



A

B

C

D

E

F

A

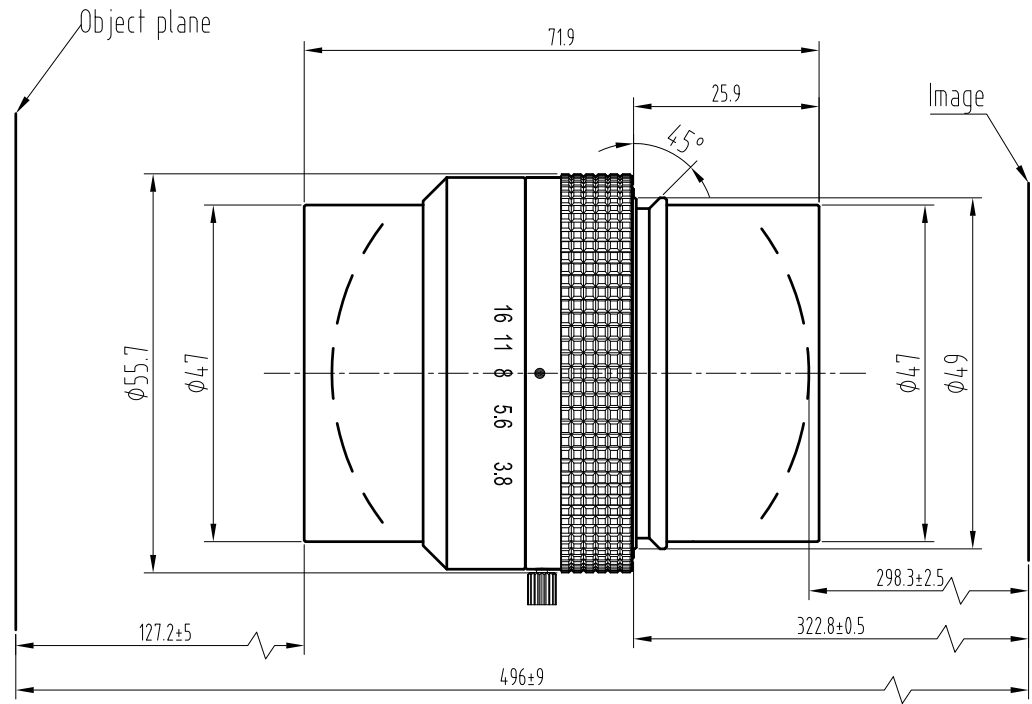
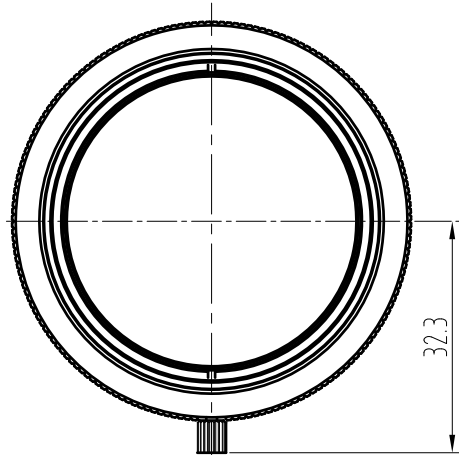
B

C

D

E

F

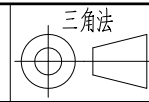


Main Specification			
Magnification	-1.75	-2	-2.25
Working Distance	135.7±5	127.2±5	121±5
Image Distance	268.4±2.5	298.3±2.5	326.4±2.5
Conjugate Distance	474.7±9	496±9	517.9±9
Flange Focal Distance	292.9±0.5	322.8±0.5	350.9±0.5
Max image	ø84		
F/#	3.8		
EFL	116		
FOV	11.3°		
ENP Diameter	30.52		
Distortion	0.0008%		
Structure	8G		
IMAGE QUALITY			
AXIS	ø46.2	ø84	
200lp/mm	160lp/mm	160lp/mm	



1	倍率参数更改	朱周德	2014,07,07
标记	处数	更改文件号	担当
		变更日期	批准

TOLERANCE :
LINEARITY TOLERANCES ±0.05
ANGULAR TOLERANCES ARE±30°
DRAFT ANGLES AREA±0.5°/SIDE



材料(环保)

