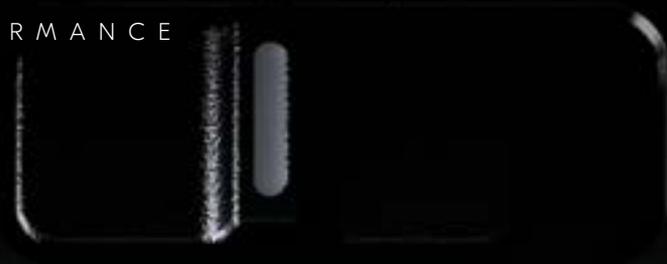


A N E W E R A

I N O P T I C S

EXPERIENCE AN UNPRECEDENTED  
LEVEL OF PERFORMANCE



CAPTURE TOMORROW

NIKKOR<sup>®</sup> Z<sup>™</sup> | S-Line





# S-Line

## New-dimensional optical performance realized with the Z mount

The title of the S-Line is reserved only for NIKKOR Z lenses that have cleared newly established standards in design principles and quality control that are even stricter than Nikon's conventional standards. The "S" can be read as representing words such as "Superior", "Special" and "Sophisticated."

Whichever model you choose, every S-Line lens achieves richly detailed image expression delivering a sense of reality in both still shooting and movie creation. It offers a new dimension in optical performance, including overwhelming resolution, bringing fresh excitement and rich satisfaction to the shooting experience.

NIKKOR Z Lens Category Map



**Top of the S-Line model: the culmination of the NIKKOR quest for groundbreaking optical performance**

This lens has the ability to depict subjects in ways that have never been seen before, including by rendering them with an extremely shallow depth of field.

**Versatile lenses offering a new dimension in optical performance**

These lenses bring a higher level of imaging power, achieving superior reproduction with high resolution even at the periphery of the image, and utilizing the full potential of the lens at maximum aperture, for any subject.

**Well-balanced, high-performance lenses**

These lenses strike an optimum balance between advanced functionality, compactness and cost effectiveness, while retaining the basic concept of the S-Line series.



Nano Crystal Coat

# Enhanced image expression with stricter standards of lens design and quality control

While fully utilizing the advantages of the Nikon Z mount system, Nikon's long inherited standards have been pushed to even greater heights for the measurement of S-Line lens features, such as resolution, bokeh effects, point-image reproduction, chromatic aberration correction and ghost/flare reduction.

## High resolution

Superior resolution that faithfully reproduces texture cannot be attained with digital compensation: only with superior optical performance. Higher standards for evaluating MTF performance achieve precise reproduction of thin lines as they are. As a result, even a single hair can be sharply resolved without causing color fringing and while retaining the original texture.

## Beautiful bokeh

Because beautifully blurred background naturally directs viewers' eyes to the main subject, bokeh characteristics should be natural rather than "noisy". Smooth alteration of bokeh can provide images with a sense of depth.

## Superb point-image reproduction

Few lenses can effectively eliminate the particular sort of aberration that makes a point light source located at the periphery look like a bird with its wings spread. Because point-image reproduction is an important factor in improving resolution and bokeh characteristics, every S-Line lens is designed to attain faithful reproduction of point light sources as point images, even at maximum aperture.

## High image quality even at maximum aperture

The S-Line series challenges the perception that stopping down the aperture is necessary to improve optical performance. By integrating such factors as high resolution, minimal chromatic aberration and beautiful bokeh, which were previously thought to be incompatible, optical performance that allows photographers to use maximum aperture positively is achieved.

## Strict quality control

When manufacturing products that precisely match the design values, it is important to establish production lines that achieve products of uniform quality. A variety of tests guarantee the quality of products, enabling Nikon's manufacturing process to produce high-performance products with uniform quality. The result is, whichever S-Line model you may choose, you can absolutely trust its reliability.

## Unprecedented imaging power

Maximizing the potential of the Z mount, a lens that nobody has experienced before can now be produced. The Noct realizes the utmost optical performance with an f/0.95 maximum aperture. Thus, the S-Line lenses will expand the boundaries of image expression even further by realizing rendering capability that overturns the perception of conventional lenses with the equivalent specifications.

