

Sony's FE 16-25 mm F/2.8 G Lens

by Phil Rudin

Sony's new compact F/2.8 wide-angle rectilinear zoom lens has what can only be described as GM like image quality at about half the price of Sony's FE 16-35mm F/2.8 GM II at \$2298.00 US (€2699.00). The Sony FE 16-25mm F/2.8 G retails for \$1198.00 US (€1139.00) which makes it a bit of a bargain for an F/2.8.

I would argue that the 16-25 F/2.8 is a better underwater lens than any of the 16-35mm G or GM lenses simply because it's smaller, lighter, very fast focusing up to 120 FPS with the Sony A9 III camera and has a much closer minimum focus distance.

All of the Sony and Sony compatible 16-35mm F/2.8 and F/4 lenses have minimum focus distances that are in the over 20cm to 28cm range while the Sony FE 16-25mm F/2.8 focuses all the way to 18cm (7.1 inches). At an up to 10cm difference most of the 16-35's are more well suited to 230mm dome ports than to a 180mm port. For the purposes of this review I shot all of the attached photos with a 180mm dome port which is much more suitable for travel and usability.

The Sony 16-25mm F/2.8 weighs 409 grams (14.4 oz) and is

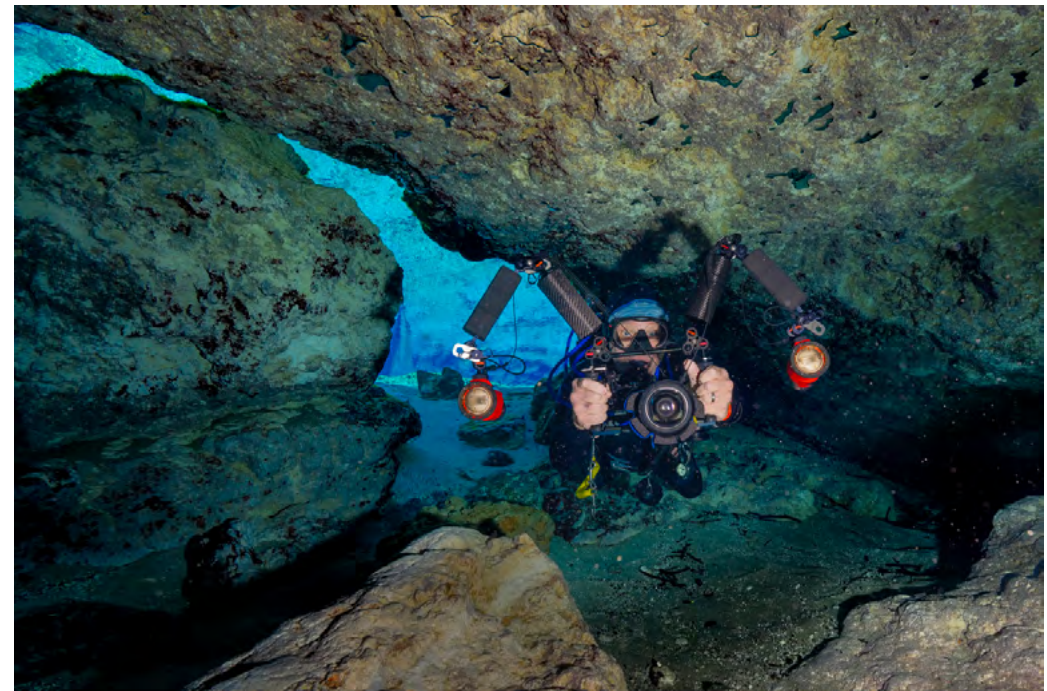
74.8 X 91.4mm (2.9X3.6 inches). By comparison the Sony FE 16-35mm F/2.8 GM II lens weighs a hefty 547grams and is 87.8X 111.5mm this is down from the original FE 16 to 35mm F/2.8 GM's weight of 680 grams. The 16-25mm is an F/2.8 to F/22 lens with a 107 to 82 degree zoom range and magnification of up to 1:5.

The lens is made up of 16 elements in 13 groups with 11 rounded aperture blades. The lens has two high speed AF motors for excellent speed and accuracy. The lens is moisture sealed and dust proof with a customizable focus hold button above the AF/MF switch.

