Welcome to the HT Enthusiast Extended Workflow

v19.2.0

Workflow → Description

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Intro

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HOME
Prepare
Session Setup
PreCal Read
Calibrate
Gry
CMS
Sat
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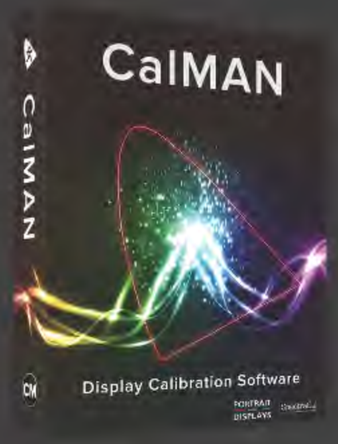
Final Check

↘ Introduction ↙
→ Prepare ←
↓ Calibrate ↑
← Analyze →



CalMAN HDR10

AutoCal™

Featuring ...

- Home layout outlines the workflow structure with full access
- Comprehensive Notes Management - access button always at bottom right
- Integrated Session Setup layout with hardware configuration and dynamic range assessment, with access to Meter Profile Analysis, Meter Stability, and Screen Uniformity layouts
- Single layout takes all desired Pre- or Post-Calibration readings
- Expanded Multi-Point Grayscale calibration, pre/post-cal charts, and datagrid layouts
- CMS Gamut detailed calibration layout
- Saturation Sweep detailed calibration, pre/post-cal charts, and datagrid layouts
- 3D Color Cube LUT calibration, detailed charts, and datagrid layouts
- Gamut Luminance & Color Check cal assessment, pre/post-cal charts and datagrid layouts
- Compare Calibrations layout lets you check two calibrations side by side
- High-count calibration points, HDR friendly with EOTF charts
- DeltaE is DEITP: Compensated is default, With Luminance Error if indicated or after the "/"
- DEITP vs. De 2000 comparison layout to see both side by side, accessed from Post-Calibration readings layout, using Post-Cal or new readings
- All DDC layout has all DDC controls in one place, accessible from Session Setup & Final Check
- Layout indicators: ↧ Calibration ∫ Charts # Datagrids

Home

Session Setup

Also featuring navigation for the Mouse Lazy ...

- Navigation bar on right shows where you are and takes you where you want to go
- Toggle buttons switch between complementary layouts with one click:
  - between the Calibration layouts and their corresponding Datagrid
  - between the Pre-Calibration Readings and Post-Calibration Readings
  - between corresponding Pre-Calibration and Post-Calibration Details
  - between corresponding Post-Calibration Details and Datagrids

And more!

Session Setup ↗ Notes ↙
PreCal Read Next

CalMAN

Show Outline

WORKFLOW OVERVIEW

The HT Enthusiast Extended Workflow aims at providing all the possible calibration options in an accessible user-friendly manner.

The workflow is divided into four sections or zones with a corresponding color for the three working zones.

1) ▶ Introduction: Provides general information about the workflow and its features, and random access to all layouts

2) ▶ Preparation Zone: Enter session and device setup information , take pre-calibration readings for reference, plan the dynamic aspects of the session (contrast, brightness, etc.)

3) ▶ Calibration Zone: Contains the calibration layouts with matching datagrids, and the post-calibration readings layout for all views except the 2-Point Grayscale and 3D Color Cube LUT

4) ▶ Analysis Zone: Has detailed charts and datagrids for all views in the pre- and post-calibration states (except the 3D Color Cube LUT which feeds off the calibration layout) and a final check layout for dynamic range fine-tuning with a session summary

ACTIVE CALIBRATION VIEWS

- 2-Point Grayscale
- Multi-point Grayscale
- Saturation Sweeps, also used for basic CMS calibration
- Gamut Luminance
- Color Checker with option for Slim Datagrid
- 3D Color Cube LUT with tabs for Full-feature and Minimal

- Use Minimal layout tab where available for hopefully faster AutoCal.
- DeltaE is DEITP, compensated by default, and with luminance error where indicated or after the "/".
- All active calibration layouts except 2-Point have full-screen datagrids.
- Use the Slim high-content Color Checker datagrid for faster processing of hundreds of colors.

ANALYSIS CHARTS

Except the 2-Point Grayscale and 3D Color Cube LUT, there are pre-calibration and post-calibration detail chart layouts for each active calibration view.

You can toggle between them by clicking the ↑PreCal or ↑PstCal button in the Nav Bar (they super-impose when the layout switches so just keep clicking to go back and forth). Other ↑ buttons in the Nav Bar perform similar toggling duties.

Unlike in the other color views, the CIE chart in the Color Checker pre- and post-calibration chart layouts is a display option accessible by checking the CIE Chart option.

Supplementing the charts are analysis datagrid layouts with both pre- and post-calibration data for each active calibration view. You can acces them using the #Datagrid buttons.

KEY LAYOUTS

Home - has a layout map for getting the lay of the land and a fully loaded navigation matrix for acces to all layouts.

Notes Management - Comprehensive notes management layout contains all notes for convenient editing, with access button at bottom right of all layouts.

Session Setup - Integrates calibration options, initial settings & notes, and hardware/device configuration.

Pre-Calibration Readings, Post-Calibration Readings - these identically configured layouts are master controls for the pre- and post-calibration states with combined and selective reading of all views. They feed all the detail charts and datagrids. You can toggle between the pre- and post-cal reading layouts, and between a reading layout and its corresponding detail layouts, in the Nav Bar (↑PreCal and ↑PstCal) and the explicit toolbar buttons.

Final Check - Analyzes and fine-tunes the dynamic range aspect and provides a comprehensive calibration summary.

Layout indicators: ↧ Calibration ∫ Charts # Datagrids

NAVIGATION BAR

Displays the normal layout sequence with instant access across views and zones

Current Layout Context
Next / Back in workflow sequence and / or buttons for navigation to related layouts

Red arrow indicates position in workflow

Meter Stability: MtStb
Meter Profile Analysis: MtPrfl
Screen Uniformity: ScUni
← context navigation →

Analysis Nav Bar and Next / Back buttons follow current view: Individual Pre-Cal or Post-Cal charts, or combined Pre- & Post-Cal Datagrids

Datagrids: # Gry, # Sat, # Lum, # CCk
← context navigation →

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Normal workflow sequence
Calibrate
Multi-Point and 2-Point → ↧ Gry
↧ CMS
↧ Sat
Full & Minimal → ↧ LUT
↧ Lum
↧ CCk
PostCal Read
Pre-Cal & Post-Cal Charts → Analyze
∫ Gry
∫ Sat
∫ Lum
∫ CCk
Charts from Full & Minimal Calibration → ∫ LUT
Comp
Final Check

Navigation Bar →

Show Outline

▶ Preparation (PRP)

1 ▶ Session Setup → Screen Uniformity → Meter Profile Analysis → Meter Stability
2 ▶ Pre-Calibration Readings

▶ Calibration (CAL)

4 ▶ 2-Point Grayscale Calibration
5 ▶ Multi-Pt Grayscale Calibration → Datagrid
6 ▶ CMS Gamut Calibration → Datagrid
7 ▶ Saturation Sweeps Calibration → Datagrid
8 ▶ 3D Color Cube LUT Calibration
9 ▶ Gamut Luminance Calibration Assessment → Datagrid
10 ▶ Color Checker Calibration Assessment → Datagrid (normal & slim versions)
11 ▶ Post-Calibration Readings

▶ Analysis (ANL)

11 ▶ Multi-Pt Grayscale Post-Cal Charts → Pre-Cal Charts → Datagrids
12 ▶ Saturation Sweeps Post-Cal Charts → Pre-Cal Charts → Datagrids
13 ▶ Gamut Luminance Post-Cal Charts → Pre-Cal Charts → Datagrids
14 ▶ Color Checker Post-Cal Charts → Pre-Cal Charts → Datagrids
15 ▶ 3D Color Cube LUT Calibration Detail Charts (from Full & Minimal calibrations)

16 ▶ Final Check + Summary – Fine Tune the Dynamic Range

NAVIGATION BAR

Displays the normal layout sequence with instant access across views and zones

Current Layout Context

Next / Back in workflow sequence and / or buttons for navigation to related layouts

Red arrow indicates position in workflow

Meter Stability — Screen Uniformity

MtStb — MtPrfl — ScUni ← context navigation →

Meter Profile Analysis

Analysis Nav Bar and Next / Back buttons follow current view: Individual Pre-Cal or Post-Cal charts, or combined Pre- & Post-Cal Datagrids

Datagrids — Pre-Cal & Post-Cal Charts →

Gry — # Sat — # Lum — # CCk ← context navigation →

Charts from Full & Minimal Calibration →

Nav Bar — Return

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« Back — Next »

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Multi-Point and 2-Point → Gry

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Final Check

Normal workflow sequence

Navigation Bar → ←

CalMAN

5/17/2019 Calibration

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StaUn • Meter Stability

StaUn • Screen Uniformity

MtPrfl • Profile Analysis

• All DDC •

→

PreCal Read

↓ Analysis

Return

Calibration

Grayscale	CMS / Saturation Sweeps	3d Color Cube LUT	Gamut Luminance	Color Checker
Gray ↧ 2-Pt Calibrate	CMS ↧ Calibrate	LUT ↧ Calibrate	Lumi ↧ Cal Assessment	CChk ↧ Cal Assessment
Gray ↧ Mult-Pt Calibrate	Satu ↧ Calibrate	↑ Has Full and Minimal layout tabs ↑		CChk # Cal Assessment Data
		LUT Full # Cal Data		CcSlm # Slim Assessmnt Data
		LUT Minimal # Cal Data		
			DEITP vs. De 2000	

Compare Calibrations

PostCal Read

Analysis

Grayscale	Saturation Sweeps / CMS	Gamut Luminance	Color Checker	3d Color Cube LUT
Gray # Pre/Post-Cal Data	Satu # Pre/Post-Cal Data	Lumi # Pre/Post-Cal Data	CChk # Pre/Post-Cal Data	LUT Full ∫ Cal Charts
				LUT Minimal ∫ Cal Charts
Gray ∫ Pre-Cal Charts	Satu ∫ Pre-Cal Charts	Lumi ∫ Pre-Cal Charts	CChk ∫ Pre-Cal Charts	
Gray ∫ Post-Cal Charts	Satu ∫ Post-Cal Charts	Lumi ∫ Post-Cal Charts	CChk ∫ Post-Cal Charts	

→ **Final Check**

Notes

Layout indicators: ↧ Calibration ∫ Charts # Datagrids

PreCal Read Notes Back Next

CalMAN

Setup Notes

Calibration Notes

Return

Pre-Calibration Notes

REF

Notes

Calibration Description / Goals

Color Notes

Post-Calibration Notes

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CalMAN

Session Setup

5/17/2019 Calibration

(A) Session Options

Start New Session

Session Info

More Options

Use u'v' CIE Charts

Setup Notes

Calibration Description / Goals

Notes

Luminance Unit: cd/m²

Input Level: Video (16-235)

Stimulus Unit: Percent

DeltaE Formula: de ITP

Colorspace Target: D65, HD BT.709

Gamma Formula: ITU BT.1886

Gamma

Target Black and White

Display • 75Q9FN

Targets	cd/m2	Blk fL	cd/m2	Wht fL	Gamma
	0.0001	3E-05	200	58.4	1

(B) Display Settings

AV Mode: Movie 200 nits

Color Temp	Warm 2	Contrast	40		Cut	Gain
Sharpness	0	Brightness	0	Red	0	0
Color	25	Backlight	30	Green	0	0
Tint	0	TV Gamma	0	Blue	0	0

(C) Hardware Configuration

Meter Stability | Screen Uniformity | Profile Analysis

1 Meter

Find → | Manage | Kill All

Simulated Meter

Profile

Mode: Test Mode

2 Pattern Source

Find → | Manage | Kill All

Source

Size: Full 100%

Delay: 0.5

3 Display / Processor

Find → | Manage | Kill All

Direct Display Control

DDC

Display Slot

Gray Levels

(D) Meter Setup

Position the meter as required for the projector or flat panel to insure accurate measurements when taking readings.

Projector

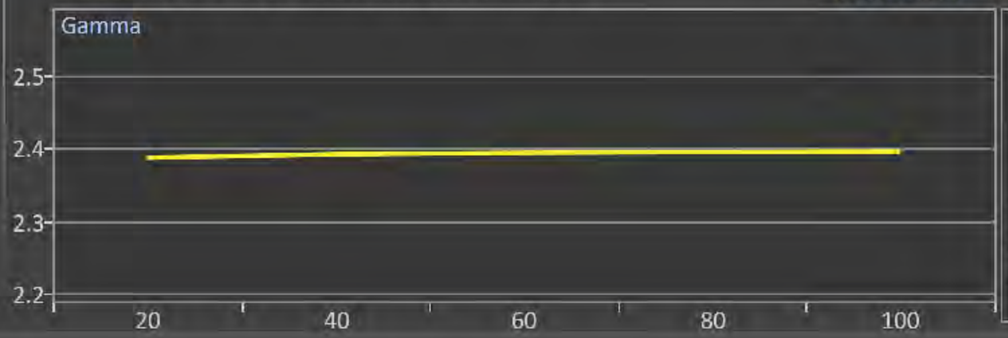
Flat Panel

(E) Dynamic Range

- Select a suitable set of gray data points and check the gamma level across the full grayscale based on the current settings, and adjust the display's various level controls to get a suitable lowest and highest value, tweaking available Backlight, Brightness, Contrast and such, and optimize RGB fluctuations.
- Select a clipping set of data points to check there is no clipping of the three primaries below and above the White level.

5 Point 20% step 20-100%

RGB Chart | DDC | All DDC



White / Black cd/m²
100 / 0

Level
20

		Target
Gamma	0	2.4
CCT	0	6503
Y	0	4.3454

PRP Setup

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CalMAN

Session Setup

5/17/2019 Calibration

(A) Session Options

Start New Session

Session Info

More Options

Use u'v' CIE Charts

Setup Notes

Calibration Description / Goals

Notes

Gamma

Target Black and White

Luminance Unit: cd/m²

Input Level: Video (16-235)

Stimulus Unit: Percent

DeltaE Formula: de ITP

Colorspace Target: D65, HD BT.709

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Display • 75Q9FN

Targets	cd/m2	Blk fL	cd/m2	Wht fL	Gamma
	0.0001	3E-05	200	58.4	1

(B) Display Settings

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Sharpness	0	Brightness	0	Red	0	0
Color	25	Backlight	30	Green	0	0
Tint	0	TV Gamma	0	Blue	0	0

Display Controls

Backlight	22
Brightness	1
Contrast	30
Sharpness	0
Color	25
Tint (G/R)	2
Local Dimming	Low
Color Tone	Warm2
R-Gain	0
G-Gain	0
B-Gain	0
R-Offset	0
G-Offset	0
B-Offset	0
Gamma	1

Reset Display Slot

Display Slot: Movie

DDC

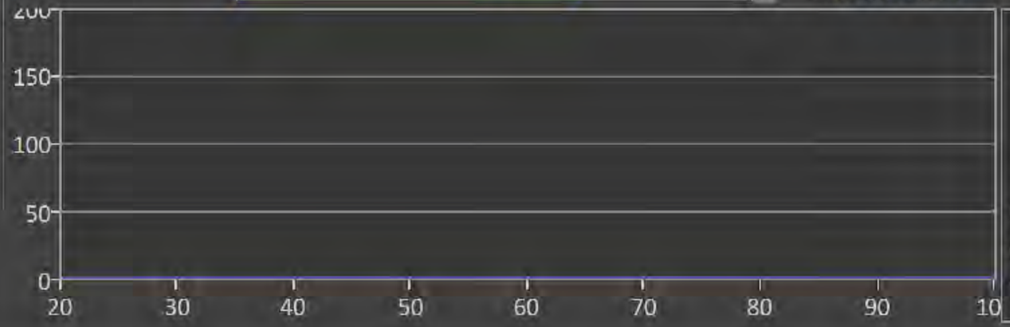
Gray Levels: SDR-Q900/Q9/Q8

5 Point 20% step 20-100%

RGB Chart

DDC

All DDC



White / Black cd/m²
100 / 0

Level 20

		Target
Gamma	0	2.4
CCT	0	6503
Y	0	4.3454

PRP Setup

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MtPrf

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CalMAN

≡ Session Setup ≡ 5/17/2019 Calibration

(C) Hardware Configuration | Meter Stability | Screen Uniformity | Profile Analysis

(A) Session Options

Start New Session

Session Info

More Options

Setup Notes

Use u'v' CIE Charts

Luminance Unit: cd/m²

Input Level: Video (16-235)

Stimulus Unit: Percent

DeltaE Formula: de ITP

Colorspace Target: D65, HD BT.709

Gamma Formula: ITU BT.1886

Calibration Description / Goals

Notes

Gamma

Target Black and White

Display • 75Q9FN

Targets	cd/m2	Blk fL	cd/m2	Wht fL	Gamma
	0.0001	3E-05	200	58.4	1

(B) Display Settings

AV Mode: Movie 200 nits

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Sharpness	0	Brightness	0	Red	0	0
Color	25	Backlight	30	Green	0	0
Tint	0	TV Gamma	0	Blue	0	0

Create Profile

Meter Settings

Profile

Reference Meter: Simulated Meter - 12345678

Advanced Options

Target Meter: Simulated Meter - 12345678

Advanced Options

Find more meters

Source

Source - 1

Stimulus Level: 100

Prompt for pattern changes

Profile Information

Current Profile: None

Select a profile

Add Profile

Display Type: Simulated

	I	X	Y	Z
X	0	1	0	0
Y	0	0	1	0
Z	0	0	0	1

PRP Setup

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Setting Up the Session

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(A) CalMAN Session Options

Enter the session description & calibration options in the corresponding drop-downs and text boxes

- Click [Session Info] to enter additional information
- Click [More Options] to open the options panel - the red [X] can be used to close it
- Click the checkmark above/below [Big] to expand the note next to it

(B) Display Settings

Enter the initial display settings to use for the calibration in the corresponding boxes - you can provide alternates in the Pre- and Post-Calibration layouts

(C) Hardware Configuration

1. To start calibrating your display/processor, first connect your meter.
   a) Click the meter [Find] button and select your meter.
   b) Select the Target Display Type.
2. Connect to your reference pattern source generator.
   a) Click the source [Find] button, and select your Source.
   b) Select the pattern window size and resolution.
3. Connect to your display/processor.
   a) Click the display [Find] button and select your display or processor.
   b) Click [DDC] to show the Direct Display Control panel when appropriate
4. Click the corresponding [Configure] button for more options.

