Ultra 16 Lenses

A Complete Set of Modern Super 16 High Speed Primes

The Super 16 Renaissance

Continuous advances in lenses, film stock and postproduction technologies have elevated the Super 16 film format to new levels of image quality and production efficiency. Super 16 is now routinely used for standard and high definition television productions, feature films, commercials and documentaries, and with stunning results. By shooting Super 16, productions gain many of the advantages of shooting film - the film look, its unsurpassed exposure latitude, natural color reproduction, variable camera speeds, ramps, proven archivability and the fact that film is the only globally accepted standard format - at affordable production costs. The small size and light weight of Super 16 equipment has the extra benefit of easy portability for fast-paced production environments.

SUPER FAST
CLOSE FOCUS

The Art of Ultra 16

The art of cinematography is closely tied to the art of creating the cinematographer's tools. The art of successful lens design has been advanced with a new, complete set of high speed close focus lenses: the Ultra 16 lenses. Like the Master Primes, the Ultra 16 lenses combine high speed with outstanding optical performance. With a widest stop of T1.3 they create shallow depth of field and allow shooting on tight lighting budgets or under severe time pressure. Equaled by no other Super 16 lenses in optical performance, they join the other ARRI lenses in elevating the Super 16 image to its highest possible quality.

All nine Ultra 16 lenses (6, 8, 9.5, 12, 14, 18, 25, 35, 50 mm) cover the full Super 16 format and are fully compatible with the optical quality, color balance and ergonomics of the other ARRI lenses. The Ultra 16 lenses are the perfect companions to the new Super 16 cameras, the ARRIFLEX 416, 416 Plus and 416 Plus HS.

Main Features

- **Complete Set of Nine Close Focus Super 16 Primes**
  - 6, 8, 9.5, 12, 14, 18, 25, 35 & 50 mm

- **High Speed - T1.3**
  - for complete control over depth of field
  - for shooting in low or available light
  - for natural looking images
  - for fast paced production environments
  - for tight lighting budgets

- **Highest Optical Performance**
  - high contrast and resolution
  - T* XP coating ensures flare resistance
  - image geometry free of distortions even at wide angles
  - minimized chromatic aberration
  - minimal breathing

- **Smooth & Robust Mechanics**

- **Matches other ARRI Lenses**
  - same size & ergonomics as Ultra Primes
  - Super Color Matched to Ultra Primes, Master Primes, Variable Primes & Lightweight Zoom LWZ-1

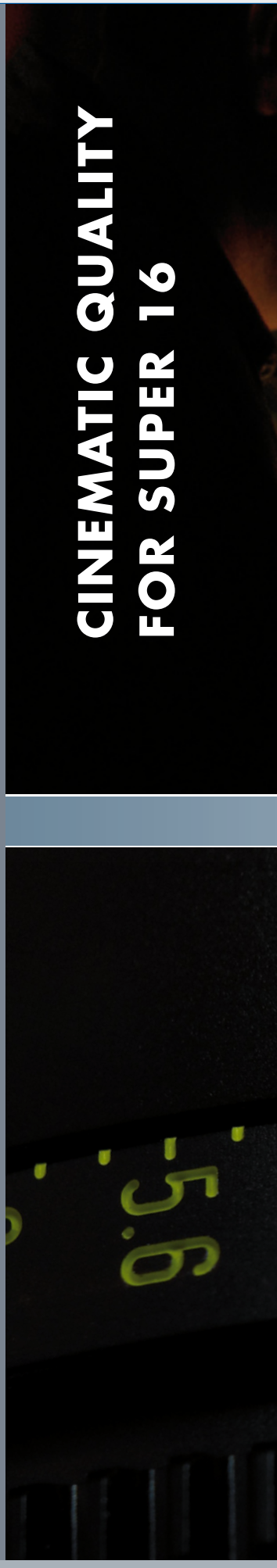
High Speed

The speed of the new Ultra 16 lenses is a super fast T1.3, which allows the creation of a shallow depth of field, a look that is often sought after in other formats. Especially for wide angle lenses in Super 16, a maximum aperture of T1.3 helps in creating a cinematic look. In addition, T1.3 facilitates shooting on tight lighting budgets or under a lot of time pressure, common in TV drama or independent feature films. The fast speed is one of the outstanding features of these new lenses, unmatched by any other Super 16 cine lens.

