

Jon Fauer, ASC

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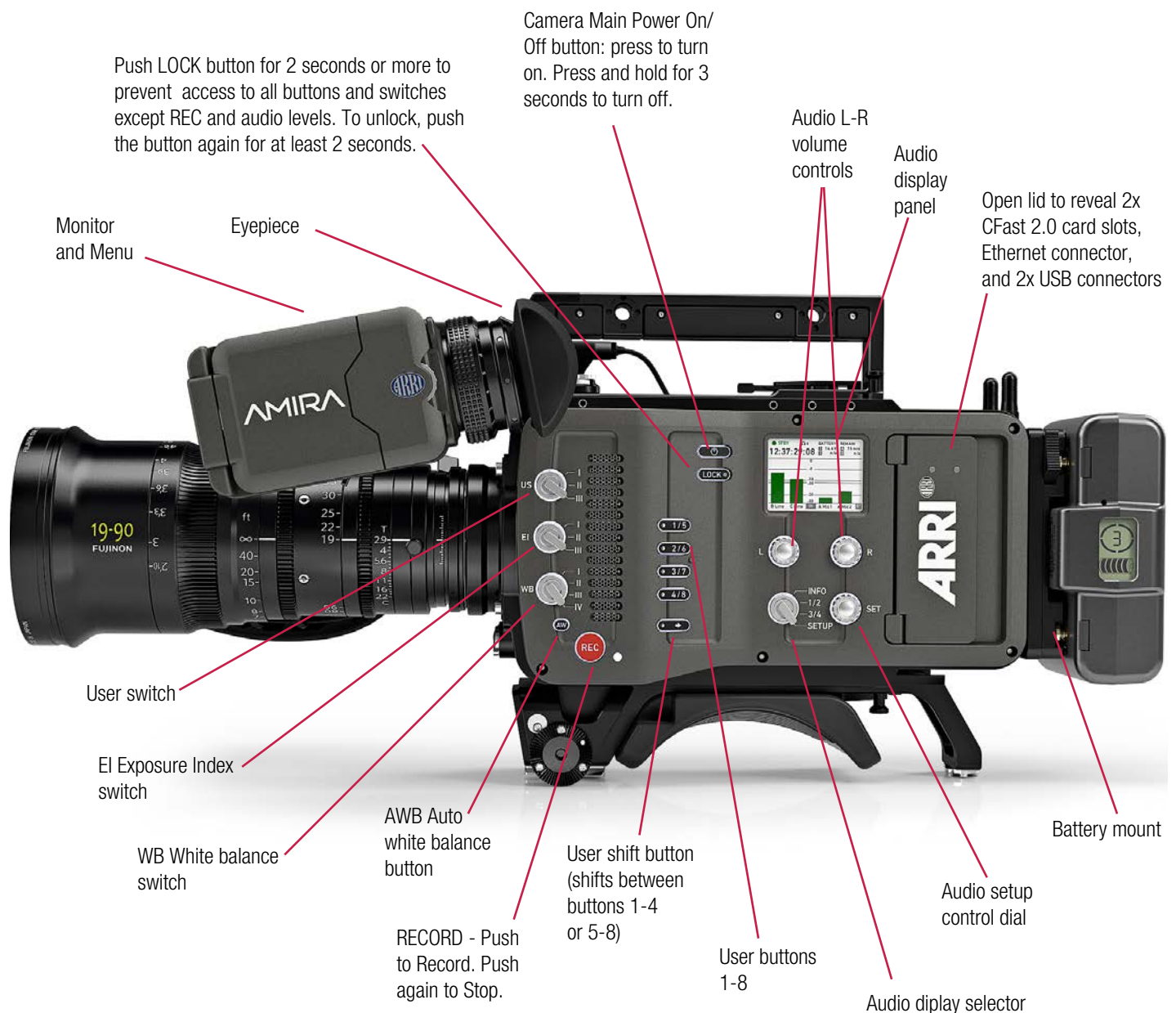


SAMPLE PAGES

ARRI Amira NAB Tour Guide

Here is a quick, 5-minute guide to the ARRI Amira. It was intended to be a quick cram course to read while I'm waiting on line at the ARRI's NAB Booth C4337 to try out the new Amira and make it seem like I knew which end of the camera to look through. These are not official ARRI instructions. Information comes from prototypes, pre-release demos, preliminary notes, and long-distance dialogs with the designers who generously contributed to this pre-flight checkout. There may be errors in the diagrams and specs. Three Amira sisters will make their debut: Plain Amira, Amira Advanced, and Amira Premium. Same body, different licenses.

