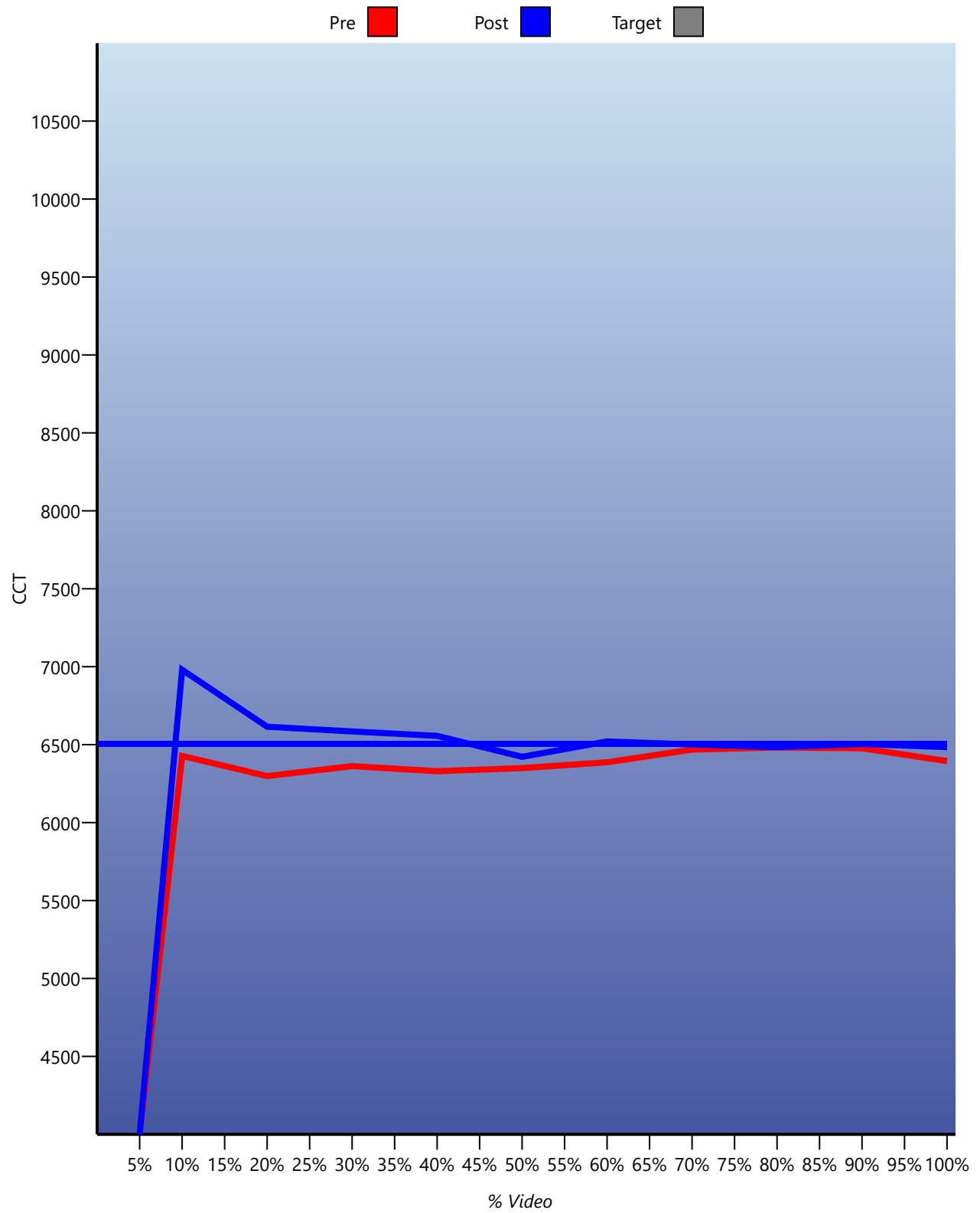


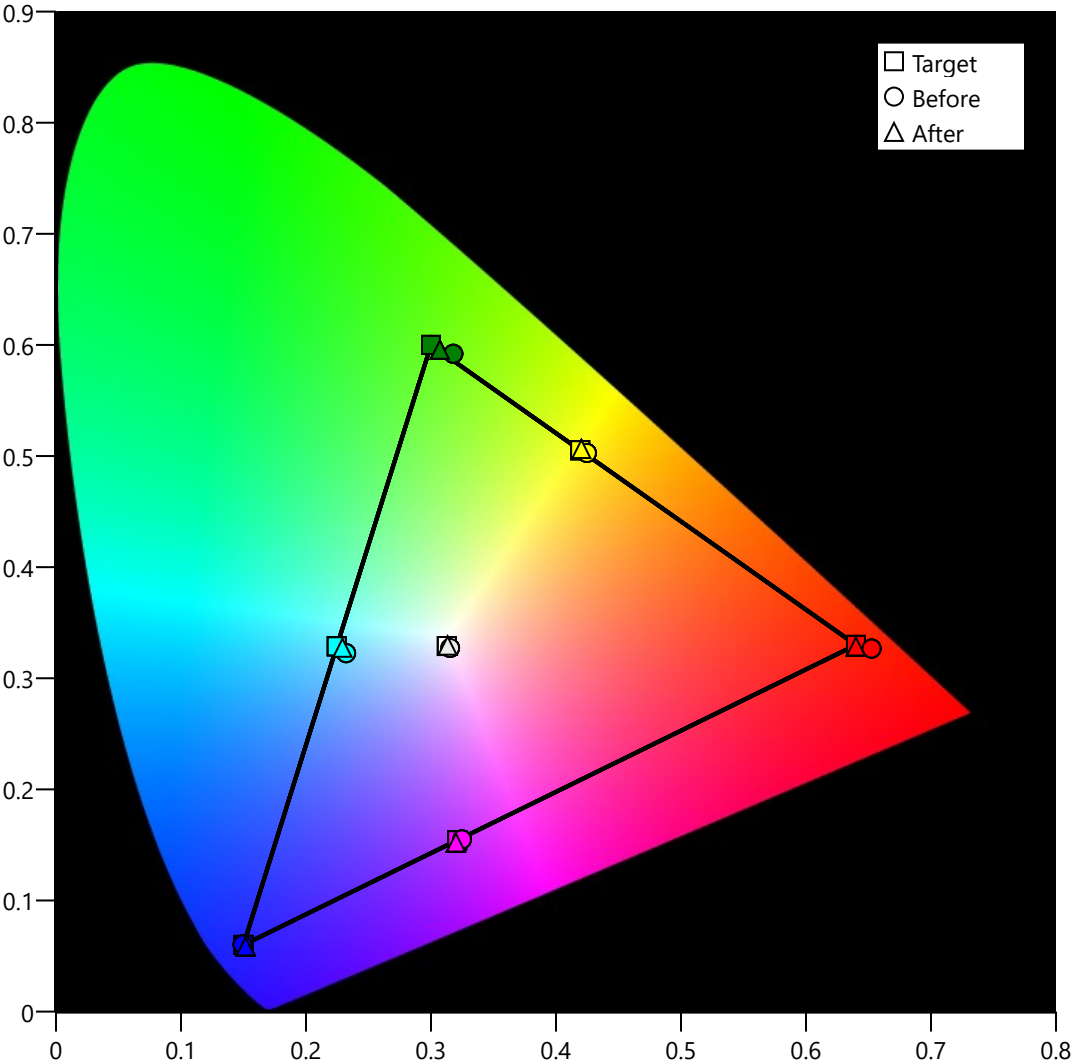
Correlated Color Temperature

Correlated Color Temperature (CCT) is a less precise measurement of the color of white. The target is 6505. Higher than 6505 is too blue. Lower is too red.