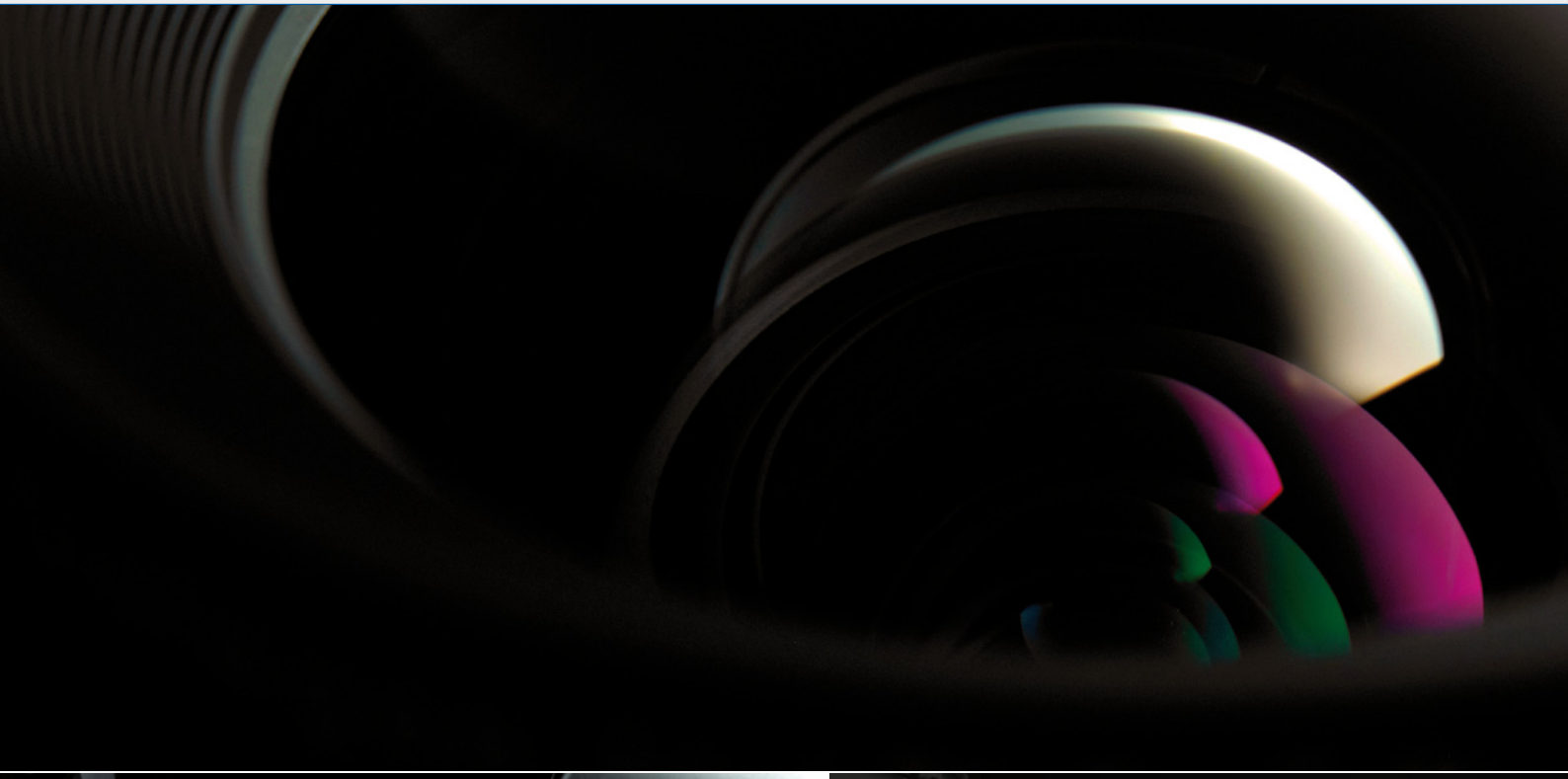
Optical Quality

Fast lenses are nothing new, but cinematographers used to pay dearly for high speed with reduced optical performance and a greater propensity to flaring. The Ultra 16 lenses, like the Master Primes, change all that by combining fast speed with outstanding optical performance at all T-stops across the whole focus range. This previously unattainable goal was made possible through new manufacturing techniques, the use of exotic glass materials and large diameter aspherical and radically shaped spherical glass surfaces. The Ultra 16 lenses exhibit high contrast, high resolution, almost no chromatic aberration (color fringes) and a great resistance to flaring. They are designed as close focus lenses, and so retain their outstanding optical qualities even at minimum object distances.

