

The soft option

HOW TO PRODUCE SOFT LIGHTING FROM YOUR FLASH



HARSH AND SOFT What is the difference?

Shadows can be as vital to an image as the lit areas. But it's the quality of the shadows that's important. In photography we talk about harsh and soft shadows. Shadows are formed when an object lies between the light source and the background. If the object totally blocks the light from reaching the background, that area will be in shadow. If the light has an uninterrupted path to the background, there will be no shadow and it will be fully lit. The important issue with shadows is the transition from fully lit to deep shadow. If it happens quickly, the shadow is described as harsh. If, however, the transition is gradual, the shadow is said to be soft.

LIGHT. The basis of photography. The quality of a photograph is often judged by the quality of the lighting. With that in mind, the way you approach your lighting will depend on the mood and atmosphere you want to create in your image. However, sometimes Mother Nature doesn't quite provide the light that you need and you have to give her a helping hand. This is where your Speedlite steps in.

Unlike sunlight, you have complete control of your Speedlite to the finest degree. Think of it as a portable sun, but one you can shape to fit your needs. It's all too easy to take images with flash that come out with bright highlights and dense shadows, but no perception of depth or texture. However, with good technique, you can transform your flash pictures.

As good as your Speedlite is, it can struggle to give you the results you want because the light it produces is quite harsh. To make it easier, several companies have produced add-ons for Speedlites to give you studio quality lighting on the go. However, don't just rush out and buy the first one

you see. You need to understand what each one does and which is right for you and the type of images you want to take.

Light quality

The quality of light in an image is determined by two variables – the size of the light source and the distance from the light source to the subject. Changing either one of these variables will change the way the light and shadows appear in the image, sometimes quite dramatically.

All light modifiers change one or both of these variables to produce a different quality of light. Knowing how each one affects the light and how to use it to its full potential is the key to successful flash-lit pictures.

Light size

The size of the light source is quite possibly the most important factor in determining the quality of light in the final image. It controls the softness of the shadows.

The larger the size of the light source, the

softer the shadows will be, as the transition from completely lit area to the darkest part of the unlit area will be more gradual.

Conversely, if you use a very small light source to illuminate your subject, then the transition from lit to unlit will be much sharper, resulting in a harsh or hard shadow.

Both of these methods can work well, but it greatly depends on the subject and the mood you want to create in your final image.

Light distance

The apparent size of the light source can also be controlled by the distance between the light source, in this case your Speedlite, and the subject.

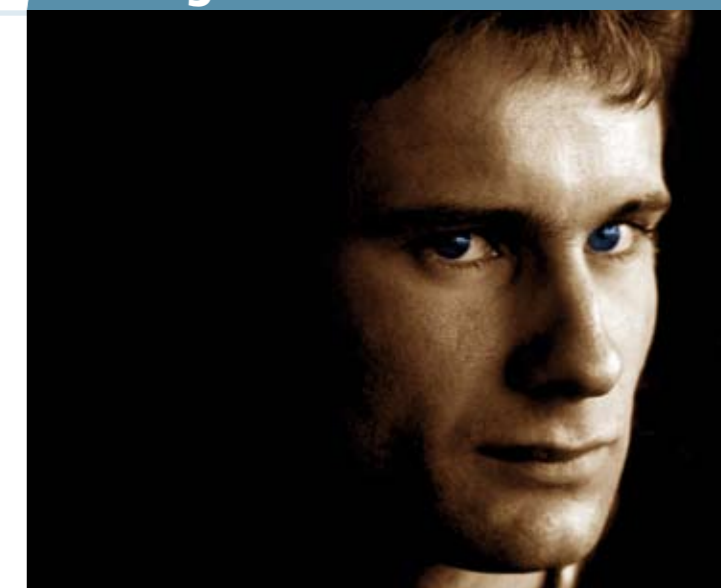
Up to a point, the closer the Speedlite is to the subject, the larger it will be in relation to the subject. However, if you get too close to a subject larger than the Speedlite, then the angle at which the Speedlite emits light will not be great enough to cover the whole subject.

Juggling the flash-to-subject distance and light source size is vital for successful flash photography. Fortunately, it's actually not difficult to master.

Below Using a Speedlite modifier (in this case a Lumiquest BigBounce) with the wireless capabilities of the EX flash system has allowed the photographer to easily create soft, balanced flash lighting. The modifier has enlarged the light source to soften the transition from lit area to shadow, and create even lighting with no bright highlights or deep shadows.



Light direction



The direction from which the light appears in a photograph is just as important as the quality of the light. Subconsciously, everyone is aware of the shadows and light direction in an image. If the light in an image does not match the expected pattern of light distribution, the subject will look fake and unnatural.

