TRULINE 1A 24VDC - PLASTER-IN LED SYSTEM

REV.09.17.18

Drywall   Drywall with Plaster & Paint

6" (15.2cm) — 0.93" (2.4cm) — 0.63" (1.6cm)
2" (5.1cm) — 2.65" (6.7cm) — 0.78" (2cm)
1" (2.5cm)
1'- 40' (30.5cm - 1219.2cm)
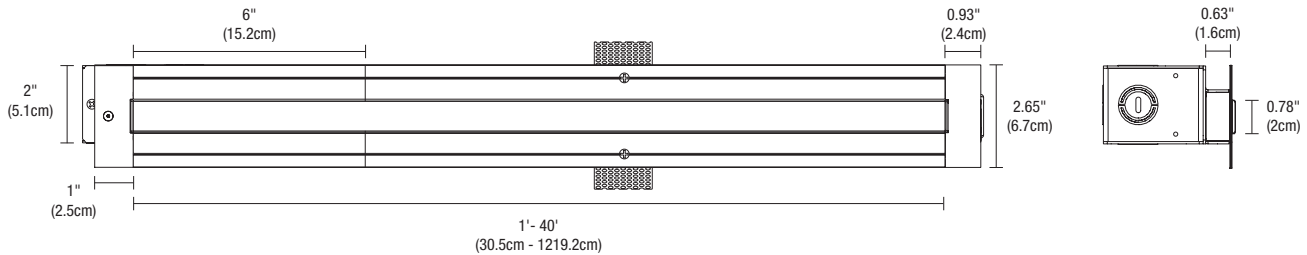
DESCRIPTION

TruLine 1A, a versatile 24VDC linear plaster-in LED system, creates a glare-free, smooth line of light indoor architectural lighting. The system recesses into 5/8" thick drywall without joist modification. May be secured to studs that are spaced 13"-24" apart, or between studs with mounting clips provided. TruLine 1A is sold in 1' increments up to 40' (2WDC, White LEDs only), 20' (5WDC, White, 2K4K or RGB LEDs) or 16' (6WDC, RGB+W) and field cuttable to any length. Several color temperature options are available, including 2200K-5700K (ELV/010), Warm Dim (ELV), Tunable White (ELV/010/DMX), RGB and RGB+W (DMX). High CRI commercial-grade White or Dynamic Color Changing LED Soft Strip projects a clean line of light. Coordinate installation with electrician and drywall contractors. Includes a 5 year pro-rated warranty.

DESIGN NOTE

TruLine 1A can be installed on a single surface (like a wall or ceiling), on multiple planes that join runs from wall to ceiling, or from one wall to an adjacent wall. Use TruLine 1A Build-It-Yourself (BIY) with pre-formed components to create desired configurations including Picture Frame Miter and Room Wrapping installations. Create rectangle or square configurations with TruQuad 1A.

APPLICATIONS

Indoor damp or dry locations only. General illumination and architectural accent for Kitchens, Offices, Hospitality, Retail, Residences, Libraries, Hallways, and Bath/Vanity.

LAMP

The average LED Life is 50,000 hours.

WATTS PER FOOT	LUMENS		85+CRI	90+CRI	92+CRI	95+CRI	RGB	RGB+W
	PER WATT	PER FOOT	22K, 35K, 40K, 57K	2K4K	27D, 30D	27K, 30K		
2WDC (2.5WDC)	52	169	•			•		
5WDC (4.4WDC)	50	244	•	•	•	•	•	
6WDC	N/A	N/A						•

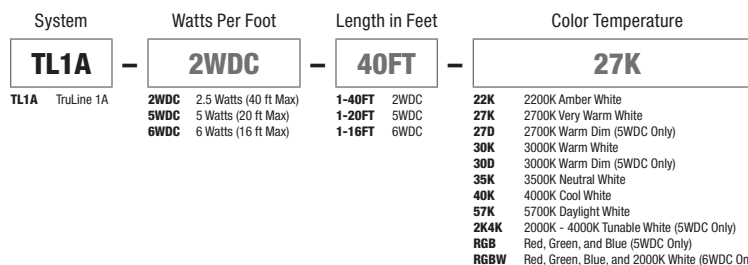Lumen values are based on the 3000K LED test.