Incorporating aspherical glass surfaces in a lens design requires ultra-high precision in manufacturing and a complex holographic measuring process which was developed specifically for the Master Primes, now benefiting all new ARRI lens designs. The aspherical glass surface located close to the iris inside the 12, 14, 18 and 25 mm Ultra 16 lenses helps in reducing spherical aberration (the inability to focus all light rays from a point source onto a point on film). The aspherical front surface of the 6, 8 and 9.5 mm keeps the image free of geometrical distortions; straight lines stay straight, from infinity to close focus.



A shallow depth of field is an important narrative tool for the cinematographer, and a feature sought after by other formats for its cinematic quality.

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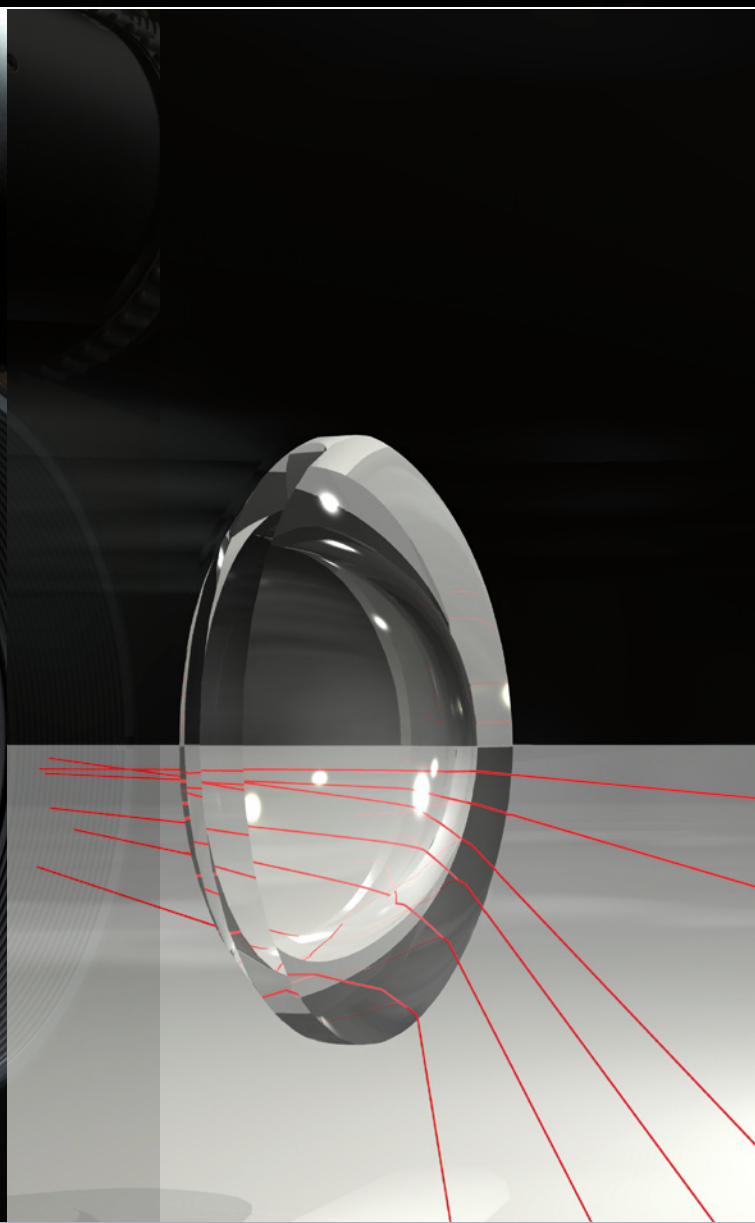


