

# FLEX NEON LRF7 0.7" FLAT LENS

24VDC, INDOOR/OUTDOOR TRUCOLOR™ RGBTW

ASSEMBLED IN AMERICA

REV 01.28.25



## DESCRIPTION

LRF7 Flexible Neon Bends Left or Right with a 0.7" wide Flat lens, offering superior color while creating uniform illumination without visible pixelation and can be surface or flush mounted. The **(W)** is an IP67 rated wet location fixture featuring water tight barrel connections. The **(S)** Seamless (for continuous, seamless runs), is rated for Indoor Damp Locations ONLY and uses Class 2 bare wire connectors. Channel may be surface mounted or flush mounted. Flex Neon is offered with both indoor and wet-rated junction boxes sold separately, which include a Pure Smart/WiZ Pro Bridgebox allowing for 5-Channel, full color, wireless control of the **TruColor™ RGBTW** Light Engine with the WiZ Pro Software Suite or Pure Smart Wi-Fi Room Controller(sold separately). Remote Power Supply is required and sold separately. Intended for use with the PSBR Power Supply for Remote Bridgebox (PSBR-96W-24VDC sold separately) 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 +-0.0021 in relation to the blackbody curve at any point on the spectrum of tunable white CCT. Let **TruColor™** transform your space and the people within it. Click here for all [Other Color Temperatures](#). Fixture includes a 5-year pro-rated warranty. Patent pending. For custom quotes and layout assistance, send your drawings and ideas to our design team: [design@PureEdgeLighting.com](mailto:design@PureEdgeLighting.com).

## SPECIFICATIONS

DIMENSIONS	Height: 0.75" Width 0.6" (TOP) 0.7" (BOTTOM)
LUMEN PERFORMANCE	237lm/ft 7W @3000K
INPUT	5" wire leads, 24VDC Class 2 Low Voltage Input
POWER CONSUMPTION	<b>5W5:</b> 5W RGB & 5W Tunable White: 5 watts/ft maximum <b>5W7:</b> 5W RGB & 7W Tunable White 7 watts/ft maximum
COMPLIANCE	Class 2 Wet Listed with water-tight Barrel Connectors, IP67. ETL/UL, RoHS
POWER SUPPLY	PSBR-96W-24VDC Power Supply for Remote Bridgebox (sold separately)
ORDERING INCREMENTS	2.4"
MAX LENGTH	5W5 – Pure Smart™ WiZ Pro: 20ft 5W7 – Pure Smart™ WiZ Pro: 12ft
BENDING	4" Minimum Radius
MOUNTING	Clips included every 12"
BEAM ANGLE	120°
MATERIAL	UV Resistant PVC
OPERATING TEMPERATURE	-4° F (-20° C) to 122° F (+50° C)
AVERAGE LED LIFE	50,000 hrs
WARRANTY	5 years



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

24VDC, Class 2 wiring

- [Home Integration Solutions](#)

## OUTDOOR/WET LOCATION

- Pure Smart™ WiZ Pro [Power Supplies](#) & [Smart Controls](#)

See page 7 for Outdoor Bridgebox (BR-JBC-WZ-96-TCXX-W-FN)

## INDOOR

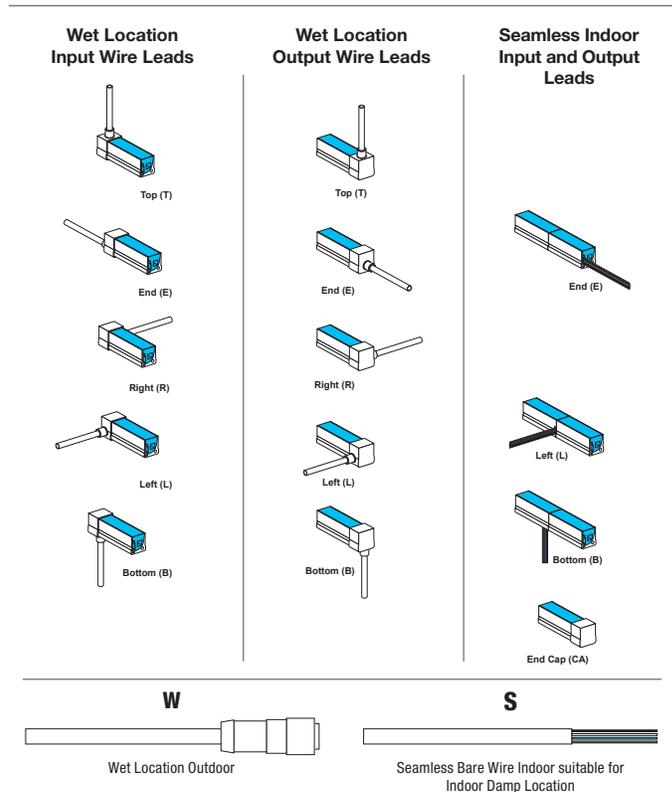
- Pure Smart™ WiZ Pro [Power Supplies](#) & [Smart Controls](#)

