

Jon Fauer, ASC

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Art, Technique and Technology in Motion Picture Production Worldwide



FILM AND DIGITAL TIMES

Art, Technique and Technology

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Cover:

Imperial Palace, Tokyo. Photo by Jon Fauer.

**This is a report about art and optics.
It begins with a single circular brushstroke.**



Ensō brushstroke by artist Misayo Kawashima—framegrab from a short film by Tom Fährmann.

In Zen art, Ensō is a circle brushed in a single stroke representing the universe, perfection and the enlightened mind. The Minneapolis Institute of Art explains, “Ensō means mark of a circle. As the brush deposits ink, the stroke becomes scratchier, leaving the circle incomplete. This imperfection reflects the inevitable discrepancy between the ideal and reality.”

**This is a new cine lens from ARRI.
It is one in a series of primes named Ensō.**



What is it about shared German and Japanese culture?

There's a common quest for perfection and obsession with detail. And yet, the car company slogan “The Best or Nothing” seems smarmy if you see one of those cars behind a tow truck. And do you always want a perfect lens? The Zen philosophy behind a single, incomplete circular brushstroke is fitting for cine lenses—a search for perfection and the paradox of perfection and imperfection.

Introduction to Ensō Primes by Walter Trauningger



Walter Trauningger, Managing Director, joined ARRI in 1986 as designer of the Arriflex 765 film camera movement. Subsequently, he was Head of Development of the Arriflex 435, 235, ARRICAM, 416, ALEXA and AMIRA cameras.

Here is Walter's overview of ARRI Ensō Primes.

“ARRI has a long history of cameras and paired sets of lenses. We had Standard Primes and Super Speed Primes in the 1960 and 70s. Master Primes and Ultra Primes worked in parallel after ARRICAM arrived in 2000. Ultra Primes were the workhorse lenses. They were lighter, smaller and more affordable, but they also had a slightly different image quality. Master Primes were faster and breathless—as the absence of focus breathing became more important. These were all Super35 format lenses. Large Format coverage came with our Signature Primes in 2018, coinciding with the ALEXA LF camera launch. And now we have Large Format Ensō Primes.

“The concept behind Ensō is also a parallel series to the Signature Primes. Ensō lenses have an extremely close minimum focus distance of 1:4. This is almost macro territory. You can focus on an image that is 4 times the width of the Large Format sensor. You can do an extreme close-up portrait that is about the width of a postcard. Normally, primes have a minimum focus distance of 8 to 10 times the focal length. This extreme close-up ability of Ensō makes new perspectives possible.

“Ensō Primes also have a slightly different look than Signatures. Yes, you can match them. But if you want a stronger vintage look, you can attach Ensō Vintage Elements at the rear to detune the lens, change the bokeh, and achieve different creative looks. That came from user feedback—DPs asking for more.

“Oh, and by the way, Ensō Primes are the more affordable lens series, and we think they will become the Large Format workhorse, as the Ultra Primes did earlier for the Super35 Format.

“With nittoh, we have a very reliable partner in Japan. (*The “n” in nittoh is lowercase.*) Their reliability and understanding of quality, schedule and budget discipline has been the best I have ever seen. Even if we requested minor changes, it was not necessary to explain how to find a solution. It was not even necessary to ask them to do it. That is something I never had never experienced before. We are working together in the same boat, as you can imagine.”



Ensō: 2024



Signature Prime: 2018



Master Prime: 2005



Ultra Prime: 1999



Super Speed: 1975



Standard: 1964

ARRI Ensō Prime Lenses



Meet Ensō with a diacritical macron ò.

On your keyboard, that's the "ò" key pressed down for 3 seconds, followed by the number 9 or 7.

Pronounced like Enzo as in Ferrari, with more of an "s" sound, as in serene, than a "z" like zoom-zoom engine roar.

What are Ensō Primes?

ARRI Ensō Prime lenses are affordable Large Format (Full Frame) primes, with focal lengths from 10.5mm to 250mm. Most of them have a maximum aperture of T2.1 and they come in LPL mounts with LDS and /i lens metadata. ARRI's acronym is "EP."

The initial core set—shipping in November 2024—consists of 18, 24, 32, 47, 75 and 105 mm. It includes an Ensō Vintage Elements Kit of 6 diopters that attach magnetically to the rear of the lens.

Next year, the 10.5, 14, 21, 28, 40, 58, 150 and 250 mm primes will be added, along with a 1.4x and 2x tele extender.

What is the difference between Ensō and Signature Primes?

It's like a high school exam question. Ultra Prime is to Master Prime as Ensō is to... (fill in the blank). Yes, Signature Prime. That's a bit simplistic, but Ensō lenses offer a lighter, shorter, ever-so-slightly slower option (T2.1 vs T1.8 average).

Signature Primes have magnesium barrels. Ensō Primes have aluminum barrels.

How do they look?

Cutting to the chase: how do they look? In the framegrabs on the following pages, look at the smooth skin tones, gentle focus fall-off and beautiful bokeh that would have an impressionist painter weep.

My impressions: Ensō primes match Signatures in color, contrast and concept. They flare and ghost ever so slightly more, like sub-

tle brushstrokes when you want them, and easily tamed with flags or mattebox eyebrows when you don't.

Extremely Close

Ensō lenses focus much closer than most other prime lenses. See ECU on Thorsten Meywald (opposite page). All Ensō primes have an almost macro close-focus ratio of 1:4, without diopters in front. That means you can fill the frame with a subject or object that's 4 times the diagonal of a Large Format sensor. So, 4 x 44 mm is 176 mm (6.9 inches) — about the width of a postcard. Try a continuous rack-focus from an extremely close close-up all the way to infinity. You cannot do that with front diopters.

What is Ensō ?

Each lens is engraved with an elegant Ensō symbol.

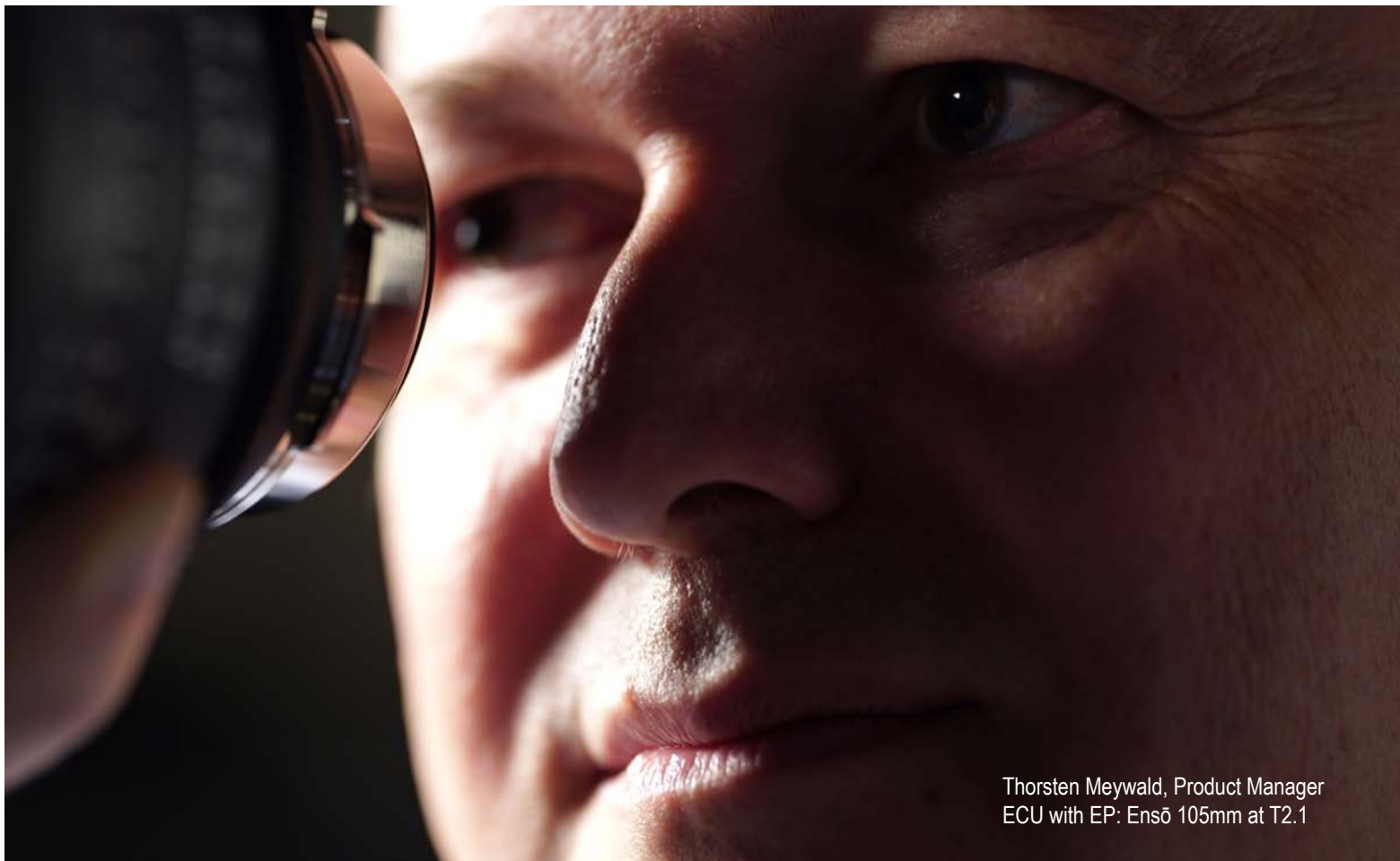
Drawing Ensō is a beautiful yet difficult task. It is done with an ink brush on Japanese washi paper, striving for perfection but realizing it cannot be achieved. You draw the Ensō in one fluid move. It takes years of practice, often attempted every day. Focus pullers will relate to the paradox and the process.

Ensō Logo

What were Thorsten Meywald, VP Product Management Lenses ARRI Group and his colleagues thinking when they came up with the complicated calligraphic Ensō logo? How do you get a brushstroke, whose ink runs out, onto an aluminum lens barrel?

Thorsten explains, "Look closely at the Ensō logo on the lens. You see the brush stroke, which is engraved. That's the philosophy of Ensō. Start with something simple and try to make it as perfect as possible, but it's always an understatement. First, we started with a painting, really a brushstroke. After many attempts, we scanned it to a vector graphic. Then, the image was transferred to a template for mechanical engraving, which is actually much deeper compared to laser engraving.





Thorsten Meywald, Product Manager
ECU with EP: Ensō 105mm at T2.1

“The scales are also engraved mechanically, resulting in cavities that are deeper and lettering that appears more pleasing because the edges are smoother.

Ensō Vintage Elements

“Ensō Vintage Elements are rear diopters with plus and minus strengths, but they are not used to focus closer—they are additional elements that detune the lens and affect the bokeh, producing different creative looks.

Can you use Signature Prime Impression V Filters on Ensō?

“Signature Primes use Impression V Filters at the rear. And yes, Impression V Filters for Signature lenses can be used on Ensō Primes, but Ensō Vintage Elements cannot be used on Signature lenses.

Ensō Vintage Elements vs Signature Impression V

“Compared to Impression V Filters, Ensō Vintage Elements have a steeper fall-off in image performance from center to corner and, in general, they are sharper at the center compared to Impression V Filters. Technically, Impression V Filters add spherical aberration to the lenses and Vintage Elements add field curvature as well as some spherical aberration.

“Ensō Vintage Elements on Ensō lenses can be identified by the camera since they have a built-in chip with all the metadata of the Vintage Element. Impression V Filters have no chip and can't be identified electronically.

Optical design

“Ensō Primes have aspheric elements inside wherever they are needed, especially on the wide angle lenses. The focus mechanism uses a smooth cam system. They have floating or coupled elements to achieve high performance, especially at close focus. Similar to our other lenses, the optical elements first undergo a regular polishing process. After careful measurement, any imperfections are smoothed out to micron tolerances with precision MRF polishing on huge machines.

Who will be the users of Ensō lenses?

“Ensō Primes are universal and versatile, for small and large rental houses as well as owner-operators. They will be at home on scripted features, unscripted series, television, live productions, commercials, music videos, corporate films and documentaries.

Close Focus

“Even the 250mm Ensō has a minimum focus of 1:4. Imagine doing a corporate film and you are focused on a robotic machine with arms whizzing around. It's too dangerous to get near, but your 250mm Ensō has a minimum object distance of 1.30 meters (4'3") that gets you up close—safely.

“But your 18mm Ensō has the same 1:4 close focus ratio and gives you the same minimum object field of about 5.7 inches wide at a minimum object distance of 20 cm (7.9 inches). Having the same minimum object field of view throughout the entire set is interesting and unique.

Thorsten Meywald on ARRI Ensō Primes



Ensō Vintage Elements: 100P, 200P, 350P (Plus) and 100N, 200N, 350N (Negative). Notice the Metadata contacts to identify the Element.

The 250mm lens gives you an image that is more compressed—the background appears closer. The 18mm background appears more distant. On most previous lens sets, it was often a hassle having minimum focus distances that were much further away.

Uniform Lens Housings

“Most Ensō Primes have a front diameter of 95 mm, like the Ultra Primes. The Ensō 250mm has a 114 mm front diameter, like Master Primes. Therefore, you can use a Master Diopter, Leitz Cine MacroLux or other diopters in front to get even closer focus.

“In addition, the lens rings are in the same position on all 14 Ensō lenses, which means that lens motors don’t have to be moved when swapping focal lengths. The uniformity of the front diameters and lens rings help make the Ensō Primes quick and easy to work with on set.

Rear Extenders

“The Ensō 250mm comes with a 1.4x and 2x extender—to provide the equivalent of a 350mm at T4 or 500mm at T5.8.

“The extender reduces the transmission a little and the T-stop is slightly deeper compared to the geometric f-stop, which would be F5.6. And, with a little math, we see that the 2x extender provides an even closer minimum object field of 1:2.

10.5 and 14mm Ensō Primes

“For setups that are extremely wide and incredibly close, we have the 10.5mm and 14mm Ensō Primes. (Here’s looking at you, *Rev-enant* and *Birdman*.)

“These lenses come with exchangeable 134 and 156 mm diameter front rings. The 134 mm front ring is intended for shooting in Super35. It lets you use smaller matteboxes and 4x5.65” front filters. If you’re shooting Large Format, you should use the 156 mm diameter front ring and a Mattebox for 6.6x6.6” front filters.

Exteriors

“Ensō Primes have black anodized barrels. After anodizing, we add a layer of metallic paint that contains metal particles to provide a distinct glow. If you shine a strong light on the surface of the barrel, you will see the reflections of the metallic particles. That’s just one little detail of what we have done. It’s the same thing with the brushstroke. If you look very closely at the Ensō logo, you see the engraved details.

“And that’s the philosophy of Ensō. It’s a disciplined understatement. Start with something simple, try to make it as good as possible, and as in Zen art, accept the strength of imperfection.”



The close focus distance is marked on the barrel with its 1:4 ratio.

Ensō Specifications



| | EP10.5 | EP14 | EP18 | EP21 | EP24 | EP28 | EP32 | EP40 | EP47 |
|------------------------------|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|
| Focal Length | 10.5mm | 14mm | 18mm | 21mm | 24mm | 28mm | 32mm | 40mm | 47mm |
| T-stop | 2.8 | 2.5 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| Close Focus (m) | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 |
| Close Focus (ft) | 10.5" | 10.5" | 8" | 8.5" | 9" | 9" | 10" | 11" | 12.5" |
| Magnification Ratio | 1:10 | 1:8 | 1:4 | 1:4 | 1:4 | 1:4 | 1:4 | 1:4 | 1:4 |
| Coverage (mm) | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 | 46 |
| Length (mm) | 141 | 141 | 117 | 117 | 117 | 117 | 117 | 117 | 117 |
| Length (inch) | 5.6" | 5.6" | 4.6" | 4.6" | 4.6" | 4.6" | 4.6" | 4.6" | 4.6" |
| Weight (kg) | 2.3 | 2.1 | 1.4 | 1.4 | 1.4 | 1.5 | 1.4 | 1.3 | 1.3 |
| Weight (lb) | 5.1 | 4.6 | 3.1 | 3.1 | 3.1 | 3.2 | 3 | 2.9 | 2.9 |
| Front Diameter (mm) | 134 (156) | 134 (156) | 95 | 95 | 95 | 95 | 95 | 95 | 95 |
| ARRI LDS-2 / Cooke /i | yes | yes | yes | yes | yes | yes | yes | yes | yes |
| List Price (EUR) | 21,900 € | 17,900 € | 13,900 € | 11,900 € | 10,900 € | 11,900 € | 10,900 € | 11,900 € | 10,900 € |
| Availability | Nov 25 | Oct 25 | Nov 24 | Feb 25 | Nov 24 | Aug 25 | Nov 24 | Sep 25 | Nov 24 |

| | EP58 | EP75 | EP105 | EP150 | EP250 | EP350 (EP 250 with 1.4x Extender) | EP500 (EP 250 with 2x Extender) |
|------------------------------|----------|----------|----------|----------|----------|--------------------------------------|------------------------------------|
| Focal Length | 58mm | 75mm | 105mm | 150mm | 250mm | 350mm | 500mm |
| T-stop | 2.1 | 2.1 | 2.1 | 2.5 | 2.8 | 4.0 | 5.8 |
| Close Focus (m) | 0.4 | 0.4 | 0.6 | 0.8 | 1.3 | 1.3 | 1.3 |
| Close Focus (ft) | 14" | 17" | 23.5" | 30.5" | 4'2" | 4'4" | 4'5" |
| Magnification Ratio | 1:4 | 1:4 | 1:4 | 1:4 | 1:4 | 1:3 | 1:2 |
| Coverage (mm) | 46 | 46 | 46 | 46 | 46 | 46 | 46 |
| Length (mm) | 117 | 123 | 123 | 152 | 207 | 241 | 251 |
| Length (inch) | 4.6" | 4.8" | 4.8" | 6.0" | 8.1" | 9.5" | 9.9" |
| Weight (kg) | 1.5 | 1.5 | 1.6 | 1.9 | 2.9 | 3.5 | 3.6 |
| Weight (lb) | 3.3 | 3.2 | 3.4 | 4.2 | 6.4 | 7.8 | 7.9 |
| Front Diameter (mm) | 95 | 95 | 95 | 95 | 114 | 114 | 114 |
| ARRI LDS-2 / Cooke /i | yes | yes | yes | yes | yes | | |
| List Price (EUR) | 11,900 € | 12,900 € | 13,900 € | 16,900 € | 23,900 € | | |
| Availability | Aug 25 | Nov 24 | Nov 24 | Feb 25 | Dec 25 | | |

- Core Set (18, 24, 32, 47, 75 and 105 mm) highlighted in blue - available November 2024.
- Close Focus is from the sensor (image plane) to the object. Length is from the lens flange to the mechanical front of the lens.
- Specifications courtesy of ARRI. Details are subject to change.

Lake Suwa in 1830, by Hokusai



Katsushika Hokusai (Japanese, 1760–1849). *Lake Suwa in Shinano Province*, from the series *Thirty-six Views of Mount Fuji*, ca. 1830–1831. Color woodblock print on paper, Image: 10 1/4 x 15 1/16 in. (26 x 38.2 cm). Brooklyn Museum, Gift of Frederic B. Pratt, 42.79 Takashima Castle, shown today on the next page, is at the upper left side.

Inspired by Hokusai, let's fly 14 hours to the Lake Suwa region in Nagano Prefecture, Japan to join Thorsten Meywald and test Ensō Primes lenses and taste the region's cuisine and sake.

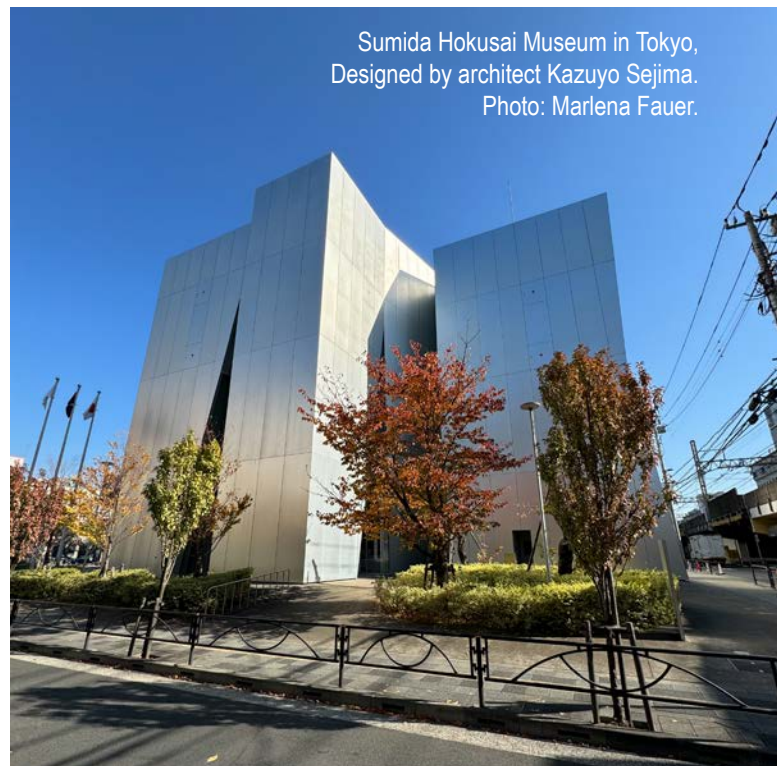
A good film to download and watch in-flight is the story of Ōi, Hokusai's talented artist daughter: *Kurara The Dazzling Life of Hokusai's Daughter* (*Kurara: Hokusai no Musume*).

