

# LIGHT CHANNEL COMPLETE FIXTURE 45° ANGLE

24VDC, SURFACE MOUNT, STATIC WHITE

DESIGNED BY GREGORY KAY | ASSEMBLED IN AMERICA

REV 01.24.24



## DESCRIPTION

The 24VDC, 45° Surface-mounted Light Channel is a versatile made-to-order, Class 2 luminaire. The channel's unique 45° angle design provides designers with enhanced flexibility when it comes to illuminating challenging areas. Offered in lengths from 12" to 120" (10') in 2" or 3" increments for precise sizing. Light Channel 45° is available in multiple wattage and static white color temperatures, from **2400K** to **4000K** up to 95 CRI, ensuring outstanding color rendering. With its combination of flexibility, customization, and lighting quality, the Light Channel 45° is an excellent choice for a wide range of applications. Click here for all [Other Color Temperatures](#). For Field cuttable runs, see DIY spec sheet. Fixture includes a 5-year pro-rated warranty. For custom quotes and layout assistance, send your drawings and ideas to our design team: [design@PureEdgeLighting.com](mailto:design@PureEdgeLighting.com)

## FEATURES AND BENEFITS

- Low voltage, 24VDC Power supplies can be remotely located up to 40' away provides installation flexibility
- Slim profile aluminum extrusion easily installs into small spaces
- 95+CRI LED strip offers outstanding color accuracy
- Class 2 wiring, eliminates the need for conduit
- 45° angle design provides enhanced flexibility when it comes to illuminating challenging areas

## SPECIFICATIONS

- 24VDC, Class 2
- 2.5, 4.4 or 7.3 watts per foot
- 2 and 3-inch increments up to 120" (10ft)
- Operating temperature: -22°F to 140°F (-30°C to 60°C)

## LENS OPTIONS

- Clear Lens (**C**) provides maximum illumination using a 40° transparent clear lens, LED diodes will show
- Diffused White Lens (**D**) projects clean lines of light through a 100° lens eliminating pixelation
- Diffused Lens with Gel Color Filter (**G**) (Provided by Customer) Clear and Diffused Lens are Gel Color Filter Suitable allowing for color personalization. Zircon LED Gel filters recommended. Purchase Gel Lens from [www.leefilters.com](http://www.leefilters.com). See manufacturer spec sheet for more information.

## LAMP

- Offered in multiple Static White Color Temperatures: **2400K, 2700K, 3000K, 3500K & 4000K**
- Lumen Performance: 423lm/ft at 3000K 7W per foot
- 95+ CRI
- Average life: 50,000 hours
- For additional color temperatures refer to other specifications

## INCLUDED COMPONENTS

- 72" Power Connector (Included 1 per fixture). Order extra as needed based on your installation requirements.
- Mounting Clips (Included with every 2' of Channel)

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

24VDC, Class 2 wiring

- [Pure Smart™ WIZ Pro Power Supplies & Controls](#)
- [UNI Driver: Universal Dimming \(TRIAC, ELV, 0-10V\)](#)
- [Electronic Low Voltage \(ELV\)](#) 50W (fits inside junction box)
- [Lutron](#) Hi-Lume/Ecosystem

\*In-wall mounting and drop ceiling kits available for select power supplies

## COMPLIANCE

\*Title 24 JA8 listed for 2700K CCT and above when used with PureEdge remote Universal power supplies, ETL, Class 2, Damp Location, Made in USA.

## APPLICATIONS

Designed for indoor use only. Ideal applications include display shelving and cabinetry, under-cabinet, cabinet lightning, coves, and bars within residential, commercial, retail, and hospitality environments.

