

# LIGHT CHANNEL 45° ANGLED COMPLETE FIXTURE

24VDC SURFACE MOUNT 5 CHANNEL WIRELESS CONTROL, TRUCOLOR™ RGBTW

DESIGNED BY GREGORY KAY | ASSEMBLED IN AMERICA

REV 04.17.25



## DESCRIPTION

Light Channel 45° Angle Surface Mount Lighting System is a made-to-order complete fixture, purchased in nominal increments of 3". Light Channels may be ordered from 12" up to 120" (10'). The 45° angle channel gives more flexibility to the designer when trying to place light where it is most difficult. Used in conjunction with the TruColor RGBTW light engine, the Light Channel 45 product becomes an extremely versatile surface mount fixture with a near infinite color palette for designers and homeowners to choose from.

## FEATURES AND BENEFITS

- TruColor™ LED's achieve an average CRI-Color Rendering Index of 94+ and a Duv of  $\pm 0.0046$  in relation to the blackbody curve at any point on the spectrum of tunable white CCT.
- Low voltage up to 100 watt. Class 2 wiring, 24VDC. Junction Box and Pure Smart WiZ Pro Bridgebox (C-1RE4G-WZ-TC5W5-LC sold separately) allow for 5-Channel wireless control of the Light Channel luminaire.
- Power Consumption Options: 5W5 (5 watts/ft total), 5W7 (7 watts/ft total)

## LENS OPTIONS

- Clear Lens (**C**) provides maximum illumination use of a 40° transparent clear lens, LED diodes will show
- Diffused White Lens (**D**) projects clean lines of light 100° eliminating pixelation

## AVERAGE PERFORMANCE 2000K-5500K

- Average CRI (5W7): 94+
- Average DUV (5W7):  $\pm 0.0046$
- Average R9: 91, Rg: 102, Rf: 93
- Average life: 50,000 hours

## INCLUDED COMPONENTS

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

## ACCESSORIES (SOLD SEPARATELY)

- Mounting Clips (Included with every 2' of Channel)
- 1RE Canopy with 4 Gang J Box and Pure Smart WiZ Pro CV Bridgebox (C-1RE4G-WZ-TC5W5-LC necessary for wireless control)

## TRUCOLOR™ RGB & TUNABLE WHITE LIGHT ENGINE

Pure Smart **TruColor™** technology uses five channels of tunable LEDs, composed of **RGBTW** red, blue, green, and Tunable White (**1500K-6500K**). With our precision-engineered, proprietary color mixing, we produce one of the widest, most accurate spectrums available, giving our customers access to the warm glow of the sunset (1500K-2400K golden hour) to the pure white light of the mid-day sun (5700K) and everything in between. **TruColor™** LED's achieve an average CRI-Color Rendering Index of 94+ and a Duv of  $\pm 0.0020$  in relation to the blackbody curve at any point on the spectrum of tunable white CCT. Dynamic Color Changing functionality provides millions of possibilities for intricate customization, rich saturated secondary colors, and unprecedented ease of installation, making **RGBTW** the ideal choice for residential and commercial applications. **TruColor™ RGBTW** adds more than just decorative flexibility; it also helps to support a healthy Circadian Rhythm and well-being. Let **TruColor™** transform your space and the people within it. **TruColor™ RGBTW** is optimized for control with WiZ Pro Wi-Fi based smart control system.

## LUMEN PERFORMANCE

- **TruColor™ RGBTW** Red, Green, and Blue with Tunable White (**1500K-6500K**)
- 5W5 226LM/FT 5W @3000K
- 5W7 330LM/FT 7W @3000K

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

24VDC, Class 2 wiring

- [Home Integration Solutions](#)
- Pure Smart™ WiZ Pro [Power Supplies](#) & [Smart Controls](#)
- [Pure Smart™ Wi-Fi Controller](#)

Features ON/OFF buttons, CCT and brightness control as well as four preset/custom scenes programmable in the WiZ app. Communicates via 2.4GHz Wi-Fi. No Hub needed. Voice control with Google Assistant, Alexa, Siri, Shortcuts, and IFTTT

## APPLICATIONS

Indoor only, cove lighting, under cabinet, indirect lighting above cabinets, display lighting, toe kick, and general illumination