Fourteen hours and six movies later, ANA 159 touches down in Tokyo at 5:15 am. That leaves 4 hours until the Sumida Hokusai Museum opens for an obligatory detour. Hokusai lived and worked in this Tokyo neighborhood for most of his life (1760-1849).

It's a 30-minute subway ride to Shinjuku, the busiest in railway station in the world, with 200 entrances. Fortunately, Thorsten Meywald is there to sort out which of the 53 platforms is the right one for our 2 hour trip to Suwa City.

Nagano Prefecture is famous for the 1998 Winter Olympic Games, the Japan Alps, mountain biking, hot springs, snow monkeys, tourism, high tech manufacturing and optical companies.

Of course, we're here to try out the new ARRI Ensō Prime lenses. And so, with a prototype 18mm, 47mm and 105mm, we explore the area. All the scenes on the following pages were taken with these three of the six lens core set.



Sumida Hokusai Museum in Tokyo,
Designed by architect Kazuyo Sejima.
Photo: Marlena Fauer.

Lake Suwa today, Nagano Prefecture



Lake Suwa today. An 11-mile hiking-biking trail circles the lake, with beautiful views of Mount Fuji when not obscured by clouds. 18mm Ensō



Takashima Castle was built by Hinneno Takayoshi, a samurai and first daimyō of Suwa under the Tokugawa Shogunate. Completed in 1598, surrounded by water, it was called the Floating Castle of Lake Suwa. The castle was rebuilt in 1970 as part of Takashima Park. 18mm Ensō

Ensō Tabletop: Extremely Close Focus



47mm Ensō



47mm Ensō

Ensō at Masumi Brewery



18mm Ensō

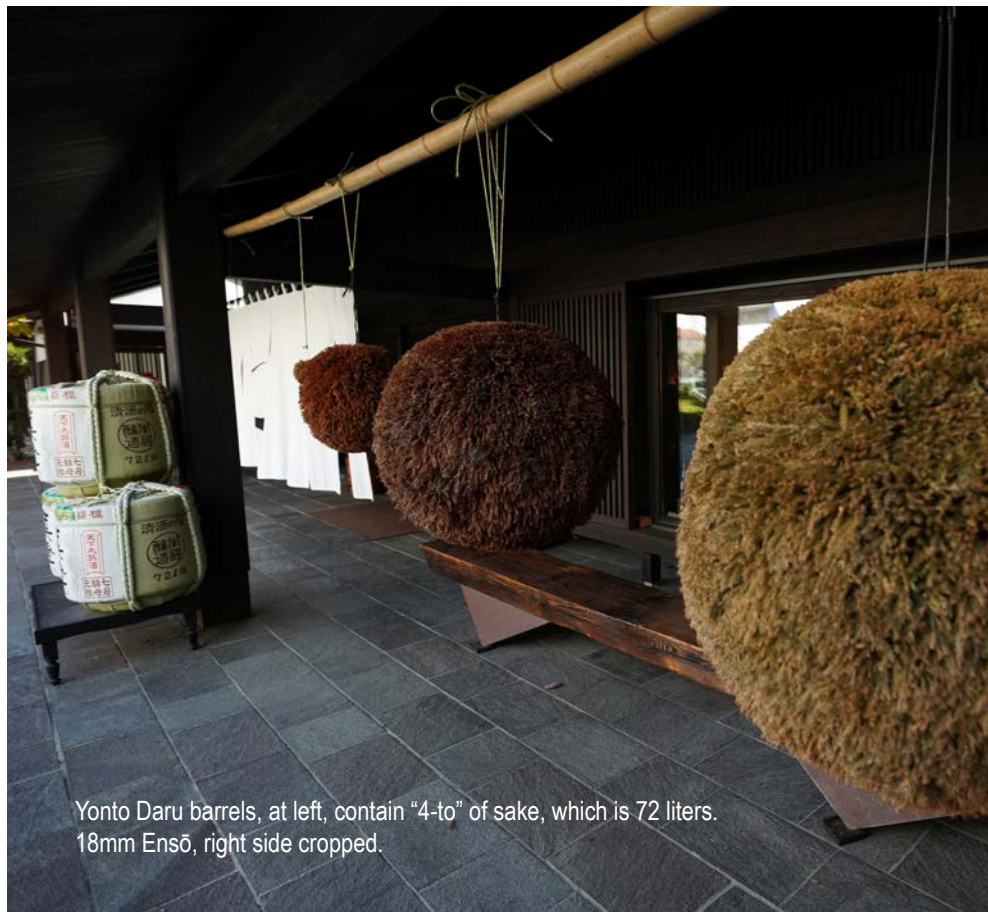
Having had too much sake the evening before, it was decided that an early morning visit to the Masumi Sake Brewery would be just the thing.

The Miyasaka family were samurai in the Suwa area. Following years of battles, the Suwa clan the family turned from swords to sake brewing in the 16th century.

The company struggled from the Edo period (1860s) to the Taisho period (1912-1926). Then, the young company president Masaru Miyasaka appointed 28-year-old Chisato Kubota as the new toji, master brewer. Miyasaka said “The only way we can survive is to make the best sake in Japan.” The two men travelled throughout Japan to learn from the best sake makers.

Masumi’s series of prizes at regional and national sake competitions caught the attention of the National Brewing Institute’s yeast scientist, Dr. Shoichi Yamada. In 1946, Dr. Yamada visited the brewery and confirmed the presence of a very fine yeast in the fermentation tanks. “Brewing Association Yeast Number Seven” soon became the favorite of sake brewers across Japan. It continues to be the most widely used sake yeast in the world.

masumi.co.jp/en/



Yonto Daru barrels, at left, contain “4-to” of sake, which is 72 liters.
18mm Ensō, right side cropped.

Ensō Portraits at Masumi Brewery



Kumi Miyasaka, Cella Masumi Shop Director
105mm Ensō



Keith Norum, International Sales Advisor,
Miyasaka Brewing Company
105mm Ensō

Ensō Product Manager Portraits



Thorsten Meywald
75mm Ensō.



Benjamin Rausch
75mm Ensō

nittoh: from Silk to Cine Lenses



Originally founded in 1876 as a manufacturer of fine silk, nittoh is a Japanese optical company in Suwa. Their first Kominar still photography lenses were introduced in 1950. The company produces some of the more advanced optics in the world, including lenses for on JAXA's asteroid exploration spacecraft Hayabusa 2.

There's something about silk and cinema. Lyon was the center of the French silk industry in the 18th and 19th centuries. It's no accident that the film transport mechanism in the Lumière Cinematographe cameras were derived from the movements of silk looms. There's also something about sake and cine lens manufacturing—it takes a similar amount of tenacity, attention to detail and Ensō philosophy. It's no accident that ARRI has partnered with nittoh to produce Ensō cine lenses.



The company started with raw silk manufacturing in 1876.



Kominar still photography lens from 1950.





Lens polishing



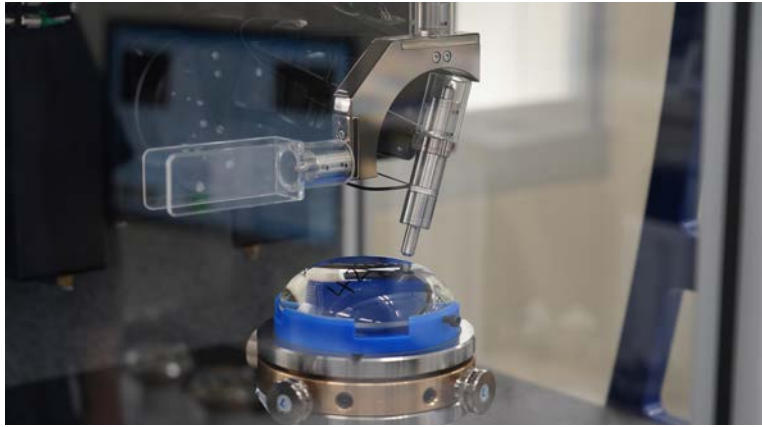
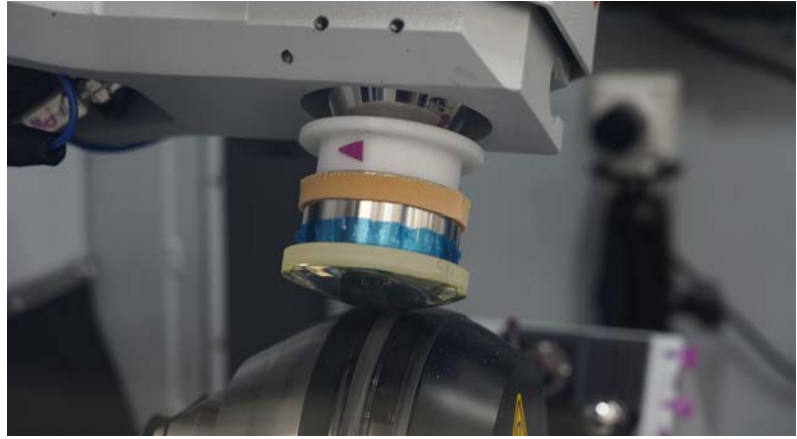
CNC machining of mechanical components.



Q-flex 100 MRF (Magnetorheological Finishing) freeform polishing machine can work on elements up to approximately 125 mm diameter



Ensō Manufacturing



LupoScan non-contact 3D Form Measurement



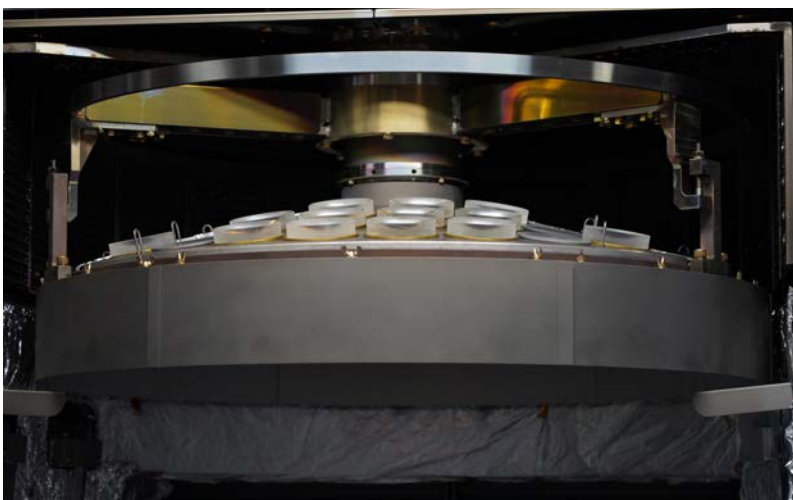
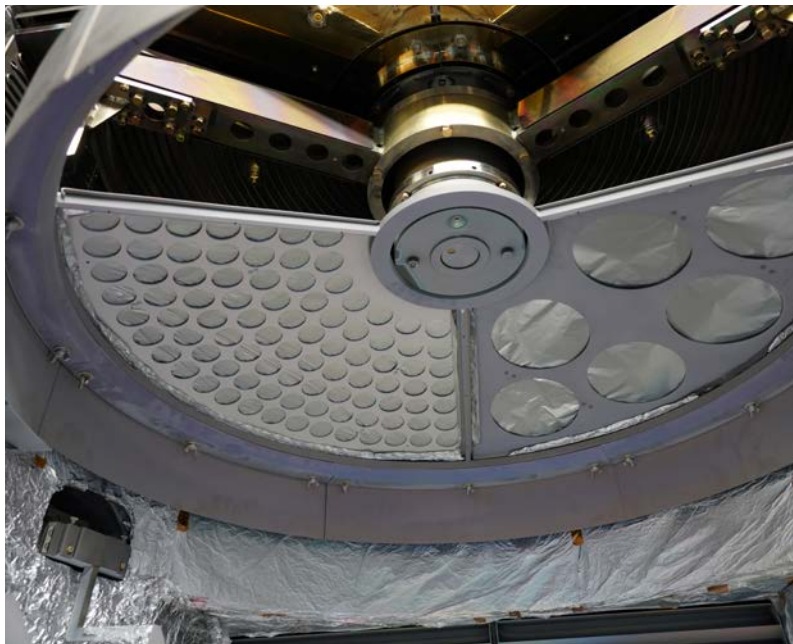
Optical centering



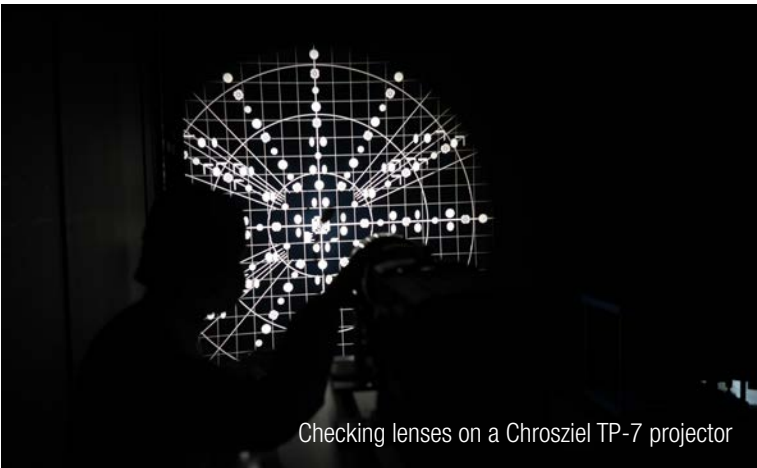
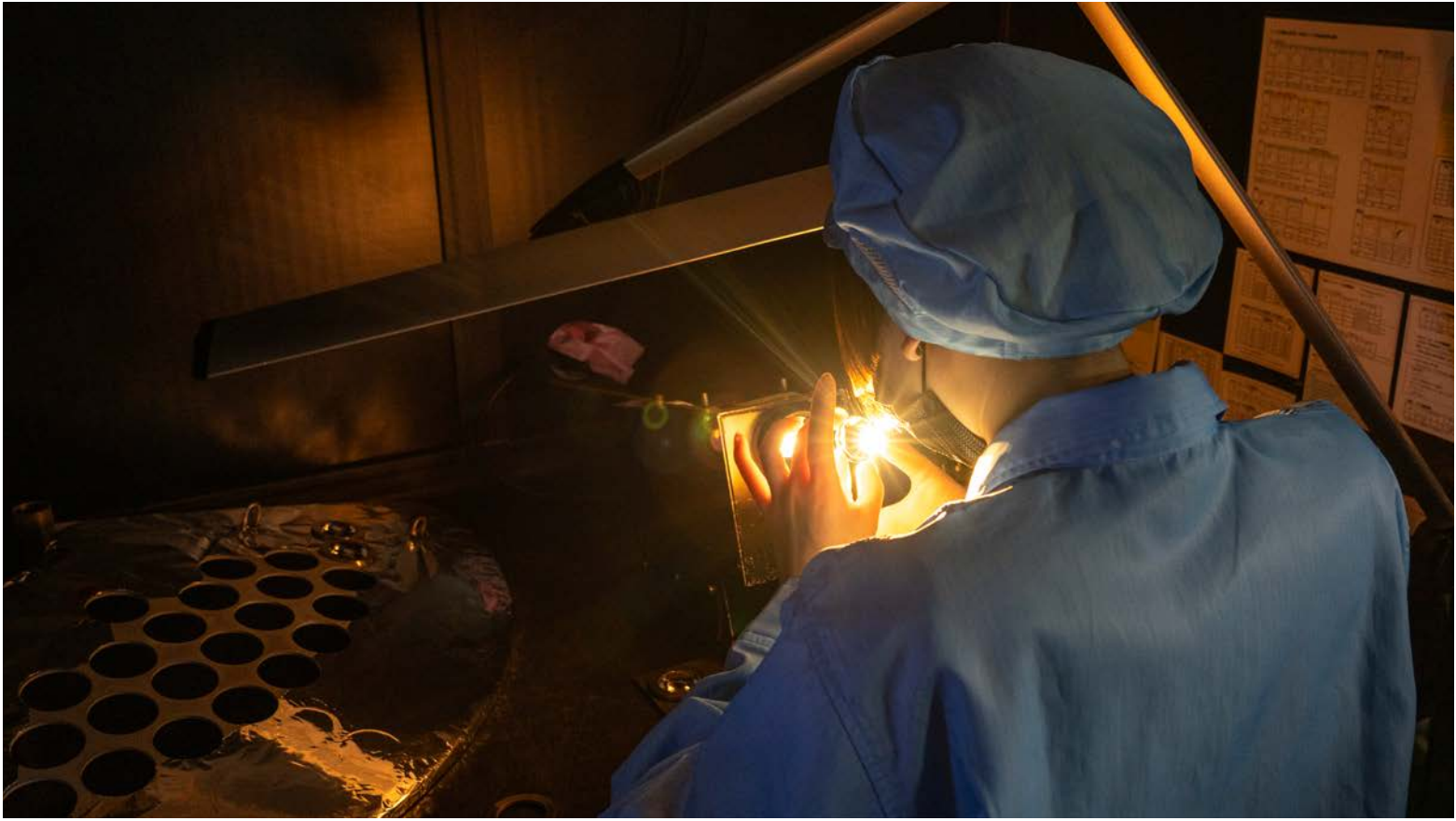
TRIOPTICS ImageMaster Cine Flex



Ensō Lens Coating



Ensō Lens Assembly



Checking lenses on a Chrosziel TP-7 projector



Assembling Ensō prototype



Tom Fährmann Up Close with Ensō



Tom Fährmann
Photo by Sean Dooley

Tom Fährmann (above) is a cinematographer and author from Germany, with credits that include Pope Joan, Ulzhan, Campus and The Miracle of Bern among many others. He graduated from the Westfälische Wilhelms-Universität in Münster and the Hochschule für Fernsehen und Film in Munich (HFF Munich Film School), where he was also a professor.

Most recently, Tom was Director/DP of the Ensō Prime launch film. Spoiler alert: This is one of the best product introduction films ever. Interesting, beautiful, elegant, short, no glaring product shots, it shows the results of what the Ensō Primes can do and how the images they create look like. As Misayo Kawashima, the artist in the film says, 'focus on the movements.' Now doesn't that sound just like what a cinematographer, camera operator or focus puller would say?

I only had to ask Tom one question: "Please tell us about making this film and your impressions of the lenses." What followed was an informed, articulate discussion of art, cinematography, lenses, philosophy and Zen calligraphy. Twenty pages are edited for brevity.

Henning Rädlein, VP Product Marketing Camera Systems, Digital

Workflow Support and Partner Program ARRI Group, and Producer of the film, also joined the discussion.

Tom Fährmann explained, "For this short demo launch film, we developed a story about a Japanese lady who paints the Ensō symbol, the same symbol that is engraved on the lenses.

"You may ask, what do I like about these lenses? They are not large. They are not heavy. A lot of us cinematographers shoot handheld with a small camera like the ALEXA Mini LF or ALEXA 35. It is awkward if the lens in front is heavier than the camera itself. Personally, I like to shoot with the camera in my hand, at waist level, monitor on top, looking down like you did with a Hasselblad.

"Ensō Primes are sharp where you want sharpness, but the micro contrast is not harsh. And that makes these lenses really pleasing. On most productions, we mainly film faces. And faces are very sensitive to colors and detail. I asked Thorsten Meywald, VP Product Management Lenses ARRI Group, if my impressions of the Ensō Primes were correct, that we could think of them like Ultra Primes or as the little sisters of Signature Primes. He agreed.

Up Close with Ensō

ECU. Extremely Close.

“In the past, my camera and lens package always included a set of front diopters, extension tubes and adapters because I often had the feeling that I couldn’t get close enough with the lenses we had. There were many setups where you wanted to go really close-up on details or faces. Up to now, most lenses missed this close focus ability.

“These new Ensō Primes can focus extremely close. That is a very big advantage. It is especially important if you have a shot that requires a continuous focus move from, for example, 10 inches to infinity. You can’t focus to infinity when you have a diopter in front of your lens. A follow focus from very close to very far away is a demanding thing for assistants, no question. But it gives us a new possibility, a new way to talk with our pictures.

“Because I was such a fan of the close focus ability of the Ensō Primes, I did a storyboard for our film that shows every setup as an extreme close-up. There’s only one setup that is a medium tight shot. Everything else is ECU—extreme close-ups.

Character

“As for the quality of the Ensō Primes, I would call them natural. These are not lenses that scream, ‘Wow, great flares and whatever.’

“We Directors of Photography wind up talking a lot about the ‘character’ of lenses. We try to focus on what we can do with the picture, the look, and how to prevent the image from being changed afterwards in post by someone else. In this process, lenses have become a very important part.

Natural

“The Ensō Primes are beautiful, natural lenses, with wonderful skin tones. And yet, if you want to give the picture a different look, you can try the rear Elements, as they are called. I like the idea that you attach them to the rear of the lens, and you don’t have to worry about dirty filters or unwanted flares. So, if you want to “torture” the lens, you can.”

Ensō Vintage Elements

Henning Rädlein, Producer of the Ensō launch film, explained, “There are three positive and three negative Ensō Vintage Elements, each with a different strength of effect. So, 100P, 200P, 350P and 100N, 200N, 350N.

In essence they are diopters, but they behave differently and do a lot more than diopters that go in front of the lens. We have something similar but less sophisticated for the Signature Primes that we called Impression Filters, but for Ensō we call them Elements because they really are part of the optical chain. All six Ensō Vintage Elements are included with the core Ensō lens set.”

