

Weefine 3000 CCW Ring Lights

by Phil Rudin

Any fan of prime time television has probably seen a ring flash in action during programs like the C.S.I. crime dramas, America's Next Top Model and other well known series.

The ring flash was originally introduced around 1952 as a dental photography tool but quickly spread to other disciplines of photography. It has since gained popularity among nature photographers for macro/close-up use and has also become an invaluable tool for portrait and fashion photographers. The original had a circular (360 degree) flash tube which fitted around the camera lens for shooting stills.

Fast forward and today's ring lights include flash tubes, LED ring lights, fiber optic ring lights and constant source fluorescent ring lights used extensively in commercial videos like "Easy Breezy Beautiful Cover Girl" advertisements. The circular shaped specular highlights in the eyes of the models is a dead giveaway that a ring light was used.

Athena Co. made the ARF-ring flash in the film days which had a 360 degree circular flash tube. The flash threaded onto a 67mm macro port thread and was connected by a coil cord to a sending unit made by Sea & Sea. This is a product I reviewed in the Nov/Dec 2010 issue of UWPMAG.

Why use a ring Light?

Many nature and portrait photographers enjoy the diffused and shadowless lighting created by

an overcast day, so what would make artificially diffused strobe lighting any different? The bulk of the lighting load in underwater macro and close-up photography is carried by one or more strobes mostly used at a distance of less than two feet (0.6 meters) from the main subject. If canvassed most macro shooters would prefer two strobes over one directed from opposite sides of the lens and main subject.

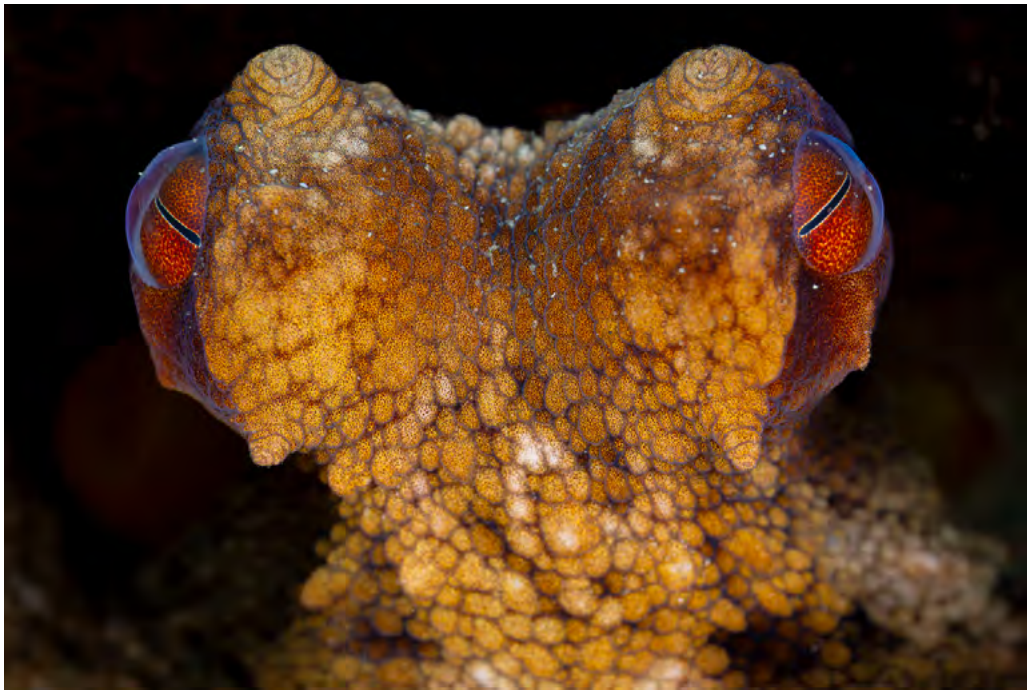
Portrait photographers often use one or more reflectors for the same purpose. In fact macro/close-up photography is portrait photography involving fish and other critters rather than people.

While having two light sources coming from different directions may seem unnatural, the reason we use the second strobe is to reduce the harsh shadows created by the key strobe (most often the left strobe). When the strobes are being fired in TTL the camera program attempts to balance the lighting on both sides of the subject making the light a bit flatter and more even across the entire frame. This is not always a good thing because it may cause the subject to lack the depth that shadows create in an image.

The ring light is a convenient way to light close subjects for several reasons. We all know that in

Banded male Jawfish with eggs, Sony A7CR, Tamron 90mm macro, Marleux MX-A7CR housing, WeeFine 3000 CCW, ISO 100, F/7.1, 1/125th sec. Shot in video mode full power using auto ISO





Common Octopus, Sony A7CR, Tamron 90mm macro, Marleux MX-A7CR housing, WeeFine 3000 CCW with fiber optic cord, ISO 200, F/13, 1/160th sec. Shot using strobe mode at full power.

any type of photography not every tool works for every situation so let's examine some of the up sides to using a ring light for macro/close-up photography.

