FF S 20mm F4.0 C-Dreamer

使用手册
Instruction Manual

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LAOWA 老蛙

Preface

Thank you for choosing our FF S 20mm F4.0 C-Dreamer lenses! Please read this Instruction Manual carefully before using the lens to fully understand its application methods and precautions.

⚠ *Read this operation manual carefully to familiarize yourself with its contents and ensure that you can operate the product properly. Keep the Instruction Manual in a safe place where it can easily be referenced whenever required. If you are still unable to solve the problem by reading the manual, please contact our after-sales service for further technical support.*

Main features

- 1、It is an ultra-wide-angle shift lens designed for full-frame digital single-lens reflex (full-frame DSLR) cameras. Its maximum angle of view is 94.4° in non-shift condition, and up to 117° in shift condition, covering an image circle diameter of 65mm. Special optical design is adopted for the lens to guarantee its optical quality and control its distortion to be "close-to-zero". It is a full-frame shift lens with a 20mm focal length, which is rare in the market. Its usage scenario is expanded larger, with the addition of lens options in commercial architectural photography for photographers
- 2、Shift amount of ±11mm
  For architectural photography, cameras have to be placed near the buildings most of the time due to environmental restrictions, and the lenses other than our products cannot even capture the full view of the buildings. In such case, photography tasks can be fulfilled more easily within effective space with the angle of view of a 20mm lens. By means of the lens shift of ±11mm, the perspective phenomenon of buildings, which makes nearby objects look bigger and faraway objects look smaller, will not be caused by short shooting distances, large pitch angles or wide focal lengths, and thus photography will be more rigorous.
- 3、Lens structure
  The entire mechanical mechanism of the lens is made of metal components, which ensures the assembling accuracy and durability of the lens. The ±11mm shift mechanism and 360° rotation mechanism of the lens enable photographers to fulfill their shooting in different scenes.
  The lens has a structure of 16 elements in 11 groups. The 2 aspherical and 3 ED lens elements that are adopted can ensure lens sharpness, minimize dispersion and distortion, and enhance the quality of picture edges.
- 4、The hood is specially designed for the 20mm shift lens. After the hood is attached correctly at the hood mounting position, the lock nut shall be tightened to fix the hood. The lotus-shape hood can be rotated by 360°. During the shooting with the maximum shift, the hood direction can be changed to avoid the shading of the image circle. Moreover, for the photography under the condition of backlight or light spots, the angle of the lotus-shape hood can be changed to keep out light, avoiding ghosting and flare.

Precautions

⚠ Safety Precautions

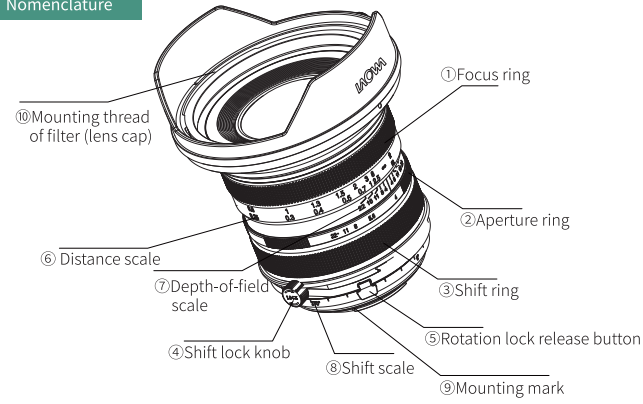
- Do not disassembly, modify or refit the lens by yourself. When the product is damaged due to external causes, any exposed part or broken edge must not be touched.
- Do not place the lens in direct sunlight, in closed cars or at other high-temperature places; otherwise, excessively high temperature will cause the expansion/shrinkage deformation of lens elements and other parts.
- When the lens is not in use, please mount the front lens cap, or place the lens at the place under no sunlight. The light rays reflected by the convex lens may be concentrated on nearby objects, and thus cause a fire.
- For backlight photographing, keep the sun well out of the viewing frame; otherwise, sunlight focused into the camera will cause a fire, or scorch eyes.

Precautions

long-term use and maintenance

- Do not touch the lens surface. Use special lens cloth, or blow air, to remove the dust from the lens surface. When the lens is not in use, mount the lens cap.
- When lens cleaning paper or lens cloth is used for cleaning, the dirt and fingerprints on the lens shall be wiped off in a spiral pattern, starting from the center of the lens and moving to the rim.
- When the lens is transferred suddenly from cold environment to warm environment, water fog will be caused on both the external and internal elements of the lens. For this reason, protective measures against moisture shall be taken during the transferring.

Nomenclature



Mounting lens

Take off the rear lens cap. Align the mounting mark (⑨) on the lens mount with the corresponding mark on the camera mount ring; then, insert the lens to the mount ring, rotate the lens in the mounting direction of the purchased mount, and stop rotating until a click sound is heard (meaning the lens is locked). Please do not apply excess force for mounting; otherwise, the mount may be damaged.

Detaching lens

Power off the camera; then, press and hold the lens release button, rotate the lens in a direction opposite to the mounting direction of the purchased mount, and draw out the lens from the mount ring.
After lens mounting, please try to rotate the lens to ensure it is fixed on the camera.

