

A Busy Month for Product Reviews

I think one of the advantages of passing the 50K subscriber count on YouTube is the increase in companies asking for product reviews. These can range from kitchen appliances to gardening. Whilst I have no interest (or more importantly time) to do these, sometimes I do get requests for products which might be of general interest to photographers and will accept these subject to a few conditions that I get the supplier to agree to before taking the product. If the products don't meet safety standards (physical and electrical) or if the actual product performance doesn't match the product specifications then I will not publish the results and the supplier must agree to the return postage for the item. This has happened more than once and quite often the imposed conditions get a thanks but no thanks response – so that tells me the product is probably not as advertised or has some serious defects.

So this month I have reviewed the Falcon Eyes F7 RGB Video light



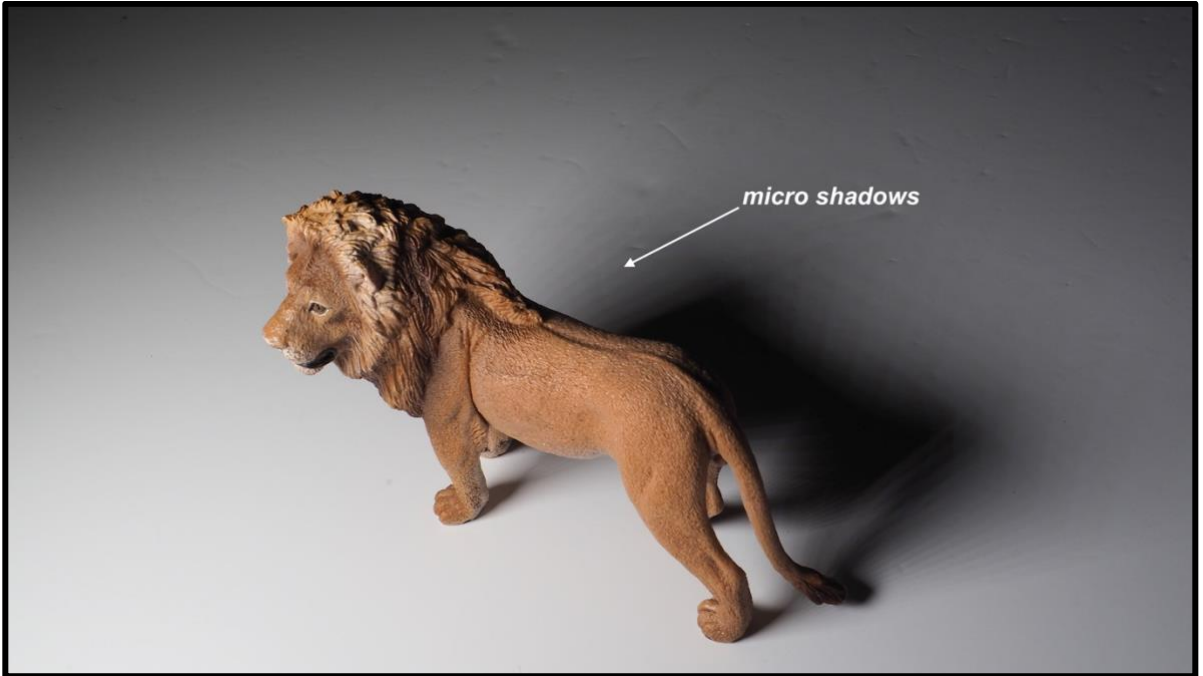
And the Max Power 36000mAh power bank for Apple Macbooks



