CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Introduction

Simulated Meter LCD Direct View (LED Backlight) | Source | Sharp Elite ISF Day

Welcome to the HT Enthusiast Extended Workflow v11.0.0

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

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!

Navigation Bar
INT
Intro
Home
Session Setup
Intro
Prepare
Setup
PreCal Read
DyRng
Calibrate
Gray
Satur
Lumi
C Chk
3d Cb
PostCal Read
Analyze
Gray
Satur
Lumi
C Chk
3d Cb
Final Check
Intro

Notes Mgmt | Home
PreCal Read | Session Setup

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Workflow Description

Simulated Meter LCD Direct View (LED Backlight) | 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

2) ▶ Preparation Zone: Enter session setup information and plan the session calibration strategy, 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
- Full multi-point Grayscale
- Gamut Saturation Sweeps, also used for basic CMS calibration
- Gamut Luminance
- Color Checker
- 3D Color Cube LUT for supported hardware

All active calibration layouts except 2-Point Grayscale have corresponding detail datagrid layouts. You can acces them with the ↑Data buttons .

ANALYSIS CHARTS

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

Except for the 2-Point Grayscale there 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.

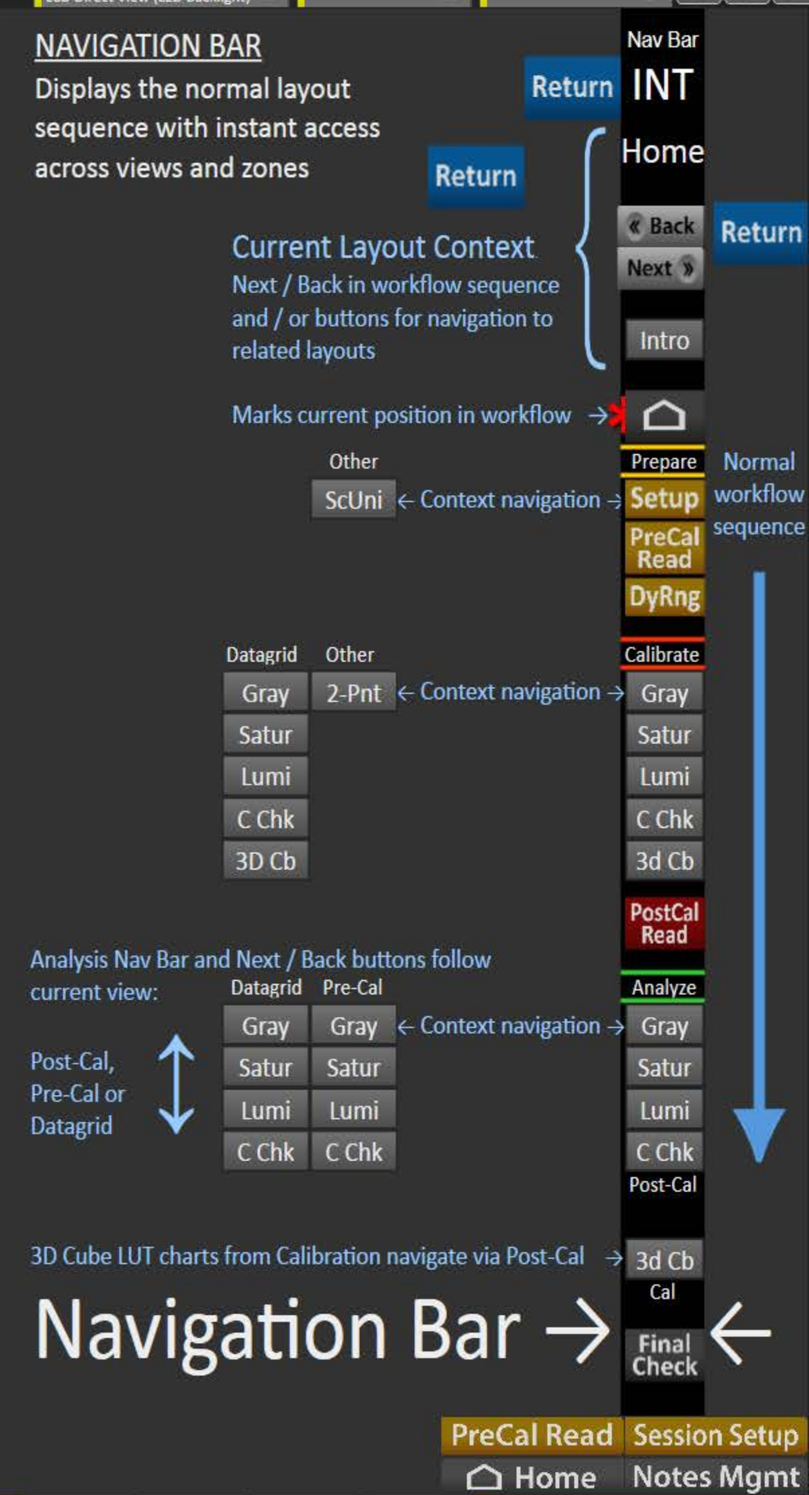
Session Setup - Integrates calibration options, initial settings & notes, and hardware/device configuration.

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.

NAVIGATION BAR

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



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Introduction: Home

Simulated Meter LCD Direct View (LED Backlight) | Source | Sharp Elite ISF Day

HOME

Workflow Layout Structure

– Introduction –

→ Prepare ←
↓ Calibrate ↑
← Analyze →

CalMAN 5

► Preparation (PRP)

1 ▶ Session Setup → Screen Uniformity
2 ▶ Pre-Calibration Readings (feeds Pre-Cal charts)
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
8 ▶ Color Checker Calibration → Datagrid
9 ▶ 3D Color Cube LUT Calibration (feeds Detail Charts 15) → Datagrid
10 ▶ Post-Calibration Readings (feeds Post-Cal charts)

For basic CMS Gamut calibration use Saturation Sweeps set to 75% or 100% Only

► Analysis (ANL)

11 ▶ Multi-Pt Grayscale Post-Cal Charts → Pre-Cal Charts → Datagrids
12 ▶ Saturation Sweeps Post-Cal Charts → Pre-Cal Charts → Datagrids
13 ▶ Gamut Luminance Post-Cal Charts → Pre-Cal Charts → Datagrids
14 ▶ Color Checker Post-Cal Charts → Pre-Cal Charts → Datagrids
15 ▶ 3D Color Cube LUT Calibration Detail Charts (2 tabs)
16 ▶ Final Check – Fine Tune the Dynamic Range

Nav Bar
INT
Home
Back
Next
Intro
Prepare
Setup
ScUni
PreCal Read
DyRng
Calibrate
Datagrid: M-Pnt, Satur, Lumi, C Chk, 3D Cb
Other: 2-Pnt, Detail
M-Pnt, Satur, Lumi, C Chk, 3d Cb
PostCal Read
Analyze
Datagrid: Gray, Satur, Lumi, C Chk
Pre-Cal: Gray, Satur, Lumi, C Chk
Post-Cal: Gray, Satur, Lumi, C Chk
3d Cb
Cal
Final Check
Home

PreCal Read | Session Setup
Back | Notes Mgmt

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Session Setup | Help

Simulated Meter LCD Direct View (LED Backlight) | Source | Sharp Elite ISF Day

Session Setup

(A) Session Options

Display • PRO-70X5FD

Session Info

More Options

Setup Notes

Elite IP 192.168.1.45
Radiance Com 2

Calibration Description / Goals

Big

Calibration description

(C) Calibration Plan

For Nav Bar Next / Back, markers

- [x] Plan calibrations
  - [x] 2-Pt Grayscale
  - [x] Full Grayscale
  - [x] Saturation Sweeps
  - [ ] Gamut Luminance
  - [ ] Color Checker
  - [x] 3D Color Cube LUT

Gamut Coordinates: D65, HD Rec.709

Gamma Formula: Power

Input Level: Video (16-235)

Target Black	Target White	Target Gamma	Luminance Unit	DeltaE Formula	Stimulus Unit
0	100	2.2	fL	d E2000	percent

(B) Display Settings

AV Mode: ISF Night

Color Temp	Low	Contrast	80		Cut / Gain
Sharpness	2	Brightness	1	Red	
Color		Backlight	35	Green	
Tint		TV Gamma	0	Blue	

(D) Hardware Configuration

① Meter — Find → Configure
CalMAN Simulated
Profile : None
Mode: LCD Direct View (LED Backlight)

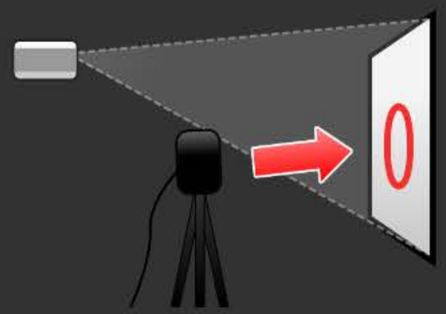
② Source — Find → Configure
Optical player or standalone generator (manual cont
Optical player or standalone generator
Pattern Size: Full 100% | Triplet Support: FullTriplets

③ Display / Processor — DDC — Find → Configure
Sharp - 2011 Elite (RS-232, Ethernet)
Sharp Elite SOCKET 192.168.1.45:10002
Display Slot: ISF Day | Data Points: 11

(E) 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

Y Max / Min fL
29.19 / 0

CCT 0 / 6503 Target

Screen Uniformity

Nav Bar: PRP Setup | Back | Next | ScUni | Prepare | ScUni | PreCal Read | DyRng | Calibrate | Gray | Satur | Lumi | C Chk | 3d Cb | PostCal Read | Analyze | Final Check | Setup | Notes

0 | 100

Home | Next

CalMAN 5 CalMAN Enthusiast for Home Video

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Session Setup | Help

Simulated Meter LCD Direct View (LED Backlight) | Source | Sharp Elite ISF Day

Session Setup

(A) Session Options

Display • PRO-70X5FD

Session Info

More Options

Setup Notes

Elite IP 192.168.1.45
Radiance Com 2

(C) Calibration Plan

For Nav Bar Next / Back, markers

- [x] Plan calibrations
  - [x] 2-Pt Grayscale
  - [x] Full Grayscale
  - [x] Saturation Sweeps
  - [ ] Gamut Luminance
  - [ ] Color Checker
  - [x] 3D Color Cube LUT

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(B) Display Settings

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Color Temp	Low	Contrast	80		Cut	Gain
Sharpness	2	Brightness	1	Red		
Color		Backlight	35	Green		
Tint		TV Gamma	0	Blue		

(D) Hardware Configuration

① Meter — Find → | Configure

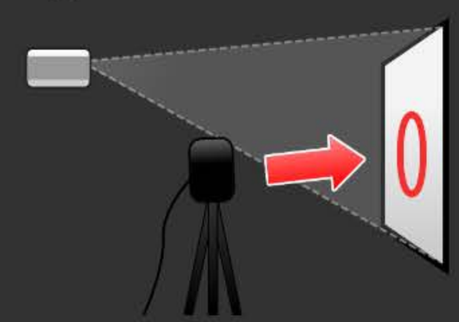
② Source — Find → | Configure

③ Display / Processor — [x] DDC — Find → | Configure

(E) 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

Brightness	1
Contrast	80
Color	0
Tint	0
Sharpness	2
Color Temperature	Low
Gamma	0
Backlight	35
Gamut Range	Standard
Motion ENhancement	Off
Precision Color Plus	
Active Contrast	
Film Mode	Off
Digital Noise Reduction	Off

Nav Bar: PRP Setup | « Back | Next » | ScUni | Prepare | ScUni | PreCal Read | DyRng | Calibrate | Gray | Satur | Lumi | C Chk | 3d Cb | PostCal Read | Analyze | Final Check | Setup

0 | 100 | Home | Next » | Notes

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) If convenient define a calibration - the planned layouts will be indicated and followed by the Next / Back buttons of the Navigation Bar

(D) Find and configure the appropriate (1) meter, (2) source and (3) display devices - more info at right →

(E) 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 at right →

(D) 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

(E) 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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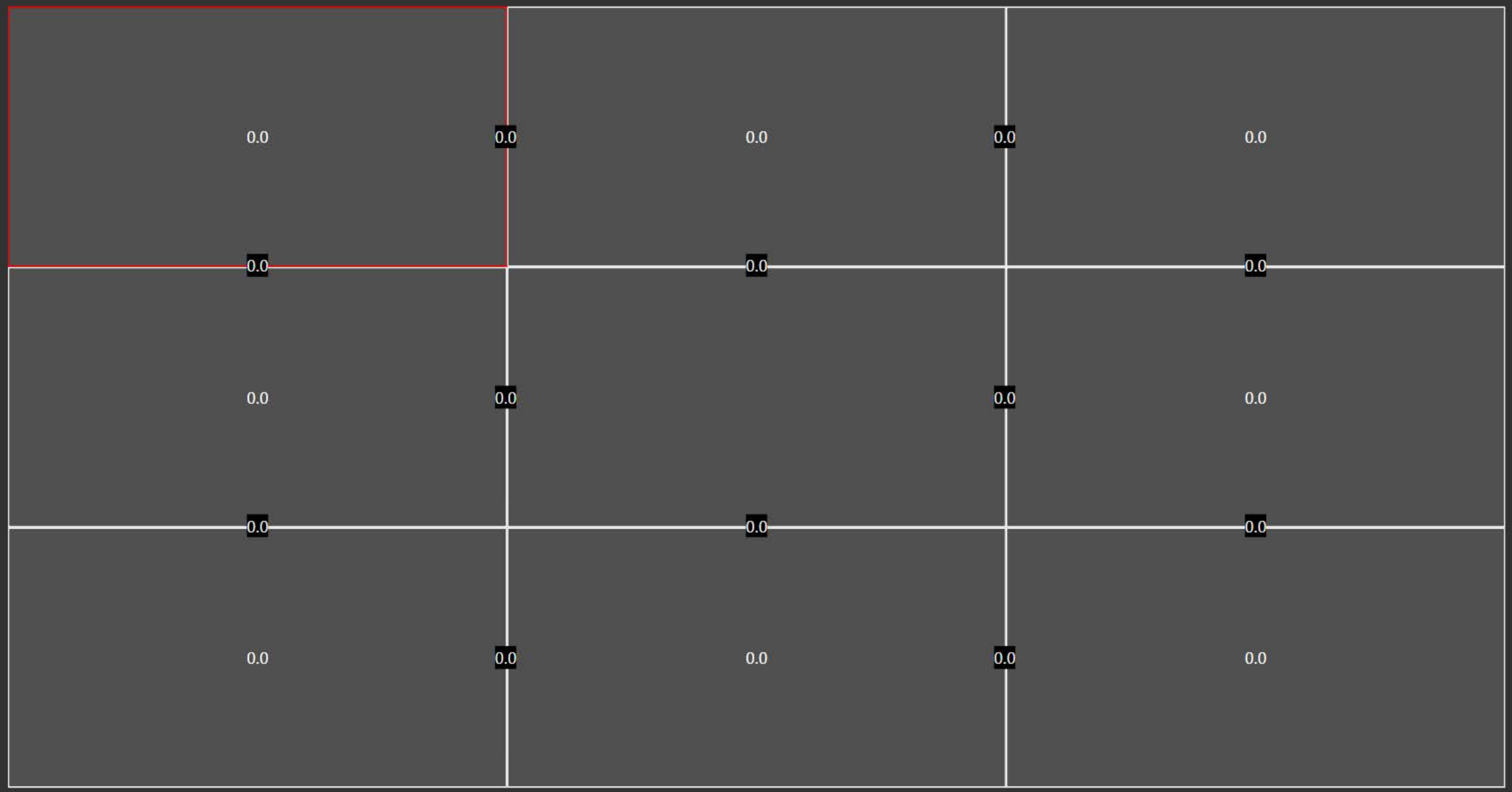
Screen Uniformity

Simulated Meter
LCD Direct View (LED Backlight)

Source

Sharp Elite
ISF Day

Screen Uniformity



Nav Bar

PRP

ScrUn

SetUp

Prepare

SetUp

Calibrate

Analyze

PRP

Session SetUp

30

100

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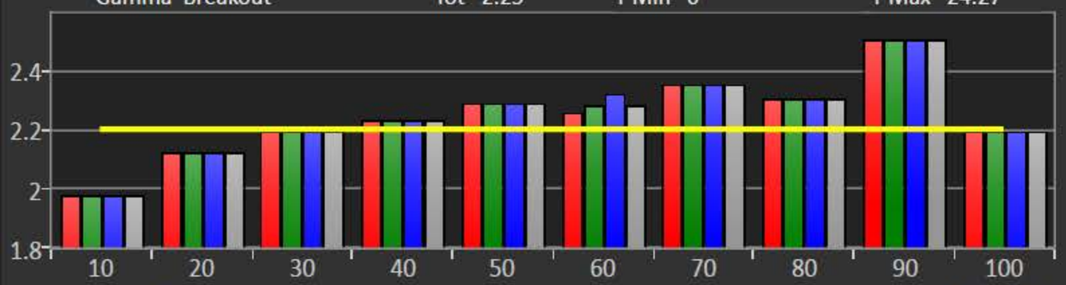
Pre-Cal Readings

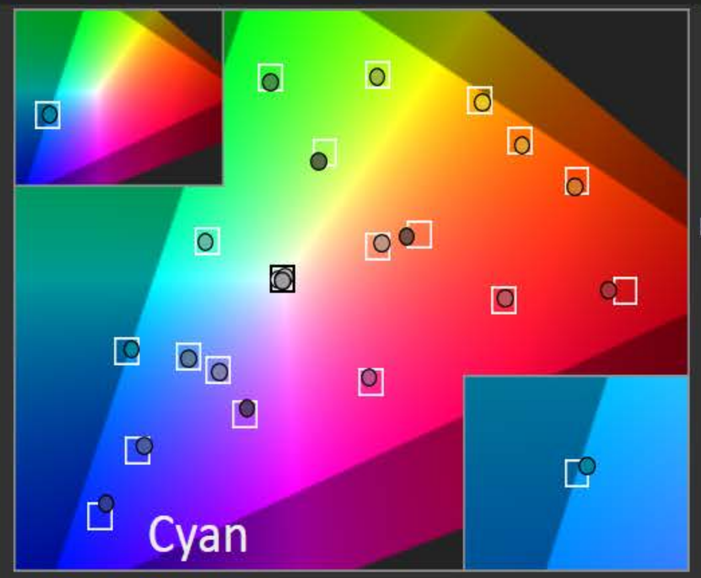
Simulated Meter LCD Direct View (LED Backlight) | Source | Direct Display Control

Pre-Calibration Readings

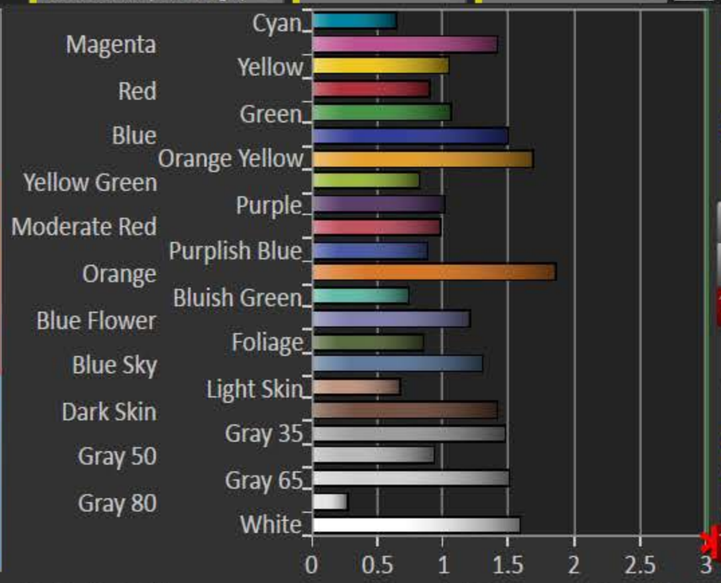
Gamma Breakout Tot 2.25 Y Min 0 Y Max 24.27