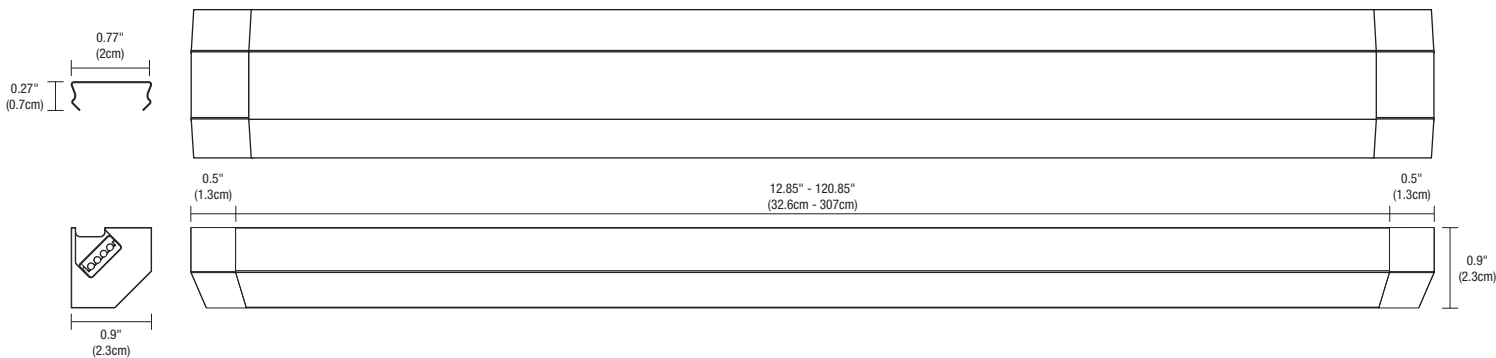
Product	Wattage	Nominal Size	Lens/Color Temperature		Finish
<b>LC45</b>	<b>5W5</b>	<b>60</b>	<b>D</b>	<b>TC</b>	<b>SA</b>
<b>LC45</b> Light Channel 45 Surface Mount	<b>5W5</b> 5W5 5 watts RGB, 5 watts Tunable White <b>5W7</b> 5W7 5 watts RGB, 7 watts Tunable White	<b>12-120</b> Order in 12" increments up to 120". May be ordered in 3" increments	<b>D</b> Diffused Lens <b>C</b> Clear Lens	<b>TC</b> TruColor™ RGBTW Red, Green, Blue & Tunable White 1500K-6500K	<b>SA</b> Satin Aluminum <b>WH</b> White

PROJECT	FIXTURE TYPE	DATE
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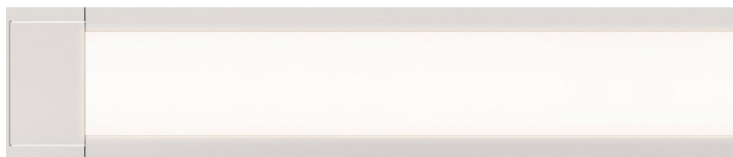
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## INCLUDED COMPONENTS Lens Options and Lamp Data for indoor Light Channel 0.6" Surface Mount



**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

## NOMINAL LAMP DATA

DESCRIPTION	LC45 WITH DIFFUSER LENS																	
	5W5 5W RGB & 5W TUNABLE WHITE									5W7 5W RGB & 7W TUNABLE WHITE								
	5W Maximum									7W Maximum								
WATTS PER FOOT	20K	22K	24K	27K	30K	35K	40K	57K	65K	20K	22K	24K	27K	30K	35K	40K	57K	65K
COLOR TEMPERATURE	72	108	132	148	152	161	174	122	112	89	149	191	217	222	234	230	135	122
LUMENS PER FOOT (lm/ft)	27	24	30	35	36	37	41	41	41	27	39	31	36	36	38	39	39	38
LUMENS PER WATT (lm/w)	91.8	93.8	94.5	94.9	95.5	96.9	97.2	92.1	89.8	93	95	96	97	97	98	97	95	93
CRI	-0.004	-0.0012	-0.0034	-0.0058	-0.0055	-0.0033	-0.0014	-0.0049	-0.0063	-0.0030	0.0002	0.0030	0.0030	0.0030	0.0009	0.0000	0.0030	0.0030
Duv	91	93	94	94	95	94	94	92	90	92	93	95	95	95	95	94	92	91
Rf	105	101	103	105	104	102	100	102	103	104	100	102	103	103	101	100	102	103
Rg	90	90	90	94	97	97	91	81	70	91	90	90	94	95	93	93	79	67
R9	92	94	95	95	94	96	99	90	87	92	95	96	96	97	99	99	91	88
R13	99	99	99	98	97	97	97	89	85	99	99	99	99	99	98	97	90	85
R15	2.7	4.55	4.35	4.25	4.25	4.35	4.2	2.95	2.75	3.35	3.85	6.15	5.95	6.15	6.15	5.84	3.45	3.2
WATTS/FOOT																		
DESCRIPTION	LC45 WITH CLEAR FROSTED LENS																	
	5W5 5W RGB & 5W TUNABLE WHITE									5W7 5W RGB & 7W TUNABLE WHITE								
	5W Maximum									7W Maximum								
WATTS PER FOOT	20K	22K	24K	27K	30K	35K	40K	57K	65K	20K	22K	24K	27K	30K	35K	40K	57K	65K
COLOR TEMPERATURE	85	127	154	173	179	189	203	143	132	105	174	224	254	261	275	269	158	143
LUMENS PER FOOT (lm/ft)	31	28	35	41	42	43	48	48	48	31	45	36	43	42	45	46	46	45
LUMENS PER WATT (lm/w)	91.8	93.8	94.5	94.9	95.5	96.9	97.2	92.1	89.8	93	95	96	97	97	98	97	95	93
CRI	-0.004	-0.0012	-0.0034	-0.0058	-0.0055	-0.0033	-0.0014	-0.0049	-0.0063	-0.0030	0.0002	0.0030	0.0030	0.0030	0.0009	0.0000	0.0030	0.0030
Duv	91	93	94	94	95	94	94	92	90	92	93	95	95	95	95	94	92	91
Rf	105	101	103	105	104	102	100	102	103	104	100	102	103	103	101	100	102	103
Rg	90	90	90	94	97	97	91	81	70	91	90	90	94	95	93	93	79	67
R9	92	94	95	95	94	96	99	90	87	92	95	96	96	97	99	99	91	88
R13	99	99	99	98	97	97	97	89	85	99	99	99	99	99	98	97	90	85
R15	2.7	4.55	4.35	4.25	4.25	4.35	4.2	2.95	2.75	3.35	3.85	6.15	5.95	6.15	6.15	5.84	3.45	3.2
WATTS/FOOT																		

