

### Lens Information

Part Number:	MVTC23005
Serial Number:	493163
Test Date:	4/7/2014
Tested By:	MHC
N° Horizontal Pixels:	2108
N° Vertical Pixels:	2108

### Working Distance

The distance between the object and the first mechanical surface of the lens.

W.D., Nominal (mm):	529.662
W.D., As Tested (mm):	529.7
W.D. Error (%):	0.01%

### Magnification

Measured on-axis from a square target of a known size in both the tangential and sagittal directions and averaged.

Mag., Nominal:	0.051
Mag., As Tested:	0.0498
Mag. Error (%):	2.35%

### Telecentricity

Measured by moving the target between the borders of the field depth test range and recording the change in field heights. The chief ray is then calculated from the ratio of the field height change to the total target displacement.

Maximum (deg):	-0.037
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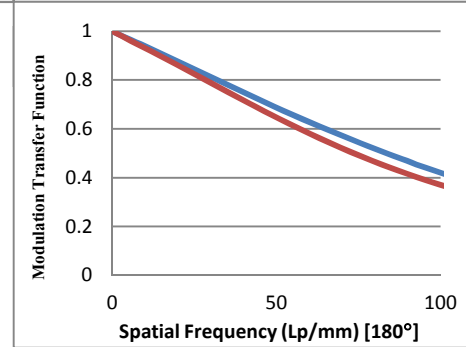
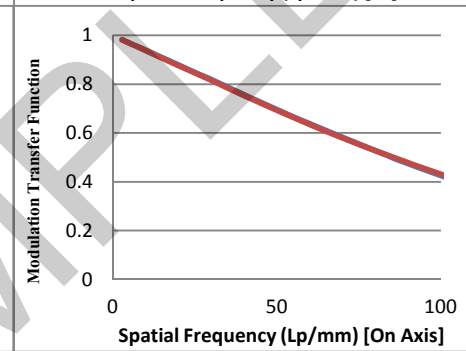
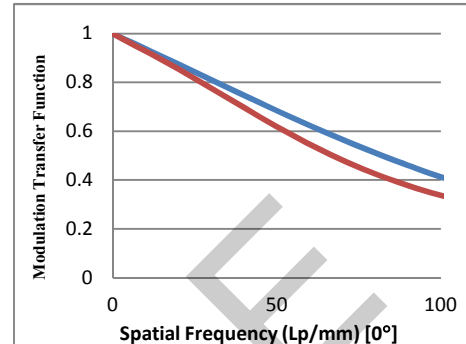
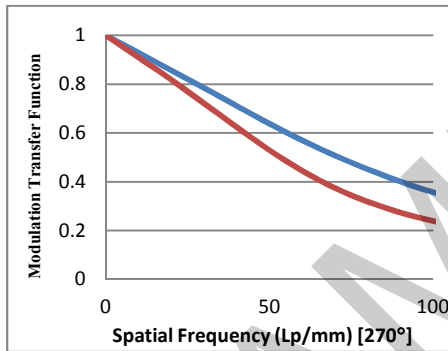
### Radial Distortion

Characterized by measuring the field heights from the center of the field to the edge and calculating the deviation of the measure values from the on-axis magnification.

Avg Radial Distortion (%):	0.02%
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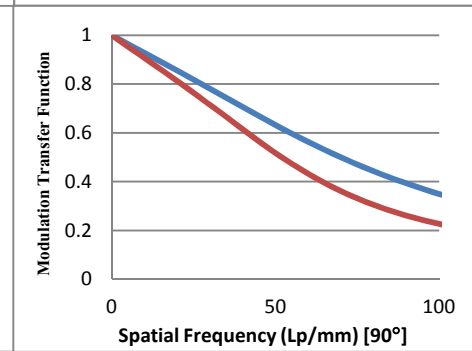
### Test Conditions

**Target:** Chrome-on-glass .25mm dots  
**Illumination:** 450-650nm white LED telecentric back light source  
**Camera:** Grasshoper3 USB3.0 mono, 1" sensor cropped to 2/3" format, 3.69 micron pixel size



### Modulation Transfer Function

The loss of contrast determined from imaging an object, expressed in spatial frequency. The higher the ratio, the higher the contrast. MTF measured on-axis and at four quadrants in the field in both tangential and sagittal directions.



Note: Tangential lines in blue. Sagittal lines in red.