5. Click on Profile to select, edit or create a meter profile.

(D) Meter Positioning

1a. For projectors position the meter facing the projection screen, far enough away from the screen to avoid reading the meter's own shadow (see illustration on the left). Continue to take readings.

1b. Press the read continuous button to take measurements of a white window while moving the meter up/down/left/right, until the Y Max reading is largest. When Y Max is highest, click *Stop*.

2. For flat panels position the meter on the center of the screen (see illustration on the right). You do not need to take readings for this placement.

3. You can also read the White level CCT based on the current settings - adjust the display's color temperature to best match the target CCT.

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(E) Dynamic Range

Overall Range

Adjust the Backlight control (for LED) to get the desired compromise between black and white levels: less Backlight = deeper black but lower white level, more Backlight = brighter white but higher black level too.

White Level

Data Points: select Clipping or Clipping with Peak White.

Adjust the Contrast to maximize the white level without clipping any of the three primaries.

Gamma Level

Data Points: select a full set of grayscale points for this.

Check the gamma level across the full grayscale based on the current settings, and adjust the display's gamma control to get a good match, tweaking with the Brightness for Black level & Contrast for White.

CalMAN

All DDC

Picture Size	16x9
Fit to Screen	On
Backlight	22
Brightness	1
Contrast	30
Sharpness	0
Color	25
Tint (G/R)	2
Apply Picture Settings	All Sources
Digital Clean View	Off
Auto Motion Plus	Off
Local Dimming	Low
Contrast Enhancer	Off
HDR+ Mode	Off
Color Tone	Warm2
R-Gain	0
G-Gain	0
B-Gain	0
R-Offset	0
G-Offset	0

DISPLAY

R-Gain	0
G-Gain	0
B-Gain	0
R-Offset	0
G-Offset	0
B-Offset	0
20pt White Balance	✖
Gamma	1
RGB Only Mode	Off
Color Space Settings	Custom
HDMI Black Level	Low
CMS Adj Point	100%

CMS GAMUT

	Red	Green	Blue
Red	1	14	1
Green	41	19	18
Blue	0	0	0
Cyan	53	18	19
Magenta	0	22	0
Yellow	17	44	24

Reset CMS

MULTI-POINT

Final Check | Session Setup

	Red	Green	Blue
7	24	47	-50
10.5	-28	-16	-24
15.5	-24	-24	-20
19.6	-30	-33	-28
24.7	-30	-33	-30
29.7	-29	-32	-30
35	-20	-18	-25
39.7	-18	-14	-16
44.7	-14	-14	-12
49.8	-12	-12	-9
55	-10	-11	-9
60.3	-9	-9	-6
65	-10	-6	-8
70	-6	-4	-4
75.3	-8	-6	-6
81	-9	-7	-5
86	-8	-6	-4
90.4	-6	-5	-4
97.7	-7	-5	-4
100	-5	-3	-1

Reset Grayscale

3D LUT

5/17/2019 Calibration

Nav Bar

PRP

DDC

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2-Pt

M-Pt

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Final Check | Session Setup

White 200

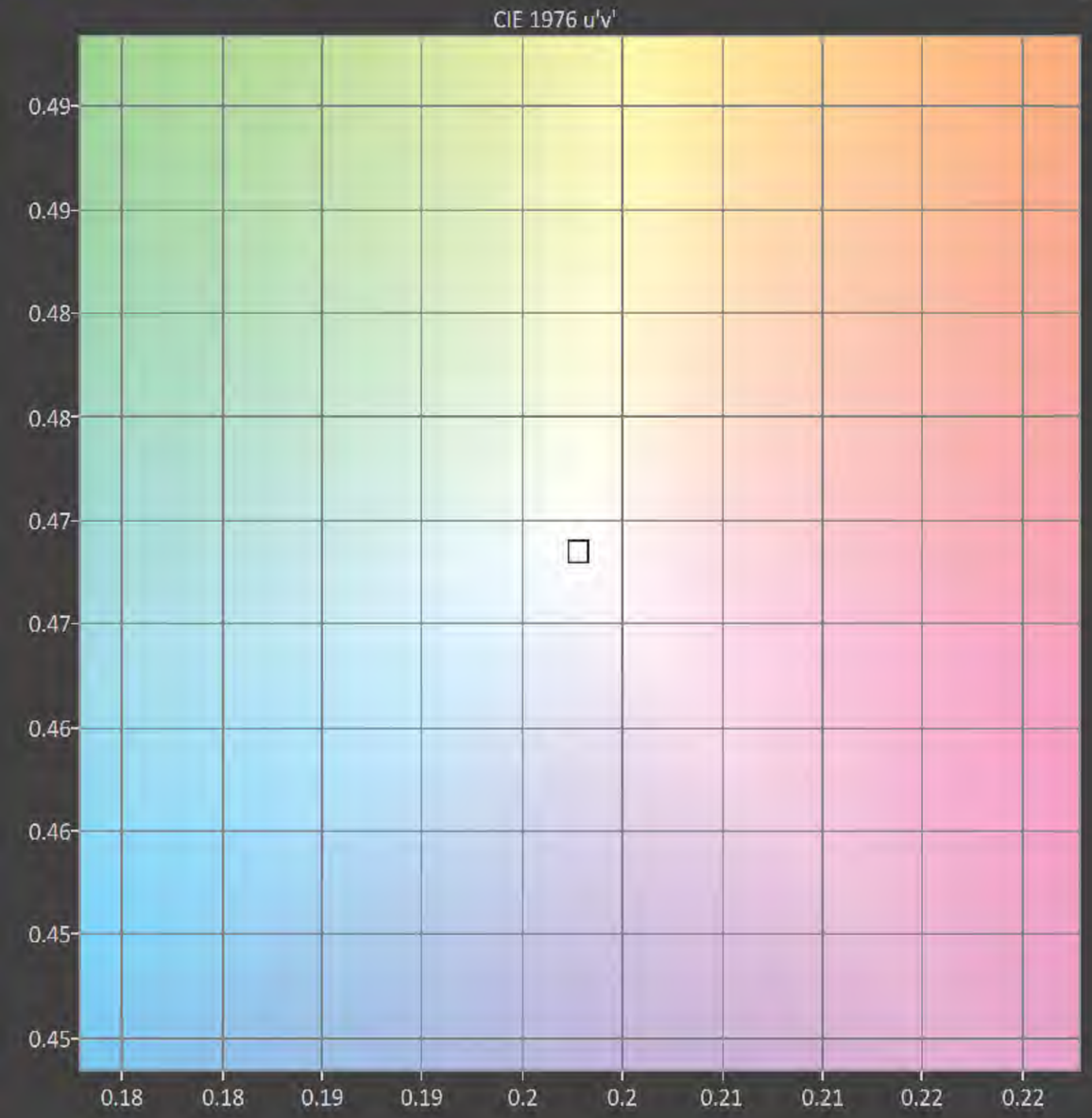
Display Slot Movie

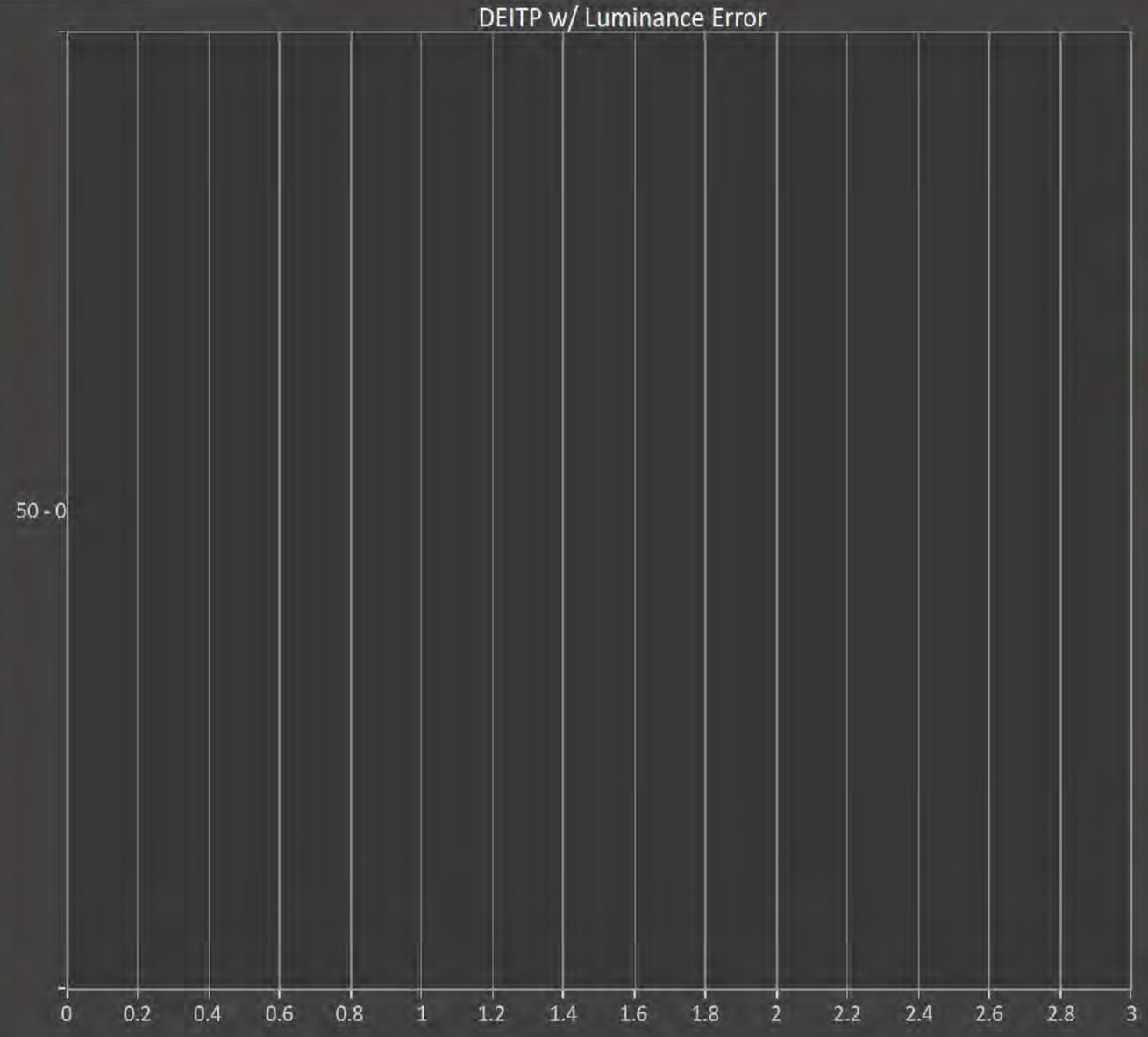
CalMAN

Meter Stability

Simulated Meter

Session Setup





White | Red | Green | Blue | Cyan | Magenta | Yellow | 100W

Stop | Read 10 | Read One Check Drift

Clear History

PRP

ScUni

Setup

HOME

Prepare

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ScUni

CalMAN

Meter Profile Analysis

Manage Profiles | Clear Reference | Clear Profiled

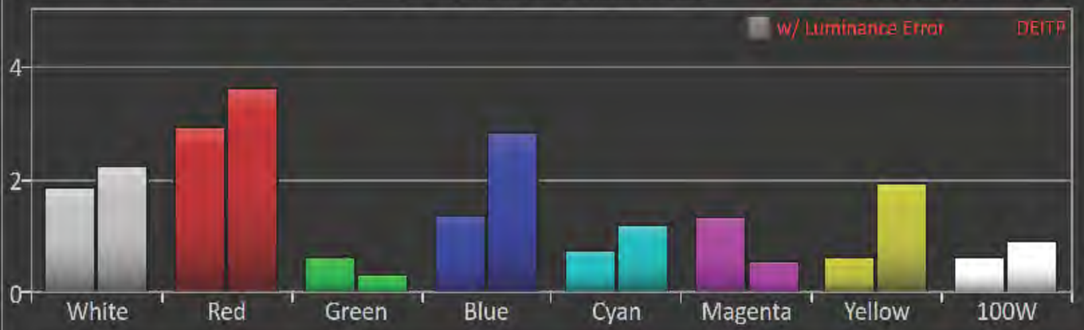
Select a meter and do the appropriate reference or profiled Read All or a Read Single selected color.
Select the same color in both CMS sliders to view a specific comparison: Reference is always on left or above.

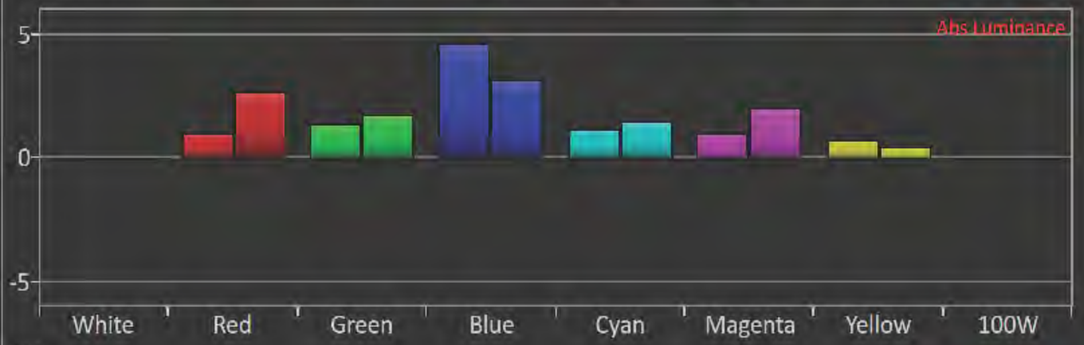
Session Setup

CMS Gamut Analysis

Refresh Charts | Target 100W → cd/m² 100 | fL 29.19

Simulated Meter | Read All as Reference | Read All as Profiled





Reference Meter CMS

	White	Red	Green	Blue	Cyan	Magenta	Yellow	100W
Y cd/m²	41.5908	8.9345	30.1635	3.1426	33.1259	11.9642	38.8770	82.3198
x: CIE31	0.3139	0.6357	0.2984	0.1501	0.2247	0.3218	0.4186	0.3130
y: CIE31	0.3257	0.3306	0.6007	0.0617	0.3313	0.1537	0.5044	0.3306
RED Linear 0-1	0.4301	0.4149	-0.0034	-0.0007	-0.0027	0.4243	0.4184	0.8176
Green Linear 0-1	0.4109	0.0015	0.4228	0.0015	0.4222	-0.0014	0.4190	0.8259
Blue Linear 0-1	0.4241	0.0010	0.0004	0.4224	0.4142	0.4211	0.0014	0.8133

Read Single as Reference →
Simulated Meter
Read Single as Profiled →

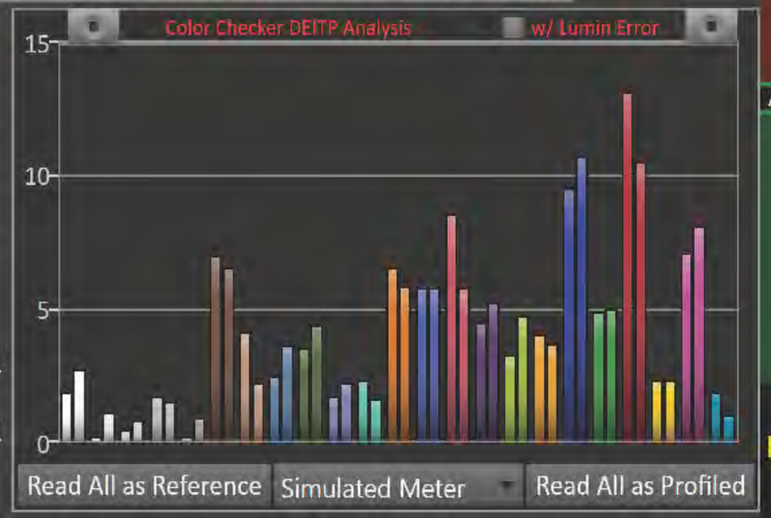
White | Red | Green | Blue | Cyan | Magenta | Yellow | 100W

White | Red | Green | Blue | Cyan | Magenta | Yellow | 100W

Profiled Meter CMS

	White	Red	Green	Blue	Cyan	Magenta	Yellow	100W
Y cd/m²	41.5262	9.0678	30.2230	3.0934	33.1769	12.0718	38.6802	81.3127
x: CIE31	0.3154	0.6350	0.3000	0.1513	0.2230	0.3216	0.4219	0.3139
y: CIE31	0.3269	0.3315	0.5991	0.0617	0.3303	0.1552	0.5016	0.3284
RED Linear 0-1	0.4335	0.4189	0.0004	0.0015	-0.0078	0.4222	0.4302	0.8270
Green Linear 0-1	0.4096	0.0021	0.4224	0.0009	0.4239	0.0009	0.4128	0.8089
Blue Linear 0-1	0.4180	0.0008	0.0006	0.4152	0.4190	0.4195	0.0016	0.8139

CMS Detail	Reference	Profiled	Ref Target
Red Linear	0.81757	0.82699	0.8232
Green Linear	0.82586	0.80893	0.8232
Blue Linear	0.81335	0.81386	0.8232
Y cd/m²	82.32	81.313	82.32
x CIE31	0.31299	0.31386	0.31271
y CIE31	0.33063	0.32837	0.32901
DEITP	0.65 / 0.65	0.92 / 0.92	



PRP Prfile
Setup
HOME
Prepare
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CalMAN

Meter Profile Analysis

Manage Profiles | Clear Reference | Clear Profiled

Select a meter and do the appropriate reference or profiled Read All or a Read Single selected color.
Select the same color in both CMS sliders to view a specific comparison: Reference is always on left or above.