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24VDC SURFACE MOUNT 5 CHANNEL WIRELESS CONTROL, TRUCOLOR™ RGBTW

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**Length Charts:** Actual lengths for Light Channel 45° Surface Mount

5W5, 5W7 TRUCOLOR™ RGBTW					
Ordering Code (NOMINAL LENGTH)	Actual Length	5W5 (TOTAL WATTS)	5W5 (TOTAL LUMENS AT 30K)	5W7 (TOTAL WATTS)	5W7 (TOTAL LUMENS AT 30K)
12	12.85	5	152	7	222
15	15.85	6	190	9	278
18	18.85	8	228	11	333
21	21.85	9	266	12	389
24	24.85	10	304	14	444
27	27.85	11	342	16	500
30	30.85	13	380	18	555
33	33.85	14	418	19	611
36	36.85	15	456	21	666
39	39.85	16	494	23	722
42	42.85	18	532	25	777
45	45.85	19	570	26	833
48	48.85	20	608	28	888
51	51.85	21	646	30	944
54	54.85	23	684	32	999
57	57.85	24	722	33	1055
60	60.85	25	760	35	1110
63	63.85	26	798	37	1166
66	66.85	28	836	39	1221
69	69.85	29	874	40	1277
72	72.85	30	912	42	1332
75	75.85	31	950	44	1388
78	78.85	33	988	46	1443
81	81.85	34	1026	47	1499
84	84.85	35	1064	49	1554
87	87.85	36	1102	51	1610
90	90.85	38	1140	53	1665
93	93.85	39	1178	54	1721
96	96.85	40	1216	56	1776
99	99.85	41	1254	58	1832
102	102.85	43	1292	60	1887
105	105.85	44	1330	61	1943
108	108.85	45	1368	63	1998
111	111.85	46	1406	65	2054
114	114.85	48	1444	67	2109
117	117.85	49	1482	68	2165
120	120.85	50	1520	70	2220

