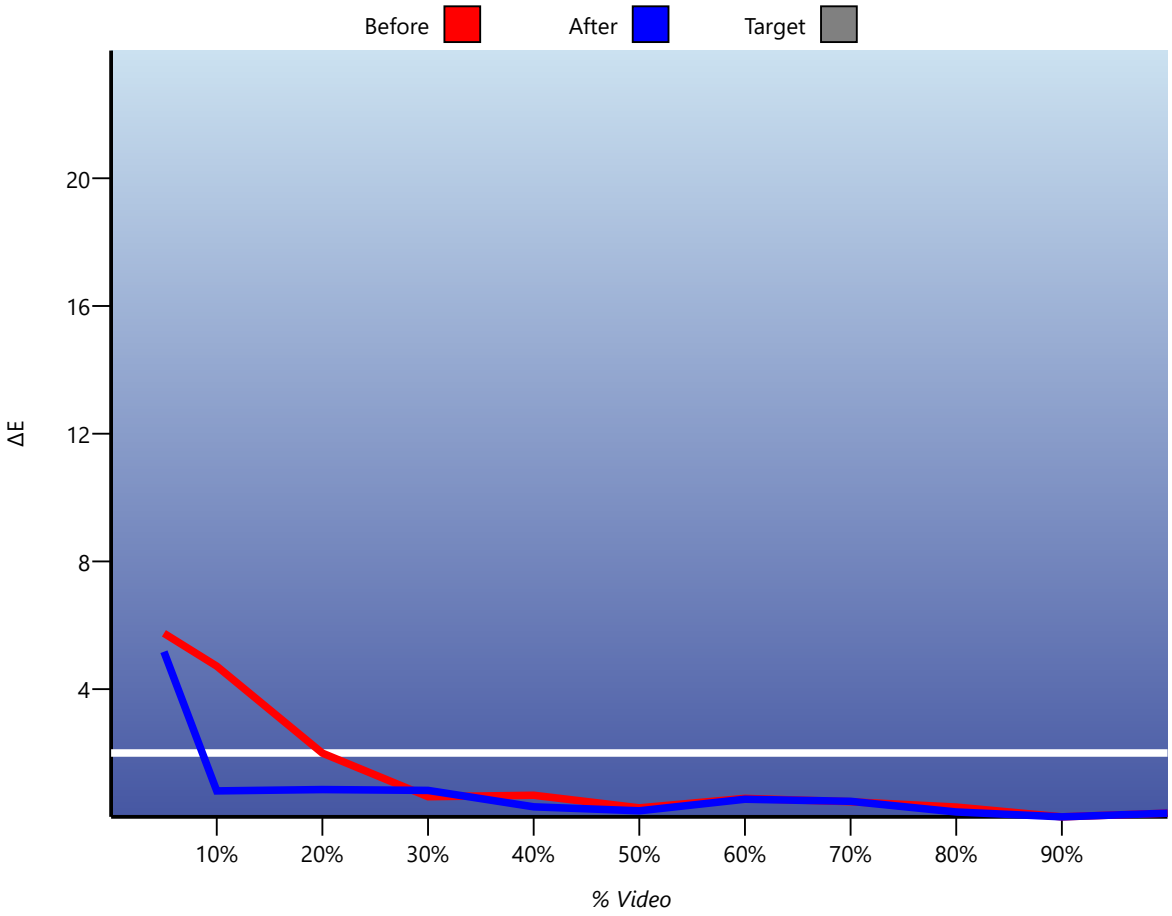
Grayscale ΔE Chart

This chart displays the color of white across the entire grayscale in raw xy data and Delta-E. White is defined as x0.3127, y0.3290. Delta E (dE or ΔE) measures deviation from a color standard. The smaller the number, the less the deviation from the standard and the more accurate the color. Ideally, ΔE for white should not rise above 2.