1 Grayscale Detail Charts DeltaE 0.01 Avg 0.9 Max 2.24 100



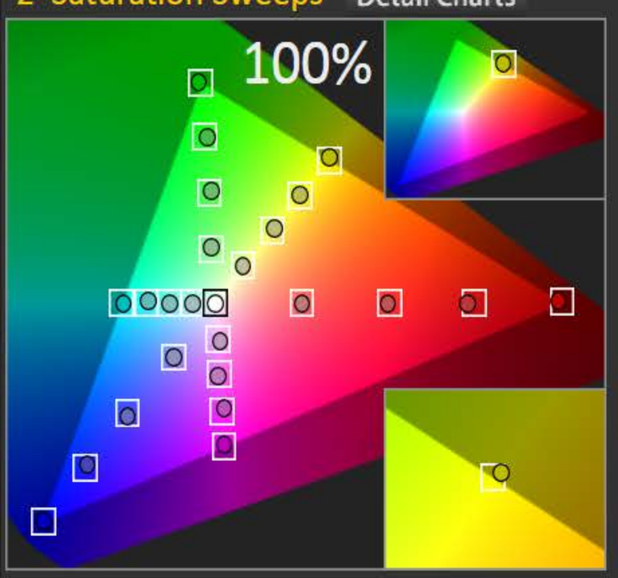
4 Color Checker Detail Charts

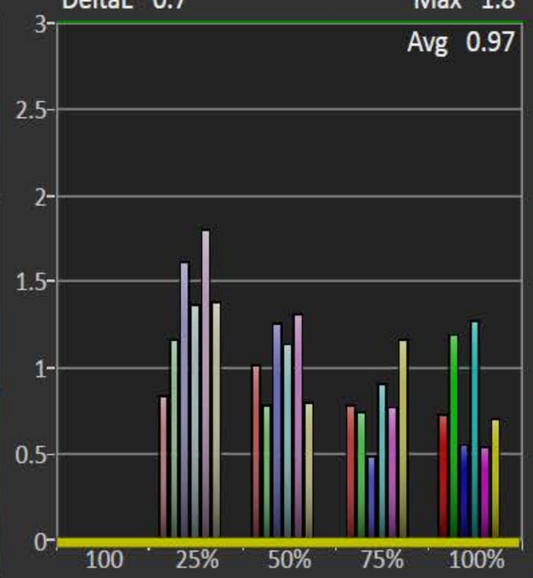


DeltaE 0.65 Avg 1.12 Max 1.86

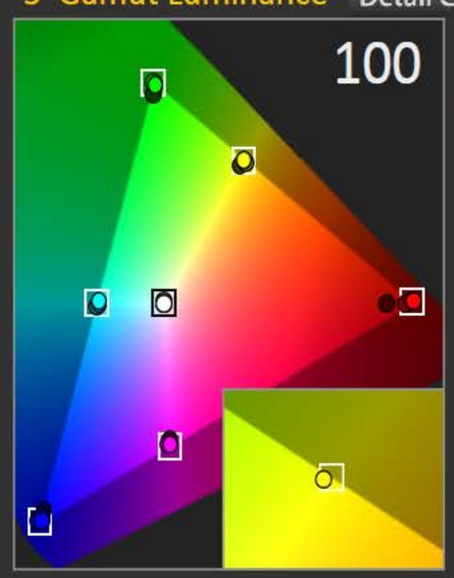
Nav Bar PRP PreCal Read Back Next ↑PstRead Prepare Setup ↑PstRead DyRng Calibrate Gray Satur Lumi C Chk 3d Cb ↑PstRead Analyze Gray Satur Lumi C Chk 3d Cb Final Check PreCal Read

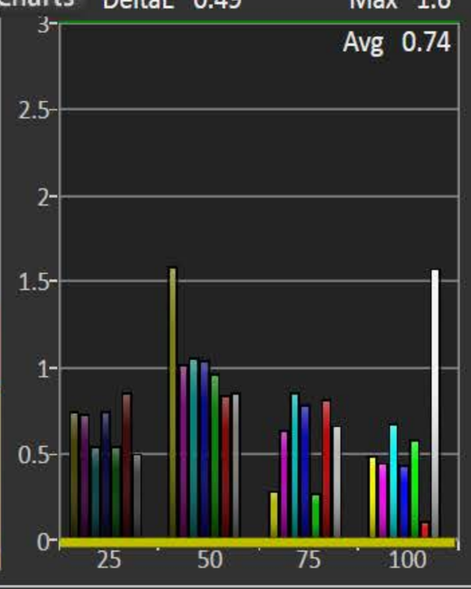
2 Saturation Sweeps Detail Charts DeltaE 0.7 Max 1.8 Avg 0.97

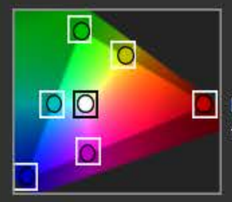




3 Gamut Luminance Detail Charts DeltaE 0.49 Max 1.6 Avg 0.74







Populate Gamut for HT report

1 Grayscale
10 Point 10% step 10-100%

2 Saturation
25% Sweeps

3 Luminance
4 Point 25% step 25-100%

4 Color Checker

Display Slot

Mode • ISF Night

Pre-Cal Readings

Contrast
Brightness
Backlight

TV Gamma
Color
Tint

Red Green Blue
Gain
Cut

Pre-Cal Notes
Big

Pre-cal notes

Use [···] below to read ALL series or select a series above

10 20 30 40 50 60 70 80 90 100

PostCal Read Notes

Back Next

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Dynamic Range

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≡ 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.

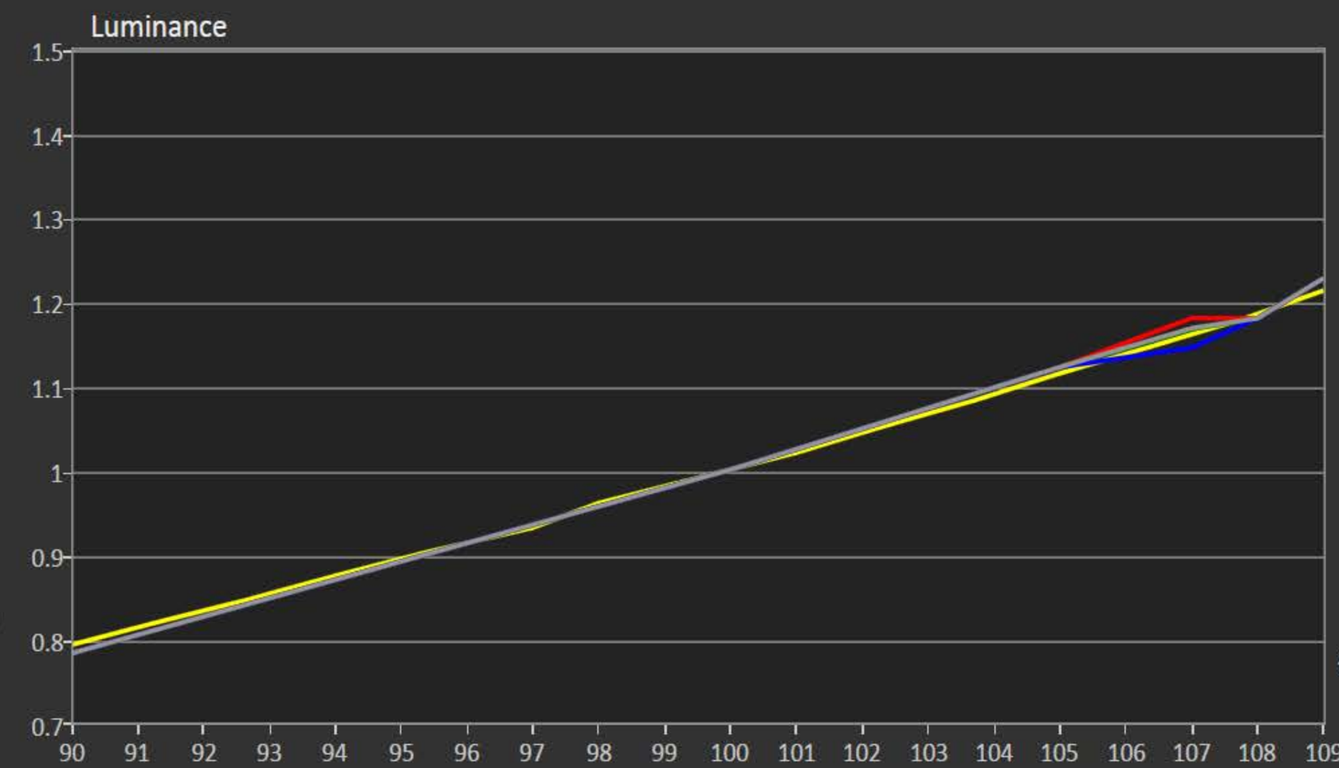
Clipping with Peak White ②

Calibration Notes

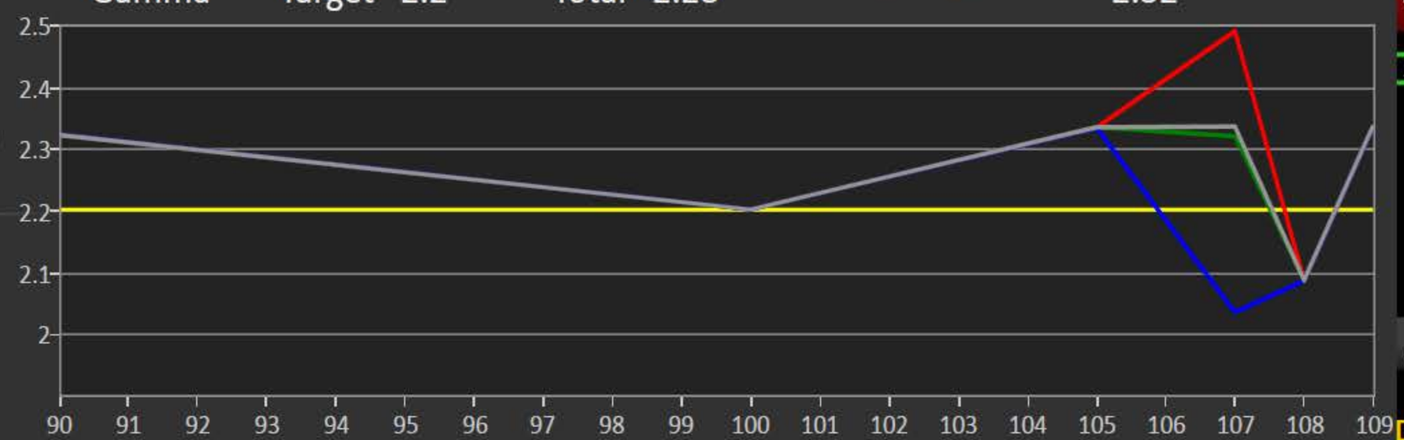
Big

Calibration notes & observations

Contrast	80
Brightness	1
Backlight	35
TV Gamma	0



Luminance in fL		White	24.27	90	18.98
Gamma	Target 2.2	Total	2.28		2.32



Display Slot ISF Day

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

Nav Bar PRP DyRng

Back Next

Prepare Setup PreCal Read DyRng Calibrate Gray Satur Lumi C Chk 3d Cb PostCal Read Analyze Final Check DyRng Notes

90 100 105 107 108 109

Back Next

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2 Pt Grayscale

Simulated Meter LCD Direct View (LED Backlight) | 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.

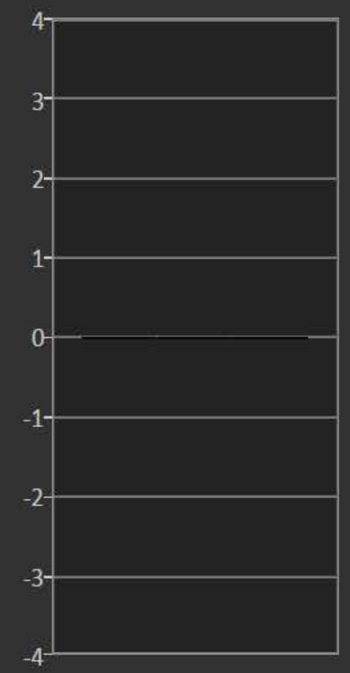
Selecting Points:

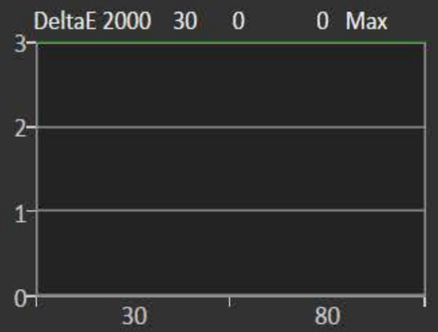
- ***30% and 80%:*** *Use these levels if you only have access to a two point grayscale adjustment*
- ***30% and 100%:*** *Use these levels if you will be completing a multipoint adjustment afterwards and do not have access to a Peak White pattern.*
- ***30% and Peak White:*** *Use these levels if your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

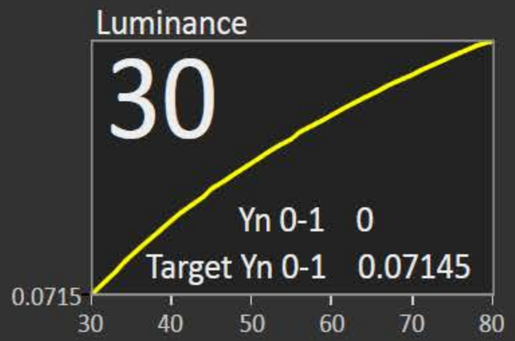
2 Point 30,80%

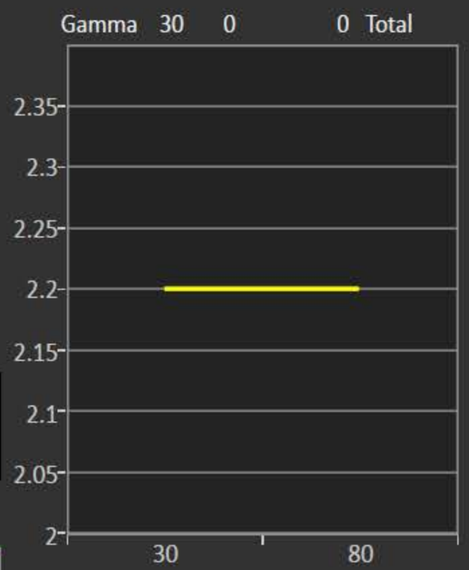
Calibration Notes

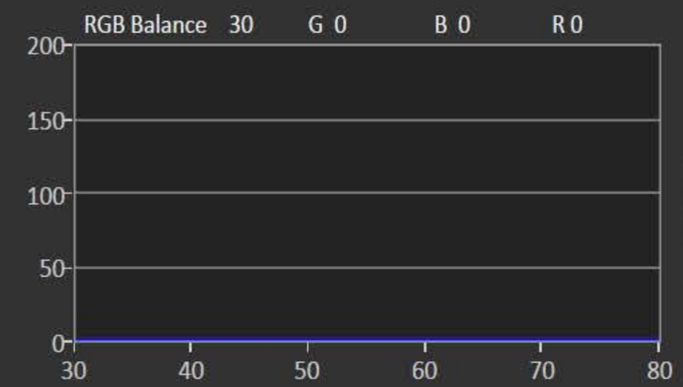
Calibration notes & observations

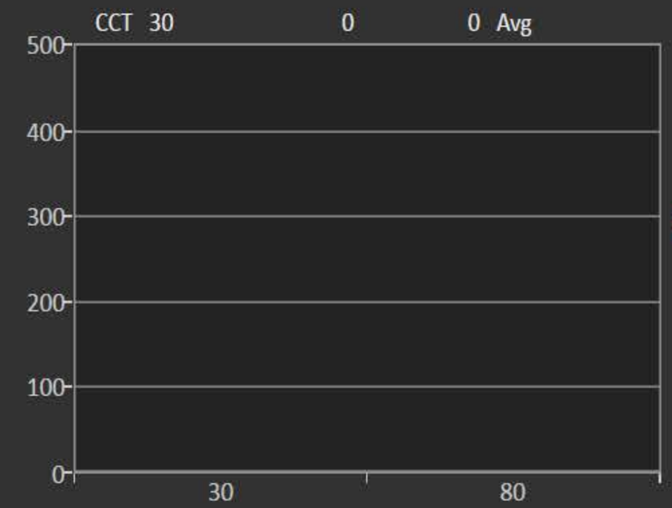












30

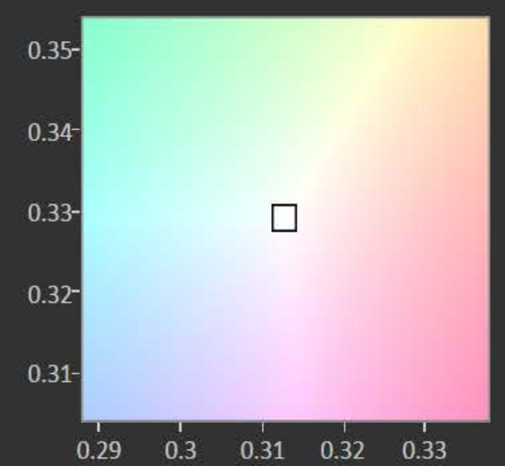
CC Temp	0	0	Avg
Gamma	0	0	Tot
dE 2000	0	0	Avg
		0	Max

White 29.19

	Y / Luminance fL	x	y
Target →	2.08545	0.3127	0.329
Read →	0	0	0

Display Slot

Triplet 82, 82, 82



Nav Bar

CAL Gray 2-Pnt

Back | Next | M-Pnt

Prepare | Setup | PreRead | DyRng | Calibrate | M-Pnt | Data | Satur | Lumi | C Chk | 3d Cb | PostCal Read | Analyze | Gray | Final Check | 2- | M-Pnt

30 | 80

Notes | Back | Next

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Multi-Point Grayscale | Big Picture

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Multi-Point Grayscale Calibration

Big Picture | Comparator | Notes | DDC

90

RGB Balance: R -1.1 G -4.1 B -4.1

Luminance: Target Y 19.22861 18.61137 Read Y

DeltaE 2000: Lvl 90 1.62 1.02 Avg 2.14 Max

CCT: Lvl 90 6395 6468 Avg

Y in fL | Target = tgt

CCT

dE 1.62
Gma 2.51
CCT 6395

90

DeltaE | Gamma | RGB Balance

Gamma: Lvl 90 2.51 2.26 Total

90

Contrast Ratio 827

Comparator | Notes | DDC

DeltaE Avg 1.02
Max 2.14 @ 10

Gamma Tot 2.26
Tgt 2.2

CCT Avg 6468
Tgt 6503

White 24.27

DeltaE 1.62
Max 2.14 @ 10

Gamma 2.51

CCT 6395

Triplet 213, 213, 213

Y tgt 19.22861
18.61137

x tgt 0.31271
0.3147

y tgt 0.32901
0.32902

Display Slot

Grayscale Points: 21 Point 5% step 0-100%

Nav Bar: CAL Gray | BigPic | Back | Next | 2-Pnt | Data | Prepare | Setup | PreRead | DyRng | Calibrate | 2-Pnt | Data | Satur | Lumi | C Chk | 3d Cb | PostCal Read | Analyze | Gray | Final Check | M-Pnt | BigPic | 2-Pnt | Notes

Back | Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Multi-Point Grayscale | Big Picture

Simulated Meter: LCD Direct View (LED Backlight) | Source | Sharp Elite ISF Day

Multi-Point Grayscale Calibration

Big Picture | Comparator | Notes | DDC

Calibration Notes

Calibration notes & observations

Post-Calibration Notes

	Red	Green	Blue
0	52	42	22
10	88	57	56
20	69	54	42
30	57	49	34
40	63	51	31
50	52	43	25
60	51	42	24
70	51	42	22
80	51	41	22

Y in fL | Target = tgt

Big

DeltaE 2000

Lvl 100 0.01 0.93 Avg 2.14 Max

Lvl 100 650

Gamma

Lvl 100 2.2 2.25 Total

100

Contrast Ratio 827

Comparator | Notes | DDC

Reset Grayscale

DeltaE 0.01

Max 2.14 @ 10

Gamma 2.2

CCT 6503

Triplet 235, 235, 235

Y tgt 24.27164 24.27164

x tgt 0.31271 0.3127

y tgt 0.32901 0.32902

Grayscale Points: 11 Point 10% step 0-100%

Nav Bar: CAL Gray | BigPic | Back | Next | 2-Pnt | Data | Prepare | Setup | PreRead | DyRng | Calibrate | 2-Pnt | Data | Satur | Lumi | C Chk | 3d Cb | PostCal Read | Analyze | Gray | Final Check | M-Pnt | BigPic | 2-Pnt | Notes | Back | Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Multi-Point Grayscale | Big Picture

Simulated Meter: LCD Direct View (LED Backlight) | Source | Direct Display Control

Multi-Point

CCT 6503

Notes

Calib

7000 6800 6600 6400 6200 6000

RGB Balance

105 100 95

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

Gamma 2.2

3 2.5 2 1.5

100 100

Use the top slider, not the toolbar slider

DeltaE 0.01

3 2 1 0

0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

Calib

Back Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Datagrid

Simulated Meter
LCD Direct View (LED Backlight)