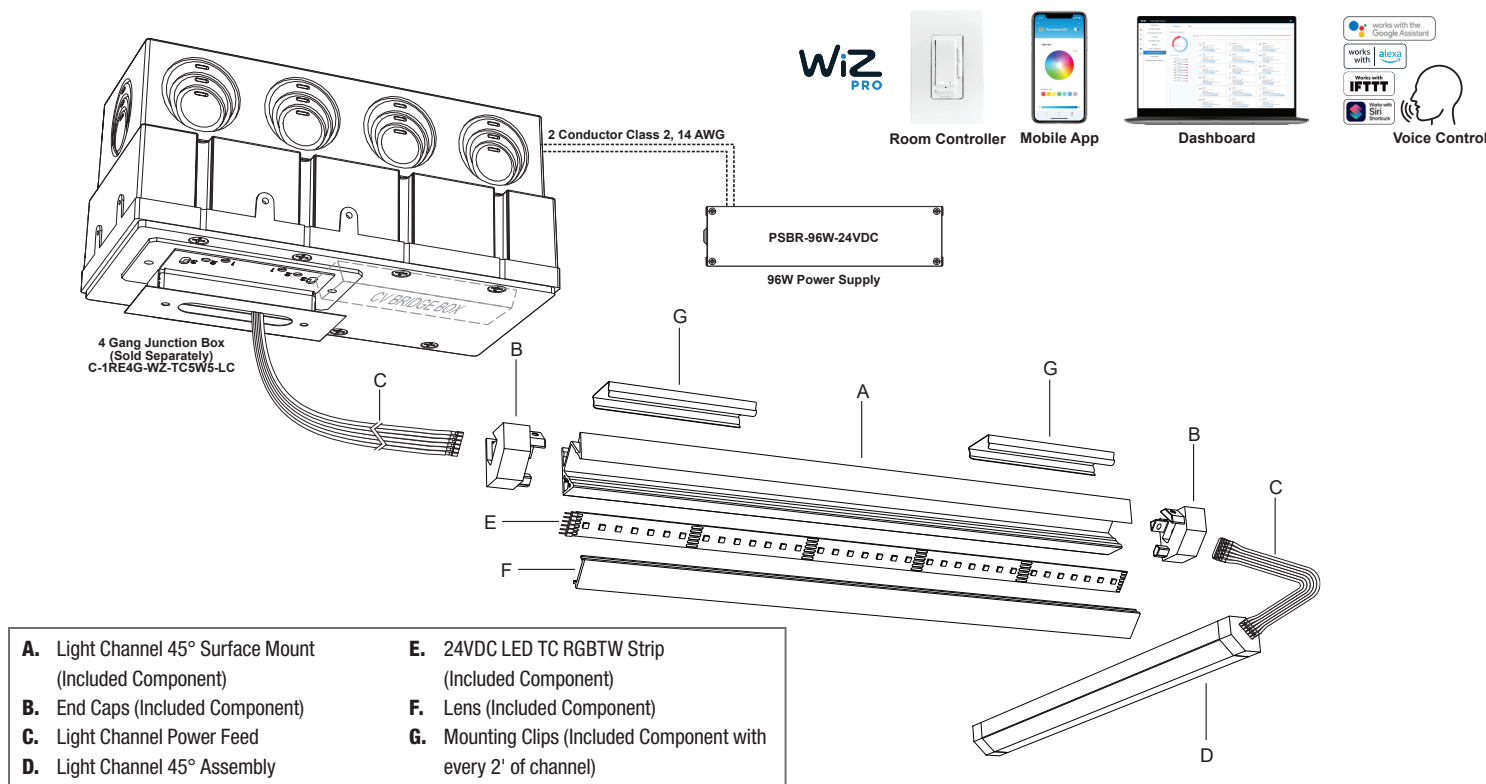
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# LIGHT CHANNEL 45° ANGLED COMPLETE FIXTURE

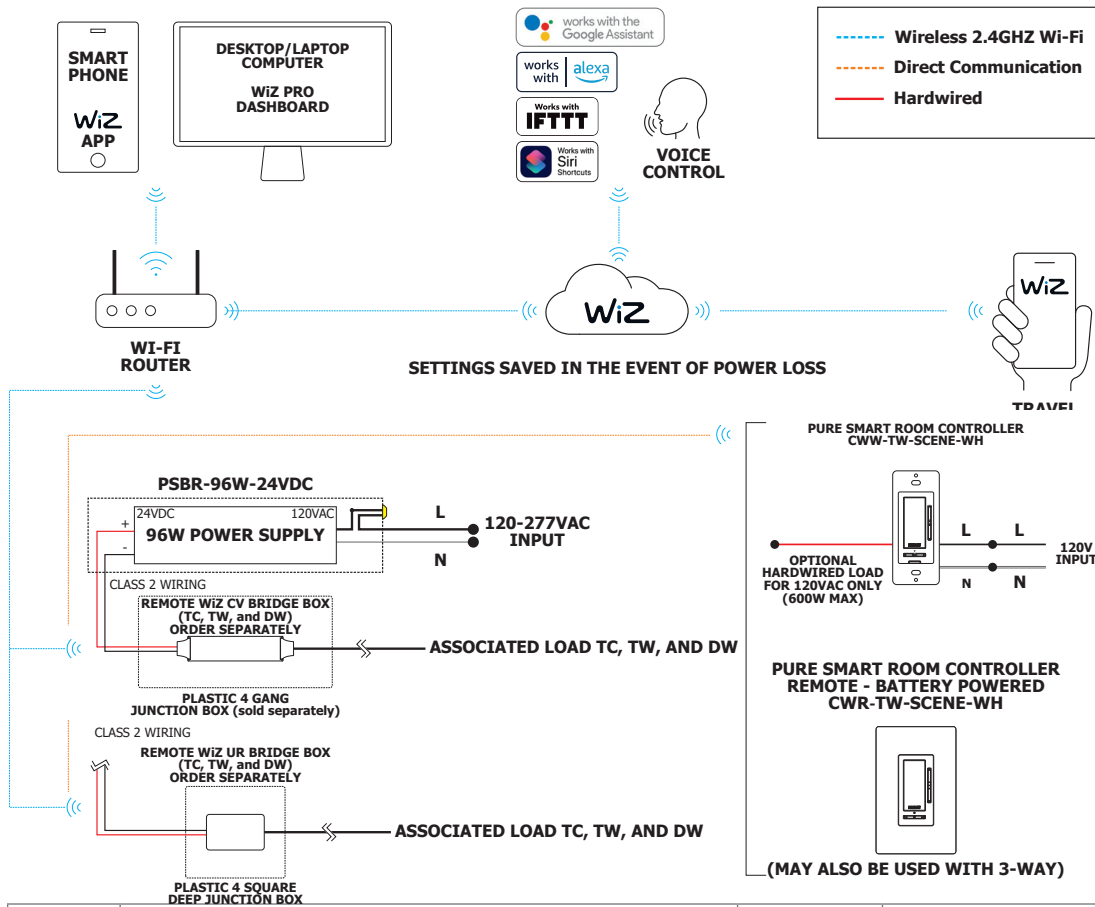
24VDC SURFACE MOUNT 5 CHANNEL WIRELESS CONTROL, TRUCOLOR™ RGBTW

