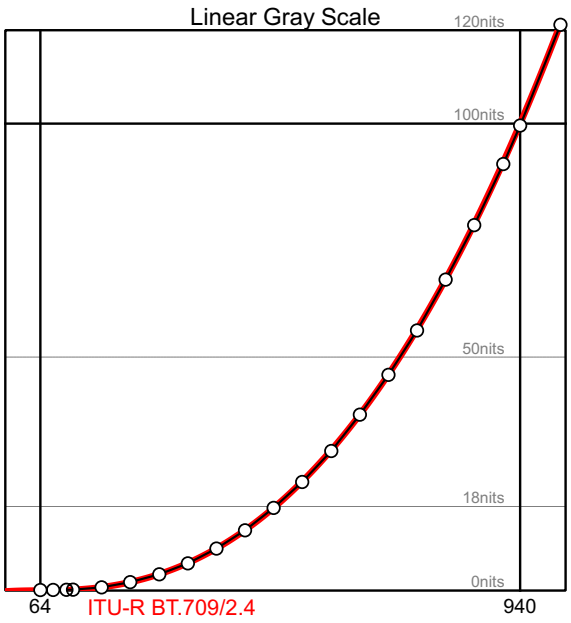
TVLogic LUM-313G Calibration Report

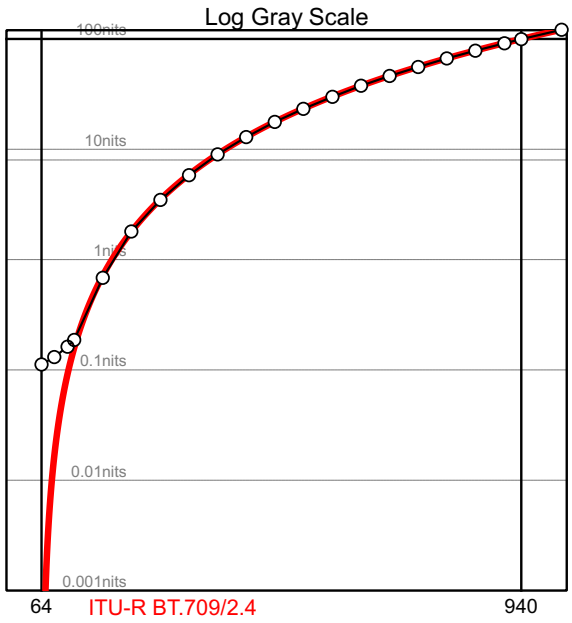
Model	Serial No.	Date	Probe	Probe Serial	Probe Channel
LUM-313G	12345678912	2020/04/16 08:31	K-10A	U005310	Factory Cal File(0)

XYZ coefficient	Probe Calibration file	Measurement Limit(nit)
X=1.0000, Y=1.0000, Z=1.0000		No information

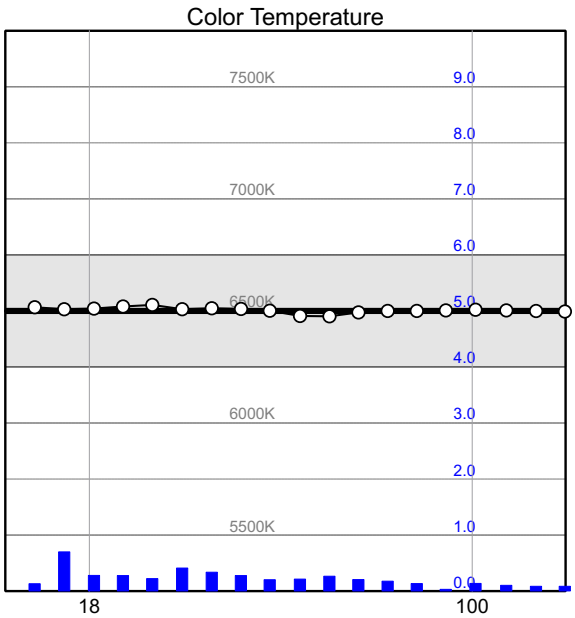
Grayscale Tone Reproduction (SDR)



Linear graph helps to evaluate the accuracy of color reproduction in the highlight. Red solid line is target tone curve and white dots are the actual measurement result of the monitor.