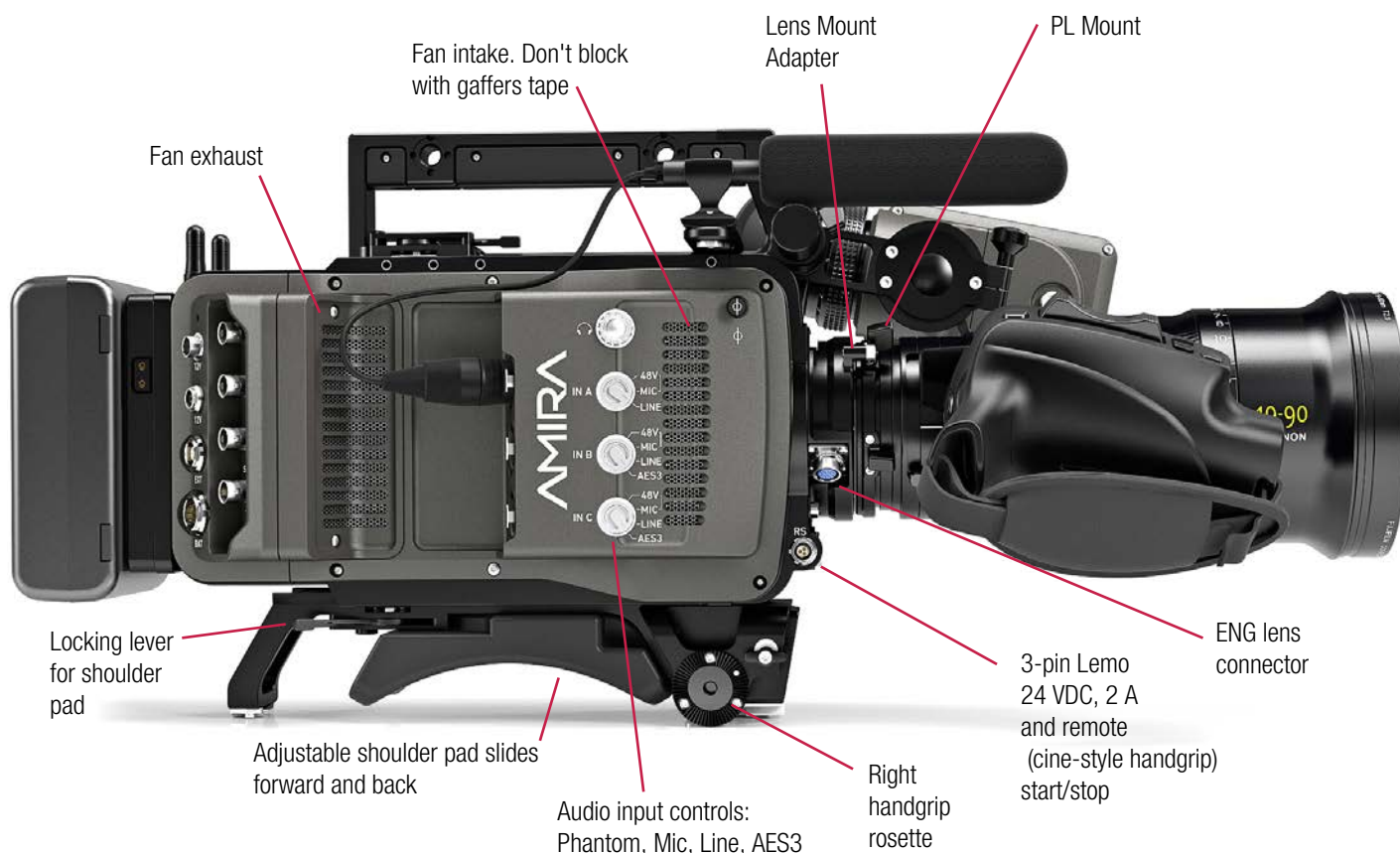
	AMIRA	AMIRA w/ Advanced License	AMIRA w/ Premium License
Recording Formats	HD 1920x1080 (interlaced & progressive)	HD 1920x1080 (interlaced & progressive)	2K 2048x1152, HD 1920x1080 (interlaced & progressive)
Recording Frame Rates	0.75 - 100 fps (progressive)	0.75 - 200 fps (progressive)	0.75 - 200 fps (progressive)
Recording Codecs (w/ embedded audio & metadata)	ProRes 422, 422 (LT), 422 (Proxy)	ProRes 422 (HQ), 422, 422 (LT), 422 (Proxy)	ProRes 4444, 422 (HQ), 422, 422 (LT), 422 (Proxy)
Rec.709 / LogC	Rec.709	Rec.709 & Log C	Rec.709 & Log C