Included Components: Light Channel 45° Surface Mount system overview

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## Wiring Diagram: Light Channel 45° Surface Mount



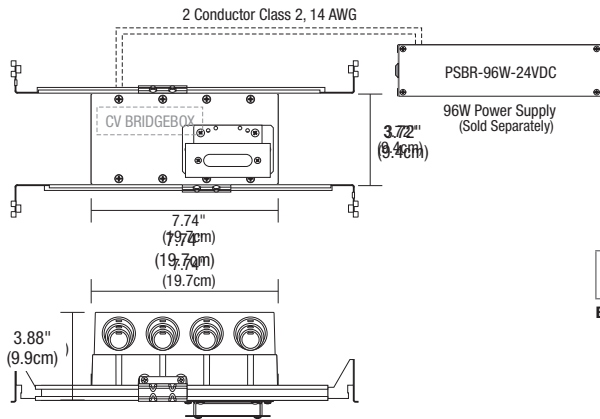
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24VDC SURFACE MOUNT 5 CHANNEL WIRELESS CONTROL, TRUCOLOR™ RGBTW

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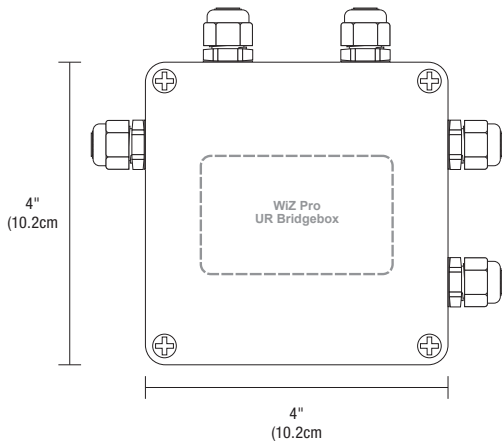
**COMPONENTS:** Light Channel .6 Micro Grazer, order based on lighting design or as replacement parts



## 1" RECTANGLE CANOPY WITH 4 GANG JUNCTION BOX AND PURE SMART WIZ PRO CV BRIDGEBOX FOR DRYWALL OR WOOD CEILING

The slim profile 1RE Canopy with 4 Gang Junction Box comes with adjustable hanger bars and a Pure Smart WiZ Pro 96 watt CV bridgebox allowing for 5-channel, wireless control of the TruColor RGBTW Cirrus Luminaire. Two Class 2, 14AWG stranded conductors from the Remote Power Supply up to 40 ft away are required.

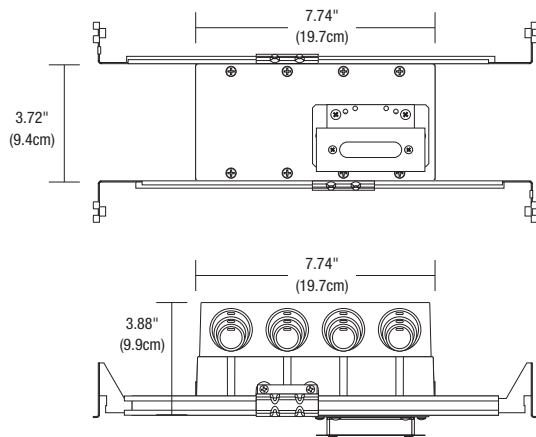
System	Canopy	Wattage	Control	Color Temperature	System Code
<b>BR</b>	<b>1RE4G</b>	<b>96W</b>	<b>WZ</b>	<b>TC5W5</b>	<b>LC</b>
BR Bridgebox Remote	1RE4G 1" Rectangle Canopy with 4 Gang Junction Box	96W 96 Watts	WZ WiZ pro Connected CV Smart Bridgebox Included	TC5W5 TruColor™ 5 watts RGB & 5 watts Tunable White TC5W7 TruColor™ 5 watts RGB & 7 watts Tunable White	LC Light Channel



## T BAR DROP CEILING SURFACE 4" SQUARE GANG JBOX AND PURE SMART WIZ PRO UR BRIDGEBOX

The 4" Square Junction Box located above Tbar ceiling includes connectors for fast and secure connection to the RGBTW Cirrus fixture and Pure Smart WiZ Pro 96 watt UR bridgebox allowing for 5-channel, wireless control of the TruColor™ RGBTW Cirrus. Requires two Class 2, 14 AWG stranded conductors from the Remote Power Supply up to 40 ft away. Can be quick shipped for rough-in.

