HDR general picture settings for

LG OLED55B7V (B7) UHD OLED TV

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This is a list of settings that I have obtained after performing a complete HDR calibration on LG 55-inch OLED55B7V UHD OLED TV. Calibration was done for HDMI limited range 4:2:2 YPrPb (component) signal, BT.2020 color space, SMPTE ST.2084 EOTF, HDR-10 and white point target D65.

Application examples: UHD Blu-ray (with HDR and Wide Color Gamut content, like discs with UHD Premium certificate), UHD HDR streaming

Calibration done on unit with software version: 03.60.09, webOS 3.6.0-207 (dreadlocks2-dorrigo)

Settings applicable to other variants and screen sizes of LG's 2017 OLED TVs (B7, C7, E7, G7 and W7 series, 55", 65" and 77" variants) since on all of them same WRGB OLED panel and same picture processing is used.

Picture Mode Settings:

> Picture Mode: **Cinema** (will become Cinema (User) after adjustment)
>
> OLED LIGHT: **100** (for dimmer picture decrease; adjusting this setting does
> not affect the rest of settings)
>
> Contrast: **100** (white-level control, affects amount of details in highlight and luminance)
>
> Brightness: **50** (black-level control, affects amount of details in dark areas)
>
> Sharpness: **0** (or higher if you want TV to artificially make image sharper)
>
> Colour: **55** (overall colorfulness of colors)
>
> Tint: **0** (controls balance between colors)

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Expert Controls:

Dynamic Contrast: **Low** (turning this option will activate LG's Active HDR option that may improve dynamics of the image depending on the scene; you also use **Off**)

Super Resolution: **Off** (activate if you want sharper picture)

Colour Gamut: **Auto** (on previous LG TVs "Auto" was called "Normal")

Edge Enhancer: **Off**

Color filter: **Off**

Gamma: **2.2** (not adjustable in HDR modes)

White Balance: (warning: adjustment of 2- and 20-point controls is highly individual from unit to unit – if settings listed below lead to either too red, green or blue picture in different brightness areas, better revert to default values or try to adjust yourself)

Colour Temperature: **Warm2**

Method: 2 Points

Pattern: Outer

Point: High

Red: **0**   Green: **-4**   Blue: **3**

Point: Low

Red: **2**   Green: **0**   Blue: **-3**

Method: 20 Points Code Value (for all: Red, Green and Blue at 0)

Apply to all inputs (copies white balance settings to all inputs)

Colour Management System (control for adjusting saturation, hue and luminance of primary and secondary colors)

All values at default 0.

Picture Options:

Noise Reduction: **Off** (enable if you want to reduce noise in picture)

MPEG Noise Reduction: **Off**

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Black Level: **Low**

Real Cinema: **On** (for best 24p movie content playback) or **Off** if TruMotion is enabled

Motion Eye Care: **Off**

TruMotion: **User** (or disabled if Real Cinema is enabled – try both and decide)

De-Judder: **0** or increase if you want soap-opera, "gliding" effect in 24p (movie) content

De-Blur: **10** (for best motion resolution)

Apply to all inputs (this will copy part of the options to other inputs (not including Expert Controls)

Reset (resets picture settings to the default values)

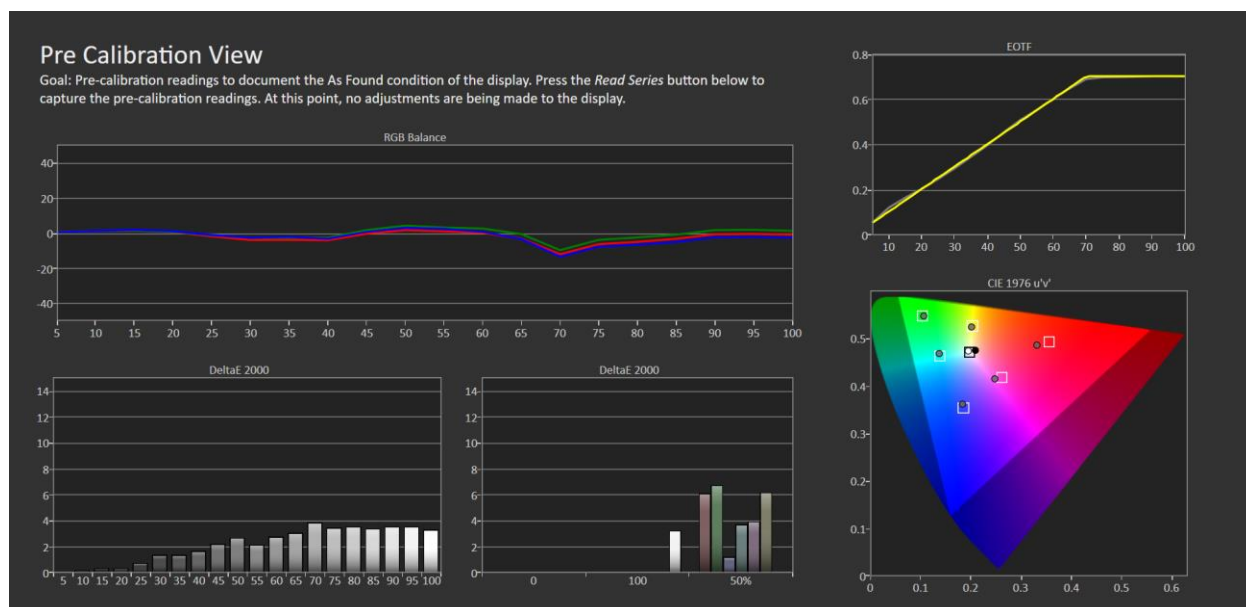Aspect Ratio Settings: **16:9 or Original** with **Just Scan** engaged (to avoid overscan)