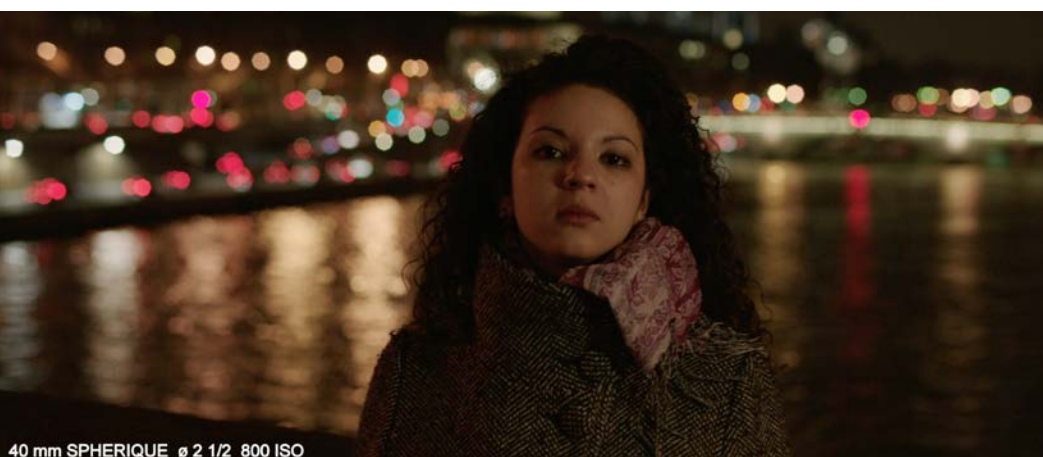
ARRI Amira

Specs Common to all Amiras

Sensor	35mm format ARRI ALEV III CMOS
Sensor Pixels	2880 x 1620 (HD 16:9) 2868 x 1612 (2K 16x9), for monitoring with surround area: 3168 x 1772 (HD), 3154x1764 (2K)
Recording Pixels	1920x1080 ProRes HD and HD outputs, 2048 x 1152 ProRes 2K
Lens Mounts	PL mount w/ Hirose connector and LDS, B4 mount w/ Hirose connector, EF mount
Shutter	Electronic shutter, 5.0° to 356.0°
Exposure Index	EI 800 base sensitivity
Exposure Latitude	14+ stops over the entire sensitivity range from EI 160 to EI 3200 (per ARRI Dynamic Range Test Chart)
Internal Motorized ND Filters	ND 0.6, 1.2, 2.1 (- 2, 4, 7 stops)
Sound Level	< 20 dB(A)
Weight	~ 4.1 kg/9.2 lbs (camera body with PL Lens mount)
Viewfinder	AMIRA Multi Viewfinder MVF-1 (OLED and LCD)
Video Outputs	2x HD-SDI - 1.5G and 3G: uncompressed HD video with embedded audio and metadata
Audio Outputs	3,5mm headphone jack, Bluetooth audio
Power Outputs	Hirose 12pin (for ENG type zoom lenses); 12V: D-tap, Hirose 4-pin, 2-pin Lemo; 24V: 3-pin Lemo RS
BNC Inputs	Genlock, HD-SDI, Timecode (In and Output)
Other Connectors	USB 2.0 (for usersets, Looks, etc.), Ethernet
Recording Media	CFast 2.0 memory cards



