

# LIGHT CHANNEL COMPLETE FIXTURE 45° ANGLE

24VDC, SURFACE MOUNT, WARM DIM

DESIGNED BY GREGORY KAY | ASSEMBLED IN AMERICA



## DESCRIPTION

Our Warm Dim 45° Surface-mounted Light Channel is a versatile made-to-order, 24VDC Class 2 luminaire. The channel's 45° angle design provides designers with enhanced flexibility when it comes to illuminating challenging areas. Offered in lengths from 12" to 120"(10') in 3" increments for precise sizing. Available in two variations (**27D** & **30D**) our Warm Dim technology mimics an incandescent atmosphere by decreasing the color temperature as you dim. Our Warm Dim strips can be dimmed all the way down to a soothing amber hue at 1800K, reminiscent of candlelight along the halogen curve. 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
- 92+ 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

## 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.

## FINISHES



Satin Aluminum  
SA

White  
WH

## LAMP

- 27D** dims from 2700K down to 1800K, and **30D** dims from 3000K down to 2000K, resembling incandescent light sources
- Lumen Performance: Up to 313lm/ft at 3000K, 5W per foot
- 92+ CRI
- Average life: 50,000 hours
- For additional color temperatures refer to other specifications

## SPECIFICATIONS

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

## 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

- [Home Integration Solutions](#)
- [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

## MAKE IT SMART

[Pure Smart™ Wi-Fi Dimmer & Switch](#)

## COMPLIANCE

\*Title 24 JA8 listed when used with PureEdge remote Universal power Supplies, ETL, Class 2, Damp Location, Manufactured in the USA.

## APPLICATIONS

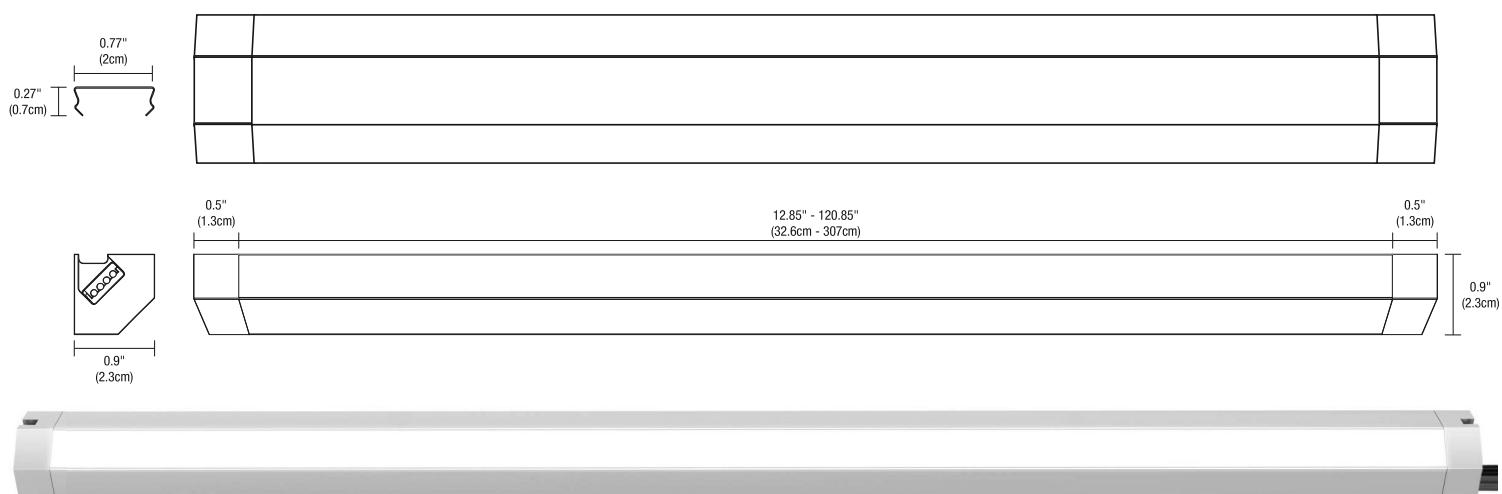
Designed for indoor use only. Ideal applications include display shelving and cabinetry, under-cabinet, cabinet lighting, coves, and bars within residential, commercial, retail, and hospitality environments.