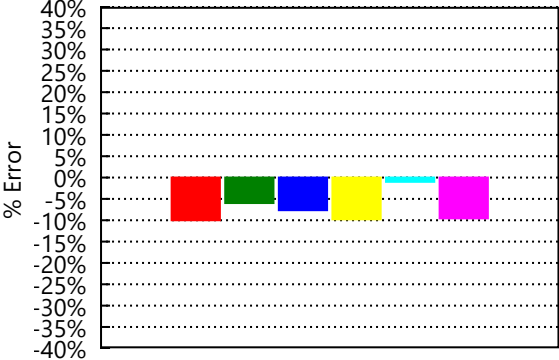


CIE Charts

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.

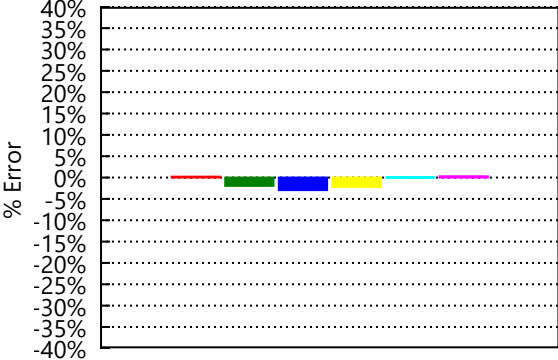


Luminance Error (before)



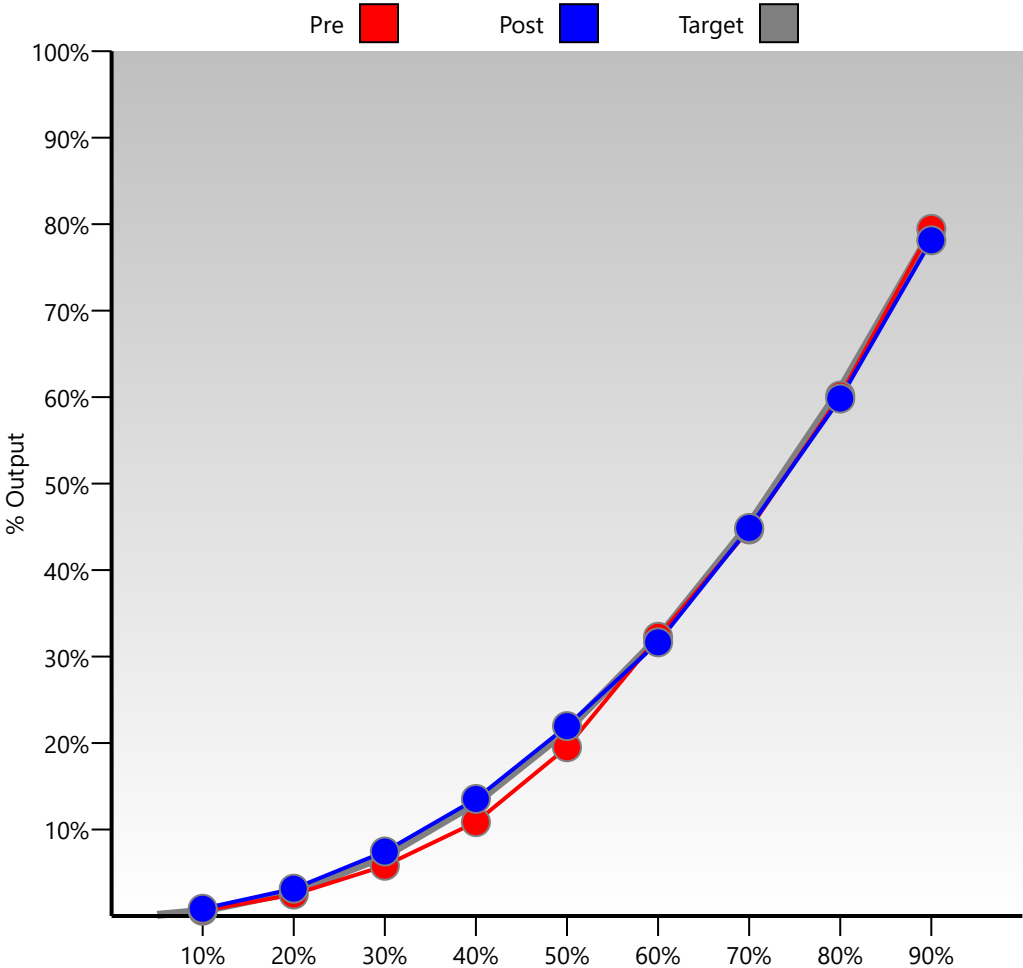
Color

Luminance Error (after)