REMOTE POWER SUPPLIES*, DIMMERS & CONTROLS
(SOLD SEPARATELY)

• Electronic Low Voltage Dimming (ELV)
• 0-10 Volt Dimming (0-10V)
• Dynamic Color Changing (DMX)

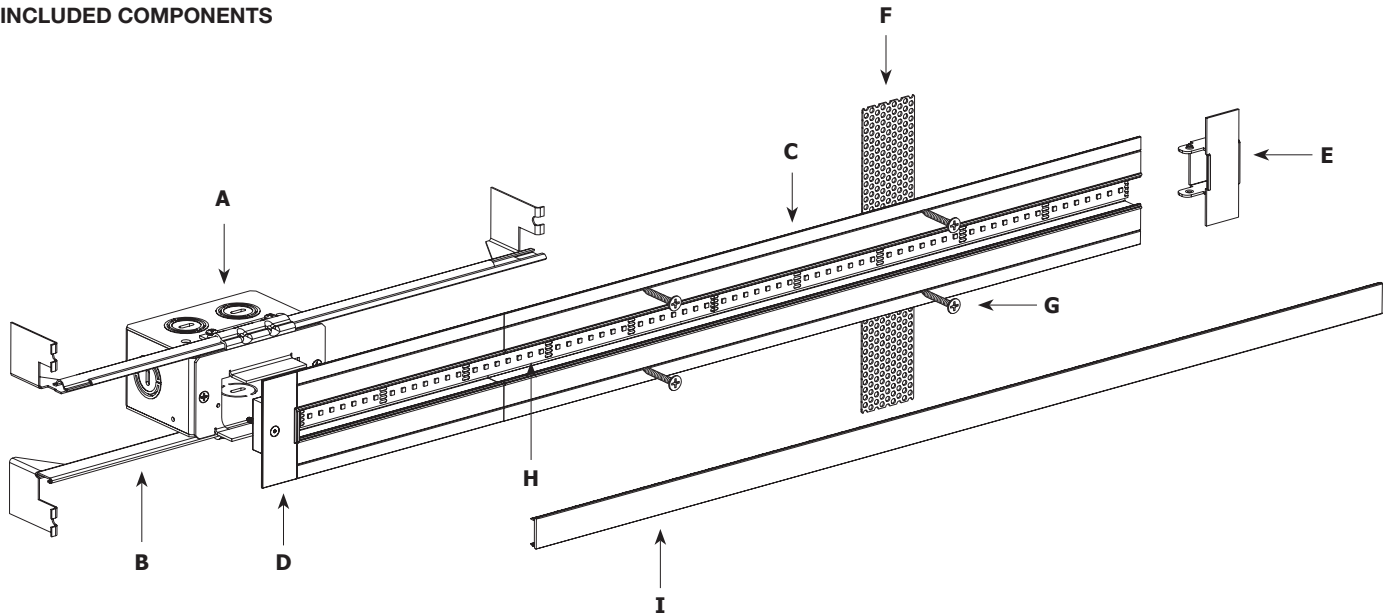*In-Wall Mounting Kits available for select power supplies

INCLUDED COMPONENTS

Junction Box, Adjustable Mounting Bars, TruLine 1A Channel(s), End Cap, Take-Up Box, Mounting Straps, Drywall Screws, LED Soft Strip, and Lens(es)

System	Watts Per Foot	Length in Feet	Color Temperature
TL1A	**2WDC**	**40FT**	**27K**

TL1A	TruLine 1A	**2WDC** 2.5 Watts (40 ft Max)	**1-40FT** 2WDC	**22K** 2200K Amber White
		5WDC 5 Watts (20 ft Max)	**1-20FT** 5WDC	**27K** 2700K Very Warm White
		6WDC 6 Watts (16 ft Max)	**1-16FT** 6WDC	**27D** 2700K Warm Dim (5WDC Only)
				30K 3000K Warm White
				30D 3000K Warm Dim (5WDC Only)
				35K 3500K Neutral White
				40K 4000K Cool White
				57K 5700K Daylight White
				2K4K 2000K - 4000K Tunable White (5WDC Only)
				RGB Red, Green, and Blue (5WDC Only)
				RGBW Red, Green, Blue, and 2000K White (6WDC Only)

