

ANALYZER

by DXOMARK

DXOMARK RAW REPORT



C O N F I D E N T I A L I N F O R M A T I O N S

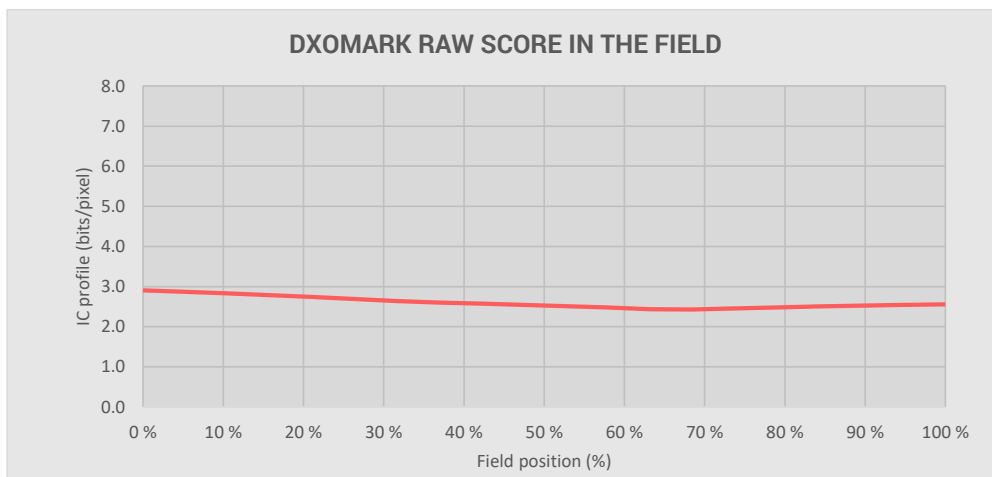
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Anonymous phone - Wide Angle cameramodule



Module size (h x w x d)	10 x 8 x 6 mm
Focal length (mm)	5.58
FOV diagonale in (°)	77
Aperture F-Number	1.6
Sensor	BSI
Bayer Type	RGGB
Aspect ratio	4:3
Tested image size (Mpix)	6000 x 4500
Sensor Size (mm)	6 x 4.5
Sensor Resolution (Mpix)	27Mpix
Pixel pitch	1 μm
Bits per pixel	16
Stabilization	OIS



72 SENSOR

Color Depth		24.1 Bits
Dynamic Range		12.2 Ev
Lowlight ISO		409

53 SENSITIVITY

Aperture		f / 1.6
SNR10		5.3

198 LENS

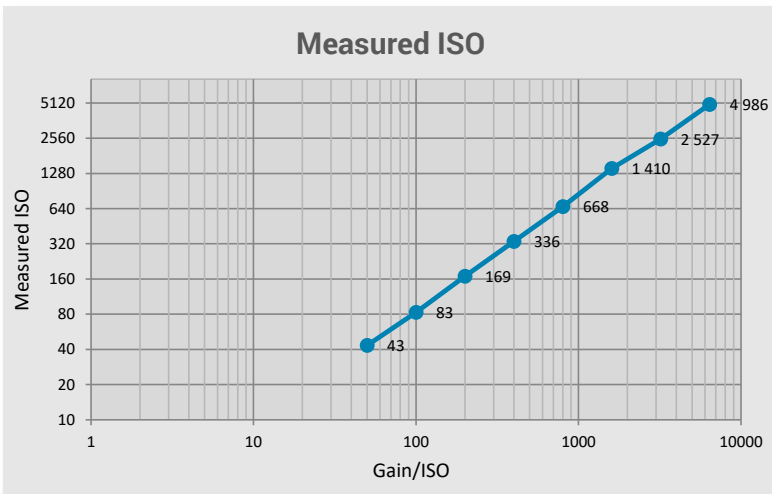
Distortion		0%
LCA		0.1%
Vignetting		76%
Color Lens Shading		1.9%
Best Sharpness		84%
Sharpness in the field		19%
Flare		115.0

