CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Introduction

Simulated Meter LCD Direct View | Source | Direct Display Control

Workflow → Description

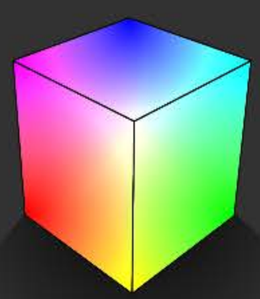
# Welcome to the HT Enthusiast Extended Workflow

↘ Intro ↙

→ Prepare ←

↓ Calibrate ↑

← Analyze →

AutoCal™

## Featuring ...

- Home layout outlines the workflow structure with full access
- Comprehensive notes management
- Integrated session setup and hardware configuration layout
- Single layout takes all desired Pre- or Post-calibration readings
- Expanded Multi-Point Grayscale calibration and pre/post-cal chart & datagrid layouts
- Detailed Saturation Sweep calibration and pre/post-cal chart & datagrid layouts
- Detailed Gamut Luminance calibration and pre/post-cal chart & datagrid layouts
- Detailed Color Check calibration and pre/post-cal chart & datagrid layouts
- 3D Color Cube LUT calibration chart & datagrid layouts
- High-count calibration points friendly
- Layout indicators: ↧ Calibration ∫ Charts # Datagrids

## Also featuring navigation for the Mouse Lazy ...

- Navigation bar shows where you are and takes you where you want to go
- Calibration scheduling function is integrated with the Nav Bar Next/Back buttons
- 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!

INT Intro

Home

Session Setup

Intro

HOME

Prepare

Setup

PreCal Read

DyRnge

Calibrate

↧ Gry

↧ Sat

↧ Lum

↧ CCk

↧ LUT

PostCal Read

Analyze

∫ Gry

∫ Sat

∫ Lum

∫ CCk

∫ LUT

Final Check

Intro

Session Setup ↗ Notes ↙

PreCal Read Next »

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Workflow Description | Workflow Outline

Simulated Meter LCD Direct View | Source | Direct Display Control

## 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 (tabbed Full-feature and Simple)
- Saturation Sweeps, also used for basic CMS calibration
- Gamut Luminance
- Color Checker
- 3D Color Cube LUT (tabbed Full-feature and Minimal)

- Use Simple or Minimal layout tabs for hopefully faster AutoCal.
- All active calibration layouts except 2-Point have corresponding detail datagrid layouts accessible via the ↑dta buttons.
- Use the Slim high-content Color Checker datagrid for faster processing of hundreds of colors.

Show Outline

## 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 ↑Data buttons with a similar toggle arrangement as the ↑PstCal button.

## 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.

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

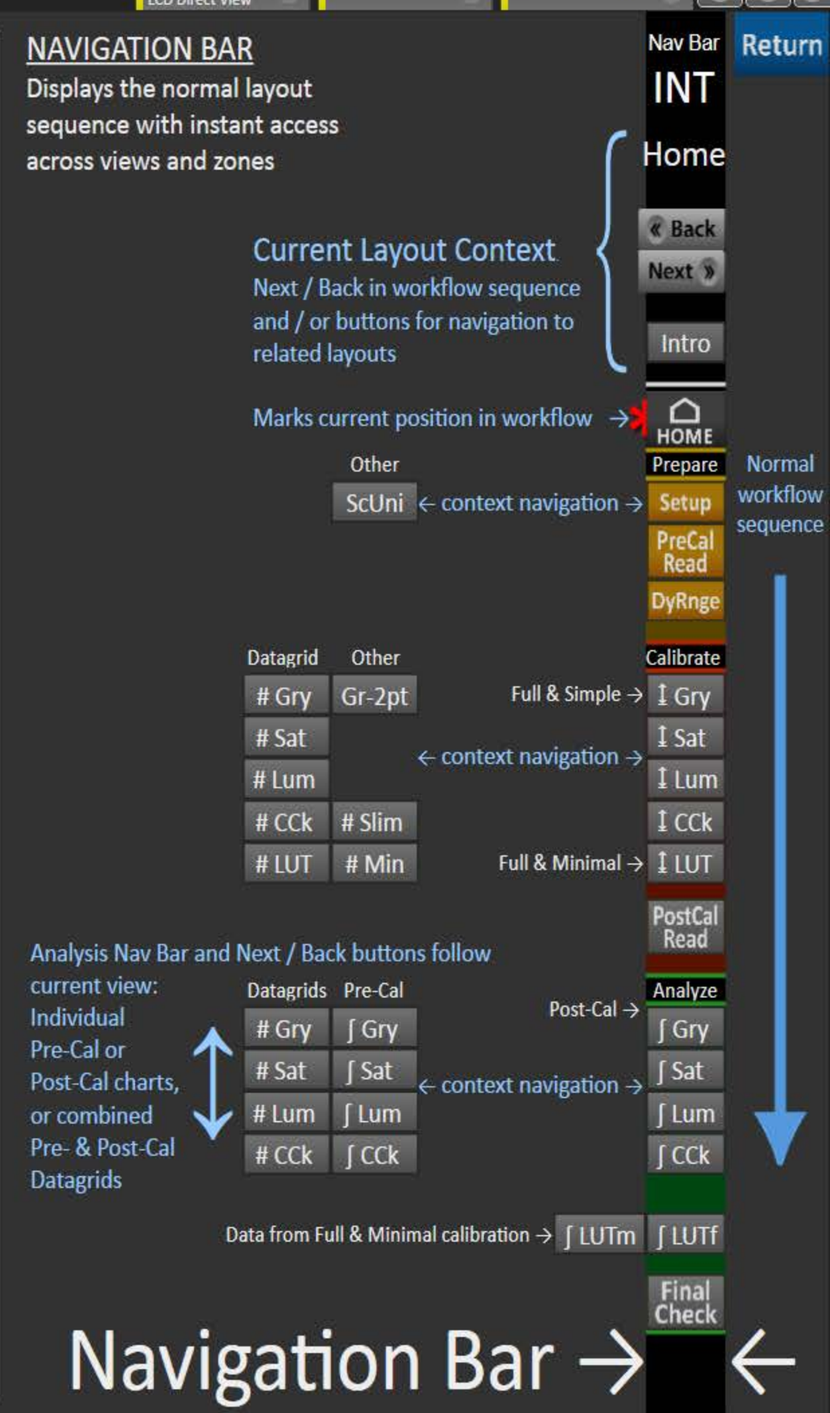
Pre-Calibration Readings, Post-Calibration Readings - these identically configured layouts are master controls for the pre- and post-calibration states with combined and selective reading of all views. They feed all the detail charts and datagrids. You can toggle between the pre- and post-cal reading 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



CalMAN 5 CalMAN Enthusiast for Home Video

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Workflow Description | Workflow Outline

Simulated Meter LCD Direct View | Source | Direct Display Control

Show Description

## ▶ Preparation (PRP)

1 ▶ Session Setup → Screen Uniformity
2 ▶ Pre-Calibration Readings
3 ▶ Dynamic Range Analysis

## ▶ Calibration (CAL)

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

## ▶ Analysis (ANL)

11 ▶ Multi-Pt Grayscale Post-Cal Charts → Pre-Cal Charts → Datagrids
11 ▶ Multi-Pt Grayscale 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

Nav Bar | Return
INT
Home
« Back
Next »
Intro

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

Marks current position in workflow →

HOME
Prepare
Setup
PreCal Read
DyRnge
Calibrate
PostCal Read
Analyze
Final Check

Other: ScUni ← context navigation →

Datagrid: # Gry, # Sat, # Lum, # CCk, # LUT
Other: Gr-2pt, # Slim, # Min

Full & Simple → ↧ Gry
← context navigation → ↧ Sat, ↧ Lum, ↧ CCk
Full & Minimal → ↧ LUT

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
Pre-Cal: ∫ Gry, ∫ Sat, ∫ Lum, ∫ CCk

Post-Cal → ∫ Gry
← context navigation → ∫ Sat, ∫ Lum, ∫ CCk

Data from Full & Minimal calibration → ∫ LUTm, ∫ LUTf

Normal workflow sequence

Navigation Bar → ←

Home | Notes
PreCal Read | Session Setup

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Workflow Map | Description

Simulated Meter LCD Direct View | Source | Direct Display Control

1/25/2015 Calibration

Home | Introduction | Notes | CalMAN 5

## Preparation

Start →

**Setup** → **PreCal Read** → **DyRnge**

ScUni • Screen Uniformity

↓ Analyze →

Dynamic Range

« Back | Next »

Return

## Calibration

| Grayscale | Saturation Sweeps / CMS | Gamut Luminance | Color Checker | 3d Color Cube LUT |
|---|---|---|---|---|
| Gray ↧ 2-Pt Calibrate | Satu ↧ Calibrate | Lumi ↧ Calibrate | CChk ↧ Calibrate | LUT ↧ Calibrate |
| Gray ↧ Mult-Pt Calibrate | | | | ↑ Has Full and Minimal layout tabs ↑ |
| ↑ Has Full and Simple layout tabs ↑ | Satu # Cal Data | Lumi # Cal Data | CChk # Cal Data | LUT Full # Cal Data |
| Mult-Pt Full # Cal Data | | | Cc-Slm # Slim Cal Data | LUT Minimal # Cal Data |
| Mult-Pt Simple # Cal Data | | | | |

**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**

Layout indicators: ↧ Calibration ∫ Charts # Datagrids

« Back | Next »

CalMAN 5 CalMAN Enthusiast for Home Video

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Workflow Map | Description

Simulated Meter LCD Direct View | Source | Direct Display Control

Return

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

Layout indicators: ↥ Calibration ∫ Charts # Datagrids

## WORKFLOW OUTLINE

### ▶ Introduction (INT)

A ▶ Title and Features
B ▶ Home Base

### ▶ Preparation (PRP)

1 ▶ Session Setup → Screen Uniformity
2 ▶ Pre-Calibration Readings
3 ▶ Dynamic Range Analysis

### ▶ Calibration (CAL)

4 ▶ 2-Point Grayscale Calibration
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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 (2 tabs, normal & slim)

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

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Notes Management

Simulated Meter LCD Direct View | Source | Direct Display Control

Setup Notes

Calibration Notes

Pre-Calibration Notes

Calibration Description / Goals

Color Notes

Post-Calibration Notes

REF

Notes

Intro

HOME

Prepare

Setup

PreCal Read

DyRnge

Calibrate

Gry

Sat

Lum

CCk

LUT

PostCal Read

Analyze

Gry

Sat

Lum

CCk

LUT

Final Check

Return

PreCal Read | Session Setup

Home | Final Check

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Session Setup | Setup Help

Simulated Meter LCD Direct View | Source | Direct Display Control

## Session Setup

1/23/2015 Calibration

### (A) Session Options

Start New Session | Session Info | More Options

Setup Notes

Notes

Calibration Description / Goals

Luminance Unit: fL

Input Level: Video (16-235)

Stimulus Unit: Percent

DeltaE Formula: dE2000 JNDab

Gamut Coordinates: D65, HD Rec.709

Gamma Formula: Sliding power

Display • PRO-70X5FD

| Target cd/m2 Black | White | Target Gamma |
|---|---|---|
| 0.00171 | 100 | 2.2 |

### (B) Display Settings

AV Mode: ISF Day

| | | | | | |
|---|---|---|---|---|---|
| Color Temp | Low | Contrast | 80 | | Cut / Gain |
| Sharpness | 2 | Brightness | 0 | Red | |
| Color | | Backlight | 50 | Green | |
| Tint | | TV Gamma | 0 | Blue | |

### (C) Hardware Configuration

① Meter — Find → Configure

CalMAN Simulated
Profile : None

Mode

② Source — Find → Configure

Optical player or standalone generator (manual cont
Optical player or standalone generator

Pattern Size: Full 100%

Triplet Support: FullTriplets

③ Display or Processor — Find → Configure

None

Display Slot

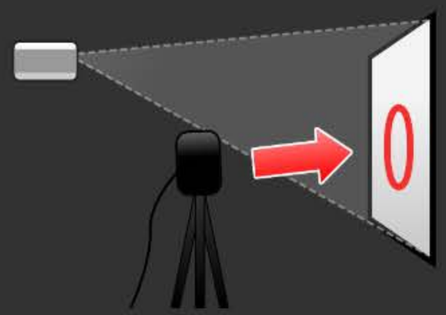
Data Points

DDC

### (D) Meter Setup

Position the meter as required for (1) projector or (2) flat panel to insure accurate measurements, (3) taking appropriate readings.

① Projector

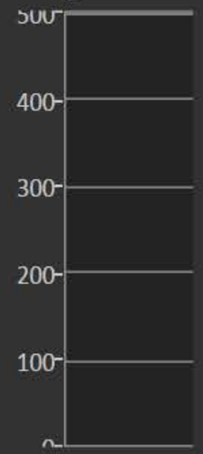


② Flat Panel

③ Readings

White / Black in fL
29.19 / 0

CCT 0 / 6503 Target




Screen Uniformity

PRP Setup | Back | Next | ScUni | HOME | Prepare | ScUni | PreCal Read | DyRnge | Calibrate | Gry | Sat | Lum | CCk | LUT | PostCal Read | Analyze | Final Check | Setup

0 | 100

Notes | Back | Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Session Setup | Setup Help

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 4

## Session Setup

1/23/2015 Calibration

### (A) Session Options

Start New Session | Session Info | More Options

Setup Notes

Notes

Calibration Description / Goals

Luminance Unit: fL

Input Level: Video (16-235)

Stimulus Unit: Percent

DeltaE Formula: dE2000 JNDab

Gamut Coordinates: D65, HD Rec.709

Gamma Formula: Sliding power

Display • PRO-70X5FD

| Target cd/m2 Black | White | Target Gamma |
|---|---|---|
| 0.00171 | 100 | 2.2 |

### (B) Display Settings

AV Mode: ISF Day

| | | | | | |
|---|---|---|---|---|---|
| Color Temp | Low | Contrast | 80 | | Cut / Gain |
| Sharpness | 2 | Brightness | 0 | Red | |
| Color | | Backlight | 50 | Green | |
| Tint | | TV Gamma | 0 | Blue | |

### (C) Hardware Configuration

1 Meter — Find → | Configure

2 Source — Find → | Configure

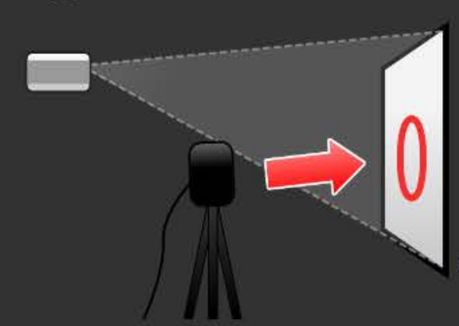
3 Display or Processor — Find → | Configure

DDC

### (D) Meter Setup

Position the meter as required for (1) projector or (2) flat panel to insure accurate measurements, (3) taking appropriate readings.

1 Projector




### Display Controls

| | |
|---|---|
| Input - Brightness | 0 |
| Input - Contrast | 0 |
| Input - Color | 0 |
| Input - Tint | 0 |
| Input - Color Red | 0 |
| Input - Color Green | 0 |
| Input - Tint Red | 0 |
| Input - Tint Green | 0 |
| Output - Gamma Factor | 1 |

PRP Setup | Back | Next | ScUni | HOME | Prepare | ScUni | PreCal Read | DyRnge | Calibrate | Gry | Sat | Lum | CCk | LUT | PostCal Read | Analyze | Final Check | Setup

0 | 100 | Notes | Back | Next

Return

## Setting Up the Session

(A) 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) 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) Find and configure the appropriate (1) meter, (2) source and (3) display devices - more info on right ⟶

(D) Position the meter as required. You can now read the Level 0 (Black) and Level 100 (White) luminance and corresponding CCT based on current settings - more info on right ⟶

## (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.

Return

## (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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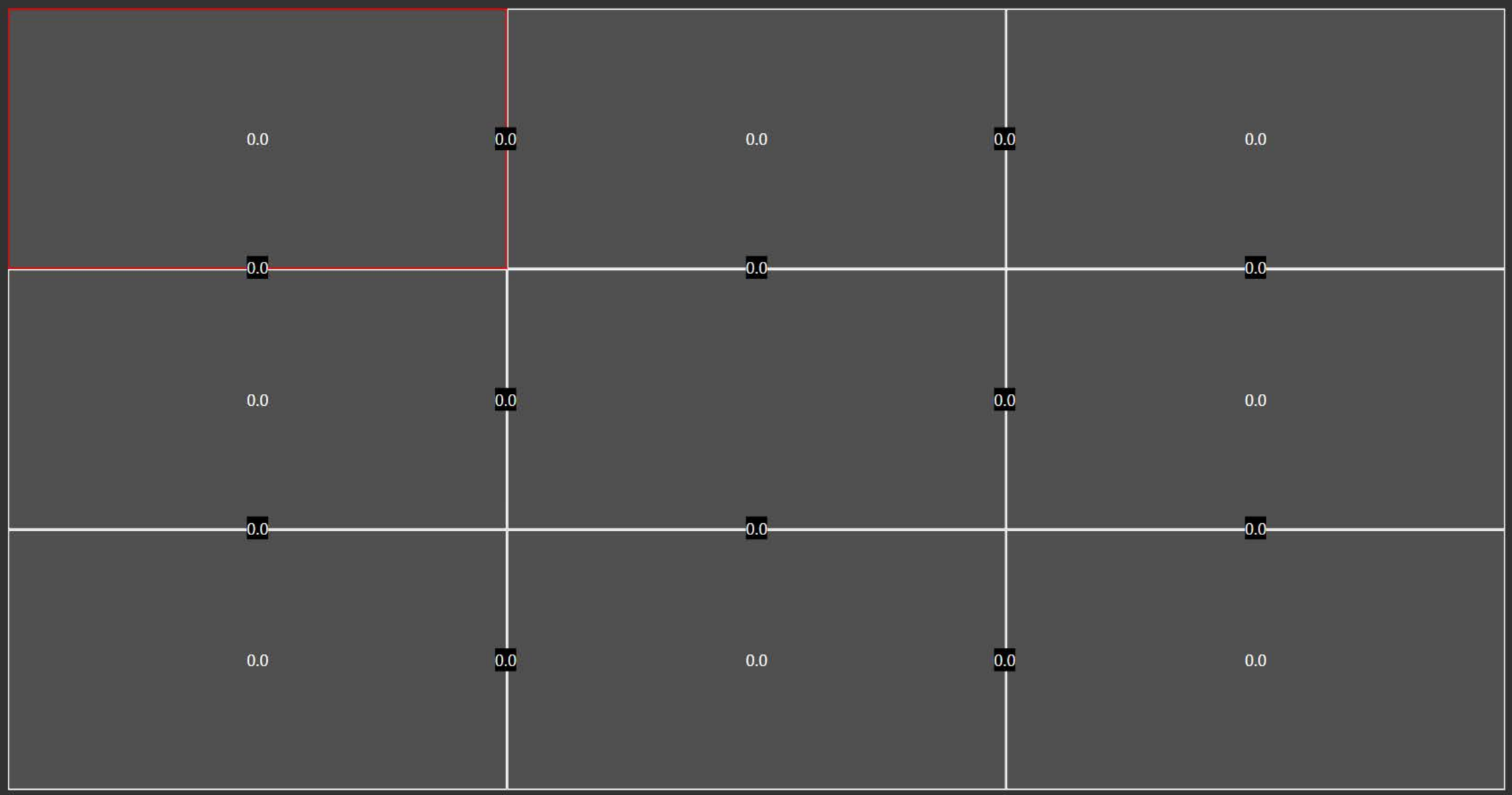
Screen Uniformity

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 4

# Screen Uniformity




PRP

ScrUn

Setup

HOME

Prepare

Setup

Calibrate

Analyze

Session Setup

PRP

Notes

30

100

CalMAN 5 CalMAN Enthusiast for Home Video

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Pre-Cal Readings

Simulated Meter LCD Direct View | Source | Direct Display Control

## Pre-Calibration Readings

1/23/2015 Calibration

Gamma Breakout Tot 2.22 Black 0 White 23.57

1 Grayscale | Full Charts | 20 Point 5% step 5-100% | 100 | Avg 1.44 Max 3.7

DeltaE 1.86

4 Color Checker | Full Charts | Add Custom Color Set → | SG Fleshtones

100% Yellow

100% Magenta, 100% Blue, 100% Red, Magenta, Red, Blue, Yellow Green, Moderate Red, Orange, Blue Flower, Blue Sky, Dark Skin, Gray 50, Gray 80

100% Yellow, 100% Cyan, 100% Green, Cyan, Yellow, Green, Orange Yellow, Purple, Purplish Blue, Bluish Green, Foliage, Light Skin, Gray 35, Gray 65, White

DeltaE 0.38 Avg 1.18 Max 3.9

2 Saturation Sweeps | Full Charts | 25% Sweeps | Avg 0.99 Max 2.14

100%

DeltaE 0.74

3 Gamut Luminance | Full Charts | 4 Point 25% step 25-100% | Avg 0.99 Max 2.73

100

DeltaE 0.53

Select Colors

Populate CMS for HT report

PRP PreCal Read

Back | Next | PostCal Read | HOME | Prepare | Setup | PostCal Read | DyRnge | Calibrate | Gry | Sat | Lum | CCk | LUT | PostCal Read | Analyze | Gry | Sat | Lum | CCk | LUT | Final Check | PreCal

ISF Day

Pre-Cal Readings

Contrast | Brightness | Backlight | TV Gamma | Color | Tint | Red Green Blue | Gain | Cut | Pre-Cal | Notes

Display Slot

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

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

PostCal Read | Notes | Back | Next

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Dynamic Range

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 4

# ≡ 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.

① Adjust the Contrast to maximize the white level without clipping any of the three primaries.

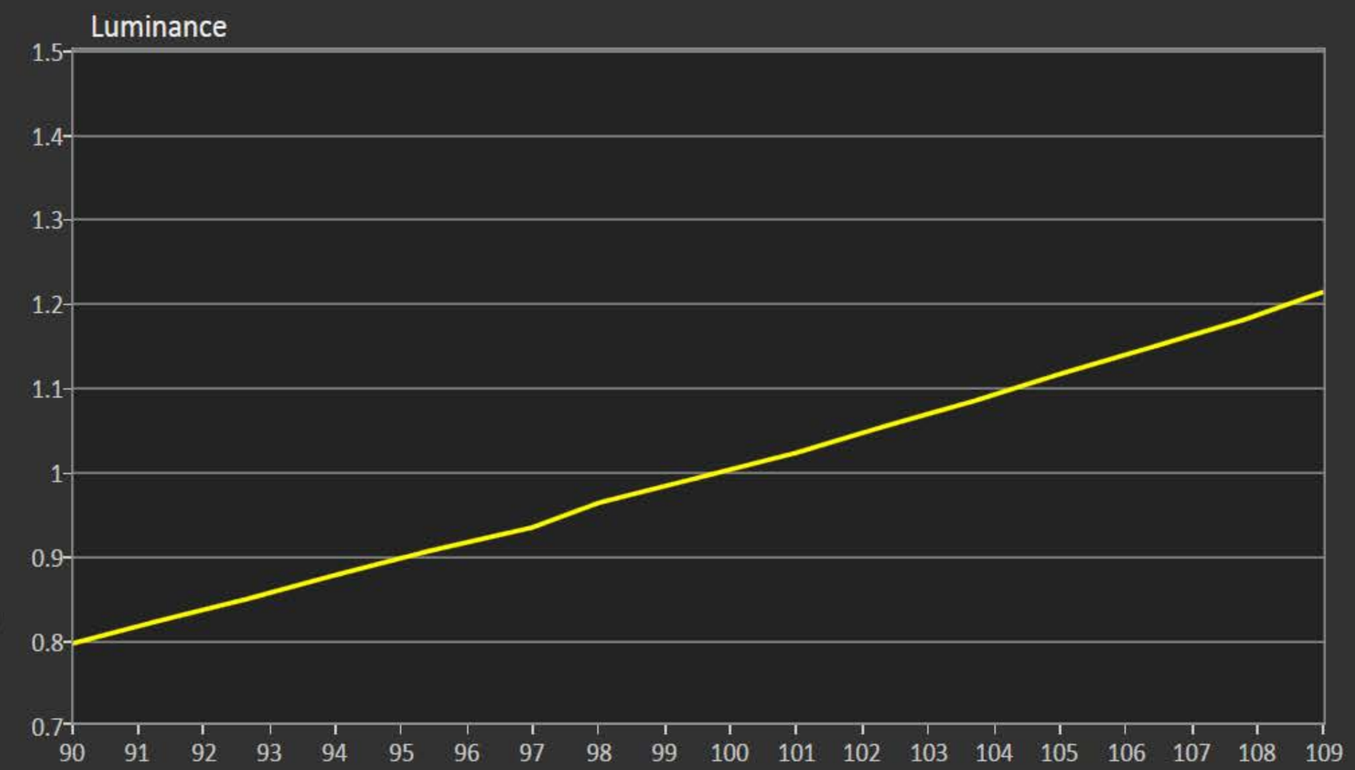
Clipping with Peak White ①

## Gamma Level

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

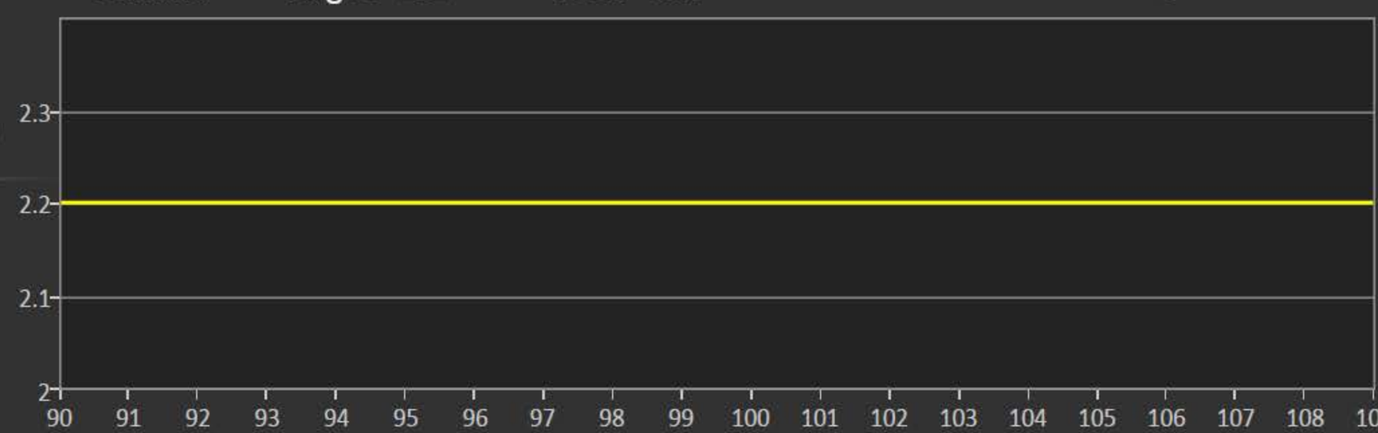
② Check the gamma level across the full grayscale based on the current settings, and adjust the display's gamma control to get a good match, tweaking with the Brightness for Black level & Contrast for White.

Clipping with Peak White ②




Luminance in fL White 29.19 90 0

Gamma Target 2.2 Total 2.2 0




Display Slot CMS 4

Click the Read All button [···] to read the Grayscale

Calibration Notes

↗ Notes ↙

| | |
|---|---|
| Contrast | 80 |
| Brightness | 0 |
| Backlight | 50 |
| TV Gamma | 0 |

PRP DyRng

« Back Next »

HOME Prepare Setup PreCal Read DyRnge Calibrate Gry Sat Lum CCk LUT PostCal Read Analyze Final Check DyRng

90 100 105 107 108 109

Notes « Back Next »

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2 Pt Grayscale

Simulated Meter LCD Direct View | Source | Direct Display Control

# 2-Point Grayscale Calibration

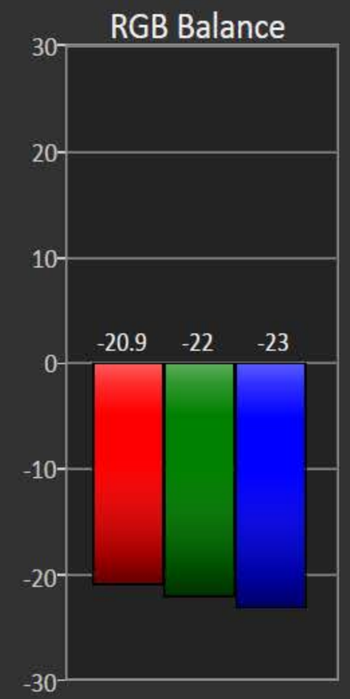
## Grayscale 2-Point Adjust

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.