Session Setup

Create Profile

Meter Settings

Reference Meter: Simulated Meter - 12345678

Advanced Options

Target Meter: Simulated Meter - 12345678

Advanced Options

Find more meters

Source

Source - 1

Stimulus Level:

100 — Select stimulus between 75 - 85 to avoid clipping and better sample the display

Prompt for pattern changes

Profile Information

Current Profile: None

Add Profile

Display Type: Simulated

	I	X	Y	Z
X	0	1	0	0
Y	0	0	1	0
Z	0	0	0	1

Reference Meter CMS

	White	Red	Green	Blue	Cyan	Magenta	Yellow	100W
Y cd/m²	41.5908	8.9345	30.1635	3.1426	33.1259	11.9642	38.8770	82.3198
x: CIE31	0.3139	0.6357	0.2984	0.1501	0.2247	0.3218	0.4186	0.3130
y: CIE31	0.3257	0.3306	0.6007	0.0617	0.3313	0.1537	0.5044	0.3306
RED Linear 0-1	0.4301	0.4149	-0.0034	-0.0007	-0.0027	0.4243	0.4184	0.8176
Green Linear 0-1	0.4109	0.0015	0.4228	0.0015	0.4222	-0.0014	0.4190	0.8259
Blue Linear 0-1	0.4241	0.0010	0.0004	0.4224	0.4142	0.4211	0.0014	0.8133

Read Single as Reference → | White | Red | Green | Blue | Cyan | Magenta | Yellow | 100W

Simulated Meter

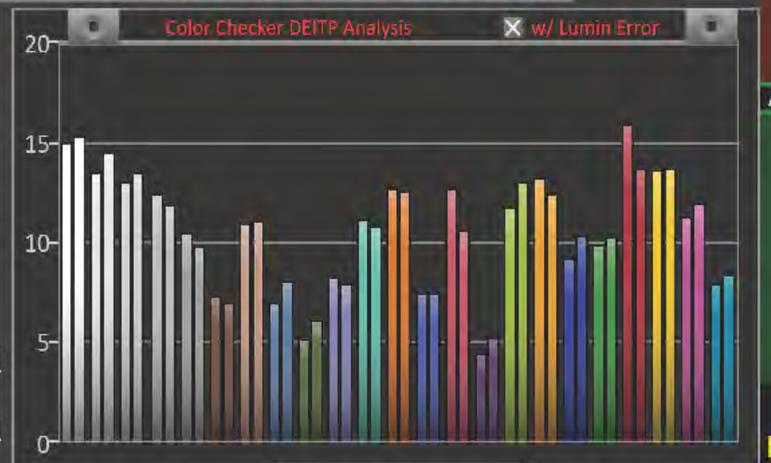
Read Single as Profiled → | White | Red | Green | Blue | Cyan | Magenta | Yellow | 100W

Profiled Meter CMS

	White	Red	Green	Blue	Cyan	Magenta	Yellow	100W
Y cd/m²	41.5262	9.0678	30.2230	3.0934	33.1769	12.0718	38.6802	81.3127
x: CIE31	0.3154	0.6350	0.3000	0.1513	0.2230	0.3216	0.4219	0.3139
y: CIE31	0.3269	0.3315	0.5991	0.0617	0.3303	0.1552	0.5016	0.3284
RED Linear 0-1	0.4335	0.4189	0.0004	0.0015	-0.0078	0.4222	0.4302	0.8270
Green Linear 0-1	0.4096	0.0021	0.4224	0.0009	0.4239	0.0009	0.4128	0.8089
Blue Linear 0-1	0.4180	0.0008	0.0006	0.4152	0.4190	0.4195	0.0016	0.8139

CMS Detail	Reference	Profiled	Ref Target
Red Linear	0.81757	0.82699	0.8232
Green Linear	0.82586	0.80893	0.8232
Blue Linear	0.81335	0.81386	0.8232
Y cd/m²	82.32	81.313	82.32
x CIE31	0.31299	0.31386	0.31271
y CIE31	0.33063	0.32837	0.32901
DEITP	0.65 / 0.65	0.92 / 0.92	

Color Checker DEITP Analysis — w/ Lumin Error



Read All as Reference | Simulated Meter | Read All as Profiled

PRP Prfile

Setup

HOME

Prepare

Setup

Calibrate

Analyze

Prfile

CalMAN

Screen Uniformity

Rows 3 | Columns 3 | Left to right | Session Setup

0.0	0.0	0.0
0.0	0.0	0.0
0.0	0.0	0.0
0.0	0.0	0.0
0.0	0.0	0.0
0.0	0.0	0.0
0.0	0.0	0.0
0.0	0.0	0.0
0.0	0.0	0.0

Gray Levels Only | 4 Point 25% step 25-100%

Target Y 3.7118 Read 0 ΔE 0

25 | 50 | 75 | 100

Type Grayscale

PRP ScUni

Setup

HOME

Prepare

Setup

Calibrate

Analyze

ScUni

CalMAN

Pre-Calibration Readings

5/17/2019 Calibration

Gamma Breakout Tot 2.39 Contrast 0 Black 0 White 100 cd/m²

1 Grayscale

Detail Charts | 21 Point 5% step 0-100% | Avg 0 / 0 | Max 0 / 0

w/ Lumin Error DEITP 0 / 0

4 Color Checker

White

u'v' CIE

Detail Charts

DEITP 0 Avg 0 Max 0 | w/ Lumin Err 0 Avg 0 Max 0

White

Add Custom Color Set → | SG Fleshtones

2 Saturation Sweeps

Detail Charts | BT.709 25% Sweeps | Avg 0 / 0 | Max 0 / 0

100 w/Lumin Err 0

100 DEITP 0

3 Gamut Luminance

Detail Charts | 4 Point 25% step 25-100% | Avg 0 / 0

Max 0 / 0 25 w/ Lumin Err 0

25 DEITP 0

Select Colors

Populate CMS for HT report

PRP

PreCal

Read

Back

Next

PostCal Read

HOME

Prepare

Session Setup

PostCal Read

Calibrate

Gry

CMS

Sat

LUT

Lum

CCk

PostCal Read

Analyze

Gry

Sat

Lum

CCk

LUT

Final Check

PreCal

Movie 200 nits

Pre-Cal Readings

Contrast | Brightness | Backlight

TV Gamma | Color | Tint

Red Green Blue

Gain | Cut

Notes

Display Slot

Movie

Use [···] mid-screen or below to read all series or select one from the individual series above

CalMAN

≡ 2-Point Grayscale Calibration ≡

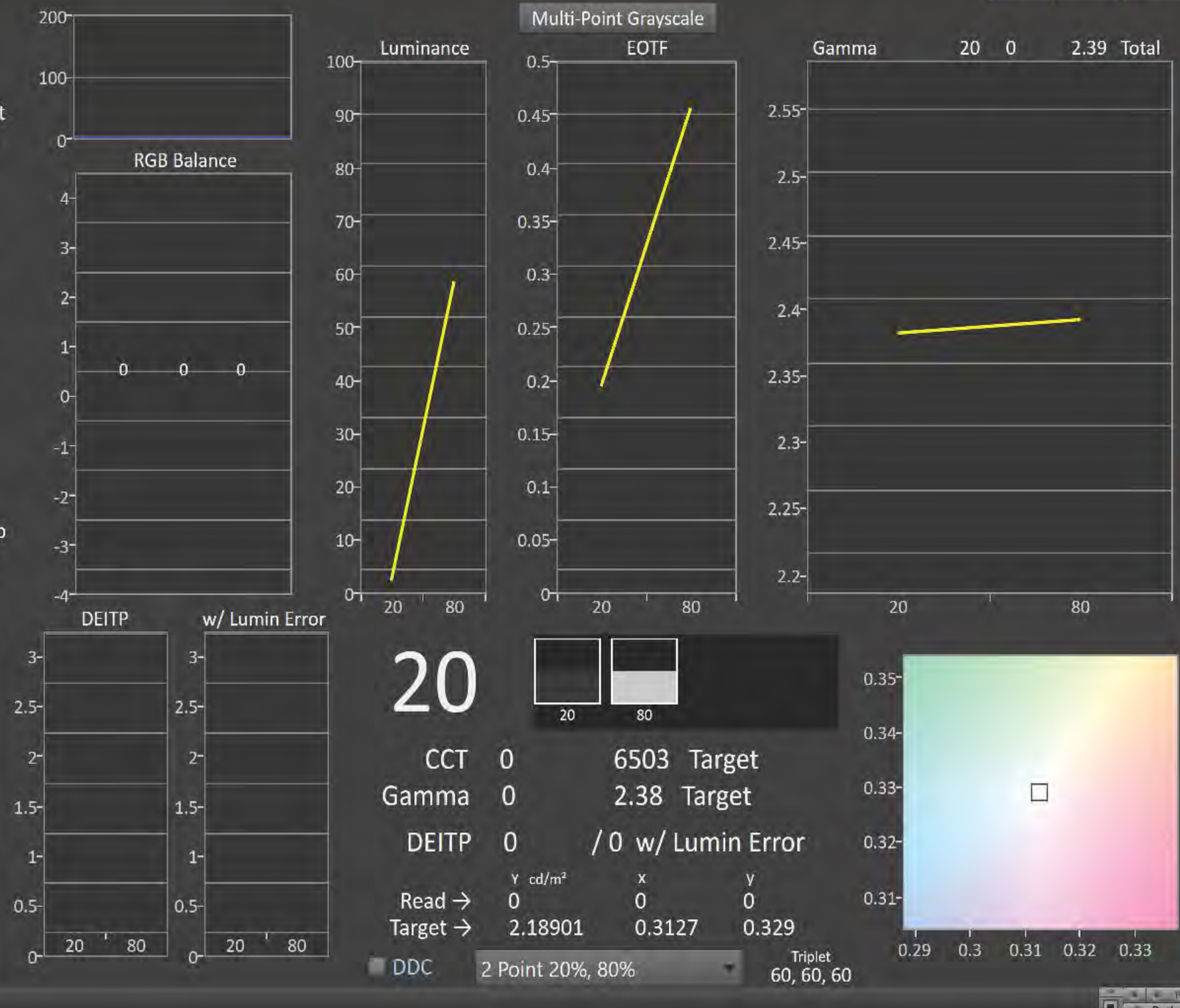
Grayscale 2-Point Adjust

1. Reduce the Red, Green, and/or Blue (RGB) High controls to the lowest measured R, G, or B after the initial measurement of bright grayscale pattern. Continue doing this until you balance RGB to a deltaE of 3 or below (chart below).
2. Balance the RGB Low controls (if provided), while measuring a dark grayscale pattern.
3. Re-measure both bright grayscale and dark grayscale until both RGB High and RGB Low are balanced and DeltaE is under 3.

Selecting Points:

- **30% and 80%:** Use these levels if you only have access to a two point grayscale adjustment
- **30% and 100%:** Use these levels if you will be completing a multipoint adjustment afterwards and do not have access to a Peak White pattern.
- **30% and Peak White:** Use these levels if your display does not clip and you will be completing a multipoint calibration and want the best possible results.

	20	80
RGB Triplet	60, 60, 60	191, 191, 191
Red index	60.0000	191.0000
Green index	60.0000	191.0000
Blue index	60.0000	191.0000
X	0.0000	0.0000
Y cd/m²	0.0000	0.0000
Z	0.0000	0.0000
Xn 0-1	0.0000	0.0000
Yn 0-1	0.0000	0.0000
Zn 0-1	0.0000	0.0000
Stimulus Percent	0.2009	0.7991
RED Stim%:0-1	0.2009	0.7991
GRN Stim%:0-1	0.2009	0.7991
BLU Stim%:0-1	0.2009	0.7991

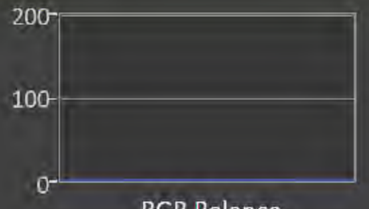


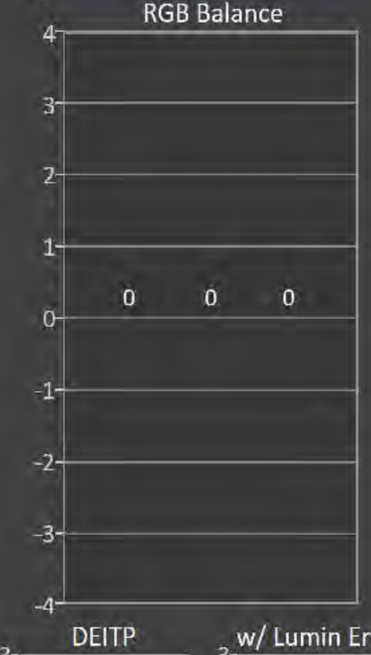
CalMAN

2-Point Grayscale Calibration

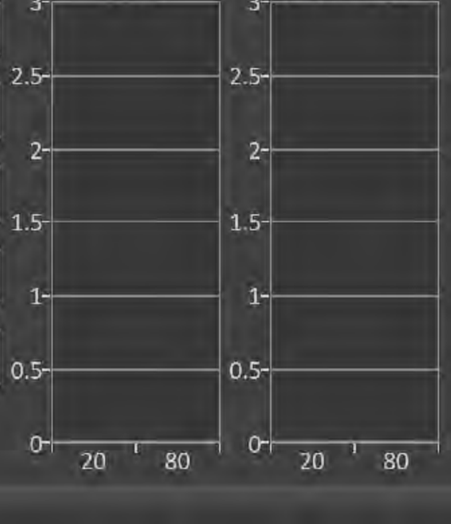
Display Controls

Backlight	34
Brightness	0
Contrast	23
Sharpness	0
Color	26
Tint (G/R)	-1
Color Tone	Warm2
R-Gain	0
G-Gain	0
B-Gain	0
R-Offset	0
G-Offset	-3
B-Offset	0
Gamma	1
HDMI Black Level	Low





Multi-Point Grayscale



20

CCT	0	6503	Target
Gamma	0	2.38	Target
DEITP	0	/ 0	w/ Lumin Error

	Y cd/m²	x	y
Read →	0	0	0
Target →	2.18901	0.3127	0.329

DDC

2 Point 20%, 80%

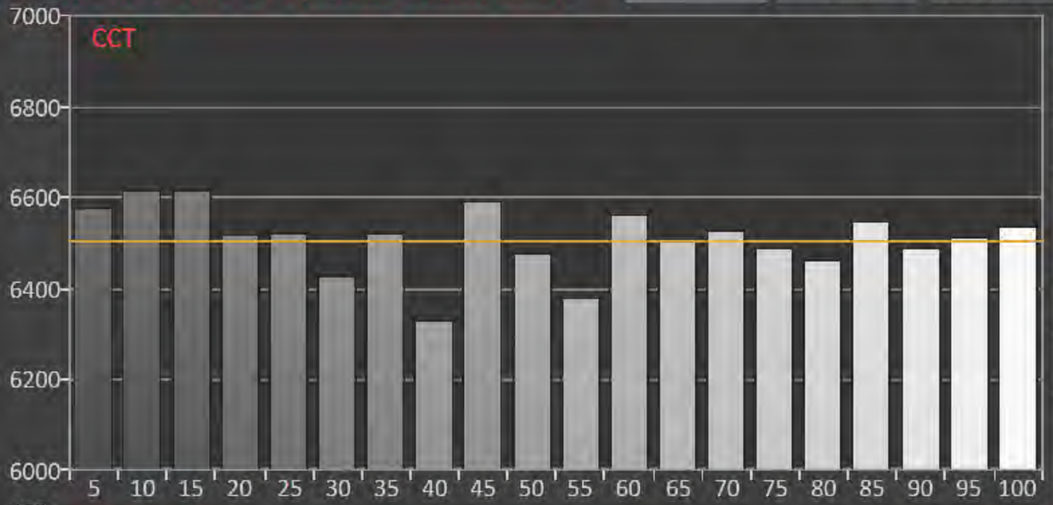
Triplet
60, 60, 60

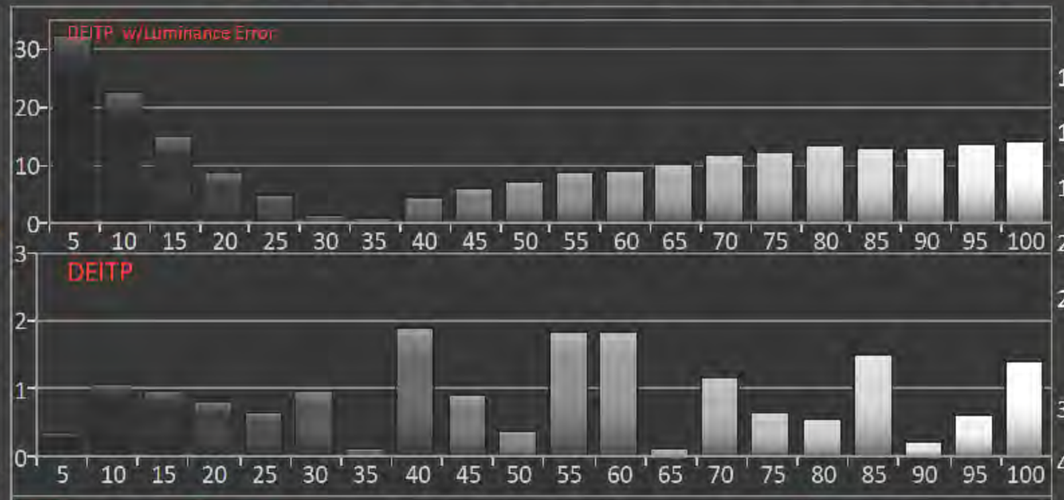
CAL
Gray
2-Pnt
Back
Next
M-Pt
HOME
Prepare
Session Setup
PreCal Read
Calibrate
M-P
CMS
Sat
LUT
Lum
CCk
PostCal Read
Analyze
Post
Comp
Final Check
2-Pnt
M-Pt

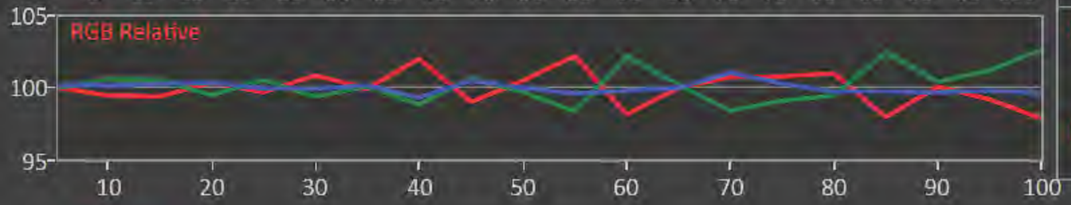
CalMAN

Multi-Point Grayscale Calibration

EOTF | Luminance | Chart Mode | DDC/Display | Comparator | 2-Pt Grayscale | Datagrid







CCT		Gamma	
Avg	6511	Tot	2.88
Tgt	6503	Tgt	2.4
DEITP Avg	0.91 / 11.27		
Max	1.92 / 32.57		

