

Focus Light Testing 070726



Light focused on white barium paper at 6 inches and metered with a reflective Minolta spot meter at ISO 100

| Product | F-stop | Speed | Color | Bezzel | Comment |
|-------------------|--------|-------|-------|----------|-----------|
| Nocturnal LED | 11.5 | 1/60 | 7900K | diffuser | Hot spot |
| | 22.5 | 1/60 | 7900K | clear | Hot spot |
| Intova LED | 32.9 | 1/60 | 9500K | clear | Hot spot |
| Fantasea 44 LED | 11.5 | 1/60 | 8500K | clear | Mild spot |
| Fantasea Nano LED | 16.5 | 1/60 | 9000K | clear | Spot |
| Fix Light HG20DX | 22.9 | 1/60 | 3200K | clear | Soft |
| low power | 56.4 | 1/60 | 2330K | clear | Soft |
| Fix Light LED48DX | 22.5 | 1/60 | 9500K | clear | Soft |
| low power | 11.2 | 1/60 | 9500K | clear | Soft |
| diffuser | 16.5 | 1/60 | 9500K | diffused | Soft |
| low power | 56.5 | 1/60 | 9500K | diffused | Soft |

What make a good underwater camera focusing light?

First: The type of camera will determine some of the elements in your selection.

Simple point and shoot cameras seldom have lenses that stop down above f11. Where the SLR (single lens reflex) cameras will have lenses that can stop down to f22 to f64.

How does this fit in your selection? Lights that are too bright will show up in the exposure when you don't want them too if your cameras f-stop range is too shallow, the f8 or f11 maximum aperture. Especially if you are in the macro mode and very close to the subject where the intensity of the focus light will influence the exposure.

Second: Size and ease of attachment are a big factor. If you have a small point and shoot housing, a big light is cumbersome. Consider if the light can mount on top of the camera housing or does it have to mounter on a separate arm.

Third: Power supply is something to consider. How long will the light last before changing batteries or re-charging. Are the batteries removable so you can easily replace them between dives or will the light be out of commission while the battery is being charged.

Fourth: Can the light output be varied easily. Having the option to dim the light for close-up work and then turn up the power for distant subjects can mean the difference between getting the camera to auto focus and keeping the light from being in your exposure.

Fifth: Beam angle is important if you plan to use the light to support the video capture feature on your camera. Some lights have a sharp hot spot in the center and do not make for good video lighting but serve to help auto focus. Some lights have the ability to diffuse the light output and widen the beam angle but that reduces the intensity and may affect the auto focus ability of the camera.

Sixth: Does the light turn off during the strobe flash exposure? This reduces the possibility for the light being in the exposure.

My choice for a light that has the best overall features is the FixLight LED48DX. Bright but has variable output. Very even and wide beam angle coverage. Removable batteries (8AA type, either Alkaline or rechargeable) It has a good universal base mount that can be mounted on top of the camera housing if the housing has a shoe mount or on a variety of arms.

Of course, it is the most expensive.

Next, if price is an issue I would look at the Fantasea 44LED. Mild spot but no variable output and no base mount to attach easily to the housing or an arm. The Ultralight cradle assembly can be used with a ball-clamp arm system. Removable batteries are a good feature. The Fantase Nano light is small and has a good mounting light the Fix Light. Uses removable AAA batteries but has a hot spot and is not recommended for video clips. It has the feature to turn itself off during a strobe flash exposure.

The FixLight HG20DX is a good light but the color temperature is very warm, (3200K) and uses only a dedicated rechargeable battery. Variable output, wide beam angle and good universal mounting system but this light is expensive and more suited for video but can be used as a focus light.

Intova is a very bright light with a center hot spot and can only be mounted with the Ultralight cradle system. It is inexpensive and very durable. Not recommended for video due to the hot spot. There may be a way to diffuse the light and get rid of the hot spot but you will have to do it yourself. It uses two special alkaline batteries so you have to carry extras with you because they may not be easy to find in some remote areas.

The Notcurnal light is big, heavy and difficult to mount. It has a diffuser but no variable output other than diffusing it. It is very expensive for what it offers as a focus light. It is better as a basic dive light.

There are some other lights available but have not been tested by us for use as focus lights. Ikleite has a small C-cell light and UK has several lights that are small but don't seem to be up to the quality of light or Fantasea lights for focus assisting lights.

We will be testing other lights as they become available. Keep checking to see if we find some other good ones that are worth using as focus assist and video clips on small point and shoot cameras.

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All testing is independent and all opinions are my own.