PROJECT		FIXTURE TYPE		DATE	

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INCLUDED COMPONENTS

A. JUNCTION BOX

Mounts behind drywall with Adjustable Mounting Bars. Low Voltage 24VDC wires from Remote Power Supply connect to LED wires inside box. Junction Box opening is covered by the channel, and required at the beginning of each run.

B. ADJUSTABLE MOUNTING BARS

Provide flexibility for mounting in a variety of spaces and orientations. May be secured to studs that are spaced 13"-24" apart.

C. TRULINE 1A CHANNEL

5/8" deep extrusion houses a single row of commercial-grade White or Dynamic Color Changing LED Soft Strip.

D. END CAP

Provides a finished look and prevents light leak at feed-end of run where LED Soft Strip enters channel.

E. TAKE-UP BOX

Prevents dark spots at end of run by tucking excess LED Soft Strip safely behind wall.

F. MOUNTING STRAP

Secures channel to drywall when wall stud is unavailable.
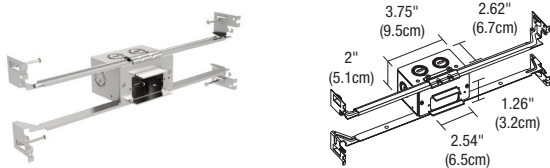
G. DRYWALL SCREW

Secures channel to drywall and stud.

H. LED SOFT STRIP

Commercial-grade White or Dynamic Color Changing LED Soft Strip.

I. LENS

0.8" wide diffuser lens projects a clean line of light without LED dots.

JUNCTION BOX ROUGH-IN COMPONENT

One Junction Box is included with TruLine 1A. Order additional Junction Box separately to rough-in electrical wiring before drywall installation. Quick shipment available.

System		Size		Component
TL1A	–	**1RE**	–	**JBOX**
TL1A TruLine 1A		**1RE** 1" Rectangle		**JBOX** Juncation Box

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APPLICATION   0-10V dimming for TruLine 1A

POWER SUPPLY   PSB-96W-010-24VDC (24VDC 96W output) | PSB-2X96W-010-24VDC (24VDC 2X96W output)

DIMMING   Radio Ra2 (with GRX-TVI), Grafik Eye Qs (with GRX-TVI), Diva (with PP20); Nova T;
Philips: Sunrise SR1200ZTUNV; Leviton: IP710-LF
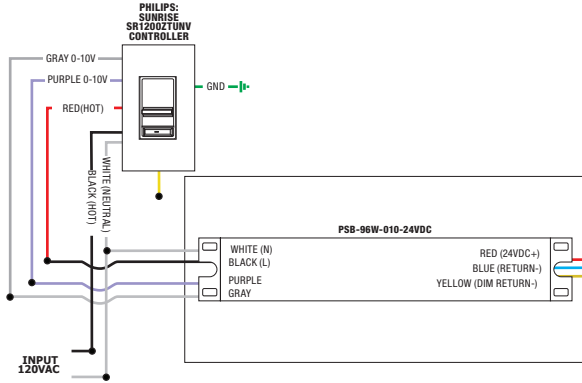
96W, 24VDC LOW VOLTAGE WIRE SIZE CHART: 3% VOLTAGE DROP

WIRE LENGTH (FT)	UP TO 33FT	34FT–52FT	53FT–86FT	87FT–130FT
WIRE SIZE	14 AWG	12 AWG	10 AWG	8 AWG
VOLTAGE AT END OF WIRE	23.28VDC	23.29VDC	23.28VDC	23.28VDC
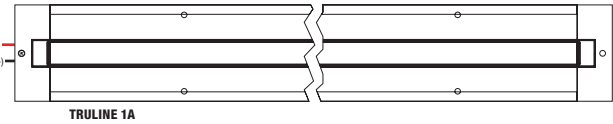
2.5 WATTS PER FOOT - 22K, 27K, 30K, 35K, 40K AND 57K WHITE LEDS