ALEXA 35 and Ensō Primes

Tom continued, “We shot the film on an ARRI ALEXA 35, mostly with 75mm and 105mm Ensō Primes, usually wide open at T2.1, sometimes at T2.8 and T4. We used the lenses just as they come, without filters in front or rear. We did not use the Vintage Elements. Henning is saving them for someone else to show.

Location and Lighting

“We lit the film mainly with an ARRI SkyPanel that had a 4x4 frame of Lee 400 LEE Lux dense white diffusion in front. The location was in an ordinary suburb of Munich. Misayo, the calligraphy artist, lives there with her husband who specializes in Asian medicine. When they opened the front door, it felt as if we were in Japan. We removed our shoes. He was wearing a monk’s robe and was playing on a flute.

We filmed in a large room where they normally have workshops. I had the windows blacked out because I didn’t want things to appear too real. I wanted the setting to be somewhat abstract, with objects out of focus in the far background. Oh, and the bokeh are beautiful.

Small Crew

“We worked through the storyboard frame by frame during one whole day. Misayo was wonderful—a pleasure to work with. For crew, we had a gaffer, a combination grip and second electrician, a focus puller, makeup artist, and I was the Director/DP. Camera movement was on a Panther slider. We shot at 48 fps, so it’s all slow motion to make everything slightly smoother.

Eyes Wide Open

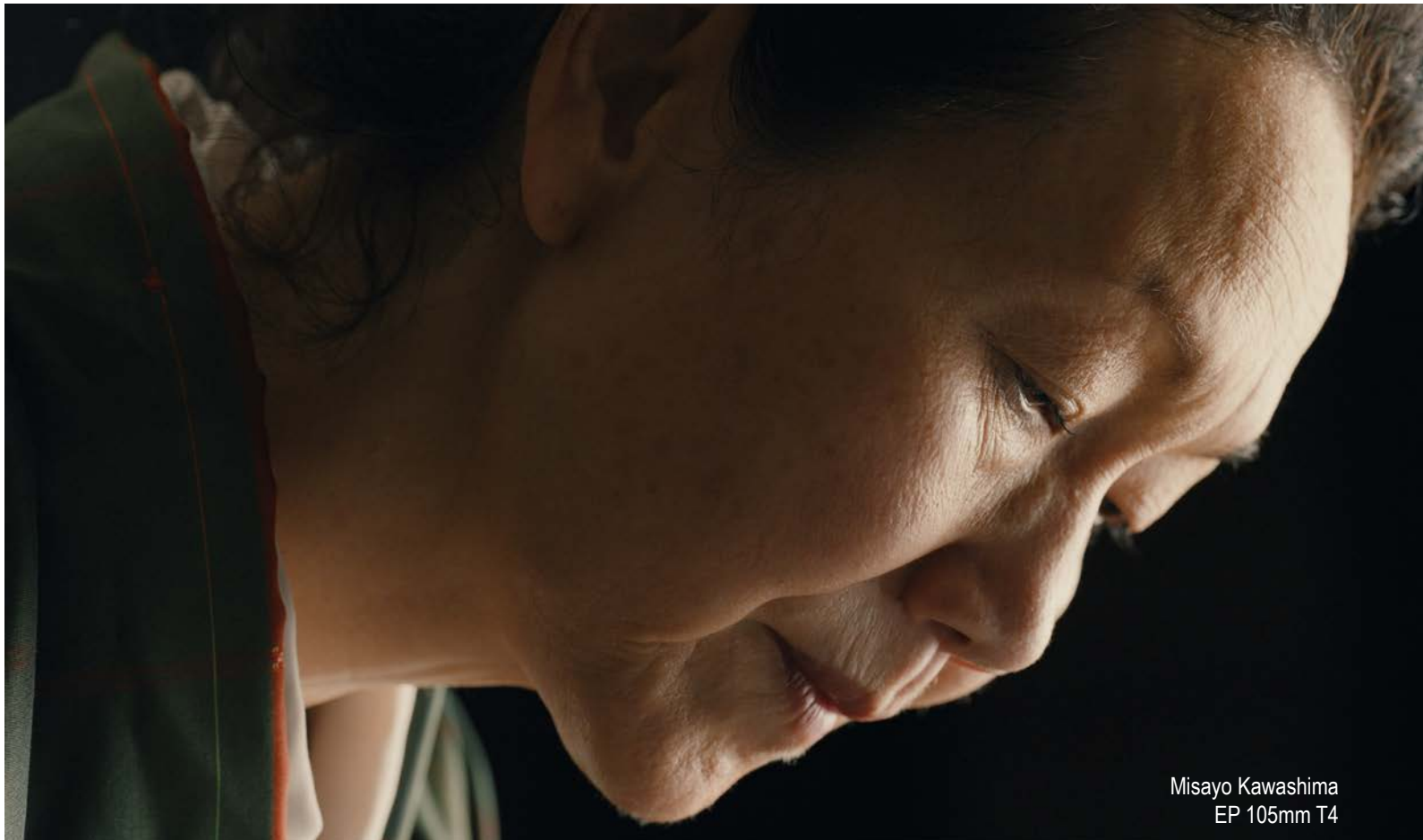
“In the beginning I was worried how we could fill two minutes of screen-time if she was only going to draw the Ensō circle. But it turned out that during those two minutes we are immersed in another world, in a different atmosphere. We are removed from a hectic working process. For me, Ensō means living in the moment, eyes wide open. You could say this is an economic or philosophical statement as well.”

Focus on One Thing

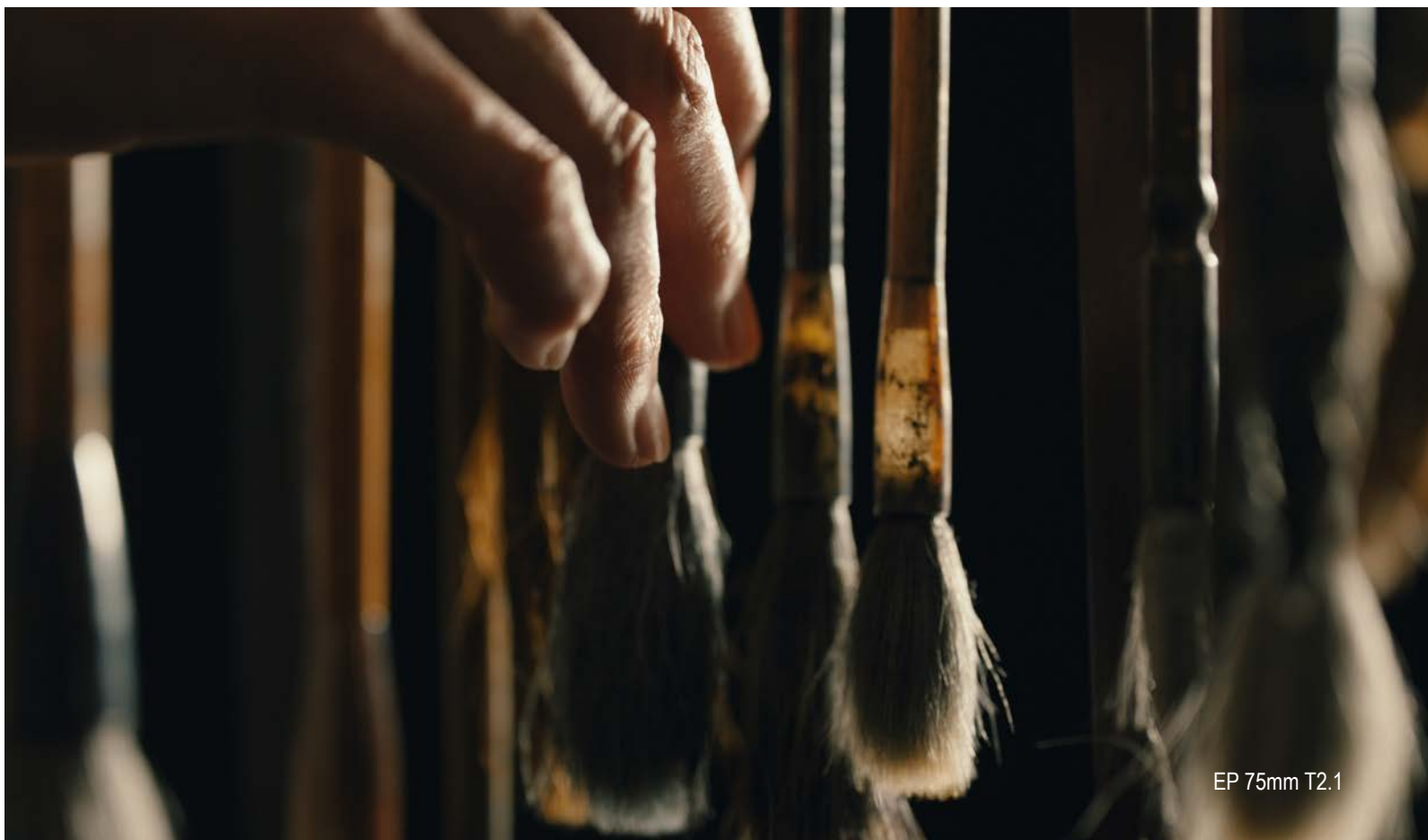
Henning added, “In her narration, Misayo says, ‘Zen teaches us to focus on one thing, sharpening a sense of being present in the moment...emptying your mind of distracting thoughts, and opening your consciousness to connect with what is around you. When I practice calligraphy, I commit to the moment and focus on my movements rather than a particular outcome, enjoying the dance of my brushstrokes. Every one of us has the power to enter this state of mind.’”



L-R: Dokuho Meindl, Misayo Kawashima, Tom Fährmann and Henning Rädlein with Ensō artwork.



Misayo Kawashima
EP 105mm T4

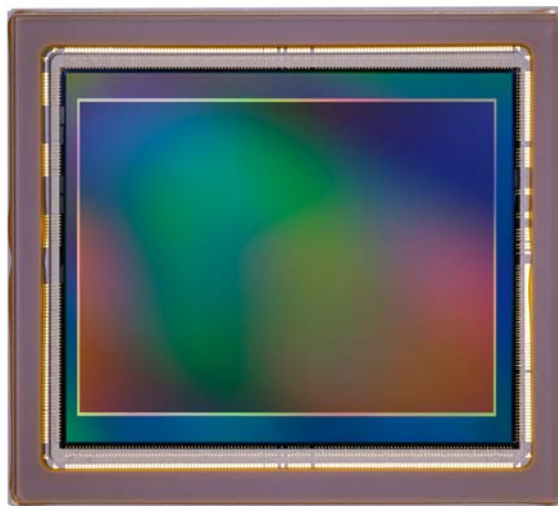


EP 75mm T2.1

LARGER FORMAT

FUJIFILM GFX 102MP CMOS II HS sensor.

Photo courtesy of Fujifilm.



FUJIFILM GFX ETERNA Larger Format Filmmaking Camera Product Development Announcement



GFX ETERNA images courtesy of Fujifilm.

Stop the Presses!

November 12, 2024. FUJIFILM Corporation announces that it is developing its first digital cine camera, FUJIFILM GFX ETERNA, with plans for a release in 2025.

Matching the sensor sizes of the GFX ETERNA (above) with the GFX100 II (opposite page), it appears that Fujifilm designers have created a Larger Format cine camera in a very compact body. The styling is pleasing, especially the sculptural dorsal handle. They suggest calling it a Filmmaking Camera.

GFX ETERNA has a native G mount (26.7mm flange focal

depth) with lens data pogo pins. A G mount to PL adapter is in development. A number of G to LPL, PV and other adapters are already available from various companies for the GFX series.

There are lots of thoughtful details in front: GRAB button, presumably to grab still frames, and (hurray!) a 2-pin Lemo power connector for accessories. Is that a dial for internal NDs?

Looking at the camera right side, going clockwise from the top: there are 6 tactile buttons, a menu display, more buttons (home-user-play-menu-back) and dials. At the rear, it looks like SDI, HDMI, Genlock, USB-C, Ethernet, Remote, Headphones and Mic connectors.

FUJIFILM GFX ETERNA Larger Format Filmmaking Camera

The GFX ETERNA camera is planned to have a Larger Format GFX 102MP CMOS II HS sensor along with an X-Processor 5 high-speed image processing engine.

Both the sensor and processor are the latest developments already included in the FUJIFILM GFX100 II Larger Format mirrorless hybrid stills/video camera with its 102 million pixels.

We can assume the GFX ETERNA sensor will be similar in size. At 43.8 mm wide x 32.9 mm high (54.78 mm Ø), it is approximately 1.7 times larger than a 35mm Full Frame sensor (36 x 24 mm, 43.3 mm Ø).

Fujifilm introduced the impressive GFX System of mirrorless digital cameras in 2017—essentially skipping over Full Frame completely. Instead, they jumped from their X Series of APS-C mirrorless cameras directly to what we then called “Medium Format.”

But, when another company came up with the epithet “Large Format” for “Full Frame,” it sounded like “Medium Format” was smaller. And so, GFX became unofficially known, at least in FDTimes, as “Larger Format.”

Anyway, Fujifilm kept adding new models, video capabilities and lots (more than 17) of Larger Format mirrorless GF lenses. These G mount lenses range from the FUJINON GF23mmF4 R LM WR to the GF500mmF5.6 R LM OIS WR. There are five G Mount zooms, from the GF20-35mmF4 R WR to the GF100-200mmF5.6R LM OIS WR. And a GF 32-90mm power zoom lens is planned.

The GFX ETERNA cine camera is planned for release in 2025. It was suddenly shown under glass at InterBEE 2024 in the Makuhari Messe, located in Chiba, a suburb of Tokyo, from Nov 13-14.

Fujifilm writes, “Since its founding in 1934, the Fujifilm Group has played an important role in the global film industry—introducing the ETERNA series motion picture color negative film, as well as FUJINON Premier, Premista and ZK Cabrio cinema zoom lenses.

“The product name GFX ETERNA expresses our desire to be a leader in a new era of video production that creates masterpieces

“GFX ETERNA is set to revolutionize high-end production. With Fujifilm’s expertise and experience in the field of filmmaking, the company will combine the exceptional capabilities of Fujinon lenses with the advanced technology of GFX System cameras.

“As the demand for producing feature and short films, television, documentaries, and web streaming content continues to grow, there is an increasing industry need for high-quality footage that can be produced quickly and seamlessly.

“As we proceed with field testing in preparation for the release of GFX ETERNA, we will contribute to high-quality and efficient cine production in a wide range of fields by expanding our product lineup to enhance the GFX System.”

So, congratulations Fujifilm for anticipating the excitement of Larger Format.

Fujifilm GFX100 II Camera



GFX100 II camera body with GF Mount

Camera dimensions: 6 x 4.6 x 1.8 in. / 152.4 x 117.4 x 46.5 mm.
With a 43.8 wide x 32.9 mm high image sensor with IBIS (in-body image stabilization), the image diagonal is 54.78 mm Ø.

There are a multitude of formats to choose from the camera's menu: Super35, Full Frame, VV, Large Format or Larger Format.



GFX100 II camera body with GF Mount
GF to PL Mount Adapter.

Blackmagic URSA Cine 17K 65



The new Blackmagic URSA Cine 17K 65 was out in the open at IBC. Camera crews and rental managers lined up for hands-on time. Lens makers and lensmongers jostled for time to see how theirs looked, fit or covered. Read about some of those lenses in the pages that follow. And more are coming. It was quickly clear that this was a serious camera, carefully conceived, rugged for rentals, affordable to buy, with excellent images and an entirely new way to look at the big picture.

The camera's low price might take your breath away. The long name might as well. Since you might run out breath calling for the "Blackmagic URSA Cine 17K 65 Camera" on set, let's shorten it here—and maybe there—to "URSA 65."

Think of the URSA 65 as a 65mm format camera in pretty much the same body as the URSA LF Full Frame camera. It is lightweight, well-balanced, made of magnesium and carbon fiber.

URSA 65 has a new 65mm Format RGBW 17,520 x 8,040 resolution sensor. (50.81 x 23.32 mm, 55.9 mm Ø.) That's a native aspect ratio of 2.2:1. Crop the sides for 2:1, on top for 2.39:1, or anywhere you like. The sensor's OPLF (optical low pass filter) has improved IR filtering for a better red color response.

This new sensor builds on Blackmagic Design's designs that went into their URSA Mini Pro 12K (Super35) and URSA Cine 12K LF (Full Frame) cameras. The URSA 65 has large, sensitive photosites that provide at least 16 stops of dynamic range.

- The camera comes with interchangeable PL, LPL and Hasselblad lens mounts with metadata contacts.
- 3-pin Fischer RS Remote Start-Stop and 24V 2A in front.
- Also in front, a 7-pin LEMO for Start-Stop and Serial connection—also provides 24V 2A.
- USB-C port in front supplies power and video to EVF.
- At the rear: 2-pin LEMO 12V 1.5A for accessories.
- 12G-SDI out, 10G Ethernet, USB-C, XLR audio connectors at the rear.

- 8-pin Lemo power connector at rear for external 24V and 12V (24V recommended.)
- Onboard B-mount (Bebob style) battery plate comes with the camera for batteries from Bebob, Core SWX, IDX, Blueshape. Other battery plates are in the works.

As with the URSA LF, there's a 5" HDR LCD fold-out touchscreen monitor on the camera left side. On the camera right side, there's a second 5" HDR touchscreen monitor that includes a helpfully dedicated focus puller's mode.

URSA 65 records to an included Blackmagic Media Module 8TB—up to 4 hours of Blackmagic RAW in 17K using the full height, full width 65mm sensor, or 20 hours in 4K. Blackmagic RAW files store camera metadata, lens data, white balance, digital slate information and custom LUTs.

Every camera is pre-installed with a PL lens mount and an 8TB Media Module. Also included: top handle, WiFi antennas, base-plate, 24V power supply, 24V B-mount battery plate. A custom Pelican case is also included.

Blackmagic URSA Cine 17K 65 is US\$29,995, excluding tax. Blackmagic URSA Cine 17K 65 with EVF will be US\$31,495.

Blackmagic URSA Cine 17K 65



Tim Schumann, Senior Product Manager, URSA Cameras at IBC



Front view of sensor



FDTimes render of Blackmagic URSA Cine 17K 65mm camera with newly announced Cooke Panchro 65/1 30mm T2.8 lens. (See next page.)

Cooke Panchro 65/i Lens Series



Who said there aren't enough lenses for 65mm format?

When the Blackmagic URSA Cine 17K 65 was shown under glass at Cine Gear in June and out in the open at IBC in September, there were cries and whispers from rumor mills, rental houses and DPs about a dearth of new lenses that covered the Larger Format.

Of course, you could almost hear ray-tracing and prototype printing by lens manufacturers at that time.

November 12, 2024. Cooke Optics announced their Panchro 65/i Lens Series—designed specifically for 65mm Larger Format digital cinema cameras.

Cooke was an early supporter of 65mm and VistaVision film formats. They released limited runs of Double Speed Panchros and Duopanchros in the early 1950s. These 65mm format lenses were used on major motion pictures such as *Vertigo* (1958), *The Man Who Knew Too Much* (1956) and *To Catch a Thief* (1955).

Danny Haikin, Chief Commercial Officer at Cooke Optics, writes, “An increasing number of camera manufacturers are embracing the 65mm format.

“As such, Cooke plans to provide filmmakers with the Panchro 65/i series, which brings the signature Panchro look to larger formats and widens the lens options available to productions that are embracing this impressive capture method.

“This lens series is inspired by the legendary Speed Panchro line, beloved by filmmakers since the 1930s, now reimaged for modern larger-format cinematography.

“Cooke has carefully crafted the Panchro 65/i lenses to preserve the unique aesthetic qualities of the Panchro line.

“Aberrations are skillfully integrated into the optical design, delivering that classic Panchro feel across a much larger image circle to meet the demands of this larger format.”

6 Focal Lengths

The Panchro 65/i will include six focal lengths:

30mm T2.8, 40mm T2.8, 55mm T2.5, 75mm T2.5, 100mm T2.5, and 152mm T2.9.

They all stop down to T22 and are equipped with Cooke's latest intelligent /i technology. The Panchro 65/i series is lightweight across the range (1.8 kg to 2.3 kg).

Cooke will announce the launch date for Panchro 65/i in early 2025 and they expect to have demo units available later that year.