Log graph helps to evaluate the accuracy of color reproduction in the shadow (dark colors). Black level and in-frame dynamic range are decided by the specification of the display panel technology and backlight.



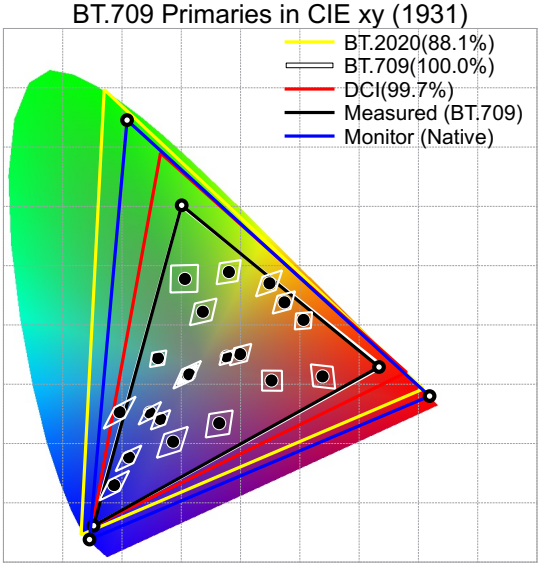
Gray Scale Result Table

	Measured	Color Temp.	deltaE
Black	0.1120nits		
18 nits	18.0nits	6510K	0.3
30 nits	29.8nits	6533K	0.2
40 nits	40.1nits	6509K	0.4
50 nits	50.0nits	6509K	0.3
60 nits	59.9nits	6488K	0.2
70 nits	70.0nits	6478K	0.3
80 nits	79.8nits	6500K	0.2
90 nits	89.6nits	6500K	0.1
100 nits	99.6nits	6506K	0.1
Maximum	121.2nits	6497K	0.1

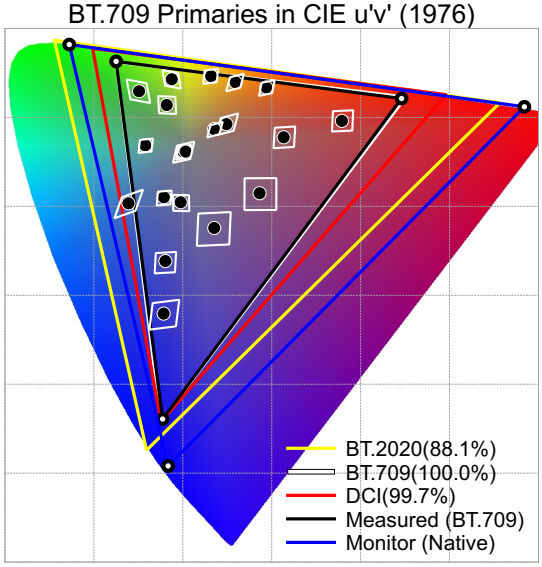
Target color temperature is D65 (Daylight 6500K) and the calibration tolerance is between 6250K and 6750K. Blue bars show the color difference (deltaE 2000) of actual measurement values from the target. Green bars and green numbers are also the color difference but the target is outside of the gamut. DeltaE values of Grade 1 monitors should be less than 1.0.

Color Reproduction Evaluation (SDR)

BT.709 Primaries in CIE xy (1931)



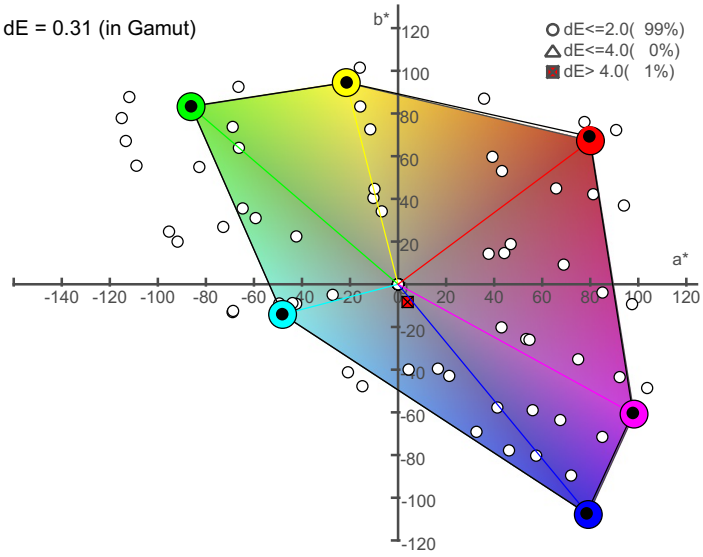
BT.709 Primaries in CIE u'v' (1976)