Anonymous phone - Wide Angle cameramodule - FOCAL 5.58 - APERTURE 1.6



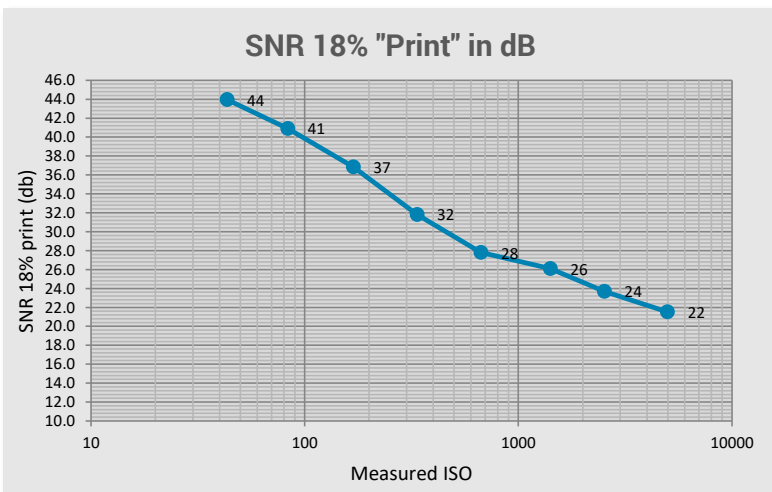
Color Depth **24.1 Bits**
 Dynamic Range **12.2 Ev**
 Lowlight ISO **409**

ISO SENSITIVITY



Gain/ISO	Measured ISO
50	43
100	83
200	169
400	336
800	668
1600	1410
3200	2527
6400	4986

SNR 18% (dB)



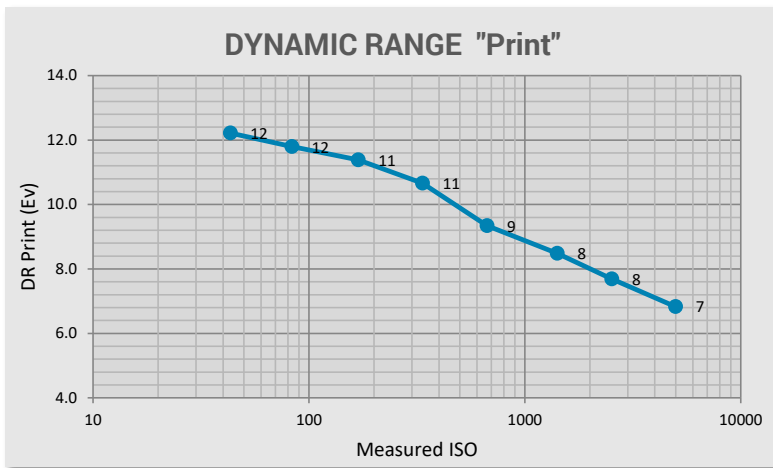
Measured ISO	SNR 18% print
43	44.0
83	40.9
169	36.9
336	31.8
668	27.8
1410	26.1
2527	23.7
4986	21.5

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DXOMARK Sensor

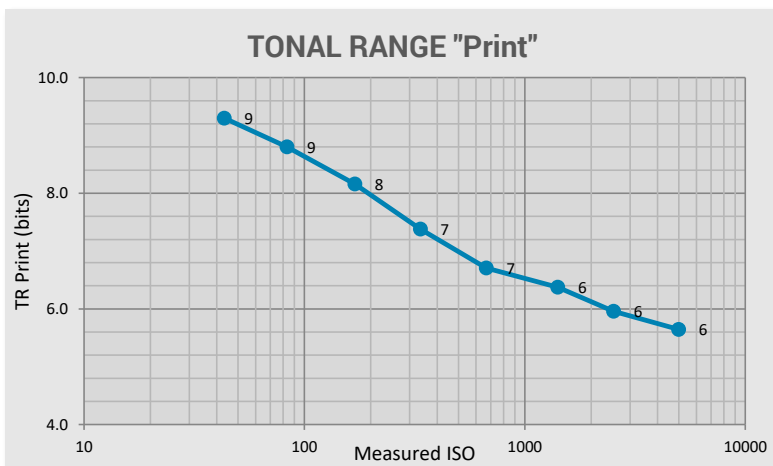
Anonymous phone - Wide Angle cameramodule - FOCAL 5.58 - APERTURE 1.6

DYNAMIC RANGE (EV)