LENGTH IN FEET	WATTS	LENGTH IN FEET	WATTS	LENGTH IN FEET	WATTS	LENGTH IN FEET	WATTS
1	3	11	27	21	51	31	75
2	5	12	29	22	54	32	78
3	8	13	32	23	56	33	80
4	10	14	34	24	58	34	82
5	13	15	37	25	61	35	85
6	15	16	39	26	63	36	87
7	17	17	41	27	66	37	90
8	20	18	44	28	68	38	92
9	22	19	46	29	70	39	94
10	24	20	48	30	72	40	96

5 WATTS PER FOOT - 22K, 27K, 27D, 30K, 30D, 35K, 40K, 57K, 2K4K AND RGB LEDS

LENGTH IN FEET	WATTS	LENGTH IN FEET	WATTS	LENGTH IN FEET	WATTS	LENGTH IN FEET	WATTS
1	5	6	30	11	54	16	78
2	10	7	34	12	58	17	82
3	16	8	40	13	64	18	88
4	20	9	44	14	68	19	92
5	24	10	48	15	72	20	96

6 WATTS PER FOOT - RGBW LEDS

LENGTH IN FEET	WATTS	LENGTH IN FEET	WATTS	LENGTH IN FEET	WATTS	LENGTH IN FEET	WATTS
1	6	5	30	9	54	13	78
2	12	6	36	10	60	14	84
3	18	7	42	11	66	15	90
4	24	8	48	12	72	16	96

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TM-30-15 DATA

The data below is for SS2C and SS5C bare LED Soft Strips. Consistent color temperatures throughout a single strip and among multiple strips is possible through a 3 phase binning process in which each order is inspected with a color meter to ensure uniformity.

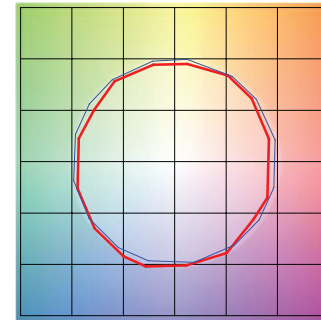### 2200K | Rf: 83.9 | Rg: 94.9
Color Vector Graphic
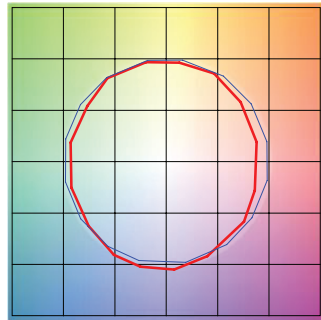
Test   Reference

| HUE BIN | Rf | GRAPHIC SHIFTS % | |
		CHROMA	HUE
1	77.6	-10.0%	1.8%
2	80.7	-7.5%	7.0%
3	79.5	-2.9%	8.9%
4	90.5	-3.1%	2.4%
5	93.9	-1.3%	1.9%
6	91.9	-0.9%	-0.2%
7	87.6	-6.3%	-2.7%
8	90.5	-5.4%	2.7%
9	83.8	-4.7%	6.5%
10	81.2	-2.5%	10.0%
11	83.3	3.9%	9.4%
12	86.4	5.6%	2.6%
13	86.2	4.5%	-12.4%
14	64.3	-1.0%	-21.9%
15	85.1	-4.4%	-7.5%
16	75.0	-9.9%	-12.0%

2700K | Rf: 87.7 | Rg: 96.1
Color Vector Graphic

Test   Reference

| HUE BIN | Rf | GRAPHIC SHIFTS % | |
		CHROMA	HUE
1	86.4	-5.6%	2.3%
2	89.7	-3.3%	3.1%
3	90.5	-1.5%	3.8%
4	90.0	-4.3%	1.1%
5	92.9	-3.7%	0.2%
6	93.5	-2.5%	-0.8%
7	86.3	-7.2%	2.5%
8	90.7	-4.0%	3.2%
9	85.2	-2.4%	8.1%
10	81.7	0.9%	10.8%
11	85.4	4.5%	8.9%
12	88.7	5.7%	-1.4%
13	88.3	1.3%	-7.9%
14	85.1	2.4%	-10.4%
15	88.1	-4.8%	-2.7%
16	81.7	-4.3%	-10.9%