See page 6 for Outdoor Bridgebox (C-1RE4G-96W-WZ-TCXX-FN)  
Pure Smart™ PSBR Power Supply for Remote Bridgebox is developed to support Pure Smart TruColor™ RGBTW luminaires connected by WiZ Pro.

## APPLICATIONS

Designed for indoor **(S)** and outdoor **(W)** wet locations. Ideal applications include coves, toe-kick lighting, pathways, steps, music venues, media rooms, and accent lighting.

For quick & easy reference, plus the most up-to-date pricing, use our [Flex Neon LRF7 Configurator](#)



PROJECT		FIXTURE TYPE		DATE	
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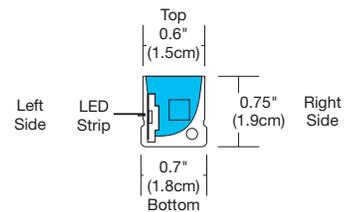
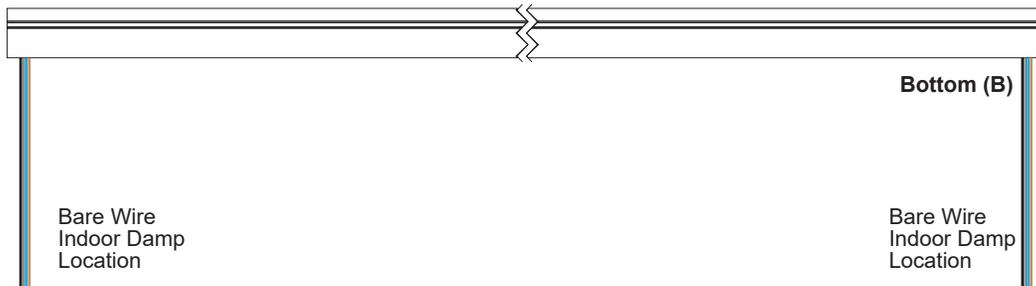
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System	Viewing Angle Model Shape	Wattage	Length in Inches	Color Temperature	5" Input Wire Feed	5" Inch Output Wire	Environment
<b>FN</b> Flex Neon 24V	<b>LRF7</b> Left or Right side bend	<b>5W5</b> 5 watts RGB & 5 watts Tunable White <b>5W7</b> 5 watts RGB & 7 watts Tunable White	<b>120</b> 6-240"(20' max for 5W5) 6-144"(12' max for 5W7)	<b>TC</b> TruColor™ RGBTW Red, Green, Blue & Tunable White 1500K-6500K	<b>E</b> T Top Power Input Wire E* End Power Input Wire L* Left Power Input Wire R Right Power Input Wire B* Bottom Power Input Wire	<b>L</b> T Top Wire Lead Out E* End Wire Lead Out L* Left Wire Lead Out R Right Wire Lead Out B* Bottom Wire Lead Out CA Cap at end, no feed through	<b>W</b> S Seamless Indoor / Damp location bare wire leads W Outdoor wet location Barrel Connector cable leads