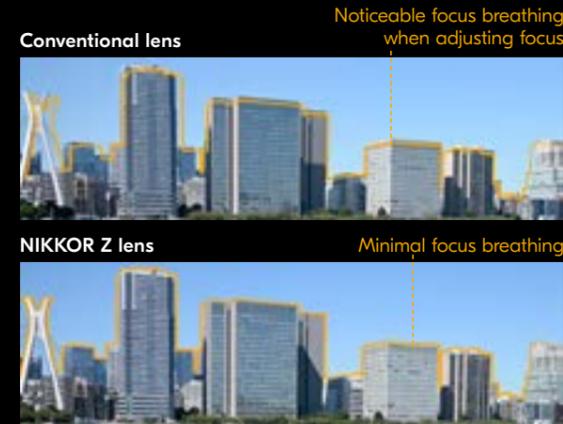
## Nano Crystal Coat

Nikon's original coating technology, Nano Crystal Coat, employed for higher-class, NIKKOR F lenses, is adopted in every S-Line lens, enhancing optical quality. This coating effectively reduces ghost and flare effects caused by red light and light entering the lens diagonally, resulting in clearer images.

## Superior movie performance

Genuine movie performance is achieved via the adoption of a variety of features that enable smooth movie expression, such as a control ring to which various functions can be assigned to allow easy exposure control during recording, for example, and reduced operational sounds. Other advanced movie functions include effective focus-breathing\* compensation and smooth diaphragm control.

\* Shifting of the angle of view when changing the focus point.



## Easy-to-operate control ring and high-quality design

Every S-Line lens employs a control ring for more comfortable shooting operation. Functions such as focus (M/A)\*, aperture and exposure compensation can be assigned to the ring, ensuring more intuitive, smoother shooting. Also, the refined, diamond-cut silver-colored line and the NIKKOR emblem with the decorative "S" are featured on the lens barrel. Metallic material used for various sections enhances the high-quality feel of the series while an organic EL lens information panel incorporated in some lenses enables quick confirmation of aperture, focus distance, etc.

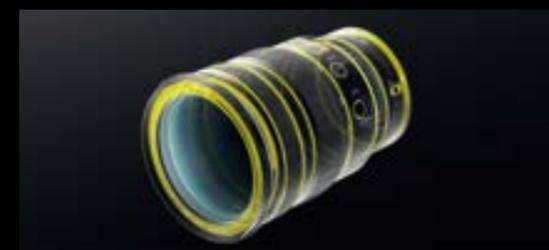
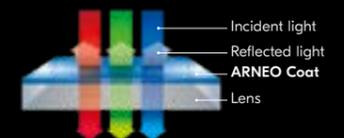
\* Except NIKKOR Z 58mm f/0.95 S Noct and NIKKOR Z 24-70mm f/2.8 S



Multi-focusing system conceptual image

## Latest optical technologies

A multi-focusing system provides extremely accurate and high-speed AF control as well as superb imaging performance across the entire shooting range, including close distances. Nikon's new anti-reflection ARNEO Coat, which delivers an equivalent or superior effect to that of Nano Crystal Coat for incident light from a vertical direction, will also be incorporated in some S-Line lenses.



Sealed sections: NIKKOR Z 24-70mm f/2.8 S

## Enhanced reliability

Every S-Line lens is designed carefully considering dust- and drip-resistant capability to protect the inside of the lens against dust and water droplets and enhance weather-resistant performance.



# The expanding potential of the Z mount system realizes S-Line quality

How did we achieve the impressive new-dimensional optical performance of the Z mount? The optimum solution we arrived at was to combine a 55-mm inner mount diameter with a 16-mm flange focal distance. This combination offers enormous flexibility in optical design, giving the Z mount system huge potential to exceed photographers' demands and expectations not just for the present day, but also well into the future. The development of an ultrafast lens that had been previously impossible to produce was also made possible.



## The advantages of a shorter flange focal distance

If the flange focal distance can be shortened to its utmost limits without deteriorating optical performance . . .



### The thickness of the camera can be minimized

A shorter flange focal distance can create a much thinner camera body.