Product	Wattage	Nominal Length	Lens	Color Temperature	Finish
<b>LC45</b>	<b>5W</b>	<b>60</b>	<b>D</b>	<b>27D</b>	<b>SA</b>
LC45 Light Channel Surface Mount 45°	5W 4.8 Watts	12-120 Order in 3" increments from 12" to 120". See chart for exact lengths.	D Diffused Lens C Clear Lens G Diffused Lens with Gel Color (Color Provided by Customer)	27D 2700K-1800K Warm Dim 30D 3000K-2000K Warm Dim	SA Satin Aluminum WH 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	DIFFUSED LENS		CLEAR LENS	
	5w (4.8 watts)	5w (4.8 watts)	5w (4.8 watts)	5w (4.8 watts)
COLOR TEMPERATURE	27D	30D	27D	30D
LUMENS PER FOOT (lm/ft)	256	267	300	313
LUMENS PER WATT (lm/w)	53	56	63	65
CRI	92+	92+	92+	92+
RF	90	90	90	90
RG	99	99	99	99

## FOOT CANDLE CHARTS

30K 100° 5W DIFFUSED LENS			30K 40° 5W CLEAR LENS		
DISTANCE	BEAM	FOOT CANDLE	DISTANCE	BEAM	FOOT CANDLE
12"	29"	240	12"	8"	720
18"	43"	106	18"	13"	320
24"	57"	60	24"	18"	180
36"	86"	26	36"	26"	80

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

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## ACTUAL LENGTHS FOR LIGHT CHANNEL 45° WARM DIM

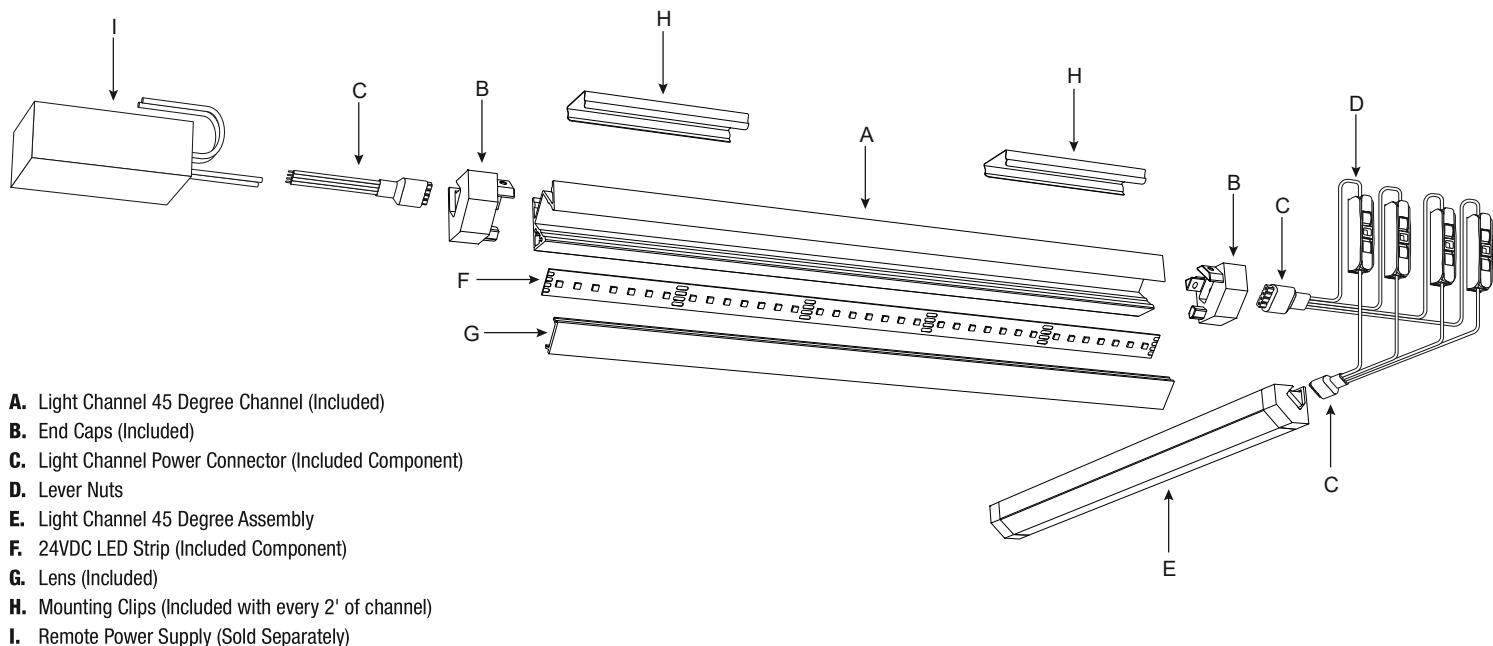
ORDERING CODE (NOMINAL LENGTH) /ILLUMINATED LENGTH	ACTUAL LENGTH	ORDERING CODE (NOMINAL LENGTH) /ILLUMINATED LENGTH	ACTUAL LENGTH
12	13	66	67
15	16	69	70
18	19	72	73
21	22	75	76
24	25	78	79
27	28	81	82
30	31	84	85
33	34	87	88
36	37	90	91
39	40	93	94
42	43	96	97
45	46	99	100
48	49	102	103
51	52	105	106
54	55	108	109
57	58	111	112
60	61	114	115
63	64	117	118
		120	121