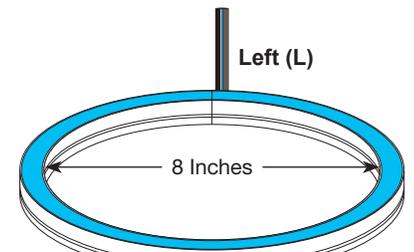
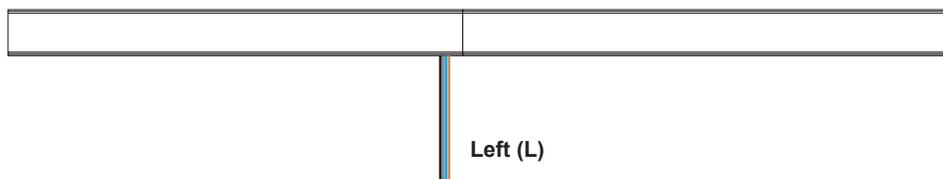
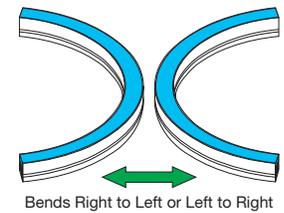
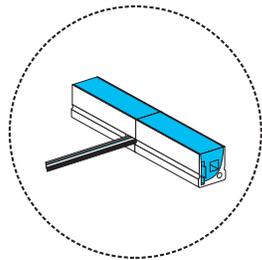
\*Seamless indoor: E, L, B Only