3000K | Rf: 88.1 | Rg: 99.7
Color Vector Graphic
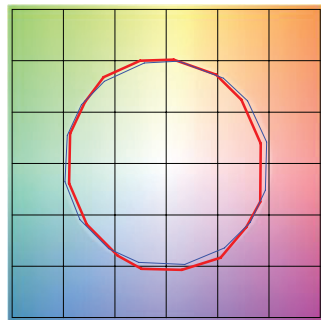
Test   Reference

| HUE BIN | Rf | GRAPHIC SHIFTS % | |
		CHROMA	HUE
1	87.7	-5.9%	-0.3%
2	87.9	-4.4%	4.3%
3	82.9	-1.2%	7.9%
4	89.9	0.6%	4.7%
5	92.7	3.0%	3.5%
6	92.7	3.6%	-1.7%
7	90.8	-1.3%	-4.4%
8	93.7	-2.5%	-2.2%
9	91.7	-3.7%	2.3%
10	85.5	-2.8%	7.8%
11	83.3	0.7%	11.0%
12	86.4	5.5%	3.8%
13	90.6	4.6%	-3.6%
14	85.6	5.9%	-8.4%
15	89.5	-0.6%	-5.7%
16	82.6	-2.7%	-12.0%

3500K | Rf: 86.1 | Rg: 95.5
Color Vector Graphic
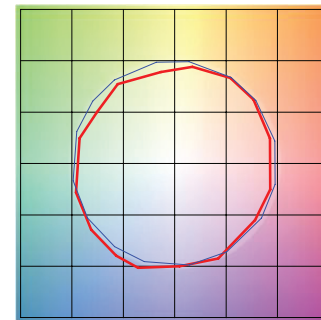
Test   Reference

| HUE BIN | Rf | GRAPHIC SHIFTS % | |
		CHROMA	HUE
1	86.6	-4.2%	3.4%
2	91.7	-1.4%	1.8%
3	94.9	-0.7%	0.4%
4	87.9	-4.5%	-4.1%
5	85.9	-10.3%	-2.7%
6	89.8	-5.2%	-0.4%
7	79.6	-9.5%	6.5%
8	87.6	-4.0%	5.7%
9	81.4	-0.5%	11.8%
10	78.3	3.3%	11.4%
11	85.7	6.3%	6.1%
12	86.3	7.1%	-4.6%
13	86.1	-0.7%	-9.6%
14	85.1	0.8%	-10.4%
15	83.4	-4.1%	-5.3%
16	82.5	-3.6%	-5.7%

4000K | Rf: 87.6 | Rg: 96.8
Color Vector Graphic
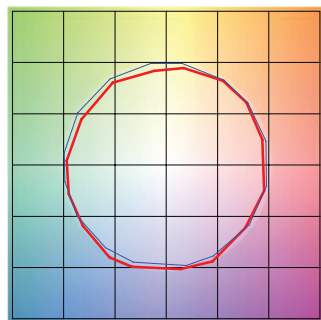
Test   Reference

| HUE BIN | Rf | GRAPHIC SHIFTS % | |
		CHROMA	HUE
1	89.0	-3.1%	2.1%
2	93.2	-0.9%	1.3%
3	94.3	-1.1%	0.7%
4	89.5	-4.0%	-2.3%
5	87.6	-7.8%	-1.8%
6	92.2	-4.6%	0.1%
7	87.4	-6.6%	3.6%
8	85.7	-3.8%	7.0%
9	81.5	-1.3%	12.4%
10	80.0	0.9%	11.4%
11	83.3	5.9%	8.7%
12	89.7	4.8%	-0.3%
13	88.5	2.4%	-6.3%
14	92.7	4.0%	-3.8%
15	86.1	-1.6%	-4.5%
16	85.0	-1.4%	-5.0%