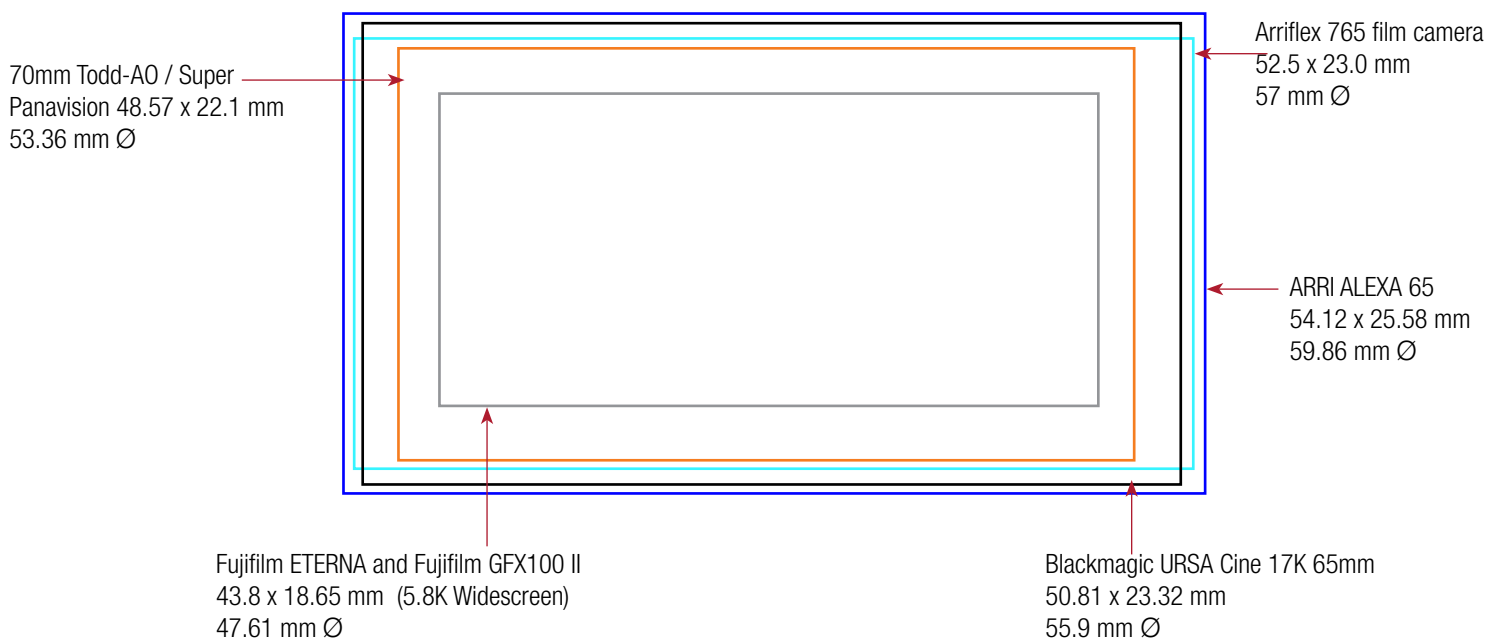
cookeoptics.com



Cooke Panchro 65/i Lens Series



65mm Larger Format Sizes



Math

To compare comparable focal lengths (if the sensor proportions are similar), divide the sensor diagonal of the 65mm Larger Format camera by a Full Frame camera's 43.27 mm sensor diagonal. (e.g. $59.86 \div 43.27 = 1.38$ ratio.) It's OK to round out the numbers, so $60 \div 43 = 1.4$.

So, divide the focal length of a 65mm Format lens by 1.4 to find the comparable Full Frame/Large Format focal length.

Or, multiply the Full Frame focal length by 1.4 to find the comparable 65mm Format focal length.

For example, a 30mm Cooke Panchro 65/i lens would result in an angle of view slightly wider than the Cooke S8/i 21mm on a Full Frame camera.

Leitz THALIA for 65mm Format

Leitz Thalia primes cover up to 65mm Format. The image diagonal is 60 mm.

There are also three Makro lenses in the Leitz THALIA set. (It's the German spelling Makro, with a "k.")

They focus to 1:2, meaning that you can fill the frame with an object that in real life is twice as large as the sensor. The focus barrels are marked not only with distance, but also magnification factor and exposure (light loss) for which you have to compensate.

The 90mm THALIA-T looks like the rest of the THALIA set on the outside, but its optical characteristics are different. Wide open, it has a vintage, romantic, slightly hazy and soft look. Stop down from T2.2 to T5.6 and things become progressively sharper, perhaps less vintage, veering toward post-modern. THALIA-T was based on venerable Leica optical designer Max Berek's 1930s portrait lens: soft, glamorous, Greta Garbo glowing highlights.

leitz-cine.com



| Focal Length (mm) | 24 Makro | 30 | 35 | 45 | 55 Makro | 70 | 90 THALIA-T | 100 | 120 Makro | 180 |
|-----------------------|----------|-------|-------|-------|----------|-------|-------------|-------|-----------|-------|
| Maximum Aperture | T 3.6 | T 2.9 | T 2.6 | T 2.9 | T 2.8 | T 2.6 | T 2.2 | T 2.2 | T 2.6 | T 3.6 |
| Close Focus (ft / in) | 7.8" | 1'8" | 1'10" | 2' | 11.7" | 1'8" | 3' | 2'4" | 22.5" | 5' |
| Close Focus (meters) | 0.2 | 0.5 | 0.55 | 0.6 | 0.3 | 0.5 | 0.9 | 0.7 | 0.57 | 1.5 |
| Weight (lb) | 3.13 | 3.31 | 3.08 | 3.21 | 3.61 | 2.34 | 2.3 | 2.56 | 3.66 | 3.57 |
| Weight (kg) | 1.42 | 1.50 | 1.40 | 1.46 | 1.64 | 1.06 | 1.04 | 1.16 | 1.66 | 1.62 |
| Length (in) | 4.9" | 5.2" | 5.2" | 5.2" | 6.1" | 4.9" | 4.9 | 4.9" | 6.9" | 6.1" |
| Length (mm) | 124.5 | 131.5 | 131.5 | 131.5 | 154.5 | 124.5 | 124.5 | 124.5 | 175 | 154.5 |
| Image Circle | 60 mm Ø | | | | | | | | | |

Image Circle: 60 mm (ARRI ALEXA 65)
 Mount: PL and LPL - with /i Technology lens data
 Front Diameter: 95 mm
 Front Filter: 92 mm screw-in
 Rear Filter: Net holder

Focus Barrel: 270° Rotation
 Iris: 15 Blades, circular through all stops
 Matched Focus/Iris Ring locations: All focal lengths
 Makro: German spelling for macro, 1:2 ratio

Ottoblads for 65mm Format

Photo by Vance Burberry, ASC, ACS



Ottoblads are Hasselblad/Zeiss Medium Format T* C and CF Series lenses rehoused by P+S Technik of Munich for Otto Nemenz International.

The lenses cover Medium Format Stills, Larger Format (65mm) Cine and, of course, Full Frame (Large Format) as shown above on a Blackmagic URSA Cine 12K LF camera—which has pretty much the same body as the URSA Cine 17K 65 camera.

Ottoblads mechanics are silky smooth, as are the images created.

In addition to geared focus and iris rings, these lenses have a rear geared Optical Tuner ring calibrated and numbered 0 – 6, so you

can dial in various degrees of detuning/tuning. The Optical Tuner (OT), designed by P+S Technik, is a module that lets you start with a pristine image (sharp overall), and adjust the resolution/field curvature/bokeh characteristics (smooth and sharp center, soft at the edges). This is excellent for portraits.

It is not a rear diopter or filter. Rather, it is an entire internal optical group. You do not have to reshim or adjust flange focal depth. Comes in PL mount.

ottonemenz.com

pstechnik.com

Ottoblads Specs

| Focal Length | T-Stop | Min. Focus | Weight (lb) | Front Diam. (mm) | Image Circle Ø (mm) |
|--------------|--------|------------|-------------|------------------|---------------------|
| 30mm | 4 | 10" | 6 | 110 | 60+ |
| 40mm | 4.5 | 11" | 4.5 | 110 | 60+ |
| 50mm | 3.2 | 1' 1" | 6 | 110 | 60+ |
| 50mm | 4.5 | 11.5" | 4.5 | 110 | 60+ |
| 60mm | 4 | 1' | 4.5 | 110 | 60+ |
| 80mm | 3.2 | 1' 4" | 4 | 110 | 60+ |
| 100mm | 3.5 | 1' 6" | 4.5 | 110 | 60+ |
| 110mm | 2.2 | 1' 8" | 5 | 110 | 60+ |
| 120mm | 4 | 1' 6" | 4.5 | 110 | 60+ |
| 120mm | 5.6 | 1' 9" | 4.5 | 110 | 60+ |
| 150mm | 2.8 | 2' 9" | 5.5 | 110 | 60+ |
| 150mm | 4 | 2' 4½" | 5.5 | 110 | 60+ |
| 180mm | 4.5 | 3' | 6 | 110 | 60+ |
| 250mm | 5.6 | 5' 1" | 6.5 | 110 | 60+ |



BLACKWING7 and EZANA for Larger Format



BLACKWING7 primes, L-R:
27, 37, 47, 57, 77, 107, 137 mm

| Focal Length mm | Aperture | Image Circle Ø mm | Close Focus (M.O.D.) | | Weight | |
|--------------------|----------|----------------------|----------------------|------|--------|------|
| | | | in | cm | lb | kg |
| 17 | T1.9-T22 | 52 | 8.7 | 22.0 | 3.8 | 1.75 |
| 20.7 | T1.9-T22 | 50 | 9.0 | 23.0 | 3.2 | 1.5 |
| 23.7 | T1.9-T22 | 50 | 10.3 | 26.0 | 3.2 | |
| 27 | T1.9-T22 | 55 | 13.0 | 34.0 | 1.6 | 1.7 |
| 37 | T1.9-T22 | 60 | 18.0 | 45.7 | 3.4 | 1.6 |
| 47 | T1.9-T22 | 60 | 17.5 | 44.5 | 3.2 | 1.5 |
| 57 | T1.9-T22 | 60 | 19.0 | 48.3 | 3.5 | 1.6 |
| 77 | T1.8-T22 | 60 | 26.0 | 66.0 | 3.0 | 1.4 |
| 107 | T1.8-T22 | 62 | 27.0 | 68.5 | 3.2 | 1.4 |
| 137 | T1.9-T22 | 62 | 32.0 | 81.3 | 3.2 | 1.5 |

Front Diameter: 104mm for all lenses
 Iris: 14 blades
 Image Distortion: Less than -4% / +0.5%
 Color And Tonality: Matched Across All Lenses
 Mount: PL Mount
 Aperture Scale & Drive: Non-Windowed Left/Right
 90-Degree Rotation
 Aperture Gearing: 134 Teeth, 0.8mm Mod, 3mm width, 108.8mm Dia.
 Focus Scale & Drive: Windowed Focus Marks
 27 To 137mm: Left/Right in Feet (Meters on Request)
 20.7mm: Left Side Only in Feet (Meters On Request)
 270-Degree Rotation
 Breathing (Magnification Shift): Less than 4% (from ∞ to Close Focus)
 Focus Gearing: 142 Teeth, 0.8mm Mod, 6mm width, 115.2mm Diameter



BLACKWING7 EZANA

Tribe7 explains: “Designed for filmmakers looking to embrace the future of 65mm format capture, EZANA features unique multi-coated lens structures, flare tuning and iris performance characteristics—specifically optimized for 65mm film and beyond.

“Inspired by the history of ultra-widescreen Cinerama (traditionally a 2.76:1 anamorphic format), EZANA reimagines the aesthetic, blending spherical optics with an anamorphic look that’s tuned.

“Stay tuned.”

BLACKWING7 EZANA — new spherical lens with oval iris, also covers 65mm Format.

Blackmagic URSA Cine 17K 65mm Camera



See the similarities of the URSA 65 (top) and URSA LF (bottom).
Even the menus look similar.

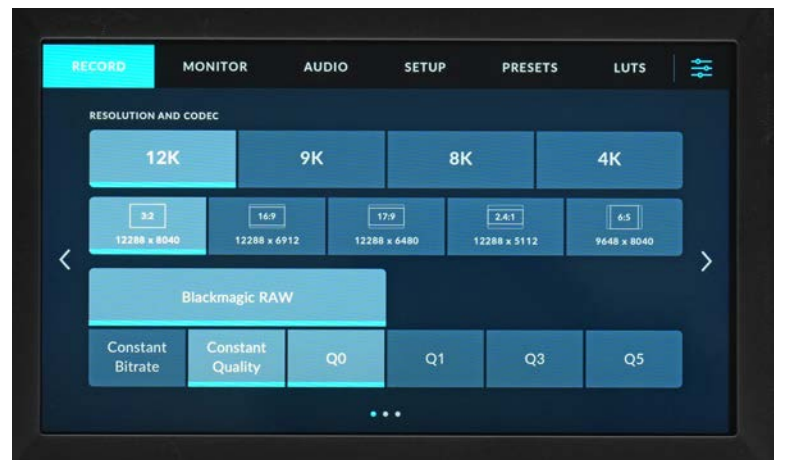
URSA Cine 17K 65 Camera shown with LPL mount
Sensor size:
50.81 x 23.32 mm
Diagonal: 55.9mm



Blackmagic URSA Cine 12K LF Camera



URSA Cine 12K LF Camera shown with PL mount
Sensor size:
35.64 x 23.32 mm
Diagonal: 42.59 mm



Vance Burberry, ASC, ACS on URSA Cine 12K LF & 17K 65



Vance Burberry, ASC, ACS was last seen in these pages at Otto Nemenz International talking about the Blackmagic URSA Mini Pro 12K Super35 camera in 2020. Here he is for the sequel, discussing the new Blackmagic URSA Cine 12K LF camera.

Vance: The new Blackmagic URSA Cine 12K LF camera is pretty impressive. It was nicely Nemenzised for me at Otto Nemenz International. I also think their URSA Cine 17K 65 is also going to be an amazing addition.

Jon: And I think that 65mm format production is going to be the next big thing.

Vance: I agree. It's interesting: Otto Nemenz, my camera house of 38 years, had special medium format lenses custom made by P+S Technik that will work wonderfully on the URSA Cine 65. They are Hasselblad optics built into a new housing with a PL mount, and you can easily modify the look of each lens without taking it apart. There's a lens ring that has 6 marks, so you can defocus the edges to varying degrees. It's kind of fun. They are actually called Ottoblad lenses.

They're beautiful lenses. They have been matched really well, and I think they are going to be a killer lens for that camera. They really are great for the 65mm format.

So, let's start with the URSA Cine 12K LF. DPs and Rental houses were lined up at IBC to try it. Users loved it but some rental houses said they had never owned Blackmagic cameras.

Yeah, sadly that's often the case. I've been involved with Blackmagic a long time. I bought their first 4k camera that looked like a toaster, and realized how innovative they were. They've been on this journey, and I've stayed connected with them for a number of years now. They have been building lots of prosumer style or solo

user types of cameras. It was great that these cameras allowed all sorts of people to have a decent cinema camera to shoot, to make films at prices that people could actually afford.

Obviously when I started out shooting film, there were cameras like that. You needed a bigger budget and had to actually be given an opportunity to shoot or have a hefty bank account. But for young people now, they have this excellent system that has continued to evolve. Blackmagic were really focused on that market and making portable cameras for young filmmakers, which I think admirable. Meanwhile, I have been bugging them to the point of probably being annoying, along with several other cinematographers, yourself included, to give us a professional camera because they have the resources and an innovative mindset. We wanted them to build us a camera that we can take on any set, anywhere, and be able to travel anywhere in the world and know that I can get industry standard power connections and all industry standard cinema camera support I needed. And also give us something that's as effective as a cinema camera.

Now we've got it—a camera with at least 16 stops of dynamic range. It has beautiful image quality. I mean, it's an absolutely gorgeous looking camera. I can shoot Super35 format or Full Frame (Large Format) and also multiple anamorphic options. I love its RGBW sensor which allows me to shoot 12K, 8K, 4K with no sensor crop which is a really big deal. My field of view remains the same; my lenses stay the same. You don't have to do the math. I find it really useful to have all these record options.

They have a power system that's flexible. It comes with a 24-volt B Mount. But Otto Nemenz put a Dual voltage Core Gold Mount on the back for me which is really great. The nice thing is I can use my current 12V Core chargers with their 12/24 batteries so I only have to purchase that batteries.

What about accessories?

I had a custom top plate with 12 volt and 24 volt ports for monitor, video transmitter, FIZ MDR, etc. Brandon Aquino at Nemenz did an amazing job. The full cage looks really beautiful as well as the customer baseplate which includes ARRI offset option. Also, what's nice about this system is that it will also fit the new URSA 65 as well as the body is basically the same.

So now we've got a 24 volt camera, which is great because we can just run it right off 24 volt block or onboard power which is great with no issues of line loss say on a Technocrane, for example, with a long power run.

What lenses were you using on the URSA Cine 12K LF when you shot the *New York Magic* short film?

The majority of it was shot on Cooke Panchro Classic FF primes. A couple of scenes in Coney Island were shot on Laowa 2x anamorphic Proteus Zooms. And the insert of the wheels going on the roller skates was shot with a Laowa Probe 2 lens.

But apart from that, it was all Cooke Panchro Classic FF. They look lovely on this camera. It's a high resolution digital camera and I wanted to take a little bit of that edge off it. The Panchros give me that creamy Cooke look which I love.

You used the internal NDs, I assume?

Yes. I used the internal NDs which are very good. It was a very trimmed down crew. If I was in California, I'd have access to a



truckload of equipment, and my regular, but this was run and gun in New York with a minimal crew. I was very grateful for the help and support I got from The New York City Camera Company.

It was down and dirty, running around with the camera but honestly I think that really put the camera through a solid test.

But it didn't look down and dirty. It looked great.

The URSA Cine 17K 65 doesn't have internal NDs. Is that going to be a challenge now that everybody's gotten used to them?

I've been shooting film for 40 years and we always had filters in the front. And why is that a problem? Honestly I see no issue at all. Standard 4x5.5 IR ND's in most cases. I would have a matte box anyway with say a 138 polarizer for example.

How can they charge so little for these cameras? It seems that if they charge more, the rental houses might be happier. Of course, if they charge too much, the rentals will complain.

I think it follows along with what Grant has done in the past—giving you a real cinema camera with this media system of 8 terabyte media modules that can capture up to six gigs a second, and they're relatively at around \$1,700 a card, and they work great. You can dump footage via 10 gig ethernet really quickly, and you can even dump right out of the back of the camera if you want, because the camera also has an ethernet port. I mean, it's pretty crazy what they've been able to achieve for that price, and I just think it's smart business at the end of the day.

Because they'll sell more, I guess?

I think they'll sell more. I certainly hope so because they deserve to. Also think about it this way: for an owner operator, especially now, you've got a much smaller investment in a camera that's going to give you a quick return on your investment. You do not have a hundred thousand dollar outlay. Maybe at the end of the day you're in a 20, \$25,000 investment minus lenses all in to have a pretty nice system. So I just think it's smart business and if you can deliver me an image of that quality. I'm not seeing anything close 60, \$80,000 difference in image or camera capabilities, to be honest. I actually just finished shooting a project and I am blown away. It's really going to shake things up I think.

I'm also just going to say the value of the way we shot in New York was that it showed the capability of the camera in less than optimal conditions. It was all available light except for a little iPhone light at the end when subject is skating around at night. To me this really shows how good this camera is. My wife, Lindha Narvaez, directed the test film. She owns a boutique production and she's a really talented, creative person. Her niece Aliyah is the star of the film, skating all around New York City.

At what ISO were you rating the camera?

800. I ran it native 800, even at night. There were some day exteriors where I dropped to 400.

Soon there will be two cameras: the URSA Cine 12K (which some of us prefer to call URSA LF) and the URSA Cine 17K (which we like to call URSA 65). It's easier to remember. When will people use which one?

I think the 12K LF is a really great all around camera with a wonderful image quality and I think the 65 is going to shake up the rental company world. I know that Otto's, for example, always smiled a lot when I'd bring earlier model Blackmagic cameras in when we were prepping for a shoot. But this 65mm format camera is something new and different. Otto Nemenz is super interested in that camera, and I'm pretty sure they're going to be buying some of those cameras because at the end of the day, you're getting a 65mm camera for 30 grand that produces a really beautiful image. Of course, they're going to do some custom mods on it. But we modify any camera we buy.

Otto never saw a camera he didn't want to have retrofitted.

Yeah, exactly. Why would you not? I mean, Otto's crew did such a beautiful job with this camera—they really knocked it out of the park. I would use this on any job at this point. There's another exciting thing about it: the fact that I can easily get a very filmic look. And then you pair it with DaVinci Resolve 19, which has all the new film emulation tools in the color effects panels.

Even straight off, if you drop it into Rec.709 color space, it's got a very filmic quality and the highlights roll off nicely. It's really good. I just think this camera's a game changer. It means you don't



have to spend a crazy lot of money on a cinema camera to go make a movie. I love this camera. I'd use it on any project at this point. The build feels really solid. I believe it's a magnesium alloy chassis. It's not terribly heavy.

Do you use the viewfinder or monitor?

I have the EVF. It's a really a nice, new cine style EVF actually. It's way better than what they had before, very clean. The finder extender is very good as well as the mounting options, and there's just one USB-C cable for power and video, which is nice.

The RGBW sensor is so good with a pixel size of 2.9 microns it has a 16 stop dynamic range. They're innovators at Blackmagic. They're always trying new stuff. They've actually built a camera around an operating system as opposed to the other way around which is a pretty unique approach

Oh, that's an interesting concept.

Well, this operating system has been around for quite some time. So you've got an OS that's really smart, really intuitive, very easy to work with your pages of information. You can set, configure things really easily and in a myriad of ways. So now you've got a very effective operating system, then you attached a new cinema camera to it. Some camera menu systems make my head spin to be honest but this is really smart. That's how I see it.

Somebody at IBC said Blackmagic was really a software company that makes hardware. That's not really true?

I don't think so. It's just that Grant Petty is running the company and he is one of those amazing geniuses who just looks at things in a different way. He's brilliant man, always trying new things.

The fact that he's searching for new ways of doing things and attacking things in a different way, that's why I've loved this company for so long. I just knew at some point we were going to get to where we are today with these two cameras.

I would not have guessed that because it seemed that he wanted cameras to shoot his home movies and then to democratize it so everybody could try it. Or to have a camera to test the latest DaVinci Resolve. But I never thought he was going to reach for the high end, despite guys like you who were always asking them to do it. I wouldn't have expected him to say yes. I'm glad he did.

