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Color Calibration

<https://www.panelook.com>

CIE Color Calculator

<https://www.avsforum.com/threads/avs-hd-709-blu-ray-mp4-calibration.948496/>

<https://github.com/arthur-liberman/hcfr-code/releases>

Saturation

- Point the color analyzer or light meter towards the screen and display a 100% white test pattern.
- Measure the Y value (luminance) of white.
- Display a 100% Red test pattern, and measure the Y value here as well.
- You will notice that as you move the Color control up and down, the Y value of Red increases and decreases, but white stays the same.
- Set the color control at the point where Red measures closest to 21% of the white reading.

Color Checker in browser

<https://janforman.org/colorchecker/>

ColorChecker Display vs Pro

Approx deviation ΔE between units mean: 0.4 max: 1.6

Device precision ΔE mean (wide gamut): 1.7 max: 2.8

ColorChecker Display (formerly ColorMunki) 400-700nm

ColorChecker Display Pro 380-730nm

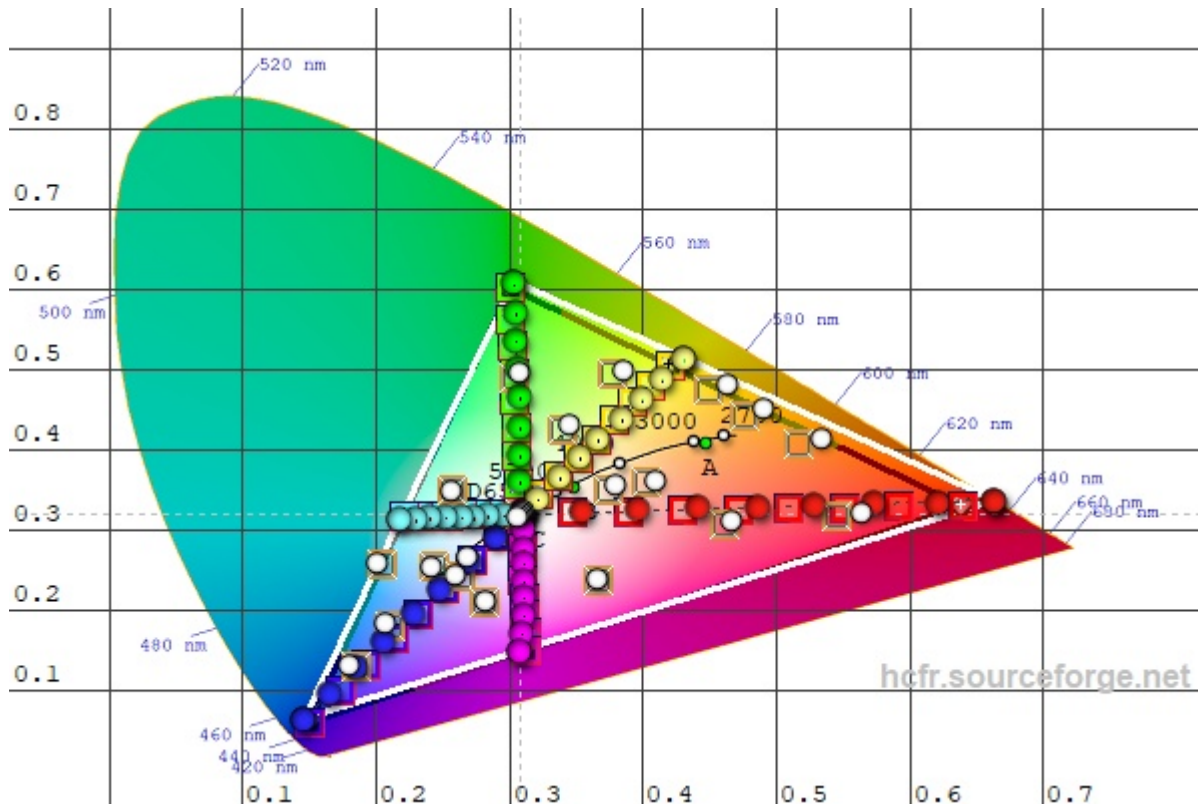
DELL U2415

Contrast 73 for correct white point

WhiteLED alternative white point

x:0.308 y:0.319 RAW(uncorrected)