Black dots are measured values of 24 colors from Gretag-Macbeth color chart after calibration. Tetragonals show the areas within deltaE 4.0. Percentage number in legends are gamut covering ratios calculated by actual measurements.

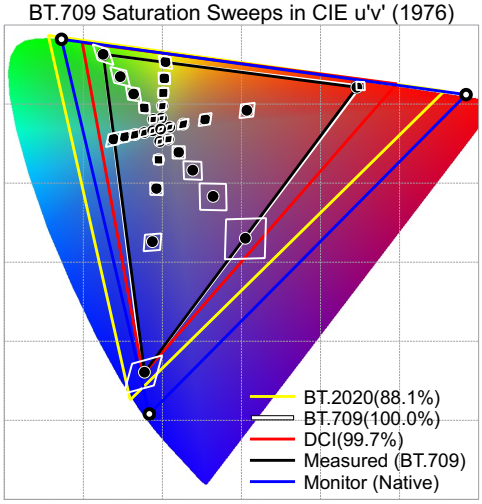
BT.709 Evaluation in CIE LAB (1976)

Big Circle (BT.709), Small black Circle (Measured)



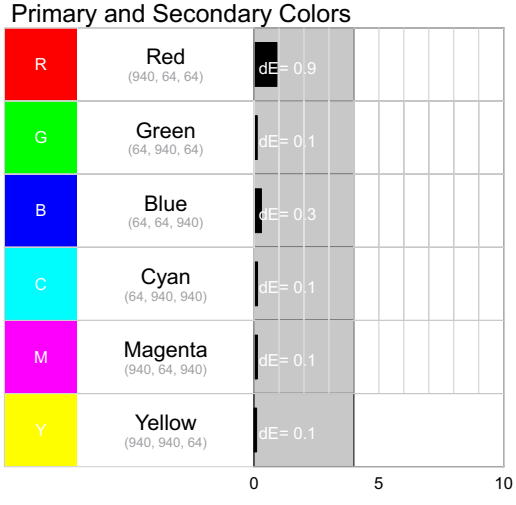
Colored area with big circles of RGB & CMY is the target (BT.709). Small black circles with hexagonal lines are measured. Small white dots are measured colors with less than deltaE 2.0 errors.

BT.709 Saturation Sweeps in CIE u'v' (1976)

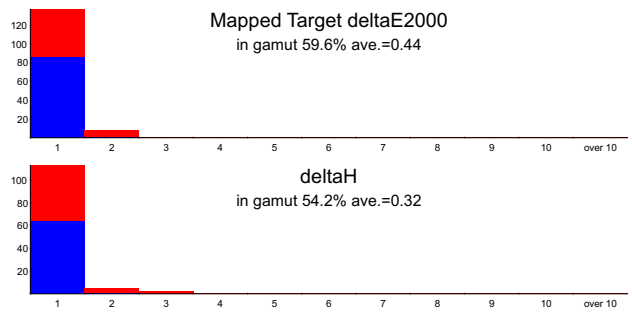


This graph helps to evaluate if the primary and sub-primary colors are accurately reproduced.