The lens also has a D-clickable aperture switch and an "A" position for controlling aperture changes from the camera controls via the housing. This lens also uses the very common 67mm filter threads and ships with a hood and lens caps.

Field Testing The Sony FE 16-25mm F/2.8 lens

Because this lens arrived prior to being supported by any housing manufacturers I had Shen Collazo www.oceaninventions.com



Photographer Greg entering Ginnie Springs ballroom, Florida USA. Sony A1, Sony FE 16-25mm, at 16mm, Marelux MX-A1 housing, Marelux 180mm dome port with 55mm extension, two Marelux Apollo S strobes, ISO 640, F/8, 1/125th sec.

make a custom gear for the lens. Shen used the metal gear ring from my Marelux Sony 12-24mm F/2.8 zoom

gear and then machined a new nylon insert for the lens focus ring. Once the zoom gear was



Florida Pan Fish, Ginnie Springs run, Florida, Sony A1, Sony FE 16-25mm, at 25mm, Marelux MX-A1 housing, Marelux 180mm dome port with 55mm extension, two Marelux Apollo S strobes, ISO 640, F/9, 1/125th sec

mounted on the lens the manual aperture ring is completely covered so it can't be knocked off the "A" setting. Shen's work is always excellent and now I can use the same focus ring (part with the teeth) on several lenses with different nylon inserts.

The first obvious question I think most would ask is how much did I miss the difference between the extra amount of zoom of the 16-35 verses 16-25mm or 63 degrees at 35mm V. 82 degrees at 25mm. To answer that question I went through photos from past 16-35mm outings and found

that with the exception of testing the long end of those lenses for reviews I hardly ever zoomed much beyond 25mm.

Most zoom lenses in the 16-35mm range perform much better at the wider end than they do at the longer end, I also have much better lenses like the Sony FE 20-70mm F/4 reviewed in UWPMAG issue #132 if I want the opportunities afforded by a longer zoom lens beyond 25mm.

For this review I used the FE 16-25mm with Sony's 50MP A-1 camera, a Marelux MX-A1 housing, 180mm MX



Photographer David, Devil Springs run, Florida. Sony A1, Sony FE 16-25mm, at 16mm, Marelux MX-A1 housing, Marelux 180mm dome port with 55mm extension, two Marelux Apollo S strobes, ISO 400, F/16, 1/250th sec.

optical glass dome port and a 55mm's of MX port extensions.

Lighting was with two Marelux Apollo S strobes. With full frame cameras like the Sony A1 the common rule of thumb is to shoot wide rectilinear lens at F/13 or higher for best corner sharpness. How sharp corners need to be is subjective and may vary from image to image.

I have been looking at/and judging photo contest results at all levels for several decades. What has remained clear to me during that time is that outstanding images rise to the

top of the heap regardless of how the corners look in 99% of cases. Many winners are shot in blue water where corners are much less obvious or in black water and so on. I can't say that I recall ever seeing an image removed from competition solely because of poor corner sharpness rather than the overall image quality.

This is a subject that has been argued about ad nauseam on forums like Waterpixels.net and others for more than a decade with no clear consensus by any metric of how sharp corners need to be.



Florida Red-Bellied Cooter. Devil Springs run, Florida USA. Sony A1, Sony FE 16-25mm, at 20mm, Marelux MX-A1 housing, Marelux 180mm dome port with 55mm extension, two Marelux Apollo S strobes, ISO 400, F/8, 1/250th sec

In the water I found the zoom range more than handled my needs with a quick shift from 16mm to 25mm in less than a quarter turn of the focus gear.

Most of my images in the review were shot from F/5.6 to F/14 with some split shots at F/22 for maximum DOF above and below the surface. With the camera set to AF-C auto focus performance using focus-tracking medium spot was seamless and extremely quick locking onto eyes and faces even at a distance.

I shot the lens in low ambient

light with moving subjects inside a dark cavern and I would say that Auto focus is every bit as good as the top Sony FE GM lenses I have owned.