Color

Gamma Output



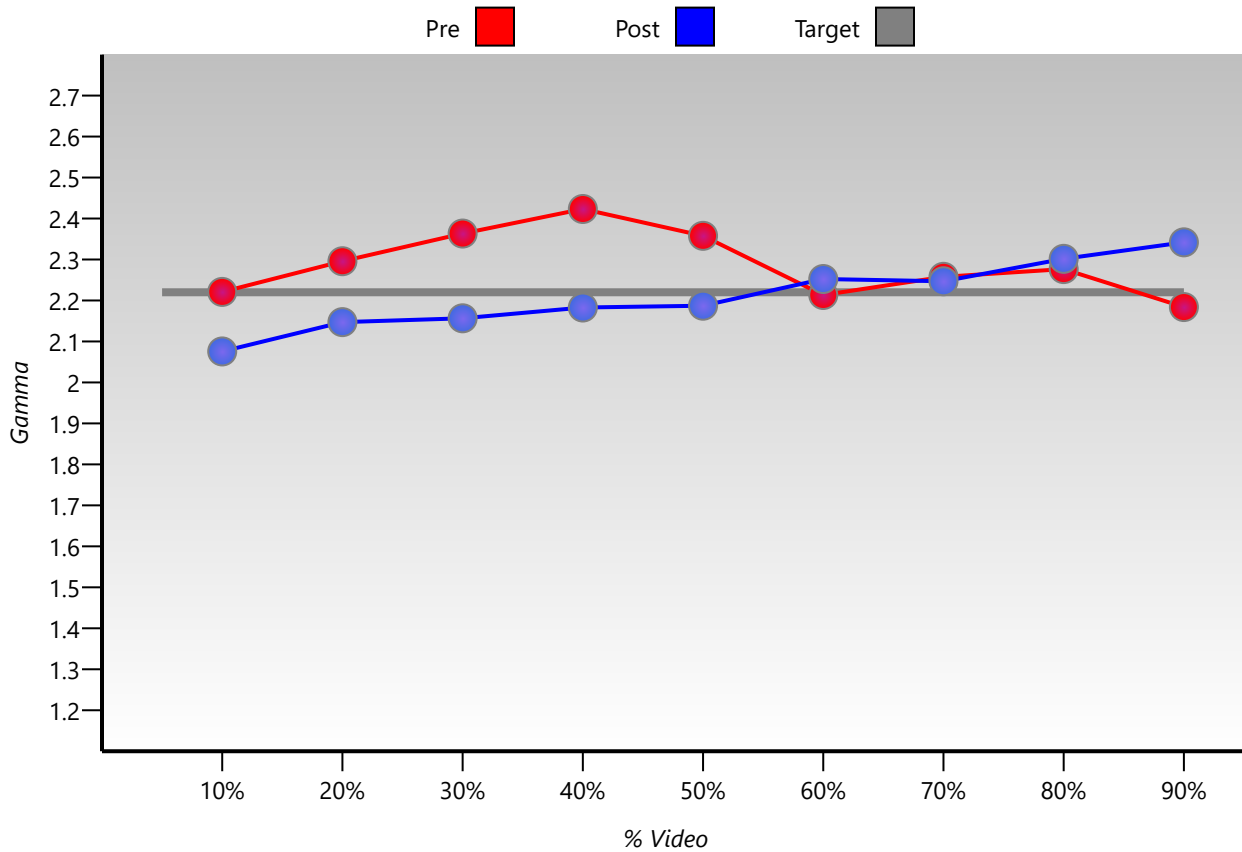
	Before			After		
	Output	Gamma	Video	Output	Gamma	Video
0%			0			0
5%	0.00 (0.0%)	0.00		0.00 (0.0%)	0.00	
10%	0.32 (0.6%)	2.22		0.27 (0.8%)	2.08	
20%	1.33 (2.5%)	2.30		1.01 (3.2%)	2.15	
30%	3.11 (5.8%)	2.36		2.38 (7.5%)	2.16	
40%	5.81 (10.9%)	2.42		4.32 (13.5%)	2.18	
50%	10.44 (19.5%)	2.36		7.01 (22.0%)	2.19	
60%	17.28 (32.3%)	2.21		10.10 (31.6%)	2.25	
70%	23.92 (44.7%)	2.26		14.33 (44.9%)	2.25	
80%	32.20 (60.2%)	2.28		19.11 (59.8%)	2.30	
90%	42.52 (79.4%)	2.18		24.95 (78.1%)	2.34	
100%	53.52 (100.0%)	0	0	31.93 (100.0%)	0	0
	Mean: 2.29			2.21		
Contrast:		0.0			0.0	

Gamma

Gamma describes the rate at which video output increases with signal input. This is not a one-to-one relationship. If gamma is too high, the image will darken and shadow detail will suffer. If gamma is too low, contrast and depth suffer.