**Drawings:** Dimensions for the Flex Neon LRF7

**Seamless (S) Connection**  
Indoor / Damp Rated with No End Cap

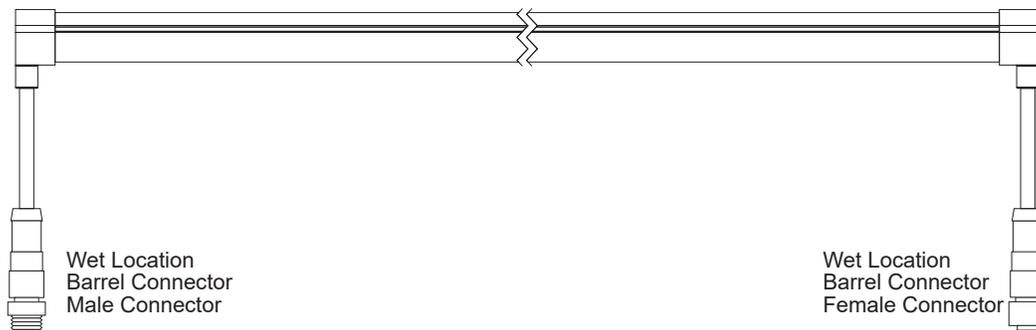


**Seamless Connection**



**Seamless Circle**

**Wet (W)**  
Outdoor Location with End Cap

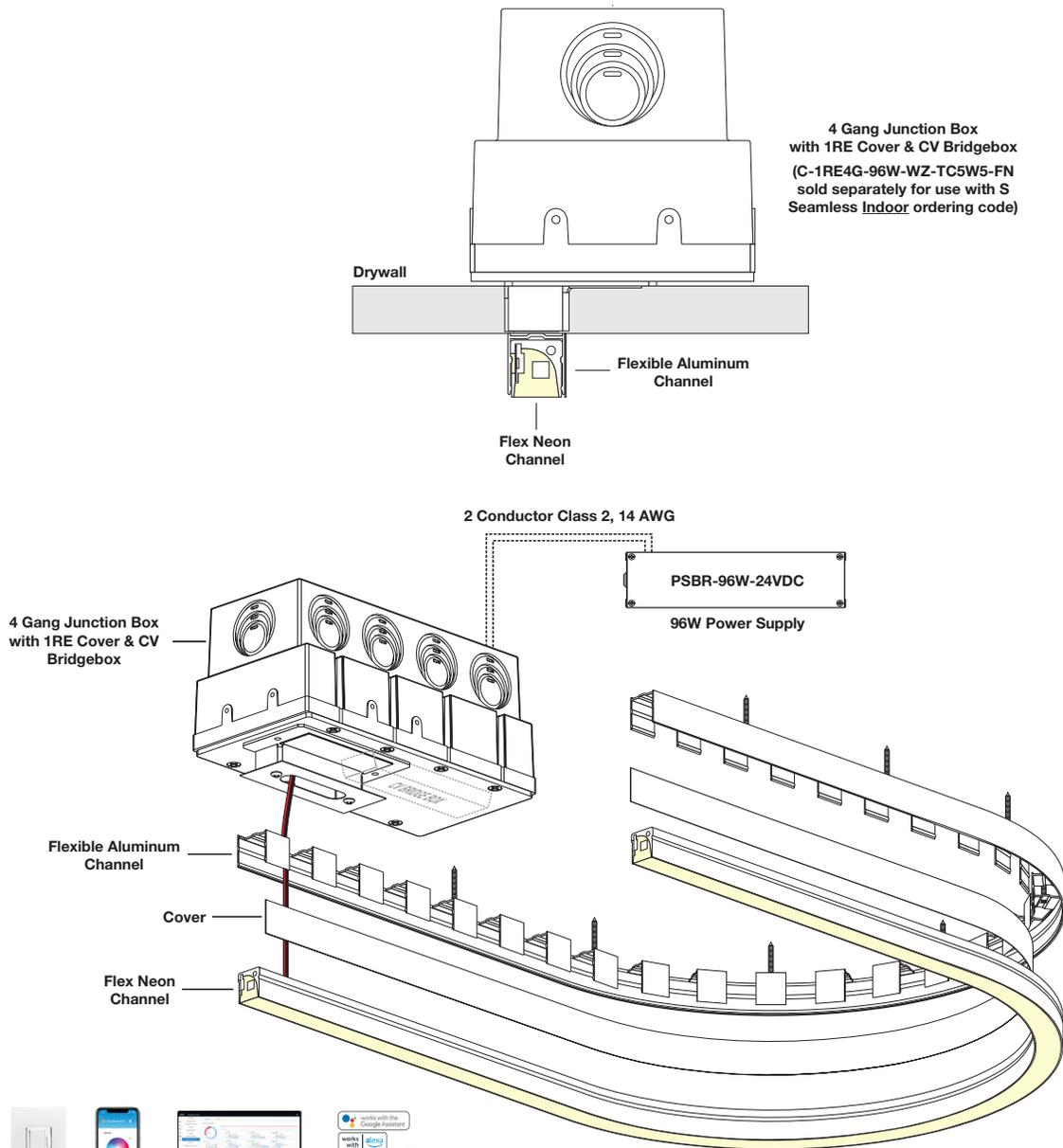


PROJECT	FIXTURE TYPE	DATE
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## DELIVERED LUMENS

DESCRIPTION	5W 5W RGB & 5W TUNABLE WHITE										5W 7W RGB & 7W TUNABLE WHITE								
	5W Maximum										7W Maximum								
	20K	22K	24K	27K	30K	35K	40K	57K	65K	20K	22K	24K	27K	30K	35K	40K	57K	65K	
WATTS PER FOOT	77	115	140	157	162	171	185	130	119	95	158	203	231	237	249	244	143	130	
COLOR TEMPERATURE	28	25	32	37	38	39	44	44	50	28	41	33	39	38	41	42	42	43	
LUMENS PER FOOT (lm/ft)	92	94	95	95	96	97	97	92	90	93	95	96	97	97	98	97	95	93	
LUMENS PER WATT (lm/w)	-0.004	-0.0012	-0.0034	-0.0058	-0.0055	-0.0033	-0.0014	-0.0049	-0.0063	-0.003	0.0002	0.003	0.003	0.003	0.0009	0	0.003	0.003	
CRI	90	90	90	94	97	97	91	81	70	91	90	90	94	95	93	93	79	67	
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	92	94	95	95	94	96	99	90	87	92	95	96	96	97	99	99	91	88	
R9	99	99	99	98	97	97	97	89	85	99	99	99	99	99	98	97	90	85	
R13	2.7	4.55	4.35	4.25	4.25	4.35	4.2	2.95	2.4	3.35	3.85	6.15	5.95	6.15	6.15	5.84	3.45	3	
R15																			
WATTS/FOOT																			