Cooke Anamorphic Test in Paris



Danys Bruyère, TSF Managing Director of Technology and Ops, writes from Paris:

"We were thrilled to have the opportunity to test the first pre-production prototypes of the 40, 50 and 75 mm Cooke Anamorphics. We went out on location with Les Zellan, Patrick Blossier, AFC, First Assistant Maeva Drecq and DIT Julien Bullat. We used an Alexa XT in ARRIRAW mode at 24 fps. We threw a Cooke S4 40 mm lens into the case for good measure, not really to compare, but to illustrate certain qualities we had already gotten a feel for during the day. We drove around trying to get Paris scenery until the gendarmes told us we needed shooting permits if we were to put a tripod on the sidewalk.

"With anamorphics, the oval bokeh is the obvious draw, but more importantly to me, the smoothness of the foreground elements really stand out with the new Cookes. You feel it in the comparative shot of our trainee Meriem Housni (at left, top two). Certainly, the anamorphic backgrounds stand out, but more importantly her face and skin change subtly, bringing a silky, creamy feel to skin detail, even in the cold of a winter night in Paris, with sodium lighting and a single SoftLights T5 fluorescent tube. The distortion of the pixel structure really changes the structure of the digital image.

"On the shot of 2nd AC Florent Bertholet in front of La Samaritaine (middle picture), it is really interesting to see how the horizontal and vertical planes play differently when we focus from background to foreground. These are real anamorphic qualities which go beyond the ovalization of highlights.

"On the Les Zellan interview shot (bottom), as car headlights zipped by toward the camera, we never saw any out of control flaring, but rather, very subtle diffusion around the headlights without ever altering the contrast in the dark areas, keeping the image rich in low light detail and faithful color rendition.

"Another effect of anamorphics can be seen in the way that objects enter or exit frame. When panning, you get a feel that objects entering the frame are being pulled into the center, keeping our attention focused on the key parts of the image, rather than getting lost in unnecessary details at the limit of our peripheral vision."

Cooke Anamorphic Tests from Paris, London, Toronto and New York ("Look") are online. vimeo.com/cookeoptics

“Look” Cooke Anamorphic Test in New York

Jon Fauer tested the lenses and writes from New York:

No sooner had I returned from my visit to the Cooke factory than Marc Paturet, President of Handheld Films, called to propose shooting a test in New York with the pre-production Cooke Anamorphics.

I wanted to pursue Les Zellan’s description of “anamorphic funkiness” and try to illustrate the qualities learned about the “Cooke Anamorphic Look” from the designers at the factory. Engineering Manager Stephen Pope had said, “It isn’t fair for you to be asking all the questions. Now it’s our turn. What do you think about our anamorphic look?”

I commented how, in the Paris opening shot of *Les*, the skin texture was cosmetically smooth. But his beard was totally sharp (opposite page, bottom). We told Les that he was a perfect lens test target. He replied, “Should I call my agent?”

Different agents in New York led Marc Paturet, a serious practitioner of Yoga, to entice three Yogini classmates to star in our test. The theme of the short film—“Look”—was a day in the life of a camera prep checkout at New York rental house Handheld Films—sort of an invasion of the Yogini Camera Assistants.

We wanted to push the lenses Les provided (32, 40, 50, 75 mm Cooke Anamorphic/i) to do all the things we’re not “supposed” to do with anamorphics: minimum focus, wide open with a wrench, major flares, and more. We shot *ARRIRAW* with Handheld Films’ Alexa Studio (4:3 sensor) and Codex Onboard. Timothée Arene was the terrific Camera Assistant. The camera was rated at 800 ISO.

Goldcrest Post Production did the finishing. Ricardo Madan edited. Tim Spitzer supervised and grading was on Qantel Pablo by legendary John Dowdell III.