单位
mm比例
1:1

设计 朱周德 2014-07-07

校对

审核

批准

名称

LS1620A技术规格图

代号

LS1620A-SPEC

页码
1/1版本
V2

LS1620A Lens Datasheet



LS1620A 2x Line Scan Lens



LS1620A 匹配16K/3.5u以及12K/5u的线扫sensor，可在400nm-700nm波段使用；LS1620A提供可调节光圈，F#为3.8-16，其中重要的光圈位置有2个

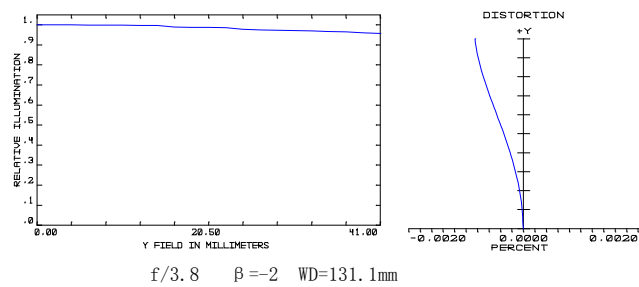
- F#3.8是最大光圈，在此处镜头通光量最大，. 此处的MTF可以达到最大值
光圈最大时，镜头景深较小，并对倍率的变化比较敏感。
- F#5.6是镜头的最佳光圈，边缘视场与中心视场MTF最为接近，整体对比度大幅提升
- F#8-F16的MTF会随着衍射极限的下降而降低，镜头分辨率也会降低
但是支持的倍率范围达到最大

FNO	F3.8	F5.6	F8
推荐倍率	1.75X-2.25X	1.65X-2.8X	1.55X-3.33X

Technical Specifications

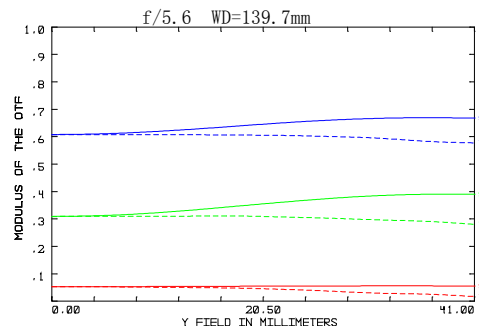
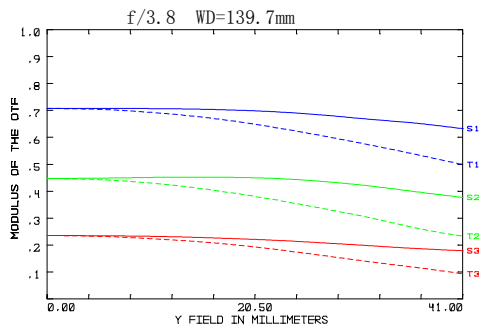
F-number	3.8-16
Focal length	116 mm
Image circle	82 mm
Magnification	2x
Transmission	400-700 nm
entrance pupil position	44.1 mm
exit pupil position	-346.8 mm
Interface	V-Mount
Option	Adapter to M58 M72

RELATIVE ILLUMINATION & DISTORTION

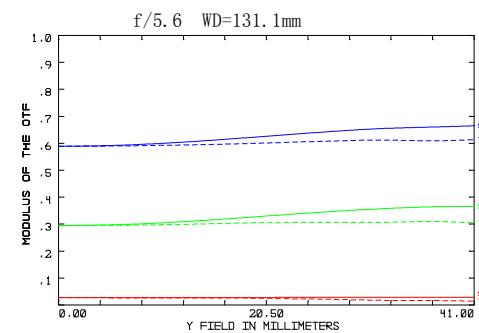
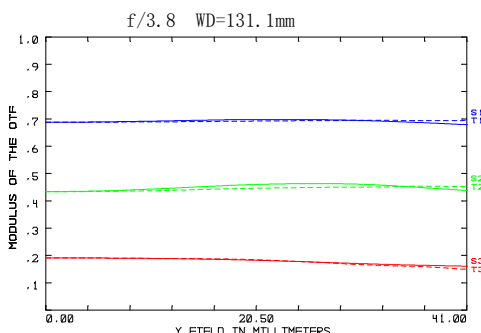


Wavelength [nm] : 405 436 480 546 644 706
 Spatial frequency [1/mm] : 25 50 100
 Diagonal 2h [mm] : 82

$\beta = -1.75$



$\beta = -2.0$



$\beta = -2.25$