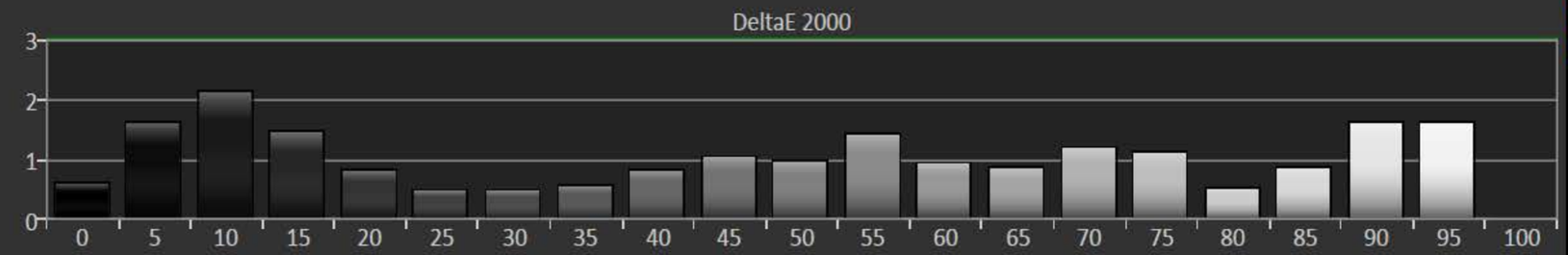
Source

Direct Display Control

Multi-Point Grayscale Calibration Data

Calibration Notes

Calibration notes & observations



	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75
RGB Triplet	16, 16, 16	27, 27, 27	38, 38, 38	49, 49, 49	60, 60, 60	71, 71, 71	82, 82, 82	93, 93, 93	104, 104, 104	115, 115, 115	126, 126, 126	136, 136, 136	147, 147, 147	158, 158, 158	169, 169, 169	18
RedIndex	16.0000	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	18
GreenIndex	16.0000	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	18
BlueIndex	16.0000	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	18
X	0.0956	0.3537	0.8148	1.5384	2.5524	3.9657	5.6866	7.6346	10.3015	13.2452	16.6381	19.7436	24.4609	29.2969	33.9856	40
Y cd/m²	0.1006	0.3721	0.8573	1.6186	2.6855	4.1725	5.9811	8.0326	10.8351	13.9314	17.5056	20.7729	25.7361	30.8242	35.7574	42
Z	0.1095	0.4052	0.9335	1.7625	2.9243	4.5435	6.4013	8.7468	11.5963	14.9101	19.0621	22.6199	28.0245	33.5650	38.9369	45
Xn 0-1	0.0011	0.0043	0.0098	0.0185	0.0307	0.0477	0.0684	0.0918	0.1239	0.1593	0.2001	0.2374	0.2941	0.3523	0.4087	0.4
Yn 0-1	0.0012	0.0045	0.0103	0.0195	0.0323	0.0502	0.0719	0.0966	0.1303	0.1675	0.2105	0.2498	0.3095	0.3707	0.4300	0.5
Zn 0-1	0.0013	0.0049	0.0112	0.0212	0.0352	0.0546	0.0770	0.1052	0.1394	0.1793	0.2292	0.2720	0.3370	0.4036	0.4682	0.5
Stimulus Percent	0.0000	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	0.7
RED Stim%:0-1	0.0000	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	0.7
GRN Stim%:0-1	0.0000	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	0.7
BLU Stim%:0-1	0.0000	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	0.7
Measured Red Stimulus	0.0472	0.0855	0.1250	0.1669	0.2100	0.2566	0.3037	0.3456	0.3978	0.4460	0.4925	0.5323	0.5868	0.6369	0.6814	0.7
Measured Green Stimulus	0.0472	0.0855	0.1250	0.1669	0.2101	0.2566	0.3021	0.3456	0.3958	0.4437	0.4925	0.5323	0.5868	0.6369	0.6814	0.7
Measured Blue Stimulus	0.0472	0.0855	0.1250	0.1669	0.2100	0.2566	0.2995	0.3456	0.3924	0.4399	0.4925	0.5323	0.5868	0.6369	0.6814	0.7
Stimulus	0.0000	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
Target X cd/m²	0.0000	0.1096	0.5037	1.2292	2.3146	3.7816	5.6478	7.9279	10.6351	13.7809	17.3757	21.0416	25.5197	30.4729	35.9088	41
Target Y cd/m²	0.0000	0.1153	0.5300	1.2932	2.4352	3.9787	5.9421	8.3411	11.1893	14.4991	18.2813	22.1381	26.8497	32.0610	37.7801	44
Target Z cd/m²	0.0000	0.1256	0.5771	1.4083	2.6519	4.3327	6.4707	9.0832	12.1848	15.7890	19.9077	24.1077	29.2385	34.9134	41.1414	47
Target Xn 0-1	0.0000	0.0013	0.0061	0.0148	0.0278	0.0455	0.0679	0.0953	0.1279	0.1657	0.2089	0.2530	0.3069	0.3664	0.4318	0.5
Target Yn 0-1	0.0000	0.0014	0.0064	0.0156	0.0293	0.0478	0.0715	0.1003	0.1346	0.1743	0.2198	0.2662	0.3229	0.3855	0.4543	0.5

Nav Bar

CAL

Calib

Prepare

Calibrate

Calib

Analyze

CAL

Notes Mgmt

CalMAN 5 CalMAN Enthusiast for Home Video

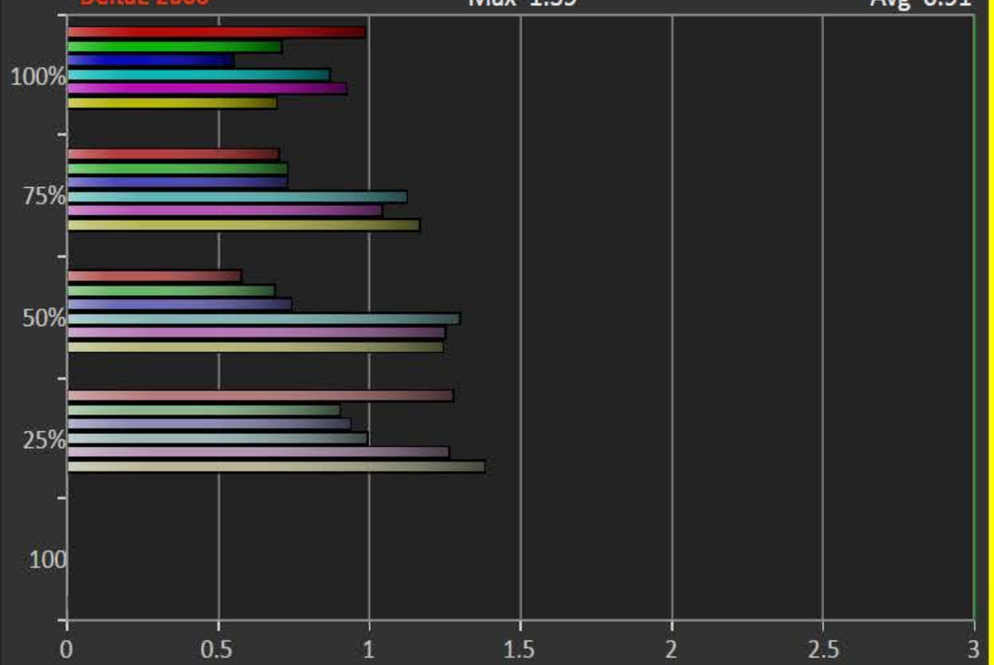
CalMAN 5

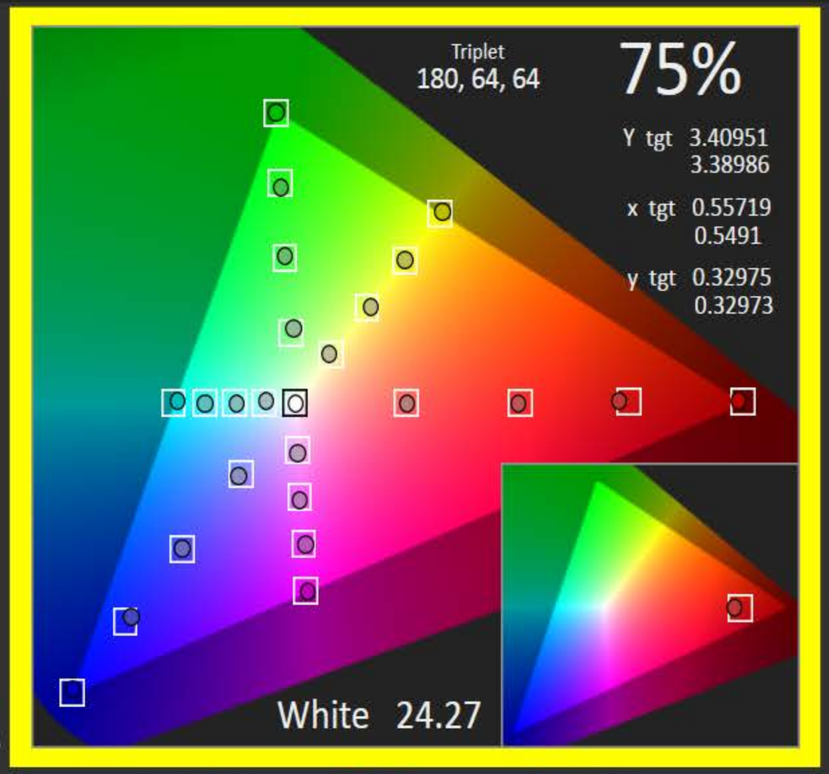
Saturation Sweeps

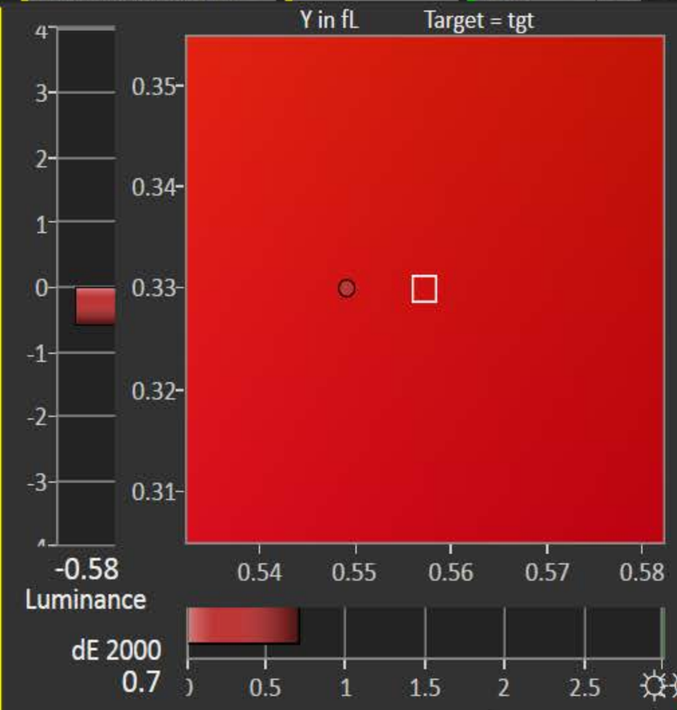
Simulated Meter LCD Direct View (LED Backlight) | Source | Sharp Elite ISF Day

Saturation Sweeps Calibration

DeltaE 2000 — Max 1.39 — Avg 0.91





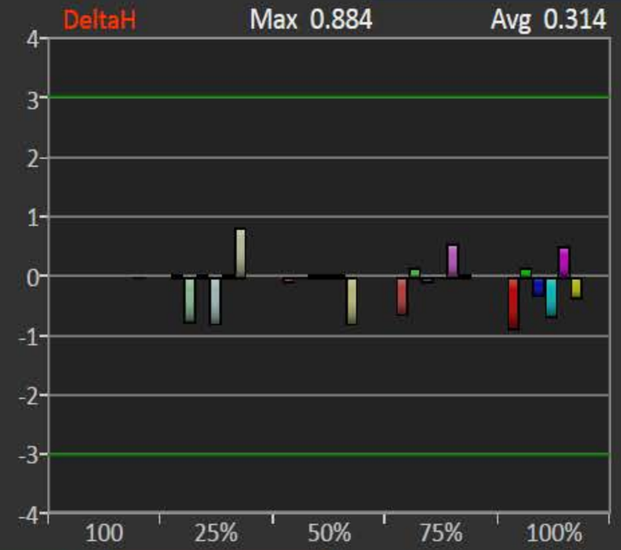


Notes

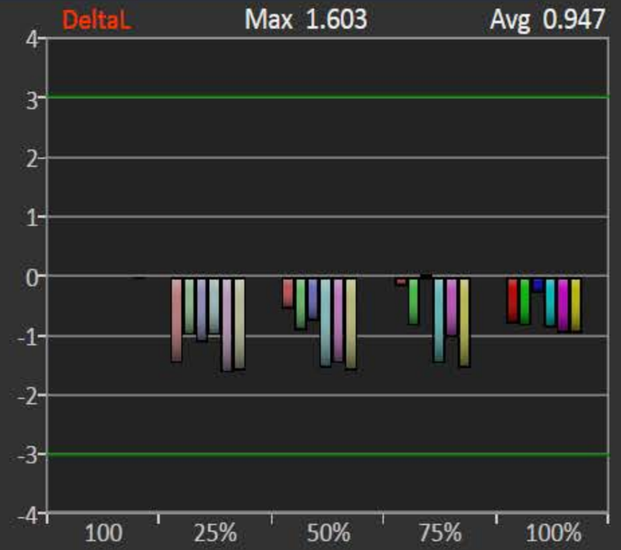
75%

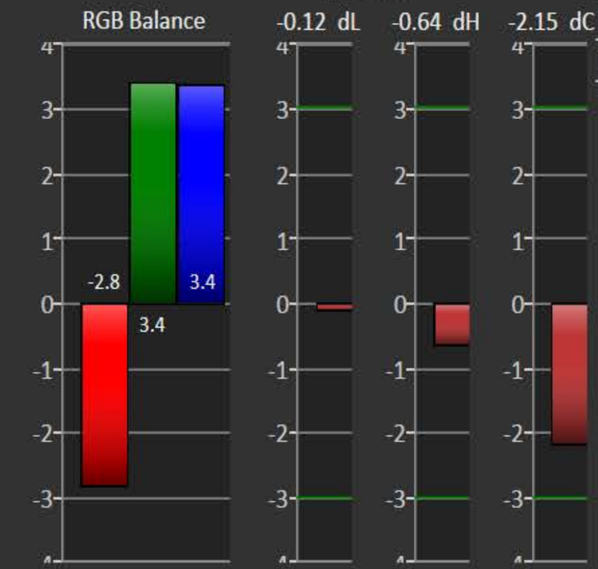
DeltaC — Max 3.17 — Avg 0.735

DeltaH — Max 0.884 — Avg 0.314



DeltaL — Max 1.603 — Avg 0.947





Nav Bar: CAL, Satur, Back, Next, Data, Prepare, Setup, PreCal Read, DyRng, Calibrate, Gray, Data, Lumi, C Chk, 3d Cb, PostCal Read, Analyze, Satur, Final Check, Satur

RGB | DDC | Notes | Luminance

Display Slot: ISF Day

Sweep Level: 25% Sweeps

← For basic CMS set to 70%/100% Only

25% | 50% | 75% | 100%

Notes | Back | Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Saturation Sweeps

Simulated Meter LCD Direct View (LED Backlight) | Source | Sharp Elite ISF Day

Saturation Sweeps Calibration

DeltaE 2000 Max 1.39 Avg 0.91

100% 75% 50% 25% 100

0 0.5 1 1.5 2 2.5 3

Triplet 180, 64, 64

75%

Y tgt 3.4(3.3

x tgt 0.5 0.5

y tgt 0.3 0.3

White 24.27

Color Notes Target = tgt

Color notes

Post-Calibration Notes

Calibration Description / Goals

Big

Notes

75%

DeltaC Max 3.17 Avg 0.735

DeltaH Max 0.884 Avg 0.314

Gamut Luminance

RGB Balance

-0.12 dL -0.64 dH -2.15 dC

-2.8 3.4 3.4

100 25% 50% 75% 100%

Lumi

C Chk

3d Cb

PostCal Read

Analyze

Satur

Final Check

Satur

RGB DDC Notes Luminance

Display Slot ISF Day

Sweep Level 25% Sweeps

← For basic CMS set to 70%/100% Only

25% 50% 75% 100%

Notes

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CalMAN 5 CalMAN Enthusiast for Home Video

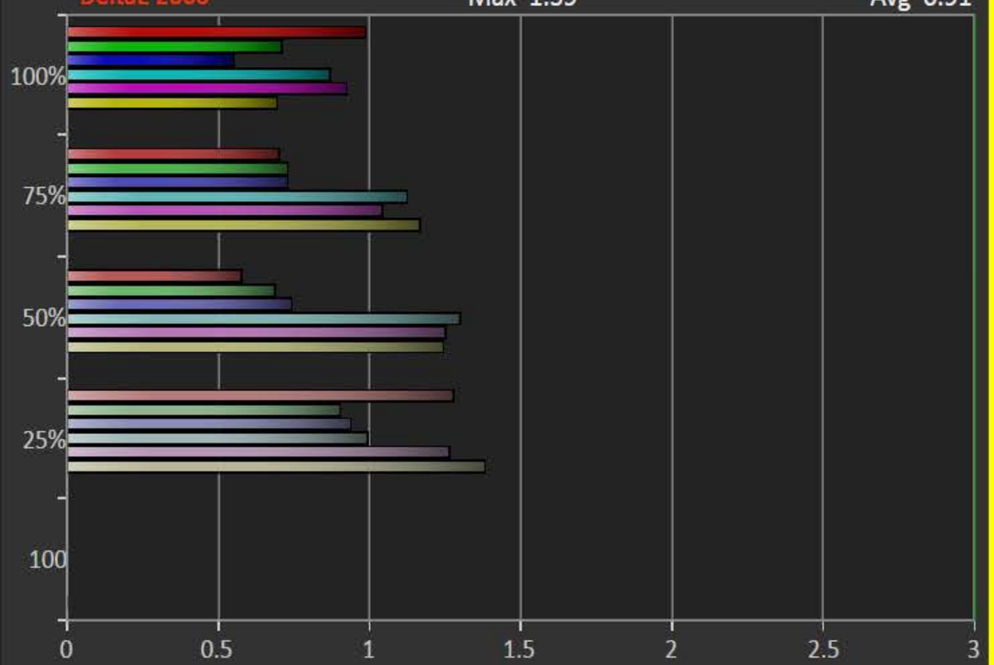
CalMAN 5

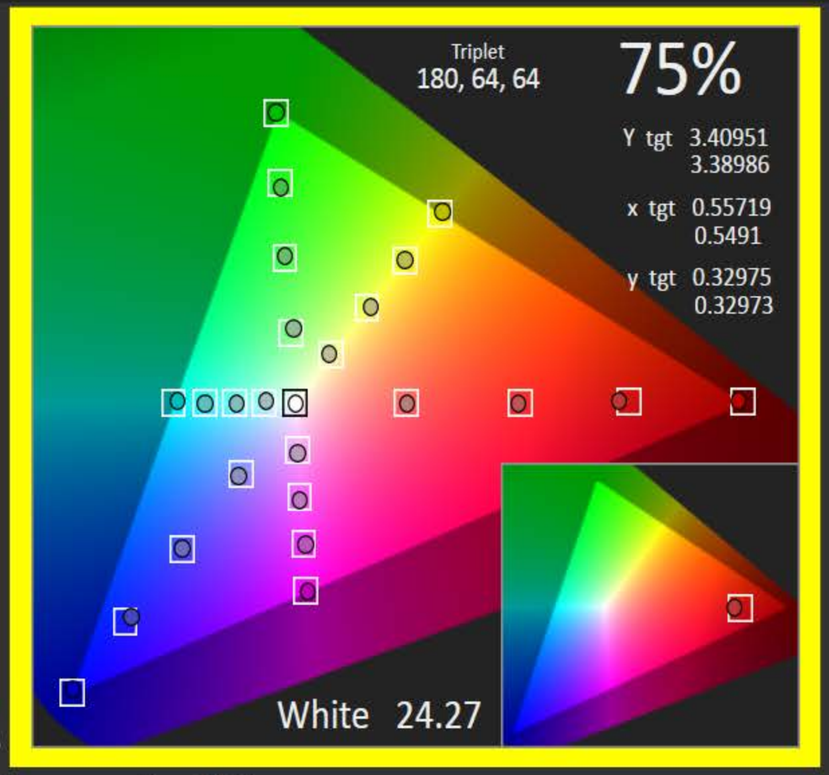
Saturation Sweeps

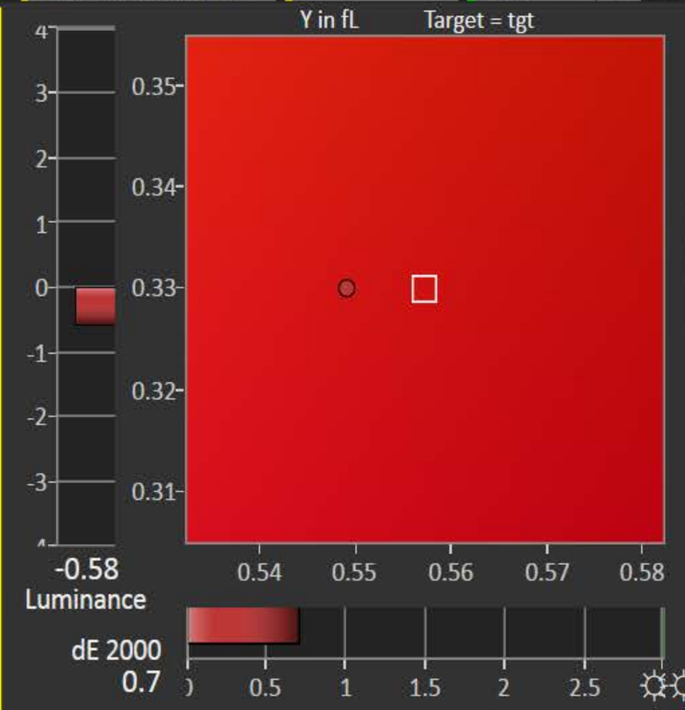
Simulated Meter LCD Direct View (LED Backlight) | Source | Sharp Elite ISF Day

