

**Transcript for: LIGHTING BASICS**  
**Video runs: 11:58**

In the next few minutes I am going to tell you everything you need to know about lighting. Lighting is very important in video but I promise it's not really hard. There are just three basic concepts you need to know and then you can make any situation work for you.

**First, light can be broken into two broad categories. Direct light and diffused light.** There are examples of both all around you. Let's talk about the sun, which is the ultimate light source. On a sunny day with no clouds, you have 100% direct light. The light is glaring down at you, coming from one direction only. A bright sunny day has harsh, deep, dark shadows and the edges of the shadow are distinct, all hallmarks of direct light.

**Light becomes diffused when it gets bounced around.** Clouds act to diffuse the sunlight. The light hits the bright, reflective water particles and bounces around. On a completely overcast day, you have 100% diffused light. There will not be ANY shadows. There is so much light bouncing around, that it is essentially coming from everywhere all at the same time. All shadows get filled in.

Now, remember these two extremes of 100% direct and 100% diffused light. Most light is somewhere in between. The way to tell is look for shadows. How dark are the shadows? How distinct is the line of the shadow? The more blurry the line of the shadow the more diffused the light.

Typically, room light is usually fairly diffused. In fact, we usually go to some effort to diffuse our room light since diffused light is easier on the eyes. If it's easier the eyes, it's easier on video cameras too.

Lamp shades, the inside of light bulbs painted white, all those are efforts to diffuse the light. Diffused light is what you want 9 times out of ten when making video. It's easier on faces and gives a more pleasant looking picture. It needs to be BRIGHT, but highly diffused. 9 times out of 10, that's what's best most of the time when you're making video.

**If you look at a professional light kit, all these gizmos and gadgets exist to either direct your light or diffuse it.** Barn doors are used to direct the light and point it at a small area. Black aluminum foils are also used for that purpose.

A photographic umbrella is used to bounce the light. An umbrella gives you a moderate level of diffusion. A soft box gives you a higher level of diffusion than an umbrella. You also have all kinds of filters and cloths you can buy for your lights to provide diffusion. They are measured in percentages.

**Now one easy way to achieve diffused light without having ANY special equipment is to point the light, not at the face, but at the ceiling or a wall.** It will bounce against the ceiling or wall and hit the face as diffused light.

You do not have to use professional light fixtures as all. Home fixtures will do. More on that later.

**Diffused light is MUCH kinder to the face and the eye to look at.**

Diffused light is softer. Wrinkles, bumps and other imperfections show much less under diffused light.

Direct light for faces is usually reserved for when you want people to look scary.

Now that you know about diffused and direct light, the next thing to talk about is what direction the light is coming from. **The direction the light is coming from makes a big difference in lighting for video.**

In fact, **it's the biggest mistake I see. I see so many talking head videos with light coming from BEHIND the person.** I see lots of ceiling light fixtures and other lamps right behind someone's head in webcam videos. Light coming from behind the person will create a silhouette. Now sometimes this can look nice and if you are trying to hide someone's identity, this is what you want. But 99% of the time, this is the OPPOSITE of what you want. You want the majority of your light falling on the person's face, not behind it.

**Position yourself so the light is not behind you.** Get it in front of you, ideally off to the side a little bit, not directly in front of you. Good lighting is really all about positioning and of course the level of diffusion.

**Now I am going to talk about 3-point lighting or triangle lighting,** which is a very commonly used professional technique for photographing faces. It gives a nice flattering look to the face. You have 3 points of light in a triangle shape surrounding the person's head. The first one is called your key light which makes sense because it is your #1 light and it's your

brightest. Now you have a second light, a fill light as it's called and it fills in shadows from the key light and gives a more rounded effect. Now the backlight separates you from the background and makes a big difference, giving your hair some highlighted and stuff like that. Backlight works best on people like me who have lots of hair. Sometimes backlight is not so flattering on a person who has no hair and they won't want it. But generally speaking, three point lighting as I've just described is the professional way of lighting a talking head.

