L e e m i n g   L U T   PRO

Camera Setup Guide:	Sony Creative Styles
Based On:	Sony A7III
Colour Space:	Rec709 gamma 2.4
Target Exposure:	ETTR
LUT Version:	Athena III & Pro III
LUT Release Date:	2021.10.07
Guide Version:	2021.10.07

INTRODUCTION

Thank you for purchasing Leeming LUT Pro™, the most accurate and professional Look Up Tables (LUTs) for your camera.

The LUTs have been carefully developed to get the maximum dynamic range and colour accuracy out of the supported profiles, giving you unparalleled Rec709 precision as well as perfect camera matching with other supported cameras in the Leeming LUT Pro™ range. Use them in conjunction with ETTR shooting principles and you will get the highest possible quality images out of the camera every time.

I am confident you will find these the most accurate LUTs for your camera. Anything less and I wouldn't have put my name on them!

Enjoy :)

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LICENCE

You are granted a personal licence to use Leeming LUT Pro™ on two computers. For use with more computers, please contact Visceral Psyche Films for bulk discount pricing. You may not upload the LUTs anywhere, share them with other people or incorporate them into other LUTs for derivative use (i.e. making creative LUTs using Leeming LUT Pro™ as the underlying base), whether they be for sale or not. Please respect the work that has gone into the LUTs and support those supporting you.

COMPATIBILITY

Leeming LUT Pro™ is compatible with any software or hardware device that supports a 33x33x33 cube LUT. For a full list, please see the website.

REQUIREMENTS

1.   Sony camera with Creative Styles (≤ 2020).
2.   Spectrally neutral white or grey card, for white balancing the camera (eg. the white balance side of an X-Rite Colorchecker Passport is designed for this).
3.   Leeming LUT Pro™ for Sony Creative Styles.

NOTE: Items highlighted in yellow have an adverse effect on LUT accuracy if changed away from the recommended values in this guide.

QUICK REFERENCE OF IMPORTANT CAMERA SETTINGS

The settings below are recommended for the LUTs to work properly, in conjunction with an accurate white balance and using the ETTR zebras to show where the highlights of an image are clipping.

If you deviate from these settings, your colorimetry and luma curves won't match precisely to Rec709 and you may get other errors in your footage. You can find the details of how to set these in the next section.

	Standard	Neutral
Zebras (ETTR)[2]	91+	91+
Zebras (18% grey)[3]	43	43
Zebras (skin tone)[3]	77	77
Picture Profile	OFF	OFF
Color Mode / Style	Standard	Neutral
Saturation	-3	-3
Contrast	0	0
Sharpness[1]	-3	-3

[1] These settings won't affect your colorimetry or luma curves but they will affect overall picture quality if altered.
[2] Using Lower Limit+ zebra option.
[3] Using Std+Range ±2 option. Advisory only numbers! ETTR should be the main method used for exposure. 18% grey is based on 42 IRE as standard and skin tone is based on the 70-75 IRE range.

FULL CAMERA SETUP GUIDE (≤ 2020)

Based on the A7III. Your camera may not have all the same features so adjust as necessary.

Due to the plethora of menus and sub-menus, the location of each setting will be referred to by their section name first in **BLUE**, then the respective menu page within that section, as shown at the top of each menu page of the camera.

1. **Setup7** - Setting Reset - Restore defaults before continuing further, to ensure no buried settings changes will affect the image quality.
2. **Setup2** - NTSC/PAL Selector as required, depending on your project. You may have to format your SD card after changing this so be sure you have backed up your footage! The guide is based on the NTSC option.
3. Rotate the top dial to MOVIE mode and the EXPOSURE dial to 0.
4. From here on in, the customisations will be done from left to right in the menu sections.
5. **Exposure2** - Exposure step 0.3EV increments for finer control.
6. **Color/WB/Img.Processing** - White Balance CUSTOM1, DRO/Auto HDR OFF, Picture Effect OFF. Turn Picture Profile OFF to set the Creative Style as follows.
7. Set Creative Style NEUTRAL or STANDARD with Contrast 0, Saturation -3, Sharpness -3. Note that this can only be adjusted with Picture Profiles OFF (if your camera has them).
8. **Focus Assist** - Peaking Setting – Peaking Display ON, Peaking Level HIGH, Peaking Color RED, or as desired.
9. **Movie1** - Exposure Mode MANUAL EXPOSURE, File Format XAVC S 4K, Record Setting 24p100M, S&Q Settings – Record Setting 50/60p, Frame Rate 50/60p

(check your camera as some models have better bitrates with normal framerate settings, in which case it's better not to use S&Q).