Saturation Sweeps Calibration

DeltaE 2000 — Max 1.39 — Avg 0.91





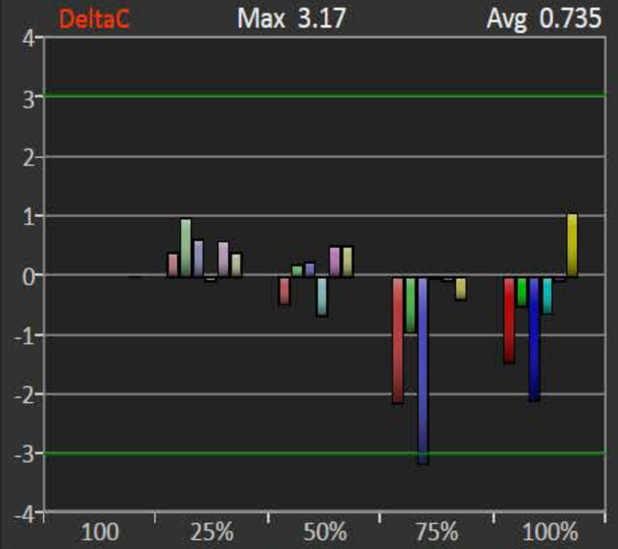


Nav Bar
CAL
Satur
Back
Next
Data
Prepare
Setup
PreCal Read
DyRng
Calibrate
Gray
Data
Lumi
C Chk
3d Cb
PostCal Read
Analyze
Satur
Final Check
Satur

Notes

75%

DeltaC — Max 3.17 — Avg 0.735

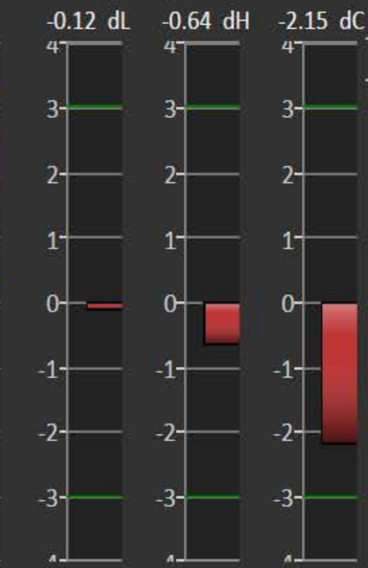


DeltaH — Max 0.884 — Avg 0.314

	Hue	Saturation	Luminance
Red	25	33	33
Green	30	34	29
Blue	22	39	32
Cyan	28	37	21
Magenta	36	26	32
Yellow	25	29	34

Reset CMS

RGB Balance



RGB | DDC | Notes | Luminance

Display Slot: ISF Day

Sweep Level: 25% Sweeps

← For basic CMS set to 70%/100% Only

25% 50% 75% 100%

Notes

Back Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Saturation Sweeps

Simulated Meter LCD Direct View (LED Backlight) | Source | Sharp Elite ISF Day

Saturation Sweeps Calibration

DeltaE 2000 — Max 1.39 — Avg 0.91

100% 75% 50% 25% 100

0 0.5 1 1.5 2 2.5 3

Triplet 180, 64, 64

75%

Y tgt 3.40951 3.38986

x tgt 0.55719 0.5491

y tgt 0.32975 0.32973

White 24.27

Y in fL — Target = tgt

0.35 0.34 0.33 0.32 0.31

0.54 0.55 0.56 0.57 0.58

-0.58 Luminance

dE 2000 0.7

0.5 1 1.5 2 2.5

Notes

75%

RGB Balance

R G B R G B R G B R G B

100 25% 50% 75% 100%

RGB Balance

-2.8 3.4 3.4

-0.12 dL -0.64 dH -2.15 dC

Nav Bar

CAL

Satur

Back

Next

Data

Prepare

Setup

PreCal Read

DyRng

Calibrate

Gray

Data

Lumi

C Chk

3d Cb

PostCal Read

Analyze

Satur

Final Check

Satur

RGB DDC Notes Luminance

Display Slot ISF Day

Sweep Level 25% Sweeps

← For basic CMS set to 70%/100% Only

25% 50% 75% 100%

Notes

Back Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Datagrid

Simulated Meter LCD Direct View (LED Backlight) | Source | Sharp Elite ISF Day

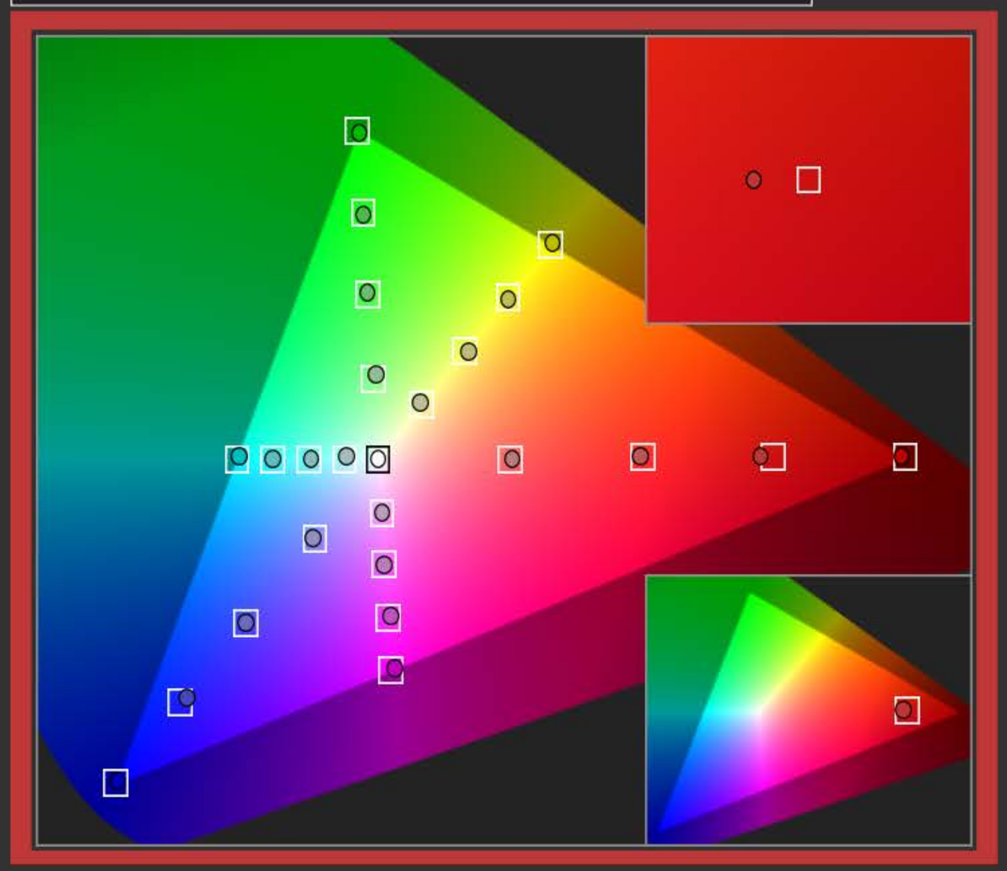
Saturation Sweep Calibration Data

Color Notes

Color notes

Post-Calibration Notes

75%



	25%	50%	75%	100%
RGB Triplet	180, 123, 123	180, 90, 90	180, 64, 64	180, 16, 16
RedIndex	180.00000	180.00000	180.00000	180.00000
GreenIndex	123.00000	90.00000	64.00000	16.00000
BlueIndex	123.00000	90.00000	64.00000	16.00000
X	25.95889	21.67141	19.34193	17.31783
Y cd/m²	21.62489	15.02344	11.61455	8.97979
Z	18.09262	8.89915	4.26830	0.91476
Xn 0-1	0.31215	0.26060	0.23258	0.20824
Yn 0-1	0.26004	0.18066	0.13966	0.10798
Zn 0-1	0.21756	0.10701	0.05133	0.01100
Stimulus Percent	0.74886	0.74886	0.74886	0.74886
RED Stim%:0-1	0.74886	0.74886	0.74886	0.74886
GRN Stim%:0-1	0.48858	0.33790	0.21918	0.00000
BLU Stim%:0-1	0.48858	0.33790	0.21918	0.00000
Measured Red Stimulus	0.73198	0.73860	0.73860	0.73198
Measured Green Stimulus	0.47489	0.33600	0.22808	0.04678
Measured Blue Stimulus	0.47487	0.33599	0.22807	0.04677
Stimulus	75.00000	75.00000	75.00000	75.00000
Target X cd/m²	27.40833	22.26490	19.73943	18.15275
Target Y cd/m²	22.90414	15.37752	11.68188	9.36001
Target Z cd/m²	19.25113	9.02592	4.00526	0.85091
Target Xn 0-1	0.32958	0.26773	0.23736	0.21828
Target Yn 0-1	0.27542	0.18491	0.14047	0.11255
Target Zn 0-1	0.23149	0.10854	0.04816	0.01023
TargetGamut:Nrml Y	0.52927	0.52927	0.52927	0.52927
TargetRED:Lin0-1	0.52927	0.52927	0.52927	0.52927
TargetGRN:Lin0-1	0.20686	0.09190	0.03546	0.00000

25% | 50% | 75% | 100%

Nav Bar

CAL

Calib

Prepare

Calibrate

Calib

Analyze

CAL

Notes Mgmt

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Gamut Luminance

Simulated Meter LCD Direct View (LED Backlight) | Source | Direct Display Control

Gamut Luminance Calibration

DeltaE 2000 Max 1.49 Avg 0.78

Triplet 16, 16, 235

100

Y tgt 1.75206 1.7792

x tgt 0.15 0.1505

y tgt 0.06 0.06082

White 24.27

Y in fL Target = tgt

1.55 Luminance

dE 2000 0.24

100

Notes

DeltaC Max 8.952 Avg 1.493

DeltaH Max 0.955 Avg 0.339

DeltaL Max 1.511 Avg 0.734

RGB Balance

3.3 0 3.3

0.25 dL -0.22 dH -1.37 dC

Nav Bar

CAL

Lumi

Back

Next

Data

Prepare

Setup

PreCal Read

DyRng

Calibrate

Gray

Satur

Data

C Chk

3d Cb

PostCal Read

Analyze

Lumi

Final Check

Lumi

RGB DDC Notes Luminance

Display Slot

Ramp Levels 4 Point 25% step 25-100%

Notes

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CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Color Checker

Simulated Meter LCD Direct View (LED Backlight) | Source | Direct Display Control

Color Checker Calibration

Orange Yellow

	DeltaE	DeltaL	DeltaH	DeltaC
Max	1.57	1.54	1.77	3.9
Avg	0.94	0.83	0.34	1.23

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

Orange Yellow

1.57 dE | -1.4 dL | 1.6 dH | -2.22 dC

dE 2000 1.57
dE Max 1.57
dE Avg 0.94

Orange Yellow

White 24.27

Y tgt 10.41275
9.91937

x tgt 0.47494
0.4753

y tgt 0.4427
0.43868

Triplet
213, 154, 55

Comparator
Notes
DDC

Display Slot

B -3.5
G -4.9
B 4.9
RGB Balance

-4.74 Luminance

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

Back | Next

Nav Bar
CAL
CChkr
Back
Next
Data
Prepare
Setup
PreCal Read
DyRng
Calibrate
Gray
Satur
Lumi
Data
3d Cb
PostCal Read
Analyze
C Chk
Final Check
CChkr
Notes

CalMAN 5 CalMAN Enthusiast for Home Video

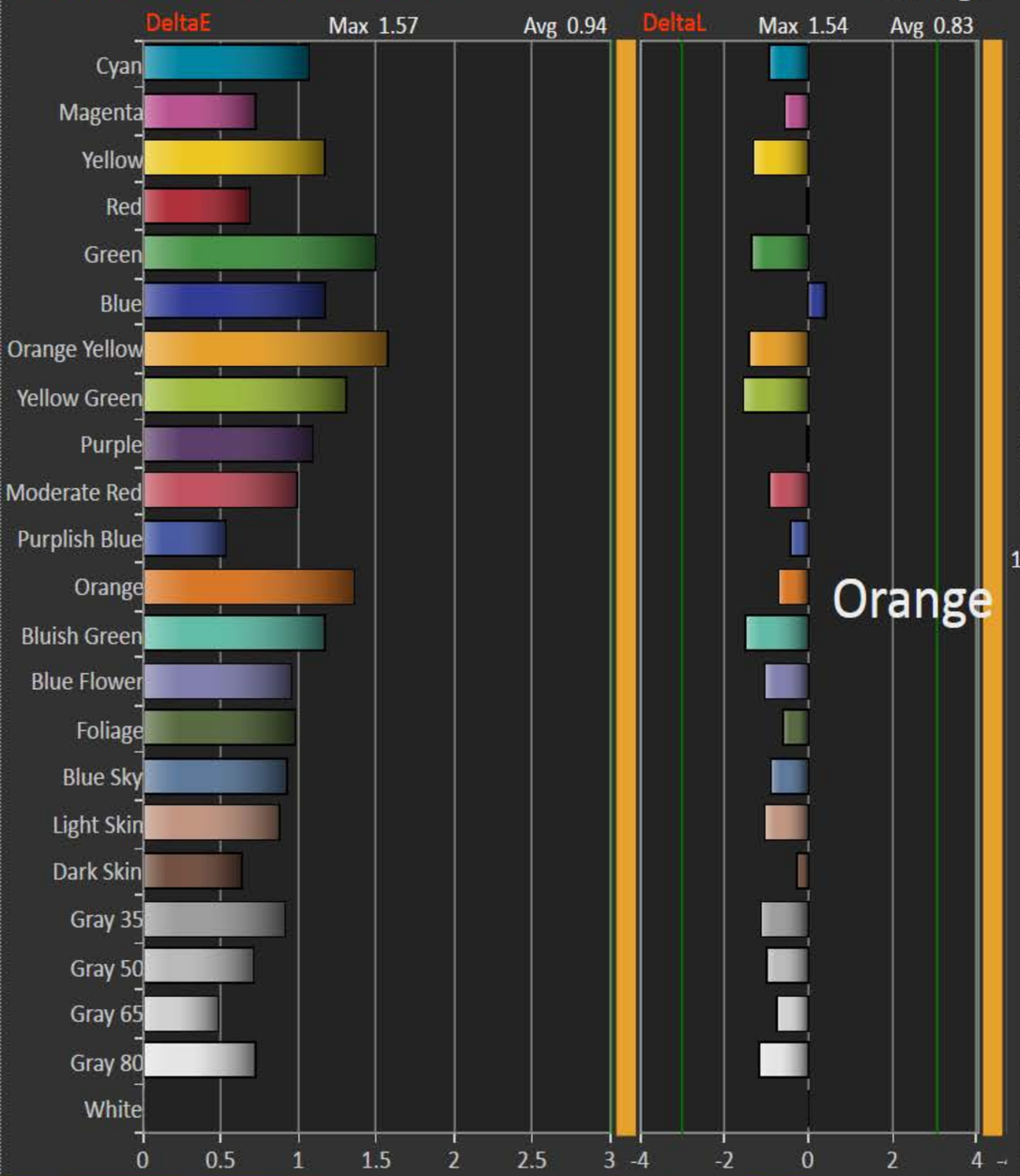
CalMAN 5

Color Checker

Simulated Meter LCD Direct View (LED Backlight) | Source | Sharp Elite ISF Day

Color Checker Calibration

DeltaE Max 1.57 Avg 0.94 | DeltaL Max 1.54 Avg 0.83

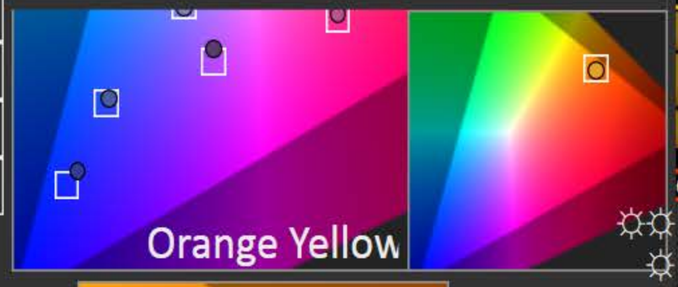


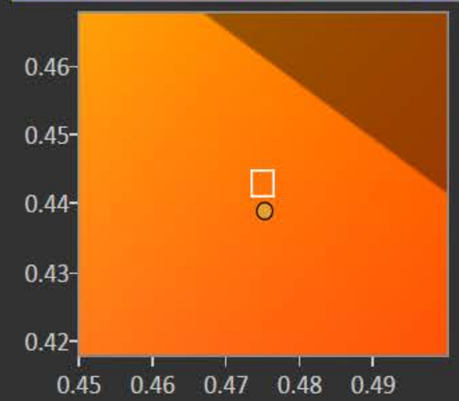
Reset Grayscale

Orange	Red	Green	Blue
0	52	42	22
10	88	57	56
20	69	54	42
30	57	49	34
40	63	51	31
50	52	43	25
60	51	42	24
70	51	42	22
80	51	41	22
90	52	41	21
100	52	42	22

	Hue	Saturation	Luminance
Red	25	33	33
Green	30	34	29
Blue	22	39	32
Cyan	28	37	21
Magenta	36	26	32
Yellow	25	29	34

Reset CMS





White 24.27

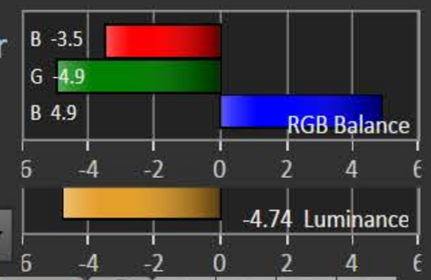
Y tgt 10.41275
9.91937

x tgt 0.47494
0.4753

y tgt 0.4427
0.43868

Triplet
213, 154, 55

Comparator
Notes
DDC



Display Slot
ISF Day

1.57 dE | -1.4 dL | 1.6 dH | -2.22 dC

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

Back | Next

Nav Bar
CAL
CChkr
Back
Next
Data
Prepare
Setup
PreCal Read
DyRng
Calibrate
Gray
Satur
Lumi
Data
3d Cb
PostCal Read
Analyze
C Chk
Final Check
CChkr
Notes

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Color Checker

Simulated Meter LCD Direct View (LED Backlight) | Source | Sharp Elite ISF Day

Color Checker Calibration

Orange Yellow

	DeltaE	DeltaL	DeltaH	DeltaC
Max	1.57	1.54	1.77	3.9
Avg	0.94	0.83	0.34	1.23

Cyan, Magenta, Yellow, Red, Green, Blue, Orange Yellow, Yellow Green, Purple, Moderate Red, Purplish Blue, Orange, Bluish Green

dE 2000 1.57
dE Max 1.57
dE Avg 0.94

Orange Yellow

Color Notes

Color 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

Light Skin, Dark Skin, Gray 35, Gray 50, Gray 65, Gray 80, White

1.57 dE

Post-Calibration Notes

Calibration Description / Goals

x tgt 0.47494
0.4753
y tgt 0.4427
0.43868

Triplet
213, 154, 55

Comparator
Notes
DDC

Display Slot
ISF Day

Big

B -3.5
G -4.9
B 4.9
RGB Balance

-4.74 Luminance

Nav Bar
CAL
CChkr
Back
Next
Data
Prepare
Setup
PreCal Read
DyRng
Calibrate
Gray
Satur
Read
Analyze
C Chk
Final Check
CChkr
Notes
Back
Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Datagrid