Luminance: cdm2

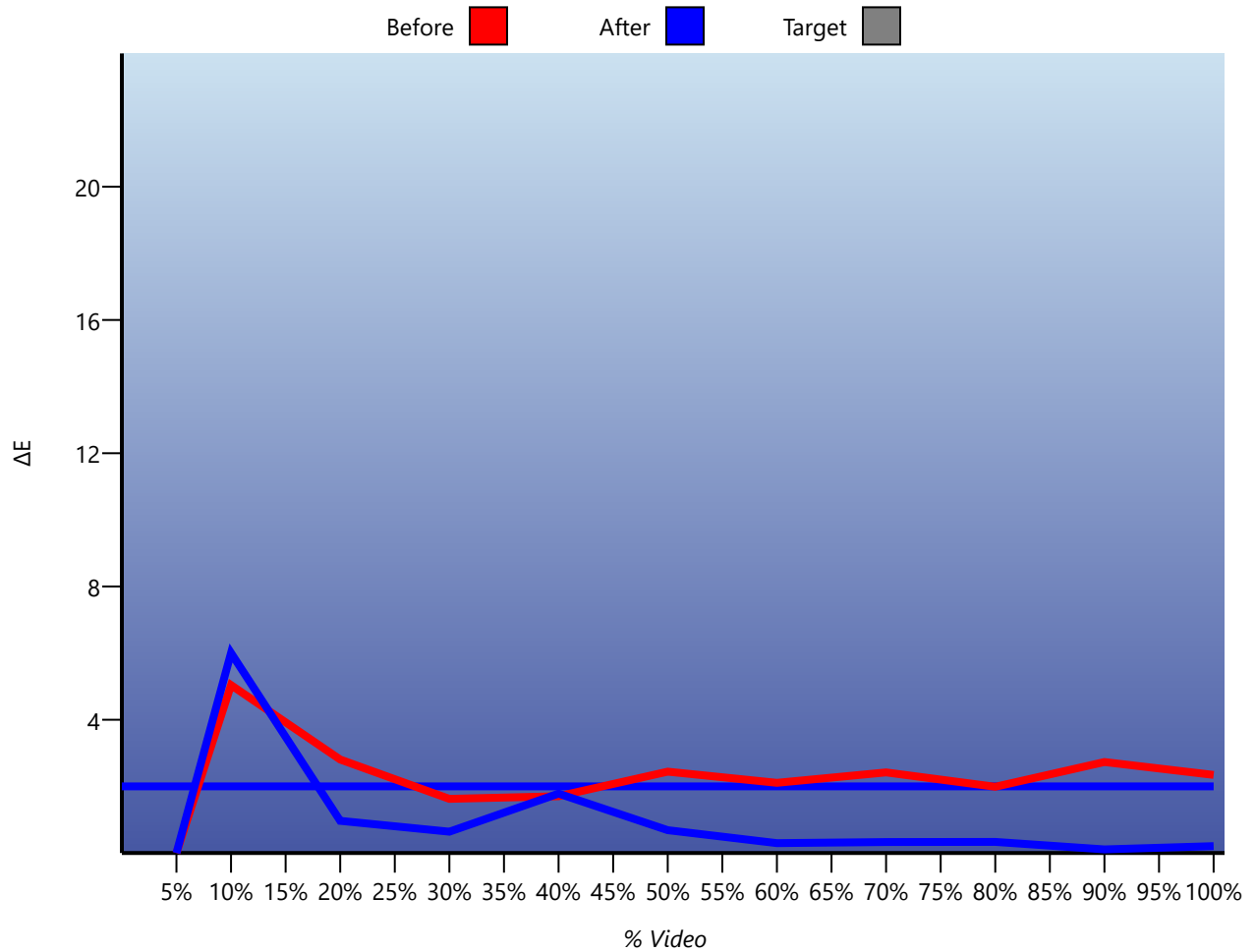
Target Gamma: 2.22



	Before			After		
	Output	Gamma	Video	Output	Gamma	Video
0%			0			0
10%	0.32 (0.6%)	2.22		0.27 (0.8%)	2.08	
20%	1.33 (2.5%)	2.30		1.01 (3.2%)	2.15	
30%	3.11 (5.8%)	2.36		2.38 (7.5%)	2.16	
40%	5.81 (10.9%)	2.42		4.32 (13.5%)	2.18	
50%	10.44 (19.5%)	2.36		7.01 (22.0%)	2.19	
60%	17.28 (32.3%)	2.21		10.10 (31.6%)	2.25	
70%	23.92 (44.7%)	2.26		14.33 (44.9%)	2.25	
80%	32.20 (60.2%)	2.28		19.11 (59.8%)	2.30	
90%	42.52 (79.4%)	2.18		24.95 (78.1%)	2.34	
100%	53.52 (100.0%)	0	0	31.93 (100.0%)	0	0
	Mean:	2.29		2.21		
	Contrast:		0.0			0.0