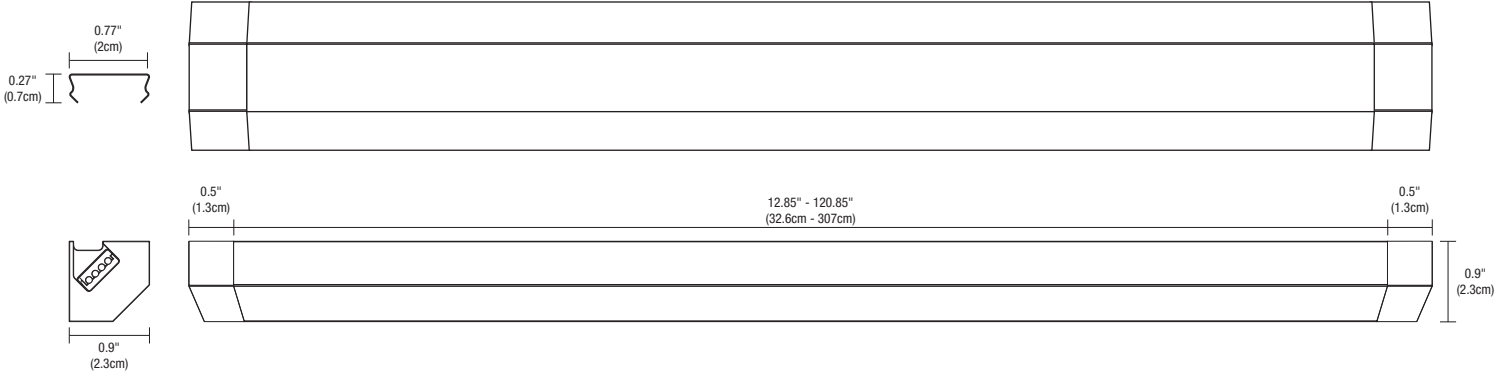
Product	Wattage	Nominal Length	Lens	Color Temperature	Finish
<b>LC45</b>	<b>2W</b>	<b>60</b>	<b>D</b>	<b>27K</b>	<b>SA</b>
<b>LC45</b> Light Channel Surface Mount 45°	<b>2W</b> 2.5 watts <b>5W</b> 4.4 Watts <b>7W</b> 7.3 Watts	<b>12-120</b> Available from 12" to 120" in 2" or 3" increments. See chart for exact lengths.	<b>D</b> Diffused Lens <b>C</b> Clear Lens <b>G</b> Diffused Lens with Gel Color (Color Provided by Customer)	<b>24K</b> 2400K Very Warm White <b>27K</b> 2700K Incandescent White <b>30K</b> 3000K Warm White <b>35K</b> 3500K Neutral White <b>40K</b> 4000K Cool White	<b>SA</b> Satin Aluminum <b>WH</b> White

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## LENS OPTIONS



**LC45 LIGHT CHANNEL 61° DIFFUSED LENS**  
White Diffused Lens projects clean lines of light, eliminating LED diodes



**LC45 LIGHT CHANNEL 26° CLEAR LENS**  
Clear Lens provides maximum light levels and will show slight LED diodes



**LC45 LIGHT CHANNEL DIFFUSED LENS WITH GEL COLOR FILTER (PROVIDED BY CUSTOMER)**

Clear and Diffused Lens are Gel Color Filter Suitable allowing for color personalization. Zircon LED Gel filters are recommended and can be purchased from [www.leefilters.com](http://www.leefilters.com). Gel filter life is 5,000 hours before needing to be changed

## NOMINAL DELIVERED LUMENS

WATTS PER FOOT	2w (2.5 watts)					5w (4.4 watts)					7w (7.3 watts)				
	24K	27K	30K	35K	40K	24K	27K	30K	35K	40K	24K	27K	30K	35K	40K
COLOR TEMPERATURE	24K	27K	30K	35K	40K	24K	27K	30K	35K	40K	24K	27K	30K	35K	40K
LUMENS PER FOOT (lm/ft)	120	121	127	145	153	222	225	234	268	283	343	347	361	415	437
LUMENS PER WATT (lm/w)	48	49	51	58	61	51	51	53	61	64	47	48	49	57	60
CRI	90+	95+	95+	85+	85+	90+	95+	95+	85+	85+	90+	95+	95+	85+	85+
RF	85	88	88	86	88	85	88	88	86	88	85	88	88	86	88
RG	97	96	100	96	97	97	96	100	97	96	97	96	100	96	97

WATTS PER FOOT	2w (2.5 watts)					5w (4.4 watts)					7w (7.3 watts)				
	24K	27K	30K	35K	40K	24K	27K	30K	35K	40K	24K	27K	30K	35K	40K
COLOR TEMPERATURE	24K	27K	30K	35K	40K	24K	27K	30K	35K	40K	24K	27K	30K	35K	40K
LUMENS PER FOOT (lm/ft)	141	142	148	170	179	260	263	274	315	332	402	407	423	486	512
LUMENS PER WATT (lm/w)	56	57	59	68	72	59	60	62	71	75	55	56	58	67	70
CRI	90+	95+	95+	85+	85+	90+	95+	95+	85+	85+	90+	95+	95+	85+	85+
RF	85	87.7	88.1	86.1	87.6	85.2	87.7	88.1	86.1	87.6	85.2	87.7	88.1	86.1	87.6
RG	97.4	96.1	99.7	95.5	96.8	97.4	96.1	99.7	96.8	95.5	97.4	96.1	99.7	95.5	96.8