Simulated Meter LCD Direct View (LED Backlight) | Source | Sharp Elite ISF Day

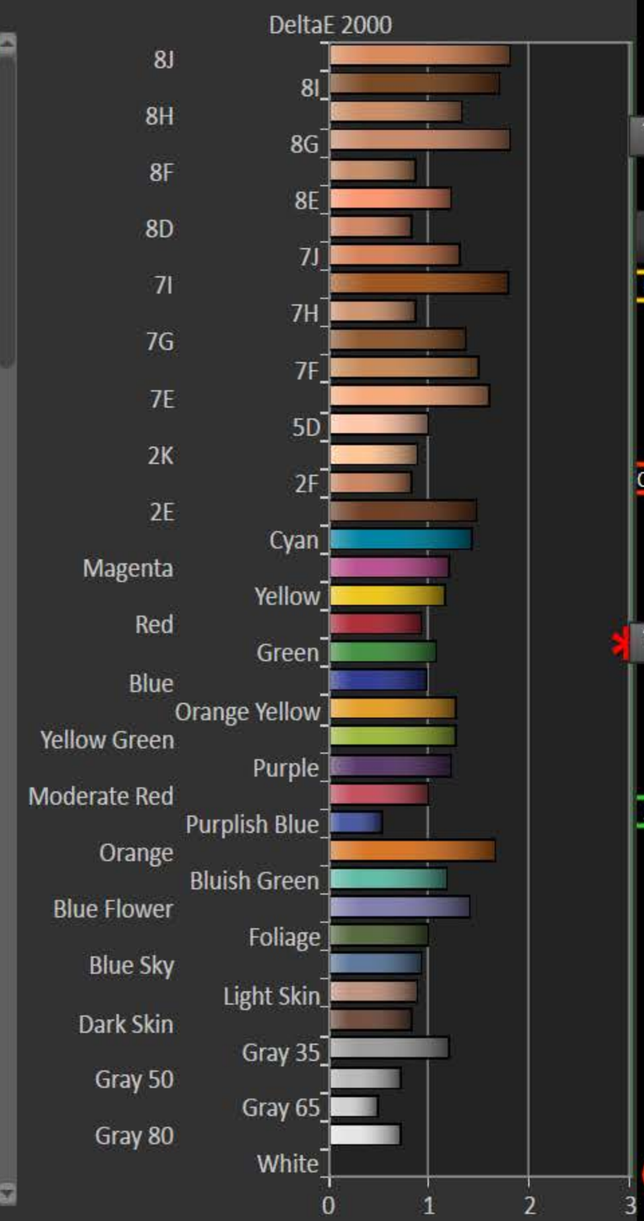
Color Checker Calibration Data

Color Notes: Color notes

Post-Cal Notes:

Nav Bar CAL

	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
RedIndex	235.0000	213.0000	196.0000	176.0000	152.0000	115.0000	182.0000	97.0000	93.0000	128.0000	101.0000	202.0000
GreenIndex	235.0000	213.0000	196.0000	176.0000	152.0000	86.0000	145.0000	121.0000	108.0000	126.0000	178.0000	119.0000
BlueIndex	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	79.0402	60.6077	50.2133	38.3672	26.6026	8.9618	30.2821	14.2960	8.4439	19.7625	24.3448	28.6760
Y cd/m²	83.1609	63.7674	52.8311	40.3675	27.9807	8.1038	28.4349	15.2038	10.5808	18.5754	33.5003	22.6453
Z	90.5553	69.4374	57.5287	43.9568	29.9464	5.3231	21.1181	27.7881	5.8283	35.3777	35.1467	4.5531
Xn 0-1	0.9504	0.7288	0.6038	0.4614	0.3199	0.1078	0.3641	0.1719	0.1015	0.2376	0.2927	0.3448
Yn 0-1	1.0000	0.7668	0.6353	0.4854	0.3365	0.0974	0.3419	0.1828	0.1272	0.2234	0.4028	0.2723
Zn 0-1	1.0889	0.8350	0.6918	0.5286	0.3601	0.0640	0.2539	0.3341	0.0701	0.4254	0.4226	0.0548
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	1.0000	0.8863	0.8136	0.7200	0.6123	0.4439	0.7479	0.3658	0.3487	0.4969	0.3796	0.8345
Measured Green Stimulus	1.0000	0.8863	0.8137	0.7200	0.6092	0.3191	0.5777	0.4703	0.4133	0.4881	0.7228	0.4574
Measured Blue Stimulus	1.0000	0.8863	0.8136	0.7200	0.6040	0.2649	0.5014	0.6004	0.2649	0.6722	0.6448	0.1746
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	79.0417	62.6188	51.3427	39.6226	27.7118	9.1749	31.3572	14.8395	8.6289	21.0049	25.6535	29.8672
Target Y cd/m²	83.1609	65.8822	54.0184	41.6875	29.1560	8.2308	29.5487	15.8221	10.9087	19.7682	35.2671	23.7661
Target Z cd/m²	90.5597	71.7437	58.8244	45.3964	31.7500	5.1771	22.0456	28.9698	5.7226	37.4300	37.2134	4.4070
Target Xn 0-1	0.9505	0.7530	0.6174	0.4765	0.3332	0.1103	0.3771	0.1784	0.1038	0.2526	0.3085	0.3591
Target Yn 0-1	1.0000	0.7922	0.6496	0.5013	0.3506	0.0990	0.3553	0.1903	0.1312	0.2377	0.4241	0.2858
Target Zn 0-1	1.0890	0.8627	0.7074	0.5459	0.3818	0.0623	0.2651	0.3484	0.0688	0.4501	0.4475	0.0530
TargetGamut:Nrml Y	1.0000	0.7922	0.6496	0.5013	0.3506	0.1743	0.5436	0.3394	0.1484	0.4413	0.5152	0.6982
TargetRED:Lin0-1	1.0000	0.7922	0.6496	0.5013	0.3506	0.1743	0.5436	0.1121	0.1003	0.2287	0.1247	0.6982
TargetGRN:Lin0-1	1.0000	0.7922	0.6496	0.5013	0.3506	0.0813	0.3121	0.1984	0.1484	0.2198	0.5152	0.1902
TargetBLU:Lin0-1	1.0000	0.7922	0.6496	0.5013	0.3506	0.0518	0.2287	0.3394	0.0518	0.4413	0.4037	0.0177
TargetGamut:Nrml MaxY	1.0000	1.0000	1.0000	1.0000	1.0000	0.5677	0.6537	0.5607	0.8841	0.5386	0.8232	0.4093
Target x:CIE31	0.3127	0.3127	0.3127	0.3127	0.3127	0.4063	0.3780	0.2489	0.3416	0.2686	0.2614	0.5146
Target y:CIE31	0.3290	0.3290	0.3290	0.3290	0.3290	0.3645	0.3562	0.2653	0.4319	0.2528	0.3594	0.4095



Calib

Prepare

Calibrate

Calib

Analyze

CAL

Notes Mgmt

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

3D Color Cube LUT

Simulated Meter LCD Direct View (LED Backlight) | Source | Direct Display Control

3D Color Cube LUT Calibration

DeltaE 2000

100 0 0

74.9 0 0

50.2 0 0

25.1 0 0

0 0 0

0 0.5 1 1.5 2 2.5 3

Delta E

Avg 0.54

Max 4.04 @ 25.1 50.2 100

dE 0.9 @ 74.9 0 0

Y in fL Target = tgt

0.35 0.34 0.33 0.32 0.31

0.62 0.63 0.64 0.65 0.66

dL -0.65 dH -0.88 dC -2.44

RGB Balance

-4.1 3.2 3.2

Points 125

White 24.59

Triplet 180, 16, 16

Y tgt 2.76816 2.67329

x tgt 0.64 0.6364

y tgt 0.33 0.32999

dE Avg 0.54

25.1 50.2 100 dE Max 4.04

74.9 0 0 dE 0.9

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

Notes

Comparator

Luminance Level Points

5 Points per side, SMPTE legal

Inner Data Points | Display Slot | Selected LUT

Nav Bar

CAL

3D Cb

Back | Next | Data | Prepare | Setup | PreCal Read | DyRng | Calibrate | Gray | Satur | Lumi | C Chk | Data | PostCal Read | Analyze | 3d Cb | Final Check | 3D Cb

10 20 30 40 50 60 70 80 90 100

Notes

Back Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

3D Color Cube LUT

Simulated Meter LCD Direct View (LED Backlight) | Source | Direct Display Control

3D Color Cube LUT Calibration

Y in fL Target = tgt Points 517

DeltaE 2000

Color Notes

Color notes

Post-Calibration Notes

Post-cal notes

Calibration Description / Goals

Calibration description

Big

dL -4.41 dH -1.52 dC -7.42 RGB Balance

White 29.19

Triplet 180, 16, 16

Y tgt 3.28501 2.56846

x tgt 0.64 0.6384

y tgt 0.33 0.32799

dE Avg 0.36

98.6 0 0 dE Max 5.15

74.9 0 0 dE 4.17

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

Notes

Comparator

Luminance Level Points

61 Points per side. Black level SMPTE legal. White level

Nav Bar | CAL | 3D Cb | Back | Next | Data | Prepare | Setup | PreCal Read | DyRng | Calibrate | Gray | Satur | Lumi | C Chk | Data | PostCal Read | Analyze | 3d Cb | Final Check | 3D Cb

Ramp 16 16

Back Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Datagrid

Simulated Meter
LCD Direct View (LED Backlight)

Source

Direct Display Control

3D Color Cube LUT Calibration Data

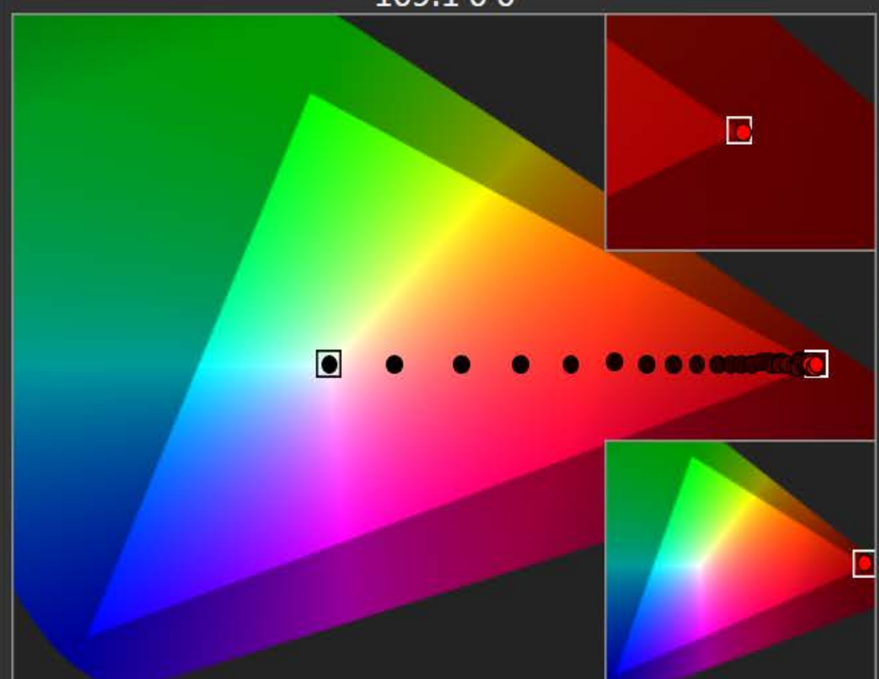
Color Notes

Color notes

Post-Calibration Notes

Calibration notes & observations

109.1 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
RedIndex	16.00000	20.00000	24.00000	28.00000	32.00000	36.00000	40.00000	44.00000	48.00000	52.00000	56.00000	60.00
GreenIndex	16.00000	16.00000	16.00000	16.00000	16.00000	16.00000	16.00000	16.00000	16.00000	16.00000	16.00000	16.00
BlueIndex	16.00000	16.00000	16.00000	16.00000	16.00000	16.00000	16.00000	16.00000	16.00000	16.00000	16.00000	16.00
X	0.09560	0.12659	0.16844	0.22218	0.28313	0.36837	0.46407	0.57437	0.68705	0.83039	0.98513	1.160
Y cd/m²	0.10059	0.11657	0.13814	0.16586	0.19627	0.24163	0.29058	0.34745	0.40455	0.47697	0.55825	0.648
Z	0.10953	0.11099	0.11295	0.11547	0.11626	0.11870	0.12680	0.13197	0.13520	0.13889	0.14917	0.157
Xn 0-1	0.00096	0.00127	0.00168	0.00222	0.00283	0.00368	0.00464	0.00574	0.00687	0.00830	0.00985	0.011
Yn 0-1	0.00101	0.00117	0.00138	0.00166	0.00196	0.00242	0.00291	0.00347	0.00405	0.00477	0.00558	0.006
Zn 0-1	0.00110	0.00111	0.00113	0.00115	0.00116	0.00119	0.00127	0.00132	0.00135	0.00139	0.00149	0.001
Stimulus Percent	0.00000	0.01826	0.03653	0.05479	0.07306	0.09132	0.10959	0.12785	0.14612	0.16438	0.18265	0.200
RED Stim%:0-1	0.00000	0.01826	0.03653	0.05479	0.07306	0.09132	0.10959	0.12785	0.14612	0.16438	0.18265	0.200
GRN Stim%:0-1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.000
BLU Stim%:0-1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.000
Measured Red Stimulus	0.04340	0.05593	0.06881	0.08198	0.09456	0.10903	0.12295	0.13701	0.14990	0.16460	0.17859	0.193
Measured Green Stimulus	0.04340	0.04340	0.04340	0.04340	0.04301	0.04352	0.04340	0.04340	0.04301	0.04243	0.04301	0.043
Measured Blue Stimulus	0.04340	0.04340	0.04340	0.04340	0.04301	0.04263	0.04340	0.04340	0.04301	0.04243	0.04301	0.043
Stimulus	0.00000	2.00000	3.70000	5.50000	7.30000	9.00000	11.00000	13.00000	14.60000	16.40000	18.30000	20.00
Target X cd/m²	0.00000	0.00618	0.02839	0.06927	0.13045	0.21312	0.31830	0.44680	0.59937	0.77666	0.97926	1.207
Target Y cd/m²	0.00000	0.00319	0.01464	0.03572	0.06726	0.10989	0.16412	0.23038	0.30905	0.40047	0.50493	0.622
Target Z cd/m²	0.00000	0.00029	0.00133	0.00325	0.00611	0.00999	0.01492	0.02094	0.02810	0.03641	0.04590	0.056
Target Xn 0-1	0.00000	0.00006	0.00028	0.00069	0.00130	0.00213	0.00318	0.00447	0.00599	0.00777	0.00979	0.012
Target Yn 0-1	0.00000	0.00003	0.00015	0.00036	0.00067	0.00110	0.00164	0.00230	0.00309	0.00400	0.00505	0.006
Target Zn 0-1	0.00000	0.00000	0.00001	0.00003	0.00006	0.00010	0.00015	0.00021	0.00028	0.00036	0.00046	0.000
TargetGamut:Nrml Y	0.00000	0.00015	0.00069	0.00168	0.00316	0.00517	0.00772	0.01083	0.01453	0.01883	0.02374	0.029
TargetRED:Lin0-1	0.00000	0.00015	0.00069	0.00168	0.00316	0.00517	0.00772	0.01083	0.01453	0.01883	0.02374	0.029
TargetGRN:Lin0-1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.000
TargetBLU:Lin0-1	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.000
TargetGamut:Nrml MaxY	1.00000	0.21266	0.21266	0.21266	0.21266	0.21266	0.21266	0.21266	0.21266	0.21266	0.21266	0.212
Target x:CIE31	0.31271	0.64000	0.64000	0.64000	0.64000	0.64000	0.64000	0.64000	0.64000	0.64000	0.64000	0.640
Target y:CIE31	0.32901	0.33000	0.33000	0.33000	0.33000	0.33000	0.33000	0.33000	0.33000	0.33000	0.33000	0.330

Ramp 16 16

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 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

Nav Bar

CAL

Calib

Prepare

Calibrate

Calib

Analyze

3D Cb

CAL

Detail

Notes Mgmt

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Post-Cal Readings

Simulated Meter LCD Direct View (LED Backlight) | Source | Direct Display Control

Post-Calibration Readings

Gamma Breakout Tot 2.25 Y Min 0.0293582 Y Max 24.27

1 Grayscale

Detail Charts DeltaE 0.01 Avg 1.05 Max 2.24 100

4 Color Checker

Detail Charts DeltaE 0.56 Avg 1.29 Max 2.7

2 Saturation Sweeps

Detail Charts DeltaE 0.28 Max 1.58 Avg 0.79

3 Gamut Luminance

Detail Charts DeltaE 0.79 Max 1.64 Avg 0.87

Populate Gamut for HT report

1 Grayscale: 21 Point 5% step 0-100%

2 Saturation: 25% Sweeps

3 Luminance: 4 Point 25% step 25-100%

4 Color Checker

Display Slot

Mode • ISF Night

Post-Cal Readings

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

Post-Cal Notes | Big

Post-cal notes

Use [···] below to read ALL series or select a series above

Nav Bar: CAL PstCal Read | Back | Next | PreRead | Prepare | Setup | PreRead | DyRng | Calibrate: Gray Satur Lumi C Chk 3d Cb | PreRead | Analyze: Gray Satur Lumi C Chk 3d Cb | Final Check | PstCal Read

PreCal Read | Notes | Back | Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Post-Calibration

Simulated Meter LCD Direct View (LED Backlight) | Source | Direct Display Control

Post-Cal Grayscale Detail

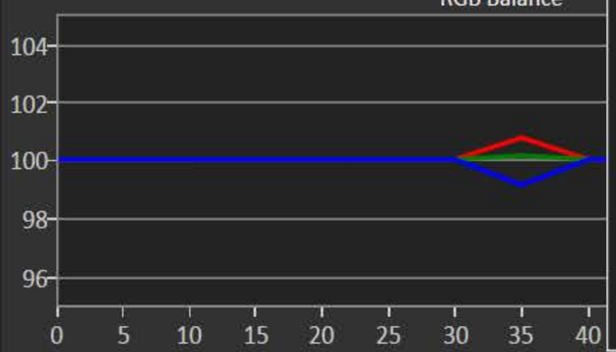
	0	5	10	15	20	25
Target x:CIE31	0.3127	0.3127	0.3127	0.3127	0.3127	0.
x: CIE31	0.3127	0.3127	0.3127	0.3127	0.3127	0.
Target y:CIE31	0.3290	0.3290	0.3290	0.3290	0.3290	0.
y: CIE31	0.3290	0.3290	0.3290	0.3290	0.3290	0.
Target Y	0.0000	0.0337	0.1547	0.3774	0.7108	1.
Y	0.0288	0.1086	0.2552	0.4819	0.7995	1.
Gamma Point: Flat	2.2000	1.8084	1.9821	2.0710	2.1267	2.
ΔE 2000	0.6160	1.6336	2.2393	1.6018	0.9944	0.