10. **Movie2** - Audio Recording ON, Rec Level as needed, Audio Level Display ON.
11. **Movie3** - Audio Out Timing LIVE, Marker Display ON, Marker Settings as required.
12. **Shutter/SteadyShot** - SteadyShot ON, SteadyShot Settings as required.
13. **Display/Auto Review1** - Disp Button as required, <mark>Zebra Setting - Display ON, Zebra Level CUSTOM2 – Type LOWER LIMIT to accurately show the ETTR overexposure limit. Don't forget to adjust the Zebras to match the Quick Reference values, otherwise the ETTR warning function of the zebras will not work as intended</mark>.
14. **Custom Operation1** - For Custom Key (Movie) settings, I've found the following to be useful for video shooting, but you can adjust as you wish:

Custom Button 1	White Balance
Custom Button 3	Zebra Level
Custom Button 4	SteadyShot Focal Length
Down Button	Peaking Display Selector
AF-ON Button	Focus Magnifier (for use with manual lenses)

15. **Custom Operation2** - MOVIE button ALWAYS.
16. **Network1** - Airplane Mode ON to save battery unless you are using the wireless functionality.
17. **Setup2** - Auto Pwr Off Temp HIGH, NTSC/PAL Selector as required, Touch Operation ON.
18. **Setup3** - HDMI Settings as required depending on your external recorder or monitor.

You are now ready to use Leeming LUT Pro™ with the maximum picture quality available. <mark>Be sure to visit the website to read up on how to use ETTR (Expose To The Right) principles</mark> to get the most dynamic range out of your sensor, as well as the associated Leeming LUT Pro™ LUT Installation Manual on how to apply the LUTs to your footage in post-production:

<p align="center">www.LeemingLUTPro.com</p>

HARDWARE / SOFTWARE QUIRKS AND BUGS

1. To Custom White Balance [rotate the TOP DIAL to M - not needed with newer cameras], press the C1 button (set earlier to Custom White Balance), choose Custom Setup and aim the target circle in the middle of the white balance card. Make sure the image is correctly exposed (no clipping but not too dark), then press OK to set the Custom White Balance. Then OK again to install it into the Custom slot. [Rotate the TOP DIAL back to MOVIE if using an older camera.]
2. Using the zebras, ETTR (Expose To The Right) until you see the clipping point of the zebras, then adjust your exposure down until the zebras just disappear. <mark>IGNORE the EV meter for ETTR shooting</mark> as it will give you a false sense of exposure. Similarly, ignore how the image looks on screen in terms of being "too bright". As long as your zebras aren't showing, you can expose brighter with no danger of overexposure.
3. <mark>For Davinci Resolve, Creative Standard and Neutral need Clip Attributes set to FULL</mark>, otherwise they will be clipped in highlights and shadows and the LUTs won't work properly.

ATOMOS NINJA V RECORDER SETUP

The LUTs are compatible with external monitors and recorders which use the 33x33x33 cube format.

One issue which arises with using the camera's HDMI output is that it sometimes feeds the wrong levels the device is expecting. Using the Atomos Ninja V (with firmware 10.6+) as a guide, set the Legalize function as per the table below to correct this. ==Make sure you DON'T have a viewing LUT active when setting this up, otherwise your Legalize setting will be greyed out and unavailable to change==. To ensure your externally recorded clips match both on screen and in post, ==have the Pro III LUTs applied and active in the Ninja V==.

	Standard	Neutral
Zebras (ETTR)	100%	100%
Log/HDR	OFF	OFF
Camera	Standard	Standard
Gamma	Rec709	Rec709
Gamut	Rec709	Rec709
HDR Auto	OFF	OFF
Legalize	ON	ON
HDMI Trigger	ON	ON
Timecode	HDMI	HDMI

DAVINCI RESOLVE CLIP ATTRIBUTES FOR ATOMOS NINJA V FOOTAGE

==When importing clips into Davinci Resolve and NOT using the Legalize ON option in the recorder==, there exists the ability to adjust the Data Levels of the externally recorded footage between Full and Video using Clip Attributes. The following table lists what should be set for each profile to have the LUTs work properly.

	Standard	Neutral
Data Levels	Full	Full

==NOTE: Creative Standard and Neutral direct from camera also need Clip Attributes set to FULL==, otherwise they will be clipped in highlights and shadows and the LUTs won't work properly.

GUIDE CHANGELOG

2021.10.07   Initial release.