5700K | Rf: 80.3 | Rg: 91.5
Color Vector Graphic
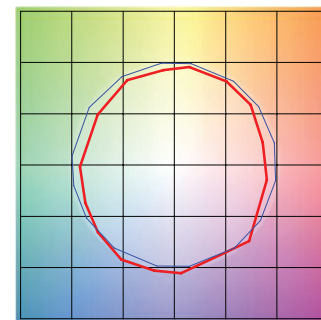
Test   Reference

| HUE BIN | Rf | GRAPHIC SHIFTS % | |
		CHROMA	HUE
1	73.8	-11.2%	2.6%
2	83.7	-5.5%	5.8%
3	84.2	-4.0%	5.5%
4	85.8	-3.5%	1.3%
5	85.3	-7.1%	0.6%
6	89.2	-5.8%	-2.2%
7	81.5	-10.7%	1.2%
8	75.7	-9.7%	8.5%
9	74.9	-7.8%	18.8%
10	67.8	-1.6%	18.0%
11	76.1	5.5%	12.0%
12	90.8	4.9%	-1.6%
13	83.6	5.0%	-9.5%
14	81.7	-1.2%	-10.0%
15	69.0	2.0%	-22.8%
16	83.2	-8.5%	-1.0%

PROJECT		FIXTURE TYPE		DATE	

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TM-30-15 DATA

The data below is for SS2C and SS5C bare LED Soft Strips. Consistent color temperatures throughout a single strip and among multiple strips is possible through a 3 phase binning process in which each order is inspected with a color meter to ensure uniformity.

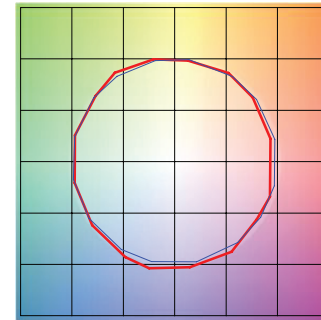### 2700D | Rf: 89.5 | Rg: 100.8
Color Vector Graphic
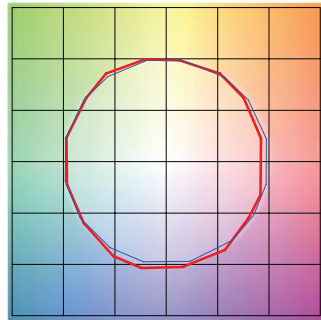
| HUE BIN | Rf | GRAPHIC SHIFTS % | |
		CHROMA	HUE
1	88.8	-5.1%	1.4%
2	89.8	-2.7%	4.1%
3	87.2	0.3%	5.9%
4	92.3	-0.9%	1.0%
5	93.3	1.5%	1.7%
6	92.4	3.6%	-0.2%
7	92.2	-0.9%	-2.4%
8	96.7	-0.4%	-1.1%
9	92.3	-1.2%	3.7%
10	88.9	-0.0%	6.1%
11	86.4	5.1%	7.4%
12	88.2	6.3%	-0.9%
13	87.2	3.8%	-8.1%
14	84.2	3.8%	-11.0%
15	89.8	-2.6%	-4.3%
16	82.7	-3.4%	-11.1%

Test · Reference

3000D | Rf: 89.8 | Rg: 101.4
Color Vector Graphic

| HUE BIN | Rf | GRAPHIC SHIFTS % | |
		CHROMA	HUE
1	90.2	-4.2%	1.5%
2	90.9	-2.0%	3.7%
3	87.9	0.8%	5.5%
4	92.1	-0.9%	0.6%
5	93.0	1.5%	1.6%
6	92.2	3.9%	-0.2%
7	92.1	-0.3%	-2.0%
8	96.7	0.0%	-1.2%
9	92.5	-0.6%	3.7%
10	88.3	1.1%	7.0%
11	87.2	4.1%	7.4%
12	87.2	6.7%	-1.0%
13	88.2	3.8%	-7.2%
14	85.3	4.3%	-9.9%
15	90.9	-2.2%	-3.6%
16	83.4	-2.2%	-11.2%