Type	Component	Wattage	Control System	Color Temperature Options	System
<b>BR</b>	<b>4SQ</b>	<b>96W</b>	<b>WZ</b>	<b>TC5W5</b>	<b>LC</b>
BR Bridgebox Remote	4SQ 4 Square Junction Box, 1 to 5 connector outputs	96W 96 Watts	WZ WiZ pro Connected UR Smart Bridge box Included	TC5W5 TruColor™ 5 watts RGB & 5 watts Tunable White TC5W7 TruColor™ 5 watts RGB & 7 watts Tunable White	LC Light Channel



## CEILING SURFACE 1" RECTANGLE CANOPY & 4 GANG JUNCTION BOX (INCLUDED WITH COMPLETE FIXTURE ORDERING CODE)

The Junction Box opening is covered by the fixture for a clean no Canopy look. Includes 4 gang Junction Box with adjustable bar hangers. Includes a Goof Plate, for poor plastering around J-box. Can be quick shipped for rough-in.

Type	Component	Ceiling/Wall Type
<b>C</b>	<b>1RE</b>	<b>JB4G</b>
C Channel	1RE 1" Rectangle End Feed	JB4G 6 Conductor 4 Gang Junction Box

PROJECT	FIXTURE TYPE	DATE
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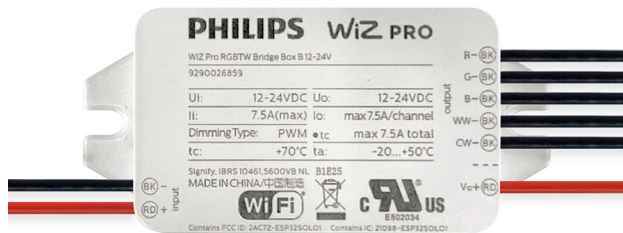
24VDC SURFACE MOUNT 5 CHANNEL WIRELESS CONTROL, TRUCOLOR™ RGBTW



## CV BRIDGE BOX ONLY (REPLACEMENT FOR 1RE4G JBOX)

The Pure Smart™ Class2 wiring Type, for use in tight spaces like a cabinet. CV96W RGBTW Bridgebox enables wireless control of a constant voltage, 5 Channel RGBTW LED load with the WiZ Pro wireless control ecosystem. For use with Non-Dim PSB (PSBR-96W-24VDC).

Product	Wattage	Color Temperature Options	System
<b>BRBOX</b>	<b>CV96W</b>	<b>TC5W5</b>	<b>LC</b>
<b>BRBOX</b> Bridgebox	<b>CV96W</b> Slim Profile WiZ Bridgebox	<b>TC5W5</b> TruColor™ RGBTW 5 watts RGB & 5 watts Tunable White <b>TC5W7</b> TruColor™ RGBTW 5 watts RGB & 7 watts Tunable White	<b>LC</b> Light Channel



## PURE SMART/WIZ PRO UR BRIDGEBOX

The Phillips WiZ Pro Type UR RGBTW Bridgebox is a low voltage Class 2 wireless control module allowing for 5 Channel (RGBTW) full color control within the WiZ Pro wireless control ecosystem. Same as UR but with mounting holes. 24V input voltage For use with Non-Dim PSB (PSBR-96W-24VDC).

Type	Color Temperature Options		System
<b>BRBOX</b>	<b>UR96W</b>	<b>TC5W5</b>	<b>LC</b>
<b>BRBOX</b> Bridgebox	<b>UR96W</b> 96 Watts	<b>TC5W5</b> TruColor™ RGBTW 5 watts RGB & 5 watts Tunable White <b>TC5W7</b> TruColor™ RGBTW 5 watts RGB & 7 watts Tunable White	<b>LC</b> Light Channel



RGBTW



0.25"  
(0.6cm)

## LIGHT CHANNEL POWER CONNECTOR

One Female Power Connector is included with each order of channel.