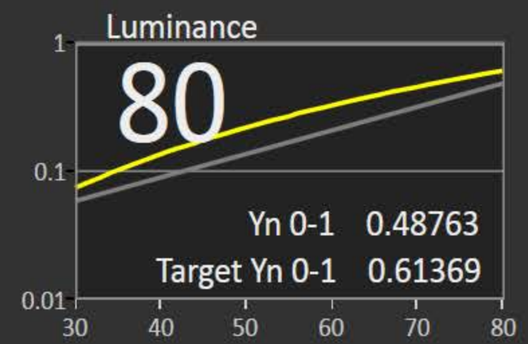
Selecting Points:

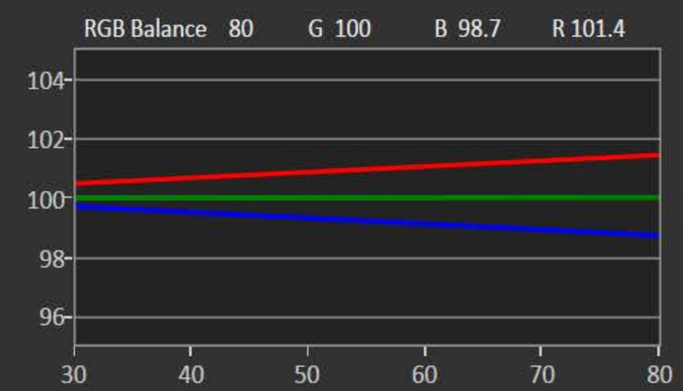
- **30% and 80%:** Use these levels if you only have access to a two point grayscale adjustment
- **30% and 100%:** Use these levels if you will be completing a multipoint adjustment afterwards and do not have access to a Peak White pattern.
- **30% and Peak White:** Use these levels if your display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

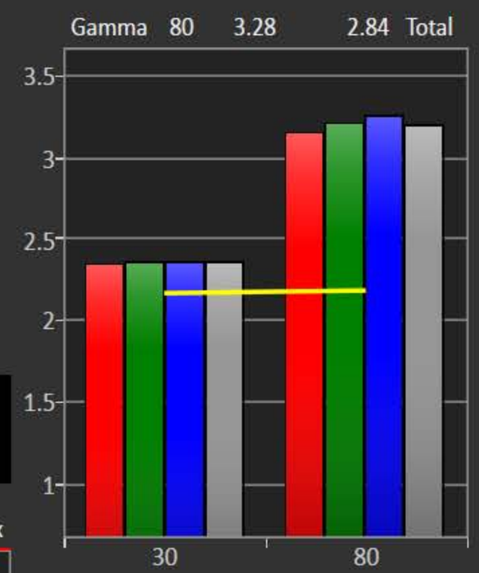
| | 30 | 80 |
|---|---|---|
| RGB Triplet | 82, 82, 82 | 191, 191, 191 |
| Red index | 82.0000 | 191.0000 |
| Green index | 82.0000 | 191.0000 |
| Blue index | 82.0000 | 191.0000 |
| X | 5.6156 | 46.4126 |
| Y cd/m² | 5.8997 | 48.7625 |
| Z | 6.3852 | 52.5122 |
| Xn 0-1 | 0.0562 | 0.4641 |
| Yn 0-1 | 0.0590 | 0.4876 |
| Zn 0-1 | 0.0639 | 0.5251 |
| Stimulus Percent | 0.3014 | 0.7991 |
| RED Stim%:0-1 | 0.3014 | 0.7991 |
| GRN Stim%:0-1 | 0.3014 | 0.7991 |
| BLU Stim%:0-1 | 0.3014 | 0.7991 |

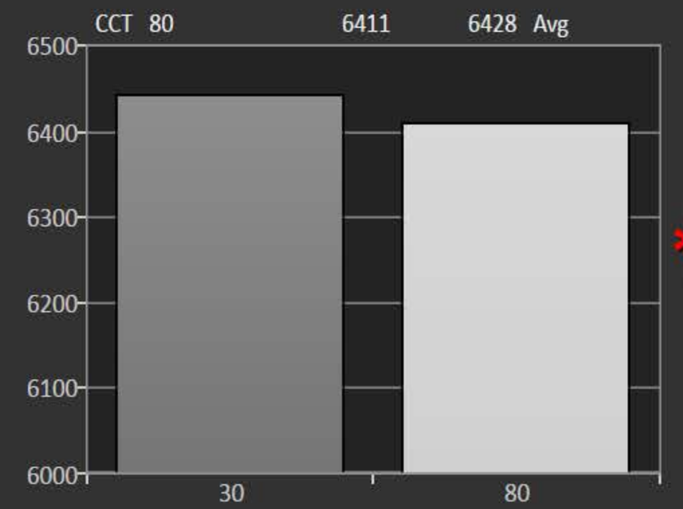


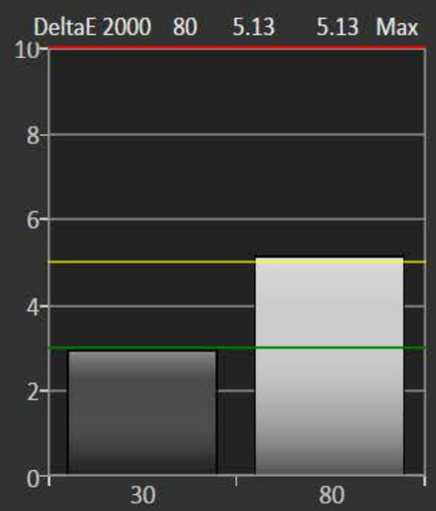





80

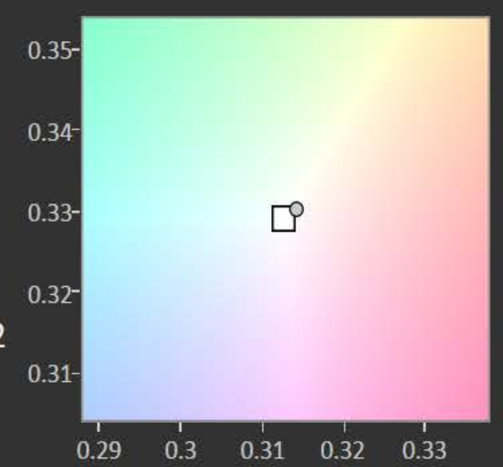
| | | | |
|---|---|---|---|
| CC Temp | 6411 | 6428 | Avg |
| Gamma | 3.28 | 2.84 | Tot |
| dE 2000 | 5.13 | 4.03 | Avg |
| | | 5.13 | Max |

White 29.19

| | Y / Luminance fL | x | y |
|---|---|---|---|
| Target → | 17.91132 | 0.3127 | 0.329 |
| Read → | 14.232 | 0.3143 | 0.3302 |

2 Point 30,80%

Triplet 191, 191, 191




CAL Gray 2-Pnt

Back | Next | M-Pnt | HOME | Prepare | Setup | PreRead | DyRnge | Calibrate | M-Pnt | # data | Sat | Lum | CCk | LUT | PostCal Read | Analyze | ∫ Post | Final Check | 2- | M-Pnt

30 80

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CalMAN 5 CalMAN Enthusiast for Home Video

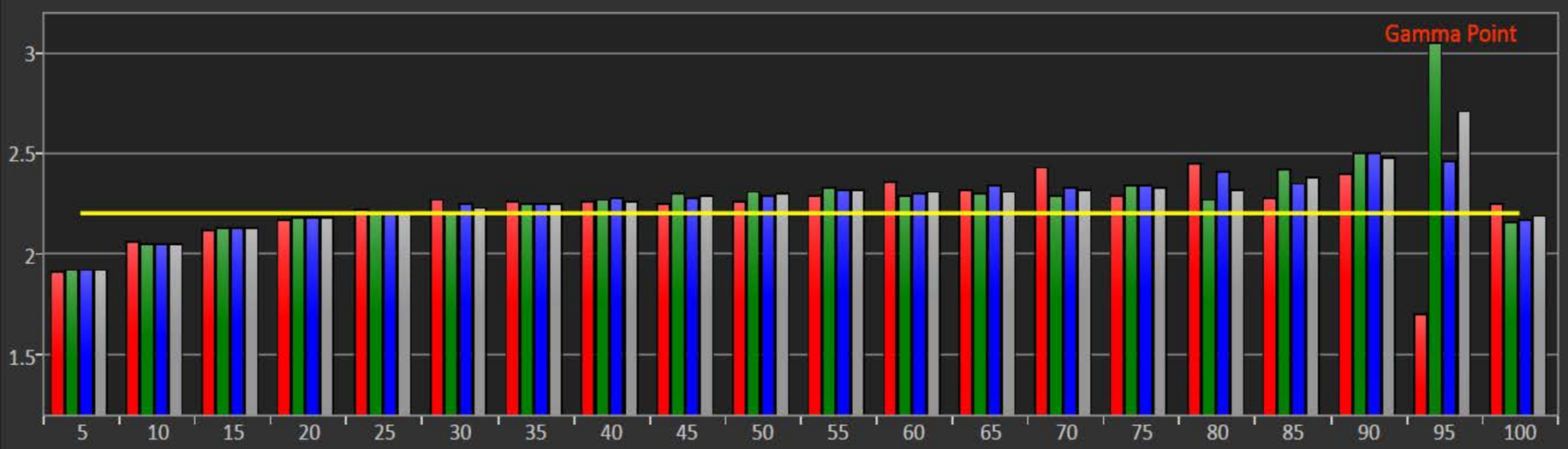
CalMAN 5

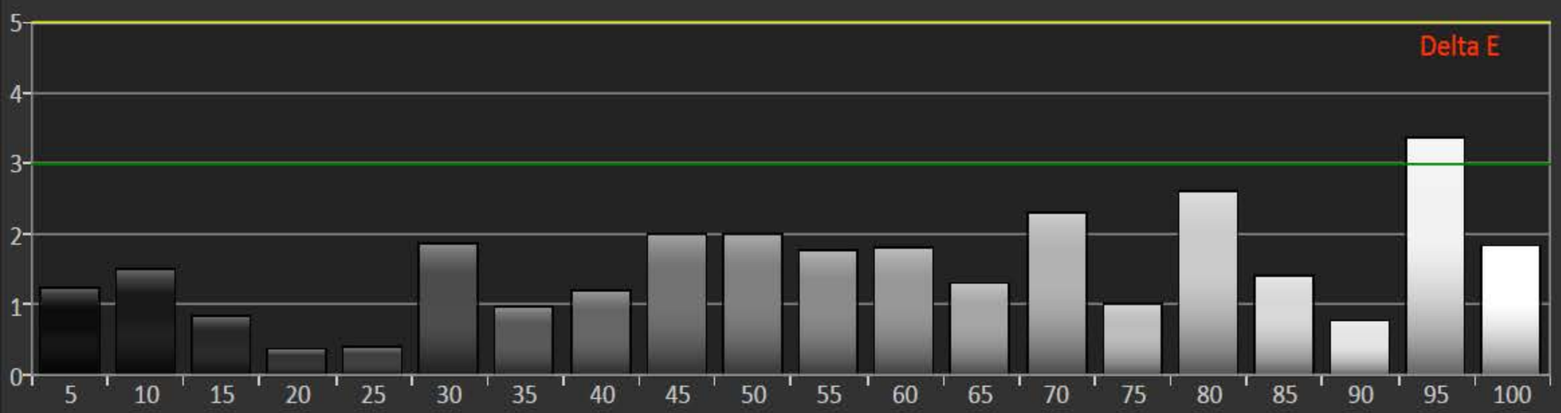
Grayscale Full | Grayscale Simple

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 6

# MultiPoint Grayscale Calibration - Simple

Use the tabs above to select layout complexity





| | Red | Green | Blue |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 5 | 6 | 6.3 | 5.8 |
| 10 | 9.8 | 9.8 | 9.9 |
| 15 | 14.9 | 14.7 | 14.6 |
| 20 | 19.7 | 20 | 20 |
| 25 | 25.2 | 25.2 | 25.2 |
| 30 | 30 | 30 | 30.3 |
| 35 | 34.9 | 35 | 34.9 |
| 40 | 40.4 | 40.1 | 40.4 |
| 45 | 44.9 | 44.9 | 44.9 |
| 50 | 50 | 49.7 | 50 |
| 55 | 54.8 | 54.8 | 54.4 |
| 60 | 60 | 59.9 | 59.5 |
| 65 | 64.9 | 64.8 | 64.4 |
| 70 | 69.9 | 69.9 | 69.8 |
| 75 | 75 | 74.9 | 75.3 |
| 80 | 80 | 80.2 | 80 |
| 85 | 84.9 | 84.6 | 84.5 |
| 90 | 90.3 | 90.2 | 90.2 |
| 95 | 95.3 | 95.2 | 95.3 |
| 100 | 100 | 100 | 100 |

Reset Grayscale

## Summary

Gamma Tot 2.29
Tgt 2.2

Delta E Avg 1.55
Max @ 95 3.4

CCT Avg 6494
Tgt 6503

Black 0
White 23.89

Triplet 235, 235, 235

Y in fL | Target = tgt

Y tgt 23.89298
23.89298

x tgt 0.31271
0.31072

y tgt 0.32901
0.32945

100

CCT 6609

Gamma 2.2

dE 1.86

Display Slot: CMS 6

Grayscale Points: 20 Point 5% step 5-100%

CAL Gray M-pnt

Back | Next | 2-Pnt | # data | HOME | Prepare | Setup | PreRead | DyRnge | Calibrate | 2-Pnt | # data | Sat | Lum | CCk | LUT | PostCal Read | Analyze | Post | Final Check | M-Pnt | 2-Pnt | # data

5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

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CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Grayscale Full | Grayscale Simple

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 6

# MultiPoint Grayscale Calibration - Full

Use the tabs above to select layout complexity

Comparator | DDC | Logarithmic Y Axis →

6504 Avg CCT

RGB Balance

CIE Chart

2.7 -0.9 0.5

Luminance

1.42 Avg 3.12 Max Delta E

100

Triplet 235, 235, 235

CCT 6436

Gamma 2.2

dE 1.95

Y tgt 23.83941 23.83941

x tgt 0.31271 0.31411

y tgt 0.32901 0.32781

2.27 Total Gamma Point

Black 0 White 23.8

Summary

| Delta E | Gamma | CCT |
|---|---|---|
| Avg 1.42 | Tgt 2.2 | Tgt 6503 |
| @ 90 Max 3.12 | Tot 2.27 | Avg 6504 |

Contrast Ratio : needs level 0 and 100 readings

Comparator | DDC

Display Slot CMS 6

Grayscale Points 20 Point 5% step 5-100%

CAL Gray M-pnt

Back | Next | 2-Pnt | # data | HOME | Prepare | Setup | PreRead | DyRnge | Calibrate | 2-Pnt | # data | Sat | Lum | CCk | LUT | PostCal Read | Analyze | ∫ Post | Final Check | M-Pnt | 2-Pnt | # data | Notes

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CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Grayscale Full | Grayscale Simple

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 6

# MultiPoint Grayscale Calibration - Full

Use the tabs above to select layout complexity

Comparator | DDC | Logarithmic Y Axis

6504 Avg CCT

CIE Chart

1.42 Avg 3.12 Max Delta E

100

Triplet 235, 235, 235

CCT 6436

Gamma 2.2

dE 1.95

Y tgt 23.83941 23.83941

x tgt 0.31271 0.31411

y tgt 0.32901 0.32781

2.27 Total Gamma Point

Luminance

Black 0 White 23.8

Summary

| Delta E | Gamma | CCT |
|---|---|---|
| Avg 1.42 | Tgt 2.2 | Tgt 6503 |
| @ 90 Max 3.12 | Tot 2.27 | Avg 6504 |

Contrast Ratio : needs level 0 and 100 readings

Comparator | DDC

Display Slot CMS 6

Grayscale Points 20 Point 5% step 5-100%

CAL Gray M-pnt

Back | Next | 2-Pnt | # data | HOME | Prepare | Setup | PreRead | DyRnge | Calibrate | 2-Pnt | # data | Sat | Lum | CCk | LUT | PostCal Read | Analyze | ∫ Post | Final Check | M-Pnt | 2-Pnt | # data | Notes

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CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

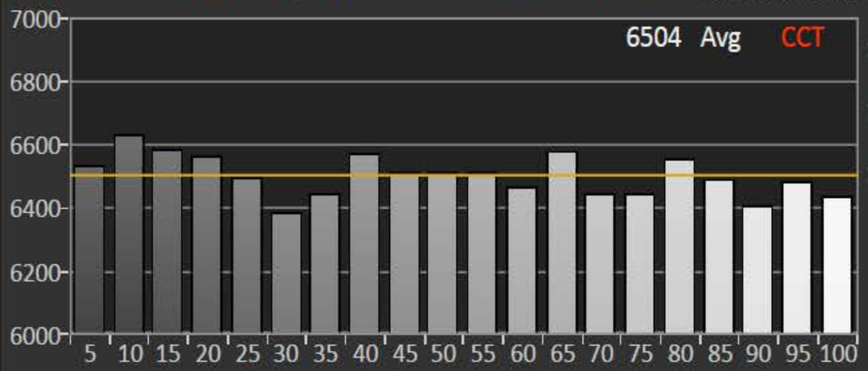
Grayscale Full | Grayscale Simple

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 6

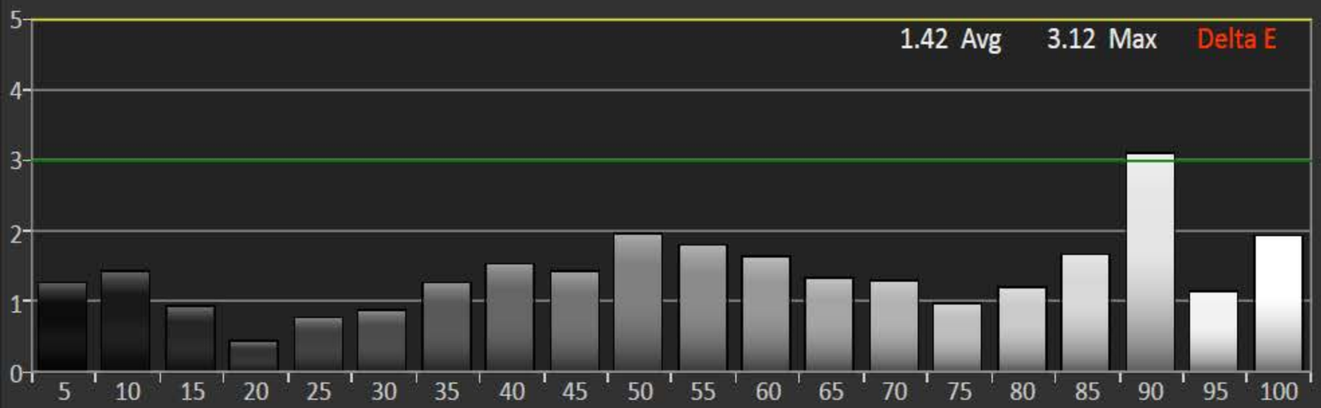
# MultiPoint Grayscale Calibration - Full

Use the tabs above to select layout complexity

☒ Comparator ☒ DDC ☐ Logarithmic Y Axis








100

Triplet 235, 235, 235

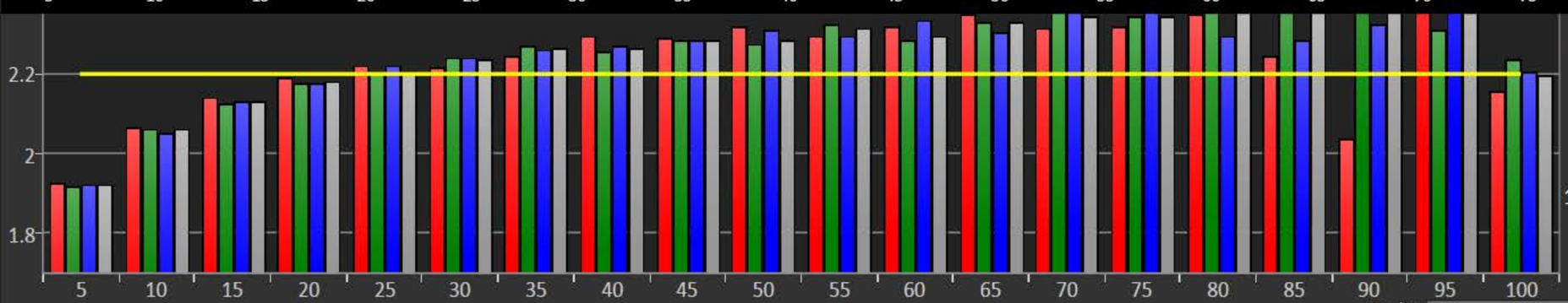
CCT 6436

Gamma 2.2

dE 1.95

| | Y tgt | x tgt | y tgt |
|---|---|---|---|
| | 23.83941 | 0.31271 | 0.32901 |
| | 23.83941 | 0.31411 | 0.32781 |


| | Red | Green | Blue |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 5 | 6 | 6.3 | 5.8 |
| 10 | 9.8 | 9.8 | 9.9 |
| 15 | 14.9 | 14.7 | 14.6 |
| 20 | 19.7 | 20 | 20 |
| 25 | 25.2 | 25.2 | 25.2 |
| 30 | 30 | 30 | 30.3 |
| 35 | 34.9 | 35 | 34.9 |
| 40 | 40.4 | 40.1 | 40.4 |
| 45 | 44.9 | 44.9 | 44.9 |
| 50 | 50 | 49.7 | 50 |
| 55 | 54.8 | 54.8 | 54.4 |
| 60 | 60 | 59.9 | 59.5 |
| 65 | 64.9 | 64.8 | 64.4 |
| 85 | 84.9 | 84.6 | 84.5 |
| 90 | 90.3 | 90.2 | 90.2 |
| 95 | 95.3 | 95.2 | 95.3 |
| 100 | 100 | 100 | 100 |


Reset Grayscale

Contrast Ratio : needs level 0 and 100 readings

☒ Comparator ☒ DDC

Display Slot CMS 6

Grayscale Points 20 Point 5% step 5-100%


CAL Gray M-pnt

Back Next

2-Pnt # data HOME Prepare Setup PreRead DyRnge Calibrate 2-Pnt # data Sat Lum CCk LUT PostCal Read Analyze Post Final Check M-Pnt 2-Pnt # data Notes

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CalMAN 5 CalMAN Enthusiast for Home Video

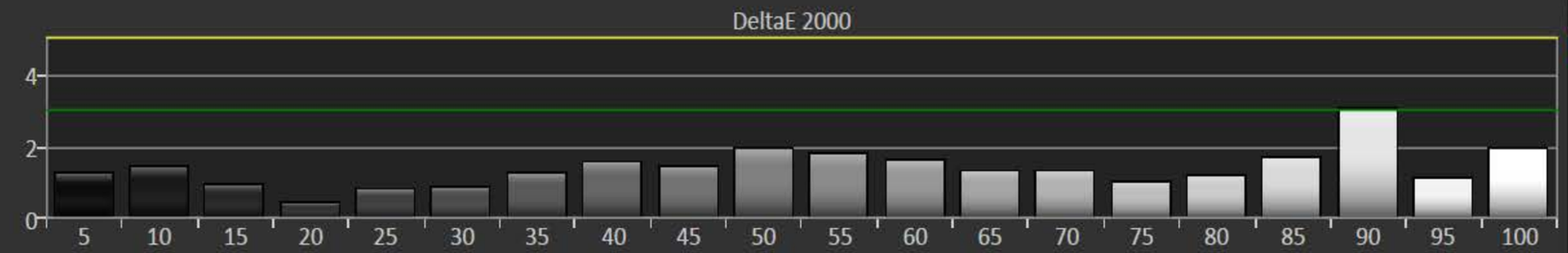
CalMAN 5

Datagrid

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 6

# Multi-Point Calibration Data - Full

Calibration Notes




| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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, |
| Red index | 27.0000 | 38.0000 | 49.0000 | 60.0000 | 71.0000 | 82.0000 | 93.0000 | 104.0000 | 115.0000 | 126.0000 | 136.0000 | 147.0000 | 158.0000 | 169.0000 | 180.0000 | 191.0000 | 202.0000 | 213.0000 |
| Green index | 27.0000 | 38.0000 | 49.0000 | 60.0000 | 71.0000 | 82.0000 | 93.0000 | 104.0000 | 115.0000 | 126.0000 | 136.0000 | 147.0000 | 158.0000 | 169.0000 | 180.0000 | 191.0000 | 202.0000 | 213.0000 |
| Blue index | 27.0000 | 38.0000 | 49.0000 | 60.0000 | 71.0000 | 82.0000 | 93.0000 | 104.0000 | 115.0000 | 126.0000 | 136.0000 | 147.0000 | 158.0000 | 169.0000 | 180.0000 | 191.0000 | 202.0000 | 213.0000 |
| X | 0.3438 | 0.8079 | 1.5330 | 2.5441 | 3.8864 | 5.6181 | 7.6379 | 10.0755 | 12.9839 | 16.2749 | 19.7613 | 24.0697 | 28.6227 | 33.9329 | 39.8030 | 46.1709 | 53.4966 | 61.1160 |
| Y cd/m² | 0.3637 | 0.8497 | 1.6249 | 2.6892 | 4.1214 | 5.8734 | 7.9823 | 10.6957 | 13.6785 | 17.2851 | 20.6734 | 25.4834 | 30.1242 | 35.5781 | 41.8421 | 48.4208 | 55.8875 | 63.3983 |
| Z | 0.3946 | 0.9422 | 1.7703 | 2.9336 | 4.4279 | 6.3532 | 8.7134 | 11.6002 | 14.8777 | 18.5704 | 22.7389 | 27.3232 | 33.1512 | 38.6465 | 45.2275 | 53.4006 | 61.4214 | 69.6579 |
| Xn 0-1 | 0.0042 | 0.0099 | 0.0188 | 0.0311 | 0.0476 | 0.0688 | 0.0935 | 0.1234 | 0.1590 | 0.1993 | 0.2419 | 0.2947 | 0.3504 | 0.4154 | 0.4873 | 0.5653 | 0.6550 | 0.7482 |
| Yn 0-1 | 0.0045 | 0.0104 | 0.0199 | 0.0329 | 0.0505 | 0.0719 | 0.0977 | 0.1309 | 0.1675 | 0.2116 | 0.2531 | 0.3120 | 0.3688 | 0.4356 | 0.5123 | 0.5928 | 0.6842 | 0.7762 |
| Zn 0-1 | 0.0048 | 0.0115 | 0.0217 | 0.0359 | 0.0542 | 0.0778 | 0.1067 | 0.1420 | 0.1821 | 0.2274 | 0.2784 | 0.3345 | 0.4059 | 0.4731 | 0.5537 | 0.6538 | 0.7520 | 0.8528 |
| Stimulus Percent | 0.0502 | 0.1005 | 0.1507 | 0.2009 | 0.2511 | 0.3014 | 0.3516 | 0.4018 | 0.4521 | 0.5023 | 0.5479 | 0.5982 | 0.6484 | 0.6986 | 0.7489 | 0.7991 | 0.8493 | 0.8995 |
| RED Stim%:0-1 | 0.0502 | 0.1005 | 0.1507 | 0.2009 | 0.2511 | 0.3014 | 0.3516 | 0.4018 | 0.4521 | 0.5023 | 0.5479 | 0.5982 | 0.6484 | 0.6986 | 0.7489 | 0.7991 | 0.8493 | 0.8995 |
| GRN Stim%:0-1 | 0.0502 | 0.1005 | 0.1507 | 0.2009 | 0.2511 | 0.3014 | 0.3516 | 0.4018 | 0.4521 | 0.5023 | 0.5479 | 0.5982 | 0.6484 | 0.6986 | 0.7489 | 0.7991 | 0.8493 | 0.8995 |
| BLU Stim%:0-1 | 0.0502 | 0.1005 | 0.1507 | 0.2009 | 0.2511 | 0.3014 | 0.3516 | 0.4018 | 0.4521 | 0.5023 | 0.5479 | 0.5982 | 0.6484 | 0.6986 | 0.7489 | 0.7991 | 0.8493 | 0.8995 |
| Measured Red Stimulus | 0.0753 | 0.1160 | 0.1581 | 0.2023 | 0.2476 | 0.2982 | 0.3438 | 0.3860 | 0.4374 | 0.4835 | 0.5337 | 0.5817 | 0.6297 | 0.6859 | 0.7374 | 0.7874 | 0.8464 | 0.9059 |
| Measured Green Stimulus | 0.0761 | 0.1165 | 0.1605 | 0.2042 | 0.2504 | 0.2942 | 0.3397 | 0.3921 | 0.4383 | 0.4902 | 0.5295 | 0.5860 | 0.6319 | 0.6811 | 0.7347 | 0.7854 | 0.8376 | 0.8849 |
| Measured Blue Stimulus | 0.0757 | 0.1177 | 0.1599 | 0.2039 | 0.2477 | 0.2940 | 0.3412 | 0.3897 | 0.4378 | 0.4848 | 0.5336 | 0.5798 | 0.6352 | 0.6813 | 0.7322 | 0.7916 | 0.8442 | 0.8946 |
| Stimulus | 5.0000 | 10.0000 | 15.0000 | 20.0000 | 25.0000 | 30.0000 | 35.0000 | 40.0000 | 45.0000 | 50.0000 | 55.0000 | 60.0000 | 65.0000 | 70.0000 | 75.0000 | 80.0000 | 85.0000 | 90.0000 |
| Target X cd/m² | 0.1589 | 0.6001 | 1.3659 | 2.4821 | 3.9684 | 5.8410 | 8.1139 | 10.7992 | 13.9078 | 17.4496 | 21.0529 | 25.4462 | 30.2971 | 35.6130 | 41.4007 | 47.6668 | 54.4175 | 61.6586 |
| Target Y cd/m² | 0.1672 | 0.6314 | 1.4371 | 2.6114 | 4.1752 | 6.1454 | 8.5368 | 11.3620 | 14.6326 | 18.3590 | 22.1501 | 26.7723 | 31.8760 | 37.4689 | 43.5583 | 50.1510 | 57.2534 | 64.8719 |
| Target Z cd/m² | 0.1821 | 0.6876 | 1.5649 | 2.8438 | 4.5466 | 6.6922 | 9.2963 | 12.3729 | 15.9345 | 19.9924 | 24.1208 | 29.1542 | 34.7120 | 40.8025 | 47.4336 | 54.6128 | 62.3472 | 70.6435 |
| Target Xn 0-1 | 0.0019 | 0.0073 | 0.0167 | 0.0304 | 0.0486 | 0.0715 | 0.0993 | 0.1322 | 0.1703 | 0.2136 | 0.2577 | 0.3115 | 0.3709 | 0.4360 | 0.5069 | 0.5836 | 0.6662 | 0.7549 |
| Target Yn 0-1 | 0.0020 | 0.0077 | 0.0176 | 0.0320 | 0.0511 | 0.0752 | 0.1045 | 0.1391 | 0.1791 | 0.2248 | 0.2712 | 0.3278 | 0.3903 | 0.4587 | 0.5333 | 0.6140 | 0.7009 | 0.7942 |
| Target Zn 0-1 | 0.0022 | 0.0084 | 0.0192 | 0.0348 | 0.0557 | 0.0819 | 0.1138 | 0.1515 | 0.1951 | 0.2448 | 0.2953 | 0.3569 | 0.4250 | 0.4995 | 0.5807 | 0.6686 | 0.7633 | 0.8649 |
| TargetGamut:Nrml Y | 0.0020 | 0.0077 | 0.0176 | 0.0320 | 0.0511 | 0.0752 | 0.1045 | 0.1391 | 0.1791 | 0.2248 | 0.2712 | 0.3278 | 0.3903 | 0.4587 | 0.5333 | 0.6140 | 0.7009 | 0.7942 |
| TargetRED:Lin0-1 | 0.0020 | 0.0077 | 0.0176 | 0.0320 | 0.0511 | 0.0752 | 0.1045 | 0.1391 | 0.1791 | 0.2248 | 0.2712 | 0.3278 | 0.3903 | 0.4587 | 0.5333 | 0.6140 | 0.7009 | 0.7942 |
| TargetGRN:Lin0-1 | 0.0020 | 0.0077 | 0.0176 | 0.0320 | 0.0511 | 0.0752 | 0.1045 | 0.1391 | 0.1791 | 0.2248 | 0.2712 | 0.3278 | 0.3903 | 0.4587 | 0.5333 | 0.6140 | 0.7009 | 0.7942 |
| TargetBLU:Lin0-1 | 0.0020 | 0.0077 | 0.0176 | 0.0320 | 0.0511 | 0.0752 | 0.1045 | 0.1391 | 0.1791 | 0.2248 | 0.2712 | 0.3278 | 0.3903 | 0.4587 | 0.5333 | 0.6140 | 0.7009 | 0.7942 |

CAL

Calib

HOME

Prepare

Calibrate

Calib

Analyze

CAL

Calib

Notes

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Saturation Sweeps

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 6

# Saturation Sweeps Calibration

Delta E 2000

100% 75% 50% 25% 100

0 0.5 1 1.5 2 2.5 3

**Summary**

Delta E 2000
Avg 0.86
Max 1.45

Delta L
Avg 0.813
Max 1.289

Delta H
Avg 0.515
Max 1.606

Delta C
Avg 0.8061
Max 2.112

Black 0
White 23.62

Triplet
180, 16, 16

100%

Y tgt 2.67941
2.60325

x tgt 0.64
0.63797

y tgt 0.33
0.32808

Y in fL | Target = tgt

-2.84
Luminance

dE 2000
1.04

100%

Delta C | Max 2.112 | Avg 0.806

Delta H | Max 1.606 | Avg 0.515

Delta L | Max 1.289 | Avg 0.813

100 25% 50% 75% 100%

RGB Balance

-2.5 -1.3 4.1

-0.54 dL | -1.61 dH | -0.97 dC

RGB | DDC | Luminance

Display Slot: CMS 6

Sweep Level: 25% Sweeps

← For basic CMS set to 75%/100% Only

25% 50% 75% 100%

Back | Next

CAL Satur | Back | Next | # data | HOME | Prepare | Setup | PreCal Read | DyRnge | Calibrate | Gry | # data | Lum | CCk | LUT | PostCal Read | Analyze | Post | Final Check | Satur | # data | Notes