Grayscale ΔE Chart

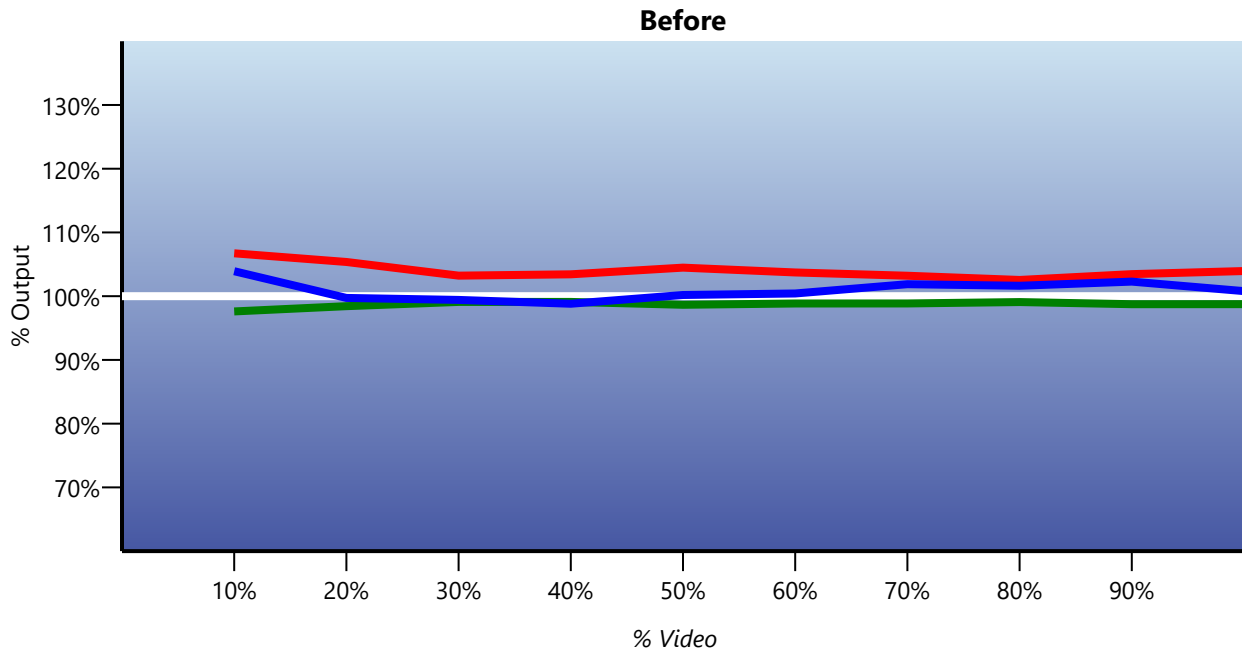
This chart displays the color of white across the entire grayscale in raw xy data and Delta-E. White is defined as x0.3127, y0.3290. Delta E (dE or ΔE) measures deviation from a color standard. The smaller the number, the less the deviation from the standard and the more accurate the color. Ideally,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



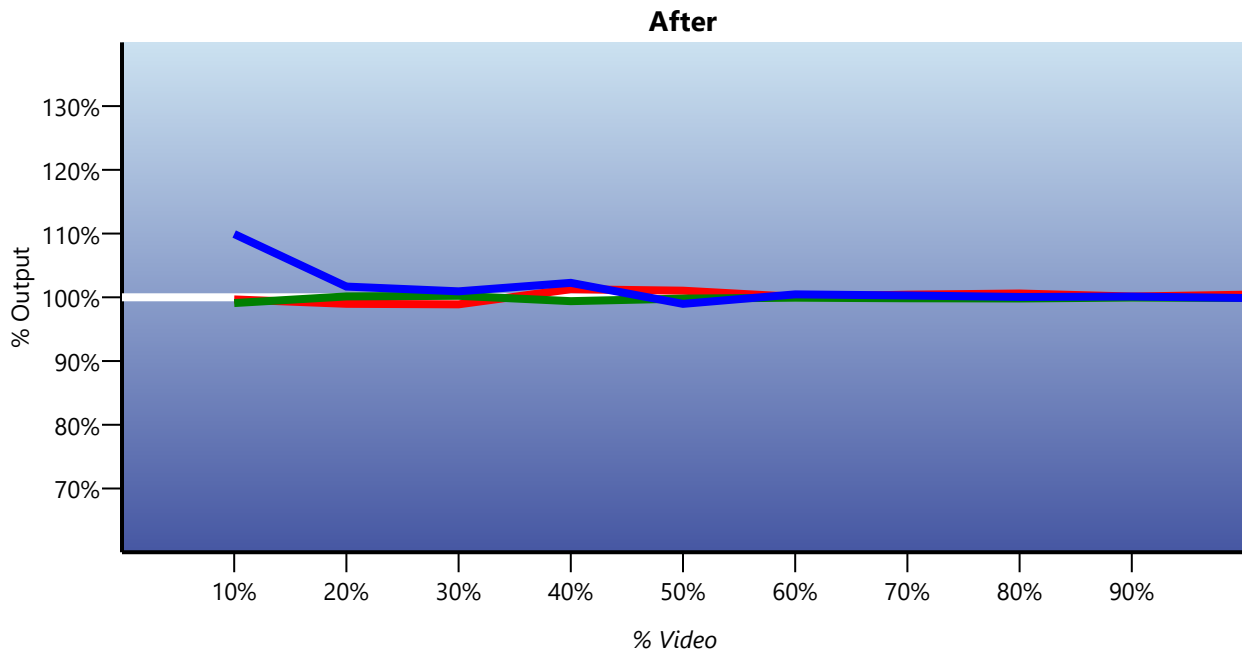
	Before			After		
	x, y	ΔE	CCT	x, y	ΔE	CCT
5%						
10%	0.315, 0.322	5.0	6,428	0.306, 0.318	6.0	6,980
20%	0.317, 0.328	2.8	6,298	0.311, 0.327	1.0	6,615
30%	0.315, 0.329	1.6	6,362	0.311, 0.328	0.6	6,585
40%	0.316, 0.329	1.7	6,330	0.312, 0.326	1.8	6,556
50%	0.316, 0.327	2.4	6,349	0.314, 0.330	0.7	6,422
60%	0.315, 0.327	2.1	6,387	0.312, 0.328	0.3	6,520
70%	0.314, 0.326	2.4	6,468	0.313, 0.329	0.3	6,501
80%	0.313, 0.326	2.0	6,482	0.313, 0.329	0.3	6,484
90%	0.314, 0.325	2.7	6,477	0.313, 0.329	0.1	6,504
100%	0.315, 0.327	2.3	6,395	0.313, 0.329	0.2	6,484
Mean:		2.5	6,398		1.1	6,565

