



微信公众账号



FACEBOOK

安徽长庚光学科技有限公司

www.laowalens.com

服务热线: 400-066-1316

Email: sales@laowalens.com

电话Tel: (+86) 0551-69107990

地址: 合肥市庐阳区天水路与太和路交口庐阳中科大校友创新园5号楼

Add: Building 5, USTC Alumni Innovation Park, Crossing of Tianshui
and Taihe Road, Luyang District, Hefei City, Anhui Province, China

LAOWA MFT 4mm F2.8 210° CIRCULAR FISHEYE

使用手册

Instruction Manual

LAOWA 老蛙

本公司保留更改产品设计与规格的权利, 届时恕不另行通知;
本公司保留对此《使用说明》的最终解释权。
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*.

新创意·新乐趣
New Idea , New Fun

老蛙镜头,为乐趣而生



前言

真诚地感谢您选购LAOWA（老蛙）MFT 4mm F2.8 210° Circular Fisheye Lens全手动圆周鱼眼镜头。此镜头是M4/3系统镜头，拥有210° 圆周视角，主打摄影创意与乐趣，助您拍摄更富创意的作品。



 为了操作上的安全，使用本产品前请务必详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可拨打售后电话获取技术支持。

主要特色

- 4mm F2.8拥有M4/3系统的210°圆周视野，可以拍摄具有创意性的圆周广角照片。
- 两张照片即可拍摄出360°全景照片，带给你不一样的拍摄体验。
- 为了使用更加方便，镜头在对焦环上增加了拇指拨杆，可以帮助您在拍摄时更方便单手操作。
- 4mm F2.8镜头体积小巧，重量仅约135g，省出了背包空间以及减轻了使用者的负担。
- 镜头每块镜片均采用低反射多层镀膜，尽可能的消除了鬼影和炫光，且前端镜片采用蛙眼仿生镀膜，使水滴、灰尘不易附着。

注意事项

△ 安全注意事项

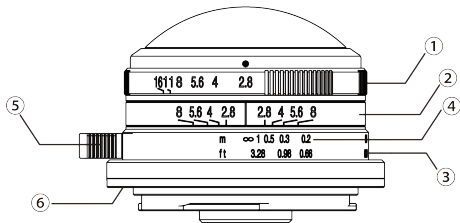
- 切勿自行拆解、修改或改装。当产品由于外力原因破损，切勿触碰外露部分或破损边缘处。
- 切勿放置于直射阳光下、封闭车辆中或其余高温处，否则过高的温度会使镜片和其他部件产生伸缩变形。
- 不使用镜头时，请将镜头前盖盖上或置于没有阳光照射处。凸透镜反射出的光线可能会聚集在附近物体上，导致发生火灾。
- 在逆光拍摄时，切勿将太阳置于画面中心，应该使太阳充分偏离画角，否则阳光会在相机内部聚集并导致火灾或灼伤眼睛。
- 在使用相机内置闪光灯拍摄时，由于镜头本身会遮挡光线而产生渐晕，因此建议您使用外设闪光灯拍摄。

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。
- 镜头前端是凸出的镜片，且后端也有凸出的镜头模组，更换镜头时应注意安装后盖后，镜头水平向上放置。

各部件名称



① 光圈环

③ 对焦环

⑤ 拇指拨杆

② 景深参考标尺

④ 距离刻度

⑥ 镜头安装标记

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⑥对准相机座圈上的对应标记，随后将镜头插入机身座圈，根据所购买卡口的安装方向旋转镜头，直至听到“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。

■ 镜头装卸

关机后按住相机上的镜头释放按钮，依照所购买卡口的安装方向反向旋转镜头，随后将镜头从座圈中拔出。

- 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。
- 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。

使用说明

■ 对焦

- 此款镜头是全手动对焦镜头，合焦时，用拇指拨动拇指拨杆⑤，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部件。
- 镜头上的距离刻度④与景深刻度②是出于指导目的。实际焦点与景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)。

使用说明

■ 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①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老蛙 MFT 4mm F2.8 210° Circular Fisheye	
焦距	4mm
最大光圈	2.8
视场角	210°
镜头结构	6组7片
光阑叶片	7
最小光圈	22
最近摄影距离	80mm
最近工作距离	25mm
最大放大倍率	0.11倍
合焦驱动方式	手动 (MF)
镜头尺寸 (长/直径)	25.5mm×Φ45.2mm
重量	约 135克



PREFACE

Thank you very much for purchasing Laowa 4mm F2.8 fully manual circular Fisheye lens, which is designed for M4/3 system cameras. The lens produces a 210° circular angle of view, delivering more creative shots and happier shooting experience.