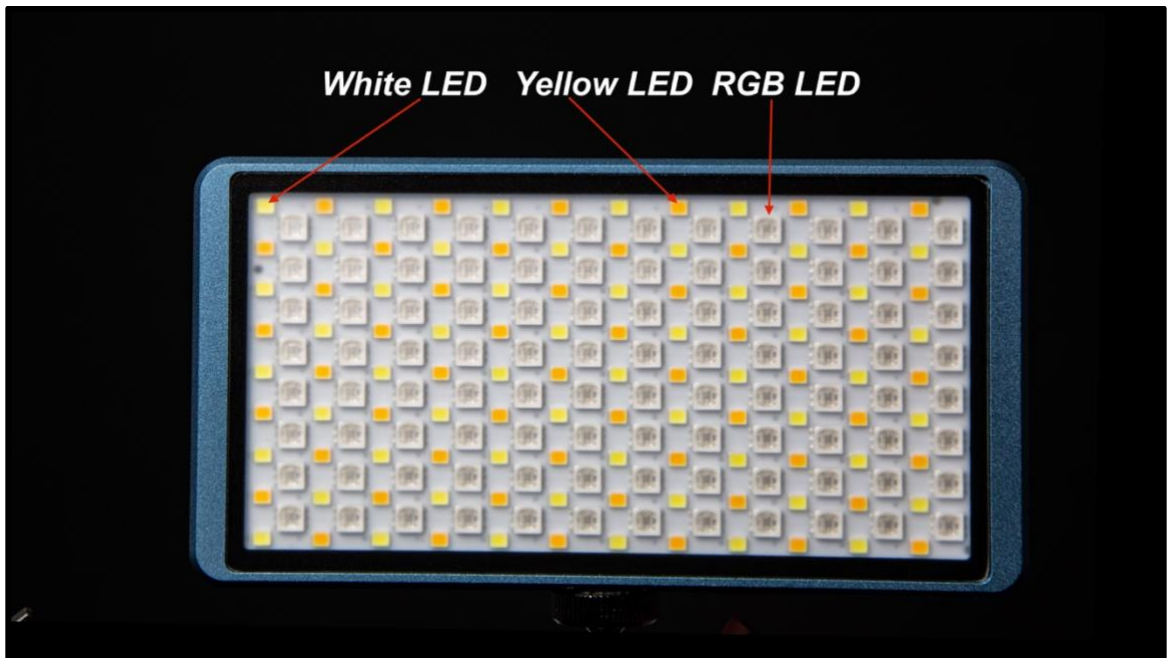
Now the F7 RGB video light is a useful light if you want to have a light that you can change the Hue and Saturation very easily without resorting to the more expensive option of a collection of coloured gels.

It also has a dual colour LED matrix consisting of amber 2500K and blue white 9000K LEDs so you can set any colour temperature between either of these values by simply adding a percentage of light from each bank of LED's.

You also get a white diffuser to soften the micro shadows if you use the light close up to the subject as each one of the LED's becomes a point light source.



Additionally a honeycomb light modifier is supplied to reduce the wide (110 degree) beam angle to prevent light spill on backgrounds and create much more dramatic lighting effects.



It has a USB-C QC3.0 input port to charge the unit from a suitable power supply (not included). [My YouTube review](#)

The 36000mAh power bank is a useful capacity for not only recharging the Apple MacBooks but it can also deliver enough power to simultaneously run and charge them.



[My YouTube Review](#)

MAXOAK Type-C Power Bank Benefits:

1. Power Bank Designed for Apple MacBook/MacBook Air/MacBook Pro(Range from 2006-2018)

and Other PD2.0 Type-C Laptops/Tablet/Smartphone:

Wide Voltage Range from 5V,9V,12V,15V and 20V,

Broad Compatibility for various PD USB-C Devices.

2. Huge Capacity: 36000mAh/133.2Wh,

The K3 Portable Power Bank can charge the newest MacBook(41.4Wh cell) 2.2Times

MacBook Air(54Wh cell)1.7Times,

MacBook Pro 13inch(54.5Wh/49.2Wh cell)1.7-1.9Times,

MacBook Pro(76Wh cell)1.2Times,

iPhone X about 8.6Times.

3. You can recharge the K3 Power Bank by AC Adapter Charger and PD2.0 Type-C Adapter.

Input/Output Type-C support charge and discharge with the same port.

More 5V USB-Charged Devices. You can charge several devices simultaneously.

4. Constructed with A-grade Lithium-ion Polymer Battery Cells,

1000+ recharge cycles & Multi-Protect Safety System ensures safe use.

Four Intelligent LED Indicators Show the remaining power capacity.

I have also purchased some studio lighting which I may review shortly.

How Do You Know Which LED to Buy?

When looking at LED by comparison there are a number of factors that can be considered: Colour temperature, Brightness (LUX) and the CRI (Colour Rendering Index).

The light bulb market has gone through enormous change since traditional incandescent bulbs were removed from the market and replaced with energy-saving bulbs.

Gone are the power hungry and heat producing tungsten filament bulb and in are Halogen, Compact fluorescent and now, LED lights.

Halogen are still popular because of their cosy glow at around 3200K but still draw a high power and dissipate lots of heat. Light from a halogen bulb is similar to an incandescent in colour and quality, as both use a tungsten filament. There's little difference between the two in the amount of energy used and halogens are significantly more expensive to run than other energy savers. With an expected life span of less than two years, a halogen bulb is unlikely to pay for itself before it fails.

Compact fluorescent (CFL) are frowned upon because of the greenish light they emit and from the small amount of mercury that they contain in order to produce the right light spectrum.