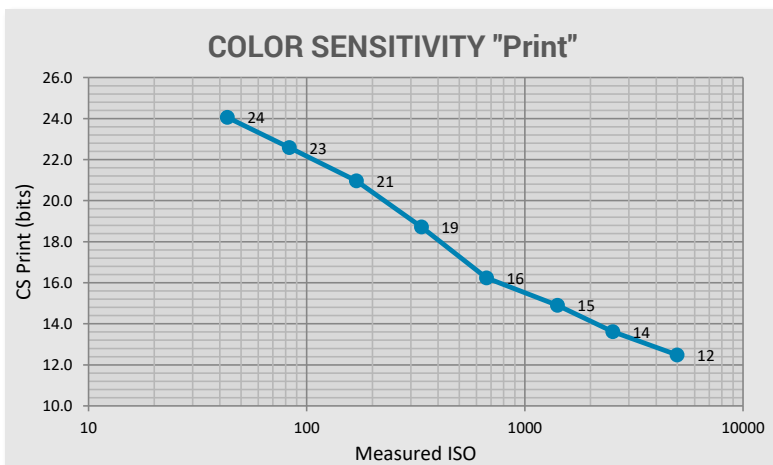
Measured ISO	DR Print
43	12.2
83	11.8
169	11.4
336	10.7
668	9.3
1410	8.5
2527	7.7
4986	6.8

TONAL RANGE (bits)



Measured ISO	TR Print
43	9.3
83	8.8
169	8.2
336	7.4
668	6.7
1410	6.4
2527	6.0
4986	5.6

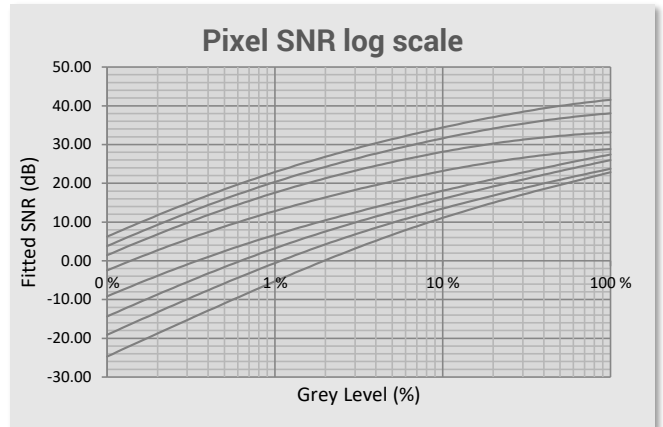
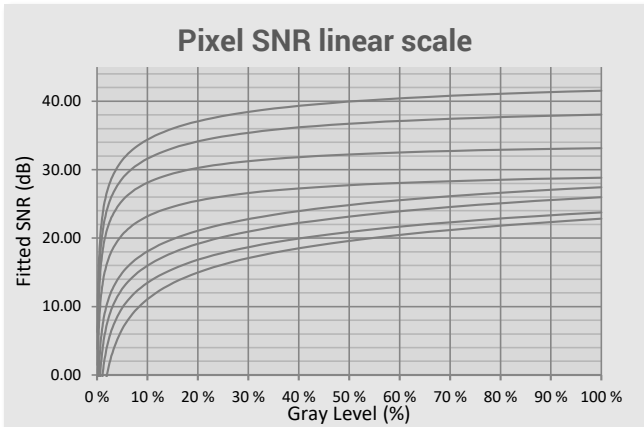
COLOR SENSITIVITY (bits)



Measured ISO	CS Print
43	24.1
83	22.6
169	21.0
336	18.7
668	16.2
1410	14.9
2527	13.6
4986	12.5

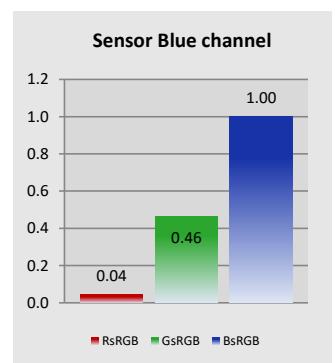
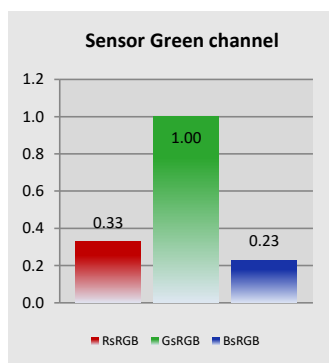
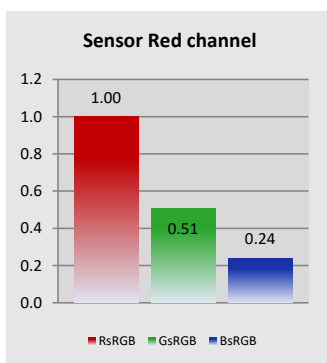
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FULL SNR (dB)