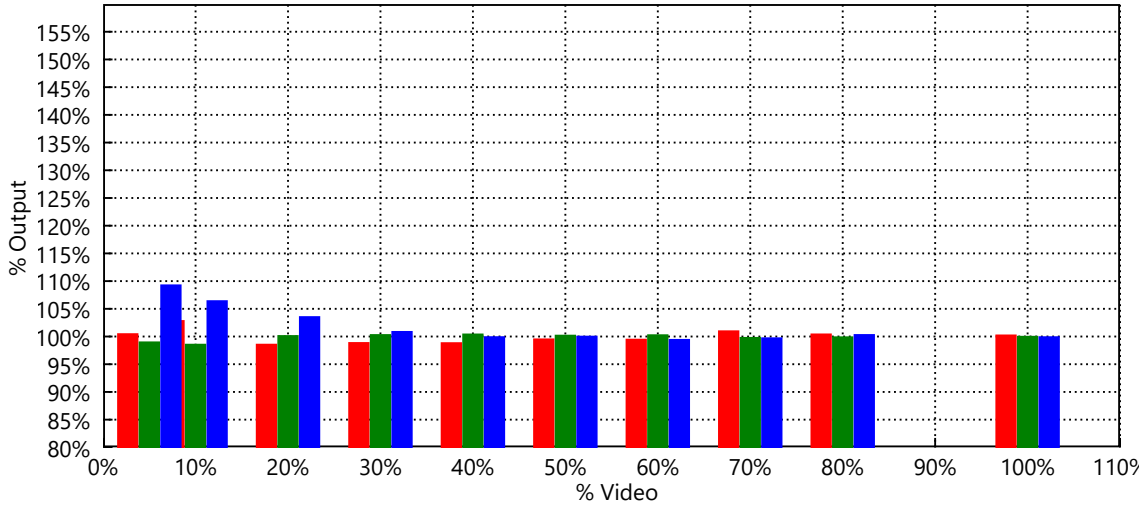


	Before			After		
	x, y	ΔE	CCT	x, y	ΔE	CCT
5%	0.307, 0.318	5.7	6,916	0.307, 0.333	5.2	6,780
10%	0.311, 0.321	4.7	6,687	0.313, 0.330	0.8	6,459
20%	0.309, 0.325	2.0	6,714	0.311, 0.329	0.9	6,571
30%	0.311, 0.328	0.6	6,582	0.312, 0.327	0.8	6,567
40%	0.312, 0.330	0.7	6,542	0.312, 0.329	0.3	6,537
50%	0.312, 0.329	0.3	6,521	0.312, 0.329	0.2	6,520
60%	0.313, 0.330	0.6	6,498	0.313, 0.330	0.6	6,495
70%	0.314, 0.329	0.5	6,456	0.313, 0.329	0.5	6,475
80%	0.313, 0.329	0.3	6,502	0.313, 0.329	0.2	6,499
90%						
100%	0.313, 0.329	0.1	6,491	0.313, 0.329	0.1	6,491
Mean:		**1.6**	**6,591**		**0.9**	**6,539**