## FOOT CANDLE CHARTS

30K 100° 5W DIFFUSED LENS		
DISTANCE	BEAM	FOOT CANDLE
12"	29"	240
18"	43"	106
24"	57"	60
36"	86"	26

30K 40° 5W CLEAR LENS		
DISTANCE	BEAM	FOOT CANDLE
12"	8"	720
18"	13"	320
24"	18"	180
36"	26"	80

\*Foot Candle Data is based off 4' Channel.

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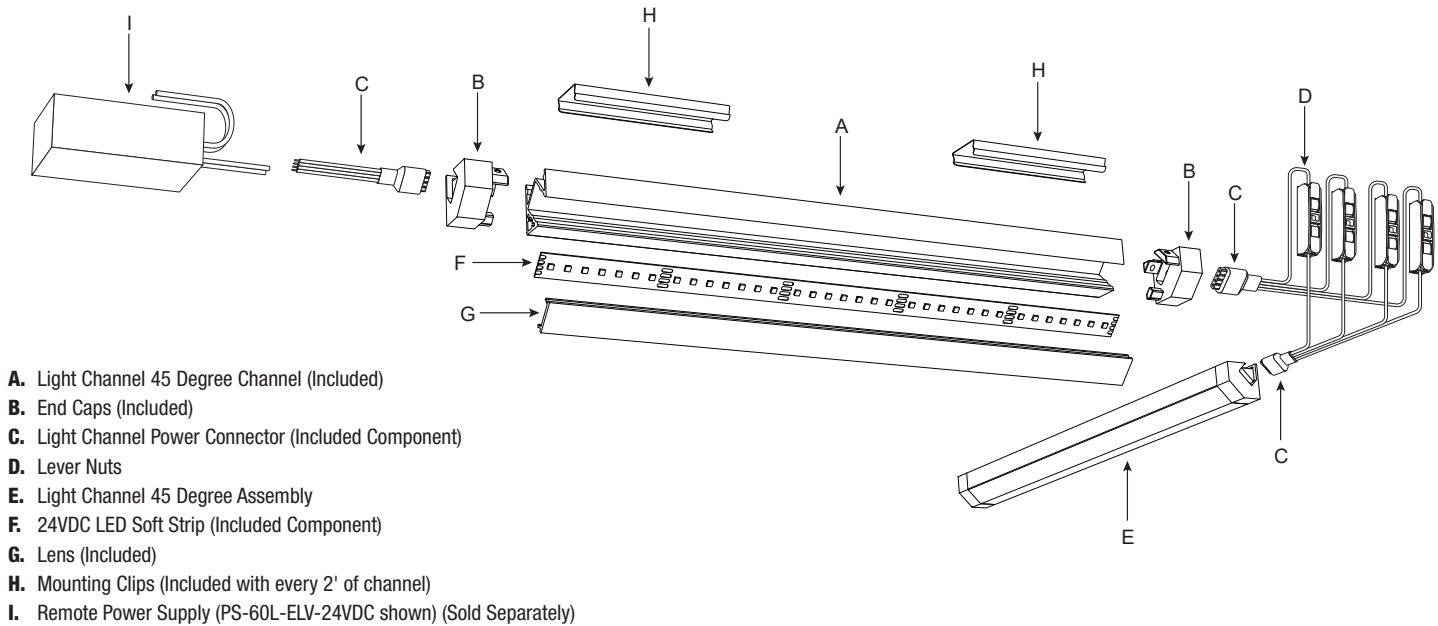
ACTUAL LENGTHS FOR LIGHT CHANNEL 45° STATIC WHITE					
Ordering Code (Nominal Size)	Illuminated Length (Inches)	Overall Length (Inches)	Ordering Code (Nominal Size)	Illuminated Length (Inches)	Overall Length (Inches)
12	12.0	13.0	68	67.2	68.2
15	14.4	15.4	70	69.6	70.6
17	16.8	17.8	72	72.0	73.0
20	19.2	20.2	75	74.4	75.4
22	21.6	22.6	77	76.8	77.8
24	24.0	25.0	80	79.2	80.2
27	26.4	27.4	82	81.6	82.6
29	28.8	29.8	84	84.0	85.0
32	31.2	32.2	87	86.4	87.4
34	33.6	34.6	89	88.8	89.8
36	36.0	37.0	92	91.2	92.2
39	38.4	39.4	94	93.6	94.6
41	40.8	41.8	96	96.0	97.0
44	43.2	44.2	99	98.4	99.4
46	45.6	46.6	101	100.8	101.8
48	48.0	49.0	104	103.2	104.2
51	50.4	51.4	106	105.6	106.6
53	52.8	53.8	108	108.0	109.0
56	55.2	56.2	111	110.4	111.4
58	57.6	58.6	113	112.8	113.8
60	60.0	61.0	116	115.2	116.2
63	62.4	63.4	118	117.6	118.6
65	64.8	65.8	120	120.0	121.0