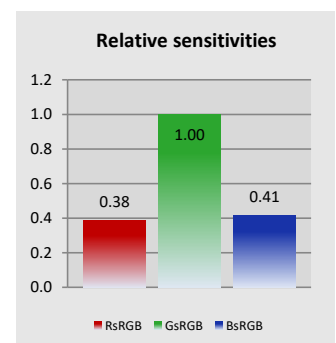


COLOR RESPONSE CIE D65

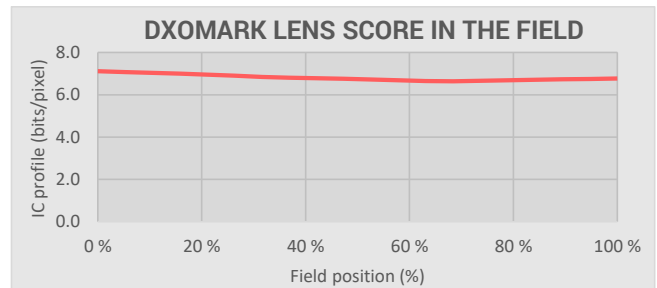
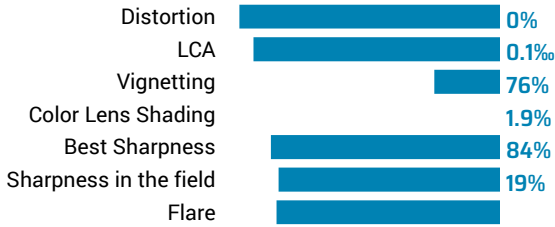
Color matrix as defined in ISO standard 17321		R_{RAW}	G_{RAW}	B_{RAW}	
		R_{sRGB}	2.06	-0.82	-0.24
Color response		G_{RAW}	-0.73	2.04	
		B_{RAW}	0.25	-0.91	1.66
		R_{sRGB}	1.00	0.51	0.24
		G_{sRGB}	0.33	1.00	0.23
		B_{sRGB}	0.04	0.46	1.00



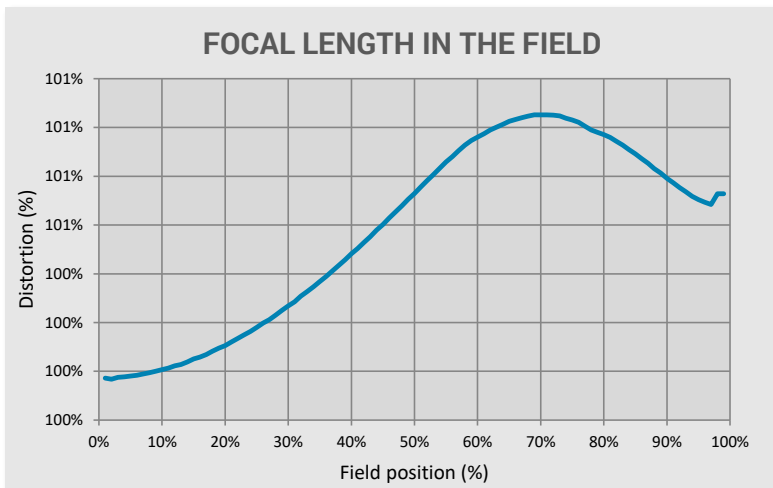
White balance scales		R_{RAW}	2.6
		G_{RAW}	1.0
		B_{RAW}	2.4
Relative sensitivities		R_{sRGB}	0.4
		G_{sRGB}	1.0
		B_{sRGB}	0.4
Sensitivity Metamerism Index ISO 17321			66.3