CalMAN 5 CalMAN Enthusiast for Home Video

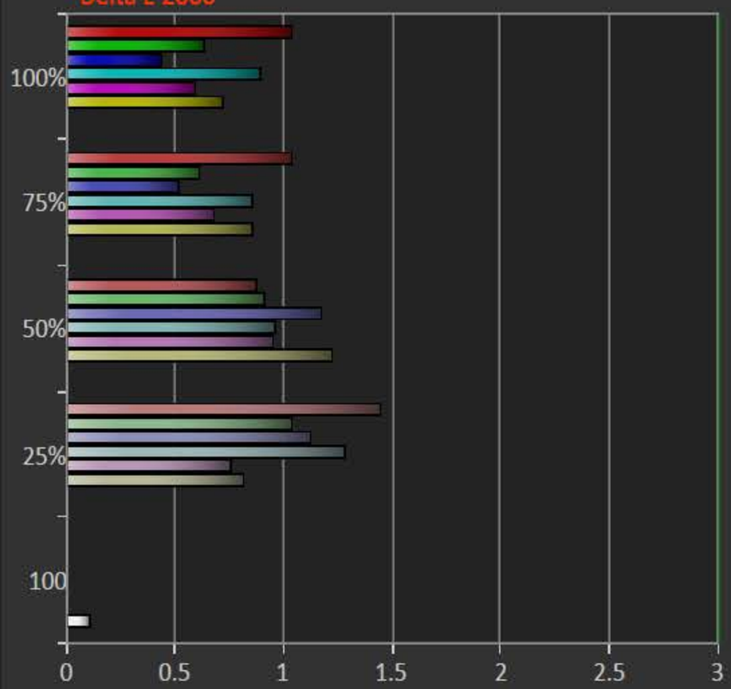
CalMAN 5

Saturation Sweeps

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 6

# Saturation Sweeps Calibration

Delta E 2000




**Summary**

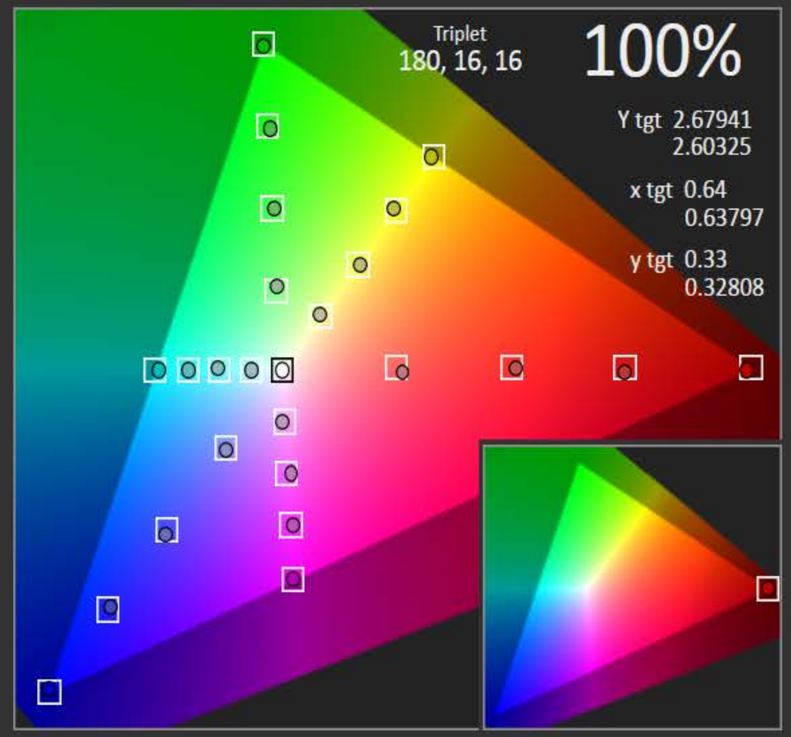
Delta E 2000
Avg 0.86
Max 1.45

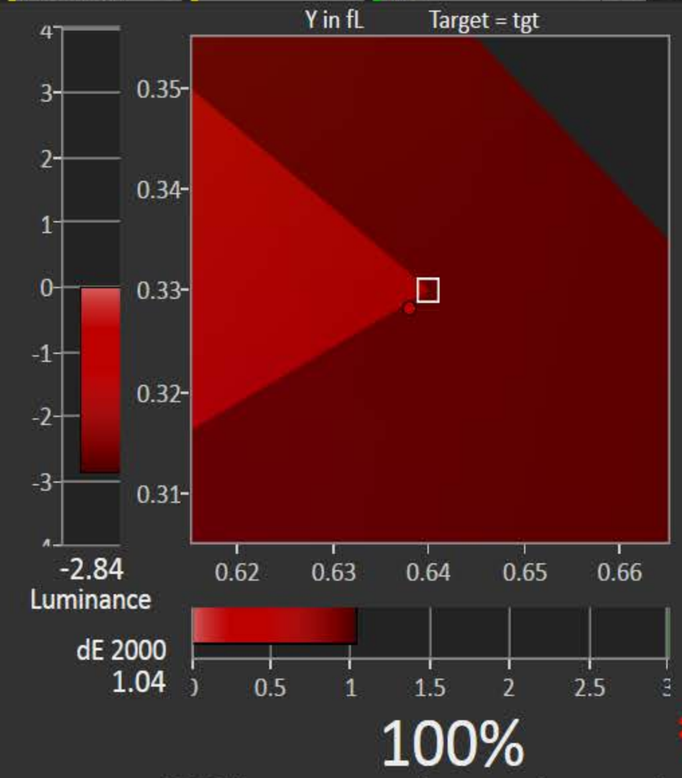
Delta L
Avg 0.813
Max 1.289

Delta H
Avg 0.515
Max 1.606

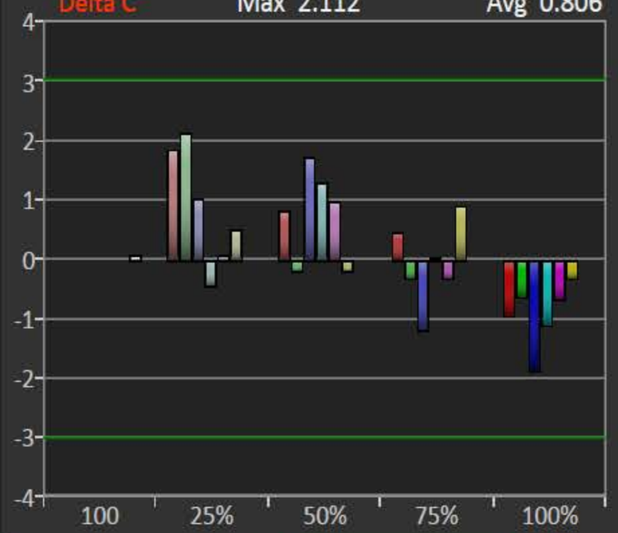
Delta C
Avg 0.8061
Max 2.112

Black 0
White 23.62



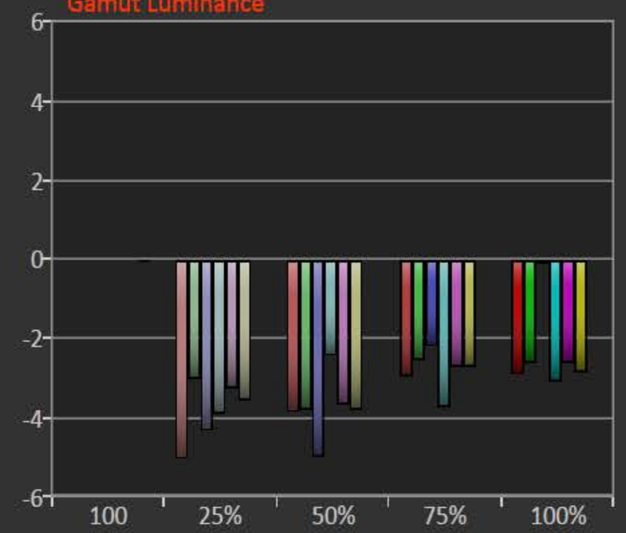




Delta C Max 2.112 Avg 0.806

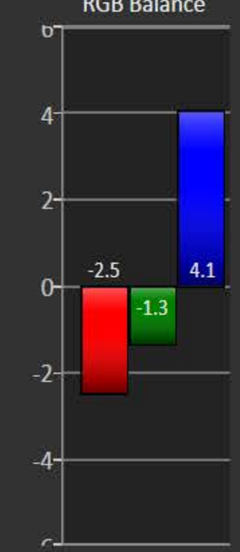



Delta H Max 1.606 Avg 0.515


Gamut Luminance




RGB Balance




-0.54 dL | -1.61 dH | -0.97 dC

RGB | DDC | Luminance

Display Slot: CMS 6

Sweep Level: 25% Sweeps

← For basic CMS set to 75%/100% Only

25% 50% 75% 100%

Back | Next

CAL Satur

Back | Next | # data | HOME | Prepare | Setup | PreCal Read | DyRnge | Calibrate | Gry | # data | Lum | CCk | LUT | PostCal Read | Analyze | Post | Final Check | Satur | # data | Notes

CalMAN 5 CalMAN Enthusiast for Home Video

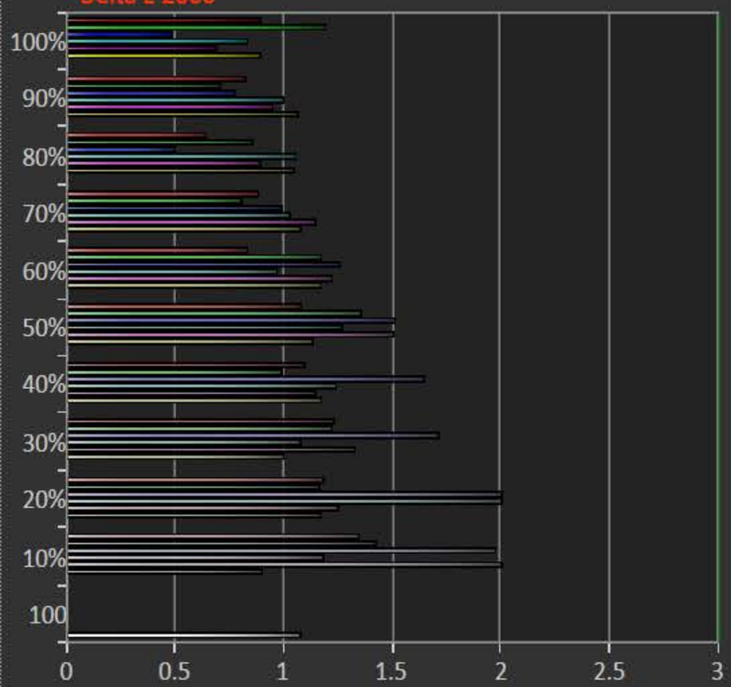
CalMAN 5

Saturation Sweeps

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 6

# Saturation Sweeps Calibration

Delta E 2000




## Summary

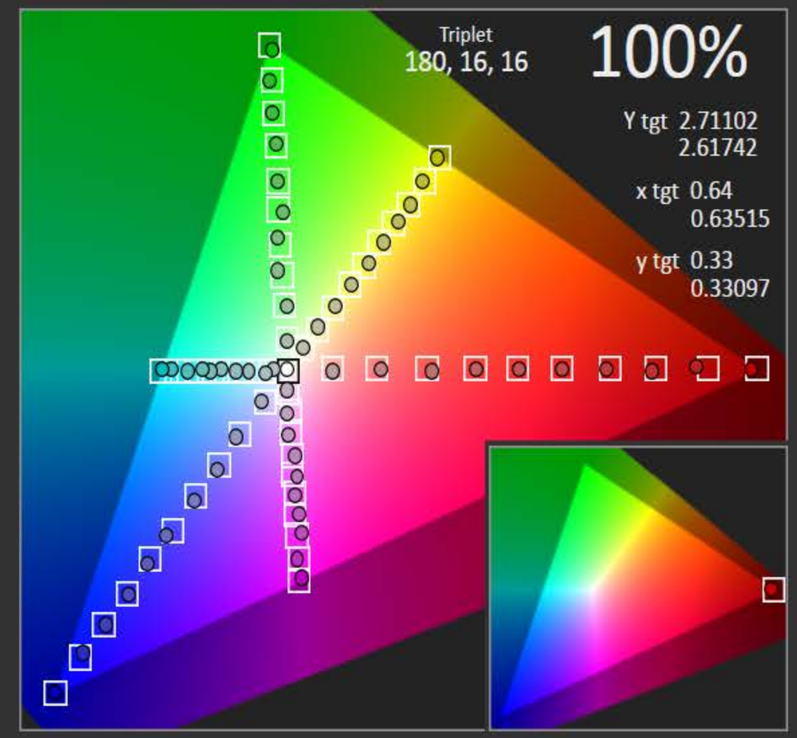
Delta E 2000
Avg 1.14
Max 2.01

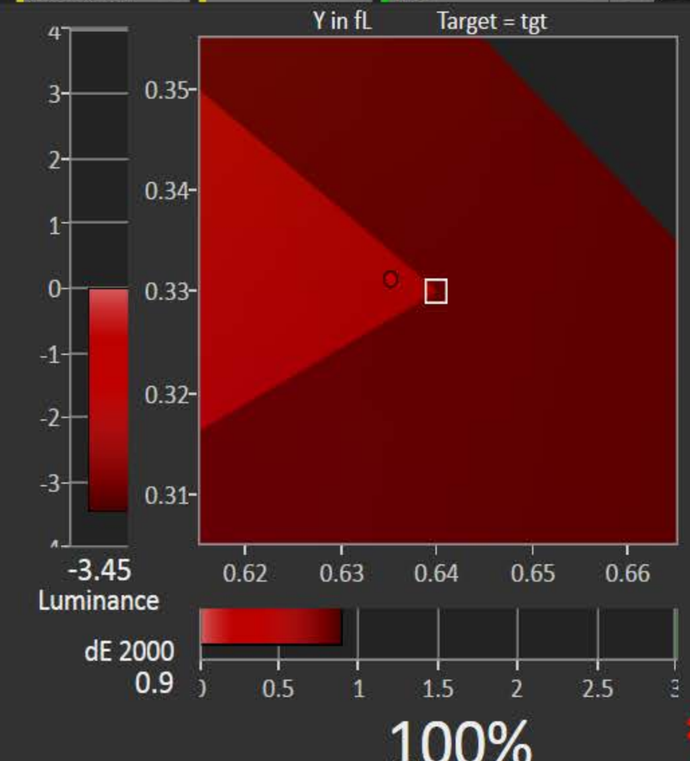
Delta L
Avg 1.163
Max 1.814

Delta H
Avg 0.463
Max 1.519

Delta C
Avg 0.8926
Max 3.587

Black 0
White 23.9



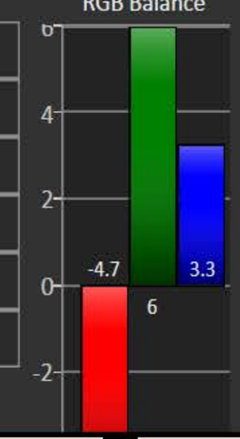



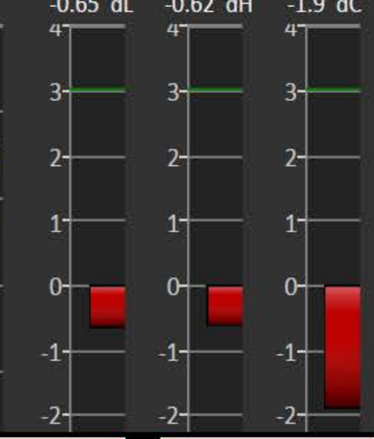

Delta C Max 3.587 Avg 0.893


Delta H Max 1.519 Avg 0.463


| | Hue | Saturation | Luminance |
|---|---|---|---|
| Red | 0 | 0 | 0 |
| Green | 0 | 0 | 0 |
| Blue | 0 | 0 | 0 |
| Cyan | 0 | 0 | 0 |
| Magenta | 0 | 0 | 0 |
| Yellow | 0 | 0 | 0 |

RGB Balance





Comparator | RGB | DDC | Luminance

Display Slot CMS 6

Sweep Level 10% Sweeps

← For basic CMS set to 75%/100% Only

CAL Satur

Back | Next | # data | HOME | Prepare | Setup | PreCal Read | DyRnge | Calibrate | Gry | # data | Lum | CCk | LUT | PostCal Read | Analyze | Post | Final Check | Satur | # data | Notes

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CalMAN 5 CalMAN Enthusiast for Home Video

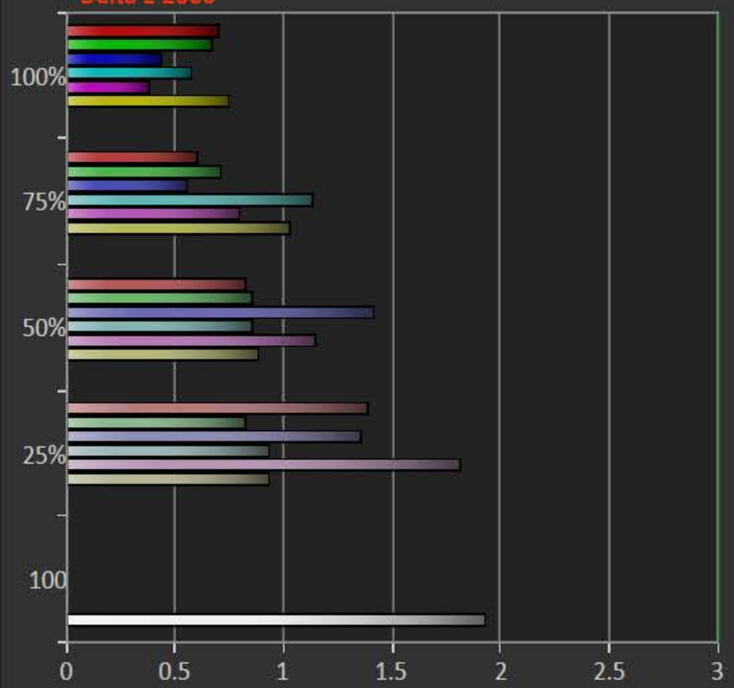
CalMAN 5

Saturation Sweeps

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 6

# Saturation Sweeps Calibration

Delta E 2000




## Summary

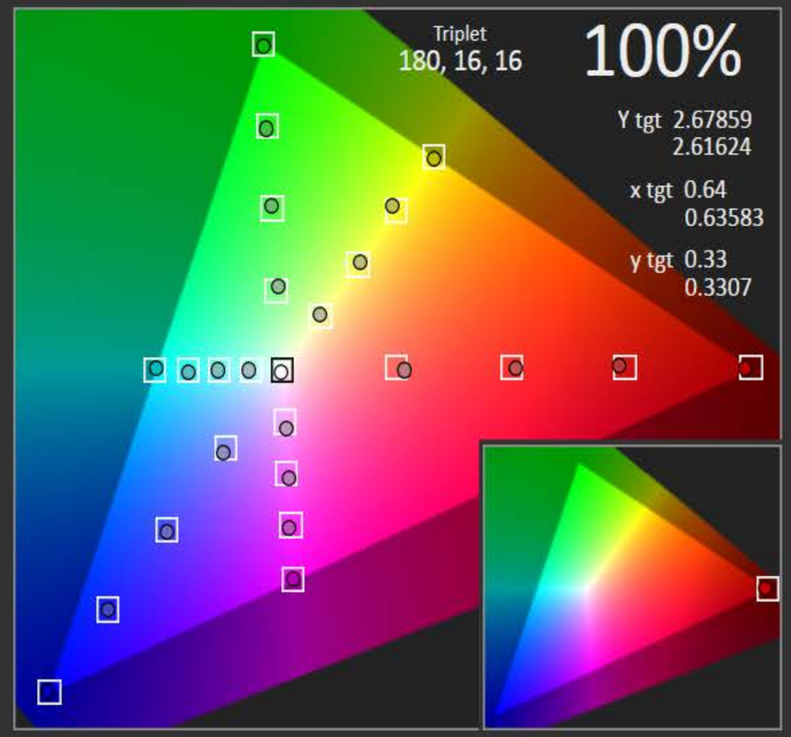
Delta E 2000
Avg 0.94
Max 1.93

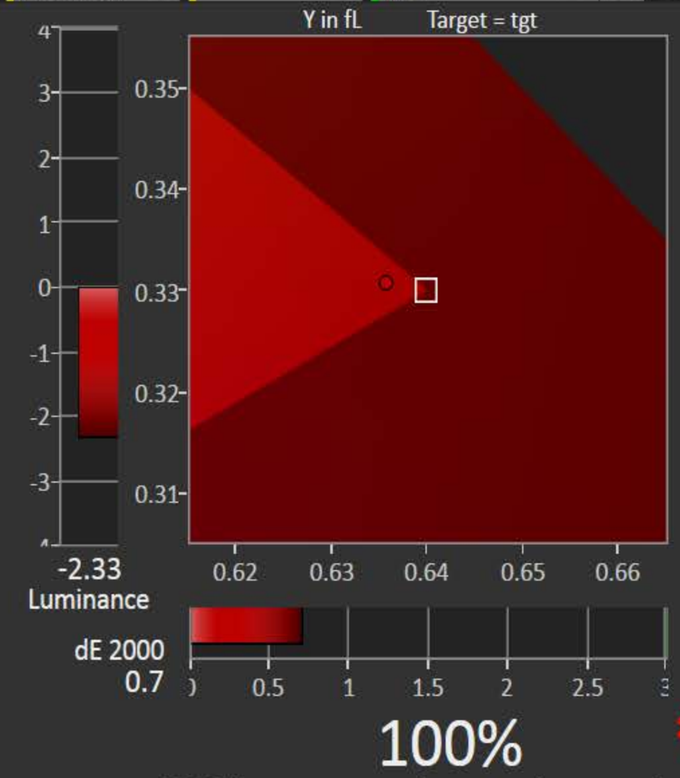
Delta L
Avg 0.828
Max 1.407

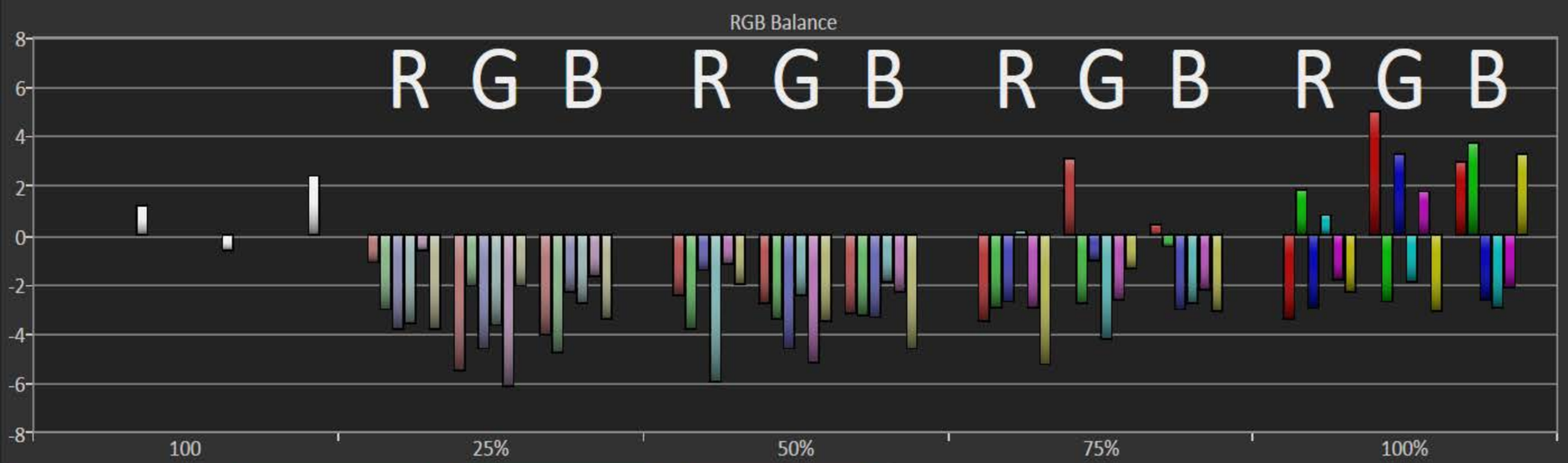
Delta H
Avg 0.435
Max 1.438

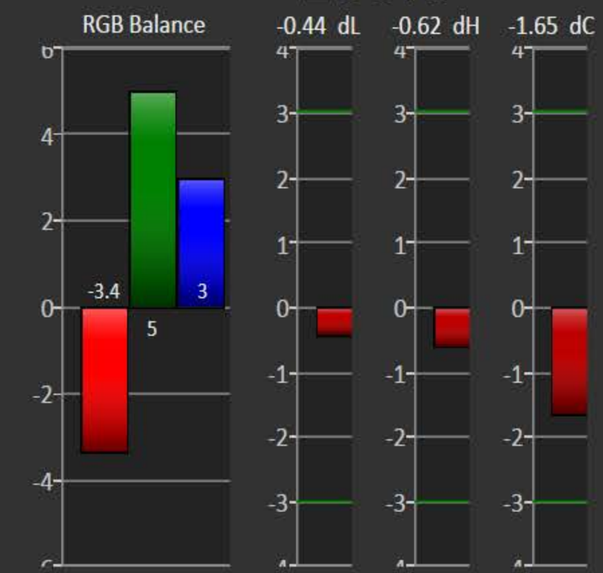
Delta C
Avg 1.0846
Max 3.149

Black 0
White 23.61




CAL
Satur

Back
Next
# data
HOME
Prepare
Setup
PreCal Read
DyRnge
Calibrate
Gry
# data
Lum
CCk
LUT
PostCal Read
Analyze
Post
Final Check
Satur
# data

RGB | DDC | Luminance

Display Slot: CMS 6

Sweep Level: 25% Sweeps

← For basic CMS set to 75%/100% Only

25% 50% 75% 100%

Notes

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CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Datagrid

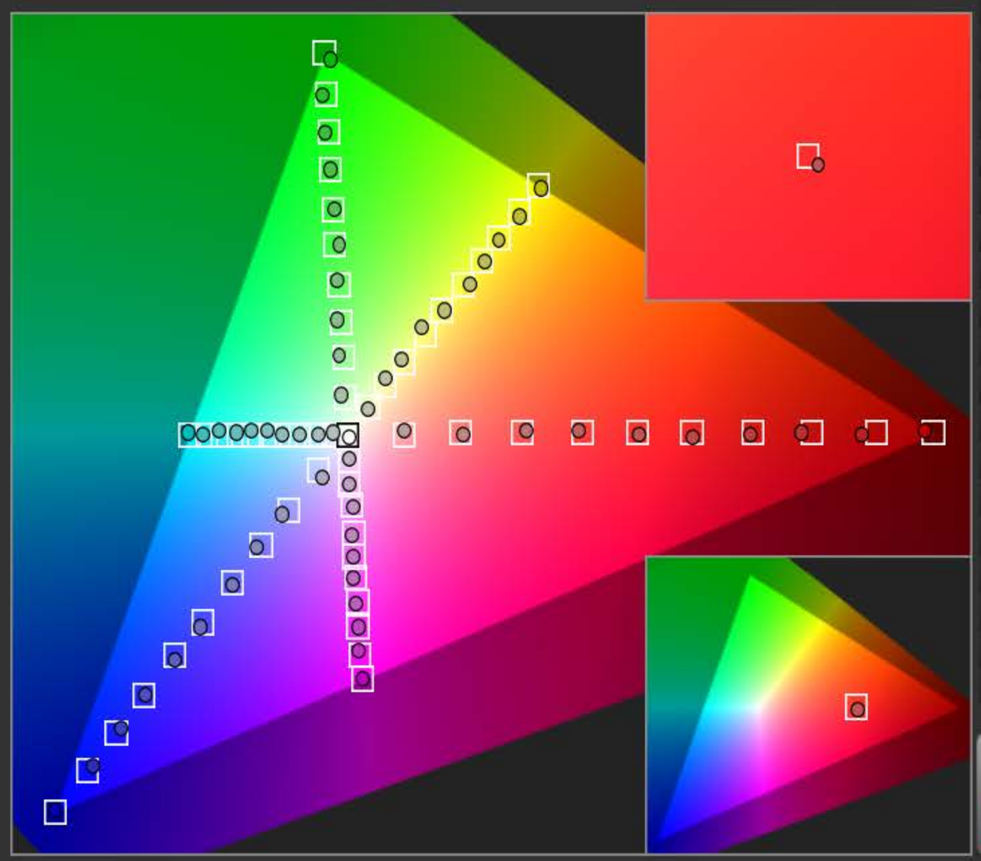
Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 4

