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LAOWA CF 4.5-10mm F2.8 FISHEYE ZOOM

使用手册

Instruction Manual

LAOWA 老蛙

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Please note we reserve the right to change our product's design and specifications at any time without notice and to the final interpretation of the *Instruction Manual*.



前言

真诚地感谢您选购 LAOWA CF 4.5-10mm F2.8 FISHEYE ZOOM 超广角变焦鱼镜头。此镜头是APS-C画幅镜头,拥有180°超广视场角,在4.5mm端可实现圆周鱼眼效果,开拓了摄影的视野范围,给予使用者更多的发现与想象。



为了操作上的安全,使用本产品前请务必仔细阅读使用手册与注意事项,并将手册放在需要时容易取得的地方。如遇到不能解决的问题请通过售后电话获取技术支持。

主要特色

- 1.该镜头覆盖180°视野范围,开拓了摄影视野,给你更多的发现与想象。
- 2.镜头4.5mm端可实现圆周鱼眼效果,变焦后则呈现超广角鱼眼视角。
- 3.该镜头控制在重量330g,体积小巧,搭配无反相机体验轻松的拍摄过程,让摄影不在成为旅行的负担。
- 4.镜头在做到极致体积的同时,为了保证图像质量,采用了1枚高折射率镜片与4枚异常分散镜片,最大限度降低了色散,提高整体画质。

注意事项

△ 安全注意事项

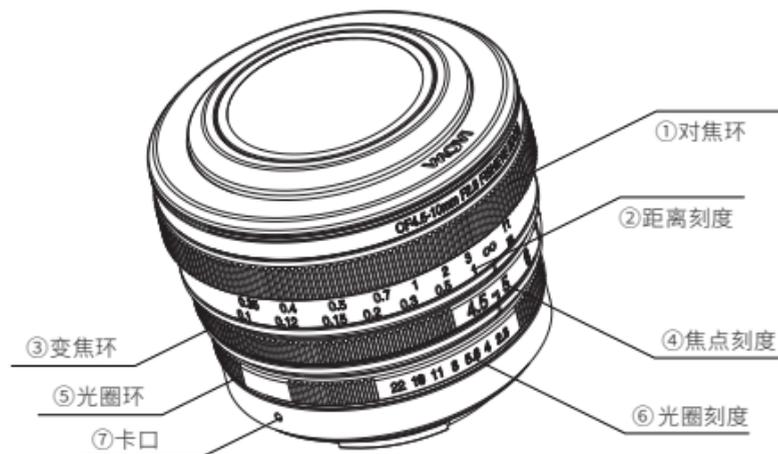
- 切勿自行拆解、修改或改装。当产品由于外力原因破损,切勿触碰外露部分或破损边缘处。
- 切勿放置于直射阳光下、封闭车辆中或其余高温处,否则过高的温度会使镜片和其他部件产生伸缩变形。
- 不使用镜头时,请将镜头前盖盖上或置于没有阳光照射处。凸透镜反射出的光线可能会聚集在附近物体上,导致发生火灾。
- 在逆光拍摄时,切勿将太阳置于画面中心,应该使太阳充分偏离画角,否则阳光会在相机内部聚集并导致火灾或灼伤眼睛。
- 在使用相机内置闪光灯拍摄时,由于镜头本身会遮挡光线而产生渐晕,因此建议您使用外设闪光灯拍摄。
- 本镜头为无反APS-C画幅系统镜头,镜头原生无反卡口。

注意事项

长期使用保养注意事项

- 避免触摸镜头表面,应用专用镜头布或气吹去除镜头表面的尘埃,不使用镜头时,应将镜头盖盖上。
- 使用镜头纸或镜头布清洁时,以螺旋的方式从中间向外擦拭镜头上的污垢以及指印。
- 镜头从寒冷的环境突然转移至温暖的环境时,镜头的外部以及内部镜片将会凝结水雾,所以在转移时应采取防潮保护措施。