Primary and Secondary Colors



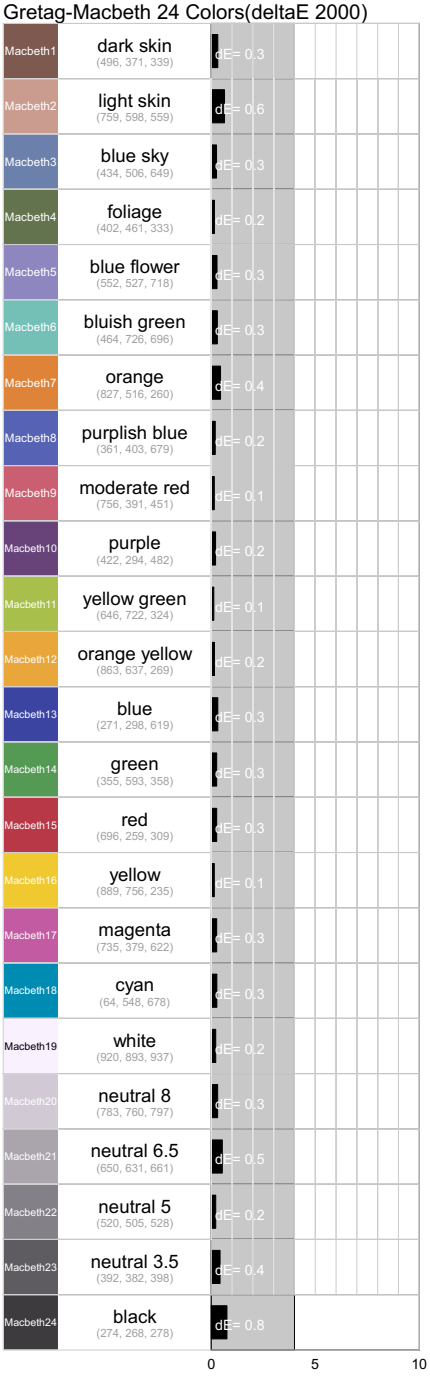
Calibration Error Histgram for 146 colors



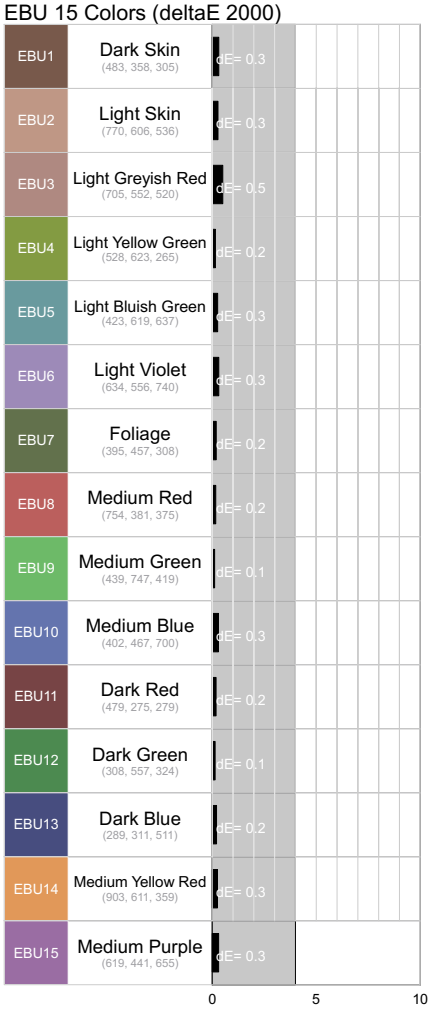
Upper is deltaE2000, lower is dH(hue angle error) distribution. Blue bar is in gamut colors, red bar is for color outside of the gamut, calculated the error with mapped target.

Color Checker Evaluation (SDR)

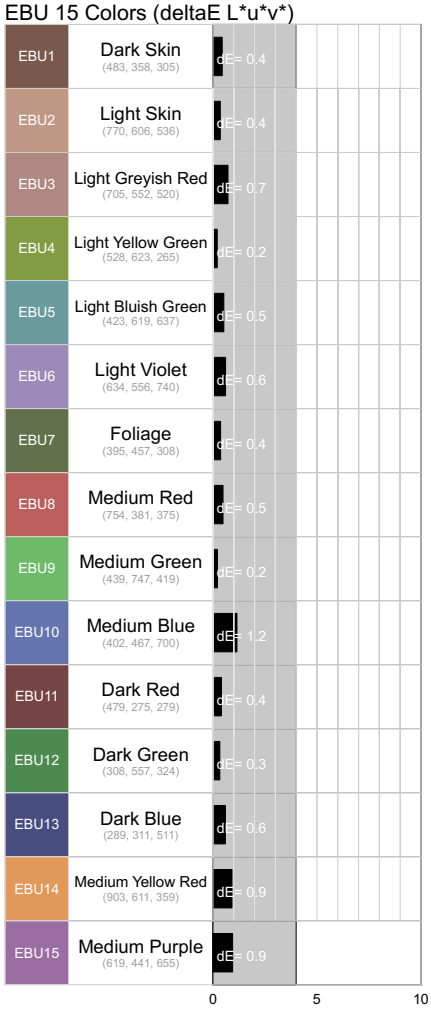
Gretag-Macbeth 24 Colors(deltaE 2000)