Essentially, there are four types of lighting for photography – front, side, top and back. It could be argued that lighting the background while keeping the subject in shadow is a fifth type of lighting, but this is hard to do with flash guns and results in silhouettes.

Under normal circumstances your subject is lit by the sun. It is therefore unusual for the light source to be the same place as from where you are viewing a scene, so keeping the flash on camera is likely to result in slightly unnatural looking images.

Side lighting can be a useful technique to use as it brings out the relief or texture of a subject, but it is also likely to produce areas of dark shadow. A second light to add detail to these shadows will usually improve the shot.

With backlighting, your Speedlite is placed behind the subject to produce a halo of light. This is an especially effective technique if you are photographing people with blonde hair as it produces an attractive glow.

Top lighting is the most natural type of lighting as, like the sun, our most dominant source of light, it comes from above. However, as with side lighting, it can produce harsh shadows that benefit from being filled in by a second light source.

Modifiers in use



Speedlite issues

The main problem with Speedlites is that they are designed to be small and portable. Although they can produce a lot of light, it all comes from the small surface area on the front of the flash.

All of the newer Speedlites have the ability to zoom the flash head to match the focal length on the lens. Although this alters the coverage of the light from the flash, the size of the light source (the front of the flash) remains the same.

Making the most of modifiers

There are three basic types of flash modifiers. There are those like the Stofen OmniBounce, which fire the flash in all directions and rely on the surrounding walls and ceiling to bounce light back onto the subject, thereby creating a larger light source and softening the shadows.

Alternatively, there are modifiers like the Photoflex XTC II and LightDome, and the Lumiquest Softbox, which simply enlarge the front surface area of the flash by firing the light through a large diffusing panel.

The third type is those like the Lumiquest BigBounce. With these, the flash is aimed vertically onto a large surface area which the flashlight bounces off before going through a diffusion screen to effectively enlarge the flash source surface area and create softer shadows.

Whichever method of light modification you choose, there is an associated loss in flash power, meaning your maximum flash to subject distance will be decreased. You will have to remember this when shooting or your images may be dark.

With a modifier placed on an on-camera flash, you can achieve very good images. However, the front-on light that it produces will not be suitable for all images. To get studio quality shots while out and about, you need to use a modifier and place the flash off-camera. The Canon system allows you to do this very easily. If you have a 550EX or a 580EX and one other EX series Speedlite, you can use the larger Speedlite as a master to control the second slave flash wirelessly. Alternatively, you can use the ST-E2. This is Canon's dedicated wireless flash controller which works with all the EX series Speedlites. The macro flash lights, the MR-14EX and the MT-24EX can act as master flashes to other EX flashes, although they cannot be controlled by the ST-E2.



Above Direct flash on camera (top) creates harsh shadows and bright highlights. Using a modifier softens the shadows to produce a natural portrait.

Below Again, off-camera placement combined with a Lumiquest BigBounce has resulted in flattering balanced flash light with no distracting shadows.



Zoom setting

To get the best from your chosen modifier you need to make sure your flash is set to the correct zoom setting. Otherwise, despite the best efforts of your modifier to spread the light from your flashgun evenly, you'll still end up with hotspots in the light coverage.

The images to the right show the effect of different flash head zoom settings when used with a Photoflex softbox. The red areas are the areas of brightest light intensity, while the blue are areas of the lowest light intensity.

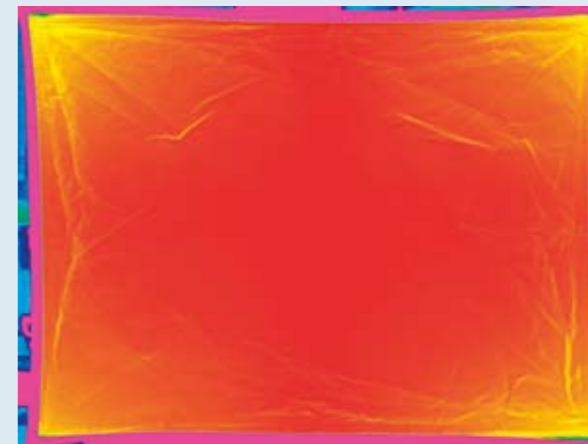
The last three images show the effect of using the Lightsphere II modifier inside the softbox to create a bare bulb effect, spreading the light around the softbox internally before it is passed through the diffusion panel. This has changed the shape of the hotspot, from rectangular to round and, although it has not enlarged the hotspot as much, it has created a smoother and more gradual transition between the areas of light intensity (shown by the larger yellow and green areas).