# Saturation Sweep Calibration Data

Color Notes

Post-Calibration Notes

50%



| | 10% | 20% | 30% | 40% | 50% | 60% | 70% | 80% | 90% | 100 |
|---|---|---|---|---|---|---|---|---|---|---|
| RGB Triplet | 180, 152, 152 | 180, 132, 132 | 180, 115, 115 | 180, 101, 101 | 180, 90, 90 | 180, 80, 80 | 180, 69, 69 | 180, 58, 58 | 180, 44, 44 | 180 |
| Red index | 180.0000 | 180.0000 | 180.0000 | 180.0000 | 180.0000 | 180.0000 | 180.0000 | 180.0000 | 180.0000 | 180 |
| Green index | 152.0000 | 132.0000 | 115.0000 | 101.0000 | 90.0000 | 80.0000 | 69.0000 | 58.0000 | 44.0000 | 16.0 |
| Blue index | 152.0000 | 132.0000 | 115.0000 | 101.0000 | 90.0000 | 80.0000 | 69.0000 | 58.0000 | 44.0000 | 16.0 |
| X | 31.9845 | 27.4783 | 24.6298 | 22.3621 | 21.1833 | 20.3658 | 19.3414 | 18.5687 | 17.9477 | 17.2 |
| Y cd/m² | 30.8031 | 23.8884 | 19.8242 | 16.7442 | 14.5846 | 13.2027 | 11.8024 | 10.8293 | 9.8522 | 8.97 |
| Z | 29.9888 | 21.5488 | 15.2699 | 11.4733 | 8.7351 | 6.7525 | 4.8516 | 3.4406 | 2.1459 | 0.91 |
| Xn 0-1 | 0.3922 | 0.3369 | 0.3020 | 0.2742 | 0.2598 | 0.2497 | 0.2372 | 0.2277 | 0.2201 | 0.21 |
| Yn 0-1 | 0.3777 | 0.2929 | 0.2431 | 0.2053 | 0.1788 | 0.1619 | 0.1447 | 0.1328 | 0.1208 | 0.11 |
| Zn 0-1 | 0.3677 | 0.2642 | 0.1872 | 0.1407 | 0.1071 | 0.0828 | 0.0595 | 0.0422 | 0.0263 | 0.01 |
| Stimulus Percent | 0.7489 | 0.7489 | 0.7489 | 0.7489 | 0.7489 | 0.7489 | 0.7489 | 0.7489 | 0.7489 | 0.74 |
| RED Stim%:0-1 | 0.7489 | 0.7489 | 0.7489 | 0.7489 | 0.7489 | 0.7489 | 0.7489 | 0.7489 | 0.7489 | 0.74 |
| GRN Stim%:0-1 | 0.6210 | 0.5297 | 0.4521 | 0.3881 | 0.3379 | 0.2922 | 0.2420 | 0.1918 | 0.1279 | 0.00 |
| BLU Stim%:0-1 | 0.6210 | 0.5297 | 0.4521 | 0.3881 | 0.3379 | 0.2922 | 0.2420 | 0.1918 | 0.1279 | 0.00 |
| Measured Red Stimulus | 0.7324 | 0.7343 | 0.7355 | 0.7296 | 0.7366 | 0.7404 | 0.7386 | 0.7361 | 0.7372 | 0.73 |
| Measured Green Stimulus | 0.6125 | 0.5130 | 0.4440 | 0.3844 | 0.3266 | 0.2835 | 0.2363 | 0.1977 | 0.1392 | 0.05 |
| Measured Blue Stimulus | 0.6041 | 0.5174 | 0.4368 | 0.3798 | 0.3317 | 0.2901 | 0.2424 | 0.1977 | 0.1437 | 0.03 |
| Stimulus | 75.0000 | 75.0000 | 75.0000 | 75.0000 | 75.0000 | 75.0000 | 75.0000 | 75.0000 | 75.0000 | 75.0 |
| Target X cd/m² | 33.4381 | 28.9001 | 25.7035 | 23.5131 | 22.0641 | 20.9485 | 19.9368 | 19.1428 | 18.4315 | 17.9 |
| Target Y cd/m² | 31.9674 | 25.3264 | 20.6485 | 17.4430 | 15.3223 | 13.6896 | 12.2089 | 11.0466 | 10.0055 | 9.23 |
| Target Z cd/m² | 31.7292 | 22.7070 | 16.3517 | 11.9967 | 9.1155 | 6.8973 | 4.8855 | 3.3063 | 1.8917 | 0.83 |
| Target Xn 0-1 | 0.4100 | 0.3544 | 0.3152 | 0.2883 | 0.2706 | 0.2569 | 0.2445 | 0.2347 | 0.2260 | 0.21 |
| Target Yn 0-1 | 0.3920 | 0.3106 | 0.2532 | 0.2139 | 0.1879 | 0.1679 | 0.1497 | 0.1355 | 0.1227 | 0.11 |
| Target Zn 0-1 | 0.3891 | 0.2784 | 0.2005 | 0.1471 | 0.1118 | 0.0846 | 0.0599 | 0.0405 | 0.0232 | 0.01 |
| TargetGamut:Nrml Y | 0.5322 | 0.5322 | 0.5322 | 0.5322 | 0.5322 | 0.5322 | 0.5322 | 0.5322 | 0.5322 | 0.53 |
| TargetRED:Lin0-1 | 0.5322 | 0.5322 | 0.5322 | 0.5322 | 0.5322 | 0.5322 | 0.5322 | 0.5323 | 0.5323 | 0.53 |
| TargetGRN:Lin0-1 | 0.3541 | 0.2507 | 0.1778 | 0.1279 | 0.0949 | 0.0695 | 0.0464 | 0.0283 | 0.0121 | 0.00 |
| TargetBLU:Lin0-1 | 0.3541 | 0.2507 | 0.1778 | 0.1279 | 0.0949 | 0.0695 | 0.0464 | 0.0283 | 0.0121 | 0.00 |
| TargetGamut:Nrml MaxY | 0.7366 | 0.5835 | 0.4758 | 0.4019 | 0.3530 | 0.3154 | 0.2813 | 0.2545 | 0.2305 | 0.21 |
| Target x:CIE31 | 0.3442 | 0.3756 | 0.4099 | 0.4440 | 0.4745 | 0.5044 | 0.5384 | 0.5715 | 0.6077 | 0.64 |
| Target y:CIE31 | 0.3291 | 0.3292 | 0.3293 | 0.3294 | 0.3295 | 0.3296 | 0.3297 | 0.3298 | 0.3299 | 0.33 |
| Target z:CIE31 | 0.3267 | 0.2952 | 0.2608 | 0.2266 | 0.1960 | 0.1661 | 0.1319 | 0.0987 | 0.0624 | 0.03 |

10% 20% 30% 40% **50%** 60% 70% 80% 90% 100%

CAL Calib HOME Prepare Calibrate Calib Analyze CAL Calib

Notes

CalMAN 5 CalMAN Enthusiast for Home Video

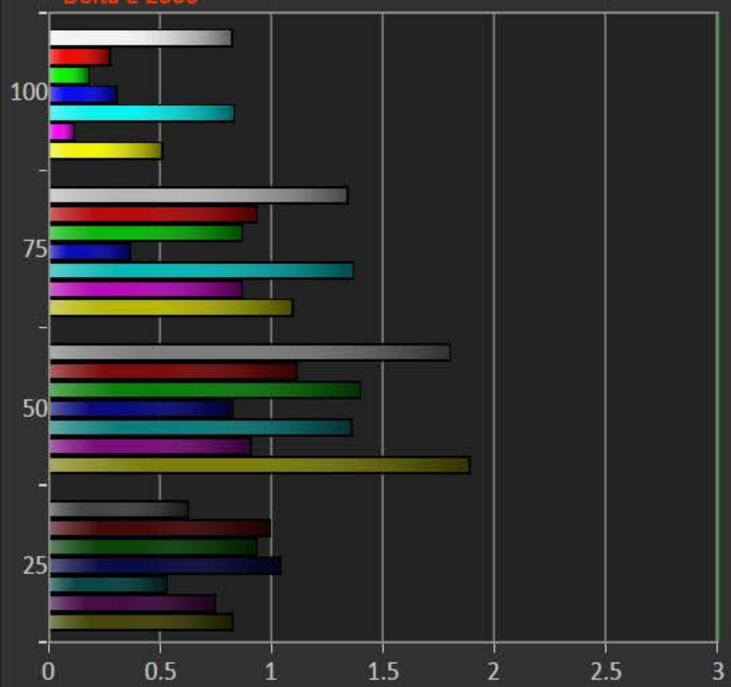
CalMAN 5

Gamut Luminance

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 6

# Gamut Luminance Calibration

Delta E 2000




## Summary

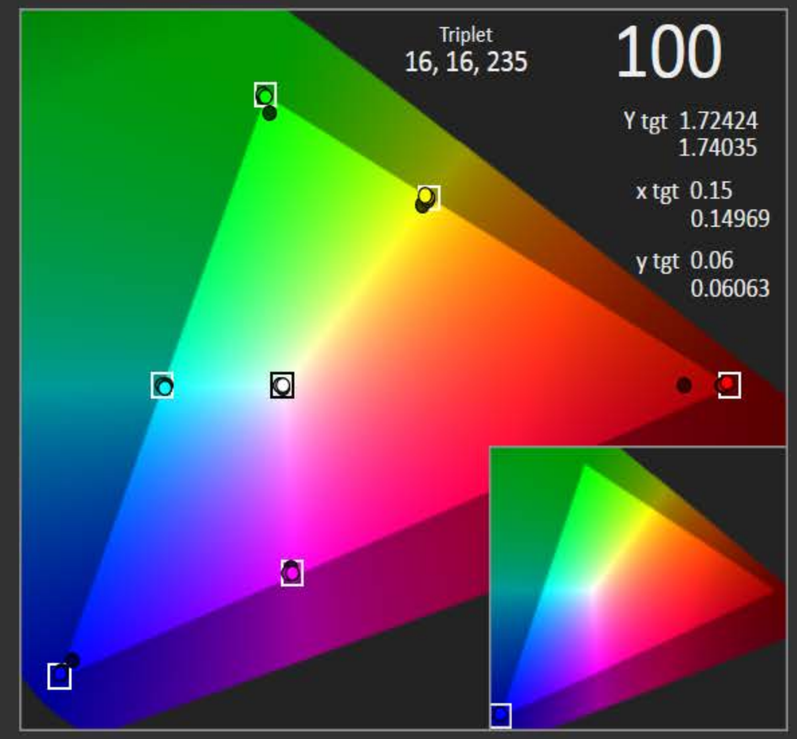
Delta E 2000
Avg 0.89
Max 1.89

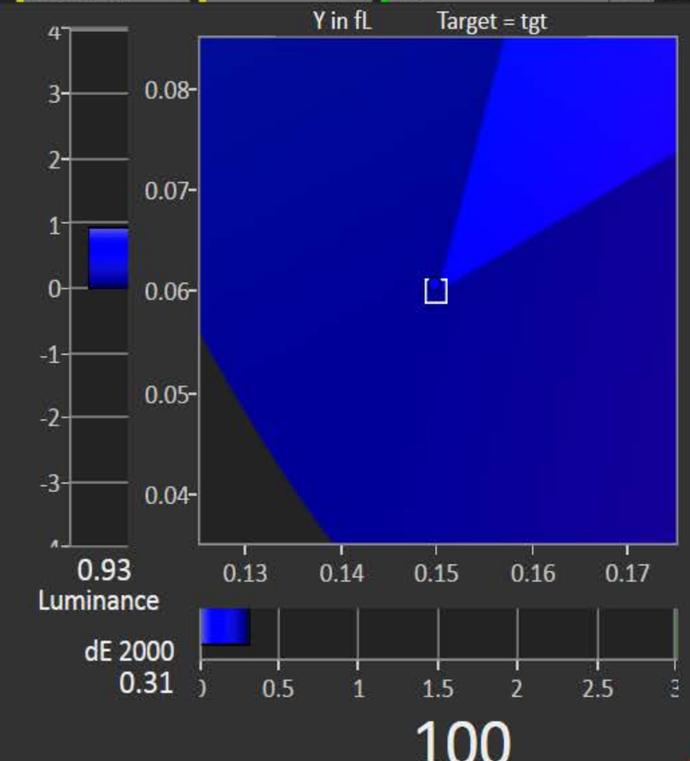
Delta L
Avg 0.647
Max 1.757

Delta H
Avg 0.377
Max 1.158

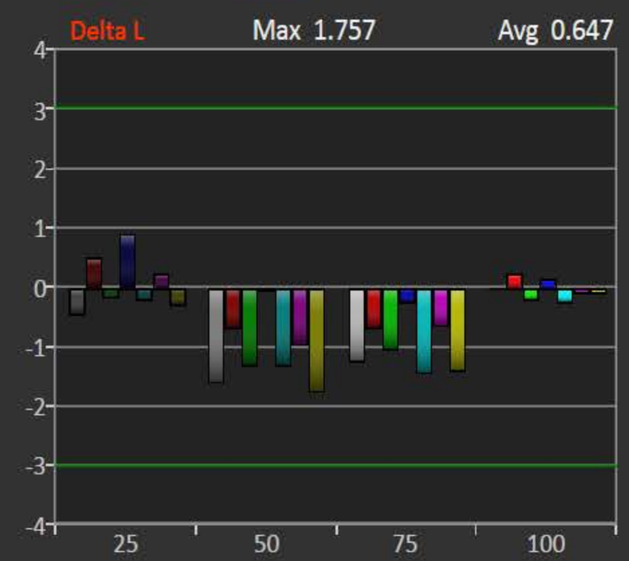
Delta C
Avg 1.472
Max 8.923

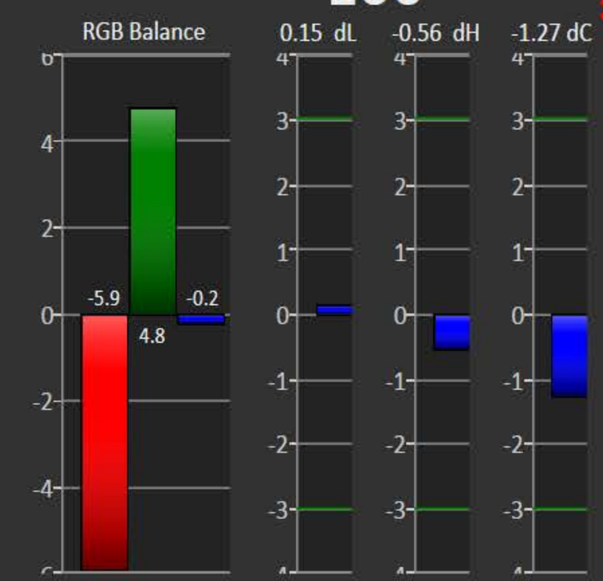
Black 0
White 23.87






RGB | DDC | Luminance

Display Slot: CMS 6

Ramp Levels: 4 Point 25% step 25-100%

CAL Lumi

Back | Next | # data | HOME | Prepare | Setup | PreCal Read | DyRnge | Calibrate | Gry | Sat | # data | CCk | LUT | PostCal Read | Analyze | Post | Final Check | Lumi | # data

Notes

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CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Color Checker

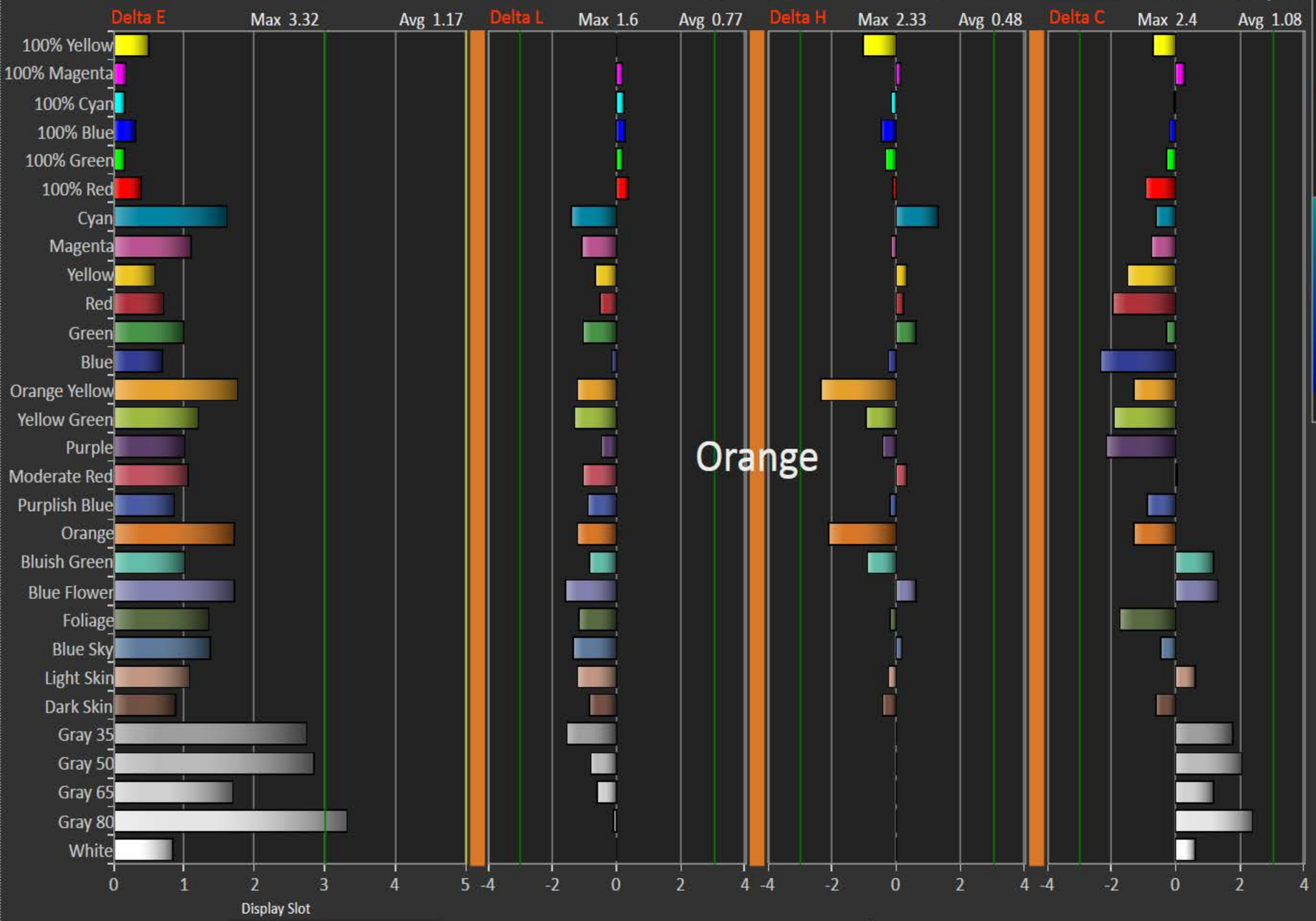
Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 6

# Color Checker Calibration

Orange

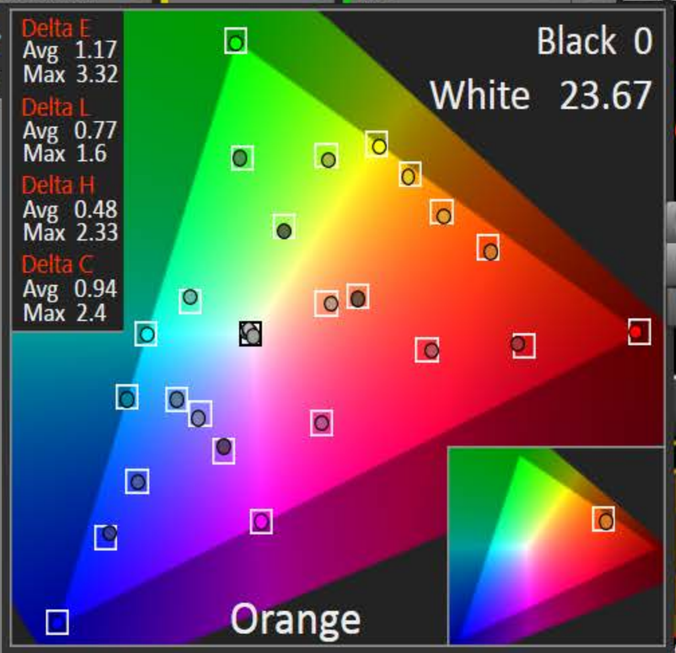
Add Custom Color Set → SG Fleshtones | Select Colors | Summary →

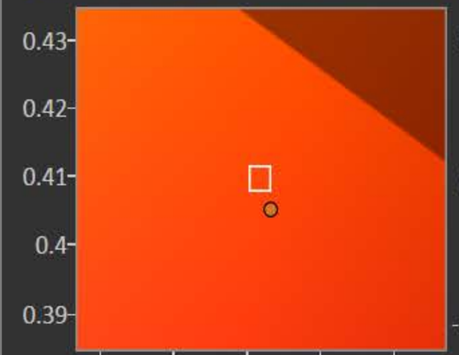
| | Delta E | Delta L | Delta H | Delta C |
|---|---|---|---|---|
| Max | 3.32 | 1.6 | 2.33 | 2.4 |
| Avg | 1.17 | 0.77 | 0.48 | 1.08 |




Delta E Avg 1.17 Max 3.32
Delta L Avg 0.77 Max 1.6
Delta H Avg 0.48 Max 2.33
Delta C Avg 0.94 Max 2.4

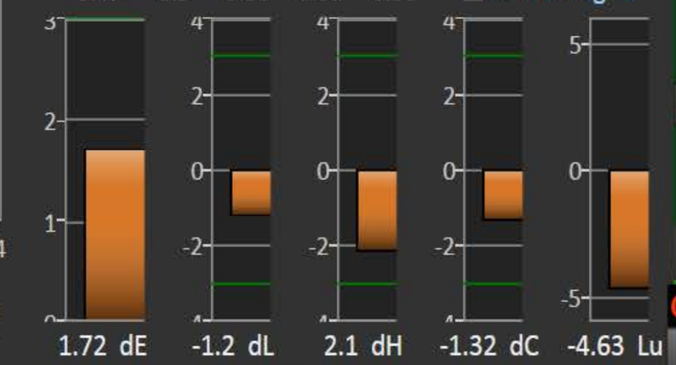
Black 0
White 23.67





Slim Datagrid




CMS 6 | Comparator | DDC

Triplet 202, 119, 51 | Y tgt 6.86574 6.54763 | x tgt 0.51184 0.51323 | y tgt 0.40956 0.40495

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% Red | 100% Green | 100% Blue | 100% Cyan | 100% Magenta | 100% Yellow

Back | Next

CAL | CChkr | Back | Next | # data | HOME | Prepare | Setup | PreCal Read | DyRnge | Calibrate | Gry | Sat | Lum | # data | LUT | PostCal Read | Analyze | Post | Final Check | CChkr | # data | Notes

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

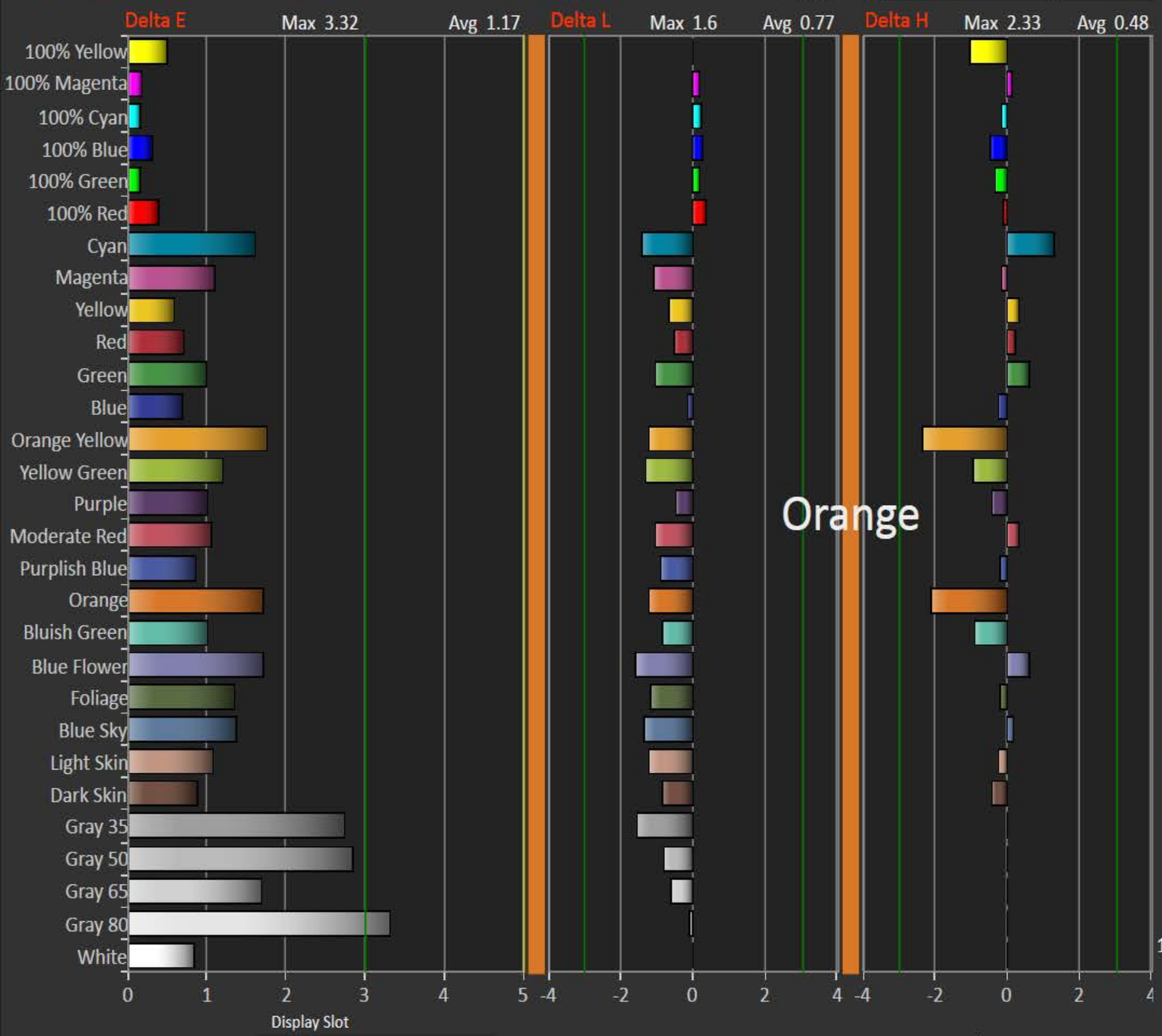
Color Checker

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 6

# Color Checker Calibration

Orange

Add Custom Color Set → SG Fleshtones | Select

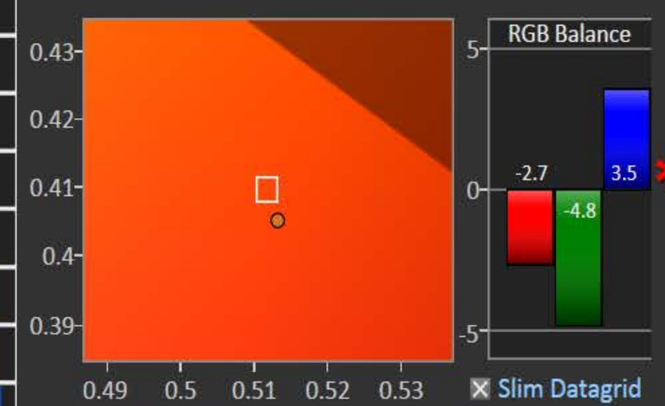



| | Red | Green | Blue |
|---|---|---|---|
| 0 | 0 | 0 | 0 |
| 5 | 6 | 6.3 | 5.8 |
| 10 | 9.8 | 9.8 | 9.9 |
| 15 | 14.9 | 14.7 | 14.6 |
| 20 | 19.7 | 20 | 20 |
| 25 | 25.2 | 25.2 | 25.2 |
| 30 | 30 | 30 | 30.3 |
| 35 | 34.9 | 35 | 34.9 |
| 40 | 40.4 | 40.1 | 40.4 |
| 45 | 44.9 | 44.9 | 44.9 |
| 50 | 50 | 49.7 | 50 |
| 55 | 54.8 | 54.8 | 54.4 |
| 60 | 60 | 59.9 | 59.5 |
| 65 | 64.9 | 64.8 | 64.4 |
| 70 | 69.9 | 69.9 | 69.8 |
| 75 | 75 | 74.9 | 75.3 |
| 80 | 80 | 80.2 | 80 |
| 85 | 84.9 | 84.6 | 84.5 |
| 90 | 90.3 | 90.2 | 90.2 |
| 95 | 95.3 | 95.2 | 95.3 |
| 100 | 100 | 100 | 100 |

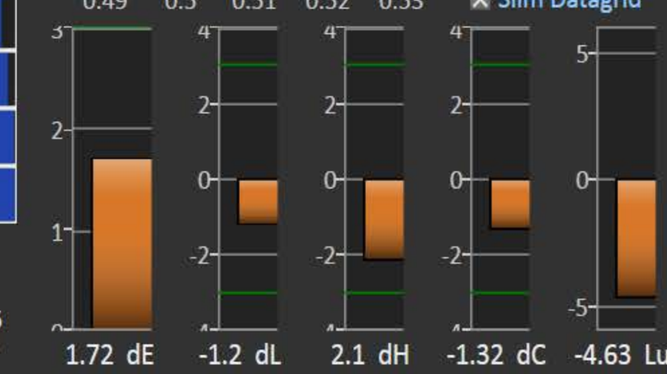
Reset Grayscale

| | Hue | Saturation | Luminance |
|---|---|---|---|
| Red | 0 | 0 | 0 |
| Green | 0 | 0 | 0 |
| Blue | 0 | 0 | 0 |
| Cyan | 0 | 0 | 0 |
| Magenta | 0 | 0 | 0 |
| Yellow | 0 | 0 | 0 |

Reset CMS




Slim Datagrid




CMS 6 | Comparator | DDC

Triplet 202, 119, 51 | Y tgt 6.86574 6.54763 | x tgt 0.51184 0.51323 | y tgt 0.40956 0.40495

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

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% Red | 100% Green | 100% Blue | 100% Cyan | 100% Magenta | 100% Yellow

Notes | Back | Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

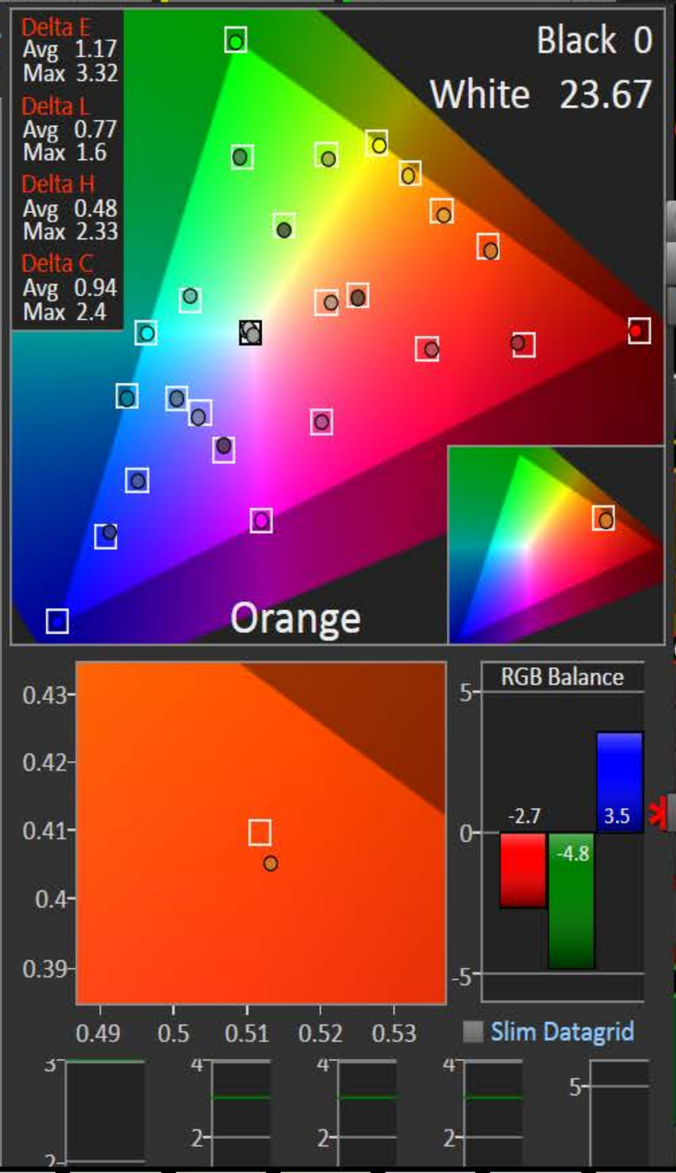
Color Checker

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 6

## Color Checker Calibration — Orange

Add Custom Color Set → SG Fleshtones | Select Colors | Summary →

| | Delta E | Delta L | Delta H | Delta C |
|---|---|---|---|---|
| Max | 3.32 | 1.6 | 2.33 | 2.4 |
| Avg | 1.17 | 0.77 | 0.48 | 1.08 |


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% Red | 100 Gre

CMS 6 | Comparator | DDC

Triplet 202, 119, 51 | Y tgt 6.86574 6.54763 | x tgt 0.51184 0.51323 | y tgt 0.40956 0.40495 | 1.72 dE | -1.2 dL | 2.1 dH | -1.32 dC | -4.63 Lu

CAL CChkr | Back | Next | # data | HOME | Prepare | Setup | PreCal Read | DyRnge | Calibrate | Gry | Sat | Lum | # data | LUT | PostCal Read | Analyze | Post

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% Red | 100% Green | 100% Blue | 100% Cyan | 100% Magenta | 100% Yellow