Gamut 98% sRGB, 73% AdobeRGB, 77% DCI-P3



https://www.panelook.com/LM240WUA-SSA1_LG%20Display_24.0_LCM_parameter_23652.html

LG OLED 65B9S

OLED 2019 Alternative White Point **x: 0.308 y: 0.313** RAW(uncorrected)

LG Electronics with Dolby Laboratories (visual color matching method trying to match a Reference Grade-1 CRT)

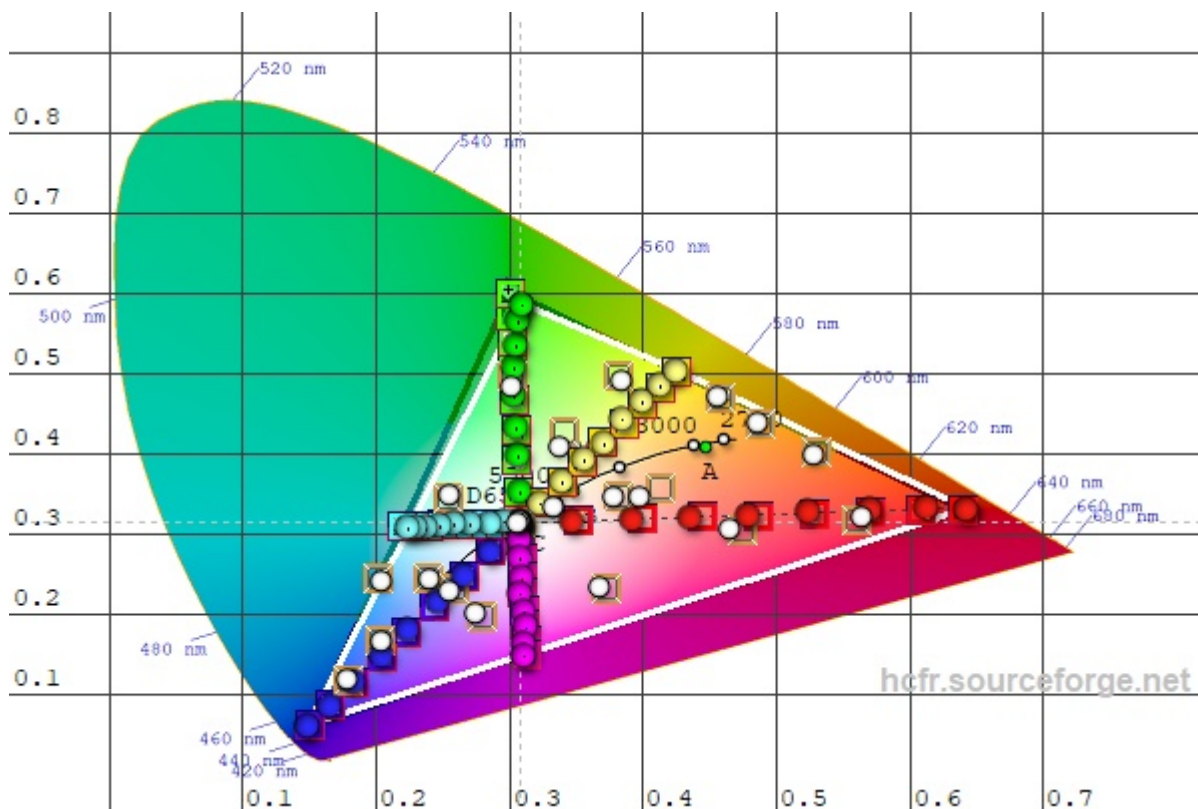
https://pro.sony/s3/2021/01/22153606/ColourMatching_Between_OLED_and_CRT_E.pdf