In the framegrabs at right, top to bottom:

1. Next time the producer calls you halfway through checkout and changes the entire order from spherical to anamorphic, this is the stress-relief routine.
2. Oval bokeh. The foreground is a bare Maglight bulb held at the edge of matte-box.
3. Cosmetically smooth skin tones, oval background bokeh from little LEDs on battery chargers.
4. Funky flares and nice contrast. There is one shot in the finished short done with a Blue Streak Filter.



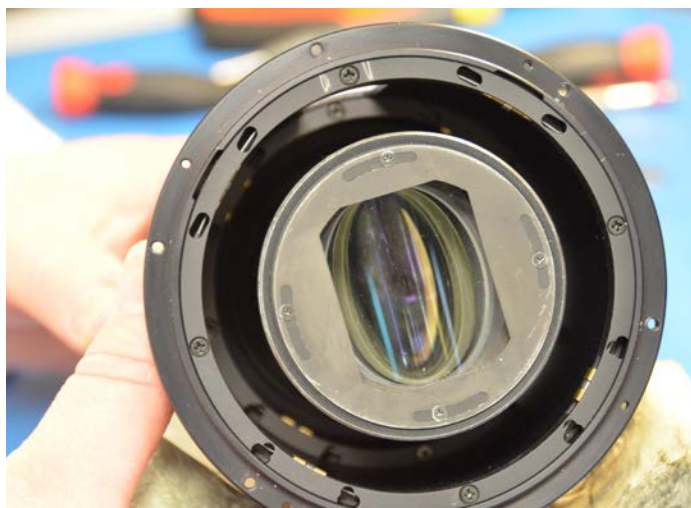
A Look at Cooke Anamorphic/i



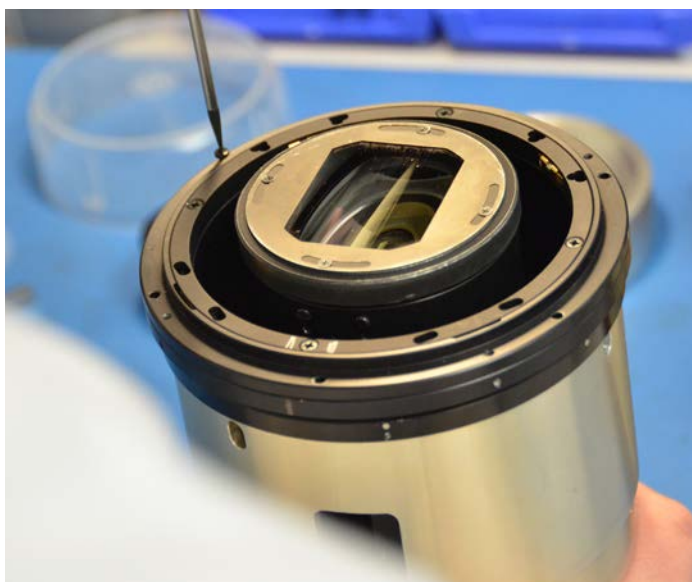
"Class picture" of Cooke Optics Ltd, including the Alpha Bokeh football team, photographed with Cooke 2x Anamorphic 40mm



The "Inner" being mounted into the "Outer"



Anamorphic cylinder element mounted inside.



Screwing the inner and outer together



Lens cells

Cooke Anamorphic/i (cont'd)



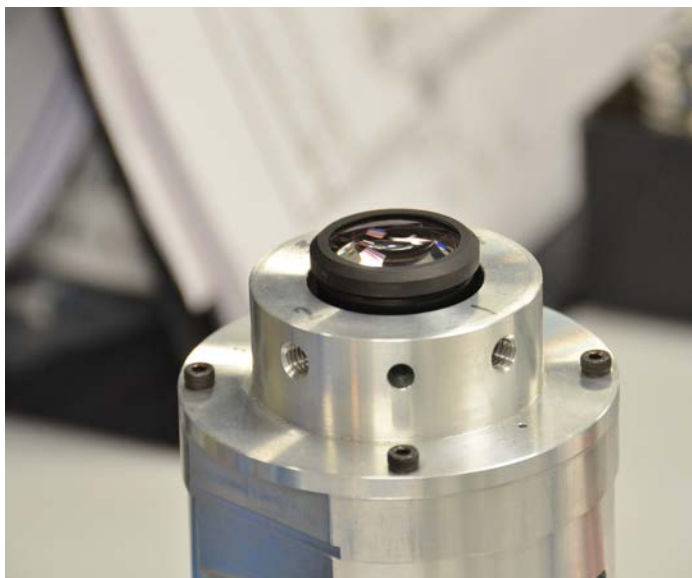
The Basic Set of Cooke 2x Anamorphics: 32, 40, 50, 75, 100 mm