## Drawings: Exploded View for Flexible Aluminum Channel with 4 Gang Jbox

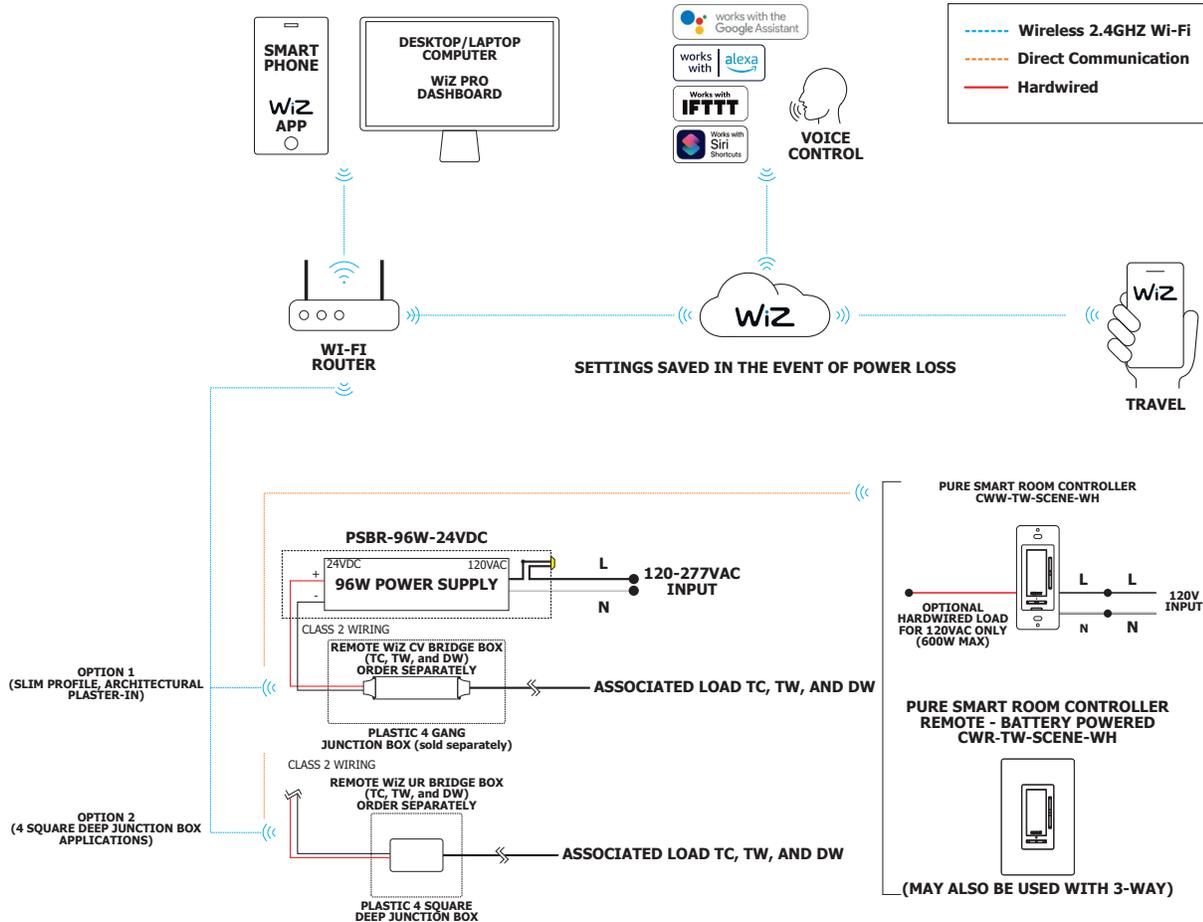


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## LENGTH CHART Actual lengths for Flex Neon LRF7