Notes | Back | Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Datagrid

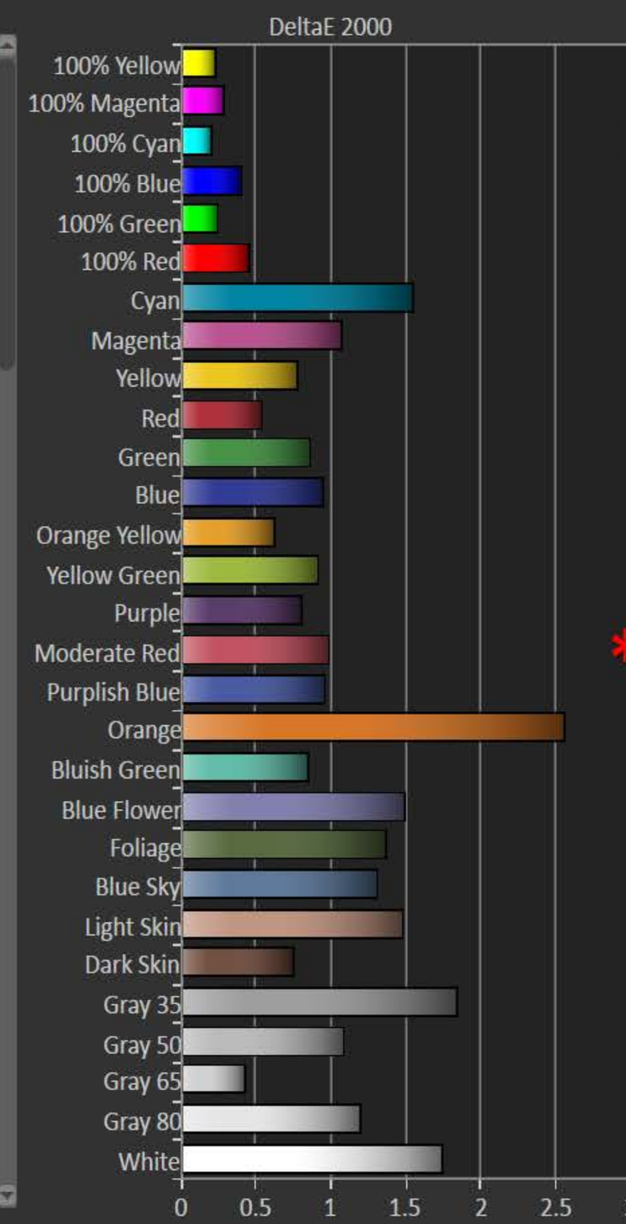
Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 4

# Color Checker Calibration 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 |
| Red index | 235.0000 | 213.0000 | 196.0000 | 176.0000 | 152.0000 | 115.0000 | 182.0000 | 97.0000 | 93.0000 | 128.0000 | 101.0000 | 202.0000 |
| Green index | 235.0000 | 213.0000 | 196.0000 | 176.0000 | 152.0000 | 86.0000 | 145.0000 | 121.0000 | 108.0000 | 126.0000 | 178.0000 | 119.0000 |
| Blue index | 235.0000 | 213.0000 | 196.0000 | 176.0000 | 152.0000 | 73.0000 | 128.0000 | 150.0000 | 73.0000 | 167.0000 | 161.0000 | 51.0000 |
| X | 77.5593 | 60.2664 | 49.3212 | 37.9193 | 26.2968 | 8.8498 | 29.8194 | 14.0556 | 8.2545 | 19.7553 | 24.3043 | 28.8800 |
| Y cd/m² | 81.0105 | 63.7343 | 51.9362 | 39.9114 | 27.4206 | 8.0062 | 27.7643 | 14.8960 | 10.2820 | 18.4240 | 33.4447 | 22.4409 |
| Z | 88.0870 | 69.6698 | 56.4241 | 42.6643 | 30.0973 | 5.2519 | 20.5280 | 27.0902 | 5.6834 | 35.5254 | 34.9069 | 4.5958 |
| Xn 0-1 | 0.9574 | 0.7439 | 0.6088 | 0.4681 | 0.3246 | 0.1092 | 0.3681 | 0.1735 | 0.1019 | 0.2439 | 0.3000 | 0.3565 |
| Yn 0-1 | 1.0000 | 0.7867 | 0.6411 | 0.4927 | 0.3385 | 0.0988 | 0.3427 | 0.1839 | 0.1269 | 0.2274 | 0.4128 | 0.2770 |
| Zn 0-1 | 1.0874 | 0.8600 | 0.6965 | 0.5267 | 0.3715 | 0.0648 | 0.2534 | 0.3344 | 0.0702 | 0.4385 | 0.4309 | 0.0567 |
| Stimulus Percent | 1.0000 | 0.8995 | 0.8219 | 0.7306 | 0.6210 | 0.4521 | 0.7580 | 0.6119 | 0.4201 | 0.6895 | 0.7397 | 0.8493 |
| RED Stim%:0-1 | 1.0000 | 0.8995 | 0.8219 | 0.7306 | 0.6210 | 0.4521 | 0.7580 | 0.3699 | 0.3516 | 0.5114 | 0.3881 | 0.8493 |
| GRN Stim%:0-1 | 1.0000 | 0.8995 | 0.8219 | 0.7306 | 0.6210 | 0.3196 | 0.5890 | 0.4795 | 0.4201 | 0.5023 | 0.7397 | 0.4703 |
| BLU Stim%:0-1 | 1.0000 | 0.8995 | 0.8219 | 0.7306 | 0.6210 | 0.2603 | 0.5114 | 0.6119 | 0.2603 | 0.6895 | 0.6621 | 0.1598 |
| Measured Red Stimulus | 1.0106 | 0.8885 | 0.8151 | 0.7257 | 0.6147 | 0.4424 | 0.7537 | 0.3663 | 0.3464 | 0.5008 | 0.3808 | 0.8499 |
| Measured Green Stimulus | 0.9969 | 0.8979 | 0.8159 | 0.7226 | 0.6060 | 0.3161 | 0.5724 | 0.4668 | 0.4077 | 0.4865 | 0.7288 | 0.4505 |
| Measured Blue Stimulus | 0.9994 | 0.8976 | 0.8146 | 0.7157 | 0.6109 | 0.2608 | 0.4971 | 0.5975 | 0.2597 | 0.6795 | 0.6476 | 0.1749 |
| Stimulus | 100.0000 | 90.0000 | 82.0000 | 73.0000 | 62.0000 | 45.0000 | 76.0000 | 61.0000 | 42.0000 | 69.0000 | 74.0000 | 85.0000 |
| Target X cd/m² | 76.9978 | 61.1120 | 50.1939 | 38.8331 | 27.2676 | 9.1743 | 30.7995 | 14.7172 | 8.6426 | 20.7354 | 25.2353 | 29.2895 |
| Target Y cd/m² | 81.0105 | 64.2968 | 52.8098 | 40.8569 | 28.6887 | 8.2597 | 29.0638 | 15.6953 | 10.8908 | 19.5476 | 34.6048 | 23.4016 |
| Target Z cd/m² | 88.2180 | 70.0172 | 57.5082 | 44.4919 | 31.2411 | 5.2649 | 21.7928 | 28.5354 | 5.8004 | 36.7568 | 36.5472 | 4.4499 |
| Target Xn 0-1 | 0.9505 | 0.7544 | 0.6196 | 0.4794 | 0.3366 | 0.1132 | 0.3802 | 0.1817 | 0.1067 | 0.2560 | 0.3115 | 0.3616 |
| Target Yn 0-1 | 1.0000 | 0.7937 | 0.6519 | 0.5043 | 0.3541 | 0.1020 | 0.3588 | 0.1937 | 0.1344 | 0.2413 | 0.4272 | 0.2889 |
| Target Zn 0-1 | 1.0890 | 0.8643 | 0.7099 | 0.5492 | 0.3856 | 0.0650 | 0.2690 | 0.3522 | 0.0716 | 0.4537 | 0.4511 | 0.0549 |
| TargetGamut:Nrml Y | 1.0000 | 0.7937 | 0.6519 | 0.5043 | 0.3541 | 0.1779 | 0.5464 | 0.3429 | 0.1518 | 0.4446 | 0.5182 | 0.7002 |
| TargetRED:Lin0-1 | 1.0000 | 0.7937 | 0.6519 | 0.5043 | 0.3541 | 0.1779 | 0.5465 | 0.1153 | 0.1034 | 0.2323 | 0.1279 | 0.7002 |
| TargetGRN:Lin0-1 | 1.0000 | 0.7937 | 0.6519 | 0.5043 | 0.3541 | 0.0842 | 0.3157 | 0.2020 | 0.1518 | 0.2234 | 0.5182 | 0.1938 |
| TargetBLU:Lin0-1 | 1.0000 | 0.7937 | 0.6519 | 0.5043 | 0.3541 | 0.0542 | 0.2323 | 0.3429 | 0.0542 | 0.4446 | 0.4071 | 0.0193 |
| TargetGamut:Nrml MaxY | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 1.0000 | 0.5727 | 0.6563 | 0.5646 | 0.8856 | 0.5423 | 0.8243 | 0.4123 |
| Target x:CIE31 | 0.3127 | 0.3127 | 0.3127 | 0.3127 | 0.3127 | 0.4042 | 0.3772 | 0.2497 | 0.3411 | 0.2692 | 0.2618 | 0.5126 |
| Target y:CIE31 | 0.3290 | 0.3290 | 0.3290 | 0.3290 | 0.3290 | 0.3639 | 0.3559 | 0.2663 | 0.4299 | 0.2537 | 0.3590 | 0.4095 |

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Notes

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Datagrid 1 Datagrid 2

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 4

# Color Checker Calibration 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 | Green | Red | Yellow | Magenta |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| X | 77.5593 | 60.2664 | 49.3212 | 37.9193 | 26.2968 | 8.8498 | 29.8194 | 14.0556 | 8.2545 | 19.7553 | 24.3043 | 28.8800 | 10.5139 | 21.7603 | 6.9671 | 26.1091 | 36.5550 | 6.8642 | 11.3947 | 15.8584 | 45.5481 | 22.7428 |
| Y cd/m² | 81.0105 | 63.7343 | 51.9362 | 39.9114 | 27.4206 | 8.0062 | 27.7643 | 14.8960 | 10.2820 | 18.4240 | 33.4447 | 22.4409 | 9.4104 | 14.9556 | 5.3663 | 34.4540 | 34.1607 | 5.1010 | 18.4387 | 9.4218 | 48.0488 | 15.1841 |
| Z | 88.0870 | 69.6698 | 56.4241 | 42.6643 | 30.0973 | 5.2519 | 20.5280 | 27.0902 | 5.6834 | 35.5254 | 34.9069 | 4.5958 | 28.6590 | 10.6725 | 11.7495 | 9.1486 | 6.6459 | 23.8869 | 7.6447 | 4.2092 | 8.0507 | 22.9820 |
| Target x:CIE31 | 0.3127 | 0.3127 | 0.3127 | 0.3127 | 0.3127 | 0.4042 | 0.3772 | 0.2497 | 0.3411 | 0.2692 | 0.2618 | 0.5126 | 0.2159 | 0.4617 | 0.2888 | 0.3770 | 0.4737 | 0.1899 | 0.3050 | 0.5436 | 0.4471 | 0.3729 |
| x: CIE31 | 0.3144 | 0.3112 | 0.3128 | 0.3147 | 0.3137 | 0.4003 | 0.3818 | 0.2508 | 0.3408 | 0.2680 | 0.2623 | 0.5165 | 0.2164 | 0.4592 | 0.2893 | 0.3745 | 0.4725 | 0.1915 | 0.3040 | 0.5378 | 0.4481 | 0.3734 |
| Target y:CIE31 | 0.3290 | 0.3290 | 0.3290 | 0.3290 | 0.3290 | 0.3639 | 0.3559 | 0.2663 | 0.4299 | 0.2537 | 0.3590 | 0.4095 | 0.1910 | 0.3123 | 0.2185 | 0.4941 | 0.4425 | 0.1375 | 0.4924 | 0.3186 | 0.4756 | 0.2448 |
| y: CIE31 | 0.3284 | 0.3291 | 0.3294 | 0.3312 | 0.3272 | 0.3621 | 0.3554 | 0.2658 | 0.4245 | 0.2500 | 0.3610 | 0.4013 | 0.1937 | 0.3156 | 0.2228 | 0.4942 | 0.4416 | 0.1423 | 0.4920 | 0.3195 | 0.4727 | 0.2493 |
| Target Y | 23.6440 | 18.7659 | 15.4132 | 11.9246 | 8.3732 | 2.4107 | 8.4827 | 4.5809 | 3.1786 | 5.7052 | 10.0999 | 6.8301 | 2.8403 | 4.4678 | 1.5931 | 10.3943 | 10.2132 | 1.4807 | 5.5826 | 2.7842 | 14.1843 | 4.5519 |
| Y | 23.6440 | 18.6017 | 15.1583 | 11.6487 | 8.0031 | 2.3367 | 8.1034 | 4.3476 | 3.0009 | 5.3773 | 9.7613 | 6.5497 | 2.7466 | 4.3650 | 1.5662 | 10.0559 | 9.9703 | 1.4888 | 5.3816 | 2.7499 | 14.0237 | 4.4317 |
| Sat: L*u*v* | 1.8485 | 1.3128 | 0.2434 | 1.5459 | 1.3917 | 27.1040 | 37.2431 | 34.0053 | 27.0094 | 40.3119 | 40.7985 | 96.5292 | 60.1003 | 75.6044 | 32.2820 | 71.0864 | 86.0775 | 67.9856 | 59.2278 | 94.2285 | 90.3016 | 62.8328 |
| Hue: L*u*v* | 357.9578 | 189.6191 | 111.8097 | 69.7638 | 329.4545 | 32.3499 | 32.6118 | 245.8029 | 106.4694 | 268.3768 | 168.4509 | 31.0158 | 259.4403 | 7.7421 | 291.3881 | 101.0631 | 50.6152 | 263.1332 | 128.0654 | 10.0129 | 67.4776 | 335.0009 |
| L* | 100.0000 | 91.0866 | 84.0232 | 75.6171 | 64.8419 | 37.6315 | 65.1782 | 49.9630 | 42.2958 | 54.8064 | 70.3747 | 59.6179 | 40.5996 | 50.0509 | 30.9356 | 71.2350 | 70.9868 | 30.1489 | 54.8252 | 40.6224 | 81.4627 | 50.3856 |
| Gamma Point: Flat | 2.2000 | 2.2901 | 2.2892 | 2.2771 | 2.2974 | 2.9558 | 3.9461 | 3.5012 | 2.4105 | 4.0576 | 2.9800 | 8.2030 | 4.9031 | 6.2617 | 3.1760 | 2.7614 | 8.6859 | 5.3214 | 2.7514 | 5.9158 | 8.0443 | 5.4601 |

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Datagrid 2 Notes

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Datagrid 1 | Datagrid 2

Simulated Meter LCD Direct View | Source | Lumagen Radiance 3D LUT CMS 4

# Color Checker Calibration 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sat: L*a*b* | 1.2164 | 0.8251 | 0.1831 | 0.9741 | 1.1048 | 18.6809 | 22.3350 | 21.2138 | 24.5466 | 28.5065 | 31.9350 | 65.5796 | 42.1272 | 45.9240 | 30.6795 | 62.7174 | 67.2289 | 55.4950 | 52.8672 | 57.0282 |
| Hue: L*a*b* | 4.6705 | 196.5381 | 132.4690 | 93.0981 | 340.5437 | 50.3057 | 49.3553 | 268.1425 | 124.0690 | 296.0427 | 176.2442 | 58.1074 | 288.7040 | 19.0179 | 316.2537 | 115.8522 | 77.0095 | 296.1330 | 140.5275 | 26.0952 |
| ΔE 2000 | 1.7496 | 1.1933 | 0.4341 | 1.0867 | 1.8462 | 0.7560 | 1.4811 | 1.3158 | 1.3681 | 1.4854 | 0.8431 | 2.5619 | 0.9627 | 0.9809 | 0.8110 | 0.9150 | 0.6220 | 0.9491 | 0.8552 | 0.5429 |
| dE2000 LuminanceCompensated | 1.7496 | 1.1774 | 0.2282 | 0.9549 | 1.5493 | 0.4749 | 1.1990 | 0.5883 | 0.6654 | 0.8630 | 0.4114 | 2.3665 | 0.6667 | 0.7541 | 0.7096 | 0.4998 | 0.1904 | 0.9687 | 0.1516 | 0.4354 |
| ΔE 1976:L*u*v* | 1.8485 | 1.3499 | 0.6085 | 1.7045 | 1.8557 | 1.6593 | 2.6044 | 1.6623 | 2.3876 | 1.8796 | 1.3321 | 5.0503 | 2.4403 | 3.5711 | 1.9921 | 1.9050 | 1.5483 | 2.2934 | 1.2945 | 3.5025 |
| ΔE 1976:L*a*b* | 1.2164 | 0.8828 | 0.5870 | 1.2100 | 1.6514 | 1.1828 | 1.9223 | 1.3609 | 2.1609 | 1.8383 | 1.1369 | 4.0521 | 1.8818 | 2.1686 | 1.8733 | 1.6141 | 1.4489 | 2.5964 | 1.1158 | 1.8108 |
| ΔE 1994 L*:± | 0.0000 | -0.3141 | -0.5577 | -0.7178 | -1.2275 | -0.5600 | -1.2473 | -1.1594 | -1.1286 | -1.4110 | -0.9873 | -1.0640 | -0.6369 | -0.5144 | -0.2666 | -0.9680 | -0.7009 | 0.0841 | -0.8710 | -0.2345 |
| ΔE 1994 Sat:± | 1.2164 | 0.8251 | 0.1831 | 0.9741 | 1.1048 | -1.0280 | 1.1582 | -0.3873 | -1.8317 | 1.0661 | 0.0685 | -0.8204 | -1.6428 | -1.8635 | -1.8441 | -0.8523 | -1.2632 | -2.4441 | -0.6206 | -1.7917 |
| ΔE 1994 Hue:± | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | -0.1691 | -0.8934 | 0.5983 | -0.2023 | 0.5019 | -0.5595 | -3.8228 | -0.6610 | 0.9827 | -0.1935 | 0.9705 | -0.1113 | -0.8722 | 0.3185 | -0.1168 |
| 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 |
| Signed dE94 C LuminanceCompensated | 1.2164 | 0.8251 | 0.1831 | 0.9741 | 1.1048 | -0.8243 | 1.4786 | -0.0142 | -1.3307 | 1.6022 | 0.4286 | 0.1010 | -1.1557 | -1.4943 | -1.6604 | -0.1546 | -0.7158 | -2.5499 | 0.0292 | -1.5491 |
| Signed dE94 H LuminanceCompensated | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | -0.1682 | -0.8866 | 0.5931 | -0.2004 | 0.4970 | -0.5563 | -3.7962 | -0.6573 | 0.9788 | -0.1929 | 0.9651 | -0.1109 | -0.8730 | 0.3166 | -0.1165 |

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CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

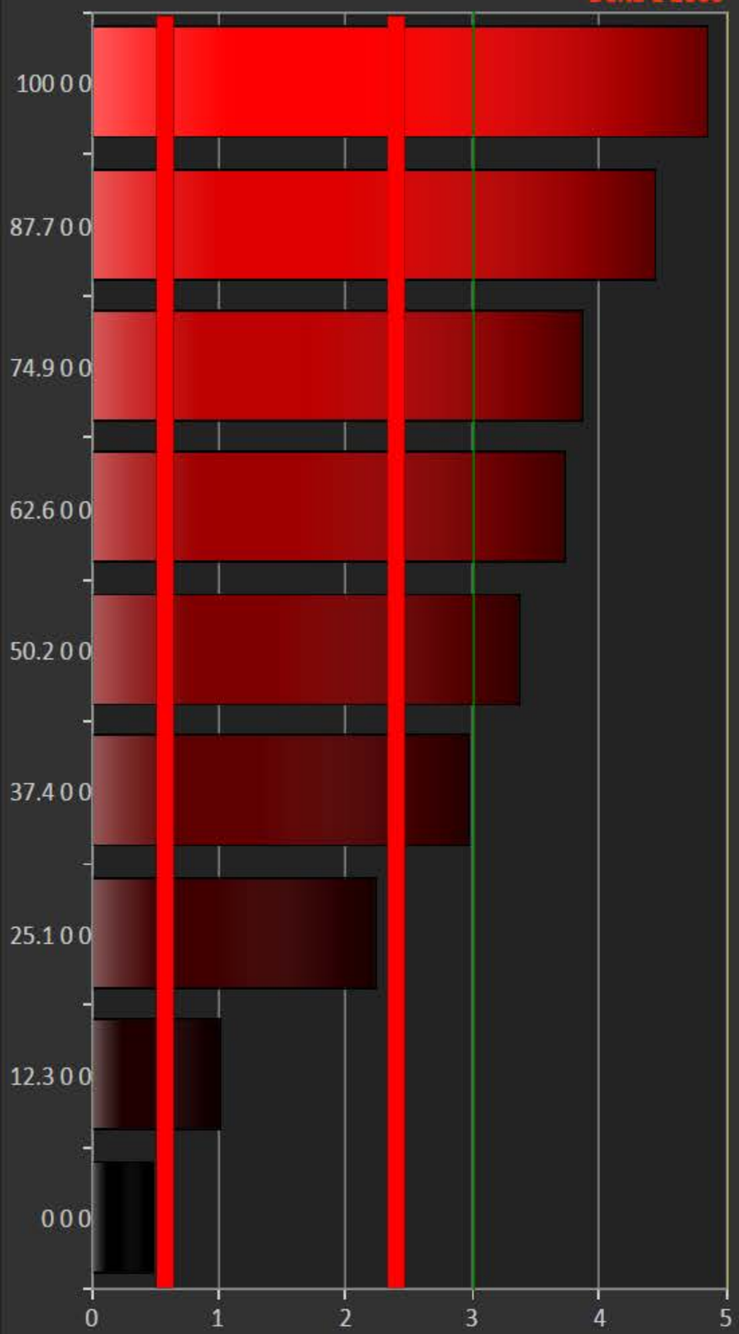
3D Color Cube LUT | 3D Cube LUT Minimal

Simulated Meter LCD Direct View | Source | Direct Display Control

# 3D Color Cube LUT Calibration - Full

Use the tabs above to select layout complexity level

Delta E 2000




## Summary

| | | |
|---|---|---|
| Delta C | 1.64 Avg | 4.47 Max |
| Delta H | 1.3 Avg | 2.09 Max |
| Delta L | 3.11 Avg | 4.65 Max |
| Delta E | 3.31 Avg | 4.86 Max @ 100 0 0 |

## RGB Balance


Triplet 235, 16, 16

Y tgt 6.20744
5.03939

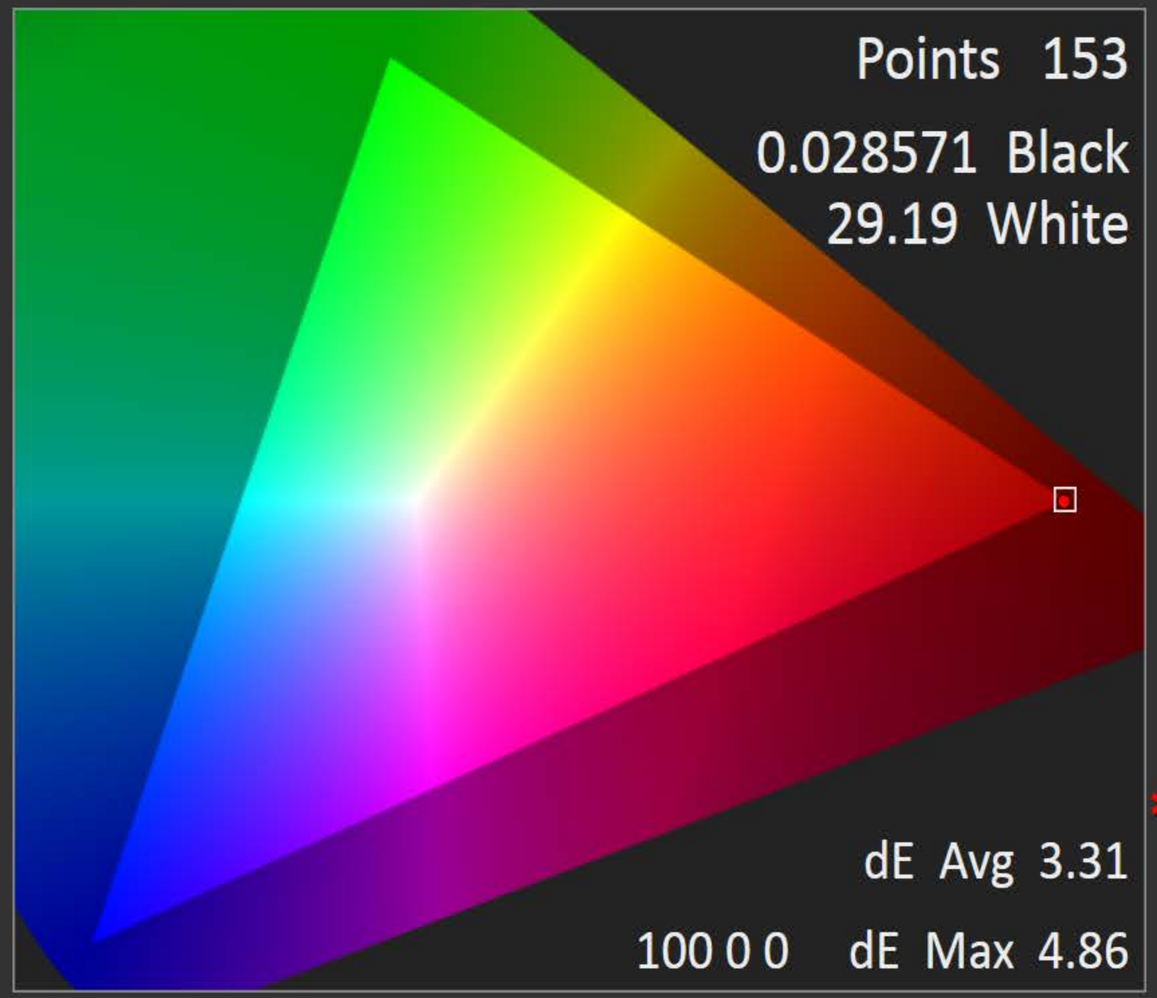
x tgt 0.64
0.639

y tgt 0.33
0.32905

dC -7.59
dH -0.96
dL -4.65

dE 4.86

100 0 0




100 0 0 dE 4.86

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

Big Comparator

Inner Data Points

Luminance Level Points: 9 Points per side, SMPTE (0-100), 12.5% steps

Display Slot

Selected LUT


CAL 3dLUT

Back | Next | # data | HOME | Prepare | Setup | PreCal Read | DyRnge | Calibrate | Gry | Sat | Lum | CCk | # data | PostCal Read | Analyze | Chrts | Final Check | 3dLUT | # data

Ramp | 16 | 16 | 0 0 0 | 12.3 0 0 | 25.1 0 0 | 37.4 0 0 | 50.2 0 0 | 62.6 0 0 | 74.9 0 0 | 87.7 0 0 | 100 0 0

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CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

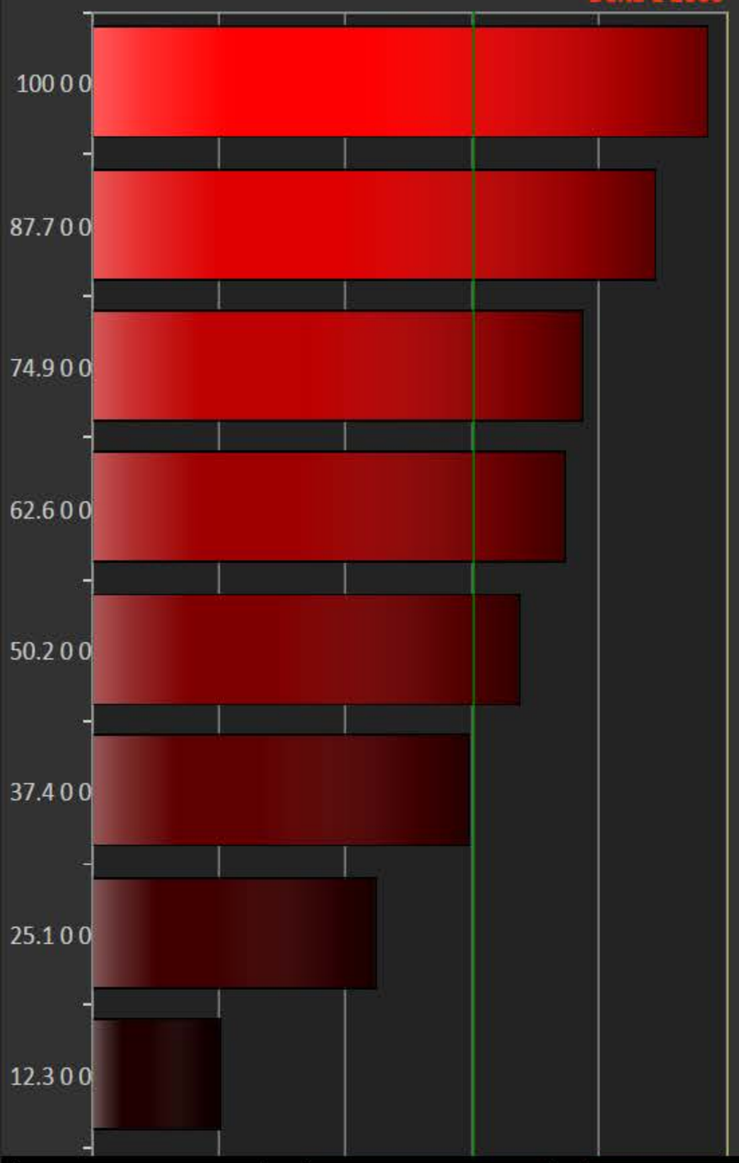
3D Color Cube LUT | 3D Cube LUT Minimal

Simulated Meter LCD Direct View | Source | Direct Display Control

# 3D Color Cube LUT Calibration - Full

Use the tabs above to select layout complexity level

Delta E 2000




## Summary

| | | |
|---|---|---|
| Delta C | 1.64 Avg | 4.47 Max |
| Delta H | 1.3 Avg | 2.09 Max |
| Delta L | 3.11 Avg | 4.65 Max |
| Delta E | 3.31 Avg | 4.86 Max @ 100 0 0 |