System	Type	Product	Length	Color Temperature
<b>SS</b>	<b>FE</b>	<b>CON</b>	<b>72IN</b>	<b>RGBTW</b>
<b>SS</b> Stomp Strip/ Soft Strip	<b>FE</b> Female Connector	<b>CON</b> Connector	<b>72IN</b> 72 Inches	<b>RGBTW</b> Red, Green, Blue, & Tunable White



RGBTW



## FLEXIBLE CONNECTOR

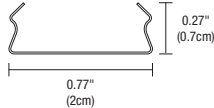
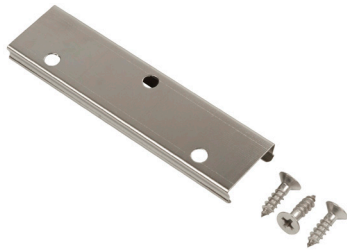
Flexible connectors link two sections of the Light Channel end to end. WAGO 221 Lever Nuts can also be used as jumper connections according to your specific application requirements.

System	Type	Product	Size	Color Temperature
<b>SS</b>	<b>CFX</b>	<b>CON</b>	<b>12IN</b>	<b>RGBTW</b>
<b>SS</b> Stomp Strip/ Soft Strip	<b>CFX</b> Flexible Connector	<b>CON</b> Connector	<b>12IN</b> 12 Inches <b>72IN</b> 72 Inches	<b>RGBTW</b> Red, Green, Blue, & Tunable White



# LIGHT CHANNEL 45° ANGLED COMPLETE FIXTURE

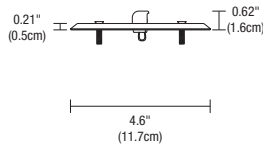
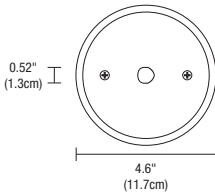
24VDC SURFACE MOUNT 5 CHANNEL WIRELESS CONTROL, TRUCOLOR™ RGBTW



## MOUNTING CLIP

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

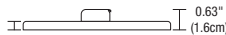
System	Product
<b>LC45</b>	<b>MCL</b>
LC45 Light Channel 45°	MCL Mounting Clip



## CANOPY COVER & SPLICE BOX

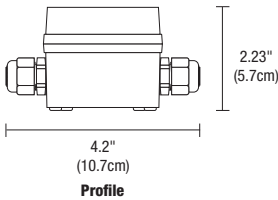
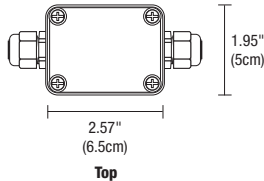
Use for remote located power supply. The 3 inch rectangle or 4 inch round white canopy covers the electrical box and feeds wires for Light Channel. The Splice Box provides a safe enclosure for low voltage connections.

Product	Finish
<b>3RE</b>	<b>WH</b>
3RE 3" Rectangle Canopy Cover	WH White
4RD 4" Round Canopy Cover	



## JUNCTION BOX

Low voltage Splice Box with connectors.



Product	Type	Option
<b>2RE</b>	<b>JBOX</b>	<b>W</b>
2RE 2" Rectangle	JBOX Junction Box	W Wet Location

# LIGHT CHANNEL TM30 DATA

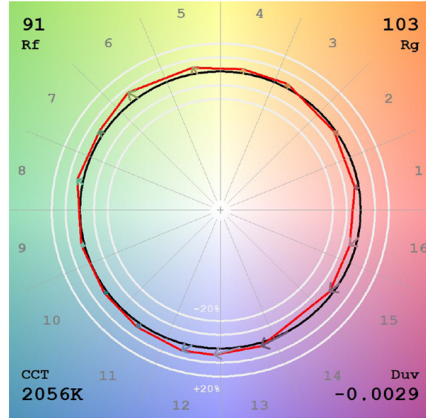
24VDC SURFACE MOUNT 5 CHANNEL WIRELESS CONTROL, TRUCOLOR™ RGBTW

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**TM-30-15 DATA:** The data below is for TruColor™ RGBTW (S5W7) bare LED 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.

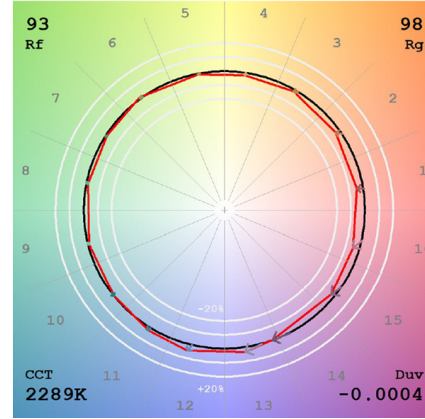
## 2000K (TruColor™ RGBTW)