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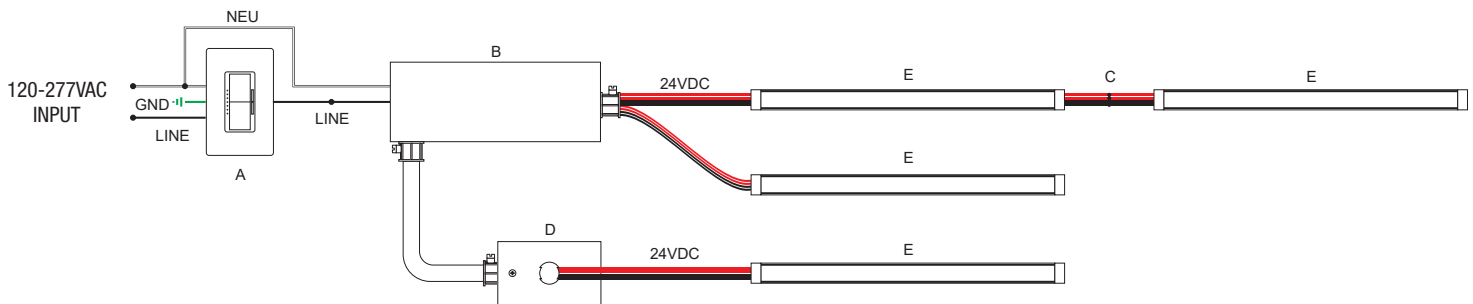
**Included Components:** Light Channel 45° system overview



**WIRING DIAGRAM:** Electronic Low Voltage (ELV) dimming for Light Channel 45°

**Power Supply:** 120VAC input, 24VDC 96 watt output PSB-96W-ELV-24VDC

**Dimming:** Dimmable with low voltage electronic dimmer using power supply above. See power supply spec sheet for additional details. Lutron: Diva DVELV-300P; Skylark SELV-300P; Maestro MAELV-600 dimmers are recommended.



- A. Dimmer (ELV Dimmer shown)
- B. 96W 24VDC Power Supply PSB-96W-UNI-24VDC
- C. Light Channel Power Connector SS-CON-\_\_-DW with Lever Nuts
- D. 3" Rectangle Canopy Cover 3RE-WH
- E. Light Channel Fixture

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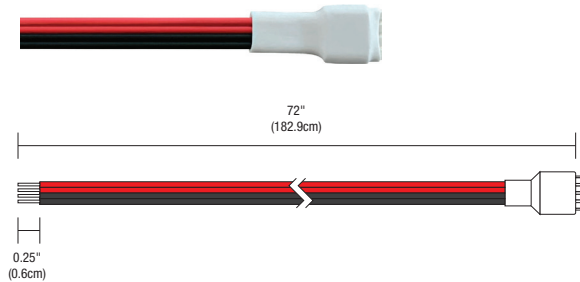
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**Accessories:** Order based on your lighting design specifications or as replacement parts.

## LIGHT CHANNEL POWER CONNECTOR

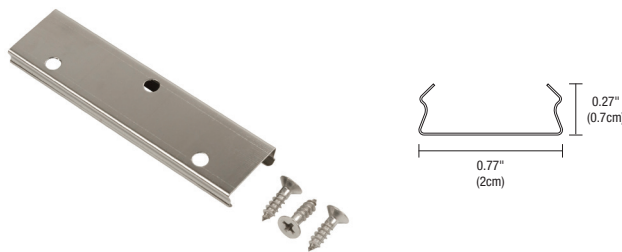
One Female Power Connector is included with each order of channel. For jumper connections, we recommend using WAGO 221 Lever Nuts according to your specific application requirements.