Contrast 0

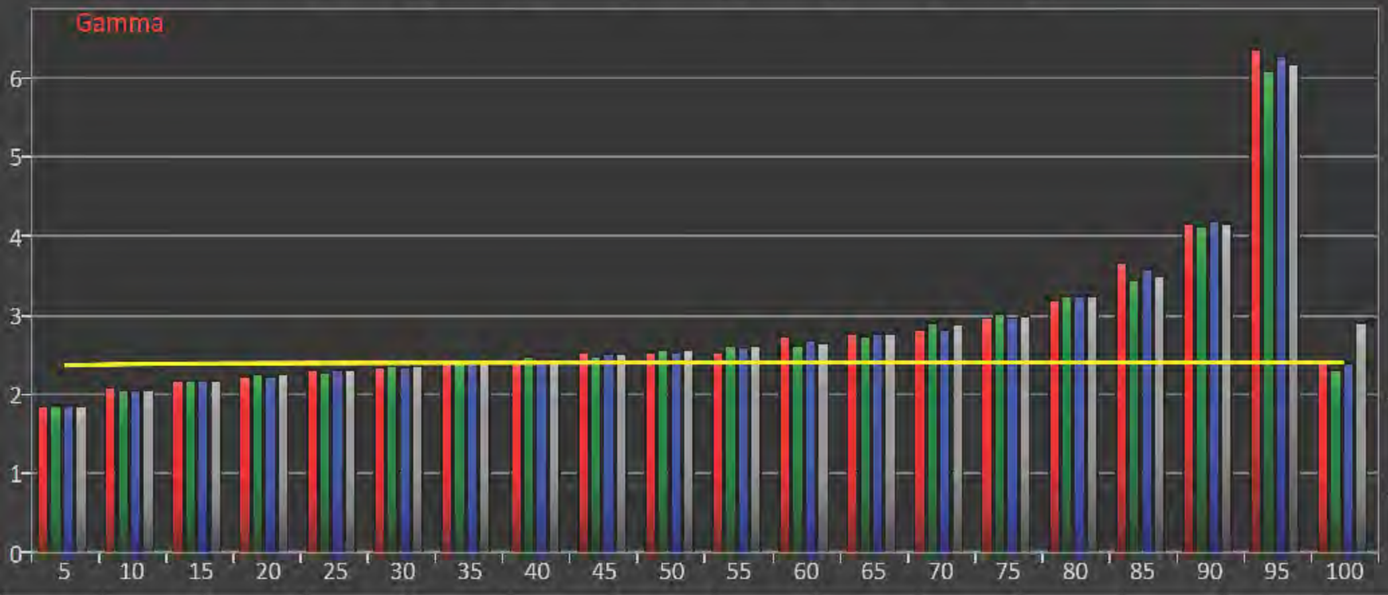
Black 0 cd/m²

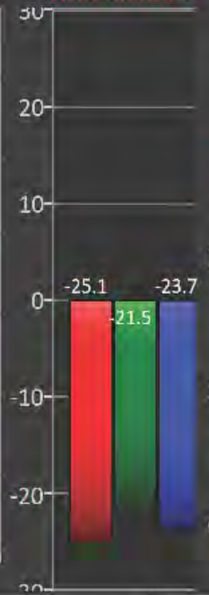
White 81.9

Summary

Display Slot Movie

20 Point 5% Step 5-100%





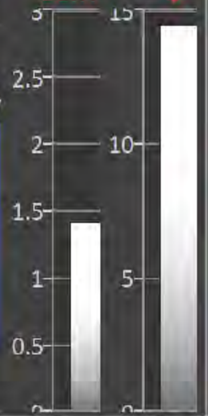
Triplet

235, 235, 235

100

w/ Luminance Error

DEITP



w/ Luminance Error

dE 1.42 / 14.45

Target

Gamma 2.93 / 2.4

CCT 6540 / 6503

cd/m²

Y 81.917 / 100

x 0.3117 / 0.3127

y 0.3312 / 0.329

	Red	Green	Blue
7	26	50	-50
10.5	8	24	20
15.5	8	16	24
19.6	0	8	16
24.7	-9	1	1
29.7	-9	-2	-1
35	-6	6	1
39.7	-3	9	6
44.7	-3	9	13
49.8	-1	10	12
55	-3	9	12
60.3	-3	6	9
65	-3	9	9
70	-6	8	6
75.3	-4	8	8
81	-6	7	6
86	-6	6	6
90.4	-6	6	6
97.7	-6	6	6
100	-6	6	6

Reset Grayscale

Gray Levels SDR-Q900/Q9/Q8

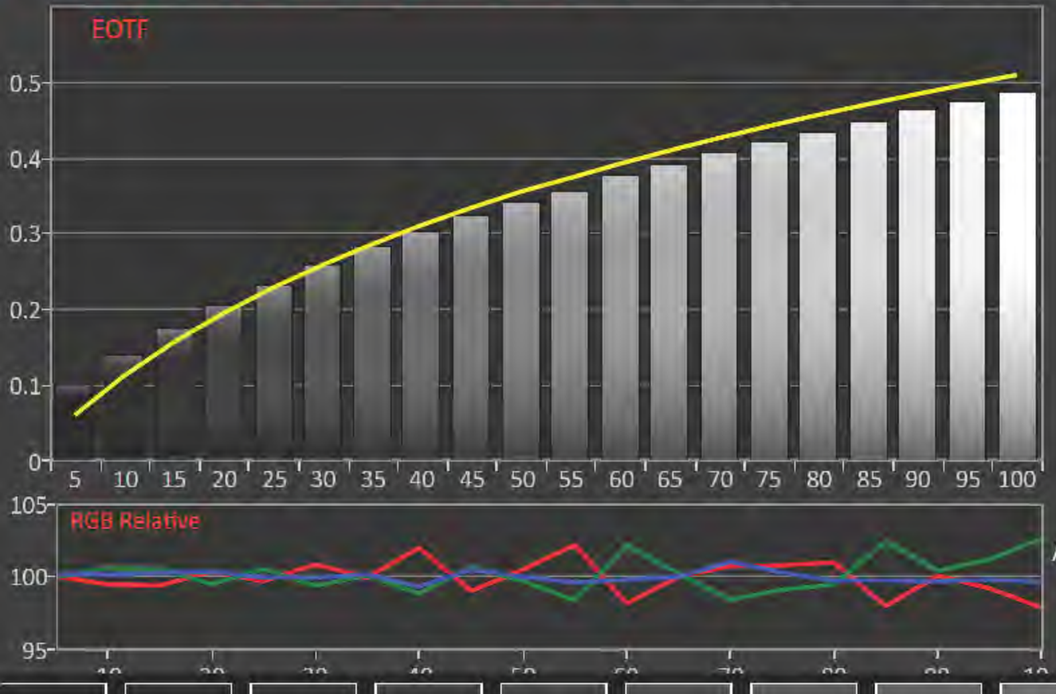
Run AutoCal | DDC/Display

CAL | Adjst | M-Pnt | Back | Next | 2-Pt | HOME | Prepare | Session Setup | PreCal Read | Calibrate | 2-Pt | CMS | Sat | LUT | Lum | CCk | PostCal Read | Analyze | Post | Comp | Final Check | M-Pnt | 2-Pt

CalMAN

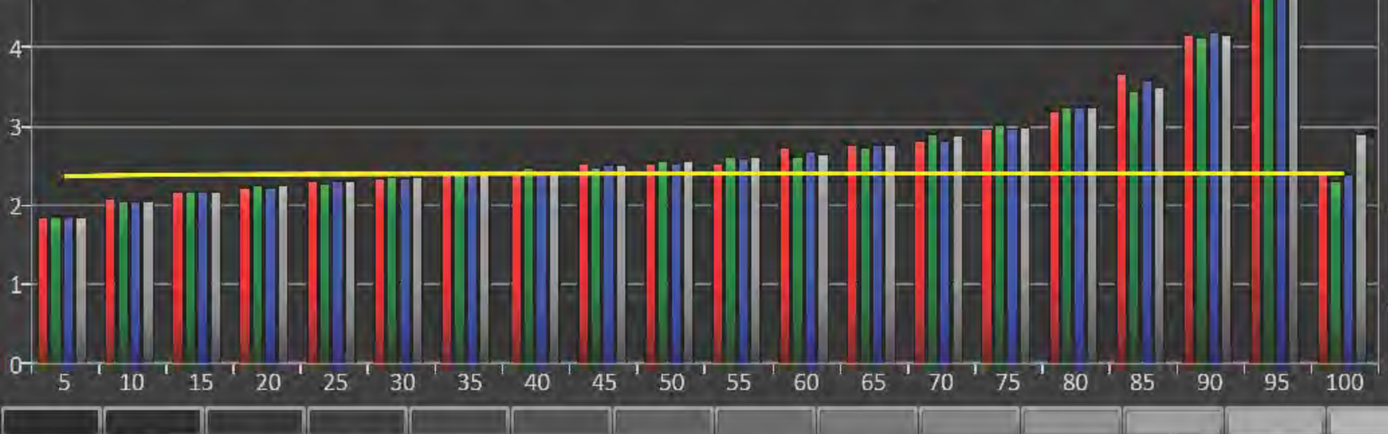
Multi-Point Grayscale Calibration

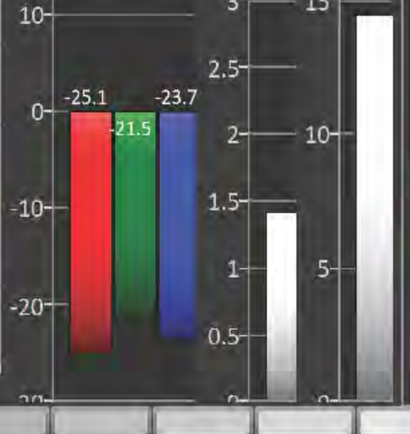
CCT | Luminance | Chart Mode | DDC/Display | Comparator | 2-Pt Grayscale | Datagrid



Picture Size	16x9
Fit to Screen	On
Backlight	35
Brightness	0
Contrast	25
Sharpness	0
Color	26
Tint (G/R)	0
Apply Picture Settings	All Sources
Digital Clean View	Off

	Red	Green	Blue
7	26	50	-50
10.5	8	24	20
15.5	8	16	24
19.6	0	8	16
24.7	-9	1	1
29.7	-9	-2	-1
35	-6	6	1
39.7	-3	9	6
44.7	-3	9	13
49.8	-1	10	12
55	-3	9	12
60.3	-3	6	9
86	-6	6	6
90.4	-6	6	6
97.7	-6	6	6
100	-6	6	6





cd/m²
Y 81.917 / 100
x 0.3117 / 0.3127
y 0.3312 / 0.329

Reset Grayscale

Gray Levels SDR-Q900/Q9/Q8

Run AutoCal | DDC/Display

CAL | Adjst | M-Pnt | Back | Next | 2-Pt | HOME | Prepare | Session Setup | PreCal Read | Calibrate | 2-Pt | CMS | Sat | LUT | Lum | CCk | PostCal Read | Analyze | Post | Comp | Final Check | M-Pnt | 2-Pt

CalMAN

Multi-Point Grayscale Calibration

CCT | DeltaE | Luminance ←Chart Mode | Display DDC | Comparator | 2-Pt Grayscale | Datagrid

Click grid to select it then click Configure to select data

Configure

	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100
RGB Triplet	27, 27, 27	38, 38, 38	49, 49, 49	60, 60, 60	71, 71, 71	82, 82, 82	93, 93, 93	104, 104, 104	115, 115, 115	126, 126, 126	136, 136, 136	147, 147, 147	158, 158, 158	169, 169, 169	180, 180, 180	191, 191, 191	202, 202, 202	213, 213, 213	224, 224, 224	235,
Target Y cd/m²	0.0877	0.4304	1.1112	2.1890	3.7118	5.7207	8.2523	11.3393	15.0123	19.2991	23.7512	29.2818	35.4987	42.4243	50.0800	58.4863	67.6628	77.6285	88.4017	100.0
Y cd/m²	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
Target x:CIE31	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.312
x: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
Target y:CIE31	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.329
y: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
Target CCT	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503
CCT	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000

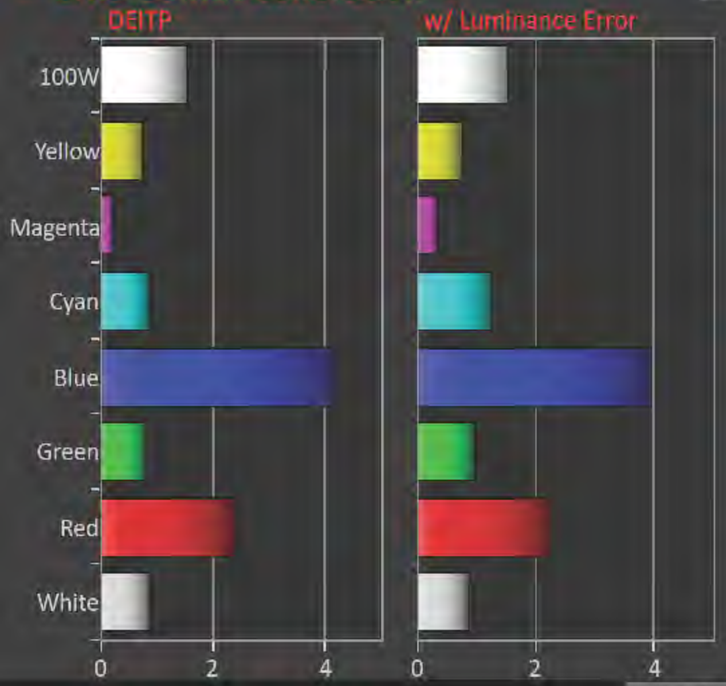
CAL
Adjst
M-Pnt
Back
Next
2-Pt
HOME
Prepare
Session Setup
PreCal Read
Calibrate
2-Pt
CMS
Sat
LUT
Lum
CCk
PostCal Read
Analyze
∫ Post
Comp
Final Check
M-Pnt
2-Pt


CalMAN
CMS Gamut Calibration
Datagrid
DEITP
w/ Luminance Error
100W
Yellow
Magenta
Cyan
Blue
Green
Red
White
Summary
DEITP w/Lum Err
Avg 1.46 / 1.5
Max 4.17 / 3.94
Delta L
Avg 0.149
Max 0.43
Delta H
Avg 0.343
Max 1.068
Delta C
Avg 0.852
Max 1.869
Black 0
White 81.8
Triplet 235, 235, 235
100W
Y tgt 81.781
81.781
x tgt 0.3127
0.3118
y tgt 0.329
0.3316
u'v' CIE
Y in cd/m²
tgt = Target
-2.9
1
-1.6
RGB Balance
100W
Red Green Blue
Red 16 12 0
Green 40 24 11
Blue 0 0 19
Cyan 16 15 0
Magenta 0 14 6
Yellow 27 37 18
Reset CMS
CMS Adj Point
100%
Run AutoCal
Gamut Lum Abs
Gamut Lum Rel
RGB Balance
Chart Mode
Delta C Max 1.869 Avg 0.852
Delta H Max 1.068 Avg 0.343
Delta L Max 0.43 Avg 0.149
White Green Cyan Yellow
Red Blue Magenta 100W
Display Slot
Movie
1.56 1.56 0 0 0 1.87
DEITP Luminance dL dH dC
CAL
CMS
Back
Next
HOME
Prepare
Session Setup
PreCal Read
Calibrate
Gry
Sat
LUT
Lum
CCk
PostCal Read
Analyze
Comp
Final Check
CMS

CalMAN

CMS Gamut Calibration

Datagrid



Summary

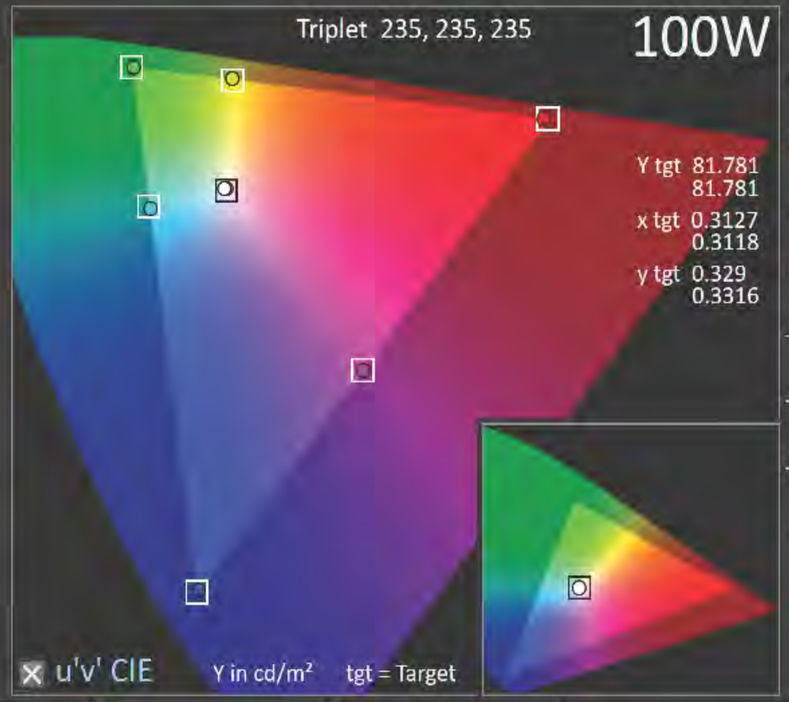
DEITP w/Lum Err ↓
Avg 1.46 / 1.5
Max 4.17 / 3.94

Delta L
Avg 0.149
Max 0.43

Delta H
Avg 0.343
Max 1.068

Delta C
Avg 0.852
Max 1.869

Black 0
White 81.8

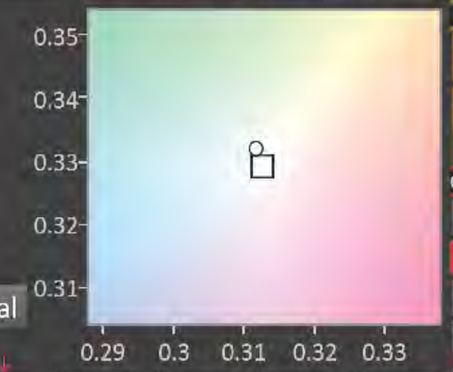


100W

	Red	Green	Blue
Red	16	12	0
Green	40	24	11
Blue	0	0	19
Cyan	16	15	0
Magenta	0	14	6
Yellow	27	37	18