Now, how to make all this as easy as possible? Here's my tip! Learn to make use of natural light. By natural light I mean any light streaming in through the windows or doors and any light coming from any lamp available in the room. The first thing I always do on a shoot is see look around and see what light is available to me. What's gig to happen if I open up the blinds and curtains and let the sun shine in? Just do not stand right in front of the window or you will get the silhouette. Lots of times just by opening up the blinds and curtains you can let tons of beautiful light coming into the room that is going to be nice and diffused by the time it gets inside the room.

**You can also keep it easy by using home light fixtures, you don't have to use professional lights.** You can achieve very nice lighting this way, especially with modern cameras that simply do not need that much light. Professional lights pack such a punch they can actually be way too much for small cameras like a web cam. So although professional light kits are great and they give you the best control, you can certainly get by without them. I'm using home light fixtures right now because I am shooting this with my webcam. That's all this webcam needs. I've got

two 100-watt bulbs clipped to the ceiling. They are both bounced to give diffused light. So that is my key light. Plus, I have on simple light on a dimmer switch for my back light and that's actually all I've got right now and it seems to do the trick. Now I've just unplugged the backlight hitting my hair and you can easily see the difference. Not only does it take away the halo on my hair but it makes a difference on the cloth I have draped behind me. So the addition of a back light is really a nice professional touch to your lighting. The light I am using is just a 40 watt light bulb clipped onto the ceiling and plugged in to a dimmer switch. Without the dimmer switch it gets too bright.

Now here's another tip. **I personally like to use gooseneck lamps because they are easy to point exactly where you need the light to be.** Clip on lights are very handy and can be tucked in anywhere. If you use a low-wattage bulb on one of these clip on lights you can actually put it very close to a person's face right on their face and it can be a real nice, easy way to create polished-looking light on their face even if you're in kind of a big room, when you cannot effectively light the entire room.

Now what about the fact that home fixtures use regular bulbs? I get that question a lot. It'll work. Really. Now there are some issues in video making with using light from different sources, like sunlight vs. incandescent. You might have heard about something about white balancing, color temp and the Kelvin measurement scale. All that has to do with what I'm talking about here with different light sources providing light of different colors and that can mess up the color of your video. Sunlight is blue at about 5700 kelvin and incandescent bulbs are orange in comparison to sunlight at 3200 degrees Kelvin. While all of this is true, it's one of those

things, thank goodness for modern technology, you do not have to be too concerned with in most cases. Especially low-level productions because modern cameras do not have much problem with mixed light. In fact, some of them are designed for mixed light because that is what so many people have. And so over the years cameras have gotten much better at handling mixed light. **Now, if your shot looks too orange or too blue, you should look more into color temperature** because this is probably the issue but my guess is that 99% of you will never run into this issue. If your camera has a manual white balance control, white balance inside whatever light you're using. Whether it's a pure light source, just one kind of light or whether it's a mixture. You white balance inside the light you are actually using and then you should have no problem at all with the color temperature. So you can mix different kinds of light, especially in low level video production.

**In summary, most video looks best with very bright, but diffused light. That's what brings out the crisp color images. The brighter the better.** Now, the very act of diffusing the light that actually makes you lose intensity. So a highly diffused 100 watts worth of light will not provide as much intensity as the same bulb hitting the subject directly. So every time you diffuse the light, the more you diffuse it, the more your intensity drops so you have to take this into account when figuring out how much light you need. Now also you have to take into account that different cameras require different quantities of light but generally, the brighter the better. **Just because a camera does well in low light, does not mean it won't look better with a brightly lit subject.**

So, now you know everything you need to know about lighting for video! Whatever situation you find yourself in, think of direct, diffused and positioning, or the direction the light is coming from. Experiment around with what you have to make it look as best as possible.