RGB Balance


Triplet 235, 16, 16

Y tgt 6.20744
5.03939

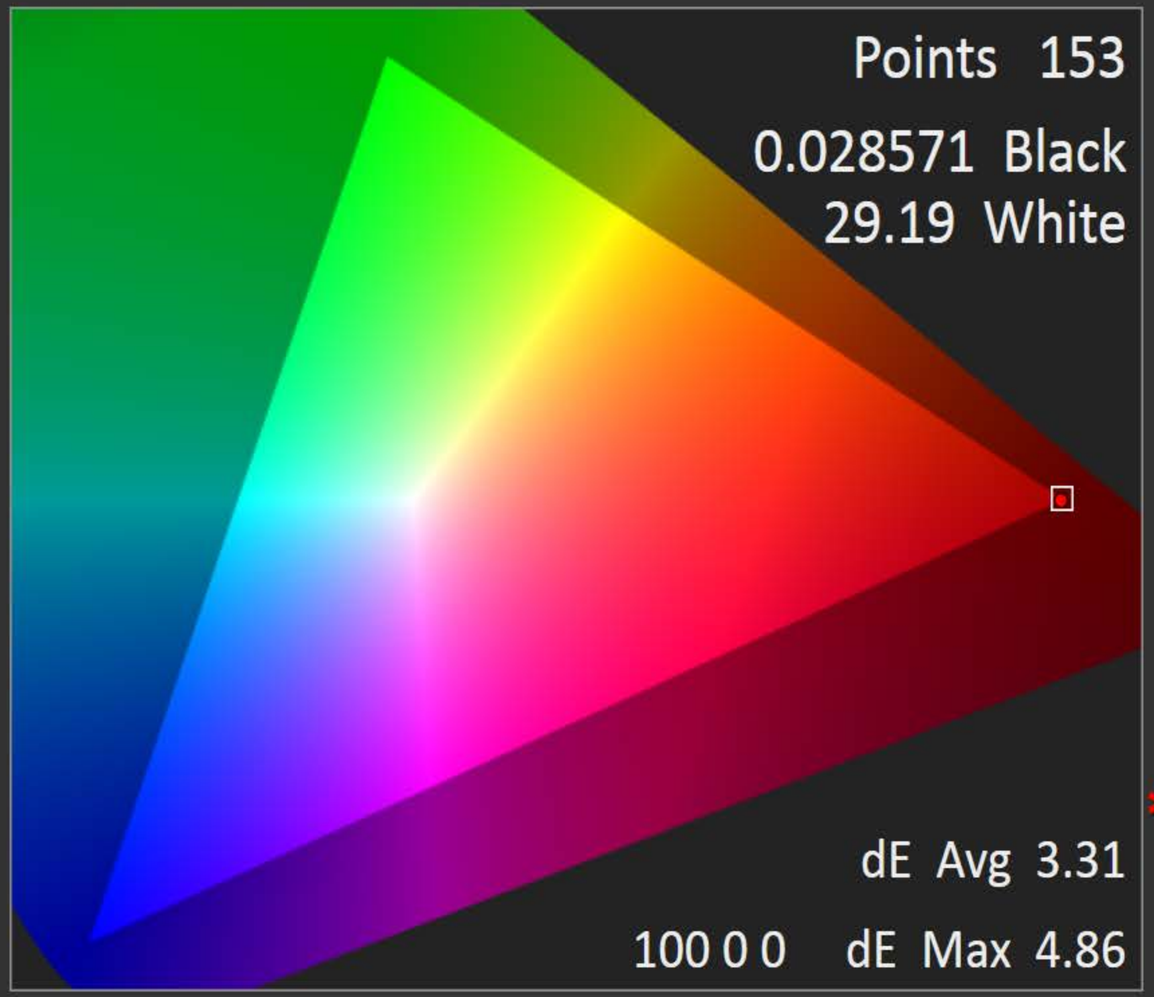
x tgt 0.64
0.639

y tgt 0.33
0.32905

dC -7.59
dH -0.96
dL -4.65

dE 4.86

100 0 0




100 0 0 dE 4.86

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

Big Comparator | Inner Data Points | Luminance Level Points

CAL 3dLUT | Back | Next | # data | HOME | Prepare | Setup | PreCal Read | DyRnge | Calibrate | Gry | Sat | Lum | CCk | # data | PostCal Read | Analyze | Chrts


Ramp | 16 | 16 | 0 0 0 | 12.3 0 0 | 25.1 0 0 | 37.4 0 0 | 50.2 0 0 | 62.6 0 0 | 74.9 0 0 | 87.7 0 0 | 100 0 0 | Notes | Back | Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

3D Color Cube LUT | 3D Cube LUT Minimal

Simulated Meter LCD Direct View | Source | Direct Display Control

# 3D Color Cube LUT Calibration - Minimal

Use the tabs above to select layout complexity level

View charts in the Analysis section

## Summary

Points 153

Black 0.028797

White 29.19

dE Avg 2.23

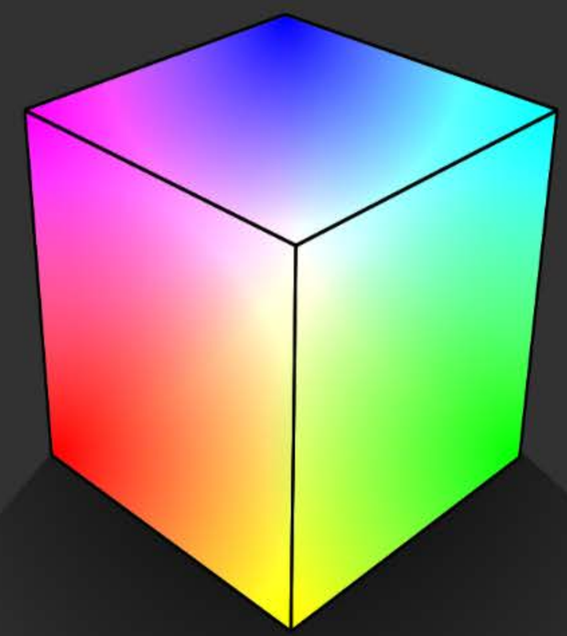
dE Max 2.78 @ 0 0 25.1

dE 0.5 @ 0 0 0

dL 0.86 dH 0 dC 0.03

RGB Balance

R 2.5 G 2.6 B 2.6



Luminance Level Points: 9 Points per side, SMPTE (0-100), 12.5% steps

Inner Data Points

Display Slot

Selected LUT

CAL 3dLUT

Back | Next | # data | HOME | Prepare | Setup | PreCal Read | DyRnge | Calibrate | Gry | Sat | Lum | CCk | # data | PostCal Read | Analyze | Chrts | Final Check | 3dLUT | # data

Ramp 16 16 000 12.3 0 0 25.1 0 0 37.4 0 0 50.2 0 0 62.6 0 0 74.9 0 0 87.7 0 0 100 0 0

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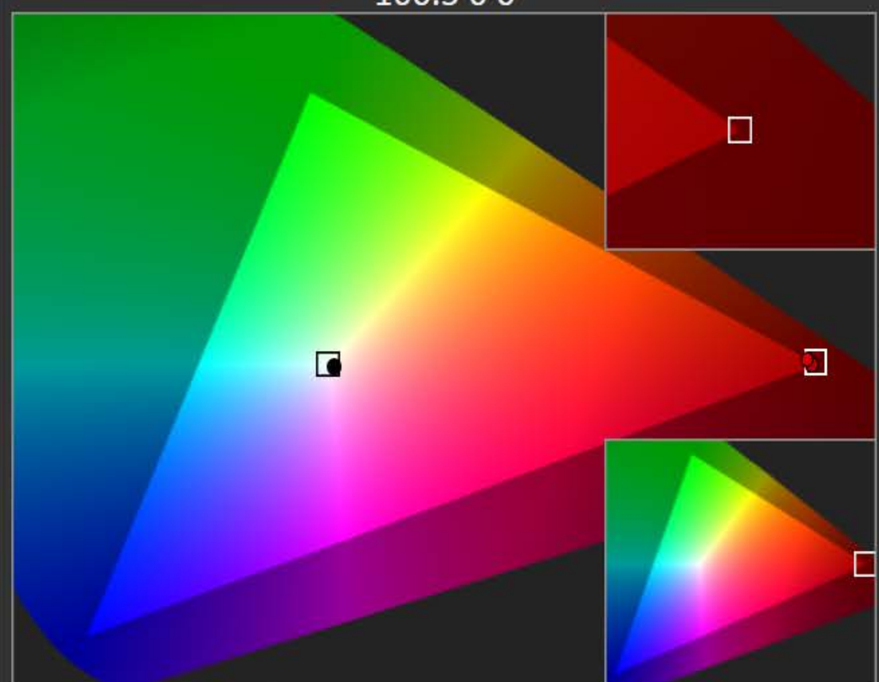
Simulated Meter LCD Direct View | Source | Direct Display Control

# 3D Color Cube LUT Calibration Data - Full

Color Notes

Post-Calibration Notes

100.5 0 0



White
Red
Green
Blue
Cyan
Magenta
Yellow

| | 0 0 0 | 1.8 0 0 | 3.7 0 0 | 5.5 0 0 | 7.3 0 0 | 9.1 0 0 | 11 0 0 | 12.8 0 0 | 14.6 0 0 | 16.4 0 0 | 18.3 0 0 | 20.1 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RGB Triplet | 16, 16, 16 | 20, 16, 16 | 24, 16, 16 | 28, 16, 16 | 32, 16, 16 | 36, 16, 16 | 40, 16, 16 | 44, 16, 16 | 48, 16, 16 | 52, 16, 16 | 56, 16, 16 | 60, 16 |
| Red index | 16.0000 | 20.0000 | 24.0000 | 28.0000 | 32.0000 | 36.0000 | 40.0000 | 44.0000 | 48.0000 | 52.0000 | 56.0000 | 60.00 |
| Green index | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.00 |
| Blue index | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.0000 | 16.00 |
| X | 0.0946 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.000 |
| Y cd/m² | 0.0977 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.000 |
| Z | 0.1069 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.000 |
| Xn 0-1 | 0.0009 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.000 |
| Yn 0-1 | 0.0010 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.000 |
| Zn 0-1 | 0.0011 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.000 |
| Stimulus Percent | 0.0000 | 0.0183 | 0.0365 | 0.0548 | 0.0731 | 0.0913 | 0.1096 | 0.1279 | 0.1461 | 0.1644 | 0.1826 | 0.200 |
| RED Stim%:0-1 | 0.0000 | 0.0183 | 0.0365 | 0.0548 | 0.0731 | 0.0913 | 0.1096 | 0.1279 | 0.1461 | 0.1644 | 0.1826 | 0.200 |
| GRN Stim%:0-1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.000 |
| BLU Stim%:0-1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.000 |
| Measured Red Stimulus | 0.0374 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.000 |
| Measured Green Stimulus | 0.0359 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.000 |
| Measured Blue Stimulus | 0.0364 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.000 |
| Stimulus | 0.0000 | 2.0000 | 3.7000 | 5.5000 | 7.3000 | 9.0000 | 11.0000 | 13.0000 | 14.6000 | 16.4000 | 18.3000 | 20.00 |
| Target X cd/m² | 0.0016 | 0.0149 | 0.0434 | 0.0911 | 0.1591 | 0.2488 | 0.3609 | 0.4964 | 0.6557 | 0.8397 | 1.0487 | 1.283 |
| Target Y cd/m² | 0.0017 | 0.0077 | 0.0224 | 0.0470 | 0.0821 | 0.1283 | 0.1861 | 0.2559 | 0.3381 | 0.4329 | 0.5408 | 0.661 |
| Target Z cd/m² | 0.0019 | 0.0007 | 0.0020 | 0.0043 | 0.0075 | 0.0117 | 0.0169 | 0.0233 | 0.0307 | 0.0394 | 0.0492 | 0.060 |
| Target Xn 0-1 | 0.0000 | 0.0001 | 0.0004 | 0.0009 | 0.0016 | 0.0025 | 0.0036 | 0.0050 | 0.0066 | 0.0084 | 0.0105 | 0.012 |
| Target Yn 0-1 | 0.0000 | 0.0001 | 0.0002 | 0.0005 | 0.0008 | 0.0013 | 0.0019 | 0.0026 | 0.0034 | 0.0043 | 0.0054 | 0.006 |
| Target Zn 0-1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0001 | 0.0001 | 0.0002 | 0.0002 | 0.0003 | 0.0004 | 0.0005 | 0.000 |
| TargetGamut:Nrml Y | 0.0000 | 0.0004 | 0.0011 | 0.0022 | 0.0039 | 0.0060 | 0.0088 | 0.0120 | 0.0159 | 0.0204 | 0.0254 | 0.031 |
| TargetRED:Lin0-1 | 0.0000 | 0.0004 | 0.0011 | 0.0022 | 0.0039 | 0.0060 | 0.0088 | 0.0120 | 0.0159 | 0.0204 | 0.0254 | 0.031 |
| TargetGRN:Lin0-1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.000 |
| TargetBLU:Lin0-1 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.000 |
| TargetGamut:Nrml MaxY | 1.0000 | 0.2127 | 0.2127 | 0.2127 | 0.2127 | 0.2127 | 0.2127 | 0.2127 | 0.2127 | 0.2127 | 0.2127 | 0.212 |
| Target x:CIE31 | 0.3127 | 0.6400 | 0.6400 | 0.6400 | 0.6400 | 0.6400 | 0.6400 | 0.6400 | 0.6400 | 0.6400 | 0.6400 | 0.640 |
| Target y:CIE31 | 0.3290 | 0.3300 | 0.3300 | 0.3300 | 0.3300 | 0.3300 | 0.3300 | 0.3300 | 0.3300 | 0.3300 | 0.3300 | 0.330 |

CAL
Calib
HOME
Prepare
Calibrate
Calib
Analyze
Charts
CAL
Calib

Ramp | 16 | 16

74.9 0 0 | 76.7 0 0 | 78.5 0 0 | 80.4 0 0 | 82.2 0 0 | 84 0 0 | 85.8 0 0 | 87.7 0 0 | 89.5 0 0 | 91.3 0 0 | 93.2 0 0 | 95 0 0 | 96.8 0 0 | 98.6 0 0 | **100.5 0 0** | 102.3 0 0 | 104.1 0 0 | 105.9 0 0 | 107.8 0 0 | 109.1 0 0

Detail Charts | Notes

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Post-Cal Readings

Simulated Meter LCD Direct View | Source | Direct Display Control

## Post-Calibration Readings

1/23/2015 Calibration

Gamma Breakout Tot 2.21 Black 0 White 23.59

1 Grayscale | Full Charts | 20 Point 5% step 5-100% | 100 | Avg 1.53 Max 3.16

DeltaE 3.16

Orange Yellow

4 Color Checker | Full Charts | Add Custom Color Set → | SG Fleshtones

DeltaE 2.59 Avg 1.11 Max 2.59

CAL PstCal Read | Back | Next | PreCal Read | HOME | Prepare | Setup | PreCal Read | DyRnge | Calibrate | Gry | Sat

Select Colors | Comparator

Analyze | Gry | Sat | Lum | CCk | LUT | Final Check | PstCal

ISF Day

Post-Cal Readings

Contrast | Brightness | Backlight | TV Gamma | Color | Tint | Red Green Blue | Gain | Cut | Post-Cal | Notes

Display Slot

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

Back | Next | PreCal Read | Notes

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Post-Calibration

Simulated Meter LCD Direct View | Source | Direct Display Control

## Post-Cal Grayscale Detail

Logarithmic Y Axis

DeltaE 2000 Grayscale 1.44 0 Avg 3.16 Max

PostCal Readings RGB Balance

7 7.2 7.4

Gamma Target 2.2 1.89 2.21 Total

Luminance Target 0.043808 0.107062 Black 0 23.59 White

POST-CAL

5

CCT 6562 6497 Avg

ANL PstCal Gray

Back Next PreCal # Data HOME Prepare Setup PreCal Read Calibrate Gry PostCal Read Analyze PreCal Sat Lum CCk LUT Final Check PstCal Gray Notes

5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

Pre-Cal # Datagrid

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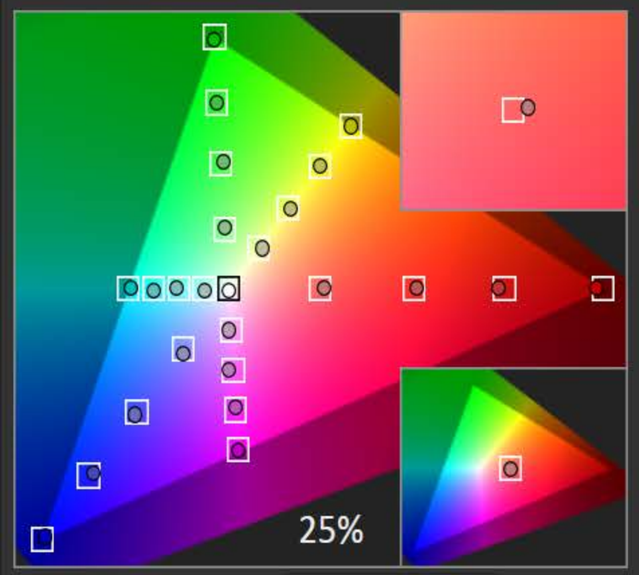
CalMAN 5 CalMAN Enthusiast for Home Video

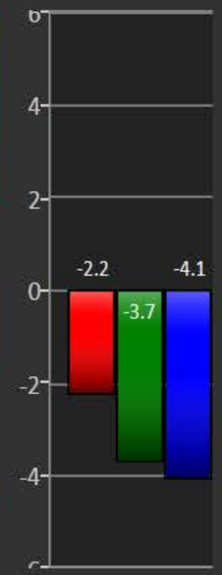
CalMAN 5

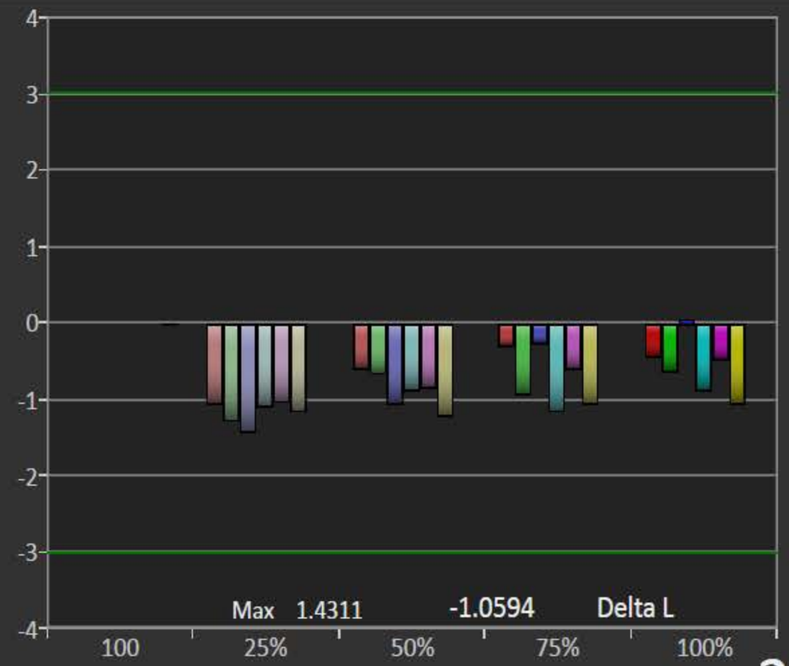
Post-Calibration

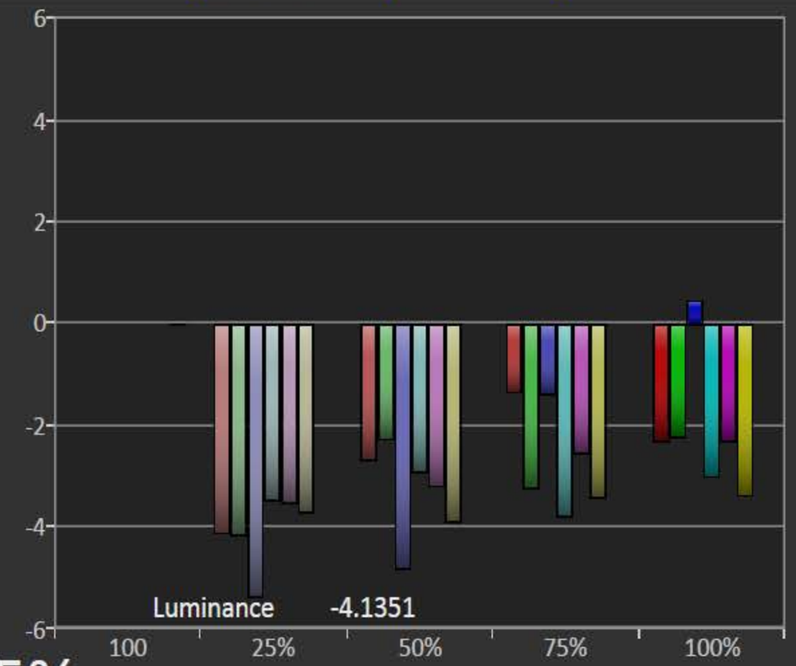
Simulated Meter LCD Direct View | Source | Direct Display Control

## Post-Cal Saturation Sweeps Detail

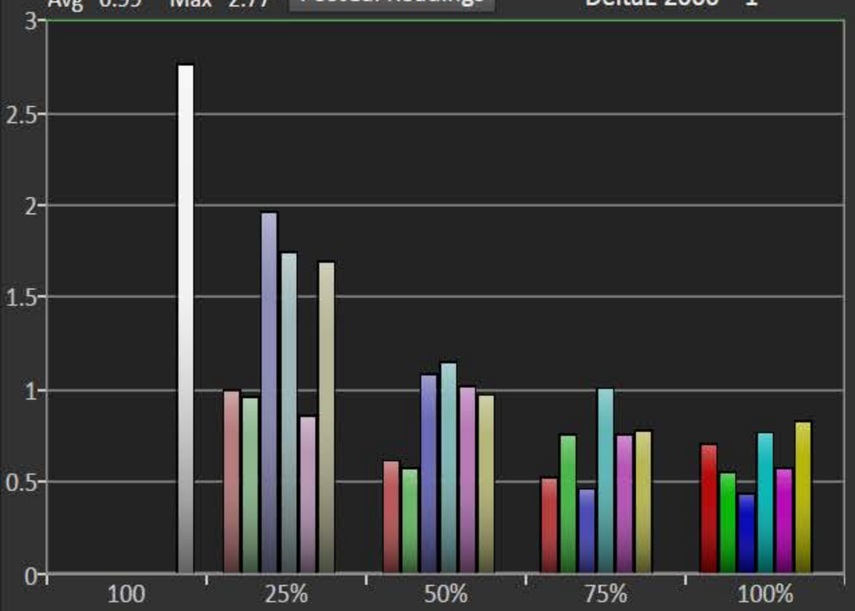



Avg 0.99 Max 2.77 PostCal Readings DeltaE 2000 1




25% 50% 75% 100%

25%

PostCal


PostCal


ANL PstCal Satur Back Next PreCal # Data HOME Prepare Setup PreCal Read Calibrate Sat PostCal Read Analyze Gry PreCal Lum CCk LUT Final Check PstCal Satur Notes

Pre-Cal # Datagrid Back Next

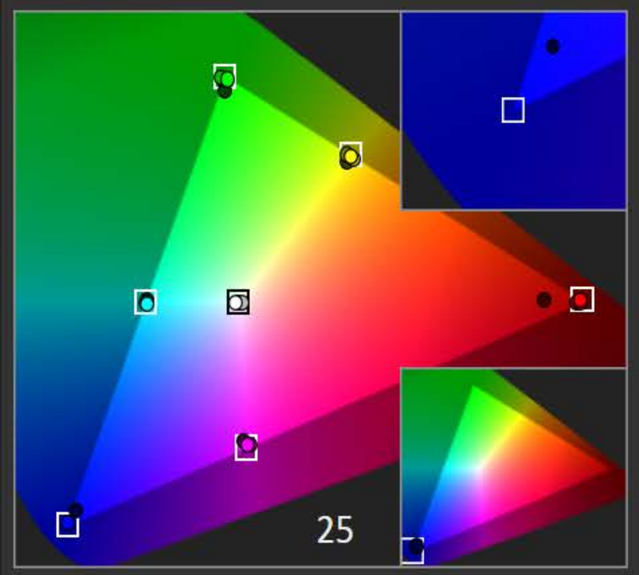
CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

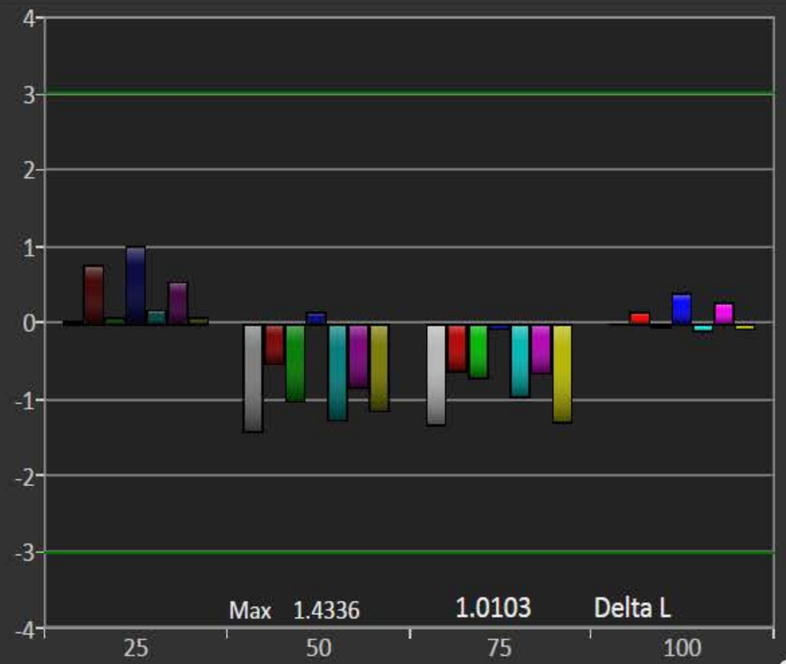
Post-Calibration

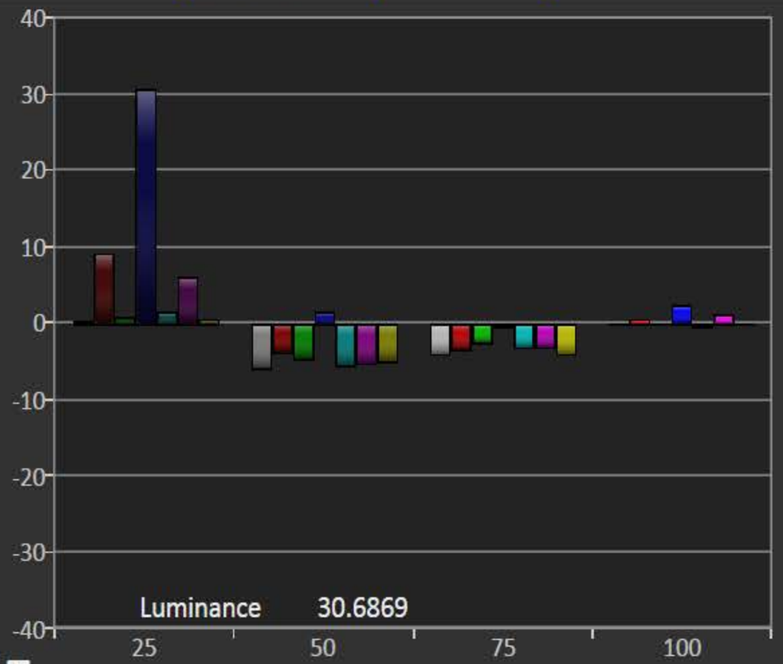
Simulated Meter LCD Direct View | Source | Direct Display Control

## Post-Cal Gamut Luminance Detail

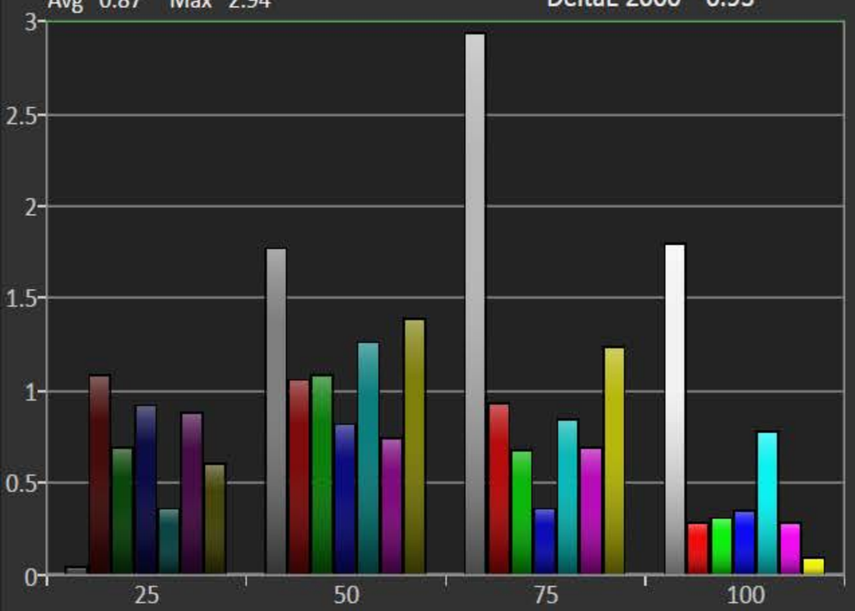







Avg 0.87 Max 2.94 DeltaE 2000 0.93




PostCal | PostCal Readings | 25


PostCal


25 50 75 100

ANL PstCal Lumi

Back Next PreCal # Data HOME Prepare 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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CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Post-Calibration

Simulated Meter LCD Direct View | Source | Direct Display Control

## Post-Cal Color Checker Detail

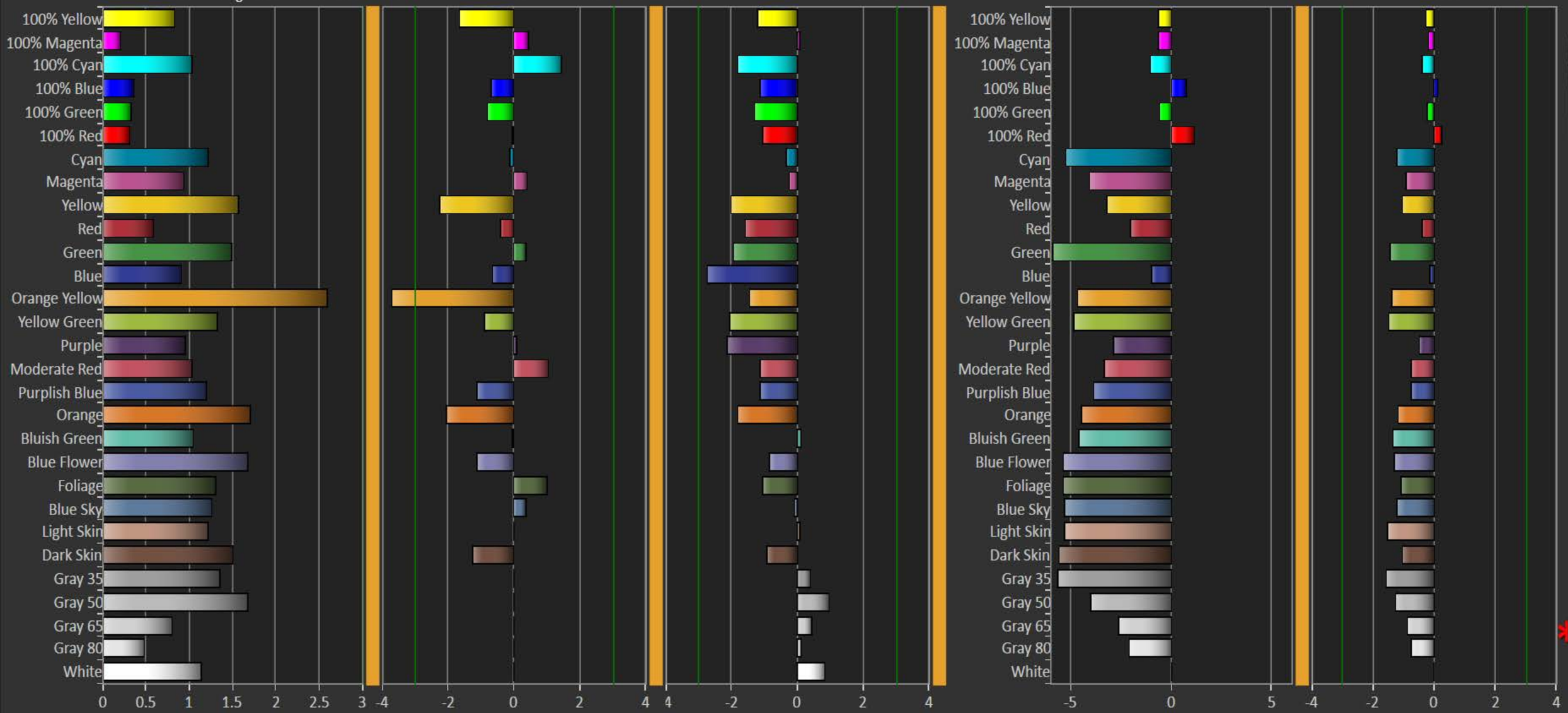
### PostCal - Orange Yellow

Color ↗ Notes ↙ PreCal

PostCal Readings

CIE Chart

dE 2000 2.59 Avg 1.11 Max 2.59 | DeltaH -3.68 Max 3.68 | DeltaC -1.445 Max 2.729 | Gamut Luminance -4.668 | DeltaL -1.386 Max 1.573