各部件名称



使用说明

镜头安装

取下镜头后盖，将镜头卡口上的安装标记⑦对准相机座圈上的对应标记，随后将镜头插入机身座圈，旋转镜头，直至咔嚓声锁紧镜头。安装时请不要用力过猛，以免导致卡口损伤。

装上镜头后，请尝试旋转镜头确认是否已将其固定在相机上。

镜头拆卸

关机后按住相机上的镜头释放按钮，旋转镜头，随后将镜头从座圈中拔出。

由于此为非CPU镜头，无法提供数据信息，所以请在相机内开启“无镜头释放快门”功能。

对焦

此款镜头是全手动对焦镜头，合焦时，缓慢旋转对焦环①，直至合焦。

不要过猛过快地旋转对焦环，避免用力过度损坏对焦环部件。

镜头上的距离刻度②是出于指导目的。实际焦点与最深可能同刻度标记稍有不同。

如需要非常精确的对焦，请在固定好相机位置的情况下使用最大光圈对焦，对焦完成后，再旋至所需要的光圈值。

为了对焦的方便性，请开启相机内的峰值对焦功能(视所使用相机功能而定)。

变焦

此款镜头可通过变焦环③手动旋转来达到变换焦距。

■ 光圈使用

光圈在镜头上调节,根据拍摄环境和与所需要的景深,转动光圈环⑤ 来选择对应的光圈。

由于此镜头无CPU数据,所以暂时无法记录光圈参数。

由于光圈为手动调节,无法较好的使用快门优先模式,但可以使用光圈优先模式(测光准确度视相机型号而定)。

规格表

| LAOWA CF4.5-10mm F2.8 FISHEYE ZOOM | |
|------------------------------------|---------------------------------|
| 画幅 | APS-C |
| 焦点距离 | 4.5-10mm |
| 光圈范围 | F2.8-F22 |
| 视场角(对角线) | 4.5mm:180° 10mm:175° |
| 镜头结构 | 9组13片(1枚高折射率镜片、4枚ED镜片) |
| 光阑叶片 | 7片 |
| 对焦行程 | 77° |
| 变焦行程 | 75° |
| 光圈行程 | 42° |
| 对焦刻度 | 英尺同刻 |
| 最近摄影距离(物像距离) | 10cm |
| 最大放大倍率 | 0.22倍 |
| 合焦驱动方式 | 手动(MF) |
| 滤镜尺寸 | 无 |
| 镜头尺寸 | Ø68.9 x 59.3 mm |
| 重量 | 约:330 g(不含前后盖) |
| 卡口 | E / Z / RF / L / X / EF-M / M43 |



Preface

Thank you very much for purchasing LAOWA CF 4.5-10mm F2.8 FISHEYE ZOOM ultra wide angle lens. This lens is designed for APS-C sensors, delivering a 180° ultra-wide angle of view. It can achieve a circular fisheye effect at the 4.5mm end of the lens, which opens up photography vision and gives users more discovery and imagination.



 *For operational safety, please read the manual and precautions carefully before using this product, and keep the manual at a place that is easily accessible when needed. If you encounter a problem that cannot be solved, please ask for technical support through email.*

Features

- 1.The lens covers a 180° field of view, which opens up photography vision and gives you more discovery and imagination.
- 2.The 4.5mm end of the lens can achieve a circular fisheye effect, and after zooming, it presents an ultra-wide-angle fisheye perspective.
- 3.The lens is compact and weighs 330g. It is available to attach on a mirrorless camera to get a relaxed shooting process and to make photography not be a burden of travel.
- 4. While achieving the ultimate size, the lens uses 1 high refractive index element and 4 extra-low dispersion elements to ensure image quality, which minimizes dispersion and improves overall image quality.