Service Menu: 192 / 172 / 140

Sharpness	10 or more because conture smoothing (15)
Mode	SDR
Mode	ISF Dark (Warm2)
Contrast	68
Brightness	53
Saturation	60
Color	LOW
L-RED	2
L-GREEN	0
L-BLUE	-1
Color	HIGH
H-RED	0
H-GREEN	0
H-BLUE	0
Mode	HDR10 / Dolby Vision
Mode	Technicolor (Warm2) / Cinema (Warm2)
Dynamic contrast	Low (any high and blacks are crushed) / Standard
Contrast	77 (keep proper white point D65)
Brightness	50
Saturation	61
Color	LOW
L-RED	1

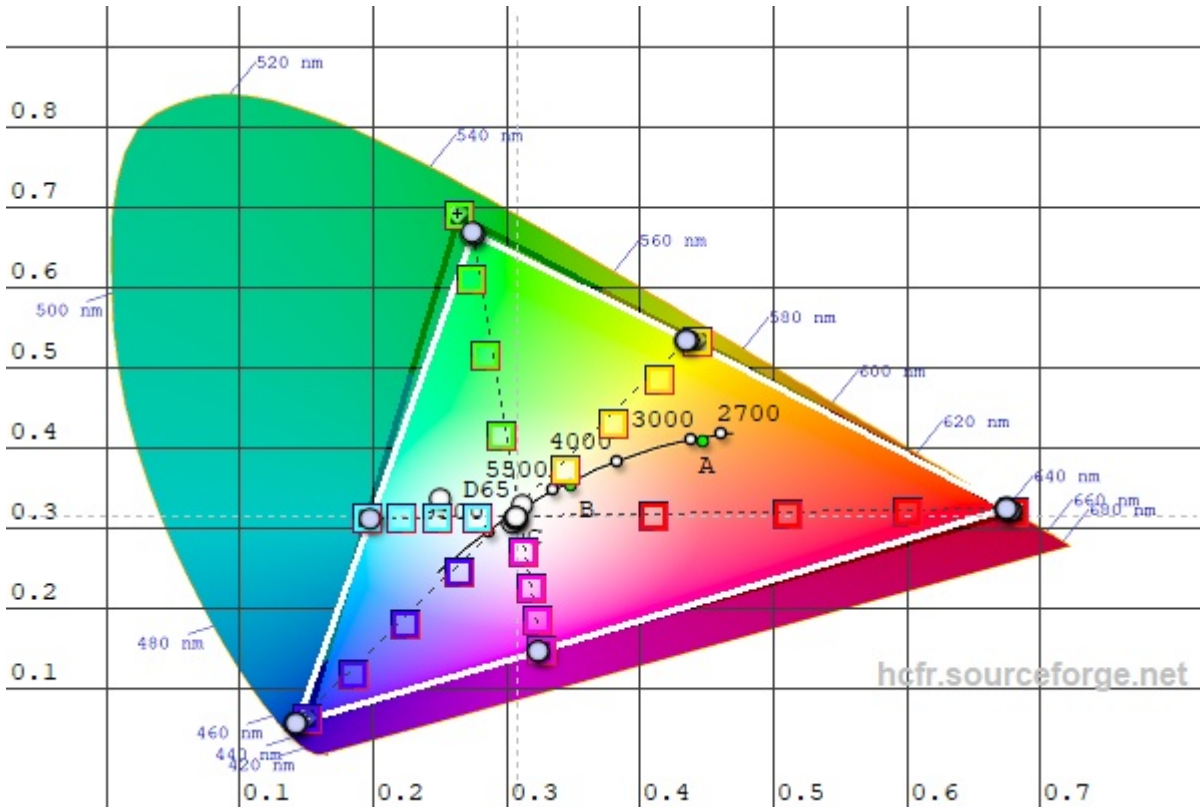
Sharpness	10 or more because conture smoothing (15)
Mode	SDR
Mode	ISF Dark (Warm2)
Contrast	68
Brightness	53
Saturation	60
Color	LOW
L-GREEN	0
L-BLUE	-4
Color	HIGH
H-RED	19
H-GREEN	0
H-BLUE	24

LG-WOLED SDR rec.709-D65



Color	Saturation	Tint	Light
RED	-5	2	0
GREEN	6	15	0
BLUE	-6	3	-1
AZURE	4	1	0
MAGENTA	0	6	1
YELLOW	3	0	0

LG-WOLED HDR10 bt.2020 / P3-D65



Color	Saturation	Tint	Light
RED	2	13	-13
GREEN	7	-30	0
BLUE	-7	-11	0
AZURE	-2	-9	1
MAGENTA	-5	-7	-2
YELLOW	3	9	2

Force HDMI input on LG OLED

highlight the picture mode in the main menu, and press 1113111 from the TV remote.