Reset CMS

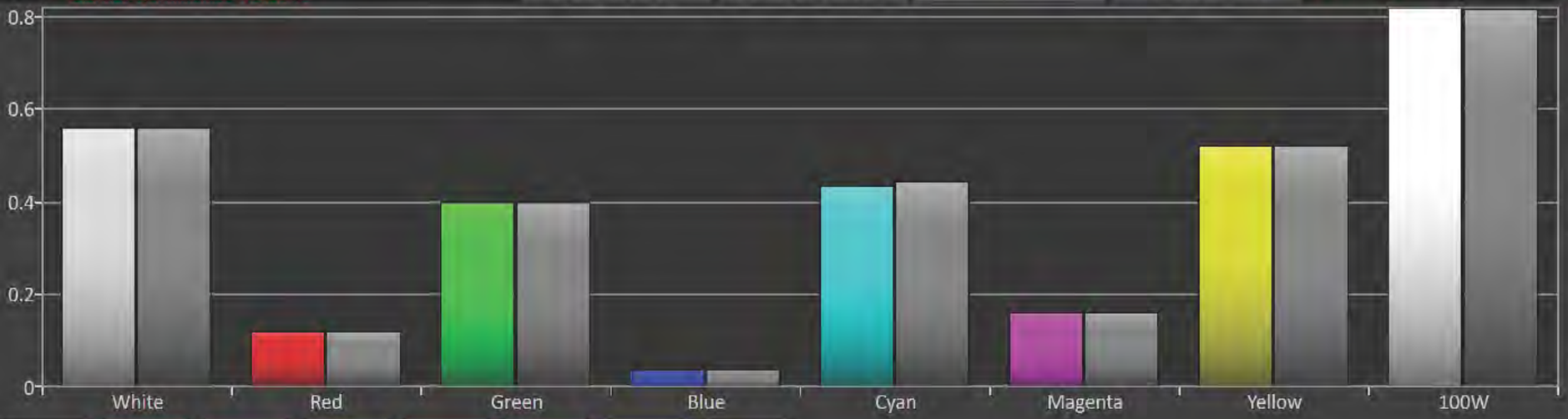
CMS Adj Point 100%

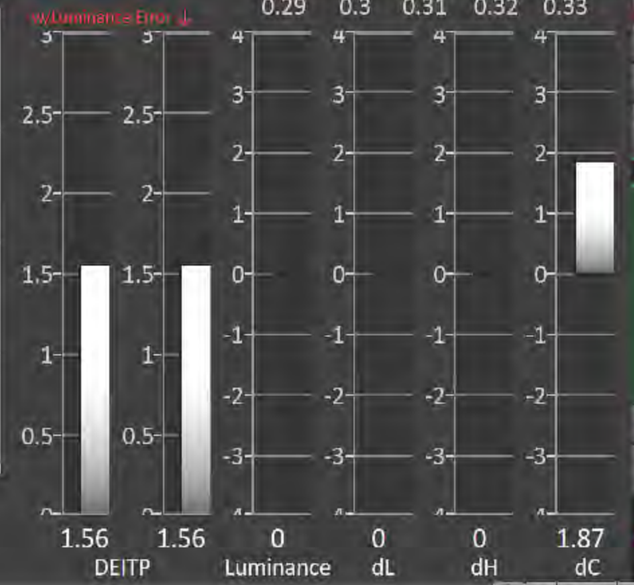


Run AutoCal

Gamut Luminance Relative

Delta C, H, L | Gamut Lum Abs | RGB Balance | Chart Mode





Display Slot Movie

CAL
CMS
Back
Next
HOME
Prepare
Session Setup
PreCal Read
Calibrate
Gry
Sat
LUT
Lum
CCk
PostCal Read
Analyze
Comp
Final Check
CMS

CalMAN

CMS Gamut Calibration

Datagrid Click grid to select it then click Configure to select data Configure

	White	Red	Green	Blue	Cyan	Magenta	Yellow	100W
RGB Triplet	202, 202, 202	202, 16, 16	16, 202, 16	16, 16, 202	16, 202, 202	202, 16, 202	202, 202, 16	235, 235, 235
Target Y cd/m²	67.6628	14.3890	48.3896	4.8844	53.2739	19.2732	62.7785	100.0000
Y cd/m²	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Target x:CIE31	0.3127	0.6400	0.3000	0.1500	0.2247	0.3209	0.4193	0.3127
x: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Target y:CIE31	0.3290	0.3300	0.6000	0.0600	0.3287	0.1542	0.5053	0.3290
y: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Target CCT	6503.4440	3096.5526	6066.4399	1848.1332	12863.1837	3545.8311	3910.0233	6503.4440
CCT	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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Gamut Saturation Calibration

Datagrid

DEITP | w/ Luminance Error

Summary

DEITP w/Lum Err ↓
Avg 3.16 / 12.63
Max 12.33/ 17.2

Delta L
Avg 4.792
Max 7.547

Delta H
Avg 0.538
Max 1.741

Delta C
Avg 2.4652
Max 8.463

Black 0
White 81.72

Triplet 202, 202, 16

100%

Y tgt 62.778
52.243
x tgt 0.4193
0.4198
y tgt 0.5053
0.5048

u'v' CIE Y in cd/m² tgt = Target

-17.7 0.3 -18.3

RGB Balance

100%

	Red	Green	Blue
Red	16	12	0
Green	40	24	11
Blue	0	0	19
Cyan	16	15	0
Magenta	0	14	6
Yellow	27	37	18

Reset CMS Tint (G/R) 0 Color 26

Gamut Lum Abs | Gamut Lum Rel | RGB Balance | Chart Mode

Run AutoCal

Delta C Max 8.463 Avg 2.465

Delta H Max 1.741 Avg 0.538

Delta L Max 7.547 Avg 4.792

For classic CMS set to 75%/100% Only ↓

Display Slot Movie

Sweep Level BT.709 20% Sweeps

w/Luminance Error ↓

0.29 DEITP | 12.81 | -16.78 Luminance | -5.9 dL | -0.24 dH | -0.08 dC

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3D Color Cube LUT Calibration - Full

DEITP | w/Luminance Error

100 0 0
93.6 0 0
87.7 0 0
81.3 0 0
75 0 0
69 0 0
62.6 0 0
56 0 0
50 0 0
44 0 0
37.4 0 0
31 0 0
25 0 0
18.7 0 0
12.3 0 0
6.4 0 0
0 0 0

0 10 20 30 40 | 0 10 20 30 40

Go to Minimal 3D LUT

Summary

Delta C
1.91 Avg 4.32 Max

Delta H
0.76 Avg 1.79 Max

Delta L
2.15 Avg 4.42 Max

DEITP
Avg 9.05 / 12.85
w/Luminance Error
Max 38.76 / 31.03

RGB Balance | DEITP

30 20 10 0 -10 -20 -30
-22.2 -0.2 3.1
w/Lumin Err

Triplet
235, 16, 16

Y 17.45048
Tgt 21.26567

x 0.63879
Tgt 0.64

y 0.32927
Tgt 0.33

dC -7.32
dH -0.87
dL -4.42

dE 1.2
/ 13.37

100 0 0

Datagrid

Points 209
Virtual LUT

100 White
0.098007 Black
u'v' CIE

Color Bars | Red | Green | Blue | Cyan | Magenta | Yellow | White | Ramp

Big Comparator

Inner Data Points

Luminance Level Points
17 Points per side, SMPTE (0-100), 6.25% steps

Run AutoCal

Display Slot
Movie

Selected LUT

000 6.400 12.300 18.700 25.00 31.00 37.400 44.00 50.00

CAL
3dLUT
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Chrts
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Final Check
3dLUT

CalMAN

3D Color Cube LUT Calibration - Full

Go to Minimal 3D LUT

Datagrid

DEITP | w/Luminance Error

100 0 0
93.6 0 0
87.7 0 0
81.3 0 0
75 0 0
69 0 0
62.6 0 0
56 0 0
50 0 0
44 0 0
37.4 0 0
31 0 0
25 0 0
18.7 0 0
12.3 0 0

Summary

Delta C
1.91 Avg 4.32 Max

Delta H
0.76 Avg 1.79 Max

Delta L
2.15 Avg 4.42 Max

DEITP
Avg 9.05 / 12.85
w/Luminance Error
Max 38.76 / 31.03

RGB Balance | DEITP

Triplet
235, 16, 16

-22.2
3.1
-0.2

w/Lumin Err

Y 17.45048
Tgt 21.26567

x 0.63879
Tgt 0.64

y 0.32927
Tgt 0.33

dC -7.32
dH -0.87
dL -4.42

dE 1.2
/ 13.37

100 0 0

Points 209
Virtual LUT

100 White
0.098007 Black
u'v' CIE

Color Bars | Red | Green | Blue | Cyan | Magenta | Yellow | White | Ramp

Big Comparator

Inner Data Points | Luminance Level Points

0 0 0 | 6.4 0 0 | 12.3 0 0 | 18.7 0 0 | 25 0 0 | 31 0 0 | 37.4 0 0 | 44 0 0 | 50 0 0 | 56 0 0 | 62.6 0 0 | 69 0 0 | 75 0 0 | 81.3 0 0 | 87.7 0 0 | 93.6 0 0 | 100 0 0

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3D Color Cube LUT Calibration - Minimal

Go to Full 3D LUT

Datagrid

Summary

Points 209

Black 0

White 100

dE Avg 0 / 0

w/Luminance Error

dE Max 0 / 0

DEITP

dE @ 0 0 0 0

w/ Luminance Error 0

dL 0 dH 0 dC 0

RGB Balance

R 0 G 0 B 0

Red | Green | Blue | Cyan | Magenta | Yellow | White

Read Cube Ramp

Run AutoCal

Go to Charts

View charts in the Analysis section

Luminance Level Points: 17 Points per side, SMPTE (0-100)

Inner Data Points

Selected LUT

Display Slot: 2

CAL 3dLUT Mnml

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CCk

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Chrts

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3dLUT

CalMAN

Gamut Luminance Cal Assessment

Datagrid

DEITP | w/ Luminance Error

Summary

DEITP w/Lum Err

Avg 2.95 / 49.3
Max 14.69/ 66.01

Delta L
Avg 14.586
Max 30.083

Delta H
Avg 0.414
Max 1.255

Delta C
Avg 1.069
Max 5.816

Black 0
White 81.26

Triplet 235, 235, 16

100

Y tgt 185.56
76.1292
x tgt 0.4193
0.417
y tgt 0.5053
0.5077

u'v' CIE Y in cd/m² tgt = Target

RGB Balance

-91.6 -88.8 -1.6

100

Delta C, H Gamut Lum Abs Gamut Lum Rel Y Luminance RGB Balance Chart Mode

Delta C Max 5.816 Avg 1.069

Delta H Max 1.255 Avg 0.414

Delta L Max 30.083 Avg 14.586

w/Luminance Error

1.55 DEITP 65.36 -58.97 Luminance -29.07 dL 1.13 dH 0.45 dC

25 50 75 100

Ramp Levels 4 Point 25% step 25-100%

Display Slot Movie

CAL Lumi

Back Next

HOME Prepare Session Setup PreCal Read Calibrate Gry CMS Sat LUT CCk PostCal Read Analyze Post Final Check Lumi

CalMAN

Color Checker Cal Assessment

100% Yellow

Add Custom Color Set → SG Fleshtones | Select Colors | u'v' CIE

DEITP — Max 12.73/ 65.52 Avg 3.66 / 56.06 — w/Luminance Error

Delta L — Max +/- 29.8 Avg 18.72

Delta H — Max +/- 1.77 Avg 0.49

Delta C — Max +/- 6.47 Avg 1.85

100% Yellow
100% Magenta
100% Cyan
100% Blue
100% Green
100% Red
Cyan
Magenta
Yellow
Red
Green
Blue
Orange Yellow
Yellow Green
Purple
Moderate Red
Purplish Blue
Orange
Bluish Green
Blue Flower
Foliage
Blue Sky
Light Skin
Dark Skin
Gray 35
Gray 50
Gray 65
Gray 80
White

0 2 4 6 8 10 12 14 | -20 0 20 | -4 -2 0 2 4 | -5 0 5

100% Yellow

Points 29 — Black 0 — White 82

Delta E: Avg 3.66 / NA 0; Max 12.73/ 65.52

Delta L: Avg 18.72; Max 29.83

Delta H: Avg 0.57; Max 2.02

Delta C: Avg 1.85; Max 34.53

100% Yellow

RGB Balance: -90.6, -88.9, 0

0.89 dE | 65.24 w/le | -29.03 dL | 0.79 dH | -24.74 dC | -58.91 Lu

Display Slot: Movie

Big CIE Chart | Comparator | Slim Datagrid

Triplet 235, 235, 16 — Y cd/m² 76.2519 Tgt 185.5629 — x 0.4178 Tgt 0.4193 — y 0.5065 Tgt 0.5053

CAL CChkr Back Next # slim HOME Prepare Session Setup PreCal Read Calibrate Gry CMS Sat LUT Lum # slim PostCal Read Analyze Post Final Check CChkr # slim

CalMAN

Color Checker Cal Assessment

Max 12.73/ 65.52 Avg 3.66 / 56.06

DEITP

w/Luminance Error

100% Yellow

Add Custom Color Set → SG Fleshtones

Select Colors

u'v' CIE

Points 29

Black 0

White 82

Delta E
Avg 3.66 / NA 0
Max 12.73/ 65.52

Delta L
Avg 18.72
Max 29.83

Delta H
Avg 0.57
Max 2.02

Delta C
Avg 1.85
Max 34.53

100% Yellow

RGB Balance

100% Yellow	
100% Magenta	
100% Cyan	
100% Blue	
100% Green	
100% Red	
Cyan	
Magenta	
Yellow	
Red	
Green	
Blue	
Orange Yellow	
Yellow Green	
Purple	
Moderate Red	
Purplish Blue	
Orange	
Bluish Green	
Blue Flower	
Foliage	
Blue Sky	
Light Skin	
Dark Skin	

White, Gray 80, Gray 65, Gray 50, Gray 35, Dark Skin, Light Skin, Blue Sky, Foliage, Blue Flower, Bluish Green, Orange, Purplish Blue, Moderate Red, Purple, Yellow Green, Orange Yellow, Blue, Green, Red, Yellow, Magenta, Cyan, 100% Re

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Display Slot
Movie

Big CIE Chart | Comparator | Slim Datagrid

Triplet 235, 235, 16

Y cd/m² 76.2519 Tgt 185.5629

x 0.4178 Tgt 0.4193

y 0.5065 Tgt 0.5053

0.89 dE 65.24 w/le -29.03 dL 0.79 dH -24.74 dC -58.91 Lu

CalMAN

≡ Color Checker Assessment Data ≡

Color Notes

Post-Cal Notes

	White	Gray 80	Gray 65	Gray 50	Gray 35	Dark Skin	Light Skin	Blue Sky	Foliage	Blue Flower	Bluish Green	Orange	Purplish Blue	Moderate Red	Purple	Yellow G
RGB Triplet	235, 235, 235	213, 213, 213	196, 196, 196	176, 176, 176	152, 152, 152	115, 86, 73	182, 145, 128	97, 121, 150	93, 108, 73	128, 126, 167	101, 178, 161	202, 119, 51	80, 95, 156	182, 88, 99	95, 69, 108	152, 176
Target Y cd/m²	100.0000	77.6285	62.5608	47.2103	32.0212	8.1891	32.6031	16.5635	11.0615	21.0539	39.6941	26.2802	9.8808	16.7058	5.2067	40.8403
Y cd/m²	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Target x:CIE31	0.3127	0.3127	0.3127	0.3127	0.3127	0.4144	0.3841	0.2445	0.3428	0.2648	0.2594	0.5252	0.2089	0.4779	0.2858	0.3780
x: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Target y:CIE31	0.3290	0.3290	0.3290	0.3290	0.3290	0.3660	0.3579	0.2597	0.4389	0.2464	0.3622	0.4055	0.1791	0.3124	0.2094	0.5019
y: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Target CCT	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	3103.9968	3767.4359	19367.0915	5231.6803	18108.1855	8967.3264	1997.5908	-1622057.9567	1758.3237	36071.7775	4598.05
CCT	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Red PQ Diff	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Green PQ Diff	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Blue PQ Diff	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dE94 L LuminanceCompensated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dE94 C LuminanceCompensated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dE94 H LuminanceCompensated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Signed dE94 L LuminanceCompensated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Signed dE94 C LuminanceCompensated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Signed dE94 H LuminanceCompensated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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DTA
Asmt
Notes

CalMAN

≡ Color Checker Assessment Data Slim 1 ≡

Color Notes

Post-Cal Notes

	White	Gray 80	Gray 65	Gray 50	Gray 35	Dark Skin	Light Skin	Blue Sky	Foliage	Blue Flower	Bluish Green	Orange	Purplish Blue	Moderate Red	Purple	Yellow Green	Orange Yellow	Blue
RGB Triplet	235, 235, 235	213, 213, 213	196, 196, 196	176, 176, 176	152, 152, 152	115, 86, 73	182, 145, 128	97, 121, 150	93, 108, 73	128, 126, 167	101, 178, 161	202, 119, 51	80, 95, 156	182, 88, 99	95, 69, 108	152, 176, 71	213, 154, 55	60, (
Target Y cd/m²	100.0000	77.6285	62.5608	47.2103	32.0212	8.1891	32.6031	16.5635	11.0615	21.0539	39.6941	26.2802	9.8808	16.7058	5.2067	40.8403	40.3396	4.93
Y cd/m²	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00
Target x:CIE31	0.3127	0.3127	0.3127	0.3127	0.3127	0.4144	0.3841	0.2445	0.3428	0.2648	0.2594	0.5252	0.2089	0.4779	0.2858	0.3780	0.4826	0.18
x: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00
Target y:CIE31	0.3290	0.3290	0.3290	0.3290	0.3290	0.3660	0.3579	0.2597	0.4389	0.2464	0.3622	0.4055	0.1791	0.3124	0.2094	0.5019	0.4407	0.12
y: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00
Target CCT	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	3103.9968	3767.4359	19367.0915	5231.6803	18108.1855	8967.3264	1997.5908	-1622057.9567	1758.3237	36071.7775	4598.0587	2648.4636	399
CCT	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00

CAL

Asmt

HOME

Prepare

Calibrate

Asmt

Data2

Analyze

DTA

Asmt

Notes

CalMAN 2018 CalMAN Home enthusiast

CalMAN

≡ Color Checker Assessment Data Slim 2 ≡

Color Notes

Post-Cal Notes

	White	Gray 80	Gray 65	Gray 50	Gray 35	Dark Skin	Light Skin	Blue Sky	Foliage	Blue Flower	Bluish Green	Orange	Purplish Blue	Moderate Red	Purple	Yellow Green	Orange Yellow	Blue	Green	Red	Yellow	Magenta	Cya
Red PQ Diff	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0
Green PQ Diff	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0
Blue PQ Diff	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0
ΔE 1994 L*:±	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0
ΔE 1994 Sat:±	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0
ΔE 1994 Hue:±	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0
Signed dE94 L LuminanceCompensated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0
Signed dE94 C LuminanceCompensated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0
Signed dE94 H LuminanceCompensated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0