Post-Calibration Notes

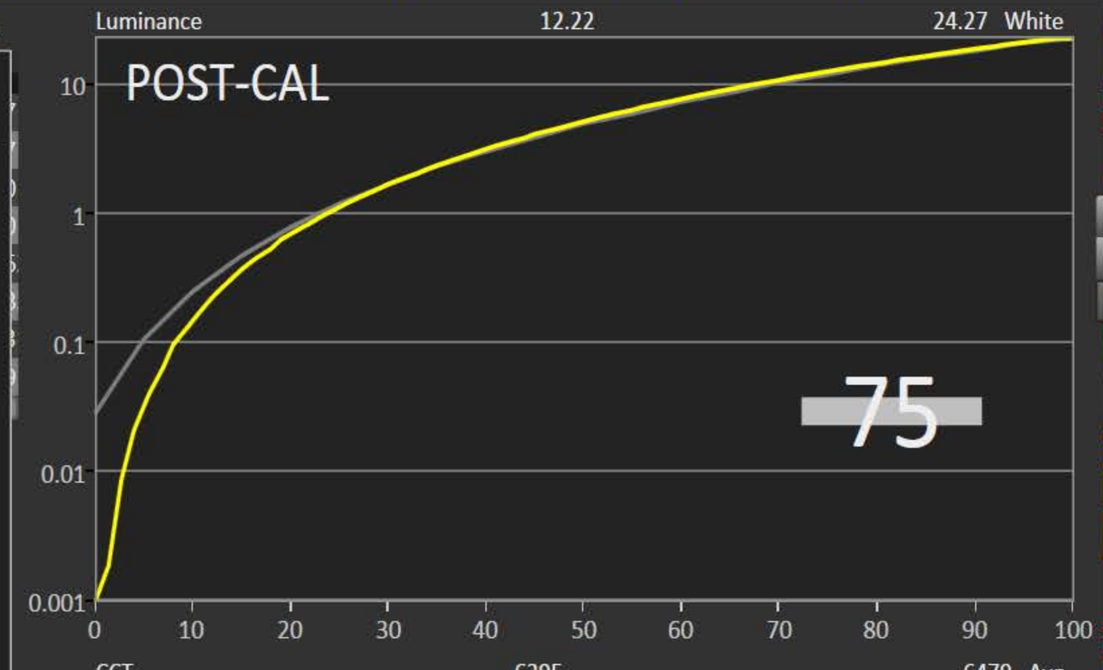
Notes

Post-cal notes

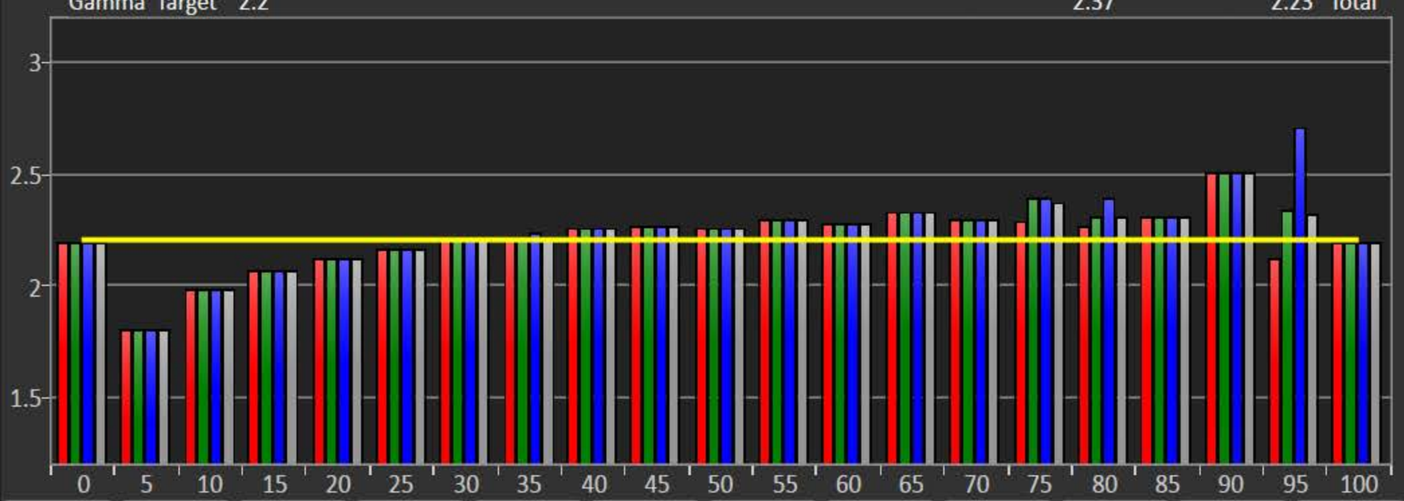
RGB Balance



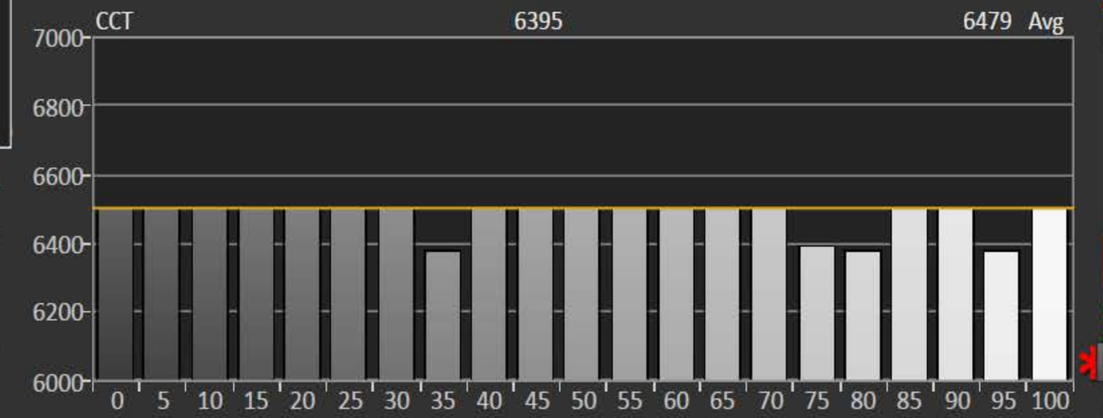
Luminance 12.22 24.27 White



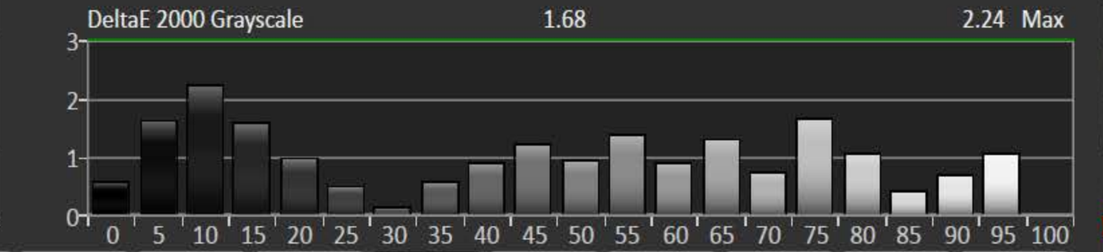
Gamma Target 2.2 2.37 2.23 Total



CCT 6395 6479 Avg



DeltaE 2000 Grayscale 1.68 2.24 Max



0 5 10 15 20 25 30 35 40 45 50 55 60 65 70 75 80 85 90 95 100

Nav Bar: ANL, PstCal, Gray, Back, Next, PreCal, D-Grid, Prepare, Setup, PreCal Read, Calibrate, Gray, PostCal Read, Analyze, PreCal, Satur, Lumi, C Chk, 3d Cb, Final Check, PstCal, Gray, D-Grid

Notes Mgmt | Pre-Cal

Back | Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Post-Calibration

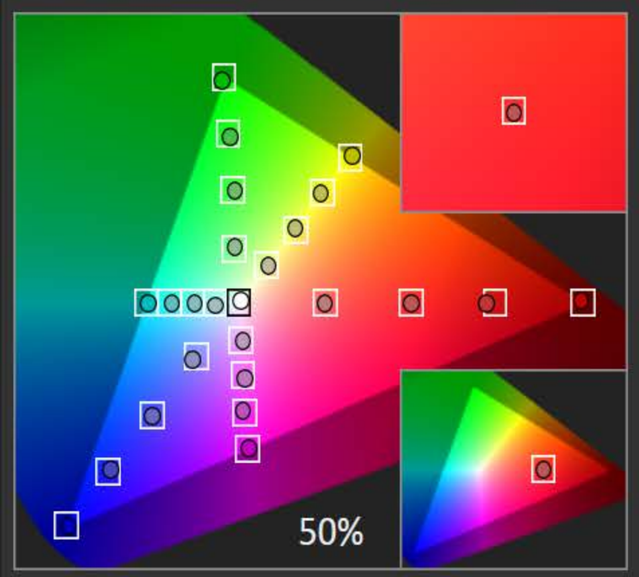
Simulated Meter
LCD Direct View (LED Backlight)

Source

Direct Display Control

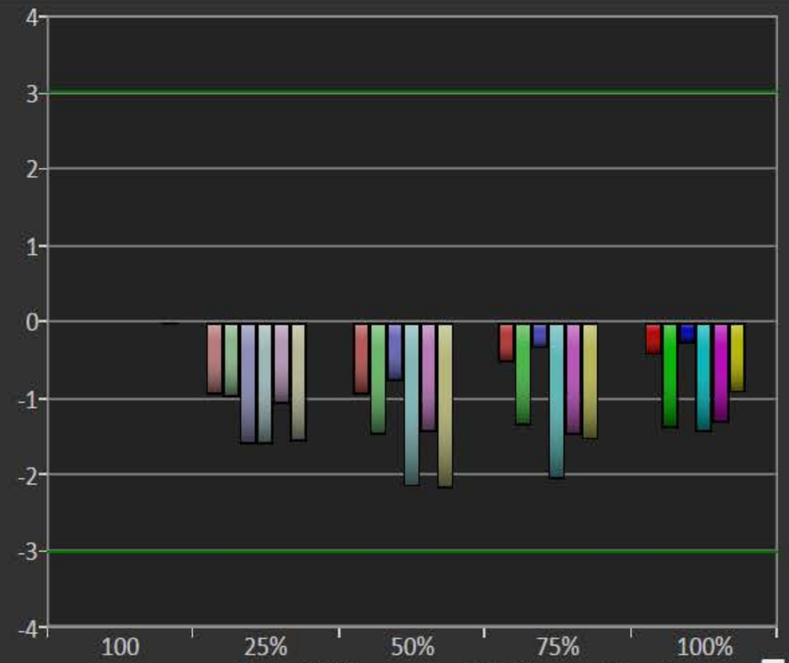
Post-Cal Saturation Sweeps Detail

Notes



Max 1.7579 DeltaE 2000 0.9627

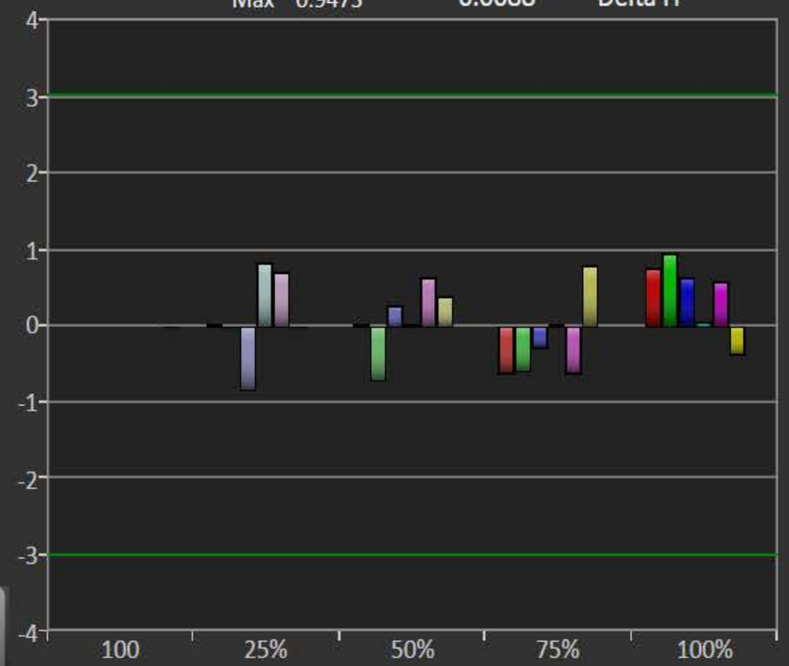
25% 50% 75% 100%



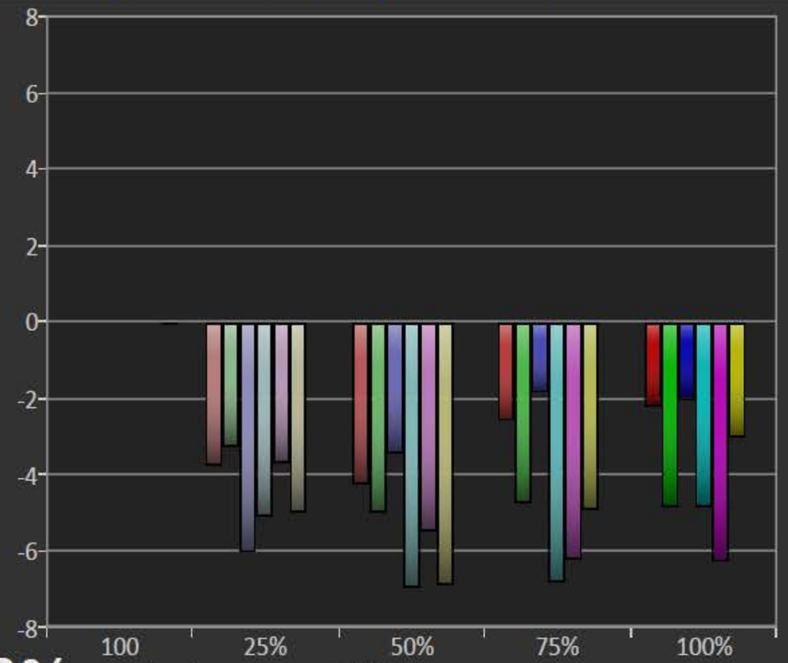
PostCal

Max 2.1508 -0.9426 Delta L

Max 0.9473 0.0088 Delta H



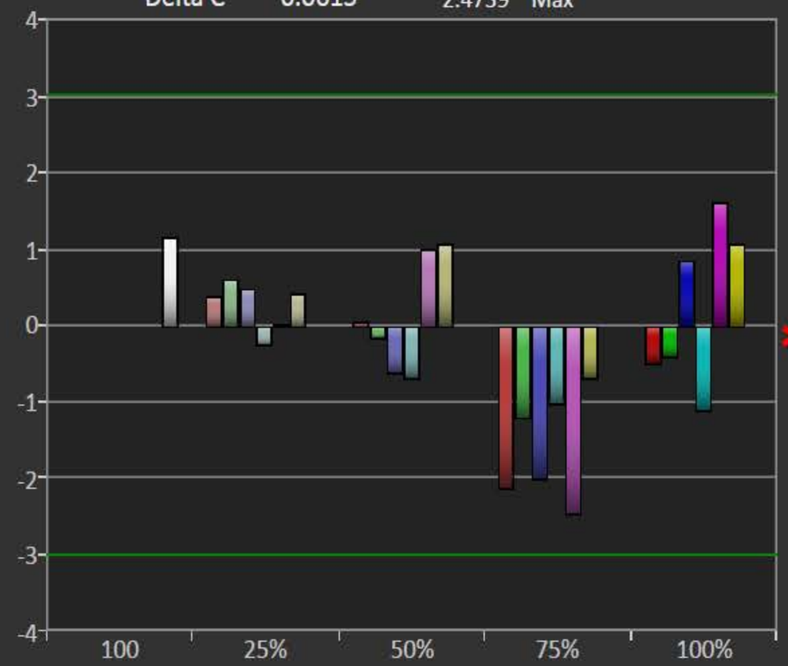
50%



Luminance -4.2182

Delta C 0.0615 2.4739 Max

PostCal



Nav Bar
ANL
PstCal
Satur
Back
Next
PreCal
D-Grid
Prepare
Setup
PreCal Read
Calibrate
Satur
PostCal Read
Analyze
Gray
PreCal
Lumi
C Chk
3d Cb
Final Check
PstCal
Satur
D-Grid

Notes Mgmt Pre-Cal

Back Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Post-Calibration

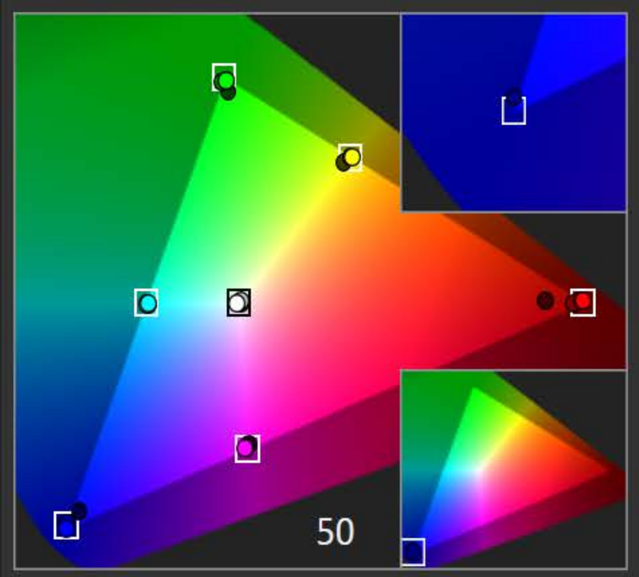
Simulated Meter
LCD Direct View (LED Backlight)

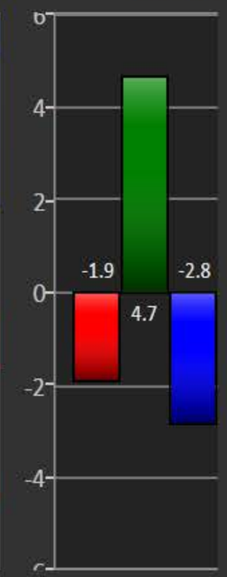
Source

Direct Display Control

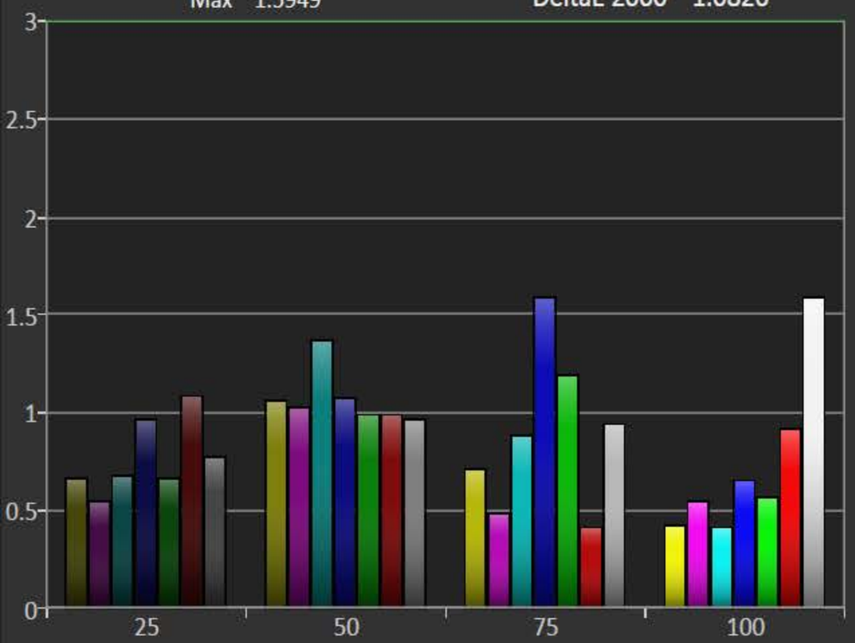
Post-Cal Gamut Luminance Detail

Notes

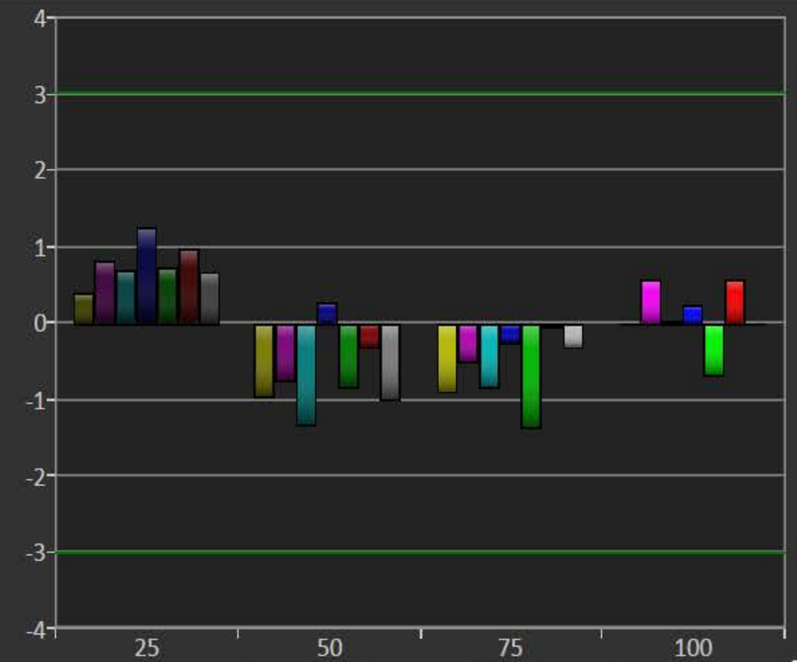




Max 1.5949 DeltaE 2000 1.0826



25 50 75 100

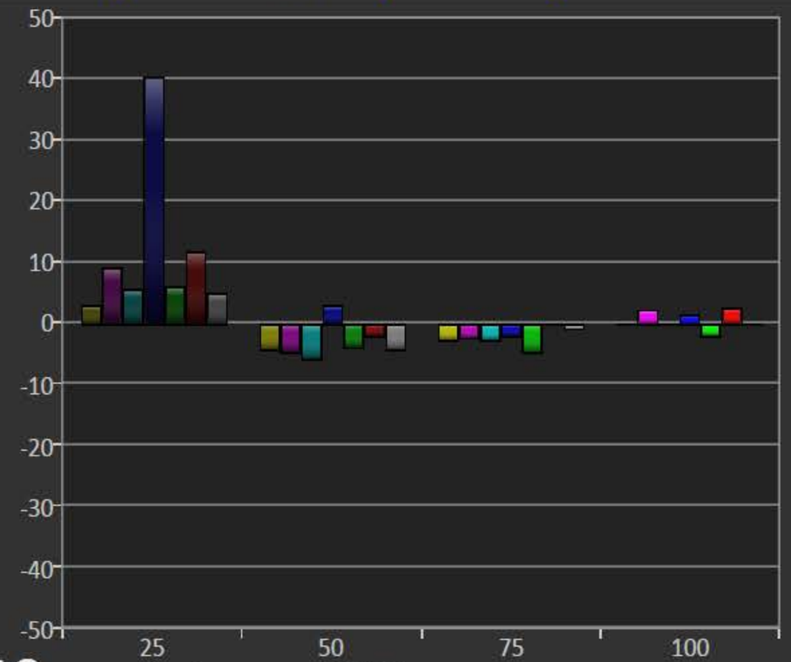


PostCal

Max 1.3751 0.2718 Delta L

Max 2.2178 -1.2918 Delta H

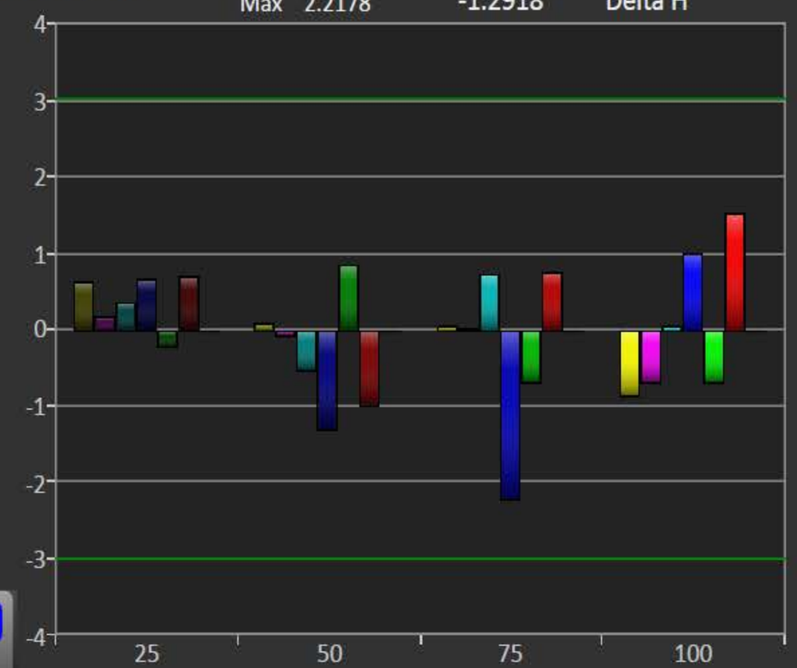
50



Luminance 2.8237

Delta C -4.1492 9.9709 Max

PostCal



25 50 75 100

Nav Bar
ANL
PstCal
Lumi
Back
Next
PreCal
D-Grid
Prepare
Setup
PreCal Read
Calibrate
Lumi
PostCal Read
Analyze
Gray
Satur
PreCal
C Chk
3d Cb
Final Check
PstCal
Lumi
D-Grid

