

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

| | |
|---------------------|---------------------------------|
| Camera Setup Guide: | GoPro 9/10 |
| Based On: | GoPro 10 Black (firmware 01.10) |
| Colour Space: | Rec709 gamma 2.4 |
| Target Exposure: | ETTR |
| LUT Version: | Athena III & Pro III |
| LUT Release Date: | 2021.10.04 |
| Guide Version: | 2021.10.04 |

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 :)

Paul Leeming
Director / Writer / Cinematographer / Actor
Visceral Psyche Films
www.visceralpsyche.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. 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. GoPro 9 or 10 action camera.
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 the GoPro 9/10.

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 prior to applying the LUT in post.

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.

| | ProTune Flat | ProTune Flat Native |
|---------------|--------------------|---------------------|
| Color | Flat | Flat |
| White Balance | AWB or Preset Temp | Native |
| EV Comp | -0.5 | -0.5 |

FULL CAMERA SETUP GUIDE

Based on the GoPro 10 Black. Your camera may not have all the same features so adjust as necessary.

1. Tap on the Standard profile button (it shows resolution and framerate info underneath the title) at the bottom of the screen to enter the camera technical settings.
2. Choose the type of activity you want to optimise for. I will use Cinematic as the guide, and note which settings should be carried across to the other profiles. Tap on the little Edit pencil icon next to the profile type to edit the technical camera settings.
3. Mode Settings – Resolution as desired (I use 4K as default), Frames Per Second as desired (24 is my default – only available if you set 4K resolution), Lens (Linear+Horizon Levelling), Hypersmooth etc as desired.
4. Scroll down to **ProTune** – Set Bit Rate HIGH, Shutter as needed (Auto is default), EV Comp to -0.5 (you can set this lower if your footage is often clipping the whites), ISO Min and Max as needed (I recommend ISO 800 as max unless you are ok with noisier looking footage), **White Balance Auto, one of the preset temperatures, or NATIVE**, Sharpness as desired, **Color FLAT**, RAW Audio as needed, Wind as needed (AUTO as default), Media Mod as needed.
5. Set your On-Screen Shortcuts as desired, then scroll back to the top and hit the back arrow to exit video settings.
6. You can repeat the video settings and save more shortcut profiles if desired.
7. I recommend setting Anti-Flicker to your local frequency, and Video Compression to HEVC only unless you wish to record in both HEVC (H265) and H264. You can also send the current date and time to the camera from this screen via Set Date and Time. Once finished, tap on Done top right to exit.

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 LUTs to your footage in post-production:

www.LeemingLUTPro.com

HARDWARE / SOFTWARE QUIRKS AND BUGS

1. I recommend using Auto White Balance instead of NATIVE whenever possible, as the 8bit nature of the codec means that getting the Native footage (which is log-like) back to normal causes some banding in areas of flat colour.
2. The camera has a wireless connection which, if left ON, can sometimes cause the camera to turn on automatically at random times. I recommend setting the wireless connection OFF unless actually using the function.
3. Due to the nature of the ProTune Flat NATIVE white balance preset, you MUST apply a white balance change in post-production before applying the LUT for this profile. I recommend shooting a white balance target in the first second or so of your clip so that you can use the WB picker function of your editing software to quickly and accurately set this in post. The regular AWB or preset temps don't require it but I still recommend tweaking white balance in post and shooting a white balance card in the initial seconds of your clip for later use in post.
4. Note that AWB can shift during the shot, so if your lighting conditions are changing significantly, you may wish to set one of the preset temperatures to avoid this.

DAVINCI RESOLVE CLIP ATTRIBUTES

When importing clips into Davinci Resolve you MUST set the Clip Attributes of GoPro footage to FULL (for the GoPro 9 – the GoPro 10 sets this correctly), otherwise the highlights and shadows will be clipped from your recorded footage.

GUIDE CHANGELOG

- | | |
|------------|---|
| 2021.10.04 | Added the GoPro 10 information as it has the same colorimetry as the GoPro 9 and can use the same LUTs. |
| 2021.05.20 | Added note about Davinci Resolve Clip Attributes. |
| 2021.02.12 | Initial release. |