Energy Saving: **Off** (important to be disabled as it is active by default and greatly reduced screen luminance)
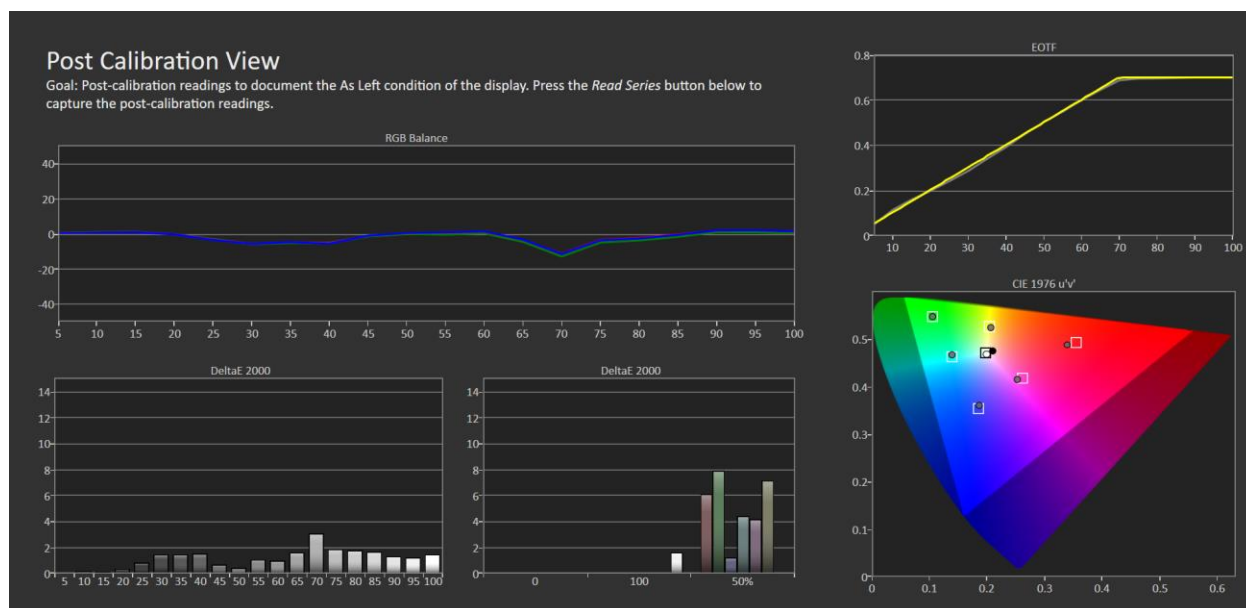
OLED Panel Settings

Pixel Refresher (1-hour long process that reduces image retention on the display – recommended to use if the TV will often display static images; can be performed when the TV is turned off)

Screen Shift: **enabled** (picture slighly shifts from time to time to prevent image retention)

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Cinema <u>before</u> calibration:

Cinema <u>after</u> calibration:

Notes:

Most people never adjust picture on their TVs. They keep all settings at default values set by the manufacturer. In 99% of cases that kind of picture is very innacurate when compared to industry standards and original video sources available to consumers (DVDs, Blu-rays, streaming, etc.).

Because of this, people are used to picture that has too many colors, that is very blue and with often very aggressive dynamics because of active Dynamic Contrast control and poorly set gamma. After calibration or even after they switch to more accurate picture presets like Cinema, Movie, Expert or Professional, many will complain how picture is too warm, yellow or red and simply not as impressive as before. Many will not like it at first and would prefer the old one.

To clear misunderstandings here is a video that explains this topic and anyone wanting to understand what makes better picture "better" should watch it:

https://www.youtube.com/watch?v=-JEFu2M2tt8

Disclaimer:

Settings are for reference only.
There is no guarantee that they will give you the best picture which is inline with industry standards and suitable for your viewing environment, especially regarding 2/20 point White Balance and Colour Management System controls. If you want guaranteed calibrated picture,
hire professional TV calibrator (for example with ISF certificate, more info at
http://www.imagingscience.com).

For new calibration videos, tips and reviews, please visit my YouTube channel:

https://www.youtube.com/c/tvcalibrationwithdarko

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