CAL

Asmt

HOME

Prepare

Calibrate

Asmt

Data1

Analyze

DTA

Asmt

Datagrid 1 Notes

CalMAN

Post-Calibration Readings

5/10/2019 Calibration

Gamma Breakout Tot 2.86 Contrast 835 Black 0.098594 White 82.29 cd/m²

100

1 Grayscale

Detail Charts | 21 Point 5% step 0-100%

Avg 1.01 / 11.26
Max 2.7 / 33.07

100 DEITP 2.7 / 14.37 w/ Lumin Error

4 Color Checker

Detail Charts

Cyan
u'v' CIE

DEITP 1.56 Avg 4.45 Max 12.66
w/ Lumin Err 8.21 Avg 10.72 Max 15.25

Cyan

Add Custom Color Set →

SG Fleshtones

Select Colors

Comparator

Populate CMS for HT report

2 Saturation Sweeps

Detail Charts | BT.709 25% Sweeps

Avg 3.76 / 10.71
Max 12.9 / 15.44

100% w/Lumin Err 12.17

100% DEITP 0.52

100% 25% 50% 75% 100%

3 Gamut Luminance

Detail Charts | 4 Point 25% step 25-100%

Avg 2.82 / 9.92

Max 15.04 / 14.57 100 w/ Lumin Err 14.27

100 DEITP 0.15

25 50 75 100

LUT Calibration

Points 209
Avg DEITP 9.05
Max DEITP 38.76

Movie 300 nits

Post-Cal Readings

Display Slot Movie

Contrast
Brightness
Backlight

Setup Values

TV Gamma
Color
Tint

Red Green Blue
Gain
Cut

Notes

DEITP vs. De 2000

Use [···] mid-screen or below to read all series or select one from the individual series above

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CCk
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Final Check
PstCal

CalMAN

Compare Calibrations

Cal 1 Notes

20 Point 5% Step 5-100%

SG Fleshtones

Cal 2 Notes

Show DDC settings & Help

DEITP w/ Luminance Error Avg. 11.48

DEITP Avg. 1.09

DEITP Avg. 4.55

DEITP w/ Luminance Error Avg. 10.83

DEITP w/ Luminance Error Avg. 11.27

DEITP Avg. 0.96

DEITP Avg. 2.26

DEITP w/ Luminance Error Avg. 10.65

Cal 1

Cal 2

Grayscale

Grav & Color

STOP

ColorChecker

Clear

Clear

Cyan
Magenta
Yellow
Red
Green
Blue
Orange Yellow
Yellow Green
Purple
Moderate Red
Purplish Blue
Orange
Bluish Green
Blue Flower
Foliage
Blue Sky
Light Skin
Dark Skin
Gray 35
Gray 50
Gray 65
Gray 80
White

Nav Bar

CAL

Comp

Notes

Prepare

Session Setup

Calibrate

2-Pt

M-Pt

CMS

Sat

LUT

PostCal Read

Analyze

Final Check

Com

Notes

CalMAN

Compare Calibrations

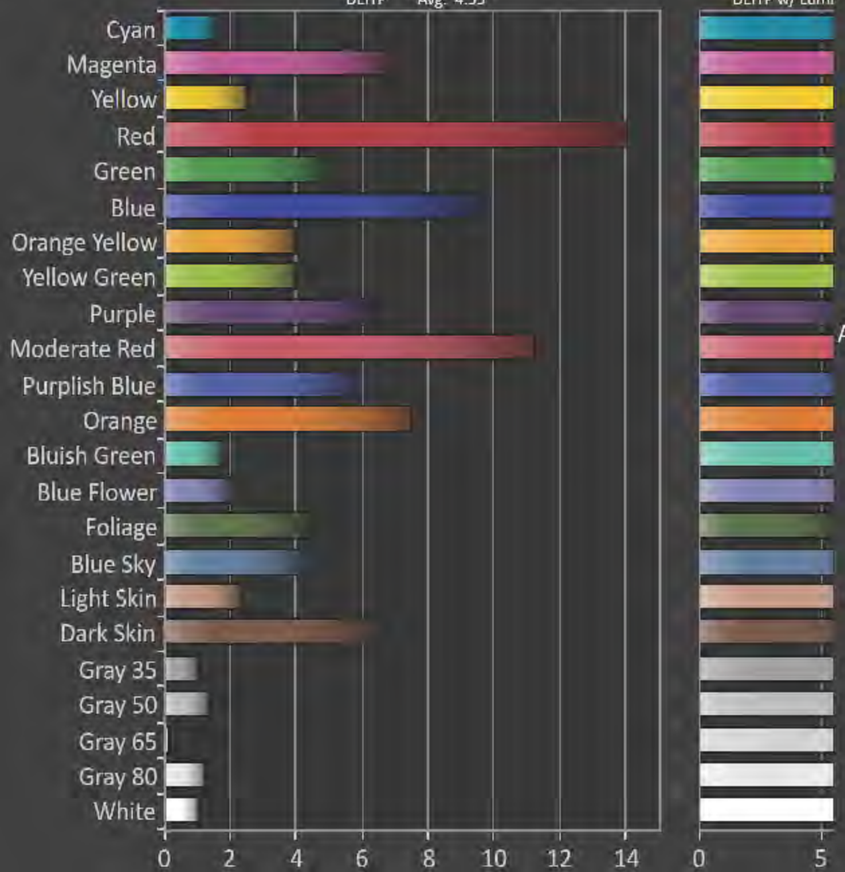
Cal 1 Notes

Cal 2 Notes

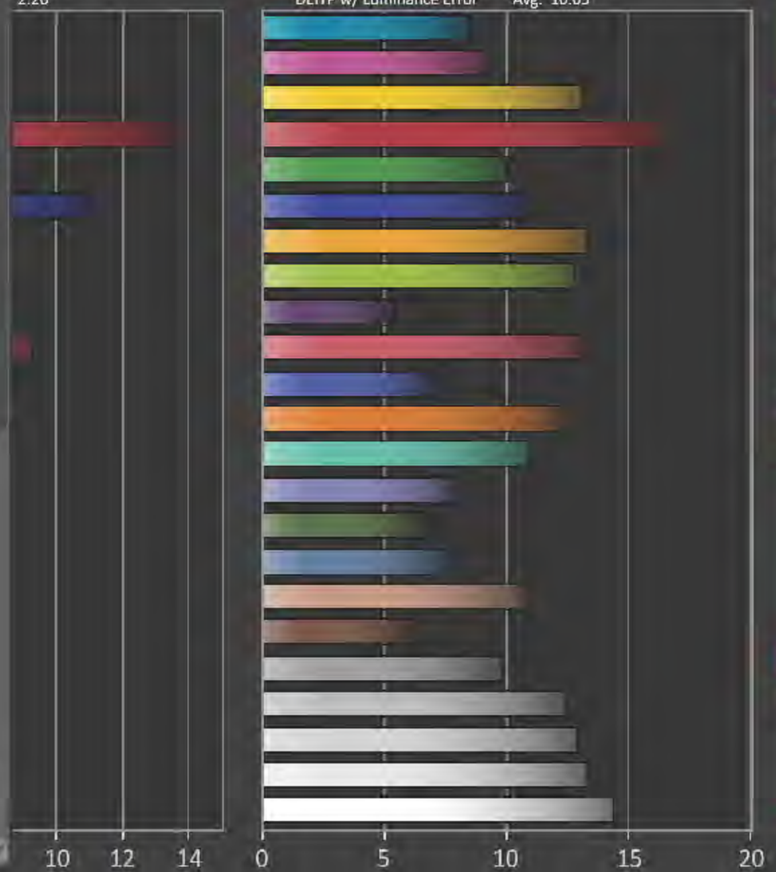
Show DDC settings & Help

Run a calibration session with initial base settings, then take Cal 1 Grayscale and/or Color Checker readings here writing key settings. If needed, change the base settings and run another calibration session, then take Cal 2 readings.

Repeat as needed, changing base settings, calibrating and taking readings using the worse previous Cal, always noting key settings, until best result is found. Planning key setting sequences to run is very useful.



Picture Size	16x9
Fit to Screen	On
Backlight	34
Brightness	0
Contrast	23
Sharpness	0
Color	26
Tint (G/R)	-1
Apply Picture Settings	All Sources
Digital Clean View	Off
Auto Motion Plus	Off
Local Dimming	Low
Contrast Enhancer	Off
HDR+ Mode	Off
Color Tone	Warm2
R-Gain	0
G-Gain	0



Nav Bar
CAL
Comp
Notes
Prepare
Session Setup
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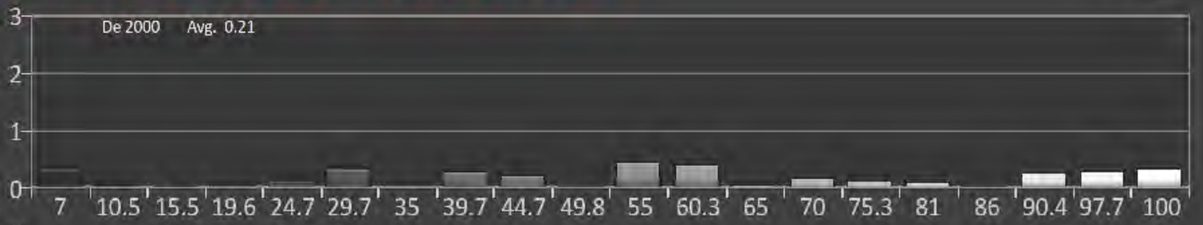
2-Pt
M-Pt
CMS
Sat
LUT
PostCal Read
Analyze
Final Check
Comp
Notes

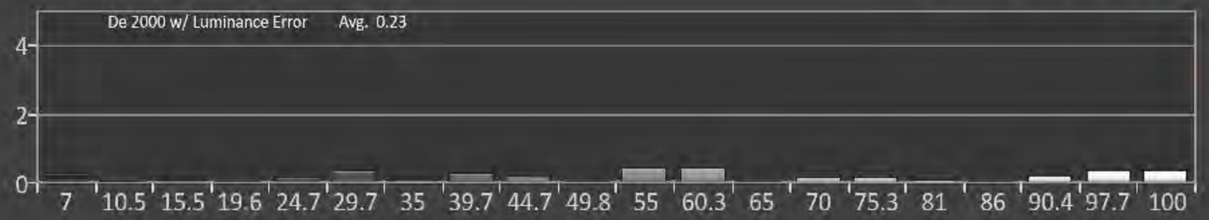
CalMAN

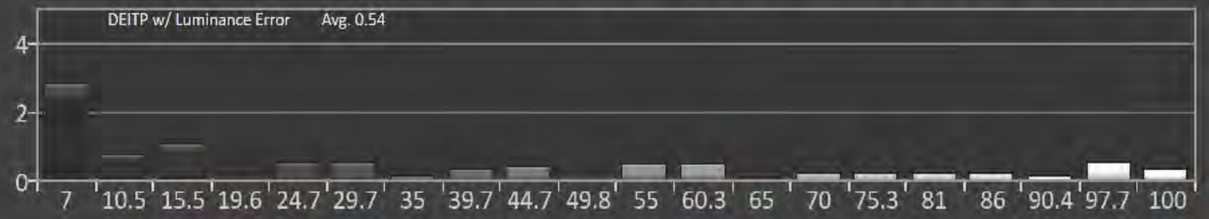
≡ DEITP vs. De 2000 - From Post-Cal ≡

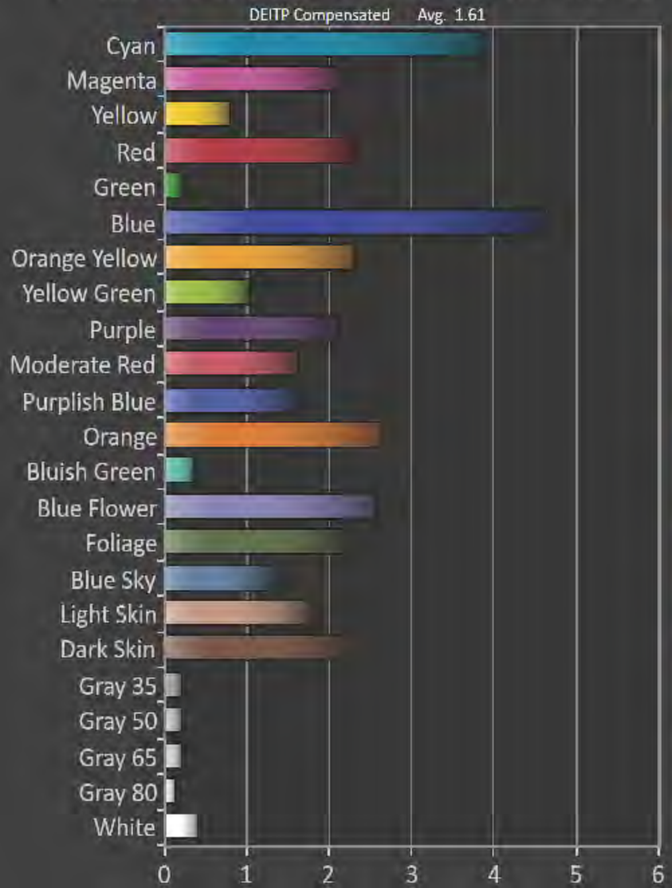
Use New Readings

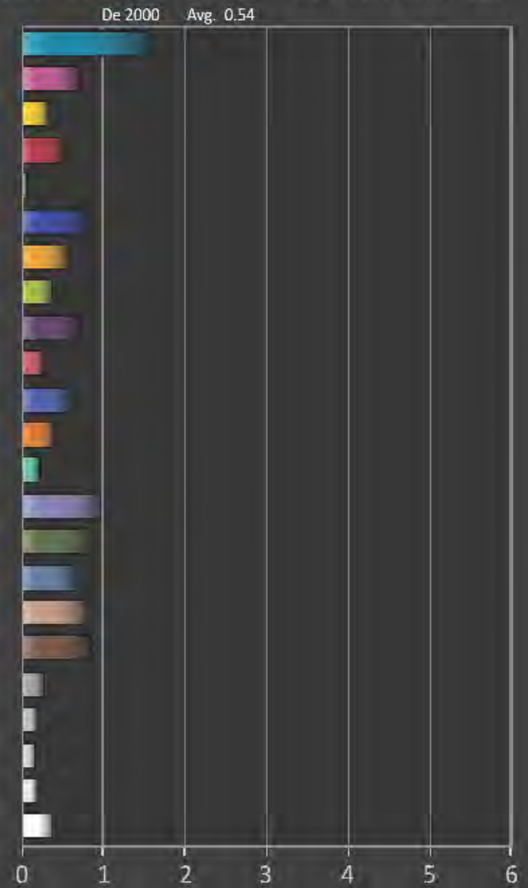
Back to Post-Cal Layout

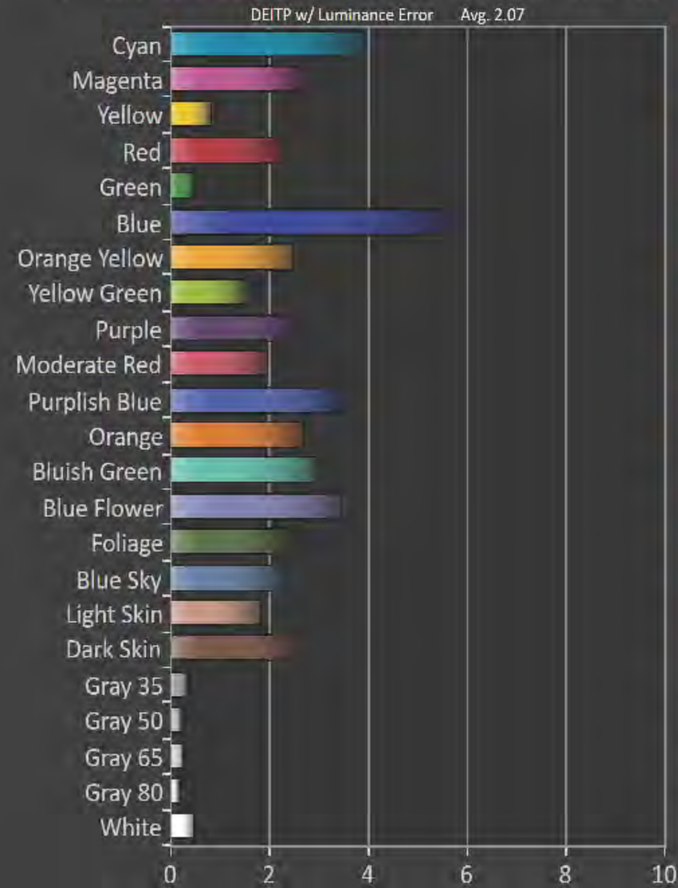


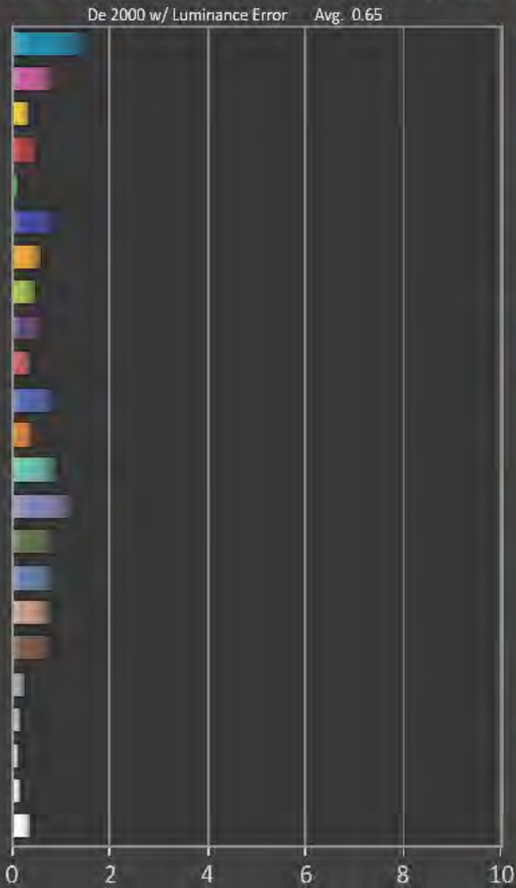












Nav Bar
CAL
DeCm
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Prepare
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M-Pt
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Sat
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PostCal Read
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Final Check
Notes
DeCm
PostCal