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 | Setup | PreCal Read | Calibrate | CCk | PostCal Read | Analyze | Gry | Sat | Lum | PreCal | LUT | Final Check | PstC | CChk | Notes

∫ Pre-Cal | # Datagrid

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CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Post-Calibration

Simulated Meter LCD Direct View | Source | Direct Display Control

## Post-Cal Color Checker Detail

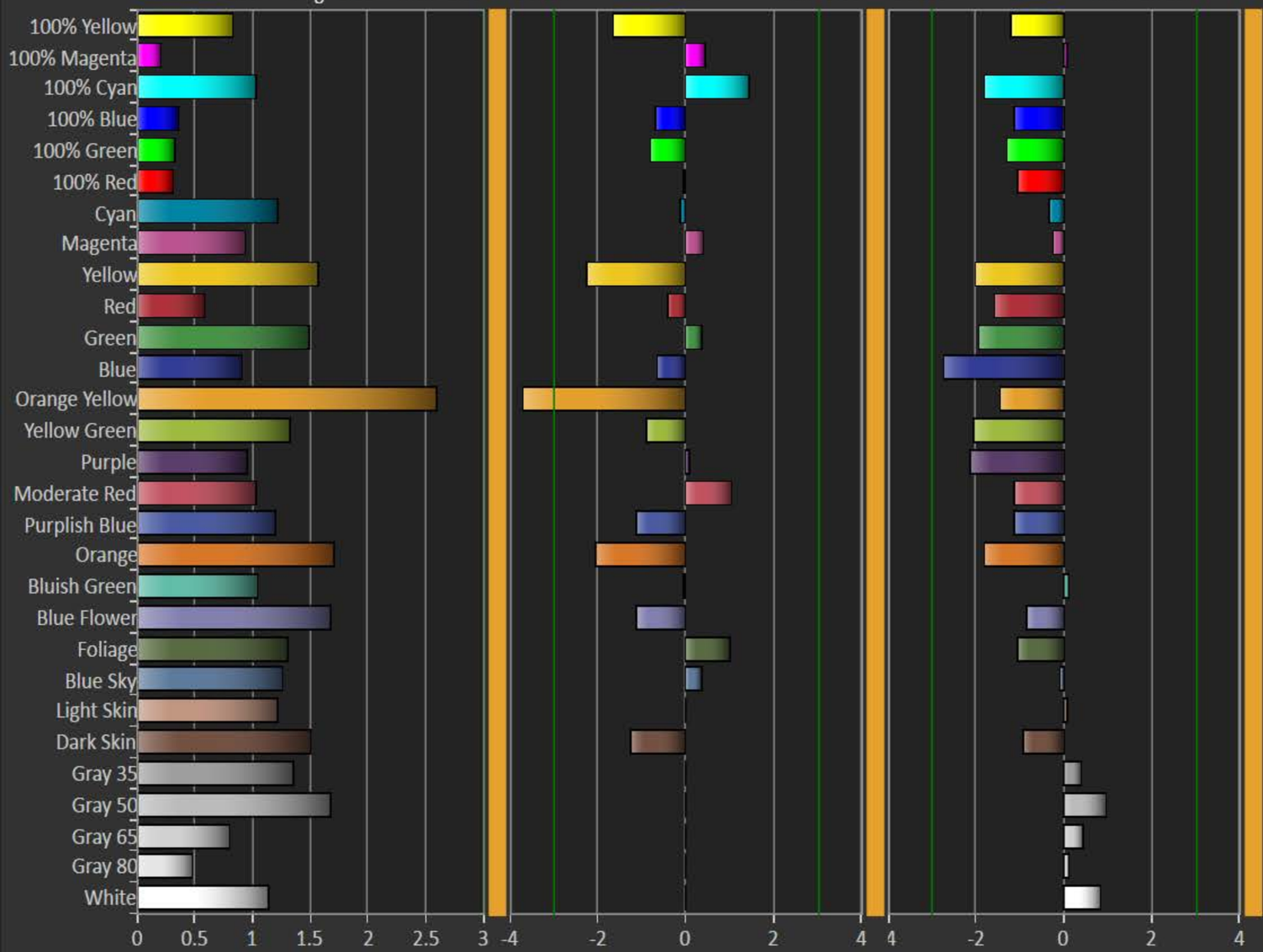
### PostCal - Orange Yellow

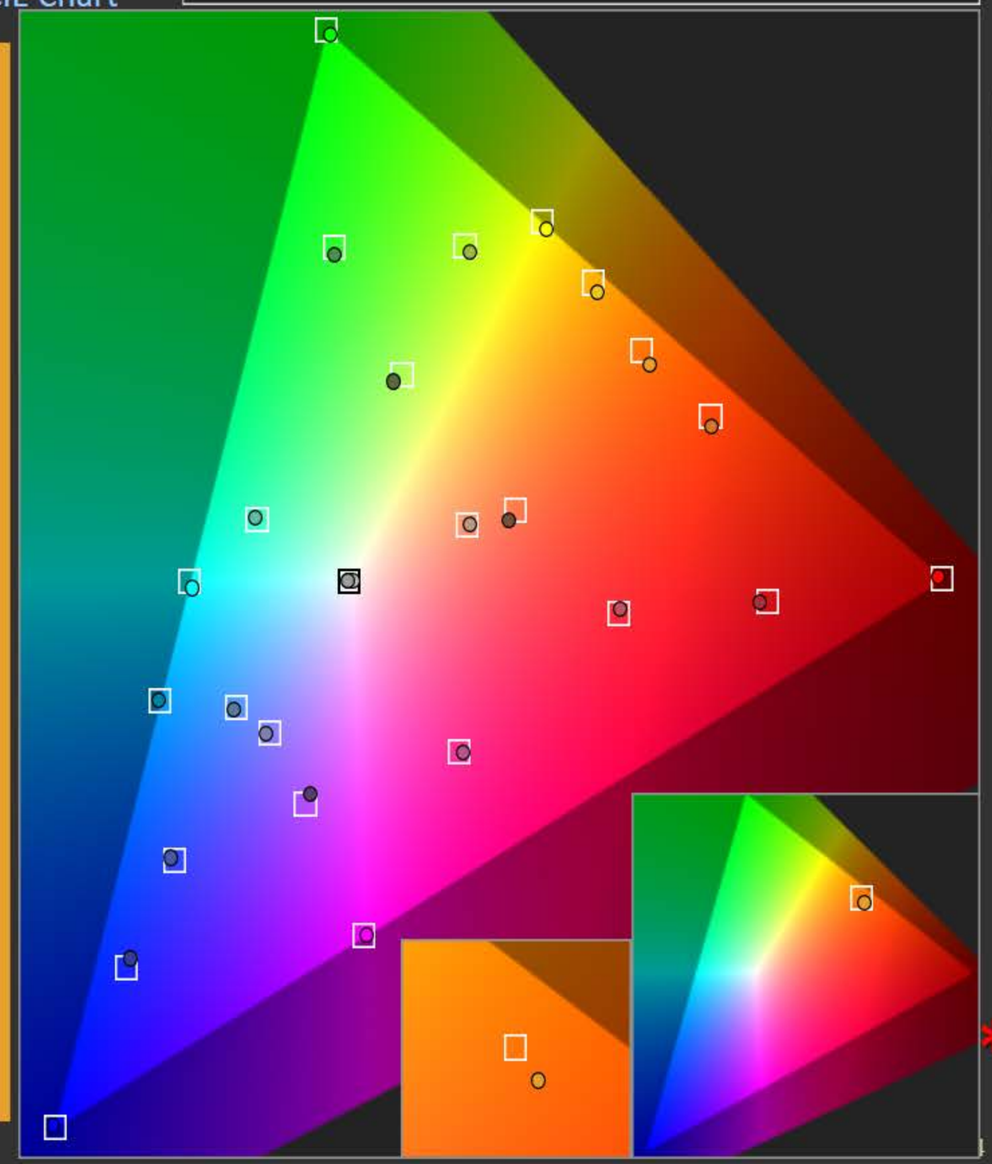
Color ↗ Notes ↙ PreCal

PostCal Readings

CIE Chart

dE 2000 2.59 Avg 1.11 Max 2.59 DeltaH -3.68 Max 3.68 DeltaC -1.445 Max 2.729



ANL PstCal CChkr

Back Next PreCal # Data HOME Prepare Setup PreCal Read Calibrate CCk PostCal Read Analyze ∫Gry ∫Sat ∫Lum PreCal ∫LUT Final Check PstC CChk 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 | Cyan

∫ Pre-Cal # Datagrid

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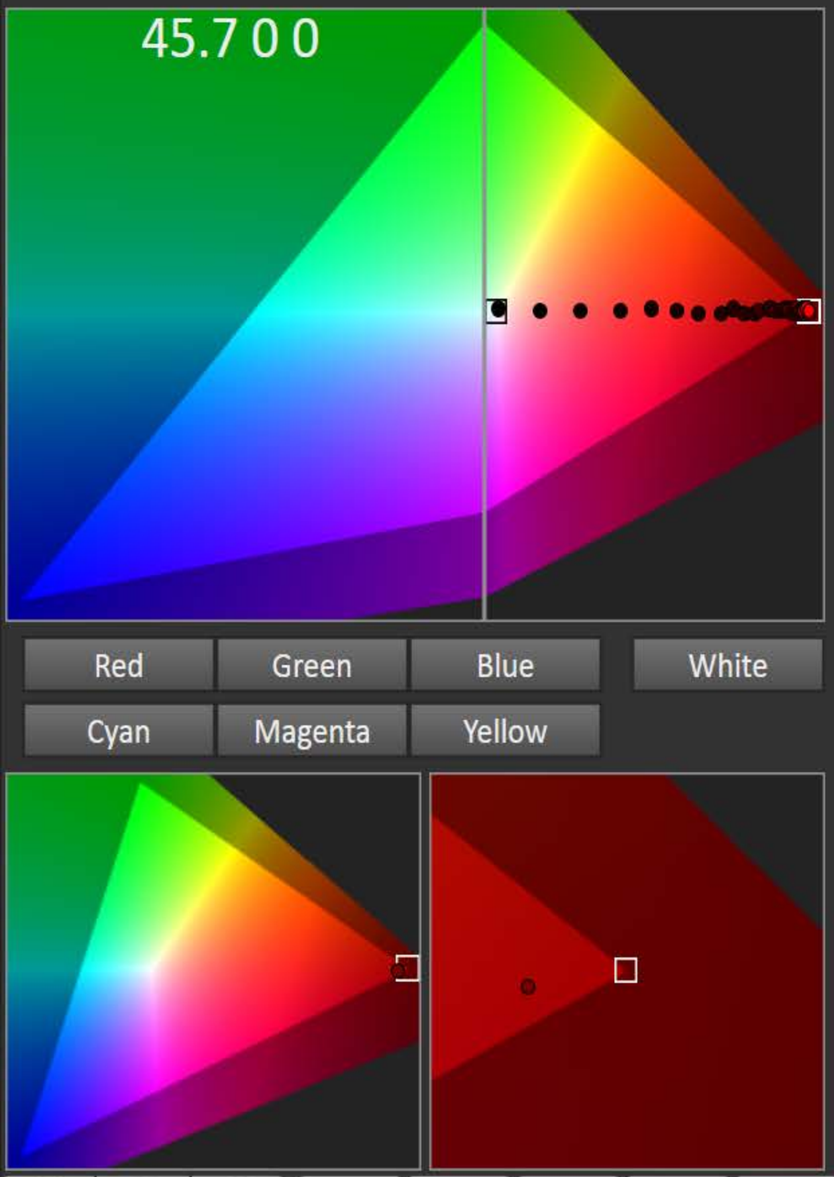
CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

DeltaE DeltaL Lminance | DeltaE DeltaH DeltaC

Simulated Meter LCD Direct View | Source | Direct Display Control

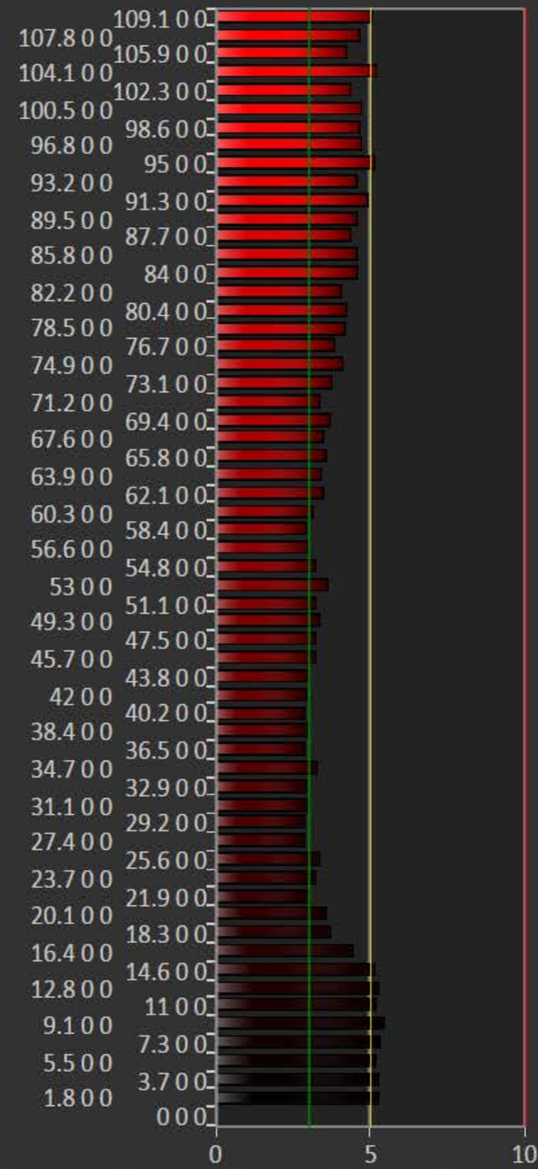
# 3D Color Cube LUT Full Calibration Detail 1



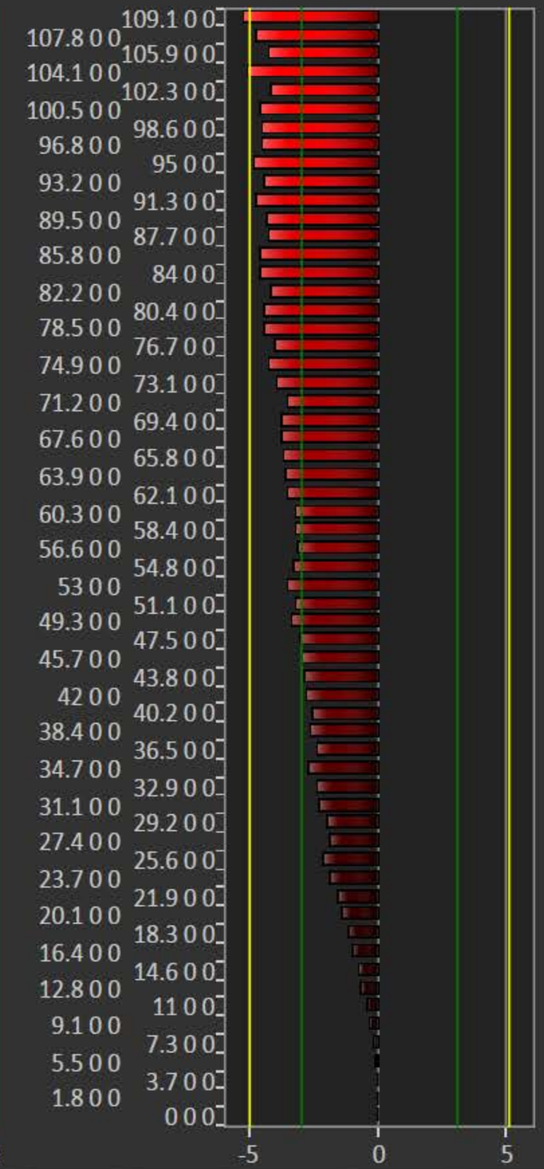

Red | Green | Blue | White

Cyan | Magenta | Yellow

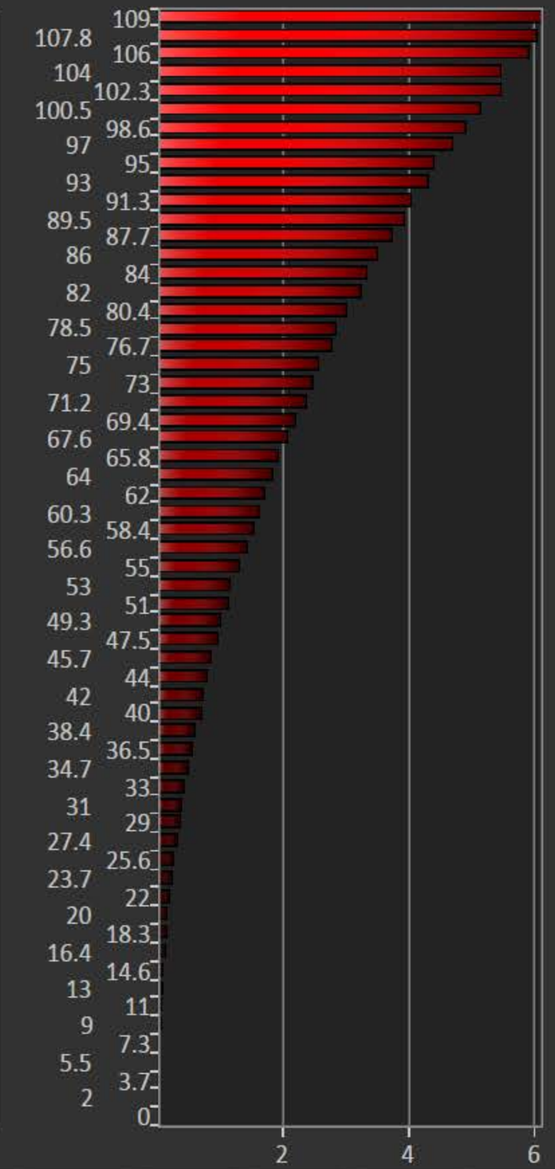
ΔE 2000 3.26 Avg 3.96 Max 5.44




Delta L -2.96 Avg -3.01 Max 5.19




Luminance 0.8889




ANL 3D Cb Detail

Back | Next | Calib

Prepare | Setup | PreCal Read | Calibrate | Calib | PostCal Read | Analyze | Gray | Satur | Lumi | C Chk | Calib | chrts2 | Final Check | CAL | Calib

Ramp | 16 | 16

000 | 1.800 | 3.700 | 5.500 | 7.300 | 9.100 | 11.00 | 12.800 | 14.600 | 16.400 | 18.300 | 20.100 | 21.900 | 23.700 | 25.600 | 27.400 | 29.200 | 31.100 | 32.900 | 34.700

Detail Charts 2 | Datagrid

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CalMAN 5 CalMAN Enthusiast for Home Video

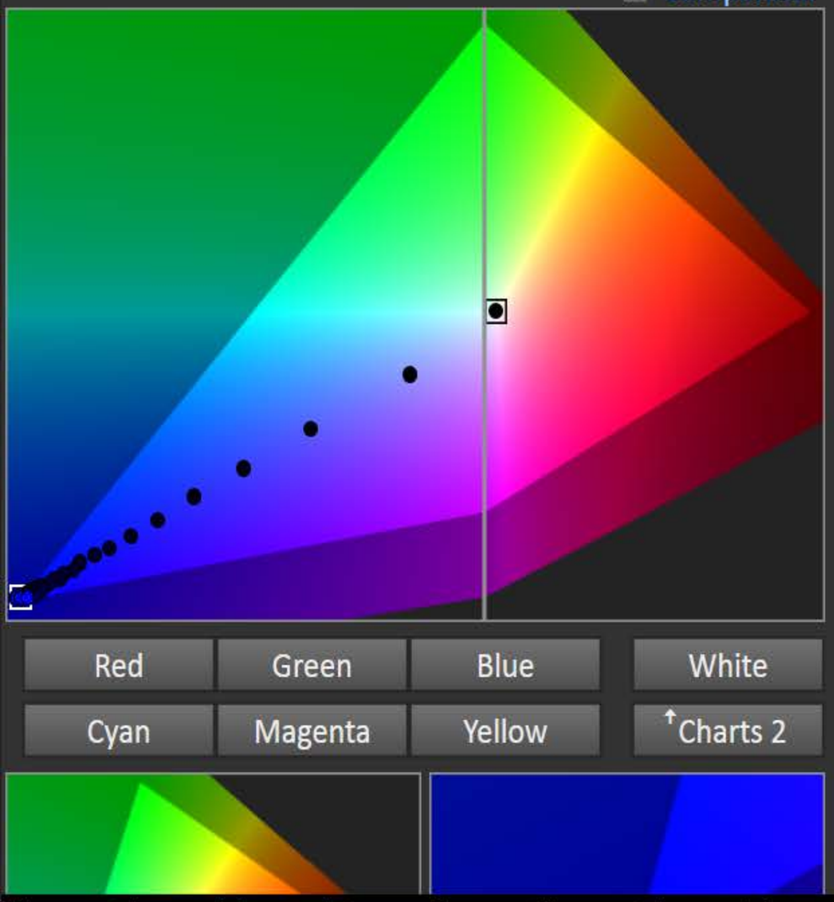
CalMAN 5

DeltaE DeltaL Lminance | DeltaE DeltaH DeltaC

Simulated Meter LCD Direct View | Source | Direct Display Control

# 3D Color Cube LUT Minimal Calibration - Charts1

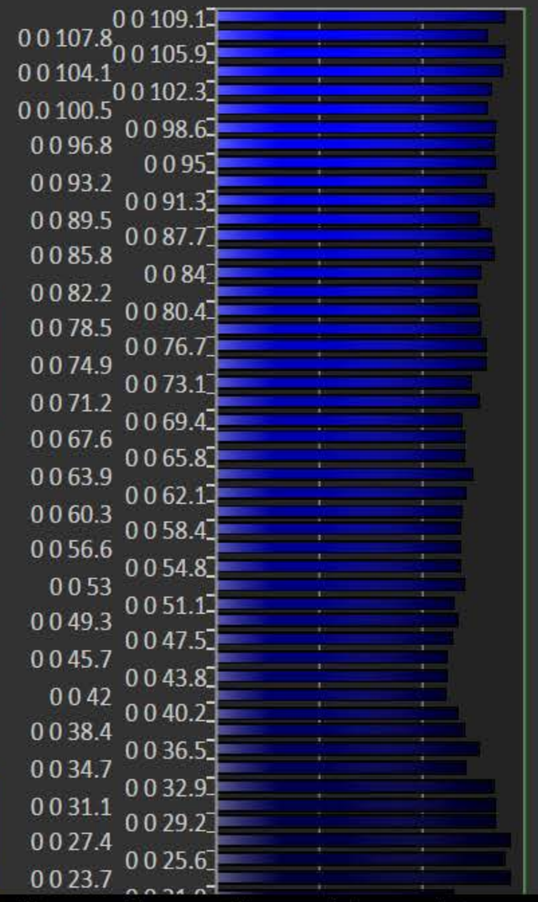
Comparator



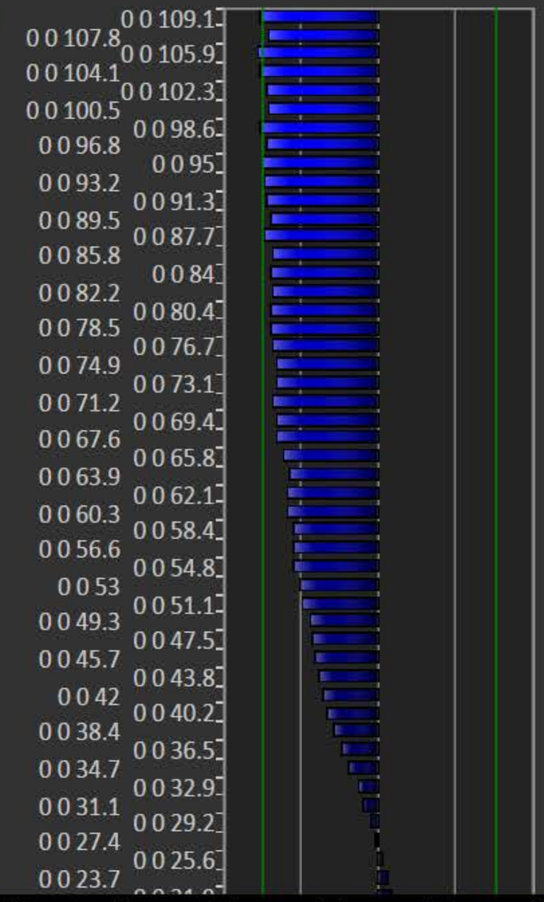
Red | Green | Blue | White

Cyan | Magenta | Yellow | Charts 2

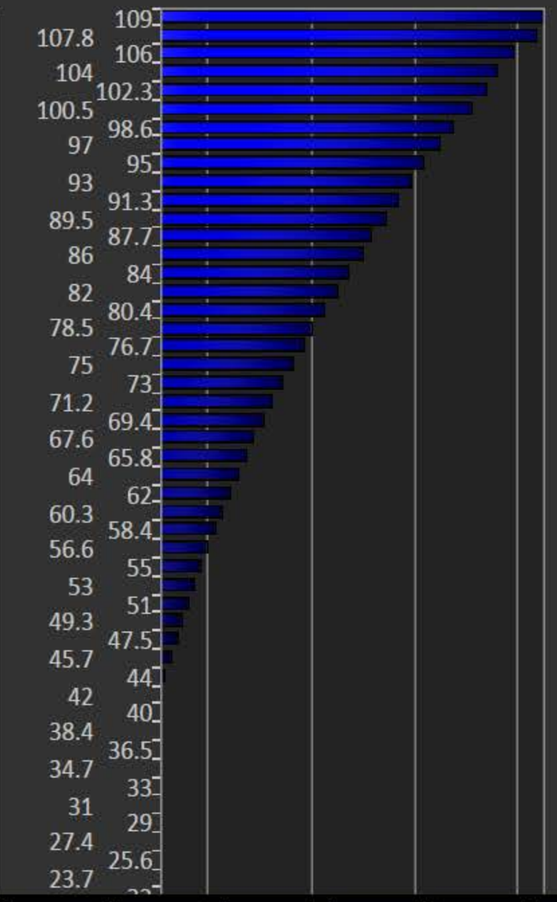
ΔE 2000 2.56 Avg 2.04 Max 2.86




Delta L -2.72 Avg -1.07 Max 3.1




Luminance 0.80582

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3dLUT

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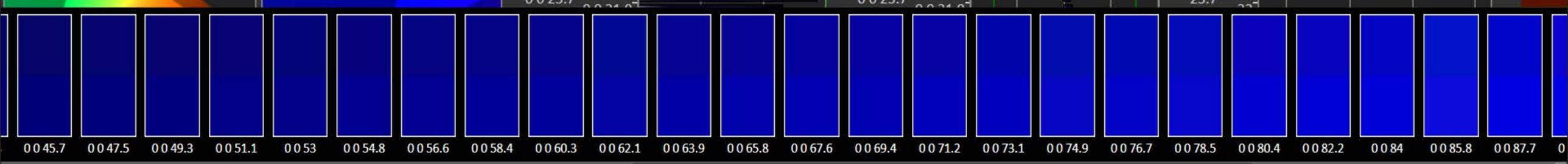


16 | 16 | Ramp


Final Check

CAL

Calib

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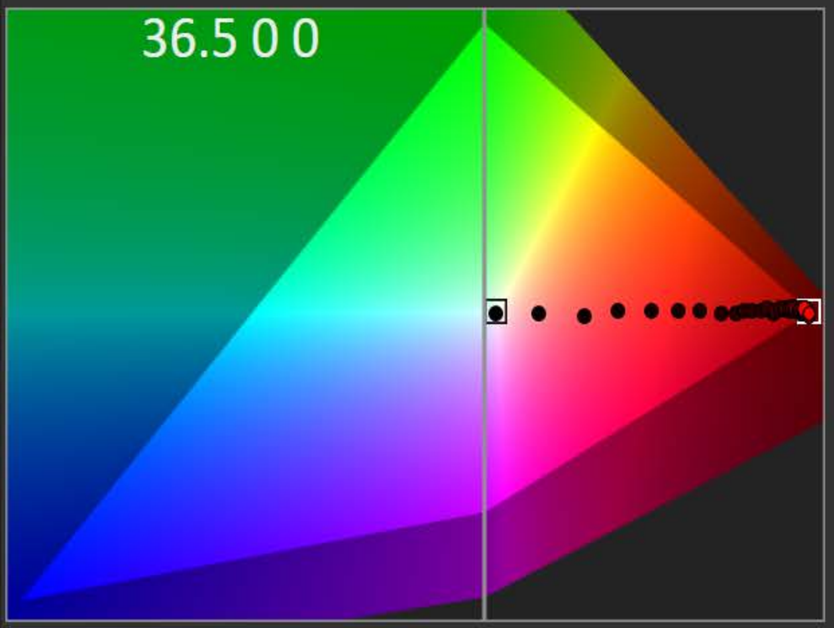
CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

DeltaE DeltaL Luminance | DeltaE DeltaH DeltaC

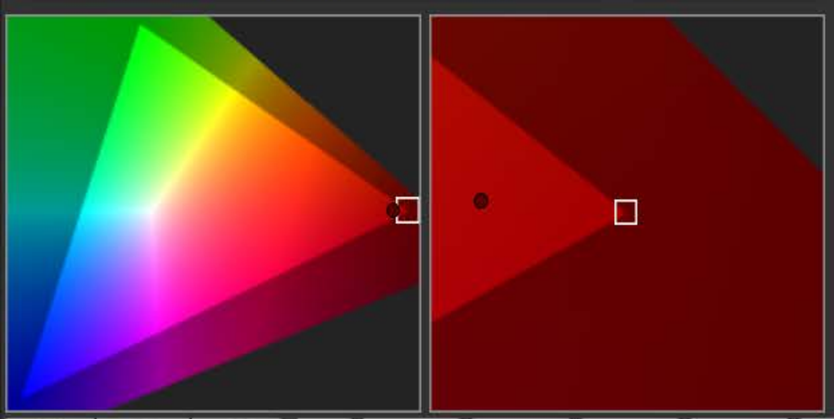
Simulated Meter LCD Direct View | Source | Direct Display Control