△ For operational safety, please read this instruction manual thoroughly and place the manual where it is easy to obtain when needed. Please contact our after-sales service for technical support in case of any unsolvable problems.

FEATURES

- 4mm F2.8 Fisheye offers 210° circular and wide angle of view, for creative photography.
- Two photos are enough to take a 360° panoramic photograph, giving you a different shooting experience.
- For easier usage, the thumb lever is attached to the focus ring, making it easier for you to operate with one hand during shooting.
- The lens is small in size and only about 135g in weight, greatly saving space and reducing the users' burden.
- Multi-layer low-reflective coatings are applied to each glass element to eliminate ghosting and flare. The Frog Eye Water-repellent Coating "FEC", is applied to the front element of the lens, protecting it from water droplets and smudges.

PERCAUTIONS

⚠ Handling Precautions

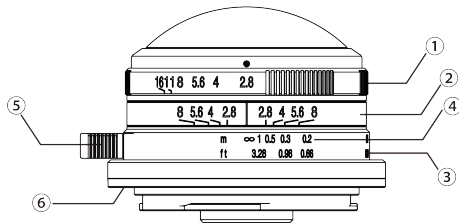
- Do not disassemble or modify the lens by yourself. If it is damaged by external force, do not touch any exposed part of the lens.
- Don't expose the lens to excessive heat such as direct sunshine or a parked car as this may deform the lens elements and other mechanism.
- Close the front cap of the lens or prevent the lens from exposing to direct sunlight when it is not in use. The light reflected by the convex lens can cause fire.
- Do not place the sun in the center of the frame when shooting with backlight, sunlight focused on the camera when the sun is in or close to the frame could cause a fire or damage to your eyes.
- When shooting with the camera's built-in flash, the lens itself may block the light and cause vignetting, an external flash is recommended in such case.

PERCAUTIONS

■ Maintenance Precautions

- Avoid touching the lens surface and apply lens cloth or air blow to remove dust from it. Close the lens cap when it is not in use.
- Gently remove any dirt and fingerprints by rubbing the lens surface in spiral motions (from center to the periphery) with lens tissue or cleaning cloth.
- When the lens is taken from a cold environment into a warm one, condensation may develop on the surface and internal parts of the lens, so moisture protection should be taken when transferring.
- Because of the protruding front and rear elements, make sure the lens is placed horizontally with the lens cap on.

Nomenclature



① Aperture ring

③ Focusing ring

⑤ Thumb lever

② Depth-of-field scale

④ Distance scale

⑥ Lens mounting mark

Direction for use

■ Mounting the Lens

Remove the rear lens cap. Align the Mounting index⑥ on your lens with the matching mounting index mark on the camera. Insert the lens into the camera and turn the lens in the attachment direction until it locks with a "click". Please do not push too hard during installation in case of any damage to the Mount.

■ Detaching the Lens

Turn the camera off and press the lens release button on the camera, turn the lens in the direction opposite to that for attaching, and pull it out.

- *Gently turn the lens back and forth to ensure that the lens is fully attached to the camera.*
- *Since this is a non-CPU lens with no data information provided, the "lens-free shutter release" function in the camera has to be toggled on.*

INSTRUCTIONS

■ Focusing Instructions

- Focus by moving the thumb lever⑤ as it is a manual focus only lens.
- Do not apply too much force when turning the focusing ring or moving it too quickly in case of any damage.
- The distance scale④ and the depth-of-field scale② on the lens are for instructional purpose. Actual focus and depth-of-field may be slightly different from the scale.
- For the need of extremely precise focus, please fix the camera position and focus with a wide-open aperture. Get focus first and then set the required aperture.
- To facilitate focusing, please turn on [Focus peaking] in the camera setting (Depending on the function of your camera).

INSTRUCTIONS

■ Aperture Instructions

- Turn the aperture ring^① to choose the corresponding aperture according to the shooting situation and desired depth-of-field.
- As a Non-CPU lens, the camera cannot record the actual aperture value.
- Since this is a manual lens, aperture priority mode is recommended to be used. (Metering accuracy will depend on the camera)

SPECIFICATIONS

LAOWA (老蛙) MFT 4mm f2.8 210° Circular Fisheye	
Focal Length	4mm
Max. Aperture	2.8
Angle of view	210°
Elements/Groups	7 /6
Aperture Blades	7
Min. Aperture	22
Min. Shooting Distance	80mm
Min. Work Distance	25mm
Max. Magnification	0.11X
Focusing	Manual Focus (MF)
Size(length/diameter)	25.5mm×Φ45.2mm
Weight	About 135g