Well, I think you've got to thank additional people, especially product manager Tim Schumann for that too. And all the other people that saw the potential. I certainly saw the potential and other DPs, all bent Tim's ear for a long time. "Come on, Tim, get the camera built for us" I'm sure I drove him nuts and probably still do, but to his credit he's always been really supportive.

And it's been a journey to get there. I have a lot of admiration for him. I think he's a great guy and really cares. There's a culture in the company that really cares about what they're doing. It's not a 9-5 gig. These guys put their hearts and souls into this stuff. There's something about that, makes you want to use their gear. Because there's a genuine love and passion about what they do. And when people do that, there's always that little bit of extra care is put into things. And now I think they've got to a point with these cameras where they're very proud of it, and they should be what they've achieved. I think it needs to be treated with respect and admired for what it is and what they've actually done.

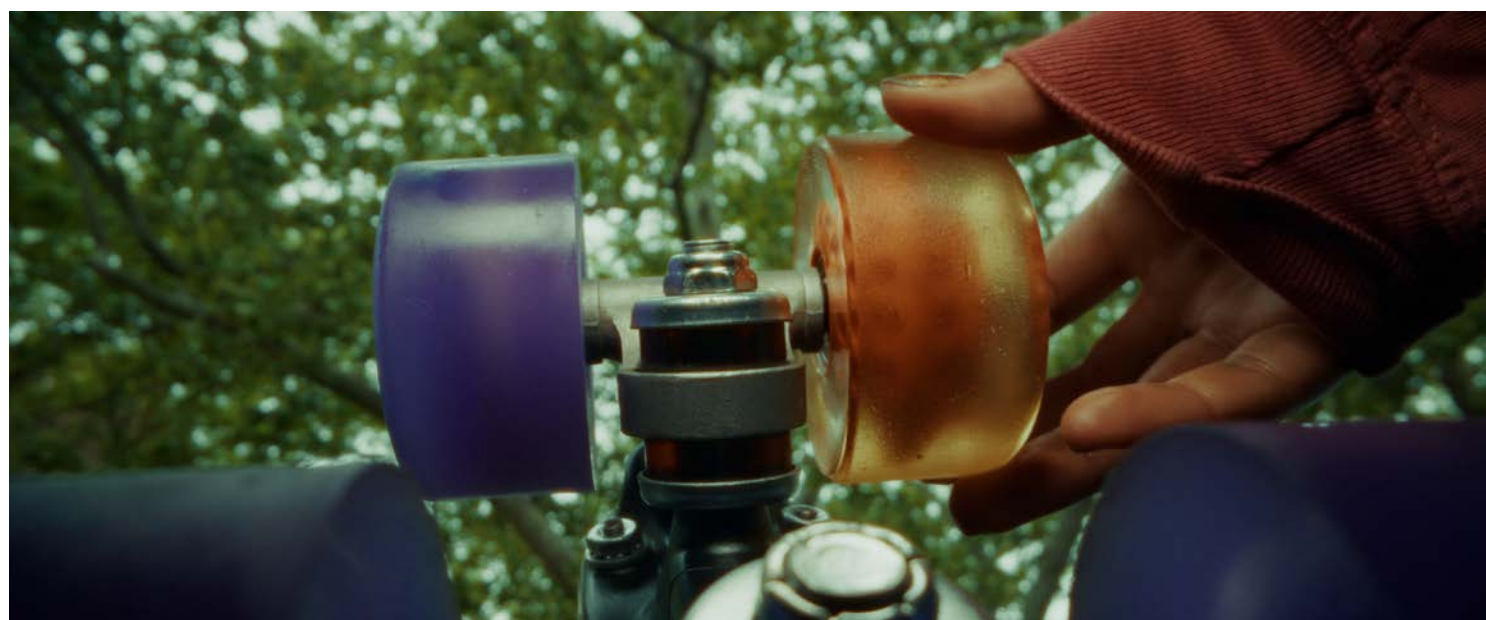
Vance Burberry, ASC, ACS and Nemenzised URSA Cine LF



Burberry Blackmagic URSA Cine LF Frames



Burberry Blackmagic URSA Cine LF Frames



Blackmagic Camera 9.1.2 Update for URSA Cine 12K LF



The Blackmagic Camera Utility 9.1.2 Update installer is for the URSA Cine 12K LF.

It will add Blackmagic Camera Setup software to your system so you can update the software and manage your Blackmagic Camera.

It also installs Blackmagic RAW Player, Blackmagic RAW Speed Test, Blackmagic RAW SDK and Blackmagic RAW plugins.

The Blackmagic Camera Utility 9.1.2 Updates for Blackmagic URSA Cine 12K LF adds:

- Improved 1st AC focus markers on the camera right display.
- Control REST API commands for remote camera control.
- Improved high voltage battery behavior.
- Improved playback performance.

- Improved button lock behaviors.
- Improved updating via Ethernet.
- Improved button behaviors.
- Improved documentation and dynamic range chart.
- Improved lens support.
- Support for Blackmagic PYXIS Monitor.
- Support for display port monitors.
- Improved Blackmagic Cloud functionality.
- Fixed brief startup glitch.

When updating Blackmagic Cameras from Camera 4.0 or above it is a good idea to export your presets and LUT's onto a card because they will be removed during the update.

Go to: blackmagicdesign.com/support/

Wooden Camera Elite Accessories for Blackmagic URSA 65 & LF

As sure as a new camera comes out, you can hear Wooden Camera's prototype printers and CNC machines whirring with accessories that make life on location and on set easier. Dominick Aiello, Senior Director of Accessories at Creative Solutions, whose hands are seen below, explains:

“The design of the new Blackmagic URSA Cine 17K 65 and 12K LF camera is notable in that we needed to customize certain things to open up its compatibility. Our Wooden Camera Elite Accessory System adds Gold Mount Plus as a power option. Our new top and base plate add much-needed mounting points for accessories.

Currently, these cameras ship with a B-Mount 26V plate. We want to open up the battery options and push Gold Mount Plus from Anton/Bauer for rental houses and owners. Our D-Box fits be-

tween the battery plate and the battery at the rear of the camera and has accessory power ports. It also allows for hot swap. The ports have an electronic fuse built in to protect accessories from being overpowered and self reset to make sure the power inputs do not affect the camera.

By the way, I like Dominick's use of port and starboard when talking about which side of a camera is which:

“The Smart Side is the side of the camera that the operator uses 99.999999% of the time. This is the left or port side of the camera.

“The Dumb Side is the side of the camera opposite the Operator's side and 99.999999% of the time this is the right or starboard side of the camera.”



SIGMA Prototype Manual / Autofocus Cine Lens



Repeatable, marked focus scale with end stops

Manual / Autofocus switch



Please welcome the most interesting thing I saw at IBC 2024.

This foreshadows fascinating cine lenses to come: traditionally geared rings with end stops and repeatable focus AND autofocus ability.

This is the lens you want when you land a job operating solo. Focus is fast and sure.

And then, your next production lands with a bigger budget accompanied by an expert focus puller pulling with wireless abandon.

The SIGMA announcement was modest for such a bold move:

“Showcasing the proof-of-concept prototype AF cinema lens based on the SIGMA 28-45 F1.8 DG DN | Art.

“At IBC 2024 visitors will, for the first time, be able to get hands-on with the prototype of a SIGMA autofocus cinema lens based on the 28-45mm F1.8 DG DN | Art, a popular optic with filmmakers.

“Currently under development, this fast-aperture cine zoom is equipped with features including a focus ring with distance indicator, a click-free aperture ring, and compatibility with 95mm Ø matteboxes.”

Kazuto Yamaki, CEO, SIGMA Corporation, taken with prototype 28-45 T2.0 Cine Lens in autofocus mode at IBC 2024, at 45mm T3.5 on SIGMA fp L camera.



Canon Firmware Updates

Canon has firmware updates for some Cinema EOS cameras, accessories and apps. Updates will be available as free downloads beginning December 2024.

EOS C400 Camera



- Adobe Frame.io Camera to Cloud in-camera activation and transmission of proxy files via wireless or wired Ethernet.
- 1.5x anamorphic de-squeeze display assist option.
- To maintain exposure, the shutter and ISO/GAIN settings can be added when saving the output frame rate “pull-down” 60<->60 (30-24) fps to an assignable button.
- 1920 x 1080P output option added for MON OUT (Monitor Out) and HDMI connections.
- Communicates with the new RF70-200 F2.8 L IS USM Z zoom lens and the RF24mm F1.4 L VCM and RF50mm F1.4 L VCM hybrid lenses.

EOS C80 Camera



- Adobe Frame.io Camera to Cloud in-camera activation and transmission of proxy files via wireless or wired Ethernet.
- 1920 x 1080P output option added for SDI OUT and HDMI connections.
- Supports communications with the new RF70-200 F2.8 L IS USM Z zoom lens and the RF24mm F1.4 L VCM and RF50mm F1.4 L VCM hybrid lenses.
- Displays digital tele-converter icon when activated.

EOS C70 Camera



- Communicates with the RF17-120 CINE-SERVO lens and the new RF70-200 F2.8 L IS USM Z zoom lens and the RF24mm F1.4 L VCM and RF50mm F1.4 L VCM hybrid lenses.

- Option for camera output to mirror the camera’s LCD display.
- Displays digital tele-converter icon when activated.

EOS C500 Mark II & EOS C300 Mark III Cameras



- Option for camera output to mirror the camera’s LCD display
- Displays digital tele-converter icon when activated.

EOS R5 C Camera



- Support for RF17-120 CINE-SERVO lens and compatibility with the RF70-200 F2.8 L IS USM Z zoom lens and the RF24mm F1.4 L VCM and RF50mm F1.4 L VCM hybrid lenses.
- Option for camera output to mirror the camera’s LCD display.
- Displays digital tele-converter icon when activated.
- New subject tracking trigger.
- AF frame can be moved in the display by dragging or sliding to the desired location.

Canon Multi-Camera Control App

- Version 1.2 of the Canon Multi-Camera Control App for iPhone and iPad will be available from the App Store.

Wooden Camera Canon EOS C80 Accessories

Wooden Camera is announcing an Elite Accessory System for the new Canon EOS C80. The collection features new designs like the Top Plate, a new ARCA Riser Plate, and NATO Side Rail as well as all-new accessories like the Canon ¼"-20 Ridge Plate.

What makes this collection unique is the 2-piece Top Plate, a C80-specific ARCA Riser Plate, a new design on the NATO Side Rail, and the Canon ¼"-20 Ridge Plate. The new Top Plate design lets you remove the back portion of the plate, allowing the use of the hot shoe with the Wooden Camera Top Plate. When not using the hot shoe, the back portion of the plate adds a secondary connection to help lock in the Top Plate on the Canon EOS C80.

The Canon ¼"-20 Ridge Plate was specifically designed for users who want to use the Canon EOS C80 Carry Handle with Wooden Camera accessories. Because the Ridge Plate can be mounted in any direction, it opens up the option to mount compatible accessories.



Kinefinity SDI e-Viewfinder

Kinefinity EAGLE SDI e-Viewfinder on Canon Cinema EOS C80 Camera. Shown without SDI video cable and power cable.



The Kinefinity EAGLE is a compact, light-weight, Micro OLED 1080P EVF. It powers up quickly, has low power consumption, and supports RS remote camera start-stop.



Core SWX NANO-C98
14.8V Battery with
D-Tap

If you got or are getting a Canon EOS C80 and wish it had an electronic viewfinder, look into the Kinefinity EAGLE SDI e-Viewfinder.

Because the Kinefinity EVF requires external power, consider a BP-A Canon style onboard 14.4V battery that includes a D-Tap from CORE, SWIT, Hawk-Woods, Blueshape, etc.

Sony BURANO cameras are also good candidates for this EVF.

Specs

- Connects to camera via 3G SDI or HD SDI (1080p and 1080i) at camera frame rates from 23.97 to 60 fps.
- 0.7" Micro-OLED Full HD 1080 display.
- High quality optics and diopter adjustments from -6 to +2.
- Zero-delay.
- 2.5W power consumption.
- No internal fan—e-Viewfinder runs silently.
- Power Input: 7-24 V DC
- Size: 05 x 62 x 58 mm / 4.1 x 2.4 x 2.3 in.
- Weight: 348 g / 12.2 oz.
- e-Viewfinder MSRP US \$1,299.
- e-Viewfinder KIT MSRP US \$1,399.
- evf.kinefinity.com

Canon RF Hybrid Auto/Manual Iris and Zoom Lenses

Left to Right:
RF24mm F1.4 L VCM;
RF50mm F1.4 L VCM;
RF70-200 F2.8 L IS USM Z (White);
RF70-200 F2.8 L IS USM Z (Black);
RF24-105mm F2.8 L IS USM Z.



Canon continues an industry push to lenses with manual iris and zoom marks on hybrid stills/cine autofocus/auto iris lenses.

The new RF24mm F1.4 L VCM and RF50mm F1.4 L VCM primes are fast ($f/1.4$), compact (3.9 inches long) Full Frame RF-mount lenses.

Things get really interesting with Canon's new RF70-200 F2.8 L IS USM Z zoom lenses. You have a choice of barrel finish: white (for sunny, hot locations) or black (for non-reflective studio shoots). Focus is extremely fast and image stabilization works especially well when handheld wide open at 200mm. With the equivalent of about 5.5 stops of optical stabilization, you can add almost 2 more stops with the camera's in-body image stabilization.

The new RF70-200 also accepts Canon's PZ-E2 Power Zoom Adapter, an accessory zoom control that attaches quickly with three thumbscrews and is powered through the camera's lens mount pogo pins. It also fits Canon's RF24-105mm F2.8 L IS USM Z zoom lens.



Canon EOS R5 Mark II



Canon EOS C80



Canon EOS R5 Mark II with RF70-200 F2.8 L IS USM Z (White) and PZ-E2 Power Zoom Adapter.



Canon EOS C80 with RF70-200 F2.8 L IS USM Z (Black) and PZ-E2 Power Zoom Adapter.

Canon RF Hybrid Auto/Manual Iris and Zoom Lenses



Top view: Canon EOS C80 with RF70-200 F2.8 L IS USM Z (Black)



Power Zoom Control attaches with thumbscrews.



View showing zoom drive gear and Servo/Manual switch.



RF24-105mm F2.8 L IS USM Z
Right side with Power Zoom Control



With sunshade and detachable lens support bracket.



EOS R5 C with Canon
RF24-105mm F2.8 L IS USM Z

Sony Firmware Updates

Sony has firmware update roadmaps for VENICE 2, FX3, FX30, FX6 and BURANO cameras. Updates will be available to download for free to Mac or PC in 2025. Go to: sonycine.com

BURANO Version 2.0



BURANO Version 2.0 is planned to be released in March 2025. Updates include:

| | | |
|-----------------|-----------------------|---------------|
| Full Frame Crop | 3.8K 16:9 | Up to 120 fps |
| Super35 | 4.3K 4:3 (Anamorphic) | Up to 60 fps |
| Super35 | 1.9K 16:9 | Up to 240 fps |

- Addition of 24 fps to X-OCN 16:9 imager scan modes.
- 1.8x Anamorphic de-squeeze ratio.
- Additional high frame rates (S&Q) increments: 66, 72, 75, 88, 90, 96 and 110 fps.
- Standardized SDI output for viewing X-OCN and XAVC.
- Improved on-screen display with camera status information outside of the image.
- Viewfinder Gamma Display Assist while using S-Log3 for monitoring.
- Additional exposure tools (High/Low Key).
- More white balance memory presets—increased from 3 to 8.
- Active/High image stabilization in FF crop 6K, S35 1.9K 16:9.
- Breathing compensation and image stabilization metadata in X-OCN.

FX3 Version 7.0 AND FX30 Version 6.0



Sony FX3 and FX30 cameras will get a new firmware update in September 2025.

- Menus will be standardized to be consistent across the entire Cinema Line.
- A new “BIG 6” menu, similar to the BURANO and VENICE home screen. The new BIG 6 menu will let you check and adjust key items at a glance, including ISO, frame rate, LUT, NDs, etc.
- Anamorphic de-squeeze ratio of 1.5x is added.
- HDMI RAW Output for Blackmagic RAW recording with Blackmagic Design’s Video Assist recorders.

VENICE 2 Version 4.0



Sony VENICE 2 Version 4.0 firmware update is planned to be available August 2025 and will add:

- EL Zone System, by Cinematographer Ed Lachman, ASC.
- EL Zone, which stands for Exposure Log Zone — or Ed Lachman Zone — is an intuitive, innovative and essential exposure tool. See next page. Think of it as a spotmeter in your viewfinder or monitor. Toggle it on or off. Each stop of exposure is represented by a color. White shows areas that are over-exposed. 18% gray is normal-neutral. Black is under-exposed. Remember the rest of the colors and stops by using the rainbow acronym: ROY G BIV. (Red, orange, yellow, green, blue, indigo and violet). Extended stops have been added to this release, acknowledging increased dynamic range.
- Why do you need this in VENICE 2 if you have a SmallHD monitor with EL Zone? Well, you don’t always have (gasp) a SmallHD on set. Ed explained, “Having EL Zone natively in the camera will always be more accurate. And, I’m honored that Sony is embracing this technology. Sony is always moving forward and creating innovations for the film community.”
- The existing exposure tools in VENICE 2 will remain.
- Additional updates: framelines can be displayed in different colors, which is especially helpful when working with multiple aspect ratios.
- Version 5.0 will be available in 2026 and Version 6.0 in 2027.

FX6 Version 6.0



FX6 Version 6.0 is planned for February 2026 and will include:

- The new “BIG 6” menu, similar to BURANO and VENICE.
- Camera data will no longer be overlaid on top of the image in the viewfinder. Turning off the On-Screen Display (OSD) lets camera operators see the full image more clearly.
- FX6 supports SDI RAW Output for Blackmagic RAW recording with Blackmagic Design’s Video Assist recorder.

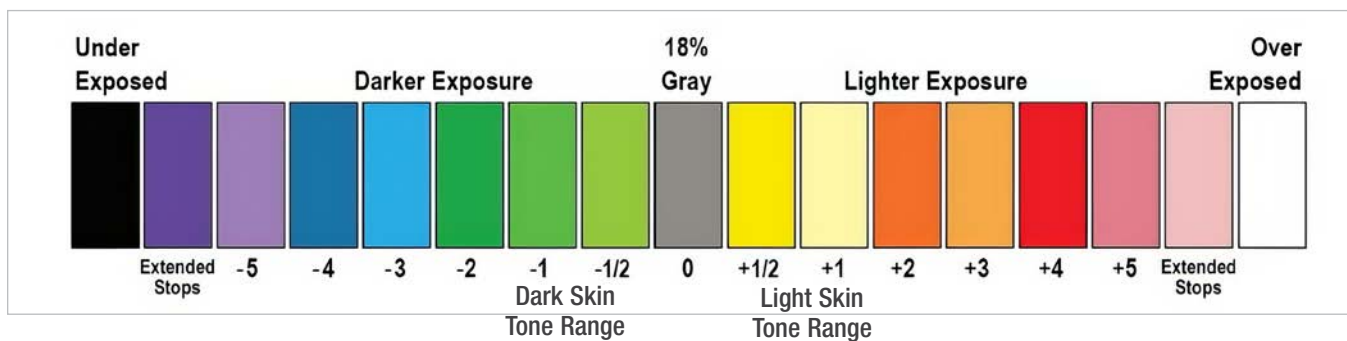
EL Zone in Sony VENICE 2 Version 4.0

EL Zone turned on:

Light
Pink:
Extended
Stops—
Over-
Exposed



Dark
Purple:
Extended
Stops—
Under-
Exposed



EL Zone turned off:



ZEISS Supreme Zoom Radiance (SZR)



November 12, 2024. ZEISS introduces three new lenses: Supreme Zoom Radiance (SZR) 15-30, 28-80 and 70-200 mm. Their irises all open to T2.9 and there's no exposure ramping. Breathing and distortion are minimal. Flares are where and when you want them. Images are painterly, as I found during tests. Skin tones are warm and silky smooth. Bokeh are beautiful. These are high-end Full Frame cine zoom lenses. They can save lots of time on set (fewer lens changes) as you create wonderful and controllable looks that tell the stories of features and series, or attract attention on commercials.

Supremes

Quick review: ZEISS introduced Supreme Prime Lenses (SP) in June 2018. They were a great success—fulfilling demand for Full Frame lenses to fit the new Full Frame cameras: VENICE (9/2017), RED MONSTRO VV (10/2017), ALEXA LF (2/2018), ALEXA MINI LF (4/2019).

Radiance

When ZEISS Prime Radiance (SPR) lenses arrived in December

2019, Benjamin Völker (Dr. Ghost) explained, “Radiance lenses artistically emphasize ghosting (flares). They have a warmer color tone. But, they are not simply the same lenses with different coatings. We wanted to introduce ghosts in controllable shapes and colors and avoid the white haze and loss of light that is typical in vintage lenses.

“Ghosting depends a great deal on what light you use, at what position in the picture, how the background is illuminated and at what T-stop the lens is set. Getting rid of ghosts completely is easy. Adding controllable ghosts is very difficult. Radiance lenses are more versatile because you can use them throughout an entire production. If you don't want flares, you can just flag the light.”

SZR

You might assume that Supreme Zoom Radiance lenses are intended to complement your Supreme Prime Radiance sets. Yes they do. And vintage lenses as well. But, as Dr. Ghost said, if you don't want flares, just keep the lights from hitting the front element. I found that they will match very nicely with the many sets of regular Supreme Primes out there.