RGB Bar Chart

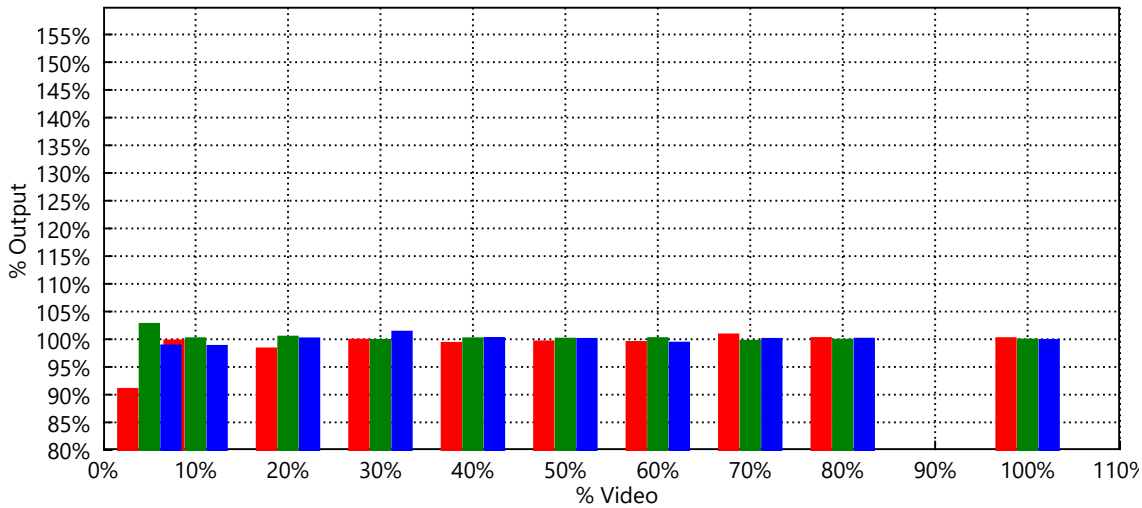
This chart also displays gray scale performance, but breaks out the contributions of red, green, and blue. Ideally, all three colors should equal at 100% + - 4% across the entire range.

RGB Balance (before)



	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	Mean
R	100.4%	102.8%	98.5%	98.8%	98.8%	99.5%	99.4%	100.9%	100.4%	N/A	100.2%	100.0%
G	98.9%	98.5%	100.1%	100.3%	100.4%	100.2%	100.2%	99.8%	99.9%	N/A	100.0%	101.9%
B	109.2%	106.4%	103.5%	100.8%	99.9%	100.0%	99.4%	99.7%	100.3%	N/A	99.9%	101.9%

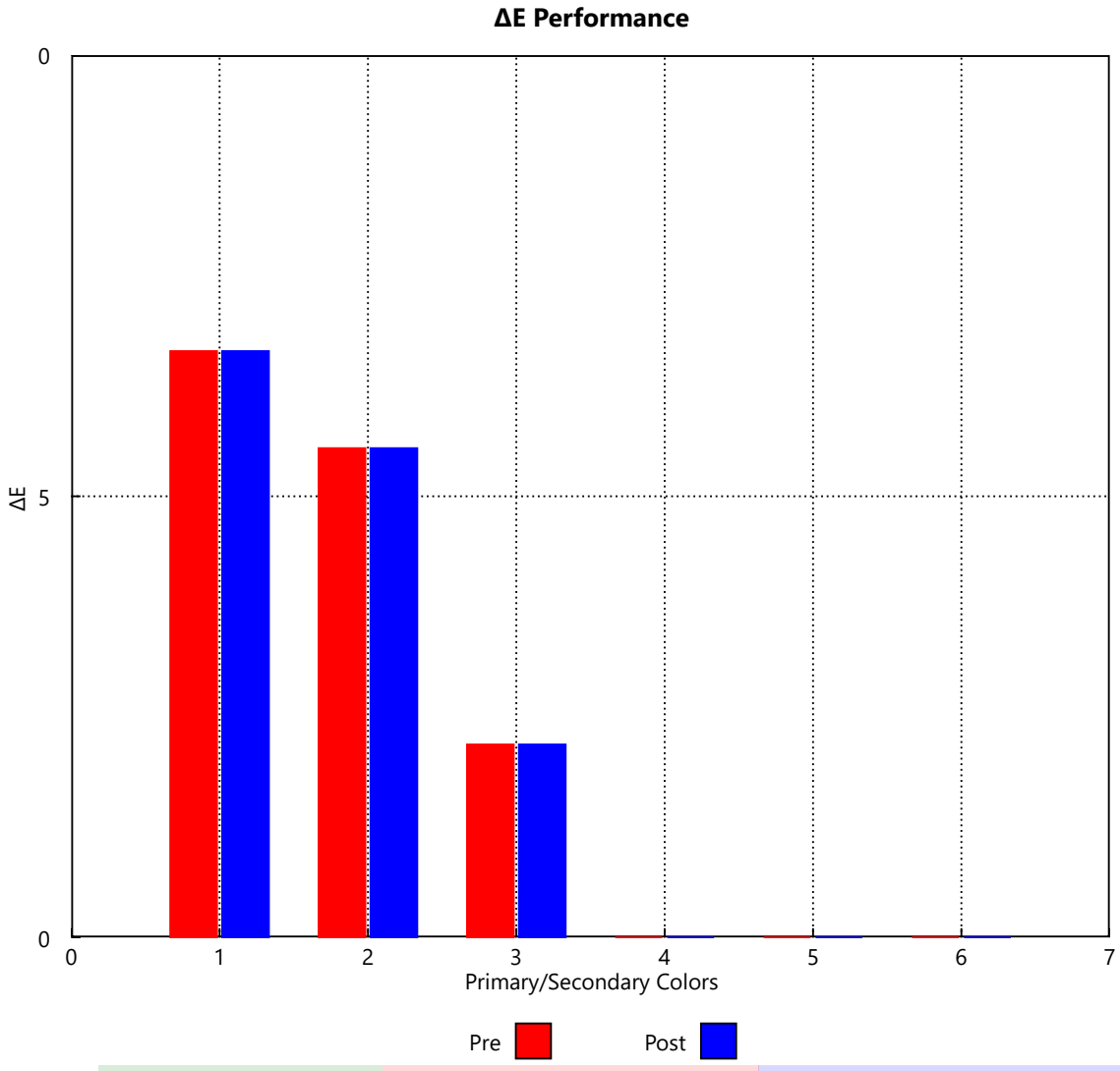
RGB Balance (after)