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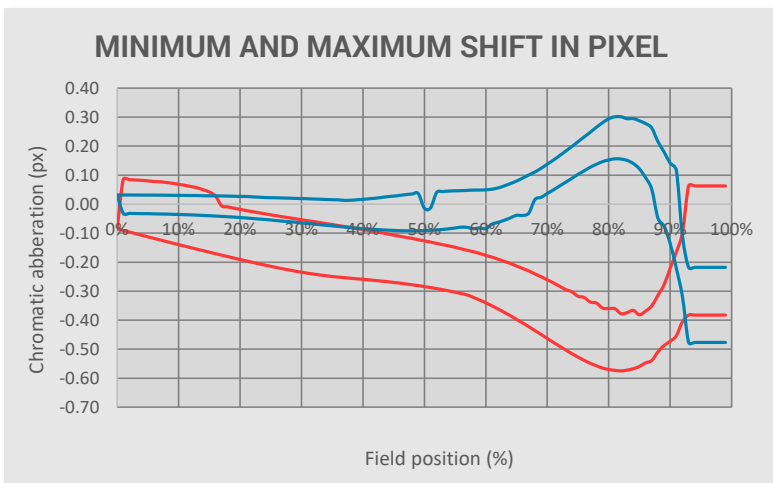


DISTORTION



TV Distortion	-0.21%
Distortion Max	-0.24%

LATERAL CHROMATIC ABERRATION



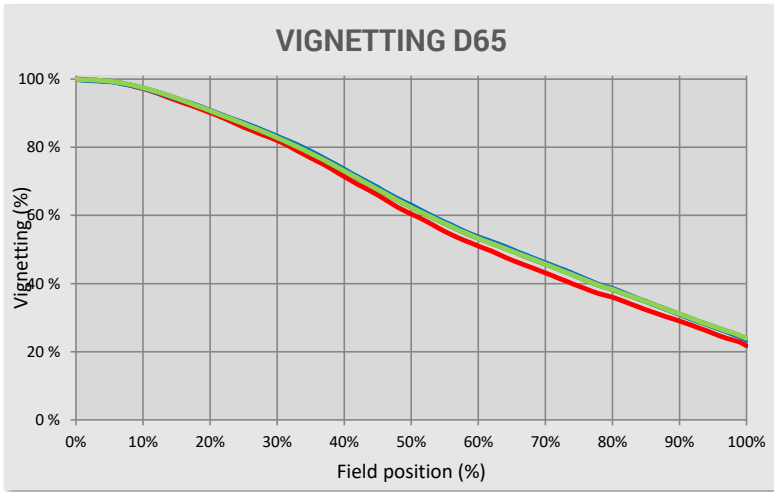
LCA Mean (pixel)	0.28 px
LCA Max (pixel)	0.86 px
LCA Mean (‰)	0.03‰
LCA Max (‰)	0.09‰
Max G/R shift	0.58 px
Max G/B shift	0.48 px

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DXOMARK Lens

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VIGNETTING (D65)



Maximum attenuation	
R	77%
Gr	75%
B	76%
Gb	75%

Maximum amplification	
R	0%
Gr	0%
B	0%
Gb	0%

COLOR LENS SHADING SUMMARY

Max Green imbalance	Gr/Gb
D65	1%
TL84	1%
LED	1%
A	2%

Max color shading	B	R
D65	-2%	-8%
TL84	3%	-7%
LED	4%	-8%
A	6%	-16%

COLOR LENS SHADING D65

R/G Field Map



B/G Field Map



Red	
Max Attenuation	0.3%
Max Amplification	-13.7%

Blue	
Max Attenuation	3.0%
Max Amplification	-4.7%

Standard Deviation	
	1.88%

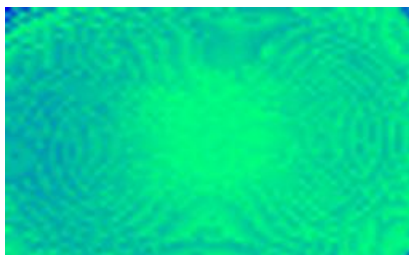
Anonymous phone - Wide Angle cameramodule - FOCAL 5.58 - APERTURE 1.6