EBU 15 Colors (deltaE 2000)



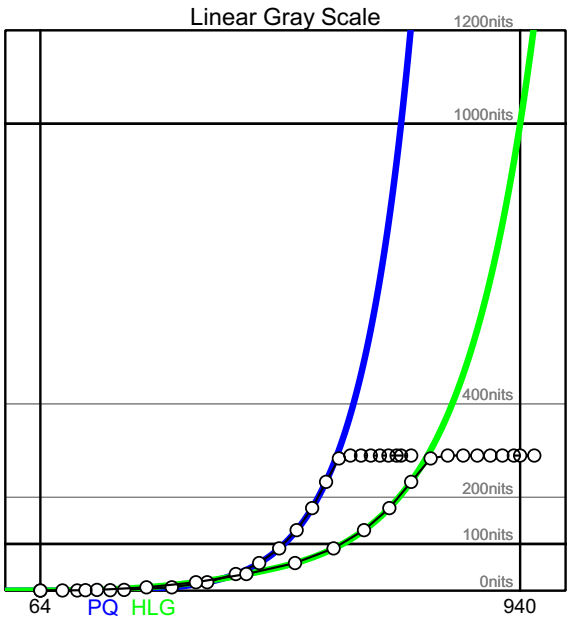
EBU 15 Colors (deltaE L*u*v*)



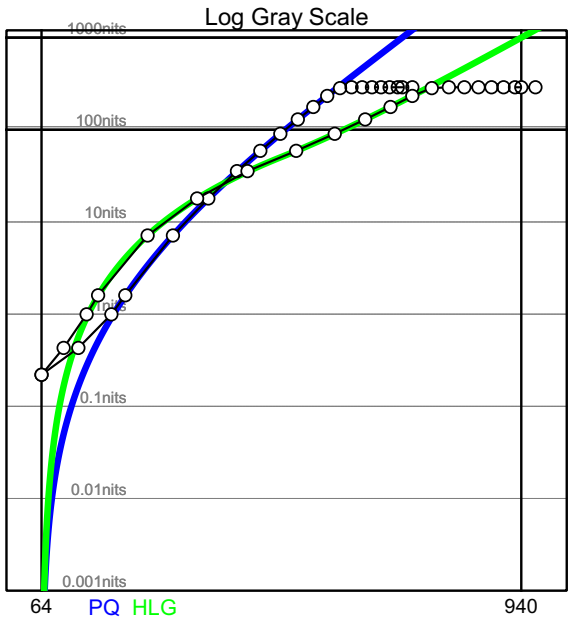
EBU 15 colors are from EBU-Tech. 3325 (Sep. 2008) Table 8.

TVLogic LUM-313G Calibration Report (HDR)

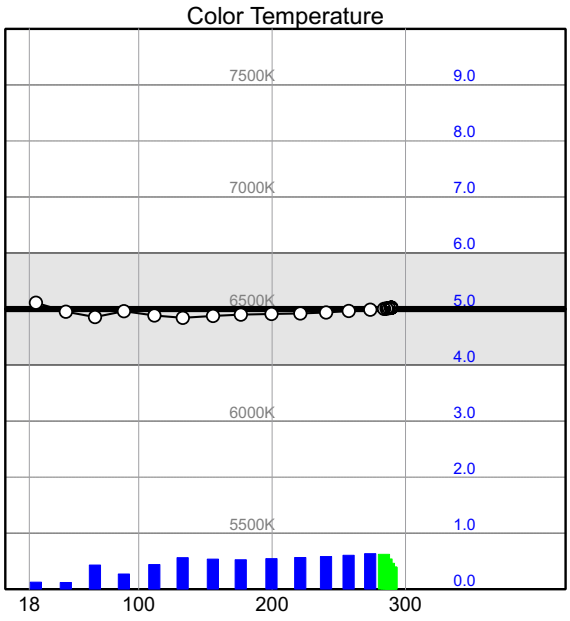
Grayscale Tone Reproduction (HDR)



Linear graph helps to evaluate the accuracy of color reproduction in the highlight. The solid line is target tone curve and white dots are the actual measurement result of the monitor.