CUTTING EDGE TECHNOLOGY

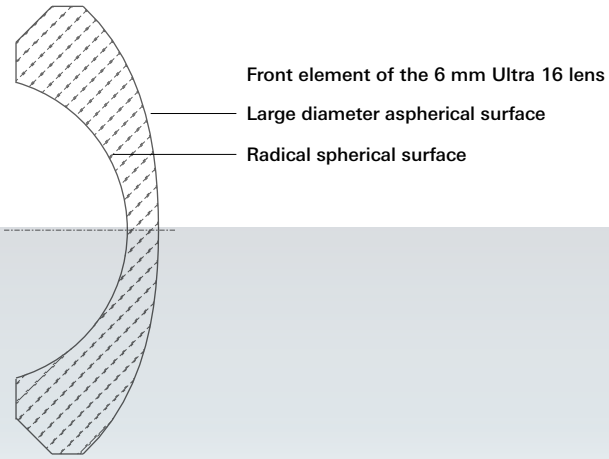
T* XP Anti Reflex Coating

The new T* XP multi-layer anti-reflex coating reduces flares and internal reflections and creates a pleasing, gentle color balance. Compared to conventional coatings it has a better transmission and a more uniform performance from optical center all the way to the edges, resulting in higher contrast and deeper, richer blacks.

The lens' internal construction in combination with the T* XP coating ensures that they can easily handle tricky lighting situations like strong backlight, sunsets or car headlamps. The round iris opening leads to organic looking, pleasing out-of-focus highlights, and careful optical design ensures only minimal breathing.

Radical Spherical Lens Surfaces

Old-style wide angle lenses are usually larger than their longer companions. The 6, 8 and 9.5 mm Ultra 16 lenses, however, have a revolutionary small form factor. This is made possible through a large diameter aspherical surface on the front and a radically shaped spherical surface with a very strong curvature on the inside. Radical spherical surfaces are cutting edge technology; they are difficult to grind, tricky to polish and demand precise attention during coating. Mastering these manufacturing techniques brings the reward of incomparable optical performance at substantially reduced weight.



Ultra 16 Lenses Match Perfectly

Like all other modern ARRI lenses, the Ultra 16 lenses have been Super Color Matched. Their optical characteristics and color balance are not only optimized for a pleasing color balance on modern film stocks, but they are also precisely matched to each other and the other ARRI lenses. The Ultra 16 lenses can be easily intercut with Master Primes, Ultra Primes, Variable Primes and the Lightweight Zoom LWZ-1, so the cinematographer is able to concentrate on creating a look rather than matching lenses in post.

Lens Ergonomics

All Ultra 16 lenses are of the same size, and have matching focus and iris barrel positions for fast and comfortable usage on the set. All nine also have the same 95 mm front diameter as the Ultra Primes.

