

Editorial

35mm equivalent and film references

I was editing Dan Bolt's excellent review of a new 4/3rds lens for this issue and also Phil Rudin's article on macro lenses for the same format when I had a sort of lightbulb experience. Let me explain.

Traditionally, in order to describe the capability of a lens, the first term that tends to be used is 'focal length'. Do a Google search for the aforementioned and you'll be asleep in no time with dreams of light convergence (and divergence), nodal points, focal planes and refractive indices (that's more than one index, in layman's terms).

Please don't get me wrong. Focal length is a useful way of describing a lens's capability but, unfortunately, it doesn't tell you the whole story because you need to know the size of the image gathering device in your camera.

In 'the old days' virtually everyone used a 35mm film camera whose format size was 24mm high x 36mm wide and the focal length of lenses associated with that size became a sort of benchmark. In

general terms 50mm was a standard focal length, 24mm was wide angle and 100mm was telephoto.

Unfortunately, in today's digital age there are now several sizes of image sensor available (4/3rds and APS-C to name the 2 most popular) and to complicate matters even further manufacturers camera lens mounts can accept lenses designed for one size format to be mounted and used on a larger or smaller sensor size camera. The resulting complexity needs more explanations and asterisks than a share dealing advert (focal lengths can go down as well as up, terms and conditions apply, angle of coverage may vary with altitude and we reserve the right to change things to suit us at any time).

An attempt to simplify the resulting complications it to use a '35mm equivalent' i.e. the focal length it would have been with the 35mm film format. Unfortunately this line of logic fails to take on board that the vast majority of today's photographers, and especially underwater photographers, I suspect have never 'shot film' or know what on earth '36 exposures' is all about.

At this stage I fully accept that, of our 10,000+ regular readers, I am probably now transmitting to less than one handful but I will persevere. You see, it really is all very simple if, rather than focal length, we use "angle

of coverage". In other words the diagonal angle from bottom left to top right of the frame (please note that in the southern hemisphere this must be measured from the bottom right to the top left of frame...).

The resulting figure is in degrees of coverage i.e. the description of an angle and I was delighted to find that I can generate this (on my Apple Mac keyboard) as a symbol by pressing the Shift, Alt & 8 keys. Please note that the '&' has been included here to make the wording read correctly but shouldn't be pressed to generate a ° symbol.

So there we have it. Just as DSLRs have become SLRs so too, if I had my way, focal lengths would be consigned to the film dustbin and lenses would be described simply as an 84° F2.8. This would be followed by a simple letter to denote the sensor size - A = Full frame 35mm, B = APS-C and so on.

Furthermore I would pass emergency legislation to give mandatory life prison sentences to those camera manufacturers (and, if necessary, all of their employees) that allow a lens from one format to be mounted onto the camera of another.

The White Album

Some of you may be surprised by the 'image' on the front cover of this issue and quite rightly so. Let me confirm straight away that there isn't one, just in case you thought your computer screen was faulty.

The simple truth is that I couldn't find a suitable image in any of the articles which have been submitted for this issue. That's not to say there's anything wrong with the articles. I think they are well up to the standard of UwP's eclectic output.

A UwP cover needs to be a very special image and you have 64 previous issues to gauge my interpretation of the height of this particular bar.

I'm sorry I couldn't find a suitable image for you this time but I seek consolation from the fact that if it was good enough for the Beatles in 1968 it's good enough for UwP now.

Peter Rowlands
peter@uwpmag.com