RGB Line Chart

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



	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	Mean
R	N/A	106.7%	105.4%	103.2%	103.4%	104.5%	103.7%	103.2%	102.5%	103.5%	103.9%	104.0%
G	N/A	97.6%	98.4%	99.1%	99.1%	98.6%	98.9%	98.9%	99.1%	98.7%	98.7%	100.9%
B	N/A	103.9%	99.7%	99.4%	98.8%	100.2%	100.4%	101.9%	101.6%	102.3%	100.8%	100.9%

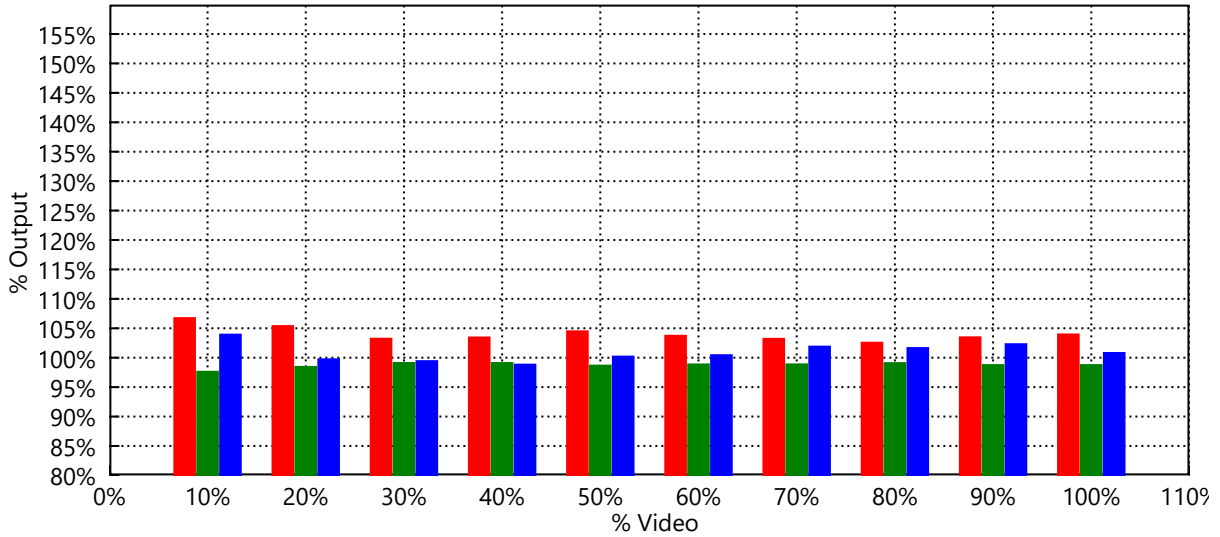


	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	Mean
R	N/A	99.7%	99.0%	98.9%	101.3%	101.0%	100.1%	100.4%	100.6%	100.1%	100.4%	100.1%
G	N/A	99.1%	100.1%	100.2%	99.4%	99.8%	99.9%	99.8%	99.8%	100.0%	99.9%	101.5%
B	N/A	109.9%	101.7%	100.9%	102.3%	99.0%	100.5%	100.3%	100.0%	100.1%	99.9%	101.5%

RGB Bar Chart

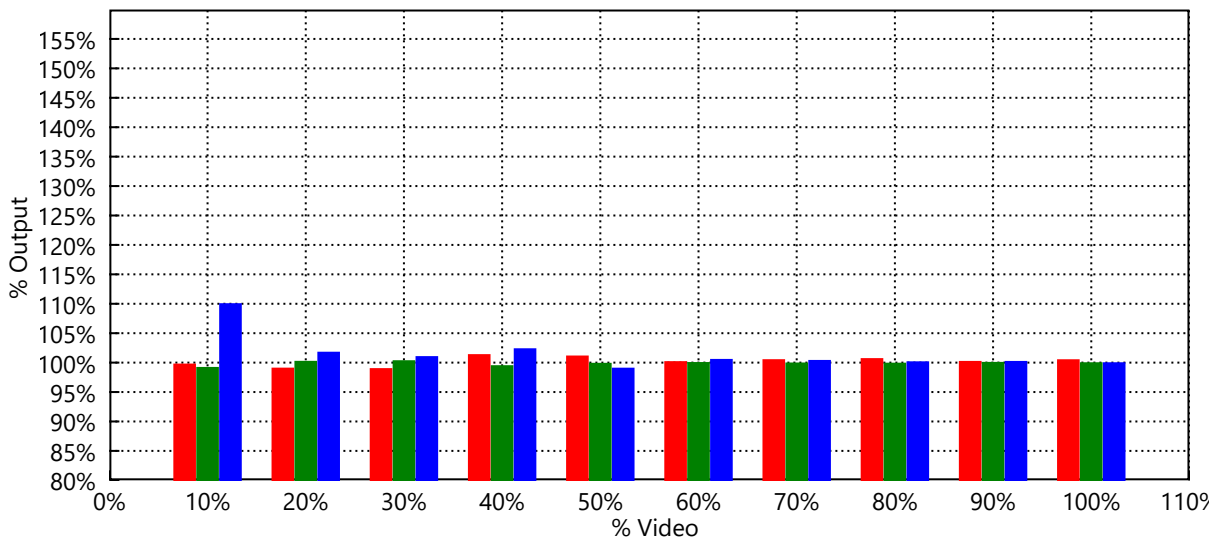
This chart also displays gray scale performance, but breaks out the contributions of red, green, and blue. Ideally, all three colors should equal at 100% + - 4% across the entire range.