Use method of hood

The hood is specially designed for the 20mm shift lens. After the hood is attached correctly at the hood mounting position, the lock nut shall be tightened to fix the hood. The lotus-shape hood can be rotated for 360°.

Focusing

It is the manual focus lens. Rotate the focus ring (①) slowly until the image is in focus.
Do not rotate the focus ring with excess force or too quickly; otherwise, excess force may cause damage to the parts of the focus ring.
The distance scale (⑥) and depth-of-field scale (⑦) on the lens are provided for instruction. The actual focal point and depth of field may be different from these marked scales.

Shift function

The implementation of the shift function can move the optical axis of the lens in parallel off the center of the imaging plane.
If you photograph a building or any other subject with a normal lens, the building or the subject will taper from the near to the distant due to perspective effects. However, you can correct such perspective relation by placing the camera parallel to the building and shifting the lens.

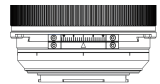
When you photograph a reflective subject, you can move the camera to a position where the camera does not appear in the viewing frame, and then utilize the shift function for shooting. In this way, you can keep the camera away from the shot without changing the shot composition.

Utilizing shift function

1. Loosen the shift lock mechanism (④).
2. Rotate the shift ring (③) to adjust the shift amount.
3. When the required shift amount is obtained, tighten the lock mechanism (see figures).

Rotation function

The rotation function enables you to change the shift direction by rotating the shift mechanism. With the lens mounted on the camera, press and hold the rotation lock release button (⑤), and then rotate the mechanism.
The rotation mechanism can be rotated by ±180°. A limiting position is provided at every 15° of the lens, where the lens can be locked.



Using aperture

Adjust the aperture on the lens, and rotate the aperture ring (②) to select the aperture corresponding to the photographing environment and the required depth of field.

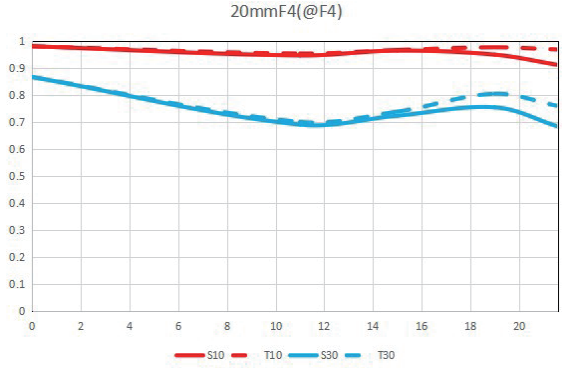
As no CPU data of this lens are available, its aperture parameters cannot be recorded temporarily.

Though the shutter-priority mode cannot be used smoothly due to manual aperture adjustment, the aperture-priority mode can be used (the metering accuracy depends on camera models).

Note: when the lens is used on a Canon DSLR camera, if the exposure simulation mode is enabled, metering will be possibly inaccurate under both non-shift and shift conditions; please cancel the option of exposure simulation during use, and conduct precise metering by selecting Mode A or using a light meter.

Specifications

LAOWA FF S 20mm F4.0 C-Dreamer	
Focal length	20mm
Maximum aperture	F4.0
Coverage of image circle	Φ65mm
Angle of view	94.4° (Maximum shift: 117°)
Lens structure	16 elements in 11 groups (2 aspherical elements and 3 ED elements)
Filter size	82mm
Diaphragm blades	14 (round)
Minimum aperture	F22
Maximum magnification	0.17
Shortest shooting distance (object-image distance)	25cm
In-focus driving mode	Manual (MF)
Lens size	About ϕ95mm * 91mm
Weight	About 747g
Mount	Canon EF and RF, Nikon F and Z, Sony E and L, Pentax PK


20mmF4(@F4)
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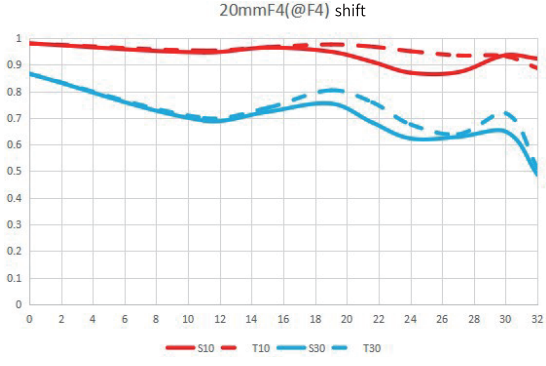
20mmF4(@F4) shift
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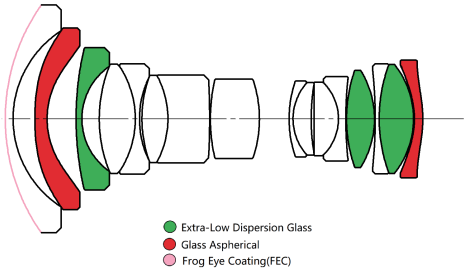
Extra-Low Dispersion Glass
Glass Aspherical
Frog Eye Coating(FEC)