System	Type	Product	Length	Color Temperature
<b>SS</b>	<b>FE</b>	<b>CON</b>	<b>72IN</b>	<b>DW</b>
SS Stomp/Soft Strip	FE Female Pin	CON Connector	72IN 72"	DW Static White

## MOUNTING CLIP

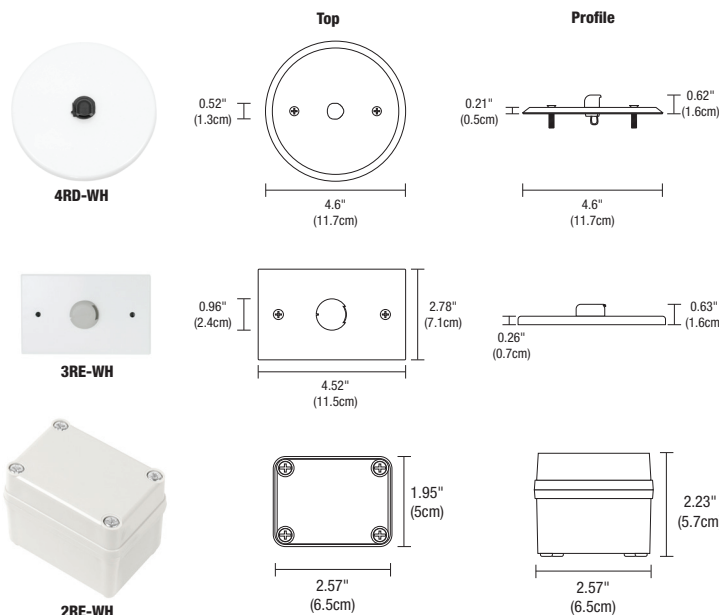
Light Channel comes with standard mounting clips. LC45-MCL mounting clips are provided with every 2' of Light Channel.



System	Product
<b>LC45</b>	<b>MCL</b>
LC45 Light Channel 45°	MCL Mounting Clip

## CANOPY COVERS & SPLICE BOXES

Use for remote located power supply. The 3 inch rectangle or 4 inch round white canopy covers the electrical box and feeds wires for Light Channel. The Splice Box provides a safe enclosure for low voltage connections.



Product	Finish
<b>3RE</b>	<b>WH</b>
3RE 3" Rectangle Canopy Cover	WH White
4RD 4" Round Canopy Cover	
2RE-JBOX 2" Rectangle Splice Box	

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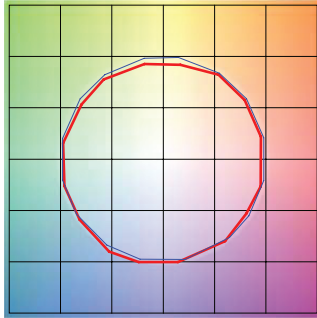
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**TM-30-15 DATA:** The data below is for bare LED Static White Strip. Consistent color temperatures throughout a single strip and among multiple strips is possible through a 3 phase binning process in which each order is inspected with a color meter to ensure uniformity.

**2400K** | Rf: 84.5 | Rg: 94.4

Color Vector Graphic

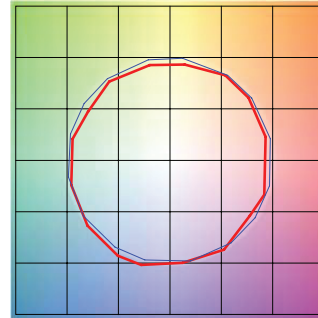


■ Test ■ Reference

		GRAPHIC SHIFTS %	
HUE BIN	Rf	CHROMA	HUE
1	92	-2.4%	1.5%
2	94.7	-2.1%	-0.0%
3	95.4	-1.9%	-0.1%
4	88.7	-6.7%	-3.1%
5	92.8	-5.6%	1.0%
6	92.7	-3.4%	3.4%
7	89.9	-4.3%	4.1%
8	92.4	-1.4%	4.4%
9	89	-0.6%	5.8%
10	88.9	0.4%	6.2%
11	89.7	4.0%	5.4%
12	92.6	3.0%	-0.7%
13	90.9	1.1%	-7.0%
14	89.9	0.5%	-5.8%
15	92.1	-3.2%	0.1%
16	88.9	-1.7%	-6.3%