COLOR LENS SHADING A

R/G Field Map



B/G Field Map



Red	
Max Attenuation	0.4%
Max Amplification	-21.6%

Blue	
Max Attenuation	9.0%
Max Amplification	-19.9%

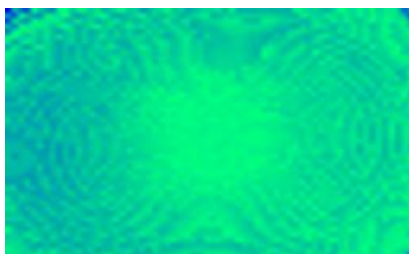
Standard Deviation	
	3.64%

COLOR LENS SHADING LED

R/G Field Map



B/G Field Map



Red	
Max Attenuation	0.4%
Max Amplification	-21.6%

Blue	
Max Attenuation	9.0%
Max Amplification	-19.9%

Standard Deviation	
	3.64%

COLOR LENS SHADING TL84

R/G Field Map



B/G Field Map

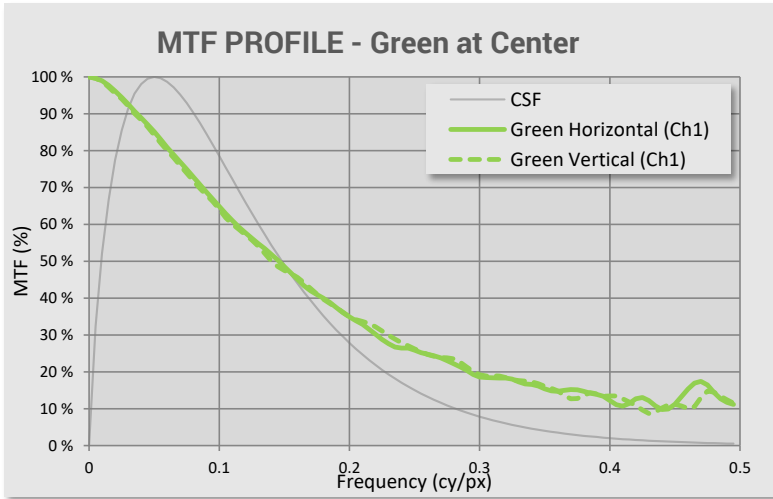


Red	
Max Attenuation	0.5%
Max Amplification	-10.7%

Blue	
Max Attenuation	4.9%
Max Amplification	-5.3%

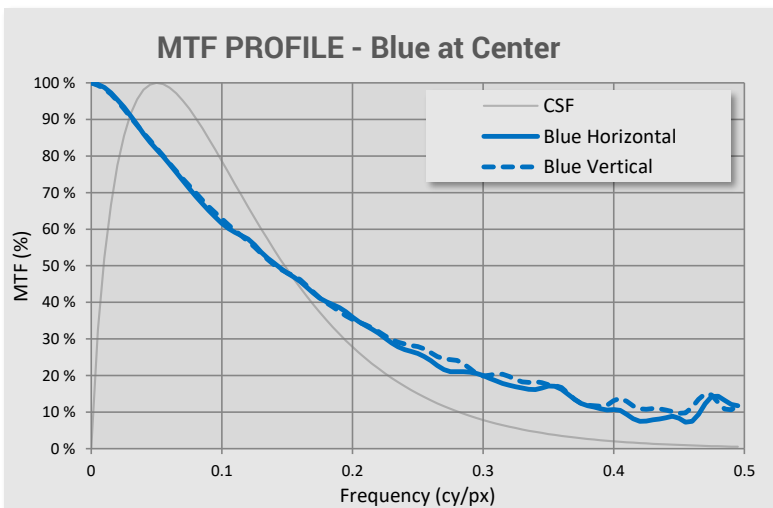
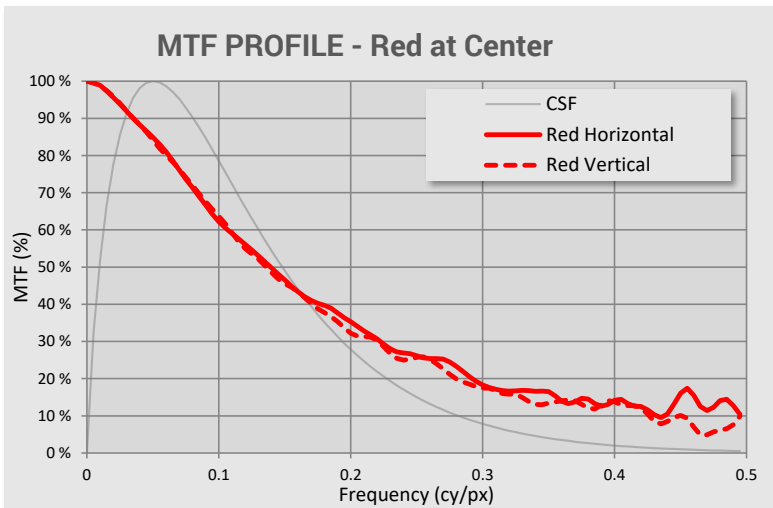
Standard Deviation	
	1.84%