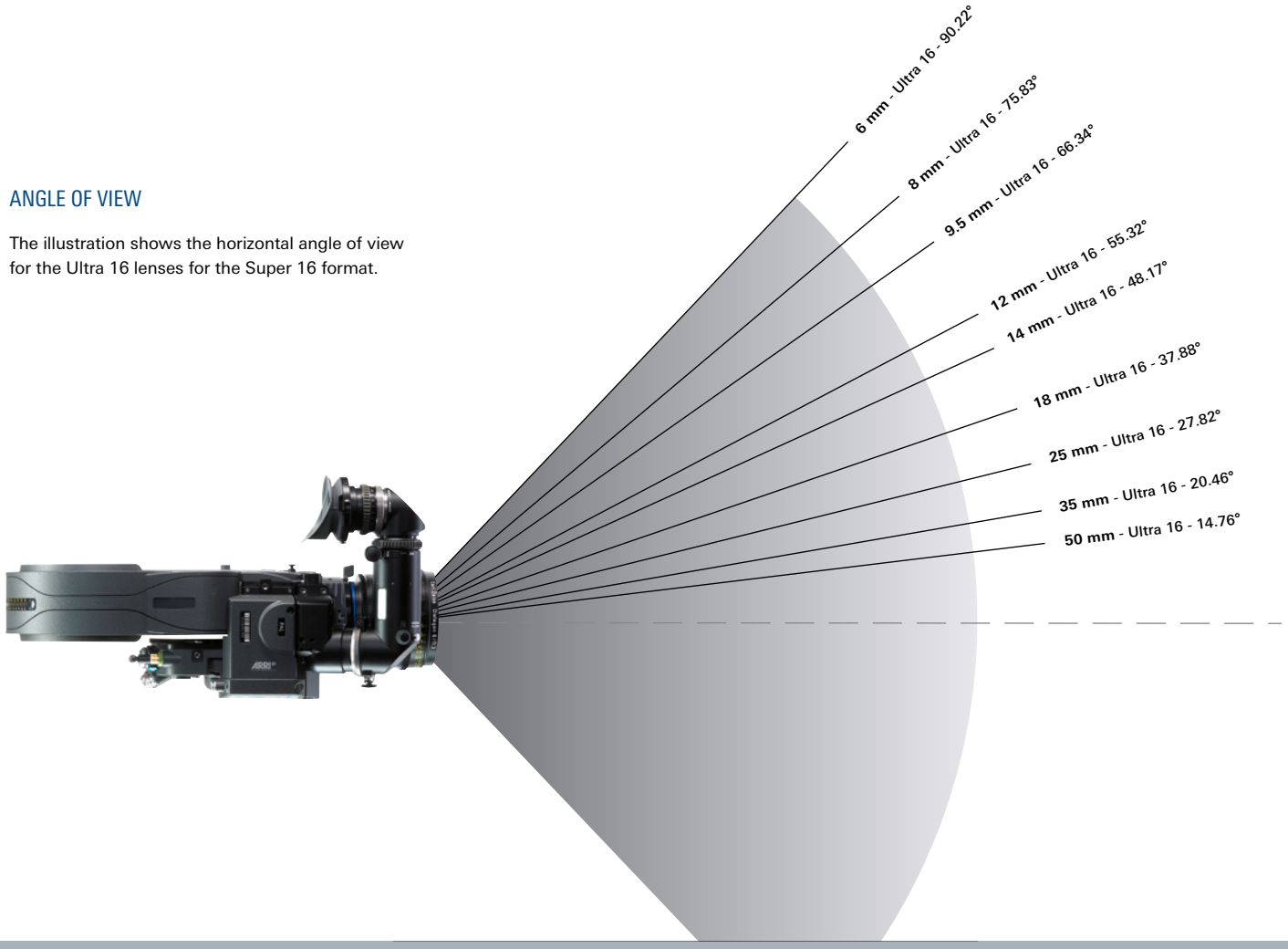
The high contrast and resolution of the Ultra 16 lenses, in combination with modern film stocks, make even wide shots look great in Super 16.

MATCHING WIDE ANGLES

Ultra 16 lenses have been equipped with a blue ring and yellow scale markings to distinguish them from the Ultra Primes.

ANGLE OF VIEW

The illustration shows the horizontal angle of view for the Ultra 16 lenses for the Super 16 format.