CFLs are cheap and widely available in a range of sizes and outputs. Some older CFLs were slow to brighten, but this has improved considerably in recent years. They are four times more efficient than incandescent bulbs and quickly pay for themselves in energy savings – but not everyone likes the light they emit.

Enter the new kids on the block the LED lights.

These use almost 90% less energy than a traditional incandescent, making them the most energy-efficient type of lighting. LEDs are usually more expensive to buy, but should last up to 25 years. In the long term they are the cheapest option. An LED could save you more than £180 in energy use over its lifetime, compared with an old-style incandescent bulb.

Unfortunately there are lots of players in this market because of its potential revenue and some LED's will fail before their payback because of poor designed power supplies and lack of heat dissipation of the actual LED chips.

Year on year the efficiency in terms of lumens per watt are increasing significantly with some incredible power outputs for as little as 1 watt of power consumed.

You can witness this in the change to street lighting which has brought in safer roads because of the brightness, and more importantly, the daylight colour of the installed units. Slowly replacing the spectrum limited yellow sodium or bluish mercury discharge lamps.

In the past, when nearly everyone filled their homes with incandescent bulbs, brightness was measured in watts - which is actually a measure of power. Since the introduction of energy-saving bulbs, this is a less useful measure of brightness, as new bulbs use a lot less power to produce the same amount of light. So, instead, light output is measured in lumens. The higher the number of lumens, the brighter the light. Here's a chart showing the equivalent watt and lumen output for old-style incandescent and the three types of energy-saving bulbs (LEDs, halogens and CFLs).

Light output in LUX	220+	400+	700+	900+	1300+
HALOGEN	18W	28W	42W	53W	70W
LED	4W	6W	10W	13W	18W
CFL	6W	9W	12W	15W	20W
TUNGSTEN	25W	40W	60W	75W	100W

The light output is measured in LUX and taken from 1 metre from the light source

As a very rough guide an average sized living room requires a total of (maybe from a few light sources) about 3000Lumens for comfortable reading etc.

That leaves the final choice of colour temperature to consider.

Colour temperature is measured in Degrees Kelvin with candle light being towards the yellow end of the spectrum at 1500K and light from a clear blue sky in the region of 10,000K with midday sun in the region of 5500K.

The colour of light can impact everything, from your mood to the colour of the images we view as photographs, so it is important to get the colour of light that you prefer.

Adding to the complication of choosing a light source colour temperature is a feature of the light source called the CRI (colour rendering Index) and is a measure of the ability of the light to accurately represent colours viewed in that light.

Traditional incandescent and halogen bulbs have a near perfect CRI and score in the high 90s.

LEDs and CFLs are a little behind this and are more likely to have a CRI value in the mid 80s. 80 is considered an acceptable level, although like many things it comes down to personal preference. A CRI score of 80 is still pretty accurate and suitable for most lighting situations, however if you want a light to pick out a particular work surface or perhaps even a canvas print on your wall, you may want to pick a light source with a high CRI value.



A typical colour checker chart is used to compare the chart RAW data against the values obtained when photographing the chart in the light source being measured.

It will quickly identify colours that are exaggerated or missing in the light source.

One of the major misconceptions about the CRI is that it is a test of how close to daylight a light source is: it isn't.

A high CRI score doesn't mean that the light bulb produces light that is similar to the sun, or that it will make you home look like a bright sunny day in midwinter.

Instead, CRI is a measure of how well a light source will reveal colours compared with an ideal light source of the same colour temperature.

This ideal light source could be the midday sun, with a colour temperature of about 6,500K, or that of an incandescent light, which is about 3,000K.