First the reduced size and complexity of the system is one of the key advantages of the ring light. It allows you to get your camera system and light source into places larger strobes can't go.

After looking at tens of thousands of macro images in my sixty plus years of being involved with diving it has become quite evident that

most macro images are shot in the landscape (horizontal) orientation. While this is not a bad thing it occurs to me that many of these subjects, like Seahorses, would have been more compositionally pleasing had they been captured in the portrait (vertical) orientation. My observations and experience with multi-strobe lighting systems is that going vertical presents problems many photographers don't wish to be bothered with.

Because the ring is so light weight and compact it can be used with a single hand and shifted from



Common Octopus eye detail, Sony A7CR, Tamron 90mm macro, Marleux MX-A7CR housing, Marelux MV-10 +10 C/U lens, WeeFine 3000 CCW with fiber optic cord, ISO 200, F/13, 1/160th sec. Shot using strobe mode at full power.

totally eliminated backscatter I find noticeably less using the ring light over dual strobes.

The ring light is most useful from 1:1/or greater out to about eighteen inches (1:1 to 45 centimeters) from the subject, beyond this distance dual strobes are much more effective because they have greater power for high F/numbers.

Weefine 3000 CCW Ring Lights

landscape to portrait orientation with ease. This compact size also allows you to get your macro lens low and on the same horizontal plane as your subject so that you are at eye level or below.

For shooting vertical's I have frequently removed the left grip from many housings to be able to get the housing lower in relation to the subject.

Because the ring light has a narrower beam angle than most strobes stray light is significantly reduced resulting in a reduction of backscatter. While no system can

Weefine underwater photography equipment is manufactured in China and distributed world wide. Weefine produces underwater lighting, housings, lenses, cameras, accessories and more for the retail diving market. I had a meeting with some of WeeFine's staff at DEMA in late November 2024 and they temporarily provided the test equipment I used for this review.

As with all of my reviews WeeFine had no input into the review and did not see the review before publication.

The WeeFine 3000 CCW ring lights look practically identical to past 1000 and 3000 versions and uses a circular pattern of LCD lights which



Goby, Sony A7CR, Tamron 90mm macro, Marleux MX-A7CR housing, WeeFine 3000 CCW with fiber optic cord, ISO 200, F/10, 1/160th sec. Shot using strobe mode at full power.

surround the 67mm macro lens port. The 3000 CCW has the standard 67mm threads common with most current interchangeable macro ports and with many consumer compact housings.

The ring light simply screws onto the 67mm macro port and you are ready to go with the power source being self contained. Be aware that each macro port will line up differently with the ring light and the battery compartment may not be aligned on the port the way you like it.

The threaded ring is held in place on the back of the light by six very tiny Allen screws which if removed could allow you to move the placement of the battery compartment from say the bottom of the system to the top.

In addition to the variable continuous light settings the newest 3000 CCW version has a beam

angle of 90 degrees underwater. The main LED's provide 3000 lumens in the strobe mode and 1800 lumens in the video mode, a third super closeup mode is a continuous 1000 lumens at 5000K. Color temperature can be adjusted between 3500 and 8000 Kelvin in video mode.

The ring light can also fire like a strobe at 3000 lumens using a standard fiber optic cord which many may already own.

The 3000 CCW uses the 5000mAh 3.6v 18.0Wh 26650 lithium battery included with the 3000 CCW which is similar to the older 3000 model. The newer battery can be charged in an approved optional battery charger but also by using the mini USB core provided with the 3000 CCW.

WeeFine also provides a tool to tighten and remove the light from the macro port, two

spare O-rings and an O-ring pick along with some instruction manuals which were dated in my test unit.

The WeeFine 3000 CCW battery goes into the battery compartment with the positive end first. The battery compartment cap then screws in and has a double O-ring seal to prevent floods.

On the opposite side of the battery compartment from the cap is a push button control switch with a rotating dial and operating light. The dial below the switch increases and decreases the LED power levels and the 3500k to 8000k color temperature.

The operating light has a battery level indicator that illuminates so you can view the power level left in the battery. A blue light indicates a level of 100% to 80%, green 80% to 30%, red 30% to 10% and then a blinking red at 10% to 0%.

The burn time in video at max power is 45 minutes with a CRI rating of RA90. The 3000



Sergeant Major fish eggs, Sony A7CR, Tamron 90mm macro, Marleux MX-A7CR housing, Marelux MV-10 +10 C/U lens, at 2:1, WeeFine 3000 CCW, ISO 200, F/10, 1/160th sec. Shot using the Super Closeup LED, 1000 lumens, 5000K.



Juvenile Highhat (Pareques acuminatus) Sony A7CR, Tamron 90mm macro, Marleux MX-A7CR housing, WeeFine 3000 CCW, ISO 1000, F/8, 1/160th sec. Shot in video mode full power using auto ISO.