View Angle: 2 Deg



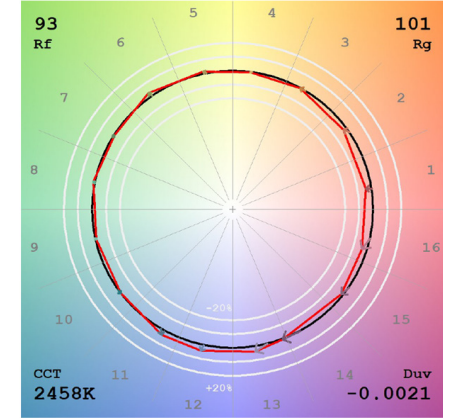
## 2200K (TruColor™ RGBTW)

View Angle: 2 Deg



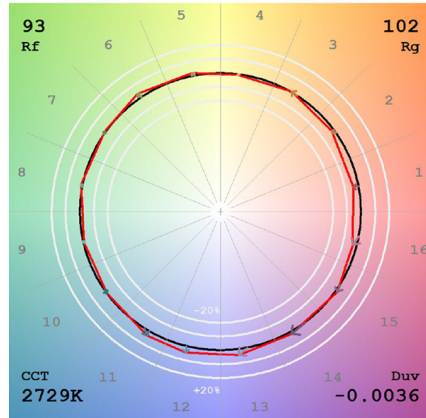
## 2400K (TruColor™ RGBTW)

View Angle: 2 Deg



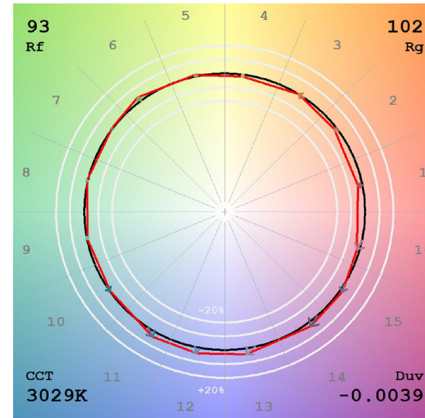
## 2700K (TruColor™ RGBTW)

View Angle: 2 Deg



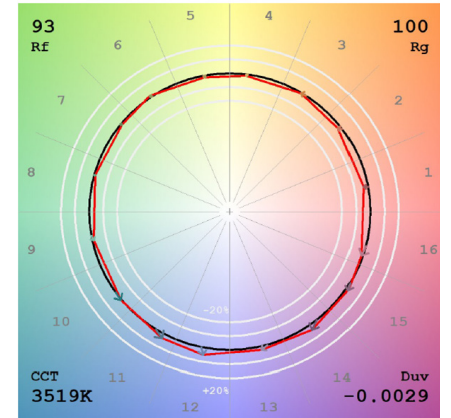
## 3000K (TruColor™ RGBTW)

View Angle: 2 Deg



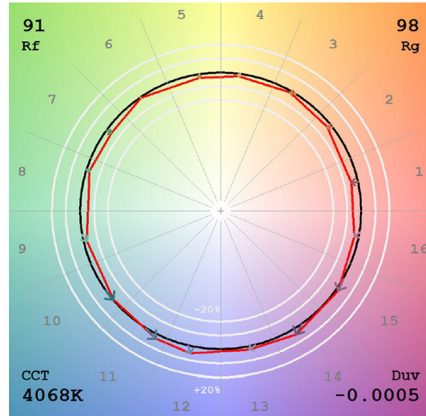
## 3500K (TruColor™ RGBTW)

View Angle: 2 Deg



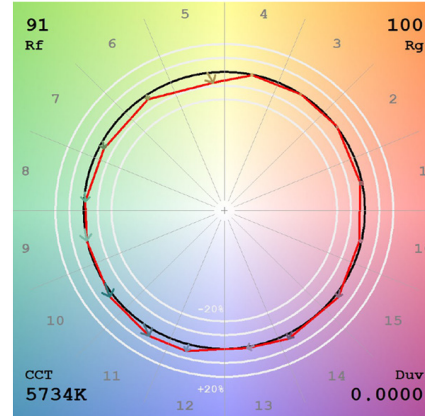
## 4000K (TruColor™ RGBTW)

View Angle: 2 Deg



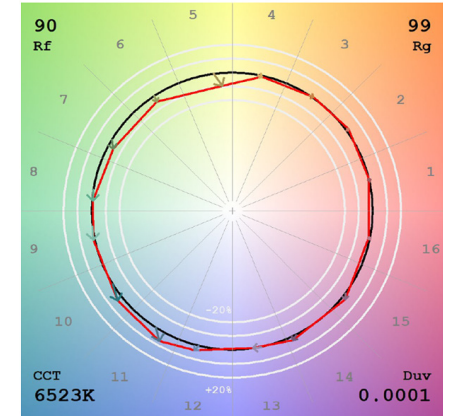
## 5700K (TruColor™ RGBTW)

View Angle: 2 Deg



## 6500K (TruColor™ RGBTW)

View Angle: 2 Deg



PROJECT		FIXTURE TYPE		DATE	
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