SHARPNESS



Accutance - Center	
R	84%
Gr	84%
B	83%
Gb	84%

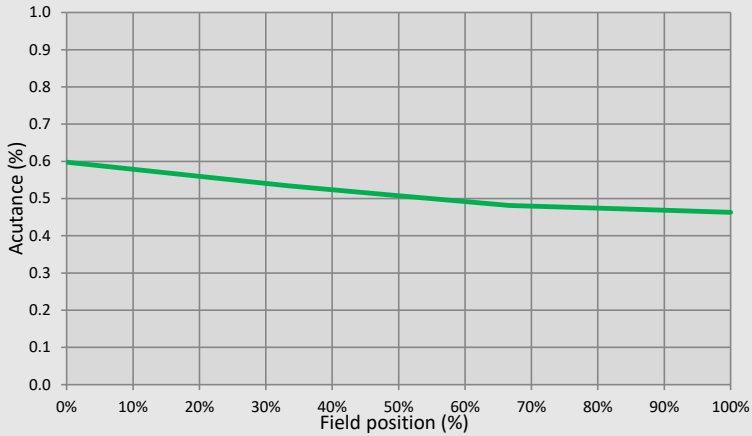
Accutance - Mean Corners	
R	67%
Gr	66%
B	65%
Gb	66%



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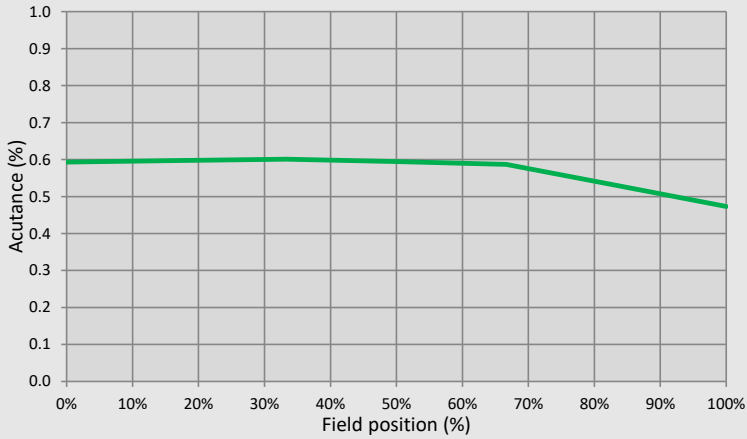
LOSS OF SHARPNESS IN THE FIELD

HORIZONTAL SHARPNESS IN THE FIELD



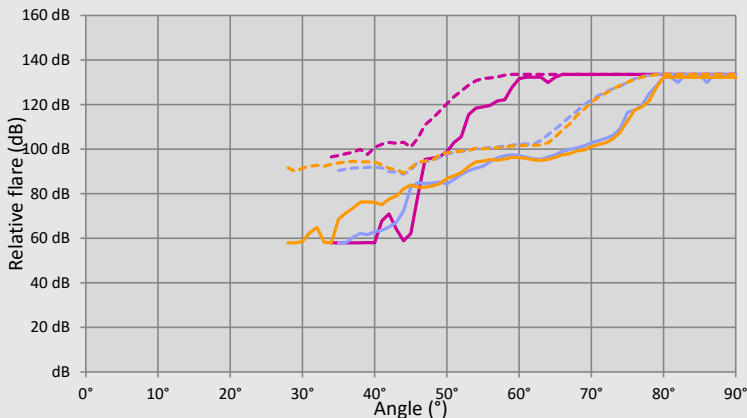
Acutance loss	
Horizontal	13%
Vertical	13%
Overall	19%

VERTICAL SHARPNESS IN THE FIELD



FLARE

FLARE ATTENUATION



Flare Horizontal	
Average	111.15
Worst	57.94

Flare Diagonal	
Average	124.18
Worst	57.94

Flare Vertical	
Average	109.01
Worst	57.94



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