Iris assembly



Jamie Cluer

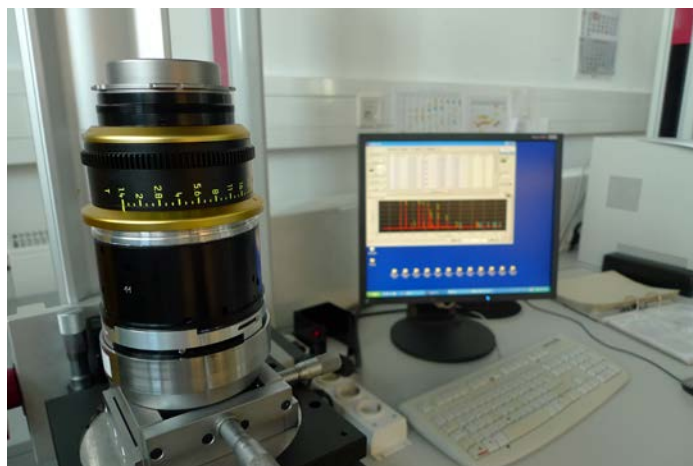


Tool to align optical elements



Fiona Cheetham started building outers for miniS4/i and is now building 5/i

100th Leica Summilux-C Set Shipping



Leica Summicron-C



New 21, 29, and 135 mm Leica Summicron-C lenses will be introduced at NAB

Lens (mm)	18	21	25	29	35	50	75	100	135
Aperture	T2.0 - T22 - fully closed								
Close Focus (m)	.3 m	.3 m	.3 m	.3 m	.36 m	.6 m	.8 m	1.0 m	1.5 m
Close Focus (ft)	1'	1'	1'	1'	1'2"	2'	2'7"	3'3"	5'
Image Circle	36 mm								
Focus Rotation	300°								
Iris Rotation	180°								
Front Diameter	95 mm / 3.7"								
Length front to flange (mm)	101 mm	101 mm	101 mm	101 mm	101 mm	101 mm	101 mm	101 mm	118 mm
Length front to flange (ft)	4"	4"	4"	4"	4"	4"	4"	4"	4.6"
Weight (kg)	1.3 kg	1.3 kg	1.5 kg	1.3 kg	1.3 kg	1.5 kg	1.2 kg	1.2 kg	1.8 kg
Weight (lb)	2.9 lb	2.9 lb	3.4 lb	3.0 lb	2.9 lb	3.2 lb	2.7 lb	2.7 lb	4.1 lb

- For PL Mount Film and Digital Cine Cameras
- High Resolution, High Contrast
- Compact, Lightweight, Ergonomic Design
- Even illumination across the sensor (shading)
- Readily available

- Front diameter of 95 mm like the Summilux-C set
- Image circle diameter 36 mm (Covers RED Epic Dragon sensor)
- Helical threaded focus assembly, focus marks on each side
- Color matched with Summilux-C

All specifications subject to change

Leica Summilux-C

Lens (mm)	16	18	21	25	29	35	40	50	65	75	100
Aperture	T 1.4 - T 22 - fully closed										
Close Focus (m)	.35 m	.35 m	.31 m	.31 m	.46 m	.36 m	.41 m	.5 m	.46 m	.7 m	.9 m
Close Focus (ft)	1'2"	1'2"	1'0"	1'0"	1'6"	1'2"	1'4"	1'8"	1'6"	2'3"	2'11"
Image Circle	33 mm										
Focus Rotation	300°										
Iris Rotation	180°										
Front Diameter	95 mm / 3.7"										
Length (front to flange)	142 mm / 5.6"										
Length (front to image plane)	194 mm / 7.6"										
Weight (kg)	1.7 kg	1.6 kg	1.6 kg	1.8 kg	1.7 kg	1.6 kg	1.6 kg	1.8 kg	1.7 kg	1.6 kg	1.6 kg
Weight (lb)	3.8 lb	3.6 lb	3.6 lb	4.0 lb	3.7 lb	3.6 lb	3.6 lb	3.9 lb	3.7 lb	3.5 lb	3.5 lb