	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	Mean
R	91.0%	99.8%	98.3%	99.9%	99.4%	99.6%	99.5%	100.9%	100.2%	N/A	100.2%	98.9%
G	102.8%	100.2%	100.5%	99.9%	100.2%	100.1%	100.2%	99.7%	99.9%	N/A	100.0%	99.9%
B	98.9%	98.8%	100.2%	101.4%	100.2%	100.1%	99.4%	100.1%	100.1%	N/A	99.9%	99.9%

Primary/Secondary Colors dE Performance

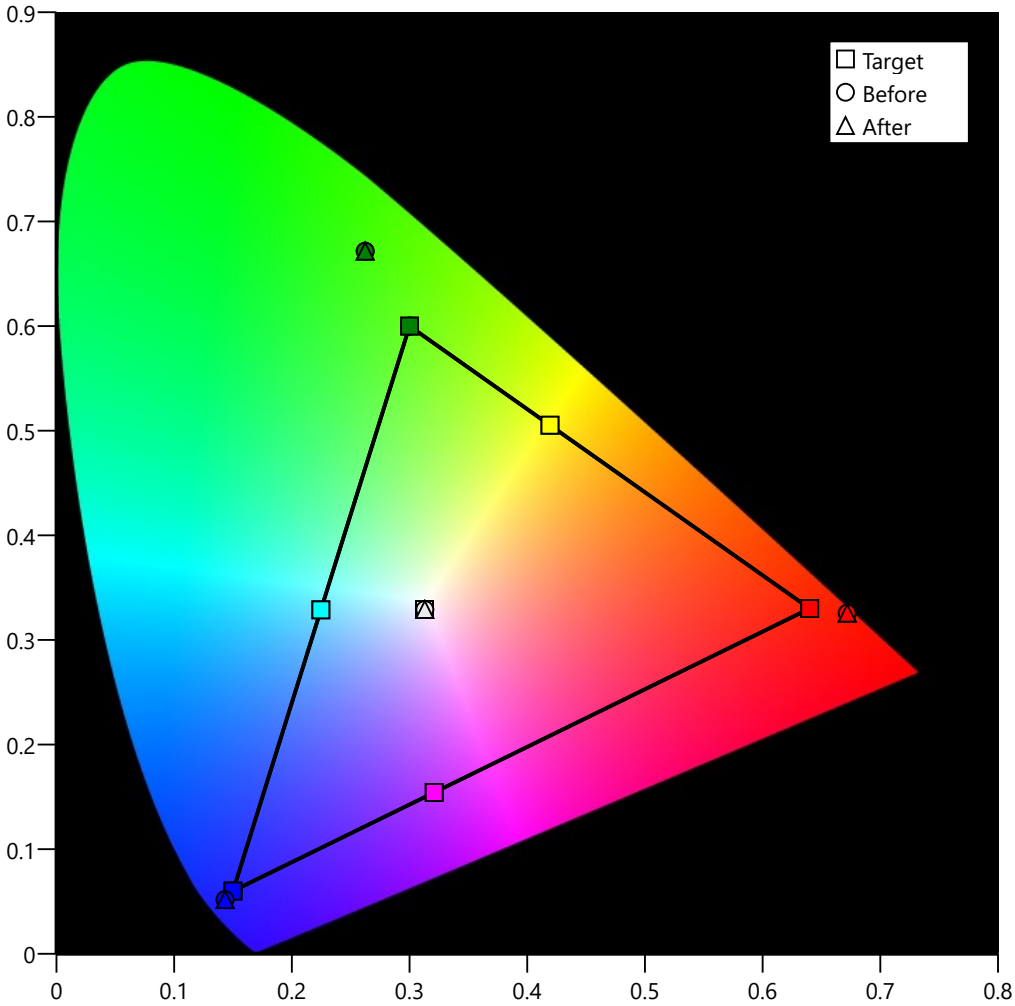
The data below below shows the display's ability to accurately reproduce color as defined by the selected color difference model in ΔE units. CIE94 or CIEDE2000 should be 1.5 or less.