LENGTH CHART - RGBTW													
Ordering Code (Nominal Size)	Actual Length												
6	6.75	75	75.75	138	138.75	207	207.75	276	276.75	345	345.75	414	414.75
9	9.75	78	78.75	141	141.75	210	210.75	279	279.75	348	348.75	417	417.75
12	12.75	81	81.75	144	144.75	213	213.75	282	282.75	351	351.75	420	420.75
15	15.75	84	84.75	147	147.75	216	216.75	285	285.75	354	354.75	423	423.75
18	18.75	87	87.75	150	150.75	219	219.75	288	288.75	357	357.75	426	426.75
21	21.75	90	90.75	153	153.75	222	222.75	291	291.75	360	360.75	429	429.75
24	24.75	93	93.75	156	156.75	225	225.75	294	294.75	363	363.75	432	432.75
27	27.75	96	96.75	159	159.75	228	228.75	297	297.75	366	366.75	435	435.75
30	30.75	99	99.75	162	162.75	231	231.75	300	300.75	369	369.75	438	438.75
33	33.75	102	102.75	165	165.75	234	234.75	303	303.75	372	372.75	441	441.75
36	36.75	105	105.75	168	168.75	237	237.75	306	306.75	375	375.75	444	444.75
39	39.75	108	108.75	171	171.75	240	240.75	309	309.75	378	378.75	447	447.75
42	42.75	111	111.75	174	174.75	243	243.75	312	312.75	381	381.75	450	450.75
45	45.75	114	114.75	177	177.75	246	246.75	315	315.75	384	384.75	453	453.75
48	48.75	117	117.75	180	180.75	249	249.75	318	318.75	387	387.75	456	456.75
51	51.75	120	120.75	183	183.75	252	252.75	321	321.75	390	390.75	459	459.75
54	54.75	123	123.75	186	186.75	255	255.75	324	324.75	393	393.75	462	462.75
57	57.75	126	126.75	189	189.75	258	258.75	327	327.75	396	396.75	465	465.75
60	60.75	129	129.75	192	192.75	261	261.75	330	330.75	399	399.75	468	468.75
63	63.75	132	132.75	195	195.75	264	264.75	333	333.75	402	402.75	471	471.75
66	66.75	135	135.75	198	198.75	267	267.75	336	336.75	405	405.75	474	474.75
69	69.75			201	201.75	270	270.75	339	339.75	408	408.75	477	477.75
72	72.75			204	204.75	273	273.75	342	342.75	411	411.75	480	480.75