Christophe Casenave Introduces SZR



Christophe Casenave is Head of Business Unit Cinematography, in charge of product management, marketing, and sales of ZEISS cinema products

Jon: When did you start working on this idea? And why?

Christophe: We started working on the idea in 2020. Why? Because of the tremendous success of the Supreme Prime Radiance lenses.

We saw that people really liked this mix of character, not exaggerated character, as well as modern mechanics and good ergonomics. They saw that they don't need to use rehoused vintage glass. Radiance lenses are not vintage but they have character and that's what people liked.

So, we said okay, let's make zooms with character. Ultimately, doing a new product should fit the needs and requests of the users with technical capability in an unoccupied space on the market. So, we said, "Let's try it."

Some people still believe that Zooms are not as good as Primes.

That belief is not valid anymore. But it doesn't really matter if they believe it or not. They still always have a Zoom on their camera truck or on set. So why should they have not a Zoom that matches their Primes?

How would you define character?

Character is something that is different from what you would normally expect. It surprises you. A lens with character has special qualities that go beyond a pure neutral look. "Character" might be flares, distortion, a certain tint or something else. It's the same with people. A person with character does something that you wouldn't necessarily expect.

I like that analogy. You might say, "Oh, that DP is a character!"

It means they are not ordinary.

But wouldn't you say that old, vintage zooms have character—kind of flare and soft?

Yes. But the new Supreme Zoom Radiance are Full Frame, with character and reliable modern mechanics. They're super reliable. That was the concept of the Supreme Prime Radiance: a bit more character but without disturbing the whole production or distracting from telling the story.

From a technical point of view, how do you achieve this kind of character in zoom lenses?

It's the same method as the Supreme Prime Radiance. They have proper contrast, proper resolution, and then we add a bit of this blue flare. One of optical designers, whom we call Dr. Ghost, worked especially hard on this. On an average prime lens, you have from seven to fifteen lens elements. On these zooms, you have at least 22 elements, with two surfaces on each. For him, it was like, "I have many more surfaces to play with in my toy box."

Is it created with different types of coatings?

Basically he plays with the recipe of each coating. And not every element is coated in the same way. He plays with every single surface.

Do the Supreme Zoom Radiance have eXtended Data that includes shading and distortion information?

Yes, the zooms have the same eXtended Data as the primes. Also, the zooms are precisely calibrated for every focal length across the entire range. The focal length you see in the eyepiece, on a monitor, in our CinCraft Scenario tracking system, in post-production or VFX is really the exact one. We spent a lot of time to calibrate the zoom scale with the internal data encoders of the lenses. Frame accurate lens data is especially important for virtual production and LED walls.

How would you define this blue flare? Is it point source, internal barrel flare, veiling glare?

Yeah, it depends on the type of your light source and its angle of entry. Is it diffused or a hard light? There are ghosting bubbles if you have a strong, hard source aimed into the lens. If you use the zoom in a normal way, with mattebox and flags, you will not notice anything. You need to aim light into the lens to get flares. And the nice thing is that you can plan it. Same as the Radiance Primes. It's reproducible.

Where are the ZEISS Supreme Zoom Radiance lenses made?

Right here at ZEISS headquarters in Oberkochen, Germany. On the second floor of our building, same as the Prime Radiance.

Deliveries begin in April 2025. zeiss.com/cine

ZEISS SZR



ZEISS SZR and SPR



ZEISS SZR, SPR, SP Specifications

Supreme Zoom Radiance (SZR)

| Lens | Aperture | Close Focus | Length | Front Diameter | Weight | Image Diagonal | Focus Barrel Rotation |
|----------------|-------------|---------------|---------------|----------------|-------------------|----------------|-----------------------|
| 15 mm - 30 mm | T2.9 to T22 | 0.55 m / 21" | 198 mm / 7.8" | 114 mm | 2.95 kg / 6.50 lb | 46.3 mm | 300° |
| 28 mm - 80 mm | T2.9 to T22 | 0.83 m / 2'9" | 198 mm / 7.8" | 114 mm | 2.76 kg / 6.09 lb | 46.3 mm | 300° |
| 70 mm - 200 mm | T2.9 to T22 | 1.5 m / 5' | 232 mm / 9.1" | 114 mm | 3.18 kg / 7.01 lb | 46.3 mm | 300° |

Supreme Prime Radiance (SPR)

| Lens | Aperture | Close Focus | Length | Front Diameter | Weight | Image Diagonal | Focus Barrel Rotation |
|--------|-------------|---------------|---------------|----------------|-------------------|----------------|-----------------------|
| 18 mm | T1.5 to T22 | 0.35 m / 14" | 163 mm / 6.4" | 114 mm | 2.27 kg / 5.00 lb | 46.3 mm | 300° |
| 21 mm | T1.5 to T22 | 0.35 m / 14" | 119 mm / 4.7" | 95 mm | 1.5 kg / 3.3 lb | 46.3 mm | 300° |
| 25 mm | T1.5 to T22 | 0.26 m / 10" | 119 mm / 4.7" | 95 mm | 1.42 kg / 3.13 lb | 46.3 mm | 300° |
| 29 mm | T1.5 to T22 | 0.33 m / 13" | 121 mm / 4.8" | 95 mm | 1.61 kg / 3.55 lb | 46.3 mm | 300° |
| 35 mm | T1.5 to T22 | 0.32 m / 13" | 119 mm / 4.7" | 95 mm | 1.40 kg / 3.09 lb | 46.3 mm | 300° |
| 40 mm | T1.5 to T22 | 0.42 m / 17" | 121 mm / 4.8" | 95 mm | 1.49 kg / 3.28 lb | 46.3 mm | 300° |
| 50 mm | T1.5 to T22 | 0.45 m / 18" | 119 mm / 4.7" | 95 mm | 1.22 kg / 2.69 lb | 46.3 mm | 300° |
| 65 mm | T1.5 to T22 | 0.6 m / 2' | 121 mm / 4.8" | 95 mm | 1.63 kg / 3.59 lb | 46.3 mm | 300° |
| 85 mm | T1.5 to T22 | 0.84 m / 2'9" | 119 mm / 4.7" | 95 mm | 1.42 kg / 3.13 lb | 46.3 mm | 300° |
| 100 mm | T1.5 to T22 | 1.1 m / 3'9" | 119 mm / 4.7" | 95 mm | 1.7 kg / 3.74 lb | 46.3 mm | 300° |
| 135 mm | T1.5 to T22 | 1.4 m / 4'6" | 146 mm / 5.7" | 114 mm | 2.27 kg / 5.00 lb | 46.3 mm | 300° |

Supreme Prime (SP)

| Lens | Aperture | Close focus | Length | Front Diameter | Weight | Image Diagonal | Focus Barrel Rotation |
|--------|-------------|---------------|---------------|----------------|-------------------|----------------|-----------------------|
| 15 mm | T1.8 to T22 | 0.35 m / 14" | 149 mm / 5.9" | 114 mm | 2.25 kg / 4.96 lb | 46.3 mm | 300° |
| 18 mm | T1.5 to T22 | 0.35 m / 14" | 163 mm / 6.4" | 114 mm | 2.27 kg / 5.00 lb | 46.3 mm | 300° |
| 21 mm | T1.5 to T22 | 0.35 m / 14" | 120 mm / 4.7" | 95 mm | 1.61 kg / 3.54 lb | 46.3 mm | 300° |
| 25 mm | T1.5 to T22 | 0.26 m / 10" | 119 mm / 4.7" | 95 mm | 1.42 kg / 3.13 lb | 46.3 mm | 300° |
| 29 mm | T1.5 to T22 | 0.33 m / 13" | 121 mm / 4.8" | 95 mm | 1.61 kg / 3.55 lb | 46.3 mm | 300° |
| 35 mm | T1.5 to T22 | 0.32 m / 13" | 119 mm / 4.7" | 95 mm | 1.40 kg / 3.09 lb | 46.3 mm | 300° |
| 40 mm | T1.5 to T22 | 0.42 m / 17" | 121 mm / 4.8" | 95 mm | 1.49 kg / 3.28 lb | 46.3 mm | 300° |
| 50 mm | T1.5 to T22 | 0.45 m / 18" | 119 mm / 4.7" | 95 mm | 1.22 kg / 2.69 lb | 46.3 mm | 300° |
| 65 mm | T1.5 to T22 | 0.6 m / 2' | 121 mm / 4.8" | 95 mm | 1.63 kg / 3.59 lb | 46.3 mm | 300° |
| 85 mm | T1.5 to T22 | 0.84 m / 2'9" | 119 mm / 4.7" | 95 mm | 1.42 kg / 3.13 lb | 46.3 mm | 300° |
| 100 mm | T1.5 to T22 | 1.1 m / 3'9" | 119 mm / 4.7" | 95 mm | 1.70 kg / 3.74 lb | 46.3 mm | 300° |
| 135 mm | T1.5 to T22 | 1.4 m / 4'6" | 146 mm / 5.7" | 114 mm | 2.27 kg / 5.00 lb | 46.3 mm | 300° |
| 150 mm | T1.8 to T22 | 1.5 m / 5' | 146 mm / 5.7" | 114 mm | 2.27 kg / 5.00 lb | 46.3 mm | 300° |
| 200 mm | T2.2 to T22 | 2 m / 6'6" | 183 mm / 7.2" | 114 mm | 2.87 kg / 6.33 lb | 46.3 mm | 300° |

- Close Focus: Minimum marked distance, measured from the image plane.
- Length: Front to PL mount flange.
- Illumination Circle (Image Diagonal): 46.3 for all SZR and SPR lenses.
- eXtended Data for zoom (zoom value, focus value, T-stop value, distortion, shading).
- Iris: Linear for 15-30 & 28-80; non-linear for 70-200. Non-linear for Primes.
- Focus mechanism like Supreme Prime and Supreme Prime Radiance.
- Focusing ring can be switched between meters and feet.
- Scales engraved and painted yellow.
- Interchangeable mount system: PL and LPL with electronics.



Photos by Masako Misaki.

Markus Förderer, ASC, BVK called in from Queensland, Australia, where was beginning his latest feature. He had just completed My View, a short film using the new ZEISS Supreme Zoom Radiance lenses. Markus's recent credits include September 5, Constellation, Red Notice and many more.

Jon: You tested all three, new ZEISS Supreme Zoom Radiance (SZR) lenses: 15-30, 28-80, 70-200 mm. Tell us more.

Markus: Yes. I remember when the Supreme Prime Radiance lenses were in development and ZEISS showed me prototypes. There was a debate whether to go with blue flares or warm flares. Ultimately, they went with blue, which makes skin tones warmer. My first reaction to these new zooms is that they're not quite as flarey as the Primes, maybe because the Primes open wider to T1.5 and the zooms are T2.9. I think these new lenses have a great balance: high quality zooms with character but not like vintage lenses that can become unpredictable. You never have to be worried, for example on some projects where you don't want to risk having a bad surprise. I think the Supreme Prime Radiance sets and these new Supreme Zoom Radiance lenses are well controlled, and very nice.

Please describe the short film you did with SZR lenses?

When the prototypes were ready, I was already in Australia preparing a feature. We went out on two weekends to try the SZRs

in some interesting locations in Queensland, with lots of nature, waterfalls, a tropical rainforest, etc. You may remember that my Cineflares lens comparison project is very technical, with motion control. But when I test for a feature project, I really like to work the way I would actually shoot on the film. So, on the SZR test, we followed one actress with all kinds of lighting scenarios from early sunrise with really hard sun hitting the lens, to low light in a dark cave.

Our model and actress was from the Torres Strait Islander community. *(There are 133 islands in the Torres Strait, where the Pacific and Indian Oceans meet between Queensland Australia and Papua New Guinea.)*

She cherishes her culture and I wanted to tell her story about embracing nature and connections with the past. We went out really early, got sunrises over the ocean, and worked through sunset and magic hour. I think it's beautiful how these lenses handled everything from strong highlights to gentle gloom. They don't behave like true vintage lenses, but they are also not as sterile as most modern lenses.

Because I'm in prep for quite a big film, I had amazing help from some of my crew on this shoot. We had a heavy lifter drone because I wanted to get some aerial shots and do a "dolly-zoom" push in and gentle zoom out, so you feel the space expanding in a way at a certain moment in the story.



What camera were you using?

The RED V-RAPTOR [X] with its VV large format global shutter sensor. We shot open gate. I was surprised: even the 15-30 zoom covers the large sensor size of open gate. Because I was shooting handheld a lot, the global shutter helps avoid jittery or jello artifacts and it feels almost like you're on a gimbal and a Steadicam.

We did a few actual gimbal shots, but the majority was handheld.

Lighting?

I wanted to explore with a lot of available light outdoors to see how the lenses would react under natural lighting. We also had some controlled lighting setups. When she wakes up in her apartment, we used an LED Leko style light as a small eye light, along with a bounce and negative fill. That was pretty much it. When we went on location, it was with a small crew. We had to hike to several places, carrying all the equipment in backpacks. Some of those locations, like the waterfall, were really remote. The weather was wild. Sometimes it was raining, then sunny, then every possible mix. I embraced it as we wanted to show different lighting scenarios. It was quite fun.

Tell us about the SZR flare characteristics. With the SZRs' blue flares, you get a color contrast. Even if you don't see the flare, it creates a warm-cool contrast. The skin tones feel slightly warmer, and the shadows get richer. Even when there's not an obvious

flare, for example, a bright white sky creates a subtle haze and the blacks add a nice dark blue color contrast. Psychologically, that makes the highlights feel warmer, and that's why the skin tones are quite beautiful.

The skin tones are wonderful.

Our actress has amazing skin. There's almost no makeup. That was the whole idea.

Since you are the force behind Cineflares Lens Lab, did you test the SZRs there?

I also put the Supreme Zoom Radiance lenses through our Cineflares Lens Lab which reveals their unique flare characteristics in a controlled way. It allows filmmakers to compare not only how the three lenses match within the zoom range but also how they pair with Supreme Prime and Supreme Prime Radiance lenses.

It is also interesting to discover which vintage lenses pair nicely with these zooms. Many vintage prime lenses lack a matching zoom lens. By comparing lenses, we found that popular K35 and Super Baltars match nicely in their flare characteristics with the ZEISS Supreme Zoom Radiance.

We shot all three zooms at different focal lengths and T-stops in our motion control flare setup.

We just released the test on Cineflares Lens Lab (cineflares.com)



Cineflares is a free resource for filmmakers to virtually test and compare lenses. We also have a paid Pro version with the full test library with hundreds of individual lenses and additional features to compare lenses. I started this project out of passion and necessity to compare lenses in a controlled environment. We have built a community of thousands of users and continue to grow the library with more lenses and new features.

You were in some tough locations. How did the lenses hold up?

Masako Misaki from ZEISS Japan arrived with the three prototypes. I hope she wasn't too worried because these were the only prototypes in the world at that point. I was walking in the waves, and it was raining and storming. I said, "Don't worry, we'll clean them after," and our amazing ACs cleaned the lenses every evening. The SZR lenses are super robust.

The look?

They feel rich, especially the bokeh. When you see our film, it looks like we shot with Prime lenses. Some people don't want to use Zooms because they think Primes look better, but I shot everything at T2.9, wide open. The look felt very gentle, and I think that's an attribute of the large internal elements.

We took all three lenses in a backpack, and those three lenses covered everything from 15 to 200 mm.

I didn't see any drawbacks compared to using Primes. Maybe if you need more speed, a faster T-stop, but I could totally see them working on a feature.

When you're shooting a feature, do you try to get flares in the shot?

Yes, but with restraint. They are easily overused. I often avoid using a matte box so the ambient light reflects in the lens. But it's not to see an obvious lens flare, where you see a spherical spot flare, where everybody can say "there's a flare." But I do it just to feel the light... as you pan past a bright window that's soft, it internally reflects a bit, lifts the shadows, makes them seem cool. I like to play with this all the time, and then use a flare where it's appropriate.

That's a good thing about these SZR lenses: there are no surprise flares. You really have to see a point light source in the frame. They have quite a nice amount of control, especially for Zoom lenses with so many internal optical elements.

Lens metadata?

Having the lens metadata on these lenses was very helpful. First of all, you see what you're doing live on the monitor. Even during playback, you can see, "Oh, this was that Zoom at 35mm at T4.0." I think it's so essential these days. Most of the current, interesting character lenses lack lens data because they're vintage. That's why



I think ZEISS came up with something very unique: Full Frame zooms with character and lens data. It's almost like having automatic camera reports. Especially on a big film, where you constantly have pickups, or have to recreate a shot. Yes, we all take notes, and it's on the slate, but you know how it is, there's always human error. Maybe the wrong lens is on the slate, or you slated two cameras at the same time, but having that lens data burned-in into the raw file is just so helpful.

You have shot with regular Supreme Prime and Supreme Prime Radiance lenses. It seems that these Radiance Zooms cut in nicely with both sets?

Yes. I think for a rental house, it's probably a no-brainer to add them. I think they would intercut with both. The flare is not aggressive. It could be the Radiance, or it could be the regular Supremes.

If you don't want to get the blue flare, you just flag it off, or use a matte box?

Yes. When we shot with the drone, we flew at sunrise, with the sun in the middle of the shot. The 15-30, the wider zoom, didn't show any obvious flare in this bright scenario. With the longer lenses, as we zoomed in, we could create a nice subtle flare.

And yet, people still say that Zooms are not as good or sharp as

Primes. Why is that?

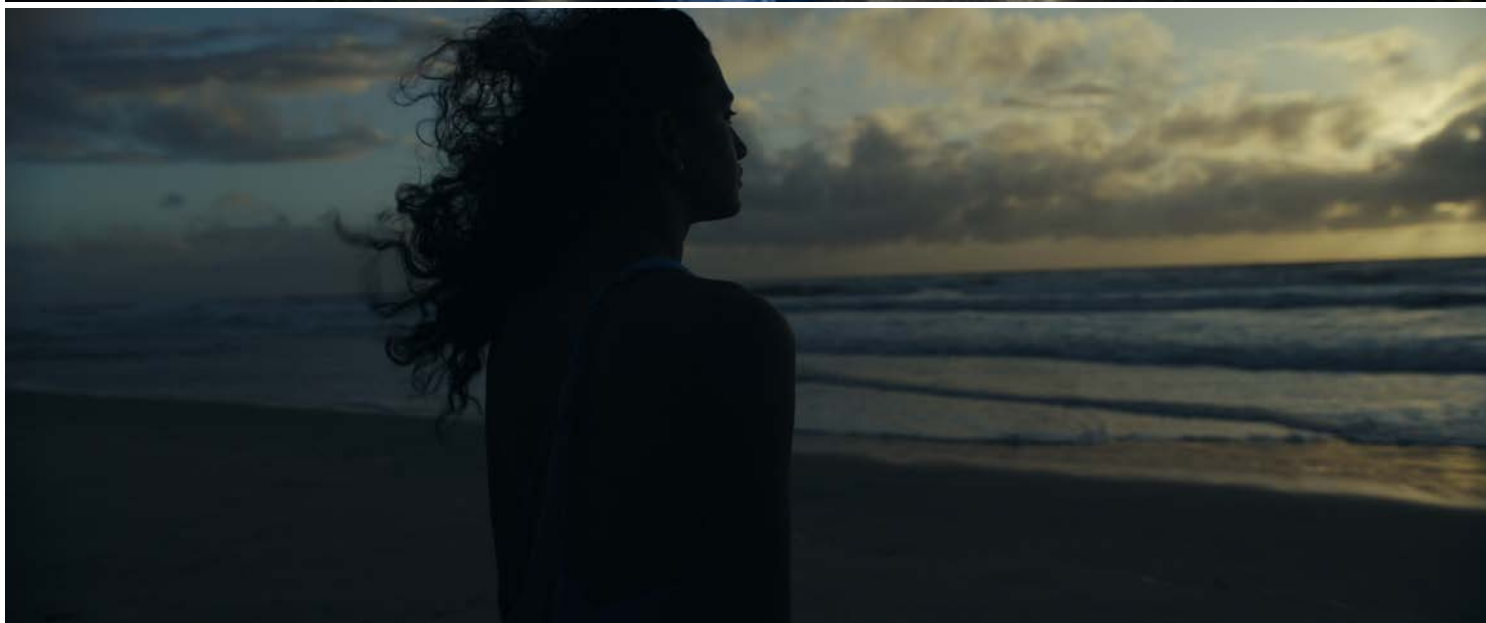
It's going to change. Recently, I suggested a zoom for a certain setup on a movie. My director said, "Oh, no. We don't do that." Michael Ballhaus used to be my professor at the HFF film school in Munich. He always said people were afraid of zooms, but he used them all the time on a dolly. You push in, you zoom in a little bit, or you correct slightly. You don't have to move the dolly track. Even if Michael was not operating the camera, he would adjust the zoom remotely from Video Village. It was not noticeable as a zoom, but especially when the camera is moving, you can gently zoom a couple of millimeters.