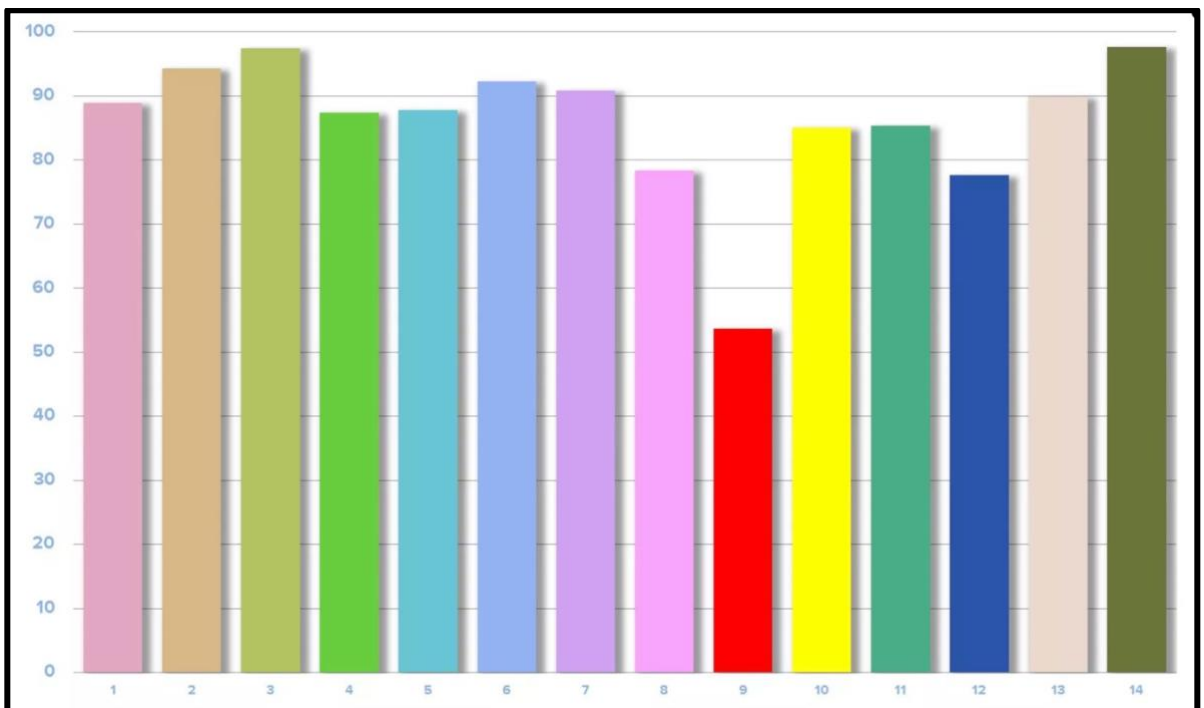
These are very different light sources, but it is equally valid to measure the CRI of a light source against either of them.

So, what does CRI actually measure? It measures the ability of the light source to reveal a range of colours, to illuminate them properly so you can see the colours as they are intended.

Some light sources have a spectrum with big gaps in it, where there is little or no light of those colours present.

A light source can't properly reveal a colour if that colour isn't in the mix of light that it produces.

Consider a Sodium road light for instance it has very little red light so red cars look black as there is no red light to be reflected back into our eyes.



In the above CRI results table for an IKEA LED light you can see that the RED output only scores an index of 53 which is fairly typical of LED lights as the spectrum drops off towards the longer wavelengths.

The colour rendering index is one of a number of ways that exist to try to measure the quality of light sources like LED light bulbs.

It isn't perfect, but it does provide a handy way to judge how well a light bulb will illuminate the world around you as long as you understand what it does (and doesn't) mean.

Why I chose the Canon EOS 90D over the Canon EOS M6 Mk2

I have eagerly awaiting the update to the very popular EOS M50. Canon have decided to update the EOS M6 ahead of any update to the M50.

The M6 lacks an EVF (although you can purchase one as an extra) and the LCD only tilts up or down and not articulated like the M50.

The big draw is the new 32M sensor and the ability to shoot uncropped 4K video.

So as the M50 isn't being updated and I already own the 70D and 80D I thought the 90D would be an ideal update.

Sadly, Canon have taken away the 24p frame rate in the new versions. Fortunately the 70D and 80D both do 24p at Full 1080P HD.



As the body only option wasn't available I opted to get the camera with the 18-135mm EFS f3.5/f5.6 lens (which turned out to be a very sharp lens!)



Image from the 18-135mm lens



Crop from the image above

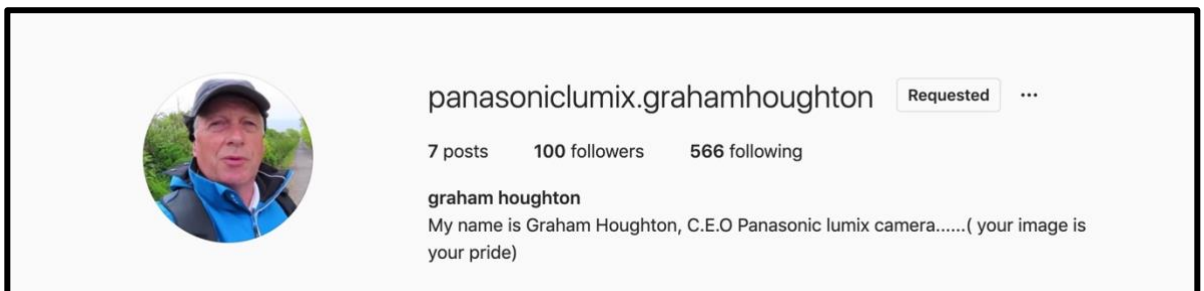
With 32M pixels on the APS-C sensor lenses need to have a very high resolution to allow the sensor to reproduce the very fine details that can be imaged.