CalMAN

≡ DEITP vs. De 2000 - New Readings ≡

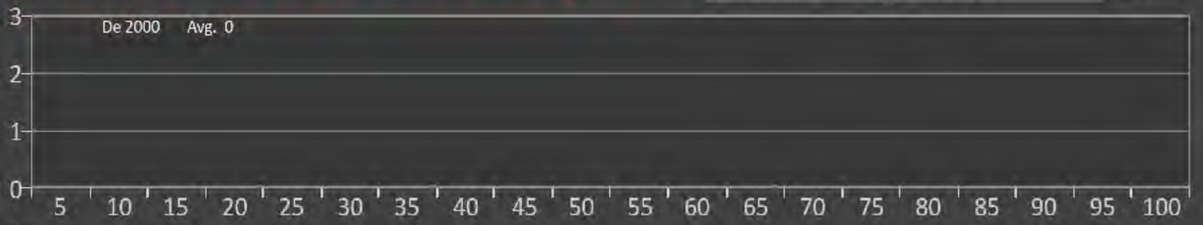
20 Point 5% Step 5-100%

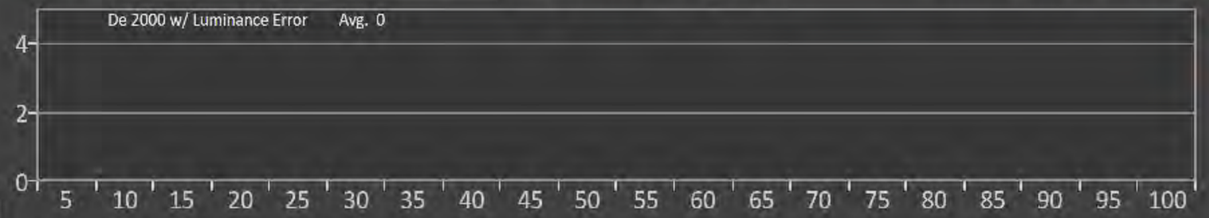
Use Post-Cal Readings

SG Fleshtones

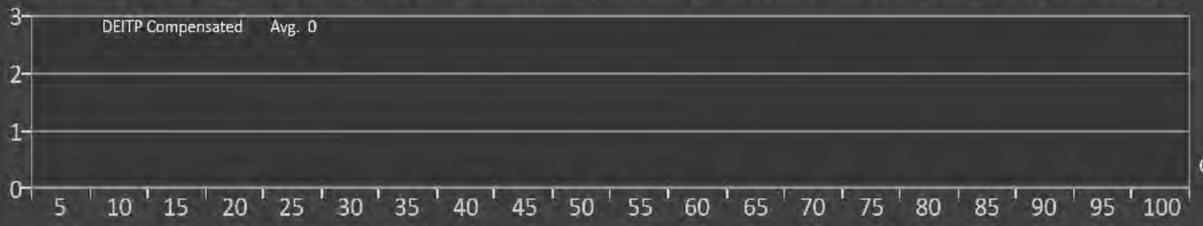
Additional Colors

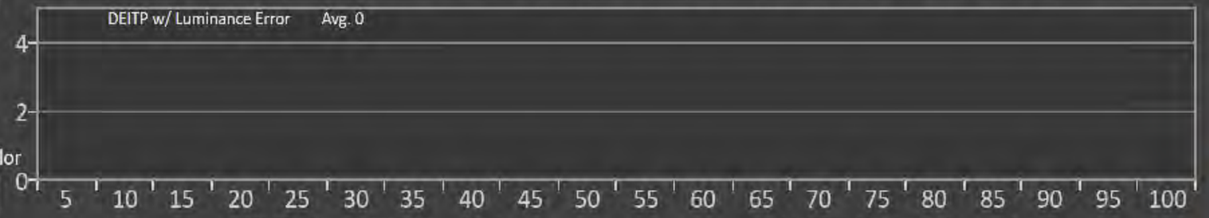
Back to Post-Cal Layout





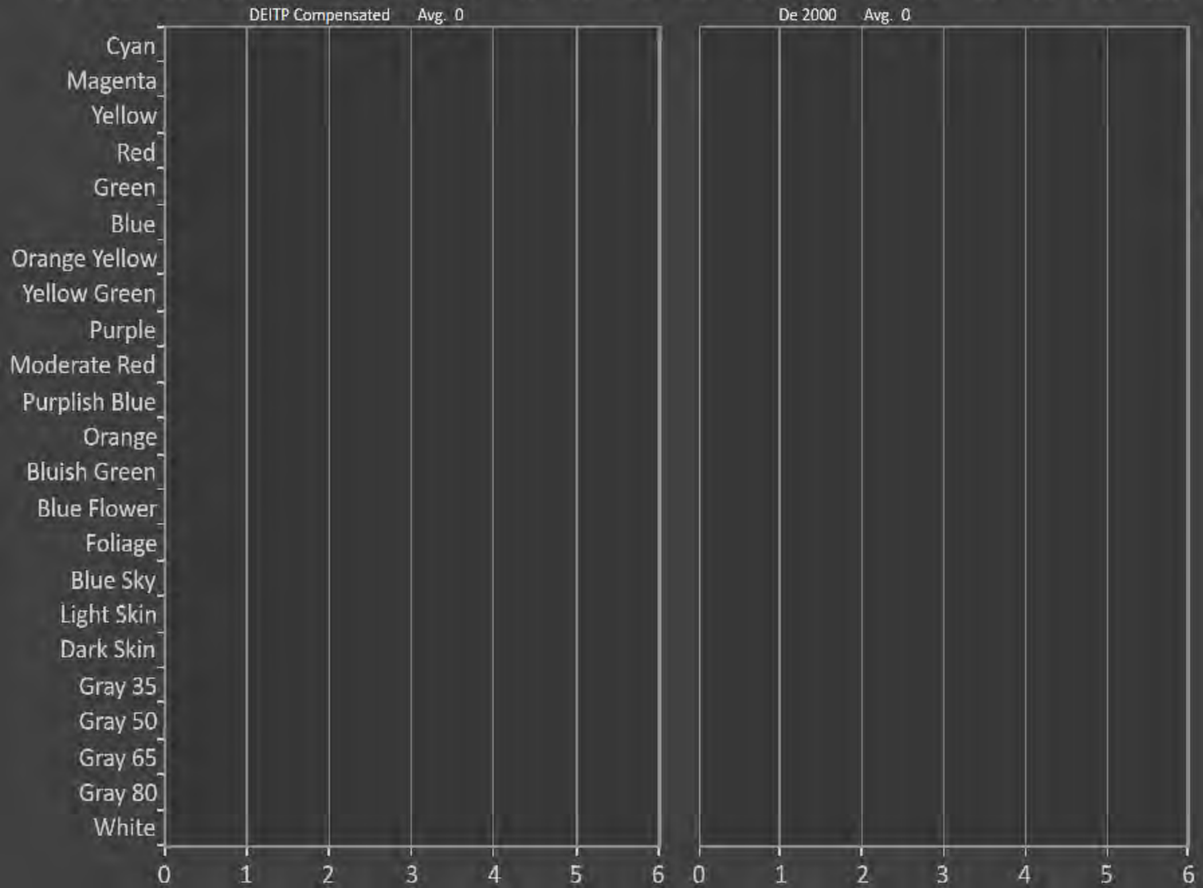
Gray

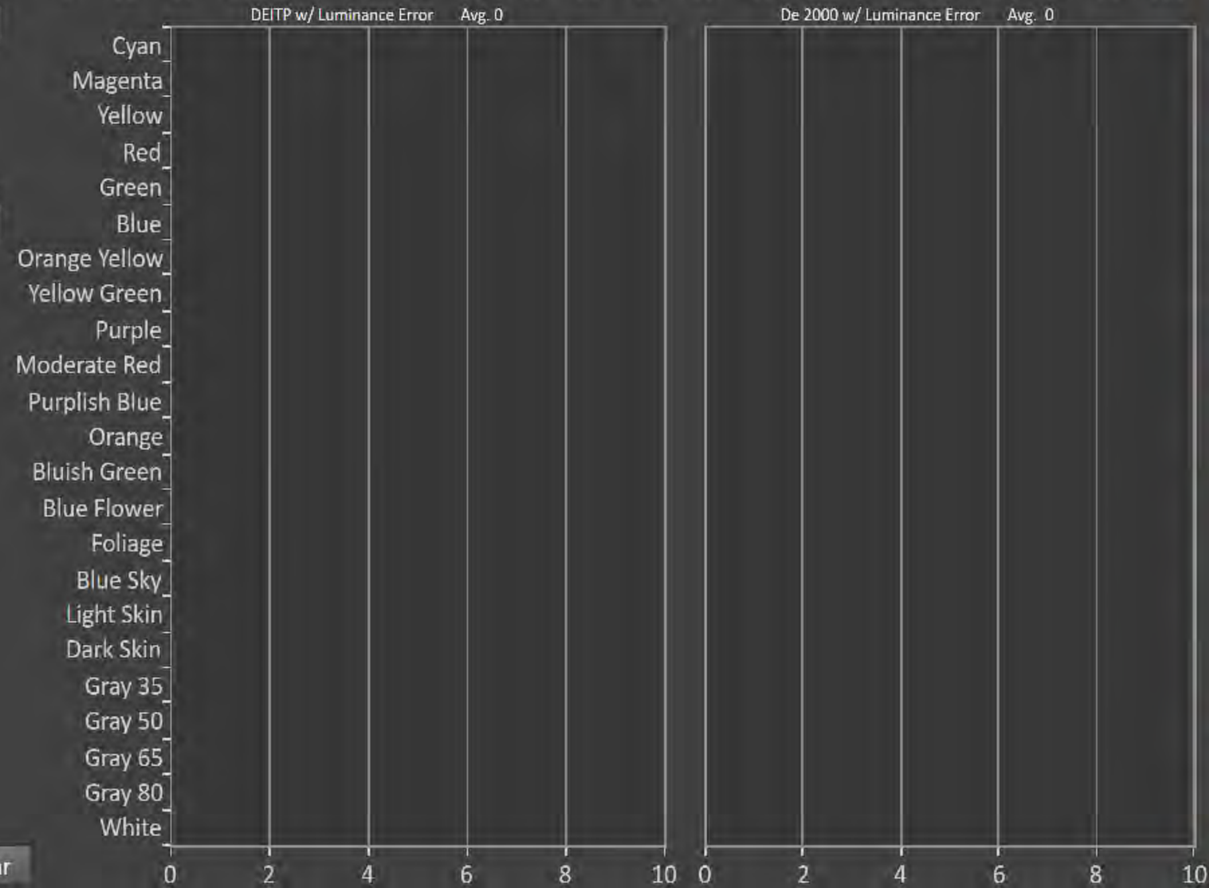




Grey+Color

Color





Clear

Nav Bar

CAL

DeCm

Notes

Prepare

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2-Pt

M-Pt

CMS

Sat

LUT

PostCal Read

Analyze

Final Check

Notes

DeCm

PostCal

CalMAN

Post-Cal Multi-Point Grayscale Detail

Comparator

DEITP w/ Luminance Error Contrast 0 0 dE 0 0 Avg 0 Max

DEITP Post-Cal Readings 0 dE 0 0 Avg 0 Max

RGB Balance

Gamma Target 2.4 0 2.39 Total

POST-CAL

0

White 100

Black 0

Luminance cd/m² Target 0.0001 0

EOTF

CCT 0 0 Avg

ANL

PstCal

Gray

Back

Next

PreCal

Data

HOME

Prepare

Session Setup

PreCal Read

Calibrate

Gry

PostCal Read

Analyze

PreCal

Sat

Lum

CCk

LUT

Final Check

PstCal

Gray

Notes

Pre-Cal # Datagrid

Back Next

CalMAN

Post-Cal Saturation Sweeps Detail

Comparator

100

Avg 0 Max 0 Post-Cal Readings DEITP w/ Lumin Error 0

Avg 0 Max 0 DEITP 0

100 25% 50% 75% 100%

100

Max +/- 0 0 Delta L

Luminance 0

Post-Cal

100

Post-Cal

Max +/- 0 0 Delta H

Delta C 0 0 Max +/-

ANL
PstCal
Satur
Back
Next
PreCal
Data
HOME
Prepare
Session Setup
PreCal Read
Calibrate
Sat
PostCal Read
Analyze
Gry
PreCal
Lum
CCk
LUT
Final Check
PstCal
Satur
Notes
Pre-Cal
Datagrid
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Next

CalMAN

Post-Cal Gamut Luminance Detail

Comparator

25

Avg 0 Max 0 DEITP w/ Lumin Error 0

Avg 0 Max 0 DEITP 0

Max +/- 0 0 Delta L

Luminance 0

Post-Cal

Post-Cal Readings

25

Max +/- 0 0 Delta H

Delta C 0 0 Max +/-

Post-Cal

ANL

PstCal

Lumi

Back

Next

PreCal

Data

HOME

Prepare

Session Setup

PreCal Read

Calibrate

Lum

PostCal Read

Analyze

Gry

Sat

PreCal

CCk

LUT

Final Check

PstCal

Lumi

Notes

Pre-Cal

Datagrid

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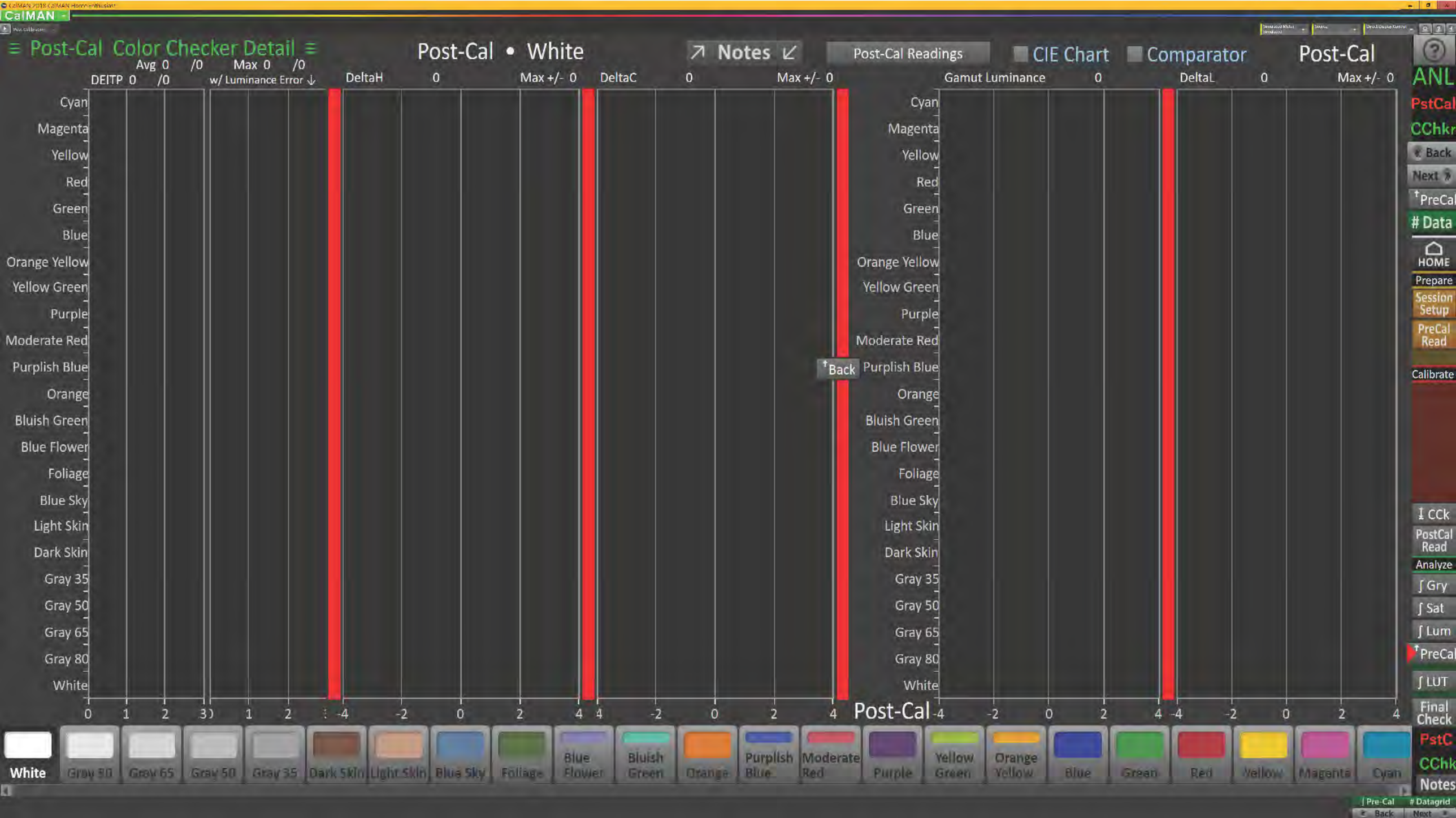
Next


CalMAN
Post-Cal Color Checker Detail
Avg 0 /0 Max 0 /0
DEITP 0 /0
w/ Luminance Error
DeltaH 0 Max +/- 0
DeltaC 0 Max +/- 0
Post-Cal • White
Notes
Post-Cal Readings
CIE Chart
Comparator
Post-Cal
Gamut Luminance 0
DeltaL 0 Max +/- 0
Cyan
Magenta
Yellow
Red
Green
Blue
Orange Yellow
Yellow Green
Purple
Moderate Red
Purplish Blue
Orange
Bluish Green
Blue Flower
Foliage
Blue Sky
Light Skin
Dark Skin
Gray 35
Gray 50
Gray 65
Gray 80
White
Back
Post-Cal
ANL
PstCal
CChkr
Back
Next
PreCal
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HOME
Prepare
Session Setup
PreCal Read
Calibrate
CCk
PostCal Read
Analyze
Gry
Sat
Lum
PreCal
LUT
Final Check
PstC
CChk
Notes

CalMAN

Post-Cal Color Checker Detail

Post-Cal • White

Notes

Post-Cal Readings

CIE Chart

Comparator

Post-Cal

	DEITP	w/ Luminance Error	DeltaH	DeltaC
Avg	0 /0		0	0
Max	0 /0		Max +/- 0	Max +/- 0
Cyan				
Magenta				
Yellow				
Red				
Green				
Blue				
Orange Yellow				
Yellow Green				
Purple				
Moderate Red				
Purplish Blue				
Orange				
Bluish Green				
Blue Flower				
Foliage				
Blue Sky				
Light Skin				
Dark Skin				
Gray 35				
Gray 50				
Gray 65				
Gray 80				
White				

Back

White | Gray 80 | Gray 65 | Gray 50 | Gray 35 | Dark Skin | Light Skin | Blue Sky | Foliage | Blue Flower | Bluish Green | Orange | Purplish Blue | Moderate Red | Purple | Yellow Green | Orange Yellow | Blue | Green | Red | Yellow | Magenta | Cyan

ANL
PstCal
CChkr
Back
Next
PreCal
Data
HOME
Prepare
Session Setup
PreCal Read
Calibrate
CCk
PostCal Read
Analyze
Gry
Sat
Lum
PreCal
LUT
Final Check
PstC
CChk
Notes