Precautions

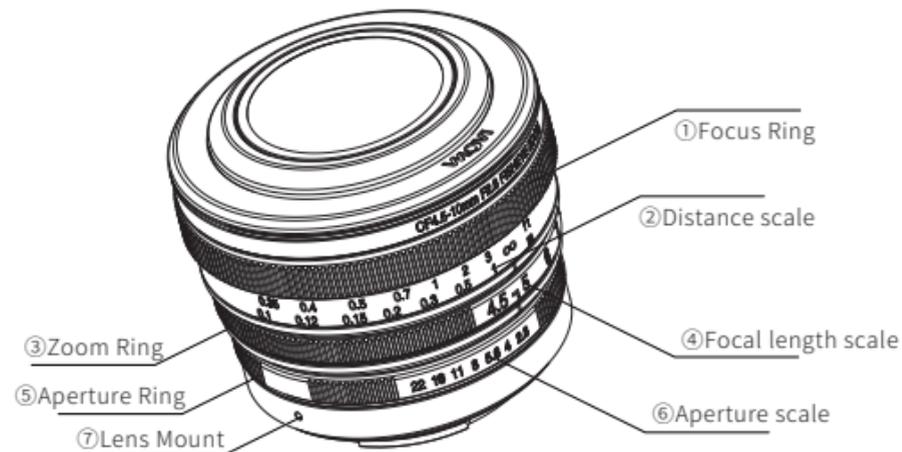
■ ⚠ Safety Precautions

- Do not disassemble, modify the lens by yourself. Do not touch the internal parts that become exposed as the result of external force.
- Do not leave the lens where it will be exposed to high temperatures, such as in direct sunlight and an enclosed vehicle. Excessive heat may deform the glass elements and other parts of the lens.
- Whether it is attached to the camera or not, do not leave the lens under the sun without the lens cap attached. This is to prevent the lens from concentrating the sun's rays, which could cause a fire.
- Do not place the sun in the frame center when shooting with backlight. Doing so might cause a fire or harm your eyes.
- The camera's built-in flash will cause barrel shadow if used with this lens. For best results, please use an external flash unit.
- This lens is a mirrorless APS-C system lens with native mirrorless mount .

Maintenance Precautions

- Do not touch the surface of the lens directly. Brush off any dust with a blower. Wipe the surface with a cleaning cloth or a lens tissue.
- Try a circular motion from the center outward to remove oil, fingerprints and grime on the lens surface.
- If your lens is brought directly from a cold place to a warm place, condensation may appear on the lens. To avoid this, be sure to take some action to protect the lens.

Name of each part



Instructions

■ To attach the Lens

Remove the rear lens cap. Align the mounting index ⑦ on the lens bayonet with the mounting index on the camera and place the lens on the camera mount. Then rotate the lens until it locks. Do not use excessive force during installation to avoid damage to the bayonet.

After attaching the lens, please try to rotate the lens to make sure it mounted onto the camera properly.

■ To remove the lens

Turn the camera off. While pressing and holding the lens release button on the camera, rotate the lens. Then, detach the lens.

Since this lens does not have a CPU and data information is not available. Therefore, please turn on the "No lens release shutter" function in the camera.

■ Focusing

This is a fully manual lens. Rotate the focusing ring ① slowly to get focus.

Turn the focus ring slowly and gently to prevent the focus mechanism from damage.

The distance scale② is for instructional purposes. Actual focus and DOF may slightly differ from those scale indications.

To get precise focus, it is recommended to focus wide open when the camera position is fixed. Get focus first, then set the desired aperture by turning the aperture ring.

Turn on the focus peaking on the camera to help focusing. (Note that the function depends on camera models.)

■ Zooming

This lens can be manually rotated by the zoom ring③ to change focal length.

■ Setting the Aperture

Aperture is adjusted on the lens and the aperture ring⑤ is turned to select the corresponding aperture according to the shooting environment and the desired depth of field.

Since the lens has no CPU data, the aperture value cannot be recorded.

Since the aperture is manually adjusted, shutter priority mode cannot be used well. However, aperture priority mode can be used (metering accuracy depends on the camera model.)

Specifications

| LAOWA CF4.5-10mm F2.8 FISHEYE ZOOM | |
|------------------------------------|---|
| Format | APS-C |
| Focal Length | 4.5-10mm |
| Aperture Range | F2.8-F22 |
| Angle of View (Diagonal FOV) | 4.5mm:180° 10mm:175° |
| Lens Structure | 13 elements in 9 groups (high refractive index element*1, ED element*4) |
| Aperture Blades | 7 |
| Focus Throw | 77° |
| Zoom Throw | 75° |
| Aperture Throw | 42° |
| Distance Scale | Metric & Imperial (Dual Scale) |
| Min. focusing Distance | 10cm |
| Max. Magnification | 0.22X |
| Focus Type | MF |
| Filter Thread | N/A |
| Dimensions | Ø68.9 x 59.3 mm |
| Weight | About 330g (without front and rear cap) |
| Mounts | E / Z / RF / L / X / EF-M / M43 |