RGB Balance (before)



	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	Mean
R	N/A	106.7%	105.4%	103.2%	103.4%	104.5%	103.7%	103.2%	102.5%	103.5%	103.9%	104.0%
G	N/A	97.6%	98.4%	99.1%	99.1%	98.6%	98.9%	98.9%	99.1%	98.7%	98.7%	100.9%
B	N/A	103.9%	99.7%	99.4%	98.8%	100.2%	100.4%	101.9%	101.6%	102.3%	100.8%	100.9%

RGB Balance (after)

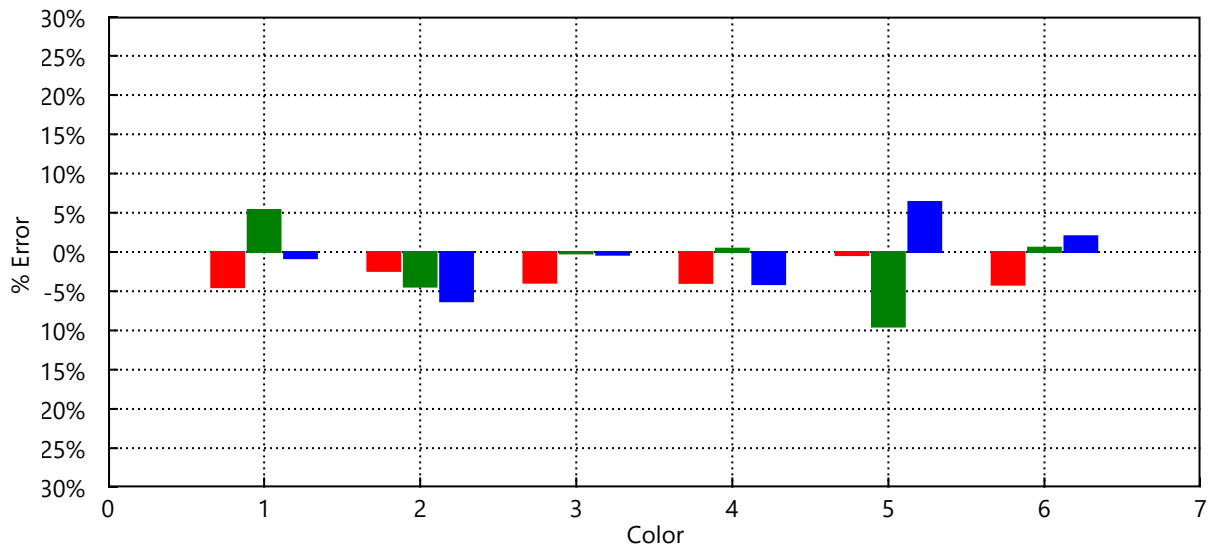


	5%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	Mean
R	N/A	99.7%	99.0%	98.9%	101.3%	101.0%	100.1%	100.4%	100.6%	100.1%	100.4%	100.1%
G	N/A	99.1%	100.1%	100.2%	99.4%	99.8%	99.9%	99.8%	99.8%	100.0%	99.9%	101.5%
B	N/A	109.9%	101.7%	100.9%	102.3%	99.0%	100.5%	100.3%	100.0%	100.1%	99.9%	101.5%

Primary/Secondary Colors Hue, Saturation, and Lightness Error

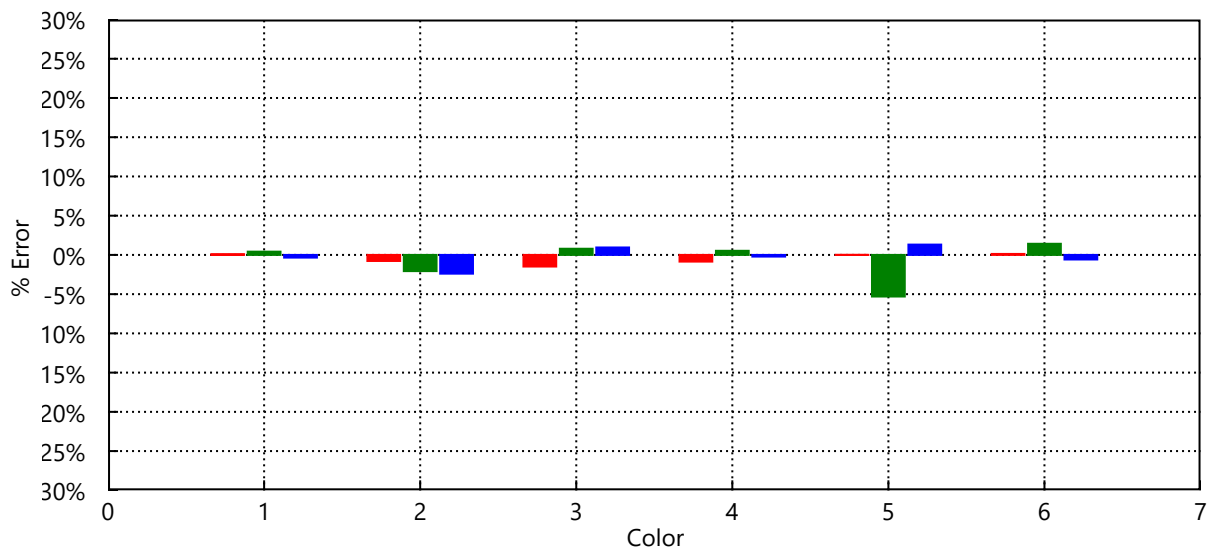
These charts display the before/after color errors of the primary/secondary colors in terms of the three visible components of color: Hue, Saturation, and Lightness (HSL). Ideally, all primary and secondary colors should have no more than 2% error in any component.