PROJECT		Fixture Type		DATE	
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# LIGHT CHANNEL COMPLETE FIXTURE 45° ANGLE

24VDC, SURFACE MOUNT, WARM DIM

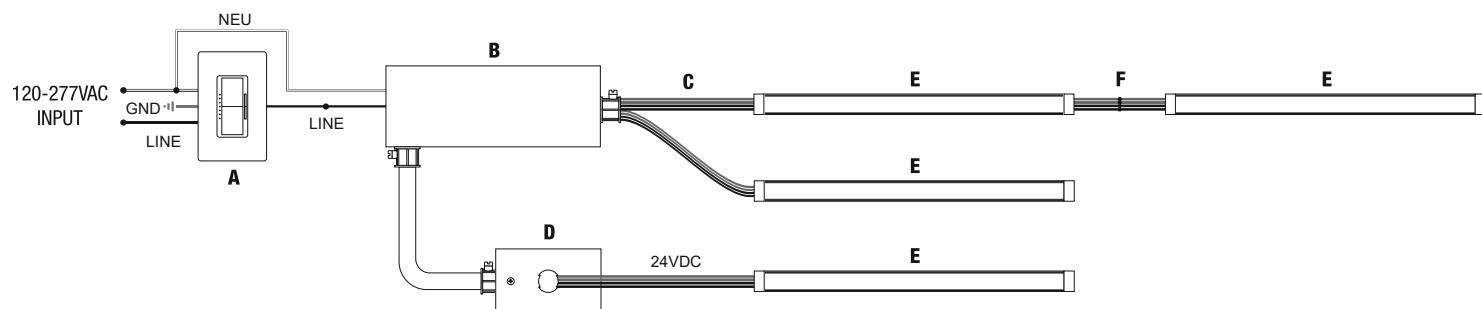
**Components:** Light Channel 45° system overview



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

**Power Supply:** 120VAC input, 24VDC 96 watt output

**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.



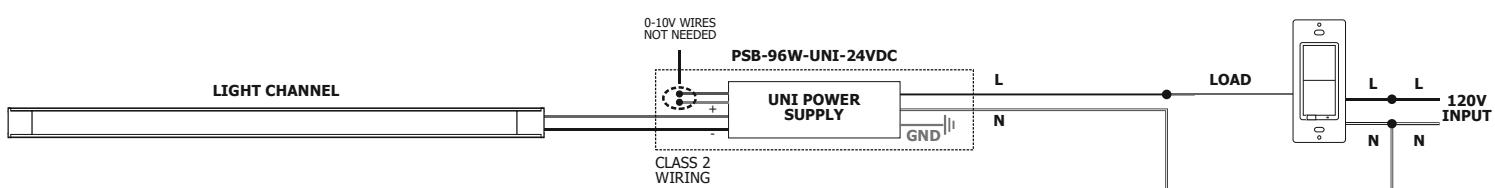
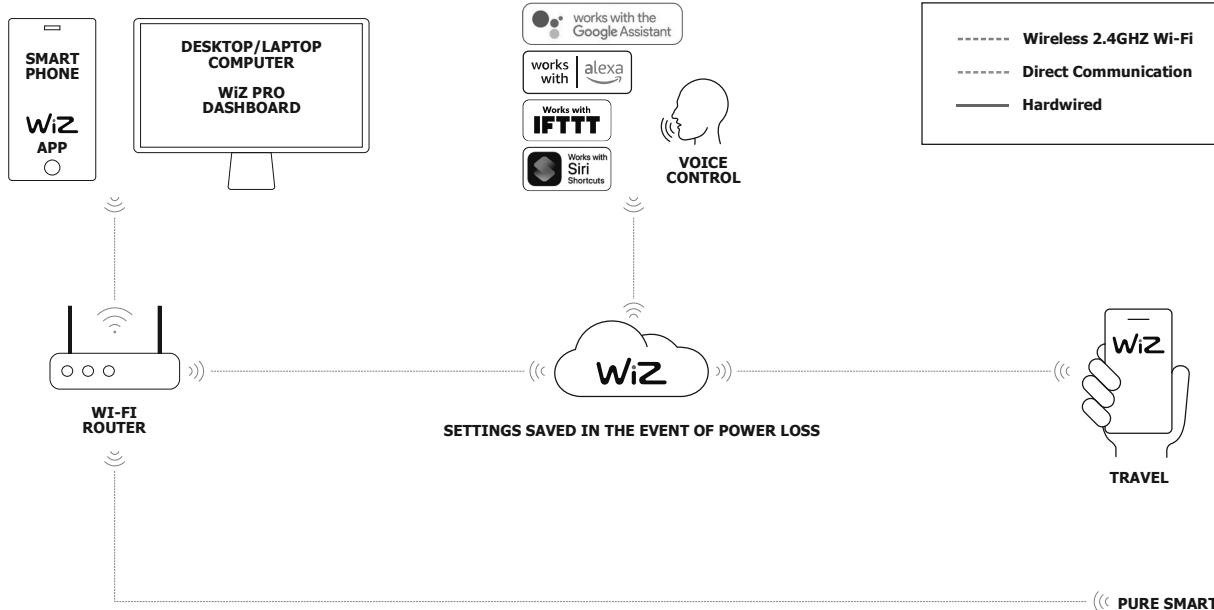
- A. Dimmer (ELV Dimmer shown)
- B. 96W 24VDC Power Supply
- C. Light Channel Power Connector SS-FE-CON-72IN-DW
- D. 3" Rectangle Canopy Cover 3RE-WH
- E. Light Channel Fixture
- F. Light Channel Flexible Connector SS-CFX-CON-\_\_-DW