Sony describes the FE 16-25mm f/2.8 G Lens as an “excellent on-the-go lens that specializes in landscape, travel, and close-up photography”. I would strongly suggest that Sony add underwater photography to the list because this lens is a blast to use for a verity of U/W imaging situations.

Wide lenses both fisheye and rectilinear allow you to create forced perspective a view that can



Little Devil spring, Florida UAS. Sony A1, Sony FE 16-25mm, at 17mm, Marelux MX-A1 housing, Marelux 180mm dome port with 55mm extension, two Marelux Apollo S strobes, ISO 400, F/10, 1/400th sec

manipulate human perceptions of objects making them appear larger, smaller, farther away or closer than they actually are. With fisheye lenses more barrel distortion occurs than with rectilinear lenses causing subjects in the center of the frame to bulge outward and straight lines to curve. This is not necessarily a bad thing it is just what makes the two lenses differ when shooting the same subject from the same distance.

At the time of writing this review no manufacturer has yet listed the 16-25mm on their port charts. I did

my own port extension tests with the Marelux 180 dome port and settled on a 55mm port extension (40+15) for the MX-A1 housing.

A note on port extensions, as a reviewer I like to stick to the manufacturer’s recommended port lengths because this is what consumers of these products will likely do. By using recommended port extensions readers will get the best idea of likely results with like or similar manufacturers extension recommendations. While I have on several occasions deviated from the



Photographer David, North Florida cavern dive. Sony A1, Sony FE 16-25mm, at 16mm, Marelux MX-A1 housing, Marelux 180mm dome port with 55mm extension, two Marelux Apollo S strobes, ISO 640, F/5.6, 1/125th sec. Shot is full frame to access corners at F/5.6 and focus sharpness in low light

not waste my time if I am already at an exotic dive location where I want to make the most of my trip. Unless you have serious issues with the recommended extension length you may want to just stick with manufacturer's recommendations.

I chose the north Florida springs for this lens test because of its abundance of subjects both large and small. Upfront I will say that this lens did not disappoint even in the smaller 180mm dome port. The small system was easy to swim with and checked all of the boxes for portability and performance.

The 16-25mm lens has white lettering around the front element which has caused issues for me with some systems I have reviewed in the past. The white lettering reflects off the dome and back onto the image sensor producing an image with a white ghosting of the letters. This is an issue I have noticed most when using acrylic ports but also occurs with optical glass ports most often when shooting at or close to the surface.

To resolve this issue I recommend the assortment of Ikelite antireflective lens rings which cover the letters with a flat black tape or threaded black ring. They work great and can be removed easily.

Also notice in the split images taken with the Marelux 180mm dome that water drops on the top half of the images were not a problem because of the Marelux coating that repels most water droplets

while shooting splits.

I found that for most of my needs the 180mm port hit the sweet spot between image quality and system size. As a portrait lens shooting at F/2.8/4 subject separation was excellent with smooth foregrounds and backgrounds. On the wide end of the lens everything from about f/8 onward could be used without a noticeable erosion of image quality.

If optimal corner sharpness is required for your shooting situation my recommendation would be a 230mm dome and perhaps the Sea & Sea correction lens if you already own one. I did not test the S&S correction lens for this review so results are unknown.

The Sony FE 16-25mm F/2.8 is an ideal travel lens for general photography, by that I mean not a macro intensive muck diving location where macro lenses and accessories are the norm and not a dedicated wreck diving location where ultra wide and fisheye lenses are the norm.

This is a lens that will also cover most of your land photography needs while traveling. I would also recommend this lens for someone starting to build a Sony full frame system that wants wide coverage at a reasonable price.

port charts by adding or reducing extension lengths in 5mm increments for the most part the charts from all manufactures have been pretty accurate for the majority of lenses I have used. Tweaks in chart extension lengths may lead to slightly better corner sharpness but not by much and at the expense of having to buy an extension in an odd number like 15mm or 25mm's.

If you already own an odd numbered extension it is always fun to try it in the pool but I would

Phil Rudin
Instagram

Phil Rudin Is Senior Advisor on the Marelux Management Team and Senior Reviewer at UWPMAG writing reviews for UWP since 2010.