Chromaticity Error (Before)



	Red	Green	Blue	Yellow	Cyan	Magenta
Lightness	-4.5%	-2.4%	-3.9%	-3.9%	-0.4%	-4.2%
Saturation	5.4%	-4.4%	-0.2%	0.4%	-9.5%	0.5%
Hue	-0.8%	-6.3%	-0.3%	-4.1%	6.4%	2.0%

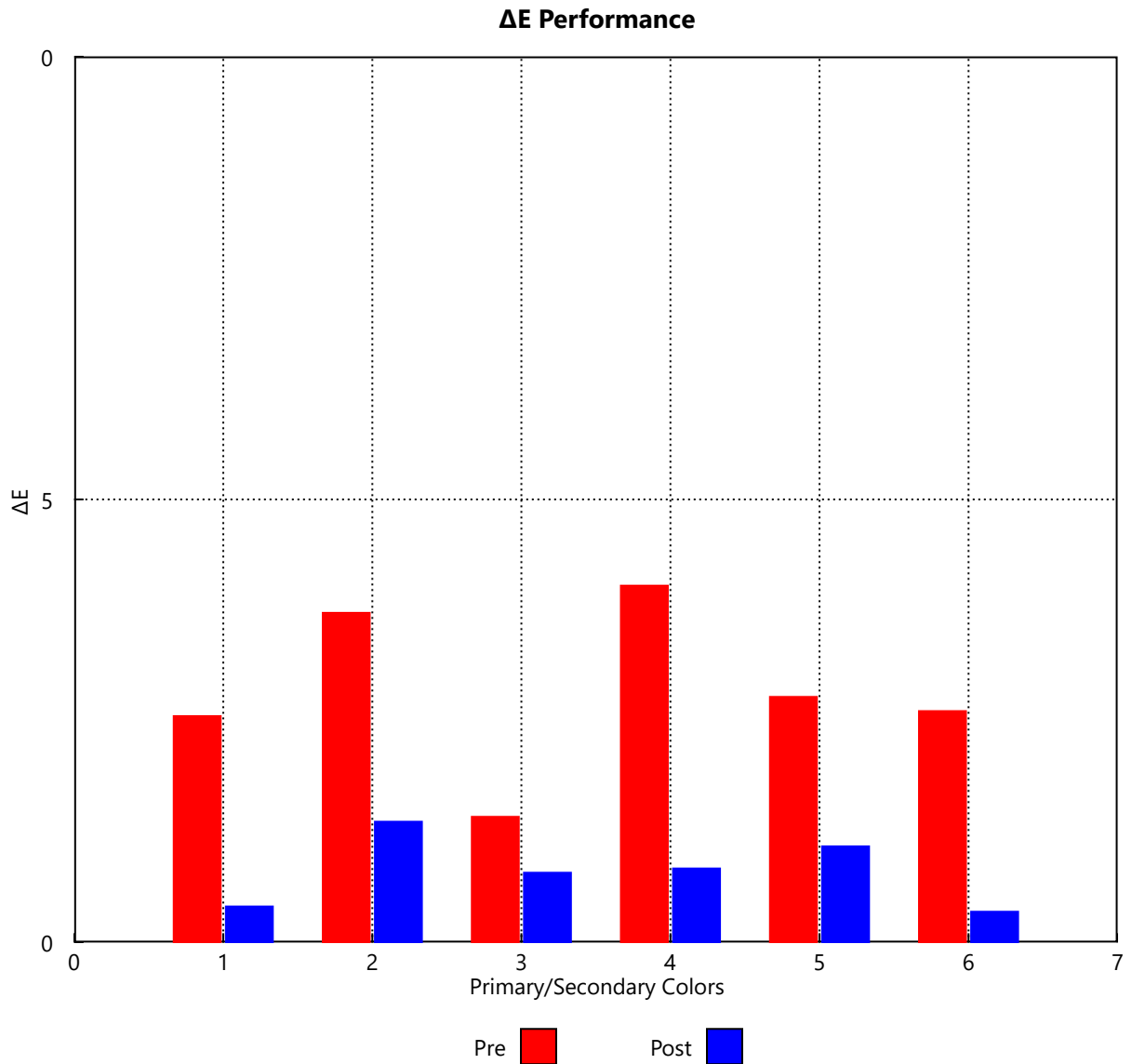
Chromaticity Error (After)



	Red	Green	Blue	Yellow	Cyan	Magenta
Lightness	0.1%	-0.8%	-1.5%	-0.9%	0.0%	0.1%
Saturation	0.4%	-2.1%	0.8%	0.5%	-5.3%	1.4%
Hue	-0.3%	-2.4%	0.9%	-0.2%	1.3%	-0.6%

Primary/Secondary Colors ΔE Performance

The data 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 xyY	Before xyY	ΔE	After xyY	ΔE
Red	0.6400, 0.3300, 0.2127	0.6524, 0.3267, 0.1914	2.6	0.6399, 0.3286, 0.2131	0.4
Green	0.3000, 0.6000, 0.7152	0.3178, 0.5920, 0.6725	3.7	0.3071, 0.5957, 0.7012	1.4
Blue	0.1500, 0.0600, 0.0722	0.1493, 0.0603, 0.0667	1.4	0.1516, 0.0587, 0.0701	0.8
Yellow	0.4193, 0.5052, 0.9278	0.4247, 0.5028, 0.8371	4.0	0.4203, 0.5063, 0.9076	0.8
Cyan	0.2247, 0.3288, 0.7873	0.2321, 0.3226, 0.7795	2.8	0.2292, 0.3274, 0.7875	1.1
Magenta	0.3209, 0.1542, 0.2848	0.3247, 0.1550, 0.2577	2.6	0.3199, 0.1521, 0.2857	0.3
White	0.3127, 0.3290, 1.0000	0.3153, 0.3273, 52.8531	2.2	0.3133, 0.3293, 31.4230	0.3
		Mean: 2.8		Mean: 0.7	

Color Saturations

This shows the ability of the display to reproduce color accurately throughout the entire gamut, rather than just at the gamut boundary.