- For PL Mount Film and Digital Cine Cameras
- Multi-Aspheric Optical Design
- High Resolution, High Contrast, Low Chromatic Aberration (full image)
- Minimal shading, Flat-Field Illumination across the Entire Frame
- Even Image Quality, Consistent Performance over entire Focus Range

- Expanded and Consistent Focus Marks in Most-Used Focus Range
- Compact, Lightweight, Ergonomic Design, Uniform Small Diameters
- Lightweight 3.5-4.0 lbs (1.6-1.8 kg)
- Rugged Titanium Lens Mount, Front and Rear Filter Capability

All specifications subject to change

OConnor 120EX: A Visit to the Factory



William Vinten Building at Vitec's facility in Bury St Edmunds.



The assembly area is the size of a football field and impeccably clean.



CNC machines create complex parts like the cam used to balance heads.



England's smallest pub in Bury St Edmunds. Standing room for 4.

Bury St Edmunds is the design and manufacturing headquarters of Vitec's Videocom Division, where some OConnor, Vinten heads and Robotics are made. It's 80 miles northeast of London, and I'm here at the invitation of Product Manager Steve Turner.

Bury St Edmunds is rich in history—not all of it peaceful. Anglo-Saxon King Edmund, later sainted, was killed by Vikings under Ivar the Boneless and buried here in 903. Hence the name.

In 1214, the barons of England met in the church at Bury St Edmunds, which led to the Magna Carta a year later. In 1327, the citizens of Bury St Edmunds rioted against the Abbey, whose power and wealth controlled the town. In 1381 the Abbey was looted again, the Prior was executed, and his severed head was placed on a pike in the Great Market.

By the end of the 14th century, Bury St Edmunds had become a thriving cloth-making town. The Abbey of Bury St Edmunds was one of the richest Benedictine monasteries in England until Henry VIII's dissolution of churches and monasteries in 1536-1539.

The charming town is worth the trip, as Michelin would say, with car-free strolling areas in the historic town, nearby resorts, and the superb Eaterie restaurant in the 4-star Angel Hotel.

W. Vinten Cinematograph Engineers was founded by William Vinten in 1910 in Wardour Street, London to build Kinemacolor projectors for Charles Urban. In 1915, William Vinten designed and built an aerial cine camera at the Sopwith aircraft factory. His Model B was the first motion picture camera that could be operated from the side of an airplane. That led to close ties for Vinten with the military and the film industries.

The company moved to Cricklewood, North London in 1928 and by the end of the decade, three-quarters of all films shown in Britain were processed using Vinten equipment. Vinten moved to Bury St Edmunds in 1964. The company changed its name to Vinten group in 1984. In the years that followed, Vinten Group acquired Manfrotto, Bexel, Gitzo, Bogen, Sachtler, OConnor, Anton/Bauer, and Litepanels, among others. Vinten Group changed its name to Vitec Group in 1995.

The factory is a huge, modern facility with around 200 employees. Painting, anodizing, machining and assembly takes place in a vast and spotless factory with the latest CNC and robotic machines. Engineering and prototyping takes place in adjacent rooms. Sales, marketing and accounting are in offices upstairs. www.ocon.com NAB Booth C6025



The Eaterie in Bury St Edmund's Angel Hotel. Worth the trip.

Sony α7R PL Finder

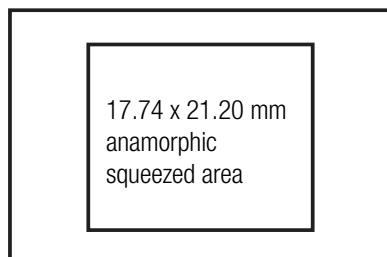


Sony's new α7 and α7R digital cameras are full-frame, 24 x 36mm, interchangeable lens cameras. They have the familiar Sony E mount—also used on their NEX APS-C and FS700 cameras.