Technical Data

Name	Type	Aperture	Close focus [1]	Length (lens mount to front)	Front diameter	Weight	Horiz. angle of view Super 16 [2]
Ultra 16 T1.3 / 6 mm	Distagon T* XP	T1.3 to T16	0.20 m / 8"	91.6 mm / 3.6"	95 mm / 3.7"	1.0 kg / 2.2 lbs	90.22°
Ultra 16 T1.3 / 8 mm	Distagon T* XP	T1.3 to T16	0.30 m / 12"	91.6 mm / 3.6"	95 mm / 3.7"	1.0 kg / 2.2 lbs	75.83°
Ultra 16 T1.3 / 9.5 mm	Distagon T* XP	T1.3 to T16	0.30 m / 12"	91.6 mm / 3.6"	95 mm / 3.7"	1.0 kg / 2.2 lbs	66.34°
Ultra 16 T1.3 / 12 mm	Distagon T* XP	T1.3 to T16	0.30 m / 12"	91.6 mm / 3.6"	95 mm / 3.7"	1.0 kg / 2.2 lbs	55.32°
Ultra 16 T1.3 / 14 mm	Distagon T* XP	T1.3 to T16	0.30 m / 12"	91.6 mm / 3.6"	95 mm / 3.7"	1.0 kg / 2.2 lbs	48.17°
Ultra 16 T1.3 / 18 mm	Distagon T* XP	T1.3 to T16	0.30 m / 12"	91.6 mm / 3.6"	95 mm / 3.7"	1.2 kg / 2.6 lbs	37.88°
Ultra 16 T1.3 / 25 mm	Distagon T* XP	T1.3 to T16	0.30 m / 12"	91.6 mm / 3.6"	95 mm / 3.7"	1.2 kg / 2.6 lbs	27.82°
Ultra 16 T1.3 / 35 mm	Planar T* XP	T1.3 to T16	0.35 m / 14"	91.6 mm / 3.6"	95 mm / 3.7"	1.1 kg / 2.4 lbs	20.46°
Ultra 16 T1.3 / 50 mm	Planar T* XP	T1.3 to T16	0.40 m / 16"	91.6 mm / 3.6"	95 mm / 3.7"	1.2 kg / 2.6 lbs	14.76°

(1) Close focus is measured from the film plane.
(2) Horizontal angle of view for a Super 16 camera aperture
(DIN 15602 and ISO-5768-1998, aspect ratio 1:1.66, dimensions 12.35 mm x 7.5 mm / 0.486" x 0.295").

T* XP is the trademark for the improved Zeiss anti-reflex lens coating that reduces veiling glare and other reflections. XP stands for extended performance.

All data subject to change without notice.

Ident. Numbers

Ultra 16 T1.3 / 6 mm	with meter focus scale	K2.47560.0
Ultra 16 T1.3 / 8 mm	with meter focus scale	K2.47561.0
Ultra 16 T1.3 / 9.5 mm	with meter focus scale	K2.47562.0
Ultra 16 T1.3 / 12 mm	with meter focus scale	K2.47563.0
Ultra 16 T1.3 / 14 mm	with meter focus scale	K2.47564.0
Ultra 16 T1.3 / 18 mm	with meter focus scale	K2.47580.0
Ultra 16 T1.3 / 25 mm	with meter focus scale	K2.47581.0
Ultra 16 T1.3 / 35 mm	with meter focus scale	K2.47582.0
Ultra 16 T1.3 / 50 mm	with meter focus scale	K2.47583.0
Ultra 16 T1.3 / 6 mm	with feet focus scale	K2.47565.0
Ultra 16 T1.3 / 8 mm	with feet focus scale	K2.47566.0
Ultra 16 T1.3 / 9.5 mm	with feet focus scale	K2.47567.0
Ultra 16 T1.3 / 12 mm	with feet focus scale	K2.47568.0
Ultra 16 T1.3 / 14 mm	with feet focus scale	K2.47569.0
Ultra 16 T1.3 / 18 mm	with feet focus scale	K2.47584.0
Ultra 16 T1.3 / 25 mm	with feet focus scale	K2.47585.0
Ultra 16 T1.3 / 35 mm	with feet focus scale	K2.47586.0
Ultra 16 T1.3 / 50 mm	with feet focus scale	K2.47587.0

THE ART OF ULTRA 16

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