**2700K** | Rf: 87.7 | Rg: 96.1

Color Vector Graphic

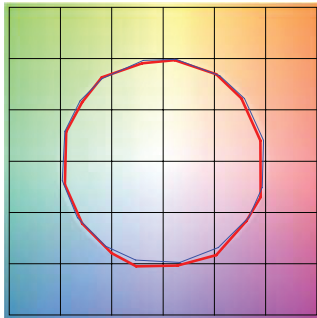


■ Test ■ Reference

		GRAPHIC SHIFTS %	
HUE BIN	Rf	CHROMA	HUE
1	88.0	-4.3%	2.6%
2	91.6	-2.4%	2.0%
3	93.7	-1.4%	1.9%
4	88.9	-5.6%	-3.1%
5	92.3	-5.5%	-0.5%
6	92.9	-3.5%	0.1%
7	84.5	-7.5%	4.6%
8	90.8	-3.0%	4.4%
9	84.5	-1.3%	8.3%
10	83.9	2.0%	9.8%
11	87.2	5.3%	7.1%
12	89.2	5.4%	-2.6%
13	88.7	0.3%	-7.8%
14	86.8	1.7%	-9.3%
15	87.6	-5.4%	-1.3%
16	83.6	-3.3%	-9.5%

**3000K** | Rf: 88.1 | Rg: 99.7

Color Vector Graphic

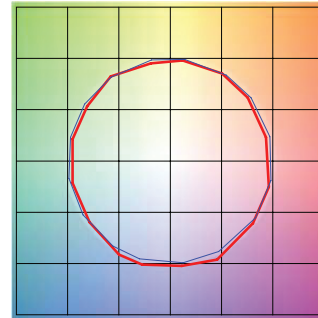


■ Test ■ Reference

		GRAPHIC SHIFTS %	
HUE BIN	Rf	CHROMA	HUE
1	92.5	-3.1%	0.3%
2	93.3	-2.3%	1.9%
3	90.9	-0.8%	3.9%
4	94.3	-1.1%	1.4%
5	92.5	-2.6%	1.5%
6	96.4	1.2%	-0.3%
7	92.6	-2.5%	-0.0%
8	96.9	-1.4%	0.2%
9	92.3	-1.8%	4.3%
10	86.6	-0.7%	7.0%
11	86.5	2.4%	8.2%
12	89.8	5.9%	1.7%
13	93.9	2.6%	-2.7%
14	89.4	5.1%	-5.8%
15	90.1	-0.1%	-4.7%
16	86.5	0.3%	-9.7%

**3500K** | Rf: 86.1 | Rg: 95.5

Color Vector Graphic

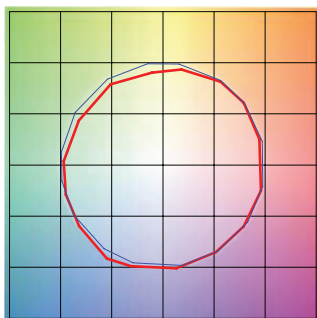


■ Test ■ Reference

		GRAPHIC SHIFTS %	
HUE BIN	Rf	CHROMA	HUE
1	90.8	-3.8%	0.3%
2	92.3	-2.8%	2.1%
3	89.7	-1.0%	4.3%
4	92.6	-1.4%	1.7%
5	91.8	-3.1%	1.3%
6	96.2	0.8%	-0.4%
7	92.9	-3.2%	0.2%
8	94.3	-2.5%	1.5%
9	90.4	-2.5%	5.2%
10	84.3	-1.4%	9.5%
11	83.1	3.5%	9.8%
12	88.2	4.8%	3.4%
13	94.0	2.7%	-2.0%
14	88.7	5.9%	-5.8%
15	88.7	0.7%	-5.9%
16	86.8	-0.7%	-6.7%

**4000K** | Rf: 87.6 | Rg: 96.8

Color Vector Graphic



■ Test ■ Reference

		GRAPHIC SHIFTS %	
HUE BIN	Rf	CHROMA	HUE
1	88.9	-2.4%	2.5%
2	93.3	-0.4%	0.8%
3	94.8	-1.0%	-0.6%
4	87.9	-4.9%	-3.6%
5	85.3	-9.4%	-2.6%
6	90.2	-6.0%	0.2%
7	85.3	-7.6%	4.6%
8	83.7	-4.1%	8.2%
9	79.5	-1.1%	13.8%
10	78.6	1.5%	12.1%
11	83.5	6.4%	7.8%
12	90.9	3.6%	-1.1%
13	88.3	1.7%	-6.3%
14	91.9	-0.4%	-2.2%
15	84.5	-0.9%	-5.5%
16	84.7	-1.1%	-4.4%

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