Whichever flash modifier you decide to use, you should carry out this experiment to determine the optimum zoom setting for it. To test your modifier you need to be able to trigger your Speedlite remotely. Ideally you need to use a digital camera as it makes it much easier to align the tones in the image using a RAW converter. If you're shooting film, then you will need to scan the images after taking them.

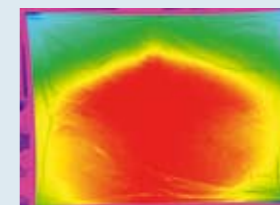
- 1 With the flash and attached modifier fixed off-camera on a stand, take an image shooting directly into the flash, filling the frame as much as possible.
- 2 In your RAW converter software, adjust the exposure so that the brightest point is very nearly a blown highlight. If you are shooting in JPEG, then use your image editor to adjust the brightness levels.
- 3 Perform the RAW conversion of the file and take the image into Adobe Photoshop.
- 4 Invert the image (either Ctrl + I or Image > Adjustments > Invert).
- 5 Then use a gradient map. Image > Adjustments > Gradient Map. Select rainbow to produce an image with the brightest tones being red and the duldest tones being blue.

The larger the area of red, the less of a hot spot there is, and the more efficiently your modifier is diffusing the light. However, remember that the wider you set your flash zoom, the less power it produces. As with everything, you must decide on the best compromise – more power and less diffusion, and therefore harder shadows, or less power and more diffusion, softening the shadows.

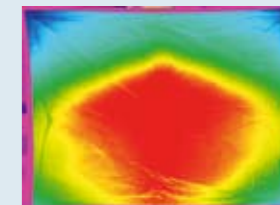
Although it would seem best to always use a wider zoom setting to obtain the softest shadows, sometimes you will be forced into using a narrow zoom setting to obtain enough light from your Speedlite for the correct exposure.



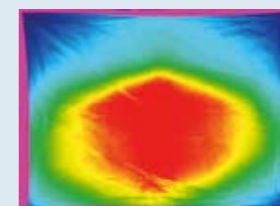
Above A Speedlite 580EX set to the 14mm setting (using the wide panel diffuser) has given a very good spread of light across the front of the diffuser. There is no hotspot as the light has been optimally spread. The lack of hotspot means this is the best setting for this modifier.



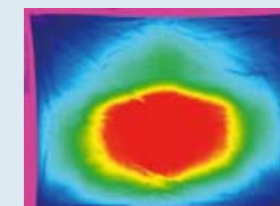
Above At 28mm, there is a good spread of light across the diffuser



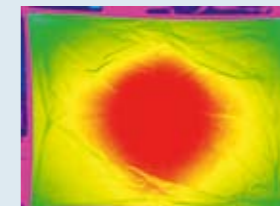
Above At 35mm you can see the hotspot is more focused



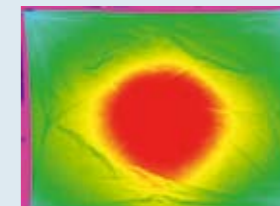
Above At 50mm the shape of the hotspot resembles the flashhead



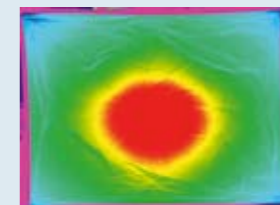
Above At the 105mm maximum setting the hotspot is very harsh



Above With a Lightsphere II and the Speedlite set at 24mm



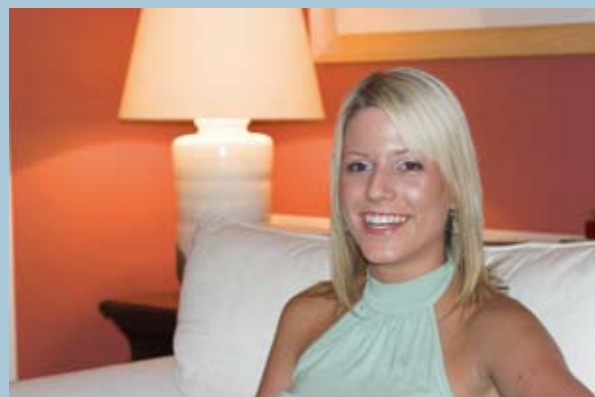
Above With a Lightsphere II and the Speedlite set at 50mm