### The flexibility of lens design is greatly enhanced

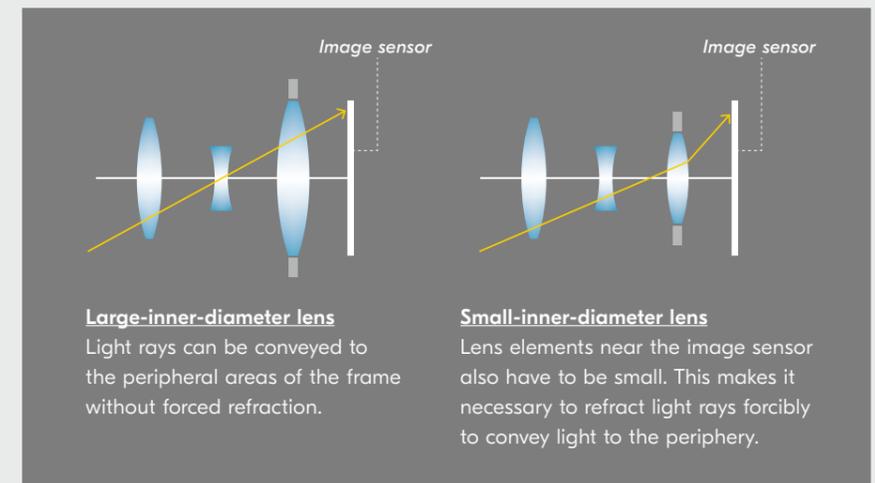
With a shorter flange focal distance than that of other lens mount systems, unprecedented lens construction can be made possible and the lens elements can be located closer to the image plane. Also, a large inner diameter enables larger-size elements to be laid out near the image plane. These factors allow production of a much larger variety of lenses with higher optical performance as well as more compact size.

## The advantages of a larger inner diameter

How can clear and crisp, high-resolution images be obtained?

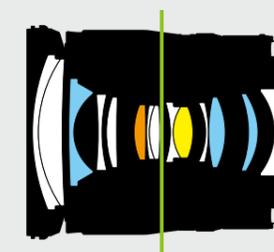
### Natural light passage is ensured

Forced light refraction causes strong aberrations that deteriorate image quality. Therefore, a larger inner diameter is critical because forced light refraction can be eliminated.



### The ideal lens construction can be designed

Most NIKKOR Z lenses feature a symmetrical construction that enables natural light passage to an image sensor. This ideal construction is made possible by the larger inner diameter.



NIKKOR Z 24-70mm f/4 S

## RESOLUTION FOR DISTANT SHOTS

### Superior resolution even at the periphery makes a great difference in landscape shooting

When shooting distant scenes such as landscapes, high resolving power that reproduces details even in the peripheral areas of the frame is strongly demanded. With improved flexibility in lens design thanks to a larger inner diameter, S-Line lenses deliver superior resolution with minimal aberrations throughout the shooting range from close distances to infinity across the entire frame from maximum aperture. Also, in designing S-Line lenses, higher-level standards have been established for evaluating various factors including MTF performance to attain refined images.



Camera body: Z 7 • Lens: NIKKOR Z 50mm f/1.8 S • Image quality: JPEG FINE • Exposure: [A] mode, 1/250 s, f/1.8 • White balance: Auto 1 (5570K) • Sensitivity: ISO 100 • Picture Control: Standard



NIKKOR Z 50mm f/1.8 S

Lens A of other manufacturer

Lens B of other manufacturer

AF-S NIKKOR 50mm f/1.8G

### S-Line superiority over competitive lenses

With outstanding resolution reproducing details of subjects even at the periphery as well as the center area, branches and leaves of trees that are photographed are elaborately rendered, providing landscape shots with a stunning sense of presence. Because superb resolution can be achieved even at the maximum aperture, higher-quality images can be obtained with S-Line lenses.

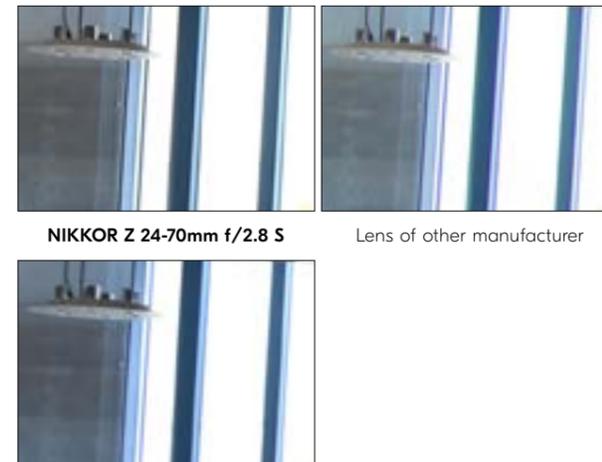
## CHROMATIC ABERRATION CORRECTION

### Eliminating chromatic aberration reinforces resolution

By suppressing chromatic aberration, faithful color reproduction of subjects such as stars is realized. Also, because coloring that is likely to occur on a subject's outline when shooting high-contrast scenes is effectively compensated, high-resolution images with sharply rendered outlines can be captured. Challenging the perception that stopping down the aperture improves optical performance, the S-Line series has attained minimal chromatic aberration from maximum aperture, achieving optical performance that allows photographers to use maximum aperture positively.