Log graph helps to evaluate the accuracy of color reproduction in the shadow (dark colors). Black level and in-frame dynamic range are decided by the specification of the display panel technology and backlight.



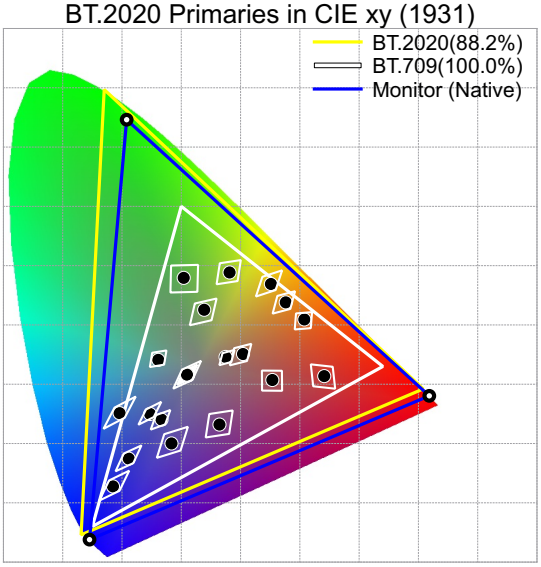
Gray Scale Result Table(HDR)

	Measured	Color Temp.	deltaE
Black	0.2199nits		
100 nits	101.1nits	6481K	0.4
200 nits	200.6nits	6478K	0.5
300 nits	282.5nits	6500K	0.7
Maximum	289.4nits	6506K	0.4

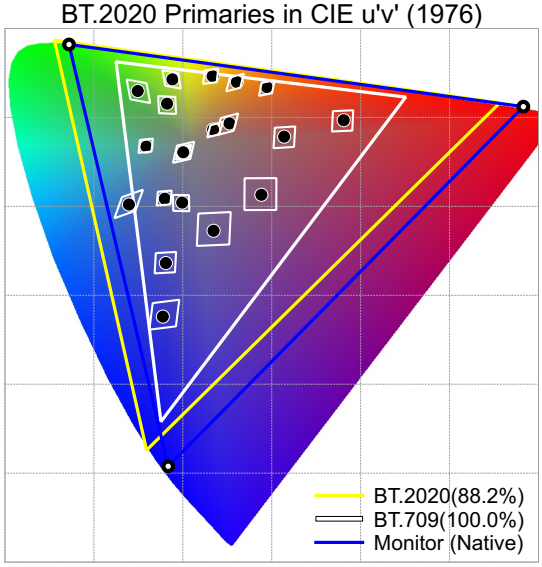
Target color temperature is D65 (Daylight 6500K) and the calibration tolerance is between 6250K and 6750K. Blue bars show the color difference (deltaE 2000) of actual measurement values from the target. Green bars and green numbers are also the color difference but the target is outside of the gamut. DeltaE values of Grade 1 monitors should be less than 1.0.

Color Reproduction Evaluation (HLG)

BT.2020 Primaries in CIE xy (1931)



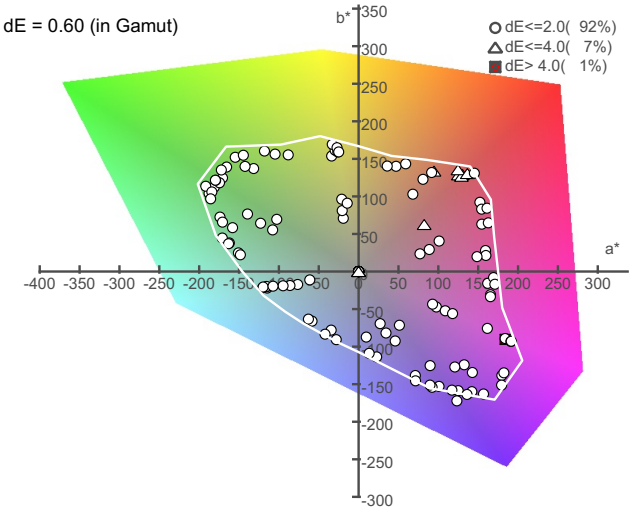
BT.2020 Primaries in CIE u'v' (1976)