Pre-Cal
Datagrid
Back
Next

CalMAN

3D Color Cube LUT Full Calibration Detail 1

65.8 0 0

Red | Green | Blue | White
Cyan | Magenta | Yellow | Charts 2

DEITP 3.28 / 10.86 Avg 12.11 / 14.81 Max 45.3 / 36.52

Delta L -2.43 Avg -1.06 Max 4.53

Luminance 6.71466

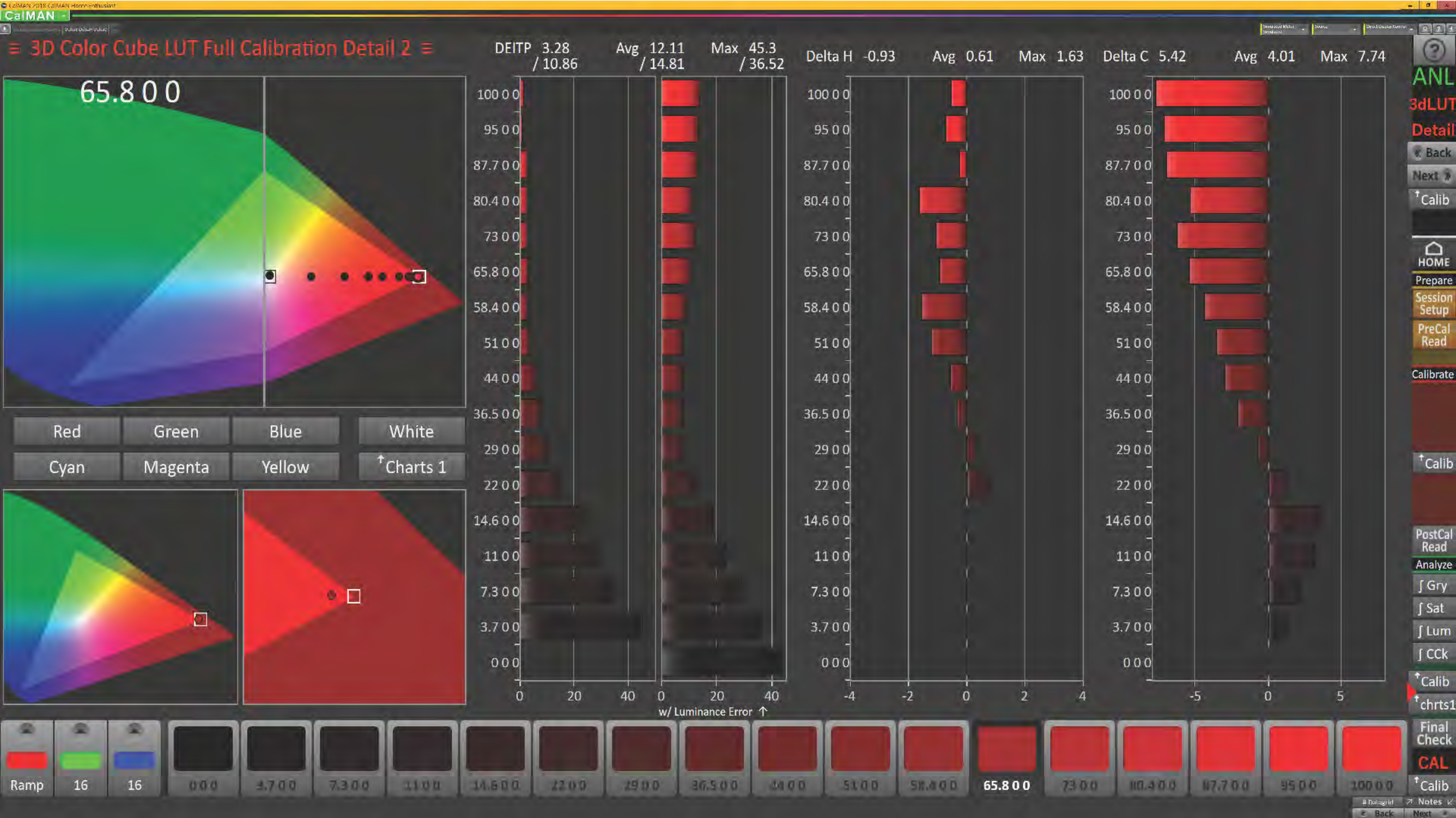
100 0 0 | 95 0 0 | 87.7 0 0 | 80.4 0 0 | 73 0 0 | 65.8 0 0 | 58.4 0 0 | 51 0 0 | 44 0 0 | 36.5 0 0 | 29 0 0 | 22 0 0 | 14.6 0 0 | 11 0 0 | 7.3 0 0 | 3.7 0 0 | 0 0 0

0 20 40 | 0 20 40 | -6 -4 -2 0 2 4 6 | 0 10 20 30 40 50

w/ Luminance Error ↑

Ramp | 16 | 16 | 0 0 0 | 3.7 0 0 | 7.3 0 0 | 11 0 0 | 14.6 0 0 | 22 0 0 | 29 0 0 | 36.5 0 0 | 44 0 0 | 51 0 0 | 58.4 0 0 | 65.8 0 0 | 73 0 0 | 80.4 0 0 | 87.7 0 0 | 95 0 0 | 100 0 0

ANL
3dLUT
Detail
Back
Next
Calib
HOME
Prepare
Session Setup
PreCal Read
Calibrate
Calib
PostCal Read
Analyze
∫ Gry
∫ Sat
∫ Lum
∫ CCk
Calib
chrts2
Final Check
CAL
Calib
Notes
Back
Next


CalMAN
3D Color Cube LUT Full Calibration Detail 2
65.8 0 0
Red
Green
Blue
White
Cyan
Magenta
Yellow
Charts 1
DEITP 3.28 / 10.86
Avg 12.11 / 14.81
Max 45.3 / 36.52
Delta H -0.93
Avg 0.61
Max 1.63
Delta C 5.42
Avg 4.01
Max 7.74
w/ Luminance Error
ANL
3dLUT
Detail
Back
Next
Calib
HOME
Prepare
Session Setup
PreCal Read
Calibrate
Calib
PostCal Read
Analyze
∫ Gry
∫ Sat
∫ Lum
∫ CCk
Calib
chrts1
Final Check
CAL
Calib
Ramp
16
16
65.8 0 0
Notes
Back
Next

CalMAN

3D Color Cube LUT Minimal Calibration - Charts1

Comparator

DEITP 1.33 / 13.29 Avg 45.42 / 14.8 Max 45.42 / 36.41

Delta L -4.3 Avg -1.07 Max 4.3

Luminance 17.54087

100 0 0

Red | Green | Blue | White

Cyan | Magenta | Yellow | Charts 2

100 0 0 | 95 0 0 | 87.7 0 0 | 80.4 0 0 | 73 0 0 | 65.8 0 0 | 58.4 0 0 | 51 0 0 | 44 0 0 | 36.5 0 0 | 29 0 0 | 22 0 0 | 14.6 0 0 | 11 0 0

100 | 95 | 87.7 | 80.4 | 73 | 65.8 | 58.4 | 51 | 44 | 36.5 | 29 | 22 | 14.6 | 11

0 0 0 | 3.7 0 0 | 7.3 0 0 | 11 0 0 | 14.6 0 0 | 22 0 0 | 29 0 0 | 36.5 0 0 | 44 0 0 | 51 0 0 | 58.4 0 0 | 65.8 0 0 | 73 0 0 | 80.4 0 0 | 87.7 0 0 | 95 0 0 | 100 0 0

w/ Luminance Error ↑

Ramp | 0 | 0 | 0 0 0 | 3.7 0 0 | 7.3 0 0 | 11 0 0 | 14.6 0 0 | 22 0 0 | 29 0 0 | 36.5 0 0 | 44 0 0 | 51 0 0 | 58.4 0 0 | 65.8 0 0 | 73 0 0 | 80.4 0 0 | 87.7 0 0 | 95 0 0 | 100 0 0

ANL
3dLUT
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Calib
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CalMAN

Session Final Check

5/17/2019 Calibration

AV Mode - Movie 200 nits

Contrast Verification

Data Points: select Clipping or Clipping with Peak White: Clipping with Peak White

① Adjust the Backlight, Brightness and Contrast controls to optimize the white level so it doesn't clip any of the primaries.

Gamma Level Verification

Data Points: select a full set of grayscale points, e.g. 11: Clipping with Peak White

② Check / adjust the gamma level across the full grayscale. Use the Backlight, Brightness, Contrast and Gamma controls to make this adjustment.

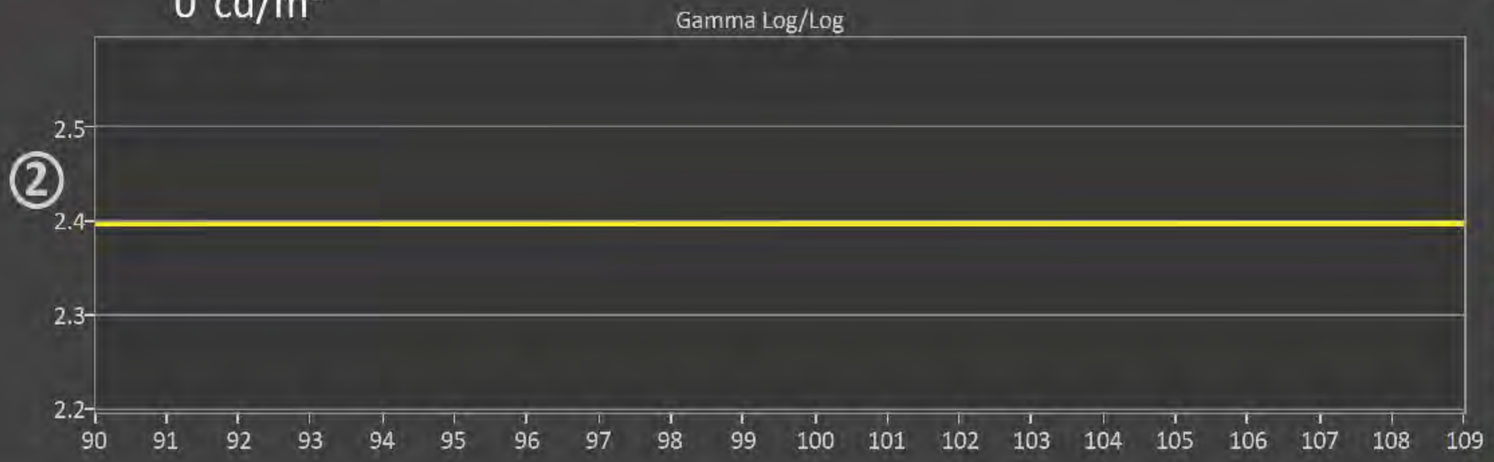
Post-Calibration Summary

Grayscale dE	Avg	0	Saturation dE	Avg	0
	Max	0		Max	0
Luminance dE	Avg	0	Color Checker dE	Avg	0
	Max	0		Max	0
Color Cube LUT dE	Avg	0 Full	Gamma Target		2.4
Use Minimal layout data	Max	0	Total		2.39
LUT values come from calibration Full layout, or Minimal layout if checked			CCT Target		6503
				Avg	0
White 100 cd/m²			Black 0		
			Cntr Ratio		0

~~108~~

Gamma 0

0 cd/m²



Post-Calibration Notes and Settings

Notes

All DDC

Save

Contrast		TV Gamma			Red	Green	Blue
Brightness		Color		Gain			
Backlight		Tint		Cut			

ANL Final Check

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HOME

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Session Setup

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Calibrate

Gry

CMS

Sat

LUT

Lum

CCk

PostCal Read

Analyze

∫ Gry

∫ Sat

∫ Lum

∫ CCk

∫ LUT

Final Check

Final

CalMAN

Pre-Cal Multi-Point Grayscale Data

Pre-Cal

	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
RGB Triplet	16, 16, 16	27, 27, 27	38, 38, 38	49, 49, 49	60, 60, 60	71, 71, 71	82, 82, 82	93, 93, 93	104, 104, 104	115, 115, 115	126, 126, 126	136, 136, 136	147, 147, 147	158, 158, 158	169, 169, 169	180, 180, 180	191, 191, 191	202, 202, 202	213, 2
Target Y cd/m²	0.0001	0.0877	0.4304	1.1112	2.1890	3.7118	5.7207	8.2523	11.3393	15.0123	19.2991	23.7512	29.2818	35.4987	42.4243	50.0800	58.4863	67.6628	77.62
Y cd/m²	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
Target x:CIE31	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.312
x: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
Target y:CIE31	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.329
y: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
Target CCT	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.
CCT	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000

Post-Cal Multi-Point Grayscale Data

Post-Cal

	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90
RGB Triplet	16, 16, 16	27, 27, 27	38, 38, 38	49, 49, 49	60, 60, 60	71, 71, 71	82, 82, 82	93, 93, 93	104, 104, 104	115, 115, 115	126, 126, 126	136, 136, 136	147, 147, 147	158, 158, 158	169, 169, 169	180, 180, 180	191, 191, 191	202, 202, 202	213, 2
Target Y cd/m²	0.0001	0.0877	0.4304	1.1112	2.1890	3.7118	5.7207	8.2523	11.3393	15.0123	19.2991	23.7512	29.2818	35.4987	42.4243	50.0800	58.4863	67.6628	77.62
Y cd/m²	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
Target x:CIE31	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.3127	0.312
x: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
Target y:CIE31	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.3290	0.329
y: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000
Target CCT	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.4440	6503.
CCT	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.000

Click Change Selection then right-click on either datagrid chart (ESCape the context menu) to show possible selections

Change Selection

ANL
Back
Next
PreCal
PostCal
HOME
Prepare
PreCal Read
Calibrate
Gry
PostCal Read
Datagrid
Sat
Lum
CCk
Final Check
DTA
Notes
Pre-Cal
Post-Cal
Back
Next

CalMAN

Pre-Cal Saturation Sweeps Data

	100
RGB Triplet	235, 235, 235
Target x:CIE31	0.3127
x: CIE31	0.0000
Target y:CIE31	0.3290
y: CIE31	0.0000
Target Y	100.0000
Y	0.0000
Gamma Point: Flat	0.0000
ΔE 2000	0.0000
dE2000 LuminanceCompensated	0.0000
ΔE 1994 L*:±	0.0000
ΔE 1994 Sat:±	0.0000
ΔE 1994 Hue:±	0.0000
Signed dE94 L LuminanceCompensated	0.0000
Signed dE94 C LuminanceCompensated	0.0000
Signed dE94 H LuminanceCompensated	0.0000

Post-Cal Saturation Sweeps Data

	100
RGB Triplet	235, 235, 235
Target x:CIE31	0.3127
x: CIE31	0.0000
Target y:CIE31	0.3290
y: CIE31	0.0000
Target Y	100.0000
Y	0.0000
Gamma Point: Flat	0.0000
ΔE 2000	0.0000
dE2000 LuminanceCompensated	0.0000
ΔE 1994 L*:±	0.0000
ΔE 1994 Sat:±	0.0000
ΔE 1994 Hue:±	0.0000
Signed dE94 L LuminanceCompensated	0.0000
Signed dE94 C LuminanceCompensated	0.0000
Signed dE94 H LuminanceCompensated	0.0000

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Pre-Cal

Click Change Selection then right-click on either datagrid chart (ESCape the context menu) to show possible selections

Post-Cal

100

Change Selection

100

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CalMAN

Pre-Cal Color Checker Data

Pre-Cal

	White	Gray 80	Gray 65	Gray 50	Gray 35	Dark Skin	Light Skin	Blue Sky	Foliage	Blue Flower	Bluish Green	Orange	Purplish Blue	Moderate Red	Purple	Yellow Gre
RGB Triplet	235, 235, 235	213, 213, 213	196, 196, 196	176, 176, 176	152, 152, 152	115, 86, 73	182, 145, 128	97, 121, 150	93, 108, 73	128, 126, 167	101, 178, 161	202, 119, 51	80, 95, 156	182, 88, 99	95, 69, 108	152, 176,
Target x:CIE31	0.3127	0.3127	0.3127	0.3127	0.3127	0.4144	0.3841	0.2445	0.3428	0.2648	0.2594	0.5252	0.2089	0.4779	0.2858	0.3780
x: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Target y:CIE31	0.3290	0.3290	0.3290	0.3290	0.3290	0.3660	0.3579	0.2597	0.4389	0.2464	0.3622	0.4055	0.1791	0.3124	0.2094	0.5019
y: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Target Y	100.0000	77.6285	62.5608	47.2103	32.0212	8.1891	32.6031	16.5635	11.0615	21.0539	39.6941	26.2802	9.8808	16.7058	5.2067	40.8403
Y	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Gamma Point: Flat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ΔE 2000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dE2000 LuminanceCompensated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ΔE 1994 L*:±	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ΔE 1994 Sat:±	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ΔE 1994 Hue:±	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Signed dE94 L LuminanceCompensated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Post-Cal Color Checker Data

Post-Cal

	White	Gray 80	Gray 65	Gray 50	Gray 35	Dark Skin	Light Skin	Blue Sky	Foliage	Blue Flower	Bluish Green	Orange	Purplish Blue	Moderate Red	Purple	Yellow Gre
RGB Triplet	235, 235, 235	213, 213, 213	196, 196, 196	176, 176, 176	152, 152, 152	115, 86, 73	182, 145, 128	97, 121, 150	93, 108, 73	128, 126, 167	101, 178, 161	202, 119, 51	80, 95, 156	182, 88, 99	95, 69, 108	152, 176,
Target x:CIE31	0.3127	0.3127	0.3127	0.3127	0.3127	0.4144	0.3841	0.2445	0.3428	0.2648	0.2594	0.5252	0.2089	0.4779	0.2858	0.3780
x: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Target y:CIE31	0.3290	0.3290	0.3290	0.3290	0.3290	0.3660	0.3579	0.2597	0.4389	0.2464	0.3622	0.4055	0.1791	0.3124	0.2094	0.5019
y: CIE31	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Target Y	100.0000	77.6285	62.5608	47.2103	32.0212	8.1891	32.6031	16.5635	11.0615	21.0539	39.6941	26.2802	9.8808	16.7058	5.2067	40.8403
Y	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Gamma Point: Flat	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ΔE 2000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
dE2000 LuminanceCompensated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ΔE 1994 L*:±	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ΔE 1994 Sat:±	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ΔE 1994 Hue:±	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Signed dE94 L LuminanceCompensated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Click Change Selection then right-click on either datagrid chart (ESCape the context menu) to show possible selections

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