

# L e e m i n g L U T P R O

Camera Setup Guide: Panasonic G Series

Manual Version: 20191218

## INTRODUCTION

Thank you for purchasing Leeming LUT Pro™, the most accurate and professional Look Up Tables (LUTs) for Panasonic G series cameras using Cine-D, V-LogL or HLG.

The LUTs have been carefully developed to get the maximum dynamic range and colour accuracy out of the various 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 supported Panasonic cameras. Anything less and I wouldn't have put my name on them!

Enjoy :)

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## REQUIREMENTS

1. Panasonic G series digital camera which supports Cine-D, V-LogL or HLG.
2. Spectrally neutral white or grey card, for white balancing the camera (eg. the white balance side of the X-Rite Colorchecker Passport Photo is designed for this).
3. Leeming LUT Pro™ for Panasonic (Cine-D, V-LogL or HLG for Rec709).

## CAMERA SETUP

(Using GH5 as representative of current Panasonic menu structure. Your camera may not have all the same features so adjust as necessary)

1. Switch the top dial to Movie mode.
2. Press the Menu button and go to the Movie M tab, set Exposure Mode to M and Master Pedestal to 0.
3. Select Movie tab, Rec Format MP4 (LPCM) or MOV, Rec Quality 4K 10bit (wherever possible) and framerate as desired.
4. Choose from one of the following Photo Styles and adjust the numbers as follows, then press Set to save that profile:

	<b>V-LogL</b>	<b>Cine-D</b>	<b>HLG</b>	<b>Additional Notes</b>
<b>Contrast</b>	[NA]	0	[NA]	
<b>Sharpness</b>	-5	-5	-5	(-3 for non-GH5 cameras)
<b>Noise Reduction</b>	-5	-5	-5	
<b>Saturation</b>	[NA]	-5	0	
<b>Hue</b>	[NA]	0	0	
<b>Luminance Level</b>	[NA]	0-1023	[NA]	(0-255 for 8bit modes)

5. Set your zebras to match the profile for ETTR highlight clipping avoidance (for HLG use Mode 1 for viewing as it favours highlights):

	<b>V-LogL</b>	<b>Cine-D</b>	<b>HLG</b>	<b>Additional Notes</b>
<b>Zebras</b>	75%	100%	90%	

Zebras are measured with a 5% RGB channel clip buffer for safety.

6. Set Filter Settings OFF, Highlight Shadow 0, i.Dynamic and i.Resolution OFF, Sound Output REALTIME, HDMI Rec Output as required. Make sure HLG or V-LogL View Assist (HDMI) is set to OFF, otherwise your externally recorded footage will not work with the LUTs, as you will have accidentally baked in the camera's 'look'.
7. Select Custom Settings tab, Exposure, ISO Increments 1/3EV, Extended ISO ON, Exposure Comp. Reset OFF, Constant Preview ON, Peaking ON, HIGH, Display Color, Histogram ON.
8. Set Monitor Info. Disp. ON and Video-Priority Display ON.
9. Select the Settings tab, Beep - Beep Volume OFF, E-Shutter Vol OFF, Live View Mode 60fps, Monitor Luminance as required.
10. Set System Frequency to your desired region format (PAL/NTSC/Cinema). Note that Cinema is DCI4K spec which gives you exact 24.00fps and 4096x2160 resolution options.
11. In Folder/File Settings, customise your File Name Setting as desired. Choose whichever Double Slot Function you desire for recording to SD card 1 and 2.
12. Select the My Menu tab - My Menu Setting and Add the following (recommended but you can customise as desired):

Photo Style, Zebra Pattern, Stabilizer, Rec Quality, Mic Level Adj, Cust. Set Mem, Variable Frame Rate, Synchro Scan, WFM/Vector Scope, V-LogL View Assist.

13. If you are using V-LogL with the GH5, place the included VLT monitoring LUT in the root directory of your SD card, place it in Slot 1, Select V-LogL View Assist, Read LUT File, select LEEMINGP.VLT, save to Set1. From there, choose LUT Select – LEEMINGP.VLT and LUT Monitor Display ON. You can optionally output the same file to your HDMI port if required. The zebras and histogram retain their pre-LUT levels so you don't need to adjust anything when using the monitoring LUT function.

## **CAMERA OPERATION**

1. Select your desired Photo Style for shooting. I don't recommend V-LogL for 8bit 4:2:0 shooting as it causes unacceptable banding due to the lack of tonal precision in 8 bits (this is NOT the fault of the LUTs). HLG is not available in-camera for 8bit shooting.
2. Adjust the Zebras to the relevant ETTR level for the Photo Style (see table above).
3. Custom White Balance by pressing the WB button, selecting one of the Custom slots, then aim the target square in the middle of the white balance card. Make sure the image is correctly exposed (no clipping but not too dark), then press Set to get the Custom White Balance.
4. Get used to this white balancing process, as it's the key to maximum dynamic range across the three RGB channels.
5. 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.

You are now ready to use Leeming LUT Pro™ with the maximum picture quality available. Be sure to visit the website to read up on how to use ETTR (Expose To The Right) principles 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 LUT to your footage in post-production:

[www.LeemingLUTPro.com](http://www.LeemingLUTPro.com)

## **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. All updates to the product are free of charge. You may not upload the LUT anywhere, share it with other people or incorporate it into other LUTs, whether they be for sale or not. Please respect the work that has gone into the LUTs and support those supporting you. Thank you!

## **COMPATIBILITY**

Leeming LUT Pro™ is compatible with any NLE that uses the .cube LUT format. It has been successfully tested with Adobe Premiere CC 2018, Davinci Resolve 15, Final Cut X and Magix Vegas 13.

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