The α7R has a 36.4 megapixel CMOS sensor and no optical low pass filter. The α7 has a 24.3 megapixel CMOS sensor with faster autofocus and an OLPF. Both cameras have a crisp, focusable, 2.4 million pixel built-in OLED viewfinder. Both cameras record impressive full HD AVCHD 1920 x 1080 60p video.

The mirrorless 18 mm flange focal depth of the E mount and full frame sensor make this an excellent DP finder with a PL adapter.

Full frame 24x36 is important because APS-C cameras crop the height of anamorphic lenses. Full frame is also an excellent way to see the image circle of the lens—and how much you can get away with and how much shading (vignetting) you're willing to accept.



24 x 36 mm

Actual sensor size of Sony α7R

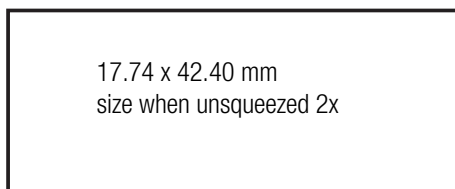
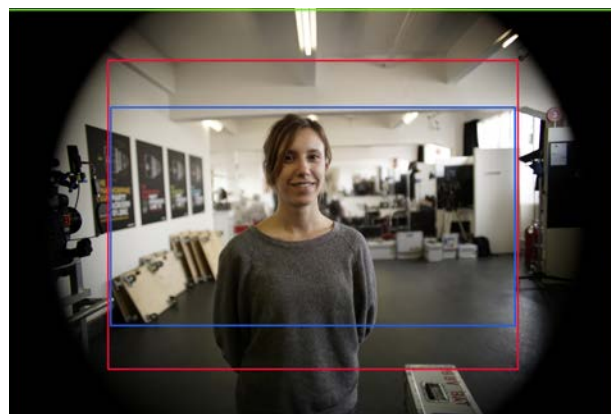


Image Circles and Confusion



Photographed at Vantage Film Paris

Red frame: 18 x 24 mm format. Blue frame: APS-C format. Lens: Vantage One 17.5 mm T1.0. See image circle.



Red frame: 18 x 24 mm format. Blue frame: APS-C format. Lens: Vantage One 90 mm T1.0. Wider image circle.



Red frame: 18 x 24 mm format. Green frame: Anamorphic 17.74 x 21.20 1.2:1 camera format. Lens: Hawk V-Lite 55 mm T2.2.



Unsqueezed 2x to 17.74 x 42.20 mm from original Anamorphic 17.74 x 21.20 frame format. Same lens: Hawk V-Lite 55 mm T2.2.

Titans of the Industry

Canon



ARRI

SONY

Blackmagicdesign

Moguls



angénieux

TIFFEN

O'Connor

ZGC

Litepanels

STEADICAM

bandpro
FILM & DIGITAL INC.

FUJINON

FUJIFILM North America Corporation
Optical Devices Division

Anton Bauer

AbelCine

PRESTON
CINEMA
SYSTEMS

Executive Producers

SERVICE
VISION

lowell

CW SONDEROPTIC

ZEISS

PANAVISION

BERTONE
VISUALS

HAWK

PHOTO
CINE
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Producers

CARTONIE

convergent
design

AJA
VIDEO SYSTEMS

Nikon

artemis

transvideo

PETROL
BAGS

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PREPOST
DATA

codex™

CLAIRMONT
CAMERA
FILM & DIGITAL

Manfrotto

CAMERAS BY
OTTO
NEMENZ

CINEMATOGRAPHY
electronics

LENTEQUIP

Co-Producers

Schneider OPTICS

Emit

sachtler

TIFFEN
Dfx
creative digital effects v2.0

matthews
studio equipment
TECHNOLOGY THAT COMPLEMENTS YOUR IMAGINATION



BE OPTICS



DOMKE

Mole-Richardson Co.