Black dots are measured values of 24 colors from Gretag-Macbeth color chart after calibration. Tetragonals show the areas within deltaE 4.0. Blue triangle is the gamut of this monitor. All BT.2020 colors will be decently mapped inside of this gamut by the calibration.

HLG/BT.2020 Evaluation in CIE LAB (1976)

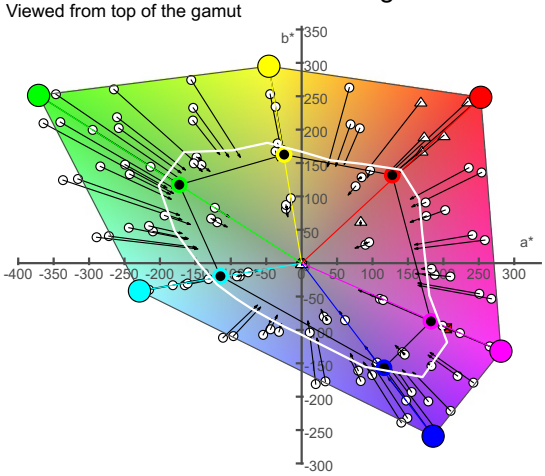
Monitor Gamut(white) and Error distribution



Colored area is the BT.2020 color gamut. White solid line shows the boundary of the monitor's color gamut. Small white dots are measured colors with less than deltaE 2.0 errors.