Above With a Lightsphere II and the Speedlite set at 105mm

Compare the light

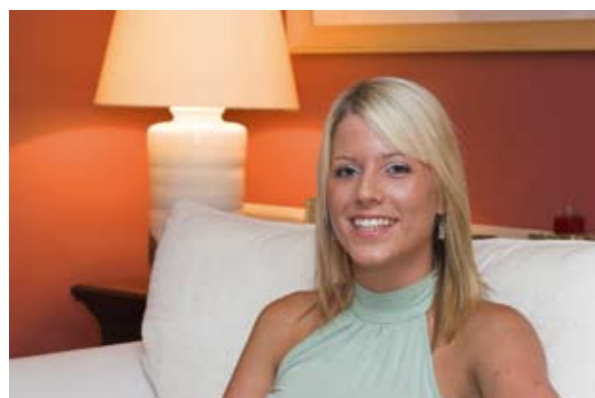
We tested a number of Speedlite modifiers so you don't have to! You can compare the results below to see the effects that each modifier produced. The smaller images show you the set-up we used to create the final image.



Above Built-in flash



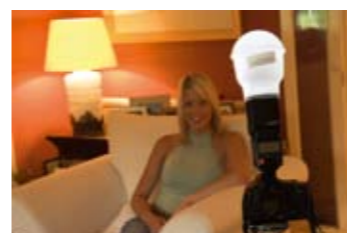
Above Unmodified 580EX



The Lumiquest 80-20 fires 80% of the light up to bounce off the ceiling while reflecting 20% forwards to fill in shadows on the subject. For this reason it is best used indoors with low ceilings to bounce the light.



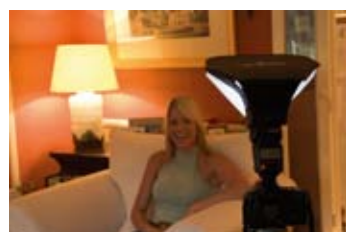
The Lumiquest Softbox packs flat but expands to provide a larger diffusion screen to soften the shadows cast by the direct light. Being direct lighting, it is slightly harsher than bounced light. Good to use indoors and out.



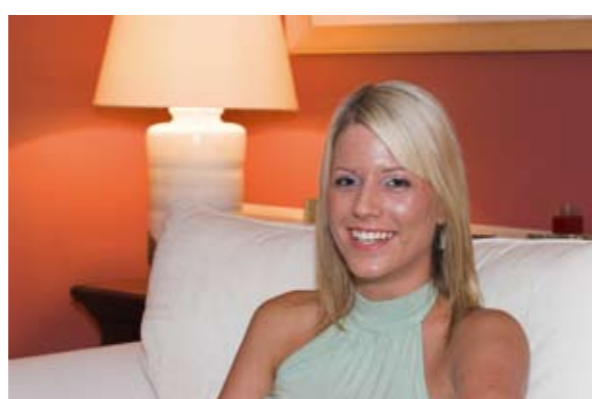
The Lightsphere II is a lot like an old bare bulb flash gun. It provides a large surface from which the light can be diffused and it can be used indoors or out by limiting the light that is fired up to reflect off a ceiling. It provides very soft lighting.



The StoFen Omnibounce diffuser has long been favoured by people on the move as it's small and almost unbreakable. It is designed for bounce flash so is best used indoors where there are walls and ceilings to reflect light.



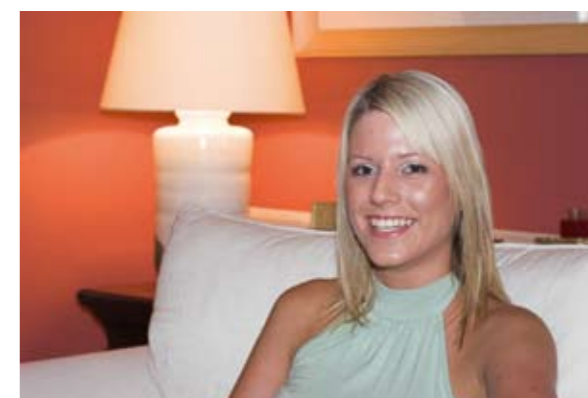
The Lumiquest BigBounce reflects and diffuses light. Like the 80-20, it bounces the light but using its own bounce surface rather than the ceiling. As such it is usable outside as well as inside to soften shadows from flash.



The Lumiquest UltraSoft is a smaller version of the BigBounce. It also uses a bounce surface and diffusion screen, but being slightly smaller the shadows are a little harsher than those produced by the BigBounce.



The Photoflex Lightdome is a proper softbox shrunk to a very portable size. It provides a large surface area for diffusion and greatly softens shadows when compared to a bare flash. Use it off-camera for the best results.



Also by Photoflex, the XTC II is an inflatable softbox. The results are very similar to the Lumiquest Softbox, providing softer shadows than direct flash. It can be used inside or out and, being inflatable, it will make your models smile!