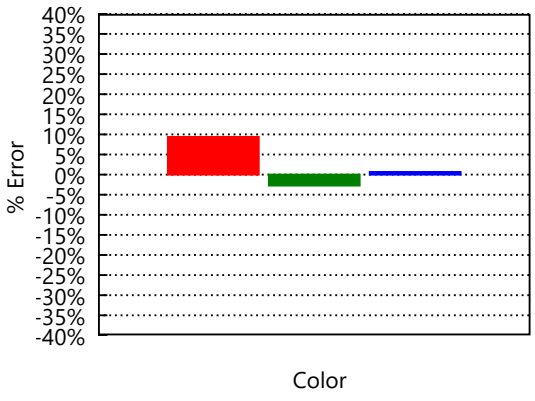
	Reference	Before		After	
	xyY	xyY	ΔE	xyY	ΔE
Red	0.6400, 0.3300, 0.2127	0.6719, 0.3256, 0.2326	6.6	0.6719, 0.3256, 0.2326	6.6
Green	0.3000, 0.6000, 0.7152	0.2623, 0.6716, 0.6956	5.5	0.2623, 0.6716, 0.6956	5.5
Blue	0.1500, 0.0600, 0.0722	0.1432, 0.0518, 0.0727	2.2	0.1432, 0.0518, 0.0727	2.2
Yellow	0.4193, 0.5052, 0.9278	0.000, 0.000, 0.000	0.0	0.000, 0.000, 0.000	0.0
Cyan	0.2247, 0.3288, 0.7873	0.000, 0.000, 0.000	0.0	0.000, 0.000, 0.000	0.0
Magenta	0.3209, 0.1542, 0.2848	0.000, 0.000, 0.000	0.0	0.000, 0.000, 0.000	0.0
White	0.3127, 0.3290, 1.0000	0.3129, 0.3291, 134.1570	0.1	0.3129, 0.3291, 134.1570	0.1
		Mean:	**3.6**	**Mean:**	**3.6**

CIE Charts

These charts graphically map the accuracy of the display's color saturation and hue relative to the chosen standard The closer the 'After' symbols are to the reference points, the more accurate the color. There are 2 chromaticity charts, one showing before/after performance based on the 1931 xy system and another based on the 1976 u'v' system, which is less well known, but more perceptually uniform.



Luminance Error (before)



Luminance Error (after)