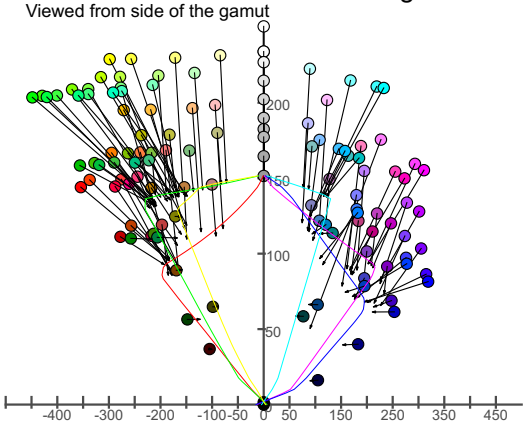
Colors outside of the monitor's gamut

Viewed from top of the gamut



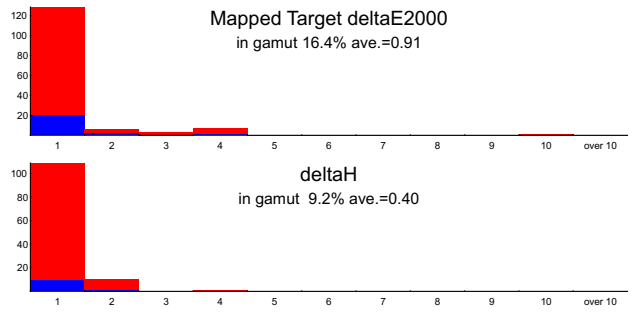
Colors outside of the monitor's gamut

Viewed from side of the gamut



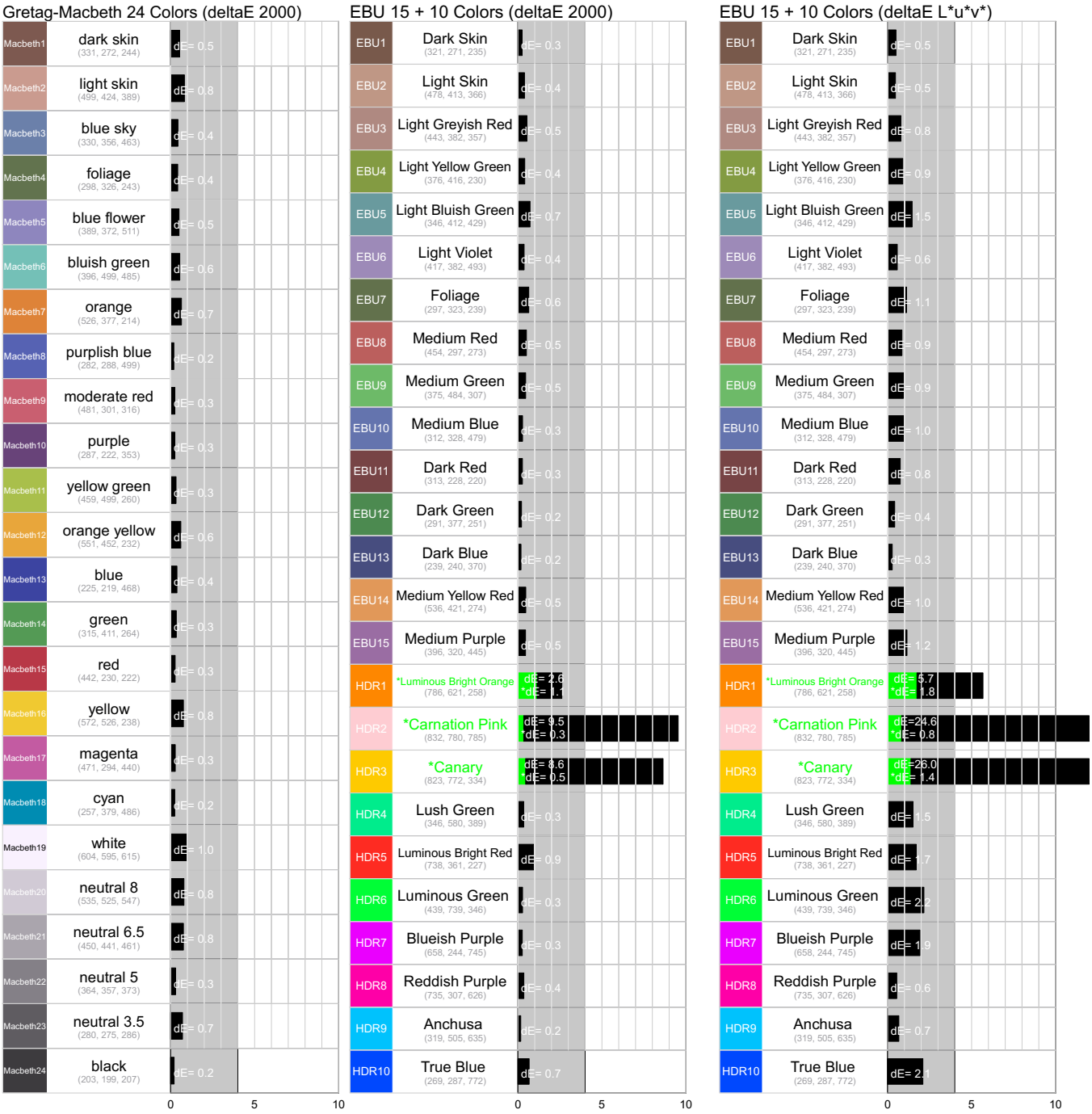
The two graphs above shows how the colors outside of the monitor's color gamut are mapped onto the monitor's gamut surface. For these colors outside the monitor's color gamut, the brightness and/or saturation are reduced while preserving the same color hue.

Calibration Error Histgram for 146 colors



Upper is deltaE2000, lower is dH(hue angle error) distribution. Blue bar is in gamut colors, red bar is for color outside of the gamut, calculated the error with mapped target.

Color Checker Evaluation (HLG)



EBU 15 colors are from EBU-Tech. 3325 (Sep. 2008) and EBU 10 HDR colors are from EBU-Tech.3325 s1 (Sep. 2019).
The name of the colors in green are test colors which are outside of the monitor's gamut. These test colors are mapped onto the monitor's gamut surface, and the deltaE between the mapped target color and actual measurement is shown as *dE and green bar.
Green charcter and bars show that the color was originally outside of the gamut but it was mapped into the monitors gamut.
DeltaE was shown both for original target and mapped target.