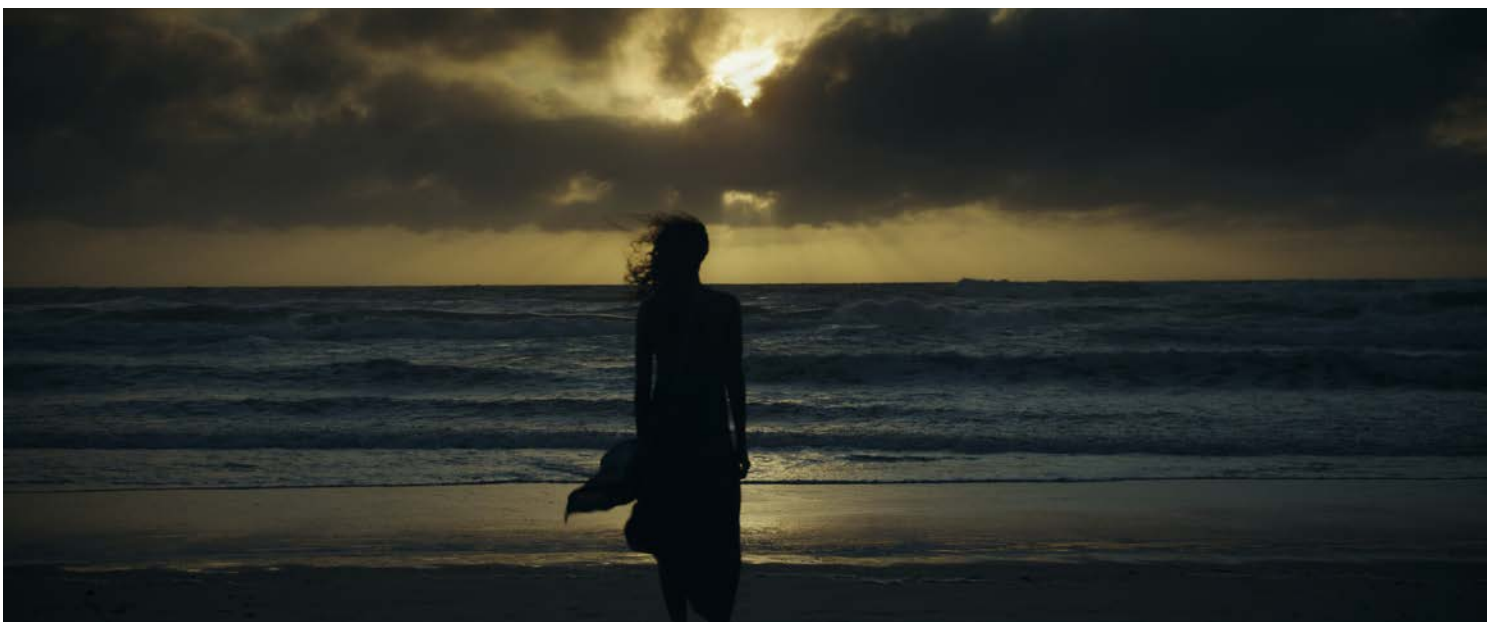
Getting back to the SZR lenses: my first impression was, "Oh, wow, I was expecting them to flare more."

I was almost a bit disappointed until I went out into the real world and started shooting, and I realized that these are high quality, high performance lenses with character. I think in that order. They are not like character beasts.

These are a good zoom lenses for features, commercials and anywhere you would want character and high quality. They're very pleasing. The micro contrast gives you beautiful skin tones. The bokeh are beautiful.

Markus Förderer's *My View* SZR Frames





Lensworks Legacy 1.8x Anamorphic Primes



Lensworks Legacy 1.8x squeeze Full Frame Anamorphic primes are ready after 3 years in development.

The core set of 35mm, 40mm, 50mm, 60mm, 75mm and 85mm all have a maximum aperture of T1.8. The 100mm is T2.

A 28mm, 135mm and 50-135mm front anamorphic zoom are in prototype phase and a 180mm is planned.

Lensworks founder Stephen Gelb describes the Legacy Anamorphics: “The anamorphic optical scheme was custom designed to provide many desirable characteristics such as excellent definition, medium fall-off, smooth bokeh and extremely low chromatic aberration. The lenses have a unique purple-gold flare with interesting spherical kicks resulting in a glamorous look with flattering skin tones and medium contrast.

“The Anamorphic optics in this lens series are exceptional in that they hold sharpness across an entire Full Frame sensor even at T1.8. All the lenses were designed with extreme close focus. They have lightweight and robust housings, cam-driven focus mechanics, shimmable PL mounts, internal focus, and common focus/iris gears.

“The 1.8x squeeze factor was chosen with flexibility and coverage in mind to accommodate today’s increased resolution sensors for both Full Frame and Super35 cameras.”

Available for rental from Lensworks worldwide.
lensworksrentals.com



| Focal Length | Max. Aperture | Close Focus | MOD (FE) | FF Coverage | Weight | Length |
|--------------|---------------|-------------|----------|-------------|---------|--------|
| 28mm | TBD | | | | | |
| 35mm | T1.8 | 17" | 8" | 2.00 | 6.5 lb | 6.5" |
| 40mm | T1.8 | 16" | 8" | 2.40 | 5 lb | 5.5" |
| 50mm | T1.8 | 17" | 9" | 2.40 | 5.5 lb | 6.5" |
| 60mm | T1.8 | 20" | 12" | 2.40 | 5.5 lb | 6.5" |
| 75mm | T1.8 | 20" | 12" | 2.40 | 5.5 lb | 6.75" |
| 85mm | T1.8 | 22" | 12" | 2.40 | 5.5 lb | 7.25" |
| 100mm | T2 | 25" | 16" | 2.40 | 5.75 lb | 7.5" |
| 135mm | T2.8 | TBD | TBD | 2.40 | | |



Nanlite PavoSlim 120C and 240C with eggcrates, rigged in studio grid.

The Nanlite PavoSlim series is a versatile collection of LED panel lights. They are thin, rugged, lightweight, and easy to rig. Each fixture uses precisely made optical lenses to deliver at least four times the brightness of equivalent-sized light mats or panel lights lacking lenses.

The series currently includes eight models: PavoSlim 60B/60C (1x1); 60CL (2x0.5); 120B/120C (2x1); 240B/240C (2x2); and 240CL (4x1).

nanlite.com



Nanlite PavoSlim 120B with eggcrates for tabletop food lighting.

Specs

PavoSlim 60B/120B/240B

- Bi-Color
- CCT range 2700K-6500K
- CRI/TLCI average 95/97, TM-30 Rf/Rg average 95/102
- 12 effects
- Lighting modes: CCT/effect

PavoSlim 60C/60CL/120C/240C/240CL

- Full color
- CCT range 2700K-7500K with GM±150
- CRI/TLCI average 96/97, TM-30 Rf/Rg average 94/100
- 15 effects
- Lighting modes: CCT/HSI/RGBW/gel/effect
- 1.86 cm thin metal body: PavoSlim 60B/60C/60CL/120B/120C.
- 2.35 cm thin: PavoSlim 240CL
- 2.86cm thin: PavoSlim 240B/240C

- Control methods: on-board, remote controller, Nanlink app, DMX/RDM; LumenRadio CRMX (only for full color models)
- Power supply options: AC/V-mount battery/NP-F battery (PavoSlim 60B/60C/60CL) AC/V-mount battery (PavoSlim 120B/120C/240B/240C/240CL).

Includes: Light Fixture, Control Unit, Universal Holder, *Quick Release Clamp, *Baby Pin Holder, DC Connection Cable, AC Power Cable, Softbox, Diffuser (Standard Diffuser +Lite Diffuser), Eggcrate, User Manual, Carrying Bag.

(*PavoSlim 60C/60CL/120C/240C/240CL only)

Nanlux EVOKE 2400B



Nanlux Evoke 2400B with NL 70 Parallel Beam Reflector.



Nanlux EVOKE 2400B



Nanlux Evoke 2400B system:
Clockwise from top right: Evoke 2400B head, power supply, yoke, cables and accessories, RF-NLM-45 45° Reflector and soft case, wheeled transport case.

The Nanlux Evoke 2400B is a high-output COB (Chip on Board) spotlight. You can even plug it into a household outlet, which is astonishing for a light fixture as bright as a 4K HMI PAR—or even more powerful, depending on which reflector or accessory you attach.

The “B” is for bi-color, although the choices of colors go way be-

yond typical binary choices of daylight or tungsten. Perhaps it’s easier to think of it as “V” for vari-color, since the Evoke 2400B has a CCT color temperature range of 2700-6500K, as well as adjustable Green/Magenta ± 80 . The magnesium alloy housing, with an IP55 rating, is rugged, lightweight and rain resistant. nanlux.com



Specs

- Rated Power: 2400W — DC48V/26A $\times 2$, AC100-240V 50/60Hz 26A Max.
- 9,584 lux / 890 fc @ 3m bare light at 5600K.
- 41,910 lux / 3893 fc @ 3m with 45° reflector at 5600K.
- 22,420 lux @ 10m with NL70 parallel beam reflector.
- Rated power 2400W.
- CCT range 2700K-6500K with GM ± 80 .
- CRI/TLCI average 96/97, TM-30 Rf/Rg average 95/100.
- 12 lighting effects.
- IP55 rating for both light head and power supply.
- Controls: on-board, remote controller, Nanlink app, DMX/RDM, LumenRadio CRMX, wired controller, Art-Net/sACN.
- Light Fixture (without protective cap): 427.3 \times 316.4 \times 265.1 mm / 16.8 \times 12.5 \times 10.4". 15 kg / 33.1 lb.
- Power Supply: 389.2 \times 172.2 \times 268.3 mm / 15.3 \times 6.8 \times 10.6". 11.58 kg / 25.53 lb.

Panasonic LUMIX S5IIX (DC-S5M2X) Firmware Updates

Panasonic has been persistently updating firmware of their latest Full Frame hybrid mirrorless cameras: the LUMIX S5II and S5IIX. These were the first LUMIX mirrorless cameras to use Phase Detection Auto-Focus (PDAF) with a newly developed 24.2-megapixel 35mm Full Frame (35.6mm x 23.8 mm) CMOS sensor and imaging processor.

The LUMIX S5II and S5IIX both have 5-axis IBIS (in body image stabilization). There are currently 17 Panasonic LUMIX S Series lenses. And, because LUMIX S cameras and lenses are part of the L-Mount alliance with LEICA and SIGMA, among others, there is a vast selection of L-Mount Full Frame lenses available.

The LUMIX S5IIX is the cinema star of the twin siblings S5II and S5IIX.

The LUMIX S5IIX can record external BRAW (Blackmagic RAW) via HDMI to Blackmagic Video Assist 5 and 7 inch Monitor/Recorders. It can also record Apple ProRes externally via HDMI.

Version 2.1 Firmware Update was announced on October 11:

- New Photo Style added: LEICA Monochrome.
- Compatibility with LUMIX Lab, the LUMIX smartphone app.
- Support for Panasonic XLR microphone adaptor DMW-XLR2.
- 5GHz option added to Wi-Fi (in addition to existing 2.4GHz).
- REAL TIME LUT function can be assigned to Fn button.
- A message pops up when using a Panasonic collapsible lens.
- Improved operational stability.



S5IIX with native L Mount



S5IIX with Leitz L to LPL Adapter



S5IIX with Leitz L to LPL Adapter



S5IIX with Leitz L to LPL Adapter and LPL to PL Adapter.



S5IIX with Leitz L to LPL Adapter and LPL to PL Adapter. You can tell the difference because the LPL to PL Adapter has winged tabs.



Rear view. Monitor data shows that we're recording Cinema 4K .MOV, Full Sensor Area, at 23.98 fps, with Manual Focus, Program Exposure of F5.6 at 86 shutter angle, ISO 100 and 2.339:1 aspect ratio.

Panasonic LUMIX S5IIX (DC-S5M2X)



LUMIX S5IIX with L-Mount SIGMA 24-70 F2.8 DG DN Art Zoom.



with SIGMA 24-70 F2.8 DG DN Art Zoom.

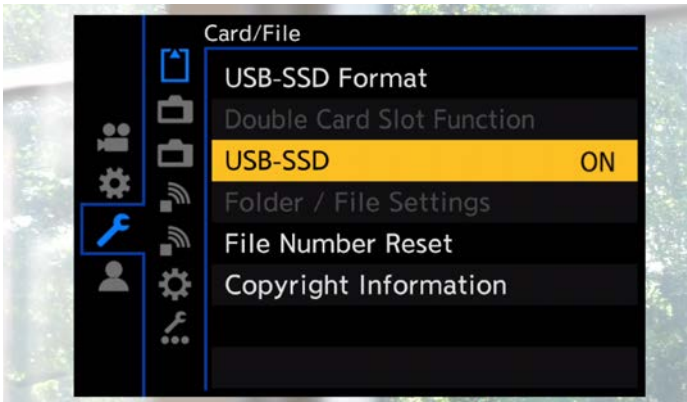


LUMIX S5IIX with with LUMIX S Series 20-60mm F3.5-5.6 ASPH Lens.



with Panasonic LUMIX S Series 20-60 F3.5-5.6 Zoom.

A few LUMIX S5IIX Menus



LUMIX S5IIX can record via USB-C to an external SSD like Samsung's T5.



The Record Quality menu screen shows resolution and lots of parameters.



The S5IIX has one of the more advanced Anamorphic Desqueeze capabilities of any Full Frame hybrid mirrorless camera: 1.3, 1.33, 1.5, 1.8, 2.0x.

Litepanels Gemini 2x1 Hard Spacelight



That's Ian Muir, Lighting Consultant, above, measuring intensity and fall-off of a Litepanels Gemini 2x1 Hard LED Spacelight.

"As bonkers as it looks, this is the most efficient way of checking," he said. "This replaces the old-school way of hanging hot 5K 6-light tungsten fixtures."

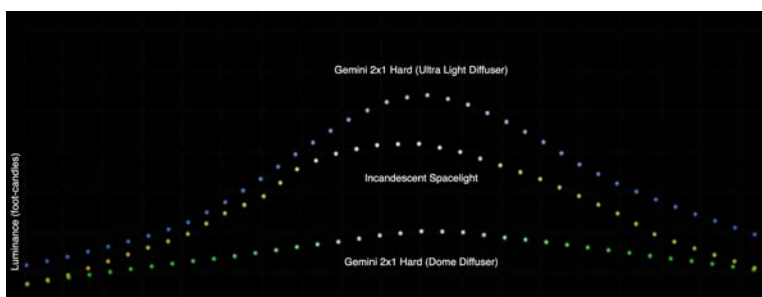
The Litepanels LED Gemini 2x1 Hard fixture provides higher output, outperforms traditional tungsten halogen in brightness and has more even fall-off.

Although it sounds counter-intuitive, the Gemini 2x1 Hard fixture actually can be both punchy and very soft when you add ultralight diffusion or a dome diffuser for even more spread.

The Gemini 2x1 Hard weights a mere 11.5 kg (25.3 lb) and can be rigged from a rope with a Spacelite skirt mounted below. Of course, it's RGBWW with wired or wireless DMX, LumenRadio / Bluetooth remote control. And, the Gemini 2x1 Hard draws a mere 500 Watt at maximum brightness. Compare that to a traditional 5K Spacelite that eats around 5,000 Watts.



Photo: FDTimes



Litepanels Gemini 2x1 Hard Spacelight



Images by Ollie Kenchington

Adorama Rental Company (ARC)



Each prep bay at Adorama Rental Company has tandem, side-by-side MYT Works Opti-Glide test chart systems.

Adorama Rental Company (ARC) is conveniently located at 370 19th Street, Brooklyn NY. It's a 10-minute drive from downtown Manhattan, or a 10-minute walk from the F/G subway station.

There are two full-size loading docks that can accommodate up to 2 semi-trucks or multiple cube trucks. There's a private parking lot (on-request) and ample street parking.

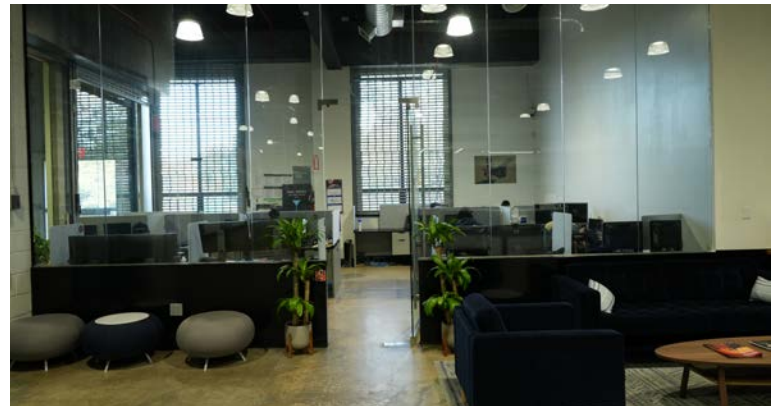
Step inside the bright, clean 18,000 sq ft. rental space. There are 11 prep bays, 2 private feature rooms. Each prep bay is equipped with the tandem MYT Works Opti-Glide Systems and PAT-ACC test charts—so you can check out two cameras at once.

Derek Barocas, Carl Cook and Henry Bornstein run the sales, management and business development team. Together, they have 85 years of rental and production industry experience.

ARC is a one-stop shop offering an extensive range of digital cinema cameras, accessories, and lots of lenses— from the latest to vintage. There's a full range of lighting, grip and electric equipment: Fisher dollies, jibs, sliders and expendables. ARCs

rental inventory supports almost every type of scripted and unscripted production, including indie films, commercials, reality, features, branded content, series, docudramas, docuseries, live events and more. ARC's sister company Adorama.com is a full-service provider of digital cine cameras, lenses and accessories.

adoramarentals.com



Godox KNOWLED MS60R “Inkie”



It's like a multi-functional LED inkie or mini Leko.

The new Godox KNOWLED MS60R is a very versatile 60W LED light fixture with numerous color modes: CCT/HSI/GEL/RGBW/XY/FX).

CCT Color temperatures range from 1,800°K to 10,000°K.

The MS60R can be mounted in several interesting way. Because it's about the size of a track light and looks as stylish, the MS60R can be placed in the shot as a practical light. There are a number of Godox light-shaping and diffusing accessories for this fixture (see above.)
godox.com

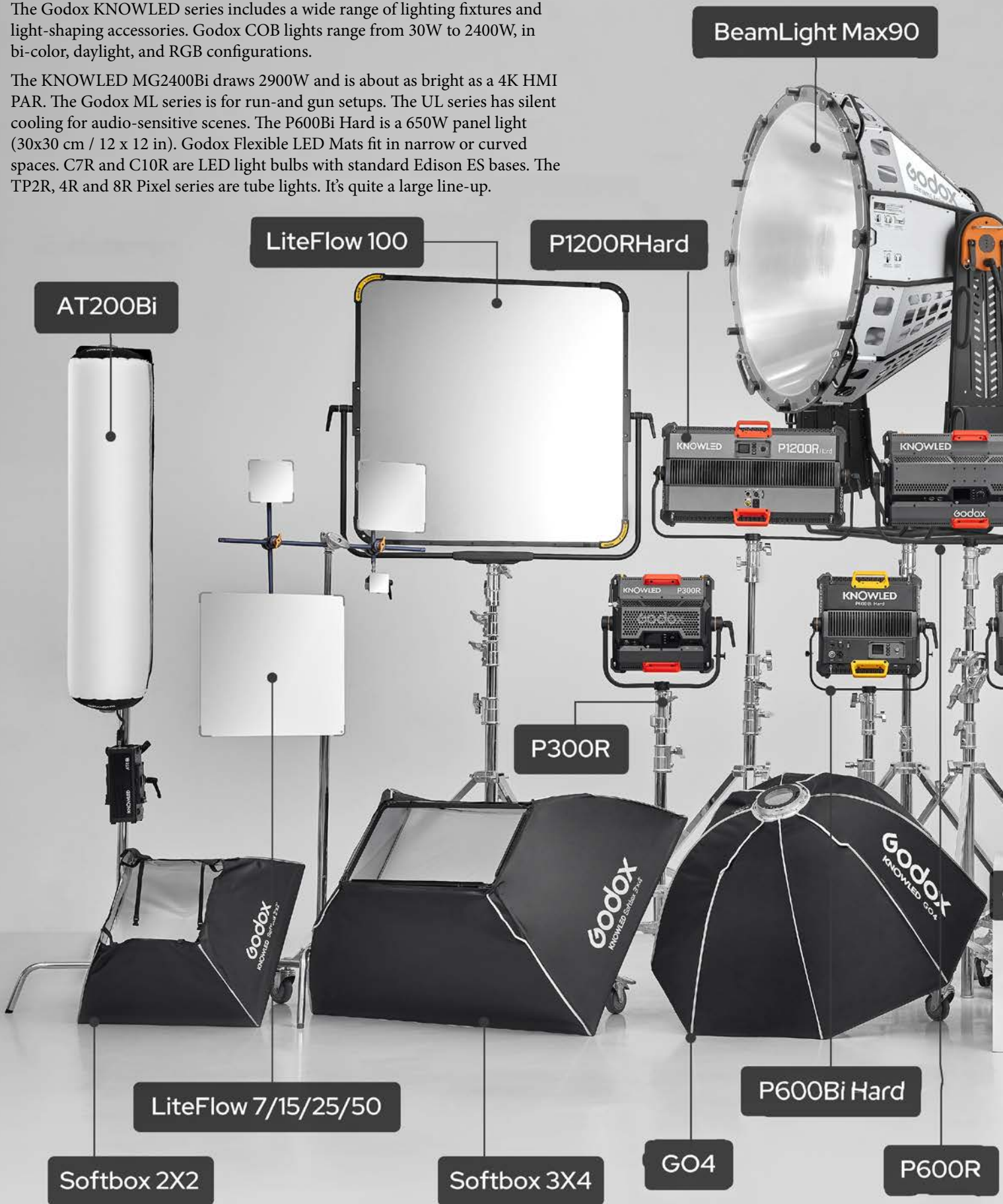
Specs

- Power: USB-C, NP-F battery, E27, AC , etc.
- Dimming: 0 - 100% / linear, S-curve, exponential, logarithmic.
- FX mode: 14 effects
- CRI: average ≥ 95
- TLCI: average ≥ 95
- Control methods: DMX512, LumenRadio CRMX, RDM, App via Bluetooth (up to 60 meters distance).
- Dimensions (without battery, lens or reflector): 3.58" long x 3.03" diameter.
- Weight (without battery, lens or reflector): 311 g.