# 3D Color Cube LUT Full Calibration Detail 2

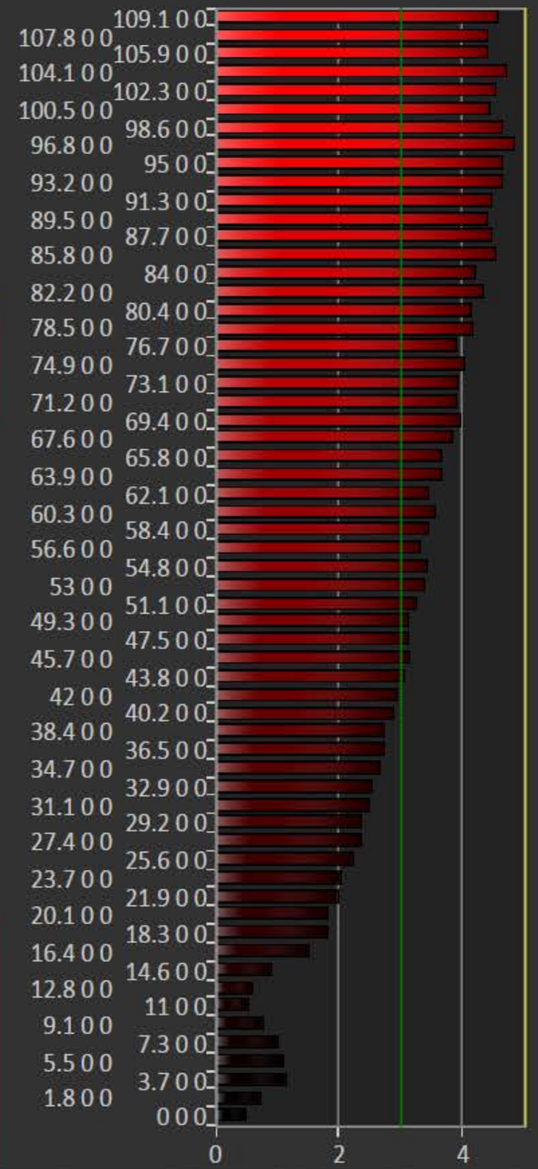



Red | Green | Blue | White

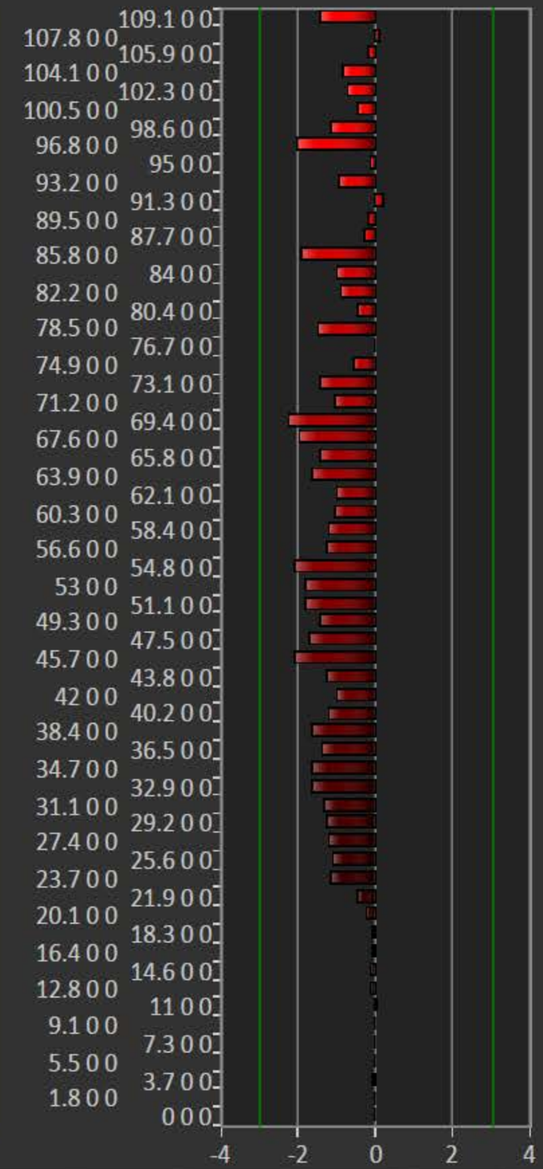
Cyan | Magenta | Yellow | Charts 1



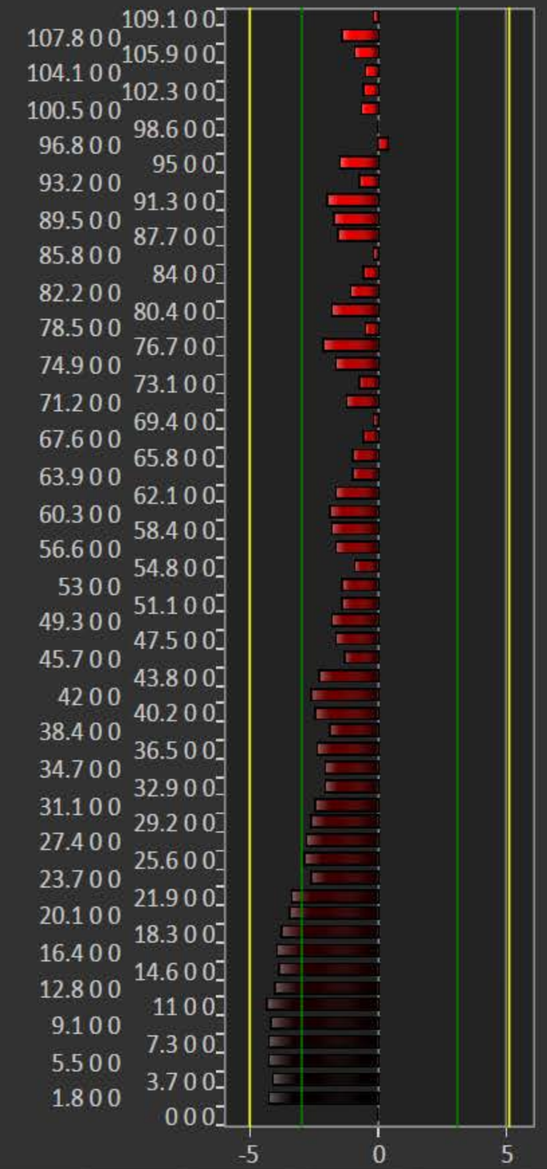
ΔE 2000 2.73 Avg 3.16 Max 4.86




Delta H -0.13 Avg -0.49 Max 1.97




Delta C -2.37 Avg -5.81 Max 4.31




ANL 3dLUT Detail

Back | Next | Calib | HOME | Prepare | Setup | PreCal Read | Calibrate | Calib | PostCal Read | Analyze | ∫ Gry | ∫ Sat | ∫ Lum | ∫ CCk | Calib | chrts1 | Final Check | CAL | Calib

Ramp | 16 | 16

0 0 | 11 0 0 | 12.8 0 0 | 14.6 0 0 | 16.4 0 0 | 18.3 0 0 | 20.1 0 0 | 21.9 0 0 | 23.7 0 0 | 25.6 0 0 | 27.4 0 0 | 29.2 0 0 | 31.1 0 0 | 32.9 0 0 | 34.7 0 0 | 36.5 0 0 | 38.4 0 0 | 40.2 0 0 | 42 0 0 | 43.8 0 0 | 45.7

# Datagrid | Notes

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CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Final Check

Simulated Meter LCD Direct View | Source | Direct Display Control

## Session Final Check

1/24/2015 Calibration

AV Mode - ISF Day

### 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.

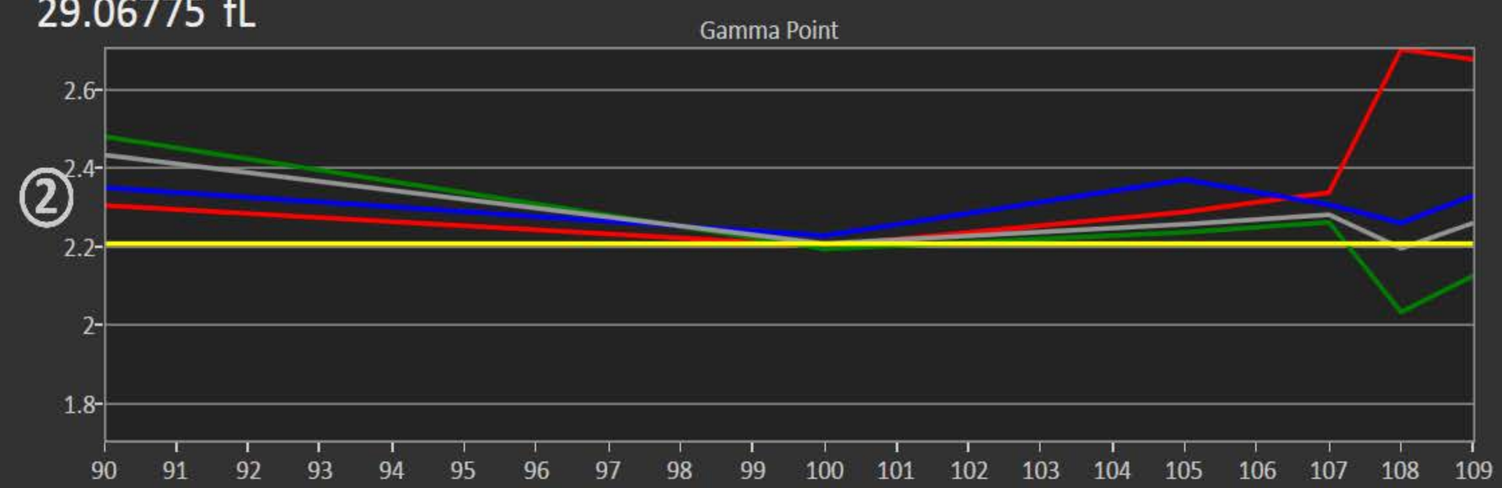
### Post-Calibration Summary

| | | | | | |
|---|---|---|---|---|---|
| Grayscale dE | Avg | 1.53 | Saturation dE | Avg | 0.99 |
| | Max | 3.16 | | Max | 2.77 |
| Luminance dE | Avg | 0.87 | Color Checker dE | Avg | 1.11 |
| | Max | 2.94 | | Max | 2.59 |
| Color Cube LUT dE | Avg | 2.16 Mnml | Gamma Target | | 2.2 |
| ☒ Use Minimal layout data | Max | 2.81 | Total | | 2.18 |
| LUT values come from calibration Full layout, or Minimal layout if checked | | | CCT Target | | 6503 |
| | | | Avg | | 6497 |
| White | | 23.59 fL | Black | | 0 |
| | | | Cntr Ratio | | 0 |


109

Gamma 2.25

29.06775 fL




Post-Calibration Notes

Notes

Save

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

ANL Final Check

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Prepare

Setup

PreCal Read

DyRnge

Calibrate

Gry

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PostCal Read

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CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Grayscale Datagrids

Simulated Meter LCD Direct View | Source | Direct Display Control

## Pre-Cal Multi-Point Grayscale Data

Pre-Cal

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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, |
| Red index | 27.0000 | 38.0000 | 49.0000 | 60.0000 | 71.0000 | 82.0000 | 93.0000 | 104.0000 | 115.0000 | 126.0000 | 136.0000 | 147.0000 | 158.0000 | 169.0000 | 180.0000 | 191.0000 | 202.0000 | 213.0000 |
| Green index | 27.0000 | 38.0000 | 49.0000 | 60.0000 | 71.0000 | 82.0000 | 93.0000 | 104.0000 | 115.0000 | 126.0000 | 136.0000 | 147.0000 | 158.0000 | 169.0000 | 180.0000 | 191.0000 | 202.0000 | 213.0000 |
| Blue index | 27.0000 | 38.0000 | 49.0000 | 60.0000 | 71.0000 | 82.0000 | 93.0000 | 104.0000 | 115.0000 | 126.0000 | 136.0000 | 147.0000 | 158.0000 | 169.0000 | 180.0000 | 191.0000 | 202.0000 | 213.0000 |
| X | 0.3501 | 0.8160 | 1.5530 | 2.5699 | 3.8959 | 5.6191 | 7.6157 | 10.1625 | 12.8737 | 16.1992 | 19.7281 | 23.8725 | 28.5032 | 33.7859 | 39.8567 | 45.8302 | 53.5153 | 61.2064 |
| Y cd/m² | 0.3612 | 0.8575 | 1.6151 | 2.7031 | 4.0669 | 5.8639 | 8.0211 | 10.6327 | 13.5239 | 17.0962 | 20.6710 | 25.1513 | 30.3719 | 35.9969 | 41.5874 | 48.6679 | 55.5907 | 64.2012 |
| Z | 0.3955 | 0.9282 | 1.7688 | 2.9120 | 4.4394 | 6.4183 | 8.8002 | 11.6336 | 14.9264 | 18.6828 | 22.6051 | 27.6026 | 32.9512 | 38.8595 | 45.2538 | 52.7636 | 61.0328 | 68.8888 |
| Xn 0-1 | 0.0043 | 0.0100 | 0.0190 | 0.0315 | 0.0477 | 0.0688 | 0.0932 | 0.1244 | 0.1576 | 0.1983 | 0.2415 | 0.2923 | 0.3490 | 0.4137 | 0.4880 | 0.5611 | 0.6552 | 0.7494 |
| Yn 0-1 | 0.0044 | 0.0105 | 0.0198 | 0.0331 | 0.0498 | 0.0718 | 0.0982 | 0.1302 | 0.1656 | 0.2093 | 0.2531 | 0.3080 | 0.3719 | 0.4407 | 0.5092 | 0.5959 | 0.6806 | 0.7861 |
| Zn 0-1 | 0.0048 | 0.0114 | 0.0217 | 0.0357 | 0.0544 | 0.0786 | 0.1077 | 0.1424 | 0.1828 | 0.2288 | 0.2768 | 0.3380 | 0.4035 | 0.4758 | 0.5541 | 0.6460 | 0.7473 | 0.8435 |
| Stimulus Percent | 0.0502 | 0.1005 | 0.1507 | 0.2009 | 0.2511 | 0.3014 | 0.3516 | 0.4018 | 0.4521 | 0.5023 | 0.5479 | 0.5982 | 0.6484 | 0.6986 | 0.7489 | 0.7991 | 0.8493 | 0.8995 |
| RED Stim%:0-1 | 0.0502 | 0.1005 | 0.1507 | 0.2009 | 0.2511 | 0.3014 | 0.3516 | 0.4018 | 0.4521 | 0.5023 | 0.5479 | 0.5982 | 0.6484 | 0.6986 | 0.7489 | 0.7991 | 0.8493 | 0.8995 |
| GRN Stim%:0-1 | 0.0502 | 0.1005 | 0.1507 | 0.2009 | 0.2511 | 0.3014 | 0.3516 | 0.4018 | 0.4521 | 0.5023 | 0.5479 | 0.5982 | 0.6484 | 0.6986 | 0.7489 | 0.7991 | 0.8493 | 0.8995 |
| BLU Stim%:0-1 | 0.0502 | 0.1005 | 0.1507 | 0.2009 | 0.2511 | 0.3014 | 0.3516 | 0.4018 | 0.4521 | 0.5023 | 0.5479 | 0.5982 | 0.6484 | 0.6986 | 0.7489 | 0.7991 | 0.8493 | 0.8995 |

## Post-Cal Multi-Point Grayscale Data

Post-Cal

| | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 | 90 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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, |
| Red index | 27.0000 | 38.0000 | 49.0000 | 60.0000 | 71.0000 | 82.0000 | 93.0000 | 104.0000 | 115.0000 | 126.0000 | 136.0000 | 147.0000 | 158.0000 | 169.0000 | 180.0000 | 191.0000 | 202.0000 | 213.0000 |
| Green index | 27.0000 | 38.0000 | 49.0000 | 60.0000 | 71.0000 | 82.0000 | 93.0000 | 104.0000 | 115.0000 | 126.0000 | 136.0000 | 147.0000 | 158.0000 | 169.0000 | 180.0000 | 191.0000 | 202.0000 | 213.0000 |
| Blue index | 27.0000 | 38.0000 | 49.0000 | 60.0000 | 71.0000 | 82.0000 | 93.0000 | 104.0000 | 115.0000 | 126.0000 | 136.0000 | 147.0000 | 158.0000 | 169.0000 | 180.0000 | 191.0000 | 202.0000 | 213.0000 |
| X | 0.3454 | 0.8099 | 1.5530 | 2.5499 | 3.8807 | 5.6270 | 7.5626 | 10.1661 | 13.0626 | 16.2092 | 19.5980 | 23.8486 | 28.9397 | 33.8647 | 40.1087 | 45.9822 | 53.1386 | 61.0077 |
| Y cd/m² | 0.3668 | 0.8622 | 1.6065 | 2.7007 | 4.0627 | 5.8550 | 7.9729 | 10.5311 | 13.5882 | 17.2539 | 20.7825 | 25.2037 | 30.3687 | 35.6851 | 41.5402 | 48.2948 | 56.3943 | 64.3181 |
| Z | 0.3970 | 0.9335 | 1.7555 | 2.9251 | 4.4157 | 6.4111 | 8.7316 | 11.4976 | 14.9585 | 18.7283 | 22.6907 | 27.2234 | 33.0618 | 39.0609 | 45.2344 | 53.3843 | 61.3463 | 69.7814 |
| Xn 0-1 | 0.0043 | 0.0100 | 0.0192 | 0.0315 | 0.0480 | 0.0696 | 0.0936 | 0.1258 | 0.1616 | 0.2006 | 0.2425 | 0.2951 | 0.3581 | 0.4190 | 0.4963 | 0.5689 | 0.6575 | 0.7548 |
| Yn 0-1 | 0.0045 | 0.0107 | 0.0199 | 0.0334 | 0.0503 | 0.0724 | 0.0986 | 0.1303 | 0.1681 | 0.2135 | 0.2571 | 0.3118 | 0.3757 | 0.4415 | 0.5140 | 0.5975 | 0.6978 | 0.7958 |
| Zn 0-1 | 0.0049 | 0.0116 | 0.0217 | 0.0362 | 0.0546 | 0.0793 | 0.1080 | 0.1423 | 0.1851 | 0.2317 | 0.2807 | 0.3368 | 0.4091 | 0.4833 | 0.5597 | 0.6605 | 0.7590 | 0.8634 |
| Stimulus Percent | 0.0502 | 0.1005 | 0.1507 | 0.2009 | 0.2511 | 0.3014 | 0.3516 | 0.4018 | 0.4521 | 0.5023 | 0.5479 | 0.5982 | 0.6484 | 0.6986 | 0.7489 | 0.7991 | 0.8493 | 0.8995 |
| RED Stim%:0-1 | 0.0502 | 0.1005 | 0.1507 | 0.2009 | 0.2511 | 0.3014 | 0.3516 | 0.4018 | 0.4521 | 0.5023 | 0.5479 | 0.5982 | 0.6484 | 0.6986 | 0.7489 | 0.7991 | 0.8493 | 0.8995 |
| GRN Stim%:0-1 | 0.0502 | 0.1005 | 0.1507 | 0.2009 | 0.2511 | 0.3014 | 0.3516 | 0.4018 | 0.4521 | 0.5023 | 0.5479 | 0.5982 | 0.6484 | 0.6986 | 0.7489 | 0.7991 | 0.8493 | 0.8995 |
| BLU Stim%:0-1 | 0.0502 | 0.1005 | 0.1507 | 0.2009 | 0.2511 | 0.3014 | 0.3516 | 0.4018 | 0.4521 | 0.5023 | 0.5479 | 0.5982 | 0.6484 | 0.6986 | 0.7489 | 0.7991 | 0.8493 | 0.8995 |

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 | # Gry | # Sat | # Lum | # CCk | Final Check | GRD | Notes

∫ Pre-Cal | ∫ Post-Cal

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CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Saturation Datagrids

Simulated Meter LCD Direct View | Source | Direct Display Control

## Pre-Cal Saturation Sweeps Data

| | 25% | 50% | 75% | 100% |
|---|---|---|---|---|
| RGB Triplet | 180, 123, 123 | 180, 90, 90 | 180, 64, 64 | 180, 16, 16 |
| Target x:CIE31 | 0.3928 | 0.4745 | 0.5537 | 0.6400 |
| x: CIE31 | 0.3963 | 0.4743 | 0.5493 | 0.6353 |
| Target y:CIE31 | 0.3293 | 0.3295 | 0.3297 | 0.3300 |
| y: CIE31 | 0.3284 | 0.3307 | 0.3300 | 0.3307 |
| Target Y | 6.6082 | 4.4525 | 3.3830 | 2.6823 |
| Y | 6.3114 | 4.3012 | 3.3332 | 2.6122 |
| Gamma Point: Flat | 4.6796 | 6.0531 | 6.9664 | 7.8395 |
| ΔE 2000 | 1.1206 | 0.8471 | 0.5012 | 0.7953 |
| dE2000 LuminanceCompensated | 0.6369 | 0.2803 | 0.3381 | 0.5465 |
| ΔE 1994 L*:± | -1.1523 | -0.7612 | -0.2992 | -0.4936 |
| ΔE 1994 Sat:± | 0.9066 | -0.7991 | -1.5165 | -2.5922 |
| ΔE 1994 Hue:± | -0.2527 | 0.4308 | -0.2171 | -0.7263 |
| Signed dE94 L LuminanceCompensated | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Signed dE94 C LuminanceCompensated | 1.3298 | -0.2561 | -1.2025 | -1.8469 |
| Signed dE94 H LuminanceCompensated | -0.2508 | 0.4283 | -0.2166 | -0.7231 |

## Post-Cal Saturation Sweeps Data

| | 25% | 50% | 75% | 100% |
|---|---|---|---|---|
| RGB Triplet | 141, 141, 180 | 108, 108, 180 | 77, 77, 180 | 16, 16, 180 |
| Target x:CIE31 | 0.2734 | 0.2317 | 0.1910 | 0.1500 |
| x: CIE31 | 0.2730 | 0.2300 | 0.1935 | 0.1515 |
| Target y:CIE31 | 0.2640 | 0.1950 | 0.1278 | 0.0600 |
| y: CIE31 | 0.2587 | 0.1936 | 0.1298 | 0.0620 |
| Target Y | 7.3738 | 4.2363 | 2.2825 | 0.9085 |
| Y | 6.9787 | 4.0320 | 2.2507 | 0.9124 |
| Gamma Point: Flat | 4.3104 | 6.2756 | 8.3639 | 11.5983 |
| ΔE 2000 | 1.9645 | 1.0949 | 0.4702 | 0.4410 |
| dE2000 LuminanceCompensated | 1.6782 | 0.3005 | 0.3625 | 0.4641 |
| ΔE 1994 L*:± | -1.4311 | -1.0690 | -0.2485 | 0.0558 |
| ΔE 1994 Sat:± | 1.9627 | -0.2418 | -1.3934 | -2.4166 |
| ΔE 1994 Hue:± | 1.2728 | -0.3157 | 0.4049 | -0.2813 |
| Signed dE94 L LuminanceCompensated | 0.0000 | 0.0000 | 0.0000 | 0.0000 |
| Signed dE94 C LuminanceCompensated | 2.4228 | 0.5641 | -1.0473 | -2.5711 |
| Signed dE94 H LuminanceCompensated | 1.2612 | -0.3131 | 0.4040 | -0.2815 |

ANL

Back | Next | PreCal | PostCal | HOME | Prepare | PreCal Read | Calibrate | Sat | PostCal Read | Datagrid | # Gry | # Sat | # Lum | # CCk | Final Check | GRD | Notes

Pre-Cal: 25% | 50% | 75% | 100%

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

Change Selection

Post-Cal: 25% | 50% | 75% | 100%

∫ Pre-Cal | ∫ Post-Cal

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CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Color Check Datagrids

Simulated Meter LCD Direct View | Source | Direct Display Control

## 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 | 0.4042 | 0.3772 | 0.2497 | 0.3411 | 0.2692 | 0.2618 | 0.5126 | 0.2159 | 0.4617 | 0.2888 | 0.3770 |
| x: CIE31 | 0.3155 | 0.3101 | 0.3141 | 0.3106 | 0.3146 | 0.4022 | 0.3809 | 0.2497 | 0.3401 | 0.2704 | 0.2598 | 0.5134 | 0.2165 | 0.4653 | 0.2902 | 0.3725 |
| Target y:CIE31 | 0.3290 | 0.3290 | 0.3290 | 0.3290 | 0.3290 | 0.3639 | 0.3559 | 0.2663 | 0.4299 | 0.2537 | 0.3590 | 0.4095 | 0.1910 | 0.3123 | 0.2185 | 0.4941 |
| y: CIE31 | 0.3264 | 0.3307 | 0.3285 | 0.3302 | 0.3280 | 0.3608 | 0.3532 | 0.2645 | 0.4260 | 0.2507 | 0.3635 | 0.4045 | 0.1905 | 0.3119 | 0.2218 | 0.4971 |
| Target Y | 23.5986 | 18.7299 | 15.3837 | 11.9018 | 8.3572 | 2.4061 | 8.4665 | 4.5722 | 3.1726 | 5.6943 | 10.0805 | 6.8170 | 2.8349 | 4.4592 | 1.5901 | 10.3744 |
| Y | 23.5986 | 18.7022 | 15.1384 | 11.6538 | 7.9426 | 2.3040 | 8.0937 | 4.3645 | 3.0339 | 5.3883 | 9.8482 | 6.5879 | 2.7087 | 4.3195 | 1.5603 | 10.1128 |
| Gamma Point: Flat | 2.2000 | 2.2152 | 2.2860 | 2.2694 | 2.3096 | 2.9715 | 3.9434 | 3.4891 | 2.3954 | 4.0467 | 2.9430 | 8.1532 | 4.9306 | 6.2938 | 3.1782 | 2.7365 |
| ΔE 2000 | 3.9010 | 2.9209 | 1.2624 | 2.0567 | 1.9127 | 0.9959 | 1.9729 | 1.2299 | 1.0186 | 1.7487 | 1.1256 | 1.6455 | 0.8449 | 0.7288 | 0.6058 | 1.1625 |
| dE2000 LuminanceCompensated | 3.9010 | 2.9207 | 1.2112 | 2.0031 | 1.5434 | 0.6966 | 1.7738 | 0.7017 | 0.4402 | 1.3358 | 1.0883 | 1.4220 | 0.3427 | 0.3504 | 0.4763 | 1.0313 |
| ΔE 1994 L*:± | 0.0000 | -0.0530 | -0.5374 | -0.6459 | -1.3801 | -0.7775 | -1.2280 | -1.0319 | -0.8787 | -1.3178 | -0.6764 | -0.8691 | -0.8626 | -0.7025 | -0.2964 | -0.7477 |
| ΔE 1994 Sat:± | 2.8759 | 2.0880 | 0.8310 | 1.3991 | 1.0664 | -0.6753 | 0.9502 | 0.1060 | -1.3187 | 0.9860 | 2.0871 | -1.3286 | -0.3729 | 0.5823 | -1.3463 | 0.2412 |
| ΔE 1994 Hue:± | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | -0.7403 | -1.7242 | 0.6844 | 0.0772 | 1.2598 | -0.7964 | -2.2768 | 0.4069 | 0.1066 | 0.0784 | 1.9859 |
| 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 | 0.4042 | 0.3772 | 0.2497 | 0.3411 | 0.2691 | 0.2618 | 0.5126 | 0.2159 | 0.4617 | 0.2888 | 0.3770 |
| x: CIE31 | 0.3111 | 0.3125 | 0.3126 | 0.3147 | 0.3115 | 0.4013 | 0.3787 | 0.2494 | 0.3367 | 0.2666 | 0.2609 | 0.5127 | 0.2139 | 0.4623 | 0.2907 | 0.3787 |
| Target y:CIE31 | 0.3290 | 0.3290 | 0.3290 | 0.3290 | 0.3290 | 0.3639 | 0.3559 | 0.2663 | 0.4299 | 0.2537 | 0.3590 | 0.4095 | 0.1910 | 0.3123 | 0.2185 | 0.4941 |
| y: CIE31 | 0.3288 | 0.3287 | 0.3282 | 0.3287 | 0.3281 | 0.3587 | 0.3565 | 0.2651 | 0.4269 | 0.2541 | 0.3597 | 0.4048 | 0.1920 | 0.3153 | 0.2237 | 0.4910 |
| Target Y | 23.8506 | 18.9297 | 15.5477 | 12.0285 | 8.4460 | 2.4315 | 8.5565 | 4.6206 | 3.2061 | 5.7547 | 10.1878 | 6.8895 | 2.8648 | 4.5065 | 1.6067 | 10.4849 |
| Y | 23.8506 | 18.5342 | 15.1465 | 11.5478 | 7.9696 | 2.2967 | 8.0997 | 4.3749 | 3.0331 | 5.4454 | 9.7187 | 6.5832 | 2.7541 | 4.3564 | 1.5604 | 9.9750 |
| Gamma Point: Flat | 2.2000 | 2.4165 | 2.3398 | 2.3343 | 2.3250 | 2.9890 | 3.9800 | 3.5060 | 2.4081 | 4.0465 | 3.0247 | 8.2248 | 4.9164 | 6.3009 | 3.1904 | 2.8165 |
| ΔE 2000 | 1.1456 | 0.4866 | 0.7998 | 1.6727 | 1.3611 | 1.4991 | 1.2191 | 1.2595 | 1.3094 | 1.6780 | 1.0463 | 1.7032 | 1.2040 | 1.0384 | 0.9591 | 1.3178 |
| dE2000 LuminanceCompensated | 1.1456 | 0.1355 | 0.5520 | 1.4077 | 0.4365 | 1.1716 | 0.2571 | 0.3797 | 0.7518 | 1.0652 | 0.2562 | 1.3014 | 0.9418 | 0.6519 | 0.7601 | 0.5410 |
| ΔE 1994 L*:± | 0.0000 | -0.7533 | -0.8727 | -1.2469 | -1.5728 | -1.0200 | -1.4935 | -1.2111 | -1.0888 | -1.3178 | -1.3621 | -1.1536 | -0.7474 | -0.7473 | -0.4584 | -1.4534 |
| ΔE 1994 Sat:± | 0.8374 | 0.1350 | 0.4300 | 0.9788 | 0.4120 | -0.9436 | 0.0942 | -0.0727 | -1.0467 | -0.8383 | 0.1132 | -1.7910 | -1.1273 | -1.1088 | -2.1277 | -2.0653 |
| ΔE 1994 Hue:± | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | -1.2595 | 0.0123 | 0.3552 | 1.0145 | -1.1292 | -0.0227 | -2.0689 | -1.1399 | 1.0651 | 0.0779 | -0.9043 |
| 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

Change Selection

ANL | Back | Next | PreCal | PostCal | HOME | Prepare | PreCal Read | Calibrate | CCk | PostCal Read | Datagrid | # Gry | # Sat | # Lum | # CCk | Final Check | GRD | Notes

∫ Pre-Cal | ∫ Post-Cal | « Back | Next »