Notes Mgmt Pre-Cal

Back Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Post-Calibration

Simulated Meter LCD Direct View (LED Backlight) | Source | Direct Display Control

Post-Cal Color Checker Detail

PostCal - Orange Yellow

Color notes

Color Notes | Big | Post-Cal Notes

CIE Chart

Post-cal notes

DeltaE 2000 1.888 Max 1.888 | DeltaH -2.744 Max 2.744 | DeltaC -1.609 Max 4.129 | Gamut Luminance -2.833 | DeltaL -0.834 Max 1.114

8J, 8H, 8F, 8D, 7I, 7G, 7E, 2K, 2E, Magenta, Red, Blue, Yellow Green, Moderate Red, Orange, Blue Flower, Blue Sky, Dark Skin, Gray 50, Gray 80

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

Nav Bar | ANL | PstCal | CChkr | Back | Next | PreCal | D-Grid | Prepare | Setup | PreCal Read | Calibrate | C Chk | PostCal Read | Analyze | Gray | Satur | Lumi | PreCal | 3d Cb | Final Check | PstC | CChk | D-Grid

Notes Mgmt | Pre-Cal

Back | Next

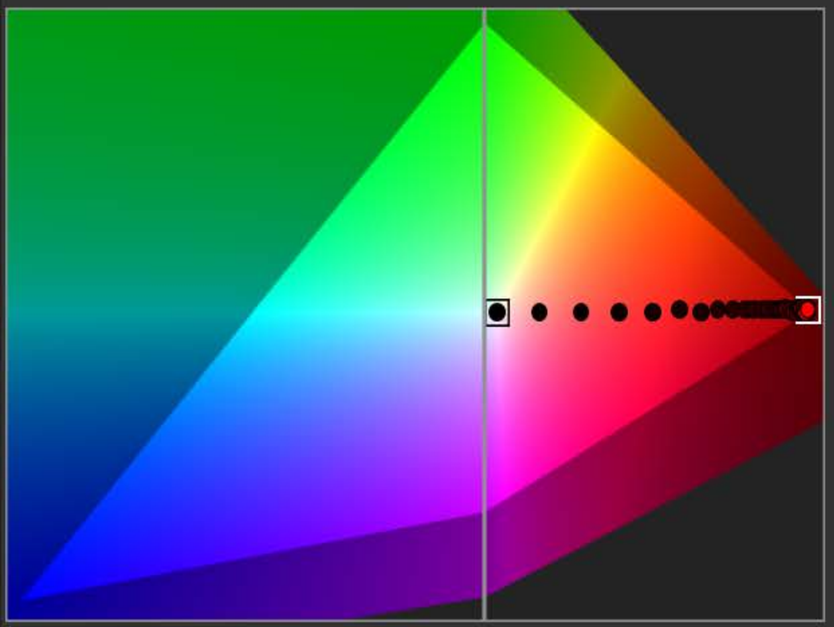
CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

DeltaE DeltaL Lminance | DeltaE DeltaH DeltaC

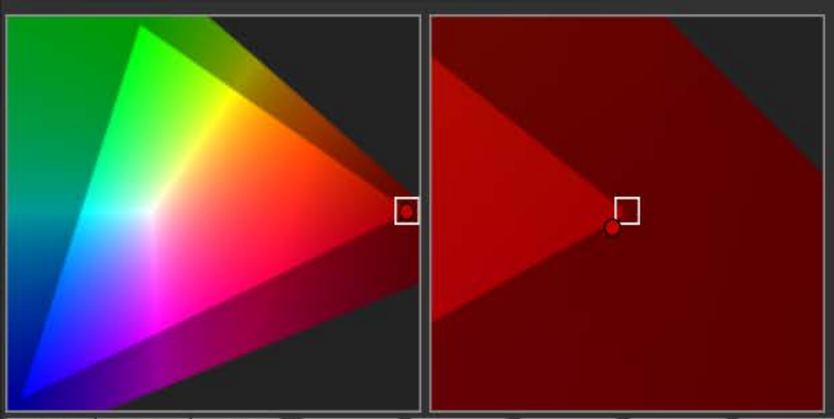
Simulated Meter LCD Direct View (LED Backlight) | Source | Direct Display Control

3D Color Cube LUT Calibration Detail 1

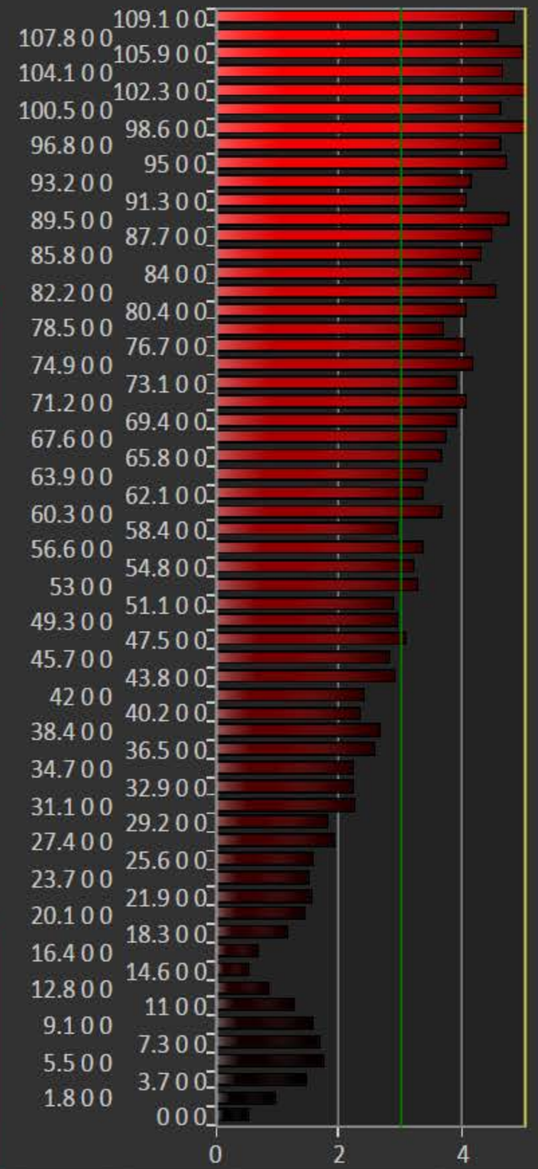


Red | Green | Blue | White

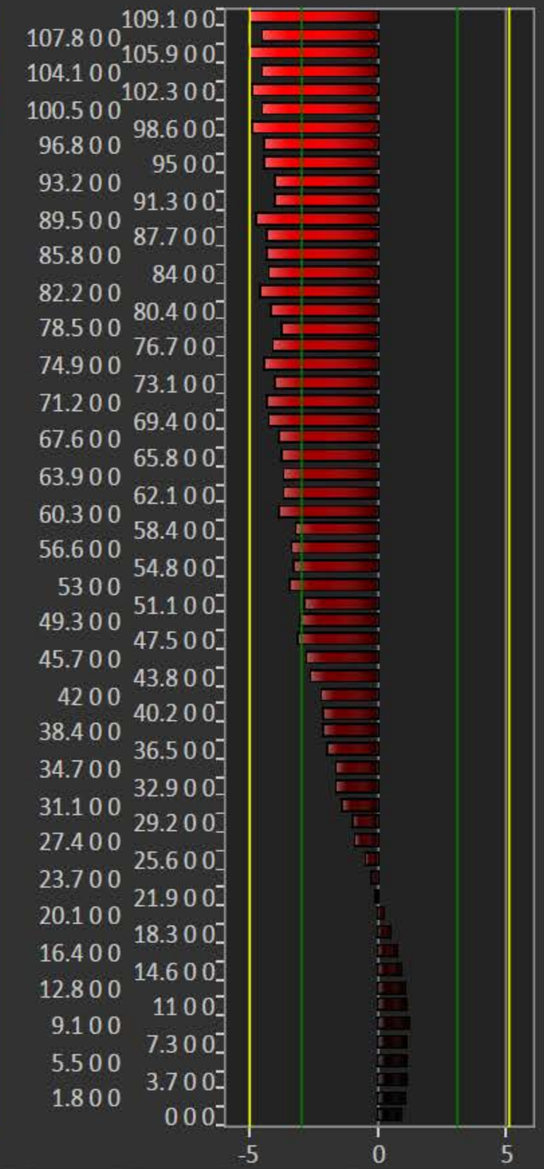
Cyan | Magenta | Yellow



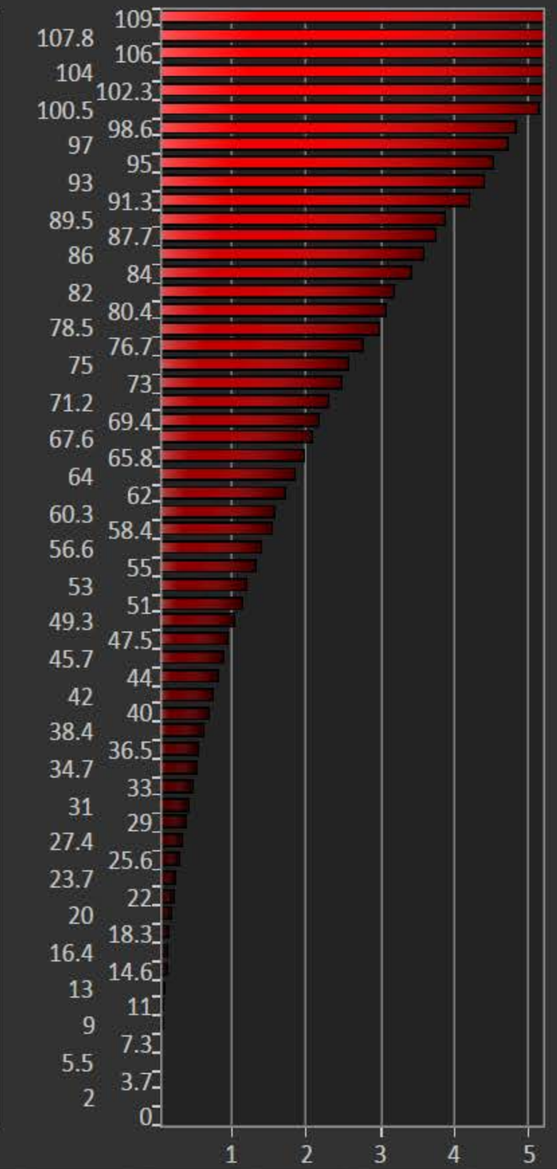
ΔE 2000 4.17 Avg 0.36 Max 5.15



Delta L -4.41 Avg -0.29 Max 4.96



Luminance 2.56846



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

Nav Bar

ANL

3D Cb

Detail

Back

Next

CbCal

Prepare

Setup

PreCal Read

Calibrate

3d Cb

PostCal Read

Analyze

Gray

Satur

Lumi

C Chk

CbCal

Detl 2

Final Check

CAL

Data

Back | Next

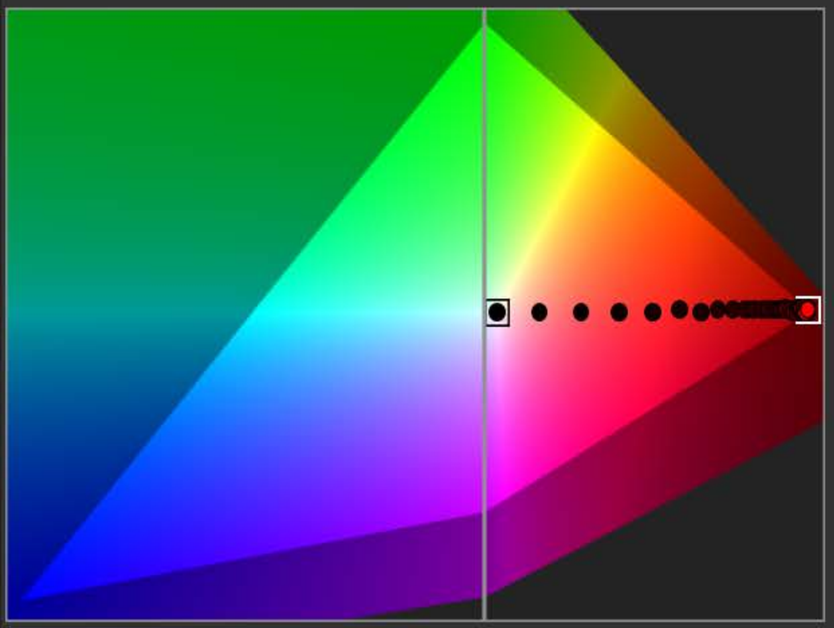
CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

DeltaE DeltaL Luminance | DeltaE DeltaH DeltaC

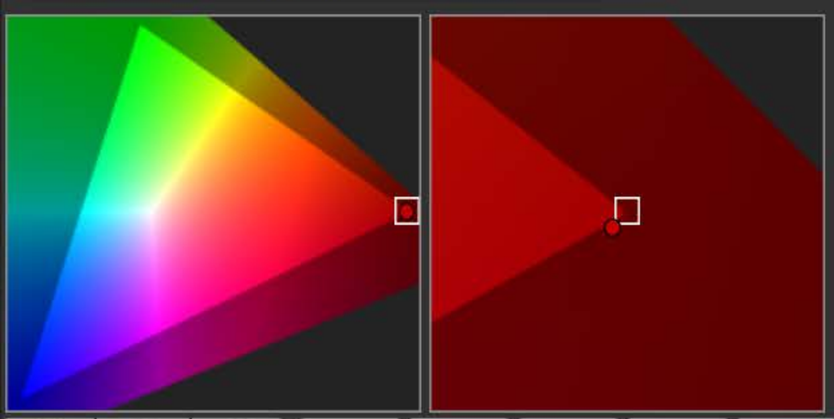
Simulated Meter LCD Direct View (LED Backlight) | Source | Direct Display Control

3D Color Cube LUT Calibration Detail 2

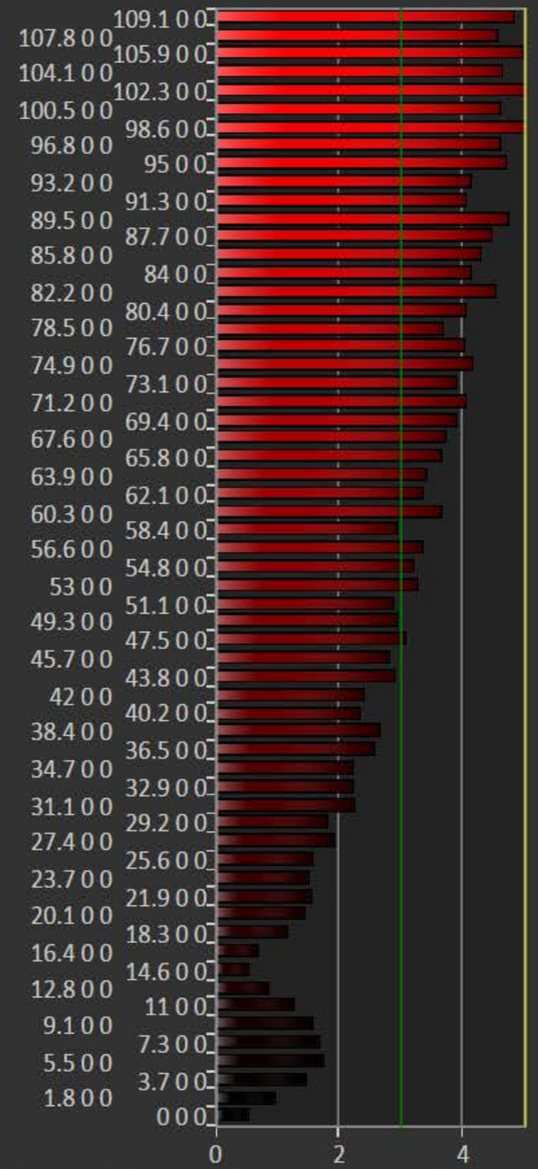


Red | Green | Blue | White

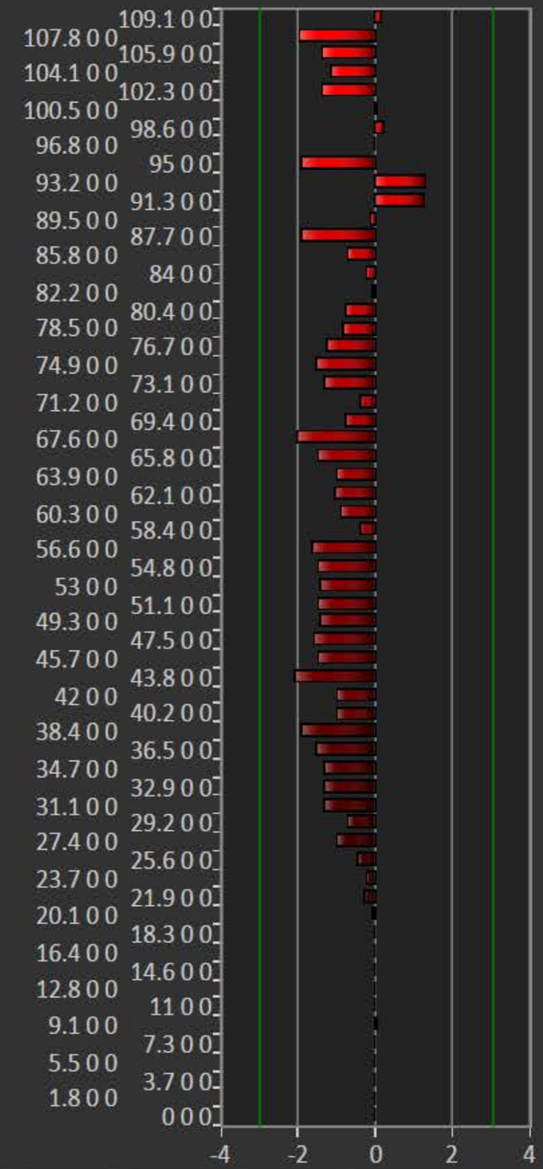
Cyan | Magenta | Yellow



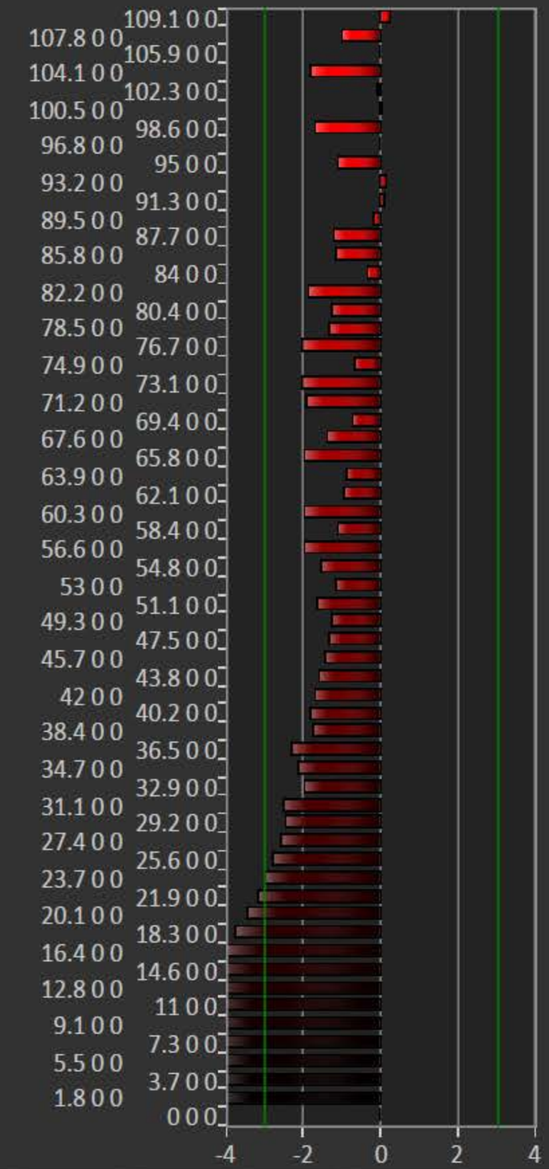
ΔE 2000 4.17 Avg 0.36 Max 5.15



Delta H -1.34 Avg -0.05 Max 1.9



Delta C -0.66 Avg -0.63 4.33 Max



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

Nav Bar | ANL | Cal 3D Cb | Back | Next | CbCal | Prepare | Setup | PreCal Read | Calibrate | 3d Cb | PostCal Read | Analyze | Gray | Satur | Lumi | C Chk | CbCal | Detl 1 | Final Check | CAL | Data