Camera body: Z 7 • Lens: NIKKOR Z 24-70mm f/2.8 S • Image quality: JPEG FINE • Exposure: [M] mode, 1/50 s, f/2.8 • White balance: Auto 0 (449K) • Sensitivity: ISO 100 • Picture Control: Standard



NIKKOR Z 24-70mm f/2.8 S

Lens of other manufacturer

AF-S NIKKOR 24-70mm f/2.8E ED VR

### S-Line superiority over competitive lenses

If coloring occurs in high-contrast scenes, colored outlines appear blurred, deteriorating resolution perception. When an image is enlarged, this phenomenon becomes noticeable and cannot be compensated. Using an S-Line lens, refined reproduction with minimal coloring is achieved even in the high-contrast areas.

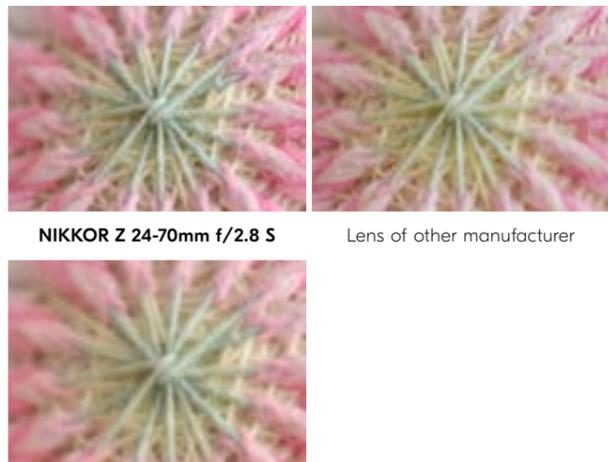
## RESOLUTION AT CLOSE DISTANCES

### Natural reproduction of minute subjects

Generally speaking, aberration control at close distances is considered to be difficult when using a fast lens, however, with S-Line lenses, high-resolution images can be captured throughout the entire shooting range from close distances to infinity at maximum aperture. Even for minute subjects like thin lines whose texture is hard to reproduce, they can be resolved exactly as they are, enabling faithful rendering without relying on digital compensation processes such as “Sharpening”.



Camera body: Z 7 • Lens: NIKKOR Z 24-70mm f/2.8 S • Image quality: JPEG FINE • Exposure: [M] mode, 1/160 s, f/2.8 • White balance: Auto 0 (4260K) • Sensitivity: ISO 100 • Picture Control: Standard



### S-Line superiority over competitive lenses

Thanks to the multi-focusing system, employed in some S-Line lenses, lens aberrations are effectively compensated at all shooting ranges including close distances, realizing superior imaging performance. Consequently, even in high-contrast situations where aberrations are likely to occur, fiber texture is minutely resolved without coloring.

AF-S NIKKOR 24-70mm f/2.8E ED VR

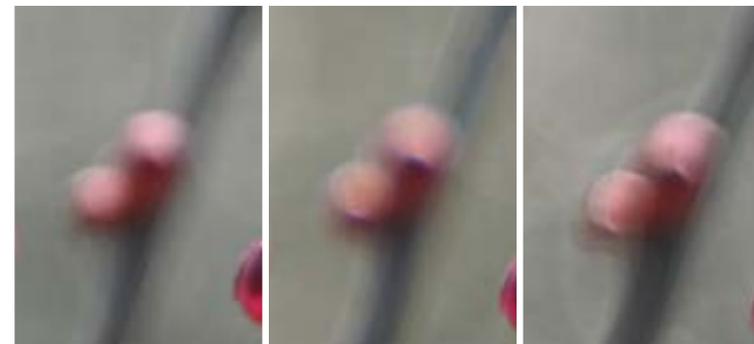
## BOKEH CHARACTERISTICS

### Natural bokeh effects delivering a sense of depth effectively emphasize the subjects

Bokeh plays an important role in making the main subject stand out. Therefore, bokeh should be natural rather than “noisy”. With gradual bokeh alteration that delivers a sense of depth, as well as natural bokeh characteristics with recognizable blurred subjects in the background, an excellently balanced relationship between the main subject and out-of-focus background is produced. This results in an effectively emphasized subject.