TV can play

Dolby Vision (DVHE) Profile 5 and 8 in HEVC (only in MP4/TS mux)
 HDR10 VP9 (MKV), HEVC (MP4 and MKV)

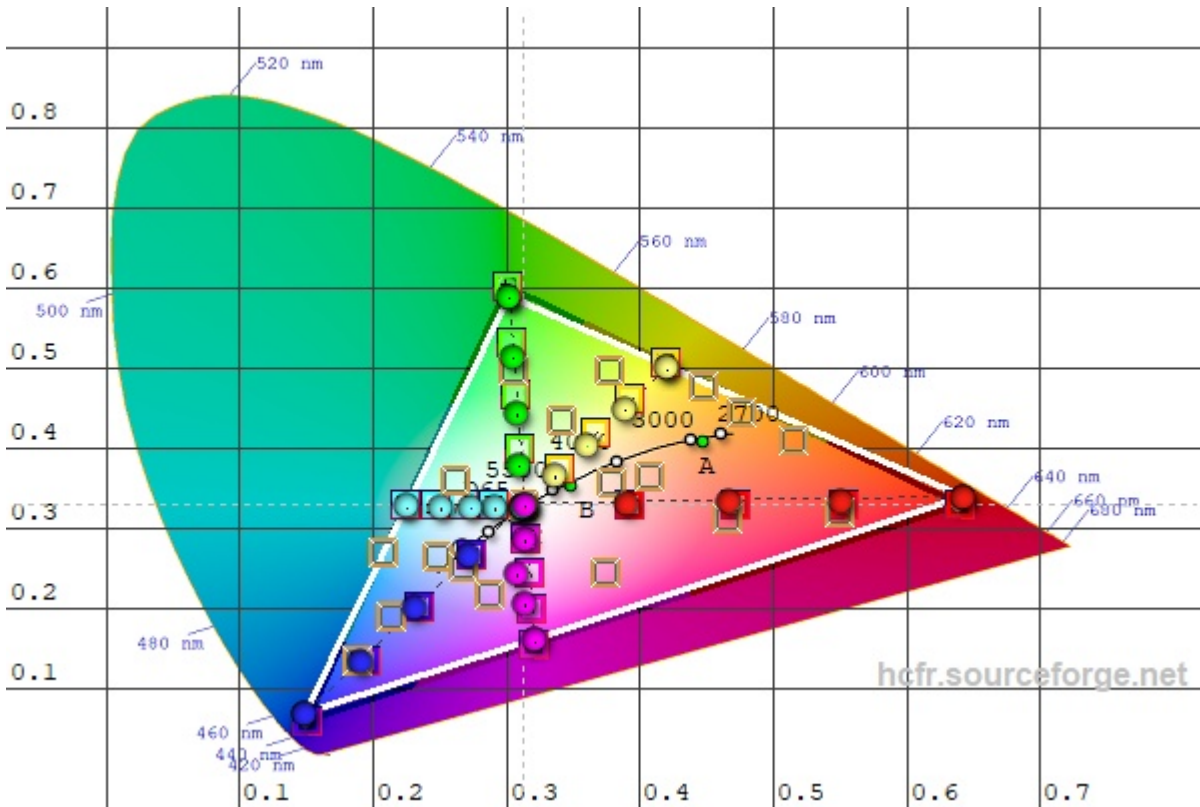
Lenovo VIBE Z2 Pro

~6500K	Value
RED	100
GREEN	91
BLUE	95

- Phone can accelerate H264 4K and HEVC 1080p in 8bit
- Phone can record H264 3840x2160x30fps 100mbit/s in 8bit

Lenovo YOGA Tab 3 Plus

~6500K	Value
RED	100
GREEN	91
BLUE	85



- Tablet can accelerate H264, HEVC, VP9 up to 4K in 8bit (only)

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