PROJECT	FIXTURE TYPE	DATE
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## NETWORK TOPOLOGY USING UNI DRIVER

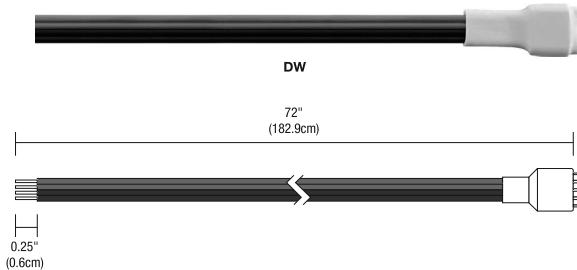


PROJECT	Fixture Type	Date
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**Accessories:** Order based on your lighting design specifications or as replacement parts.

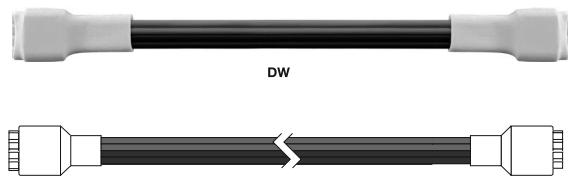


## LIGHT CHANNEL POWER CONNECTOR

One Female Power Connector is included with each order of channel. For jumper connections, use our Flexible Connector or WAGO 221 lever nuts according to your specific application requirements.

System	Type	Product	Length	Color Temperature
SS	FE	CON	72IN	DW

SS Stomp Strip/Soft Strip FE Female Pin CON Connector 72IN 72" DW Static White/Warm Dim

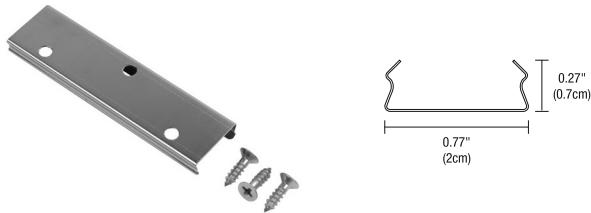


## FLEXIBLE CONNECTOR

Flexible connectors link two sections of the Light Channel end to end. WAGO 221 lever nuts can also be used as jumper connections according to your specific application requirements.