Back | PostCal Read

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Final Check

Simulated Meter LCD Direct View (LED Backlight) | Source | Direct Display Control

Final Check

Mode ISF Night

Contrast Verification

Data Points: select Clipping or 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: 12 Point 10% step 0-109%

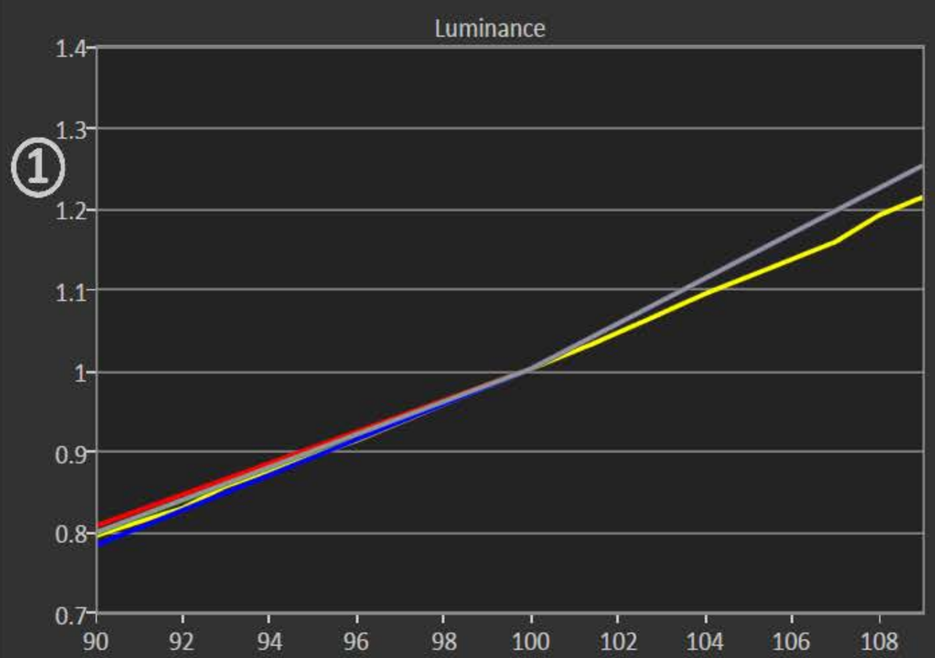
② Check / adjust the gamma level across the full grayscale. Use the Backlight, Brightness, Contrast and Gamma controls to make this adjustment.

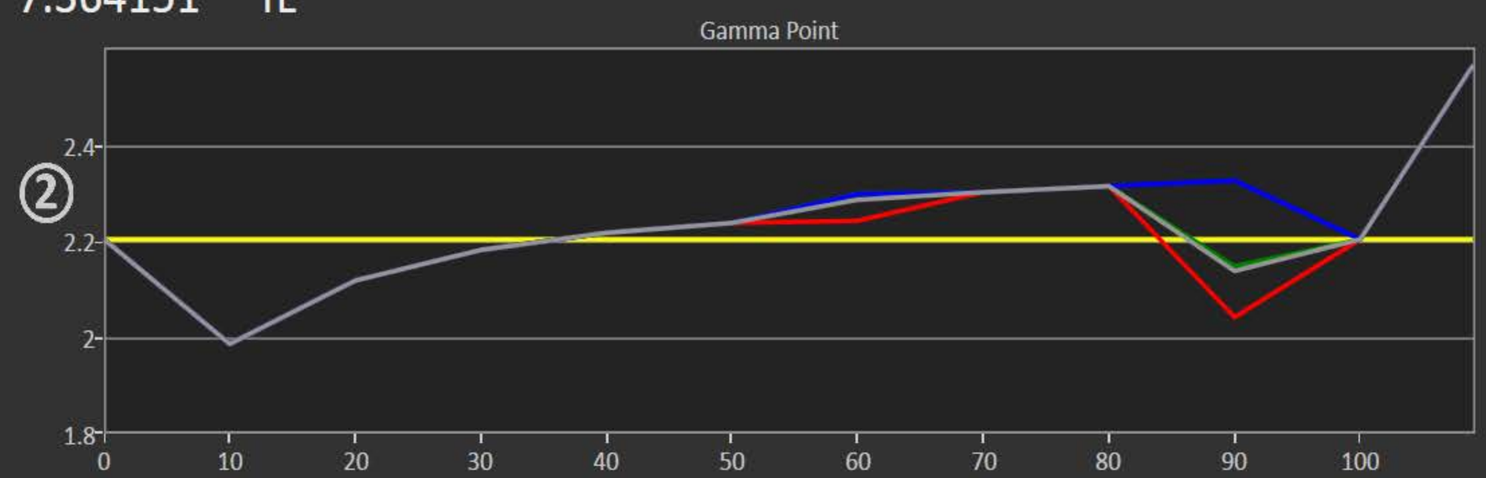
Post-Calibration Summary

Grayscale dE	Avg	0	Saturation dE	Avg	0
	Max	0		Max	0
Luminance dE	Avg	0	Color Checker dE	Avg	0
	Max	0		Max	0
3D Color Cube LUT (3D LUT values come from Calibration layout)	Avg	0	Gamma Total		0
	Max	0	CCT Average		0
White	29.19	fL			
Black	0		Contrast Ratio		1

60

7.364151 fL





Post-Calibration Notes

Big

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

Notes Mgmt

Nav Bar: ANL Final Check | Back | Prepare | Setup | PreCal Read | DyRng | Calibrate | Gray | PostCal Read | Analyze | Gray | Satur | Lumi | C Chk | 3d Cb | Final Check | Final Check

0 10 20 30 40 50 60 70 80 90 100 109

Back Save

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Notes Management

Simulated Meter
LCD Direct View (LED Backlight)

Source

Direct Display Control

Setup Notes

Elite IP 192.168.1.45
Radiance Com 2

Calibration Notes

Calibration notes & observations

Pre-Calibration Notes

Pre-cal notes

Calibration Description / Goals

Calibration description

Color Notes

Color notes

Post-Calibration Notes

Post-cal notes

Nav Bar

REF

Notes

Intro

Prepare

Setup

PreCal Read

DyRng

Calibrate

Gray

Satur

Lumi

C Chk

3d Cb

PostCal Read

Analyze

Gray

Satur

Lumi

C Chk

3d Cb

Final Check

PostCal Read

Session Setup

Home

Final Check

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Grayscale Datagrids

Simulated Meter LCD Direct View (LED Backlight) | Source | Direct Display Control

Pre-Cal Multi-Point Grayscale Data

Pre-Cal

	10	20	30	40	50	60	70	80	90	100
RGB Triplet	38, 38, 38	60, 60, 60	82, 82, 82	104, 104, 104	126, 126, 126	147, 147, 147	169, 169, 169	191, 191, 191	213, 213, 213	235, 235, 235
RedIndex	38.0000	60.0000	82.0000	104.0000	126.0000	147.0000	169.0000	191.0000	213.0000	235.0000
GreenIndex	38.0000	60.0000	82.0000	104.0000	126.0000	147.0000	169.0000	191.0000	213.0000	235.0000
BlueIndex	38.0000	60.0000	82.0000	104.0000	126.0000	147.0000	169.0000	191.0000	213.0000	235.0000
X	0.8311	2.6035	5.6848	10.2982	16.3119	24.4686	33.9856	47.0719	60.6077	79.0402
Y cd/m²	0.8744	2.7392	5.9811	10.8351	17.1623	25.7361	35.7574	49.5260	63.7674	83.1609
Z	0.9521	2.9828	6.5130	11.7985	18.6883	27.5442	38.9369	53.9297	69.4374	90.5553
Xn 0-1	0.0100	0.0313	0.0684	0.1238	0.1961	0.2942	0.4087	0.5660	0.7288	0.9504
Yn 0-1	0.0105	0.0329	0.0719	0.1303	0.2064	0.3095	0.4300	0.5955	0.7668	1.0000
Zn 0-1	0.0114	0.0359	0.0783	0.1419	0.2247	0.3312	0.4682	0.6485	0.8350	1.0889
Stimulus Percent	0.1005	0.2009	0.3014	0.4018	0.5023	0.5982	0.6986	0.7991	0.8995	1.0000
RED Stim%:0-1	0.1005	0.2009	0.3014	0.4018	0.5023	0.5982	0.6986	0.7991	0.8995	1.0000
GRN Stim%:0-1	0.1005	0.2009	0.3014	0.4018	0.5023	0.5982	0.6986	0.7991	0.8995	1.0000
BLU Stim%:0-1	0.1005	0.2009	0.3014	0.4018	0.5023	0.5982	0.6986	0.7991	0.8995	1.0000
Measured Red Stimulus	0.1261	0.2119	0.3023	0.3960	0.4881	0.5895	0.6814	0.7901	0.8863	1.0000

Post-Cal Multi-Point Grayscale Data

Post-Cal

	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85
RGB Triplet	16, 16, 16	27, 27, 27	38, 38, 38	49, 49, 49	60, 60, 60	71, 71, 71	82, 82, 82	93, 93, 93	104, 104, 104	115, 115, 115	126, 126, 126	136, 136, 136	147, 147, 147	158, 158, 158	169, 169, 169	180, 180, 180	191, 191, 191	202, 202, 202
RedIndex	16.0000	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
GreenIndex	16.0000	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
BlueIndex	16.0000	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
X	0.0956	0.3537	0.8311	1.5692	2.5524	3.8880	5.6848	7.7873	10.2982	13.2411	16.6434	19.8698	24.4609	28.7224	33.9856	39.7887	47.0868	52.7437
Y cd/m²	0.1006	0.3721	0.8744	1.6510	2.6855	4.0907	5.9811	8.1933	10.8351	13.9314	17.5056	20.7729	25.7361	30.2198	35.7574	41.8630	49.5260	55.8506
Z	0.1095	0.4052	0.9521	1.7978	2.9243	4.4544	6.5130	8.9218	11.7985	15.1701	18.7354	22.4937	28.0245	32.9069	38.9369	45.5854	53.0054	61.1562
Xn 0-1	0.0011	0.0043	0.0100	0.0189	0.0307	0.0468	0.0684	0.0936	0.1238	0.1592	0.2001	0.2389	0.2941	0.3454	0.4087	0.4785	0.5662	0.6342
Yn 0-1	0.0012	0.0045	0.0105	0.0199	0.0323	0.0492	0.0719	0.0985	0.1303	0.1675	0.2105	0.2498	0.3095	0.3634	0.4300	0.5034	0.5955	0.6716
Zn 0-1	0.0013	0.0049	0.0114	0.0216	0.0352	0.0536	0.0783	0.1073	0.1419	0.1824	0.2253	0.2705	0.3370	0.3957	0.4682	0.5482	0.6374	0.7354
Stimulus Percent	0.0000	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
RED Stim%:0-1	0.0000	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
GRN Stim%:0-1	0.0000	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
BLU Stim%:0-1	0.0000	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

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

Change Selection

Nav Bar ANL

Back | Next | PreCal | PostCal | Prepare | PreCal Read | Calibrate | Gray | PostCal Read | Datagrid | Gray | Satur | Lumi | C Chk | Final Check | Notes

GRD

Pre-Cal | Post-Cal

Back | Next

CalMAN 5 CalMAN Enthusiast for Home Video

CalMAN 5

Saturation Datagrids

Simulated Meter LCD Direct View (LED Backlight) | Source | Direct Display Control

Pre-Cal Saturation Sweeps Data

	25%	50%	75%	100%
RGB Triplet	180, 180, 150	180, 180, 121	180, 180, 88	180, 180, 16
Target x:CIE31	0.3396	0.3662	0.3933	0.4193
x: CIE31	0.3383	0.3687	0.3927	0.4209
Target y:CIE31	0.3735	0.4174	0.4622	0.5053
y: CIE31	0.3746	0.4203	0.4613	0.5066
Target Y	12.5136	12.2667	12.0706	11.9190
Y	11.8955	11.8964	11.4837	11.5652
Gamma Point: Flat	2.4659	2.4656	2.5877	2.5633
ΔE 2000	1.3879	0.7974	1.1671	0.7008
dE2000 LuminanceCompensated	0.8605	0.5352	0.1162	0.3103
ΔE 1994 L*:±	-1.5574	-0.9393	-1.5142	-0.9146
ΔE 1994 Sat:±	0.0646	0.8741	-1.3135	0.2715
ΔE 1994 Hue:±	0.8134	-0.3734	0.0373	-0.3881
Signed dE94 L LuminanceCompensated	0.0000	0.0000	0.0000	0.0000
Signed dE94 C LuminanceCompensated	0.3759	1.2449	-0.3945	1.0549
Signed dE94 H LuminanceCompensated	0.8065	-0.3715	0.0370	-0.3861

Post-Cal Saturation Sweeps Data

	25%	50%	75%	100%
RGB Triplet	180, 180, 150	180, 180, 121	180, 180, 88	180, 180, 16
Target x:CIE31	0.3396	0.3662	0.3933	0.4193
x: CIE31	0.3383	0.3687	0.3927	0.4189
Target y:CIE31	0.3735	0.4174	0.4622	0.5053
y: CIE31	0.3746	0.4183	0.4593	0.5046
Target Y	12.2682	12.0262	11.8339	11.6853
Y	11.8955	11.4299	11.4837	11.5652
Gamma Point: Flat	2.3974	2.5355	2.5192	2.4948
ΔE 2000	1.0769	1.2566	0.8503	0.2776
dE2000 LuminanceCompensated	0.8630	0.5857	0.3873	0.0991
ΔE 1994 L*:±	-0.9517	-1.5531	-0.9156	-0.3146
ΔE 1994 Sat:±	0.1882	-0.0944	-1.6955	-0.6982
ΔE 1994 Hue:±	0.8160	-0.7921	-0.3371	0.0525
Signed dE94 L LuminanceCompensated	0.0000	0.0000	0.0000	0.0000
Signed dE94 C LuminanceCompensated	0.3783	0.5187	-1.1397	-0.4287
Signed dE94 H LuminanceCompensated	0.8119	-0.7854	-0.3354	0.0524

Nav Bar

ANL

Back | Next | PreCal | PostCal | Prepare | PreCal Read | Calibrate | Satur | PostCal Read | Datagrid | Gray | Satur | Lumi | C Chk | Final Check | Notes | GRD

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 (LED Backlight) | 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	0.4063	0.3780	0.2489	0.3416	0.2686	0.2614	0.5146	0.2147	0.4641	0.2882	0.3774
x: CIE31	0.3107	0.3127	0.3127	0.3147	0.3127	0.3983	0.3813	0.2495	0.3378	0.2701	0.2598	0.5132	0.2186	0.4653	0.2896	0.3776
Target y:CIE31	0.3290	0.3290	0.3290	0.3290	0.3290	0.3645	0.3562	0.2653	0.4319	0.2528	0.3594	0.4095	0.1891	0.3122	0.2164	0.4955
y: CIE31	0.3290	0.3290	0.3270	0.3310	0.3270	0.3640	0.3582	0.2634	0.4257	0.2520	0.3602	0.4033	0.1912	0.3131	0.2233	0.4935
Target Y	23.7957	18.8516	15.4569	11.9285	8.3427	2.3552	8.4551	4.5274	3.1214	5.6565	10.0914	6.8005	2.7857	4.4264	1.5423	10.3871
Y	23.7957	18.6114	15.1171	11.7818	8.0064	2.2724	8.2991	4.3504	3.0881	5.4215	9.7775	6.6093	2.7271	4.2426	1.5667	10.0495
Gamma Point: Flat	2.2000	2.3211	2.3133	2.2394	2.2864	2.9582	3.8016	3.4591	2.3544	3.9784	2.9502	7.8434	4.8416	6.2232	3.1368	2.7461
ΔE 2000	1.5897	0.2839	1.5038	0.9362	1.4742	1.4142	0.6858	1.2994	0.8479	1.1976	0.7489	1.8617	0.8835	0.9748	1.0208	0.8297
dE2000 LuminanceCompensated	1.5897	0.0052	1.4211	0.8952	1.1568	1.1873	0.6067	0.9729	0.7906	0.7614	0.4049	1.7009	0.7682	0.2301	1.0721	0.2245
ΔE 1994 L*:±	0.0000	-0.4578	-0.7415	-0.3794	-1.1142	-0.6358	-0.5084	-0.8807	-0.2102	-1.0092	-0.9131	-0.7225	-0.4009	-0.9296	0.2441	-0.9638
ΔE 1994 Sat:±	1.1328	0.0041	1.0977	0.9125	0.8881	-1.9125	0.9325	0.1238	-1.4807	0.0862	0.6407	-2.2315	-1.0243	-0.5820	-2.3844	-1.4257
ΔE 1994 Hue:±	0.0000	0.0000	0.0000	0.0000	0.0000	0.5624	0.3357	0.9765	0.6937	0.7977	0.0249	-2.6605	0.9018	0.3919	-0.1779	-0.2341
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	0.4063	0.3780	0.2489	0.3416	0.2686	0.2614	0.5146	0.2147	0.4641	0.2882	0.3774
x: CIE31	0.3127	0.3107	0.3107	0.3147	0.3147	0.4023	0.3793	0.2515	0.3378	0.2701	0.2618	0.5152	0.2146	0.4653	0.2896	0.3756
Target y:CIE31	0.3290	0.3290	0.3290	0.3290	0.3290	0.3645	0.3562	0.2653	0.4319	0.2528	0.3594	0.4095	0.1891	0.3122	0.2164	0.4955
y: CIE31	0.3270	0.3290	0.3310	0.3290	0.3310	0.3600	0.3542	0.2654	0.4277	0.2500	0.3582	0.4053	0.1912	0.3111	0.2253	0.4955
Target Y	23.7957	18.8516	15.4569	11.9285	8.3427	2.3552	8.4551	4.5274	3.1214	5.6565	10.0914	6.8005	2.7857	4.4264	1.5423	10.3871
Y	23.7957	18.6114	14.8148	11.3198	8.1665	2.2724	8.1364	4.3504	2.9670	5.3131	9.7775	6.4772	2.7816	4.2426	1.5354	9.8485
Gamma Point: Flat	2.2000	2.3211	2.4163	2.3669	2.2448	2.9582	3.8731	3.4591	2.4005	4.0327	2.9502	7.9671	4.7973	6.2232	3.1601	2.8104
ΔE 2000	1.6445	1.4959	2.7001	1.6986	0.9247	1.1493	1.3203	1.3532	1.2084	1.8633	0.8041	1.6406	0.6717	0.9462	1.4410	1.2781
dE2000 LuminanceCompensated	1.6445	1.4688	2.5315	1.2405	0.7941	0.9595	1.0460	0.9917	0.6708	1.3268	0.2706	1.1651	0.6676	0.2600	1.4201	0.3623
ΔE 1994 L*:±	0.0000	-0.4578	-1.4108	-1.5950	-0.5798	-0.6358	-1.0456	-0.8807	-0.9882	-1.4847	-0.9131	-1.2305	-0.0277	-0.9296	-0.0703	-1.5479
ΔE 1994 Sat:±	1.2769	1.0437	1.8082	0.8784	0.8076	-1.0510	0.1658	-0.5885	-1.3149	0.8103	-0.8692	-1.5854	-0.9872	-0.0731	-3.3689	-1.2737
ΔE 1994 Hue:±	0.0000	0.0000	0.0000	0.0000	0.0000	-0.9781	-1.0869	0.9905	0.7894	1.2852	0.2278	-1.8710	-0.7180	-0.3032	-0.3218	0.7030
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

Nav Bar ANL

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GRD

Pre-Cal | Post-Cal

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