Camera body: Z 7 • Lens: NIKKOR Z 24-70mm f/2.8 S • Image quality: JPEG FINE • Exposure: [A] mode, 1/640 s, f/2.8 • White balance: Auto 1 (5010K) • Sensitivity: ISO 100 • Picture Control: Standard



NIKKOR Z 24-70mm f/2.8 S

Lens of other manufacturer

AF-S NIKKOR 24-70mm f/2.8E ED VR

### S-Line superiority over competitive lenses

With an S-Line lens, unnatural coloring is not visible around the buds and branch, producing soft bokeh characteristics without edges. This bokeh effect can direct viewers’ eyes to the main subject naturally, without becoming distracted by noisy bokeh. Beautiful circular bokeh in the background with minimal coloring even at the periphery also effectively emphasizes the subject.

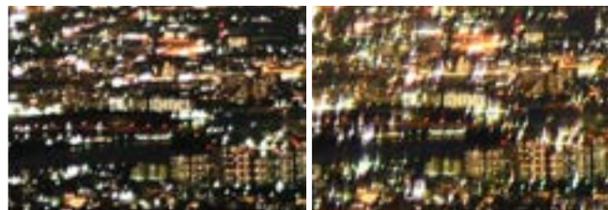
## POINT-IMAGE REPRODUCTION CAPABILITY

### Improved point-image reproduction enhances optical performance of the whole lens

Faithful reproduction of point light sources as point images is generally considered to be difficult to attain. However, this factor was greatly attached importance to in designing the optics of the S-Line lenses, because point-image reproduction actually contributes to improving resolution and bokeh characteristics. Thus, the S-Line lenses were designed consistently considering every detail of image expression.

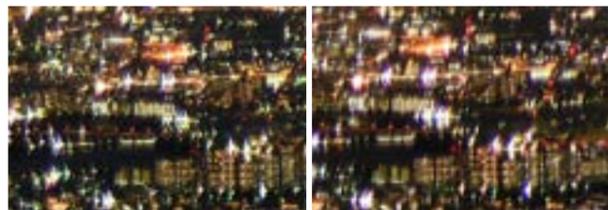


Camera body: Z 7 • Lens: NIKKOR Z 35mm f/1.8 S • Image quality: JPEG FINE • Exposure: [M] mode, 1.2 s, f/1.8 • White balance: Color temperature (5560K) • Sensitivity: ISO 100 • Picture Control: Standard © Yoshitsugu Enomoto



NIKKOR Z 35mm f/1.8 S

Lens A of other manufacturer



AF-S NIKKOR 35mm f/1.8G ED

Lens B of other manufacturer

### S-Line superiority over competitive lenses

With S-Line lenses, sagittal coma flare that makes a point light source appear as an image resembling a bird spreading its wings is reduced even at the maximum aperture, achieving superb point-image reproduction. This superior performance enables faithful reproduction of point images throughout the entire frame that is specifically demanded in night landscapes and astrophotography.

## TOLERANCE FOR BACKLIGHT SITUATIONS

### Solving backlight issues enhances image expression

When shooting images that include a strong light source such as the sun or other bright illumination within the frame, flare may appear near maximum aperture and ghost may occur at smaller apertures. It is desirable that a photographer can capture scenes as viewed without worrying about limitations in light conditions or aperture settings. Suppressing ghost and flare even in backlit situations provides photographers with unprecedented freedom in selecting their shooting position and composition, while delivering the intended results.



Camera body: Z 7 • Lens: NIKKOR Z 24-70mm f/2.8 S • Image quality: JPEG FINE • Exposure: [M] mode, 3 s, f/5.6 • White balance: Auto 0 (4050K) • Sensitivity: ISO 400 • Picture Control: Standard



NIKKOR Z 24-70mm f/2.8 S

Lens of other manufacturer



AF-S NIKKOR 24-70mm f/2.8E ED VR

### S-Line superiority over competitive lenses

As well as Nano Crystal Coat employed for every S-Line lens that is specially effective for incident light from a diagonal direction, some lenses adopt ARNEO Coat that is particularly effective for incident light from a vertical direction. Thanks to the superior anti-reflection performance of both coating systems, the capture of clear and crisp images with minimal ghost and flare effects is ensured even when a light source is located within the frame.

Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer. July 2019

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**WARNING**

**TO ENSURE CORRECT USAGE, READ MANUALS CAREFULLY BEFORE USING YOUR EQUIPMENT.**



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