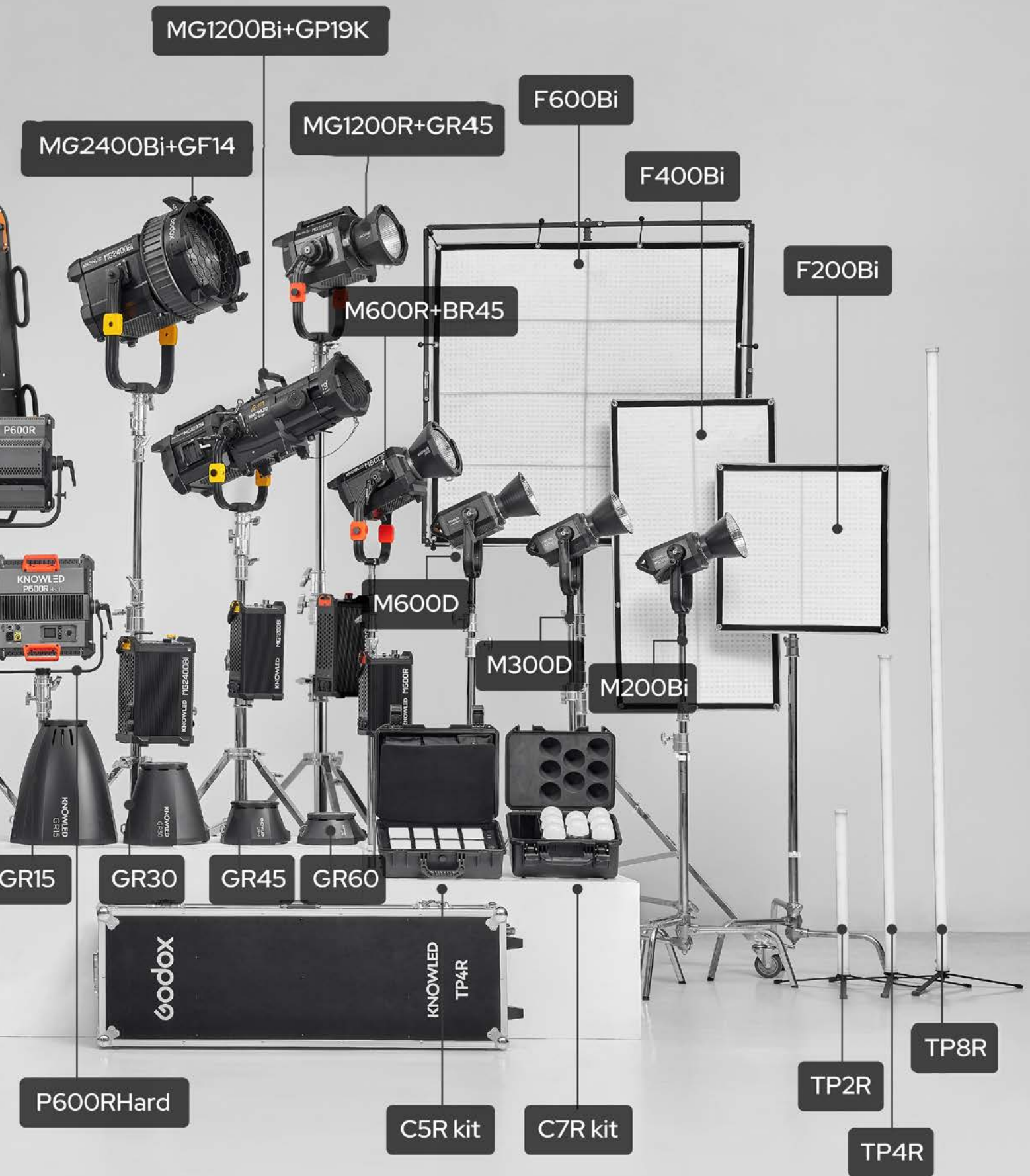
Godox KNOWLED Lighting Series

The Godox KNOWLED series includes a wide range of lighting fixtures and light-shaping accessories. Godox COB lights range from 30W to 2400W, in bi-color, daylight, and RGB configurations.

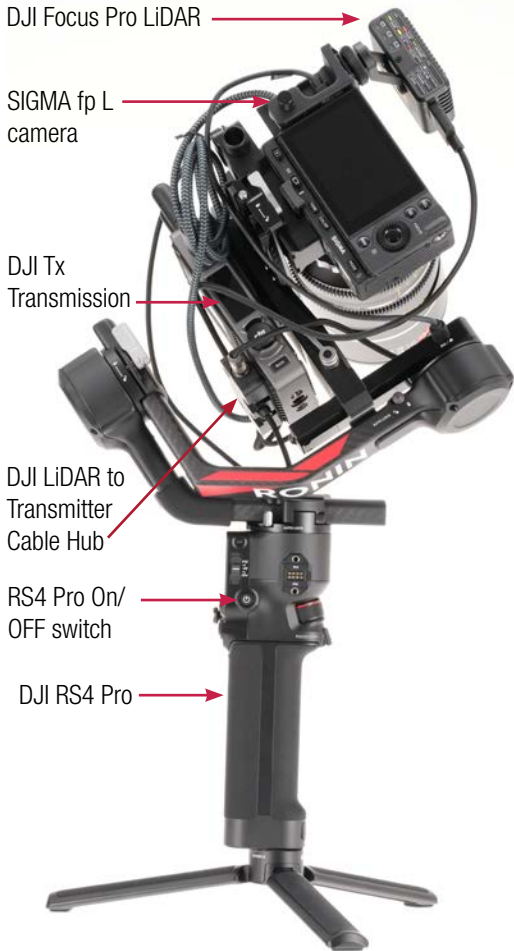
The KNOWLED MG2400Bi draws 2900W and is about as bright as a 4K HMI PAR. The Godox ML series is for run-and-gun setups. The UL series has silent cooling for audio-sensitive scenes. The P600Bi Hard is a 650W panel light (30x30 cm / 12 x 12 in). Godox Flexible LED Mats fit in narrow or curved spaces. C7R and C10R are LED light bulbs with standard Edison ES bases. The TP2R, 4R and 8R Pixel series are tube lights. It's quite a large line-up.



Godox KNOWLED Lighting Series



DJI Ronin RS4 Pro with Focus Pro Hand Unit and LiDAR



The DJI Ronin RS4 Pro is a very versatile camera stabilization system for solo camera operating. And, with the optional lens motor, you can adjust focus with the Ronin's red-ringed knurled knob in front.

But there are many traditional operator-operates/focus puller focuses setups. Those are the times when you want DJI's Focus Pro FIZ Hand Unit and LiDAR rangefinder in the hands of a fabulous Focus Puller.

Here's a quick guide to how it all comes together and works.

1. Park and Lock.

Ronin RS4 Pro parks and locks automatically like this when you turn it off.

Here, we have the following setup:

- DJI RS4 Pro
- DJI Focus Pro LiDAR on top
- SIGMA fp L camera
- Leitz THALIA 55mm T2.8 Prime
- DJI Focus Pro Lens Motor
- DJI Transmission (Video Transmitter)
- DJI LiDAR to Transmitter Cable Hub



OLED Display

2. Press the RS4 Pro On/Off button for 3 seconds to power it up.

- Watch the RS4 Pro's OLED display for error messages warning you to update firmware or start calibration of balance.
- Turn on the camera.
- Turn on the Video Transmitter.



L to PL Mount

DJI Transmission (Video Tx) ON/OFF switch is here

DJI Ronin RS4 Pro with Focus Pro Hand Unit and LiDAR



LiDAR to Transmitter Cable Hub



Cable Hub
Video Tx

3. Double check the cable connections:

You can attach the Cable Hub below the Transmitter with Velcro or tenacious 3M Scotch double-sided VHB Tape.

The DJI Focus Pro LiDAR to DJI Transmission Cable Hub distributes 5 connections and they are labelled. There are 4 hard-wired cables:

- to dual USB-C ports on LiDAR unit. Be sure to orient it so the USB-C icons line up.
- to USB-C Focus Motor port.
- to 4-pin DC-IN port on Video Transmitter.
- to USB-C port on Video Transmitter.
- And there's a 7-pin female port on the other end of the hub, labelled DC-IN: Connect a 7-pin male cable to the dual USB-C ports on the forward right side of the gimbal. This is how Transmitter, LiDAR, and motors get power and control.

4. Turn on the DJI Focus Pro FIZ Hand Unit by pressing the red REC button for 3 seconds. (Yes, this is counter-intuitive.) The Hand Unit uses an NP-F Battery.

Of course, you have the DJI High Bright Monitor attached on top. Power up the High Bright Monitor with the On / Off switch on its left side.

The Monitor uses a DJI WB37 battery but you can get an NP-F Battery Adapter.

ON/OFF switch for High Bright Monitor is located here



Press the REC button for 3 seconds to turn Hand Unit on and off

5. "Focus motor detected, please calibrate" is a typical FIZ process where the lens motor determines near and far end stops of the lens.



DJI Ronin RS4 Pro with Focus Pro Hand Unit and LiDAR

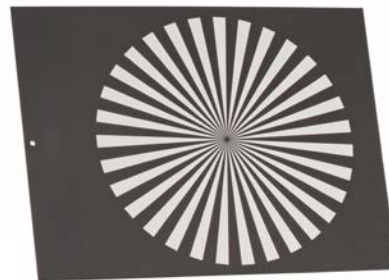


Touch here



6. The next step is Lens Profile setup, where you match your lens focus marks to the LiDAR focus distances. Access this screen by touching the MF (or AF) icon, third from bottom right, on the monitor. Add a lens profile.

7. We'll add the 55mm focal length of our Leitz THALIA. Touch CALIBRATE. Note, this LiDAR to Lens Calibration is different from the earlier lens end-stop calibration we did earlier.



8. Short Range Calibration begins on this next screen. Aim your RS4 Pro at a focus chart (Siemens Star works well) that is 0.7 to 1.3 m (2.3 to 4.3 feet) away. Then, turn the FIZ Hand Unit's focus knob until the focus target is sharp. When it is, touch CONFIRM.

DJI Ronin RS4 Pro with Focus Pro Hand Unit and LiDAR



9. The next step is Long Range Calibration. Back away from your focus chart until it is 3.7 to 4.3 m (12.1 to 14.1 ft) away. Focus the Hand Unit until the image is sharp, and touch CONFIRM.



10. If you're not setting up in a rental house prep bay, you will save a lot of time and aggravation by attaching the focus chart or target to a wall and moving the Ronin RS4 Pro setup on a tripod, dolly or rolling pedestal.



11. Success. You have saved the lens profile. The screen should look like this. The yellow arrow points to the focus distance you have set with your Hand Unit. The white blob to the left of the arrow is the recommended distance of the LiDAR rangefinder.



12. The LiDAR's white display blobs represent the architectural plan view, looking down from the ceiling or sky. Here, we are focused on the candle at 9', shown by the curved white blob and yellow arrow. I am further away, at 18', shown above and to camera left of the candle.

Switch from Autofocus to Manual Focus by pushing the M button on the FIZ Hand Unit.

Auto/Manual Focus

DJI Ronin RS4 Pro with Focus Pro Hand Unit and LiDAR



Picture in Picture

13. You can toggle between AF Autofocus and MF Manual Focus on the High Bright Monitor as well. Autofocus with LiDAR is quite good. PIP is Picture in Picture and shows the view that the LiDAR sees.



14. PIP displayed on Monitor



Eye in the sky icon

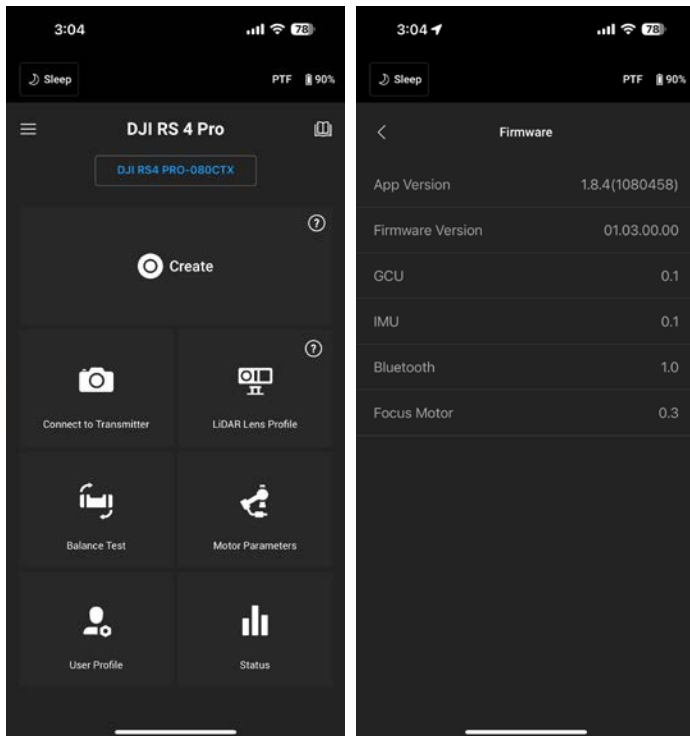
15. If the focus scale and/or the LiDAR display (LiDAR Waveform) do not react or show up on the Monitor, be sure they are toggled ON. This menu is summoned by touching the eye-in-the-sky icon at lower right.



16. Troubleshooting.

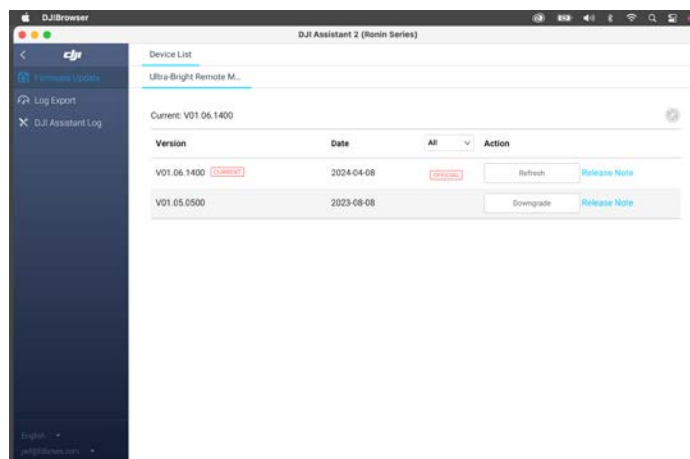
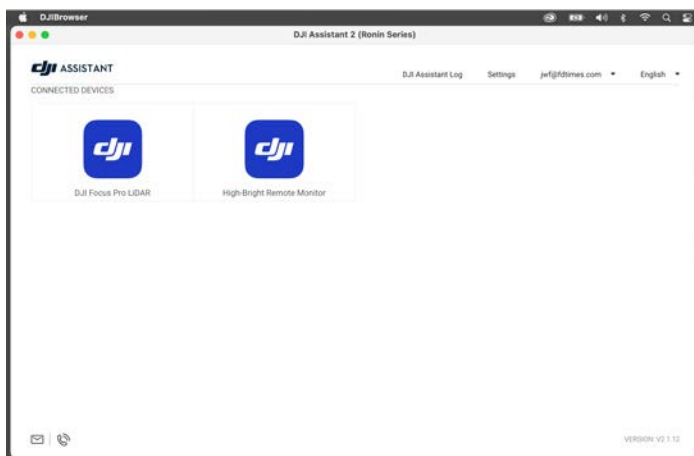
When all else fails, update the firmware of all components. DJI's Donovan Davis suggests refreshing firmware when things aren't working, even if you have the latest releases.

DJI Ronin RS4 Pro with Focus Pro Hand Unit and LiDAR



19. If the Focus Motor is not linking with the FIZ Hand Unit, hold down the button on the motor until it turns solid yellow while you also hold down the "M" button on the Hand Unit. They should turn green when linked. To switch from Focus to Iris or Zoom, press the Lens Motor button. Additional motors can be daisy chained.

17. RS4 Pro Gimbal, Video Transmitter, Lens Motors and FIZ Hand Unit are updated using the DJI Ronin App on your smartphone.



18. The LiDAR Rangefinder and High Bright Monitor are updated using DJI Assistant on your computer, connected via USB-C directly to the hardware's USB-C port.



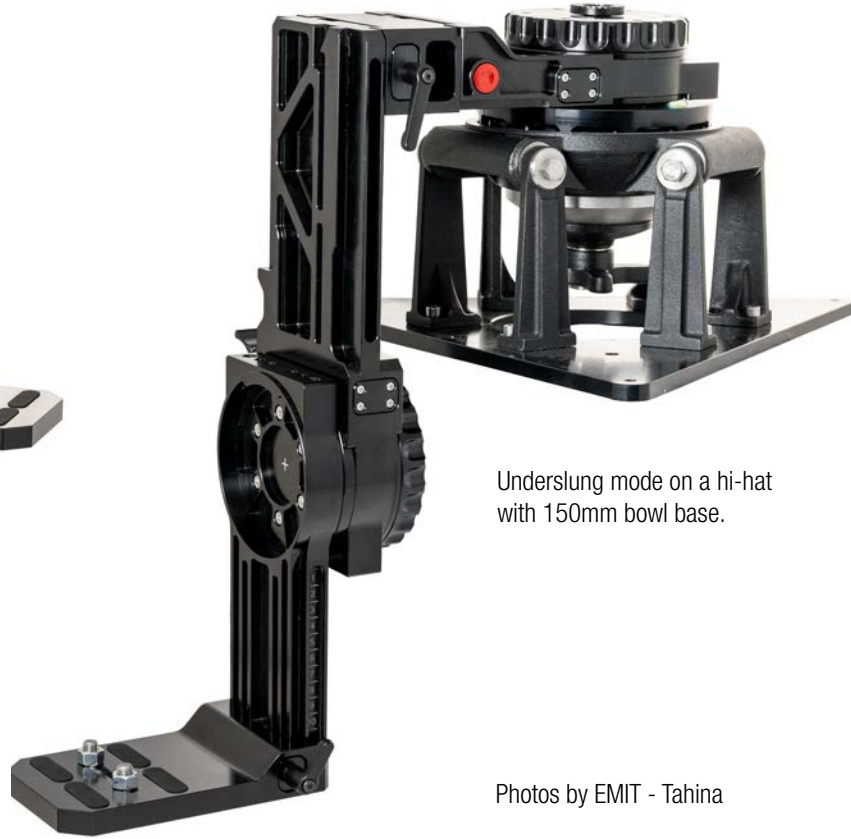
Great thanks to Donovan Davis, DJI Senior Product Specialist, for all his help, patience, time explaining things and getting the system to work seamlessly for this article. [dji.com](https://www.dji.com)

Ronford-Baker Atlas Mini 7

Atlas Mini 7 head on a 14" x 14" cheese plate and it's a Low Rocker.



Underslung mode on a hi-hat with 150mm bowl base.



Rollover mode



Photos by EMIT - Tahina

Fit the Atlas Mini 7 head onto a 14" x 14" cheese plate (above) and the head becomes a Low Rocker so you can get those smooth low mode shots with the option of variable fluid/drag control. That's much nicer than throwing the camera on a sand bag.

Replace the pan bar with a wheel, add counterbalance weights and you have 360 Rollover mode. The supplied lens cap/pointer tool allows the operator to easily set the camera into nodal position.

The Atlas Mini 7 can support camera systems up to 25 kg / 55 lb. The camera can be mounted using 3/8-16 screws that come with the head, or with a dovetail slider or—my favorite—with a Ronford Quick Release Plate.

In addition to manual operation, the Atlas Mini 7 can be motorized as a remote head with independent pan and tilt axis control, speed, feathering and dampening adjustment. It is plug and play, with easy and fast setup. There are optional wireless and hand wheel upgrades.

Ronford-Baker Atlas Mini 7 comes with 2 Fluid Units, Standard Platform, Pan Bar and a choice of 100 mm, 150 mm Ball Base or Mitchell Base.

Optional Accessories include: RF.73001 Wide Platform; RF.80080M 6" Dovetail Plate; RF.80003 Large Quick Release; RF.80001 Standard Quick Release.

To motorize, get the RF.73010 Atlas Mini 7 Motor Kit.

ronfordbaker.co.uk

The Ronford-Baker Atlas Mini 7 is a new fluid head.

It uses Ronford-Baker's ever-popular Atlas fluid system. With a strong, rigid design and tool-less operation, you can configure the head quickly for many different types of setups. The Atlas Mini 7 can go from dolly to jib arm to platform or low mode in minutes with almost unlimited options for post rotation and adjustable rising platforms.

Atlas Mini 7 has 2 axes (pan and tilt) with full 360 degrees of rotation and fluid control with "0" (fluid free) positions at both ends of the scale. Setting up an Atlas 7 is easy and quick: twin tapered dovetails and a simple hand lever with a safety button means you don't need any tools. It is environmentally sealed, has smooth positive braking, an illuminated bubble level, and comes with a choice of Mitchell base, 150 mm or 100 mm ball mounting options.

Producers



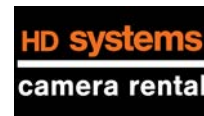
Co-Producers



Associate Producers



Rental Houses



Media and Production Partners



Titans of the Industry



Moguls



Executive Producers