Test · Reference

2000K ONLY (2K4K) | Rf: 84.3 | Rg: 96.9
Color Vector Graphic
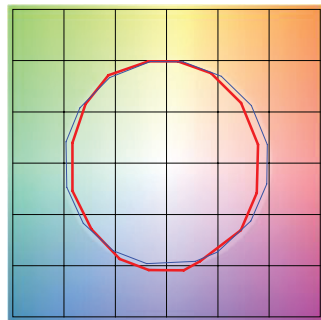
| HUE BIN | Rf | GRAPHIC SHIFTS % | |
		CHROMA	HUE
1	80.3	-8.9%	1.7%
2	79.7	-7.0%	7.8%
3	78.9	-2.9%	10.0%
4	89.5	-0.5%	5.1%
5	94.4	0.7%	1.7%
6	92.1	2.4%	-0.3%
7	89.4	-2.4%	-5.9%
8	89.7	-6.4%	-0.2%
9	86.0	-4.9%	4.6%
10	81.8	-3.4%	9.3%
11	83.1	3.3%	9.7%
12	85.8	5.6%	3.3%
13	85.6	6.2%	-12.8%
14	61.7	-1.9%	-19.0%
15	79.7	-3.3%	-12.9%
16	78.1	-7.9%	-10.6%

Test · Reference

4000K ONLY (2K4K) | Rf: 89.6 | Rg: 99.1
Color Vector Graphic
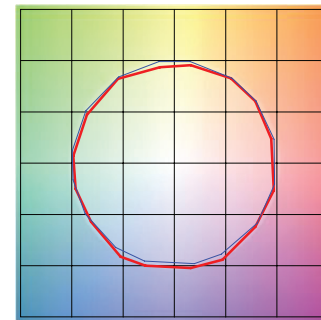
| HUE BIN | Rf | GRAPHIC SHIFTS % | |
		CHROMA	HUE
1	91.3	-2.5%	1.0%
2	95.3	-0.5%	0.5%
3	94.3	-0.7%	1.1%
4	91.1	-3.4%	-1.1%
5	89.5	-5.6%	0.0%
6	94.6	-1.4%	1.3%
7	93.2	-3.0%	2.6%
8	91.3	-1.8%	4.6%
9	86.5	-0.9%	9.1%
10	83.3	-0.5%	9.5%
11	83.3	4.9%	9.0%
12	89.7	4.1%	1.7%
13	90.1	3.6%	-4.3%
14	93.4	5.2%	-2.1%
15	87.4	0.4%	-4.3%
16	86.6	0.4%	-6.1%

Test · Reference

2K4K (3000K) | Rf: 90.2 | Rg: 101.4
Color Vector Graphic
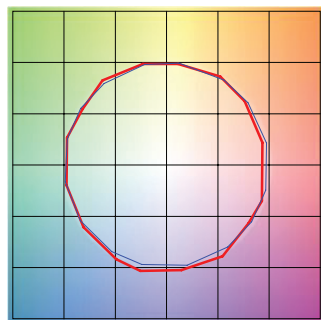
| HUE BIN | Rf | GRAPHIC SHIFTS % | |
		CHROMA	HUE
1	90.9	-3.8%	1.3%
2	91.7	-1.9%	3.3%
3	88.7	0.7%	5.1%
4	92.4	-1.0%	0.7%
5	92.9	0.9%	1.7%
6	93.1	3.3%	-0.6%
7	91.0	-1.8%	-0.4%
8	97.0	0.2%	-1.1%
9	92.8	-0.5%	3.6%
10	88.3	1.0%	7.0%
11	87.1	3.8%	7.8%
12	87.6	6.5%	-0.3%
13	89.3	3.6%	-6.3%
14	86.1	4.5%	-9.1%
15	91.6	-1.9%	-3.1%
16	83.8	-1.5%	-11.2%

Test · Reference

| PROJECT | | FIXTURE TYPE | | DATE | |

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