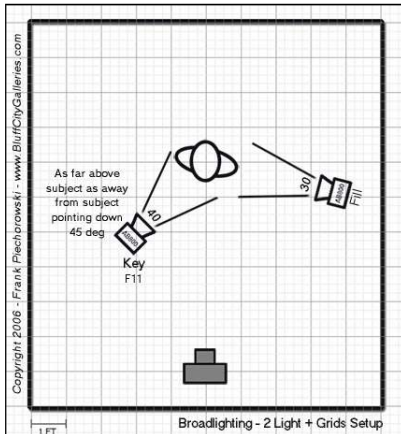


Let's see if I can make it better by focusing my lights just a bit more. I put a 40 degree grid in my key light and a 30 degree grid in my fill. This will tighten up my lights and keep some of them off of my background.

Giving us this image:



YIKES! That's not good! Yes... it's taken a lot of the spill off of the background, but WOW has it made that shadow stand out like a sore thumb. Let's move the lights a bit and see what we can do.



I moved the fill more to the side and brought it down low. Almost horizontal with her and leave the grids in the lights.

That made things MUCH better. It took almost all of the spill off the background except for just a hint from the key light. I shot this series as follows

1:1

1:1.5

1:2

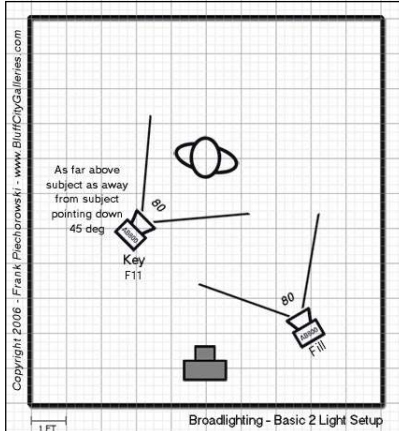
1:3

1:4

1:6



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Ok... I like those. Lets move the lights and try something different. This time I WANT to get some light onto my background but, I want to make that shadow fall away out of frame. I took the grids out of the strobes and went back to just the 80 degree reflectors. I moved the key light up a bit so it pointed down at a stronger angle and moved the fill back and to an angle to her as shown here.

And shot the following series

1:1

1:2

1:4

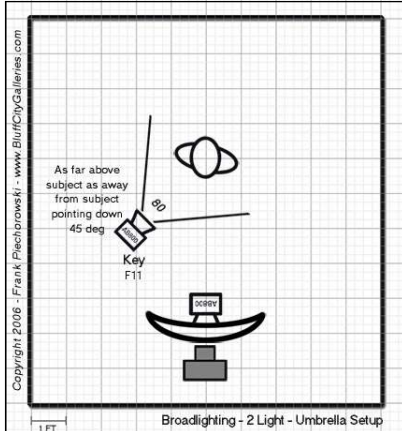
1:6



Very nice.

But I'm never satisfied. Let's play around some more.

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I put a 36" Silver umbrella on my fill light, moved it directly over the camera, HIGH up on a boom pointing down on her.

With the umbrella, I shot this series:

1:1

1:2

1:4

1:8

1:16

1:32



Very interesting overall. Compare the shots between the series that have the same ratio. Notice the differences the different modifiers made even though the lighting ratios are the same.

That's about enough on broad light for now.

Our next study... Short Lighting.