System	Type	Product	Size	Color Temperature
SS	CFX	CON	12IN	DW

SS Stomp Strip/Soft Strip CFX Flexible Connector CON Connector 12IN 12 Inches 72IN 72 Inches DW Static White/Warm Dim

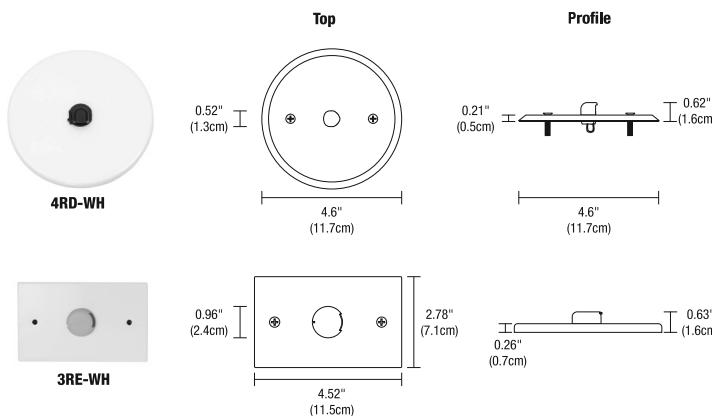


## MOUNTING CLIP

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

System	Product
LC45	MCL

LC45 Light Channel 45° MCL Mounting Clip

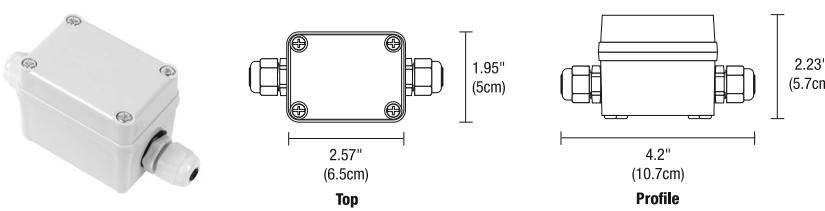


## CANOPY COVER & SPLICING BOX

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
3RE	WH

3RE 3" Rectangle Canopy Cover  
4RD 4" Round Canopy Cover  
WH White



## JUNCTION BOX

Low voltage Splice Box with connectors.

Product	Type	Option
2RE	JBOX	W

2RE 2" Rectangle JBOX Junction Box W Wet Location

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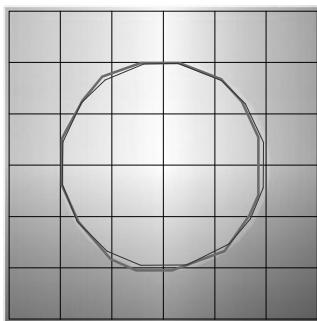
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24VDC, SURFACE MOUNT, STATIC WHITE

**TM-30-15 DATA:** The data below is for bare LED Warm Dim 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.

**2700D** | Rf: 90.7 | Rg: 101.1

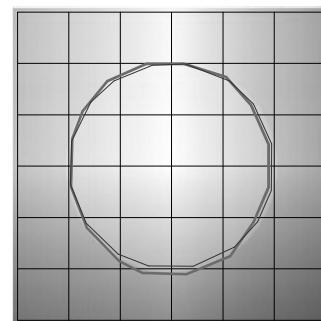
Color Vector Graphic



■ Test ■ Reference

**3000D** | Rf: 90.6 | Rg: 101.1

Color Vector Graphic



■ Test ■ Reference

		GRAPHIC SHIFTS %	
HUE BIN	Rf	CHROMA	HUE
1	90.9	-4.1%	1.1%
2	91.8	-2.2%	3.2%
3	89.0	0.2%	5.0%
4	92.9	-1.1%	0.8%
5	93.9	1.1%	1.7%
6	93.3	3.3%	0.0%
7	93.1	-0.5%	-1.9%
8	97.2	-0.3%	-0.9%
9	93.4	-1.0%	3.2%
10	89.9	-0.1%	5.6%
11	87.0	4.7%	7.2%
12	89.2	5.8%	-0.2%
13	89.1	3.5%	-6.7%
14	86.3	4.1%	-9.2%
15	91.4	-2.0%	-3.6%
16	84.7	-2.1%	-10.3%

		GRAPHIC SHIFTS %	
HUE BIN	Rf	CHROMA	HUE
1	91.5	-3.5%	1.3%
2	92.2	-1.8%	3.0%
3	89.3	0.5%	4.8%
4	92.7	-1.1%	0.6%
5	93.3	0.5%	1.4%
6	93.8	2.7%	-0.8%
7	91.2	-2.1%	-0.2%
8	97.0	-0.5%	-0.7%
9	92.5	-0.7%	3.8%
10	88.3	0.9%	7.1%
11	87.5	3.9%	7.6%
12	88.2	6.2%	-0.2%
13	89.9	3.4%	-6.0%
14	86.9	4.4%	-8.5%
15	91.9	-1.9%	-2.9%
16	84.7	-1.3%	-10.6%

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