The newly-released Lumiquest SoftScreen is designed to be used with your built-in flash. It helps avoid red-eye and creates softer shadows than the built-in flash on its own. Great if you haven't got a Speedlite or you travel light.

So you've now seen the modifiers and what they can do in a very simple situation using a single Speedlite (or the built-in flash). You should remember that the results will vary depending on whether you are inside or out and, in the case of the bounce modifiers, the colour of the wall or ceiling you are using to reflect the light.

All of these modifiers are easy to use and most require nothing more than a few strips of Velcro to attach them to your Speedlite.

You can buy the Lumiquest products or the StoFen Omnibounce diffuser shown in this article by mail order from EOS Collection (page 72). To order, visit: www.eos-magazine or tel: 01869 331741.

Photoflex products are available from the UK distributor, Cirrolite. To order, visit: www.cirrolite.com or tel: 0208 955 6700.

The Lightsphere II is made by Gary Fong and currently is only available on the Internet from America. Visit: www.garyfong.com

Speedlites and studio gear

Is it possible to get studio quality light in a makeshift studio at home? Most people, unless they're serious about studio photography, don't have the luxury of, or space for, a complete studio lighting set-up. But, if you have a Speedlite, then it's easier than you might think.

The modern Speedlites, the EX series, are powerful for their size. Certainly the two top-of-the-range models, the 550EX and the 580EX, are powerful enough to use with larger light modifiers,

such as umbrellas or bigger softboxes, to create truly professional results.

Gerard Maas, a regular contributor to EOS magazine, does exactly this, with very good results. An enthusiastic photographer, Gerard's friends and family regularly ask him to shoot portraits for them. Here Gerard presents four situations where he has used his Speedlites with some larger flash light modifiers in place of a more standard studio lighting kit.



The garage studio

A colleague asked me for some last-minute headshots for a portfolio. Not having a studio, I set about using my Speedlites to create the effect she wanted in my garage. I knew that Speedlites alone would not give the required lighting quality, so I fired one of the 550EX Speedlites through an ordinary white umbrella to soften the shadows and spread the light more evenly.

A large piece of polystyrene board held by her friend acted as a reflector to fill-in the shadows, while a second Speedlite positioned on the floor behind her provided some backlighting to her hair.

I used the ST-E2 transmitter to control both Speedlites wirelessly while still providing full E-TTL exposure metering. This allowed me to concentrate on composing and taking the image rather than worrying about the lighting and exposure. It also kept the limited space I had free of cables allowing me complete freedom of movement to shoot from a variety of different viewpoints without worrying that I might trip over.



Crashing the party

I was at a birthday party where there was a group of high school friends who had not seen each other for almost ten years. To have a memory of the day (just in case it was another ten years until they saw each other again) I suggested I take some portraits of each of them.

I used a 550EX Speedlite in conjunction with a Lastolite Ezybox to provide simple studio quality soft lighting in the middle of a party.

I persuaded each of the friends to alternate holding the softbox and reflector in position thus getting them involved in the shoot and making it more enjoyable for them.



Baby's day out

Some friends of mine have a toddler who is just learning to walk, and they asked if I would take some pictures of them in their garden for the family album. Here the light weight and mobility of the Speedlite and Lastolite Ezybox meant it was easy to follow the fast moving toddler around the garden without sacrificing light quality and shadow softness.

For the image shown here, the Ezybox was held in one hand and the camera in the other while the child's father lifted her against the sky. The result was nice soft fill-in light, balanced with the bright light of the day.

Once again the wireless system of the Speedlites proved its worth. I could set up the flash and move around to find the best composition.

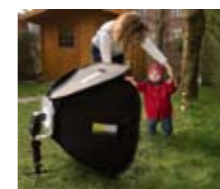
Model on location

The great advantage of Speedlites as a portable studio light source is their small, portable size and the fact that they use batteries rather than relying on an external power source.

This opens up a whole new range of locations that would previously have been unavailable. These shots of a model were taken in just such a place – a small enclosed garden outhouse.

For this shot I used a Speedlite 550EX and Lastolite Ezybox for the main light, with a second 550EX placed on the floor behind the model to light the background.

Using a stand to hold up the softbox and another to hold a reflector, this looks every bit like an ordinary studio set-up, but it's on location! The small size of the equipment and its portability means it's easy to move around and look for different angles to shoot from.



Right Taken using the Lastolite Ezybox placed below and to the right of the father to light up the toddler's face against the bright sky. The image above shows the same shot but without the flash being used. The shadow areas are dark and intrusive and it lacks the vibrancy of the one taken with flash.