CCW weighs in at 470g (on land) and 245g (underwater) with the battery installed. The depth rating is 100m/330ft and the MSRP for the 3000 CCW as of this writing is \$399.00 US/€399.00 with tax.

Field Testing The WeeFine 3000 CCW

To get the 3000 CCW ready for use put a fully charged battery into the battery compartment and thread the cap into place. Turn the video light mode on by depressing the on button

for about one second, the light will turn on at the low power setting and a blue light indicating a full charge should appear.

To increase the power level turn the round knob under the switch clockwise and the light will become increasingly brighter, it will take about a turn and a half for max power.

Once you have selected your power level push the button again and you can select your color temperature from 3500k-8000k, no color temp readout is provided. The light has two sets of LED's one white and a smaller

set of yellow LED's both on a white reflector.

In the color temp mode turning the dial up and down increases and decreases the white and yellow color levels to change the Kelvin levels. Press the on button a third time and the primary LED's turn off while a third set of LED's turns on. These are the super closeup mode LED's which point inward and are 1000 lumens max at 5000K. This setting is useful from around 1:2 or greater magnification at ISO's down to ISO100 at around F/5.6 to F/13 using full

frame. Keep in mind that for those using smaller sensor cameras the ISO and F/number ranges will be more forgiving as the sensors get smaller.

Beyond the 1:1 range the ISO will need to be increased a bit for best results with full frame cameras. Also keep in mind that the ring-light (not including battery compartment) is about 23mm thick, which puts you 23mm closer to your subject.

Using my Marelux MV-10 C/U lens (with 2X magnification) placed between the macro port and 3000 CCW ring-light I only had about

Reticulated Brittle Star on Cushion Sea Star underside, Sony A7CR, Tamron 90mm macro, Marleux MX-A7CR housing, Marelux MV-10 +10 C/U lens, WeeFine 3000 CCW with fiber optic cord, ISO 200, F/14, 1/160th sec. Shot using strobe mode at full power.



4-8mm's between the light and a relatively flat subject at the closes magnification. Something small like a single octocorallian polyp could be captured slightly inside the ring-light without damage by a skilled shooter at 2:1 or perhaps 2.5:1.

To trigger the strobe mode you need to insert a fiber optic cable into the mounting point on the ring-light and the opposite end into the mounting point on the housing. Press once to turn on the video light then press and hold until the ready light starts to blink. The ready light will continue blinking slowly as long as the light is in strobe mode. Once in strobe mode you can turn the light dial clockwise to full power and when you trigger the flash you will get a full 3000 lumen power dump. Once the strobe mode is triggered the light will stay-on but at the lowest power setting for use as a focusing light.

Remember that the housing will need an internal flash trigger just like any conventional strobe and the ring-light will not work in TTL mode. To turn the light off just hold down the switch until the light goes out. The light also has a flashing SOS setting.

Shooting stills in the strobe mode with macro lenses like the Tamron 90mm and Sigma 105mm for Sony full frame my settings were ISO 100 to 400 from F/5.6 to F14 for both lenses I rarely shoot macro above ISO-400 with conventional strobes and found the ring-light strobe mode worked well in this range but with a little more open apertures for darker subjects.

In strobe mode the power level is highest at 3000 lumens and the battery lasts longer in the other constant light modes like video. As with any single battery strobe the charge did not last as long as it would using a strobe with multiple batteries. My experience was around 200 images in strobe mode on a single dive. Numbers will vary depending on several factors including but not limited to battery age, power level being used, ISO, F/numbers subject darkness and more. Because smaller sensor cameras have greater depth of field at lower F/

numbers and ISO requiring less light battery life may also increase with these smaller cameras.

Because strobe mode reverts to the lowest power setting after each flash battery life is extended over using video or super closeup mode. The alternative with those modes is to turn off the light completely between each subject which will result in missed opportunities. Set to low power in video mode the 3000 CCW also makes a fine focusing light paired with strobes for situations like blackwater dives.

Many U/W photographers travel with multiple strobes, some for different situations like macro and wide angle or just as backups. The Weefine 3000 CCW ring light is small enough and light enough to carry in a jacket pocket. The robust construction allows them to be packed in just about anything.

As a backup or prime macro ring-light the 3000 CCW is an excellent travel choice. The 3000 CCW should be a backup on an extended trip if macro is your primary focus. As always remove the Weefine battery from the 3000 CCW and pack it in your carry-on before travel.

The WeeFine 3000 CCW is an inexpensive alternative to most strobes and is well worth the cost.

I would once again like to thank WeeFine.com for providing the equipment and technical support for this review. The web site offers three different ring lights in the \$249.00 to \$399.00 price range.

Phil Rudin
Instagram

Phil Rudin Is Senior Advisor on the Marelux Management Team