The 18-135mm kit lens does appear to be able to image some very sharp images. These are out of camera JPEG. (Adobe PS 2019 and Lightroom now support the CR3 RAW Files)



I have shot some 4K video for an upcoming tutorial and it looks very nice, keeping the whole image rather than the usual extra 1.7x crop from the sensor.

My Identity Theft on Instagram



I was alerted to this account on Instagram by a lady in the USA who had been communicating with the imposter on Google Hangout.

She was a little concerned about the direction that the conversations were going and asked for verification through my photoblog website contact address.

After a few exchanges via email we were able to establish that this was indeed someone who had impersonated me, setting up this false account and getting followers through my visibility on YouTube and website.

I tried to contact the owner of this site but as he has set it as private and you need to be accepted (like on Facebook) I had no option but to refer this to Instagram for removal.

The whole process that Instagram has you go through to prove your identity before contacting the impersonating site is quite annoying (but I see the reason for it) and it should actually be part of the process needed when you first set up an account. As it stands there is no verification needed when you set up a new account.

It can be any name and any Avatar that you like.

Instagram in the first instance took down my own site – not even any communication as to why! I had to create another account just to go through the process again. Second time around the imposter's site was take down – but I guess he will not have received any communication as to why!

The frightening thing is that there are no online tools available that you can use to check if your name or your image is being used by someone else. Identity theft now begins to become a very real threat and I guess we all should become a little more vigilant about the details that we post online!

Modified Tascam DR-10L for Audio Passthrough



In the USA, due to alleged patent infringement, the Tascam audio recorder is only available without “pass-through” as the model DR-10L whereas in Europe it is available as the DR-10C which does have passthrough.

The idea behind passthrough is that you can take the mike input from the radio transmitter of a wireless microphone system and put this into the input of the audio recorder.

The output from the audio recorder (unattenuated or modified) then goes to the input of the transmitter.

Using the recorder in parallel with the transmitter guarantees a full back up of the audio just in case there is any wireless drop outs, interference or the battery runs out during a video (been there!)



The Tascam DR-10L (before modification) and the DR-10C

There is a simple way to add the pass through without modifying the DR-10L and that is to use two stereo sockets wired in parallel and then connect them to a stereo 3.5mm plug.



The completed unit in a small plastic box with additional RF screening added. I have used this with the DR-10L with no problems and is probably the easiest way to implement the passthrough. However if you really want to add the facility to the DR-10L I have a complete list of instructions with photos and the parts required. If anyone wants them just [reply with this email](#) and I will send them to you as a PDF file.



This is the passthrough box in use with my FZ2000 and the Tascam DR-10L

The Latest Video Tutorial for Panasonic Lumix Bridge Camera Users



50 seconds f5.6, ISO 80 on the Panasonic Lumix FZ80/82

Learn how to capture long exposure shots for subjects like light trails, astrophotography, waterfalls and seascapes etc. In the video ([here on YouTube](#)) I show how to get long exposures. Particularly beneficial for owners of the FZ80/82 camera which has a maximum

exposure time of just 4 seconds. However using my simple method you can increase the time up to 60 seconds and get great images like the one illustrated above.

Canon M50 with Canon 70-200 F4 L Lens and EF-EOS M adaptor

A few late summer shots using the Canon M50 and the 70-200mm L lens with adaptor



Ideal for isolating the subject from the background. I also tried to select a complimentary colour as well to also allow the subject to stand out.

One light and One Reflector Challenge

Cold dark nights are upon us here in the northern hemisphere so it's time to try some different techniques indoors with a nice glass of wine!

I picked up two little ornaments from a charity shop and thought about using just one spot light and a white reflector card to fill in some shadow detail and in the case of the silver ballerina to add some shape against the black background.



Using a black card background and a white reflector to the right hand side to fill in some of the heavy shadow created by the spot light. Using centre weighted metering plus -ve 2/3 EV to keep the black, black.



The same set up as before but the white card reflecting in the silver added the shape to the figure by defining the white reflections in the legs and arms.
The more that you play with light and shadow the more that you learn about your craft.

Approached by the BBC to use some of my Arran Video Content

I had a nice email from a researcher at the BBC asking if they could use some of the video that I shot featuring common seals. They are producing a new documentary about the shores of Britain. The video is only 720p and shot in 2010 but I have some 4K shot recently which I hope they will accept it as I haven't published it anywhere else. Here's hoping.

Until next time, thanks for reading. *Graham (the real one!)*