## INDOOR WIRING DIAGRAMS

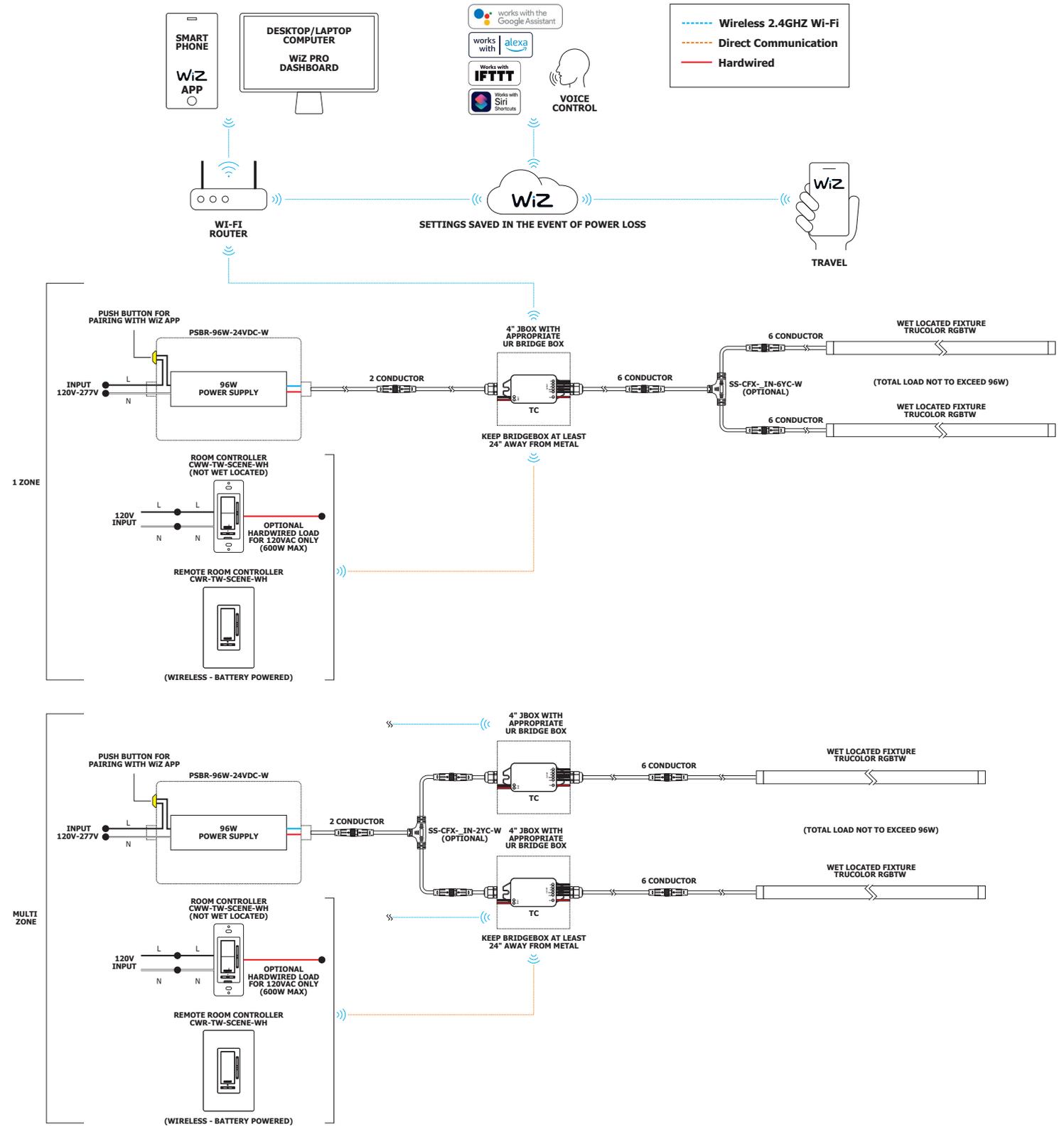


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24VDC, INDOOR/OUTDOOR TRUCOLOR™ RGBTW

## OUTDOOR WIRING DIAGRAMS

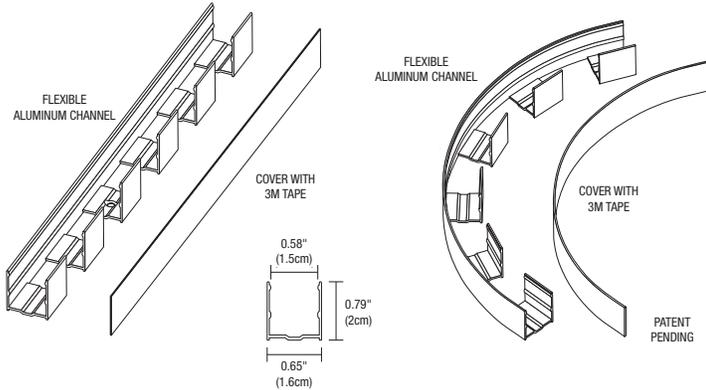


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# FLEX NEON LRF7 0.7" FLAT LENS

24VDC, INDOOR/OUTDOOR TRUCOLOR™ RGBTW

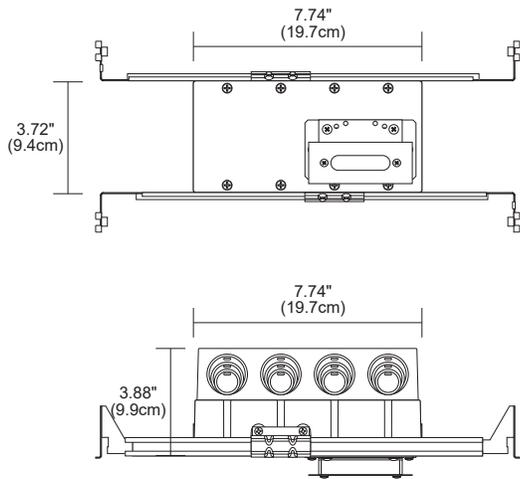
## INDOOR EXTRA PARTS



### FLEXIBLE ALUMINUM CHANNEL

Flexible aluminum channel is designed to work specifically with Flex Neon for practical and professional mounting. The channel can make large radius 90° turns and sweeping bends that follow the form of architectural details, soffits, signage and more - consider using this channel to guide your linear LED lighting design. Patent Pending.

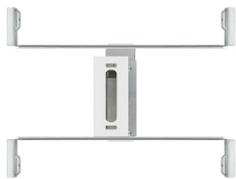
Product	Length	Finish
<b>FX-EXT.5</b>	<b>4FT</b>	<b>WH</b>
FX-EXT.5 Flexible Extrusion 0.5" Wide	4FT 4 Feet	BK Black WH White



### 1" RECTANGLE CANOPY WITH 4 GANG JUNCTION BOX AND PURE SMART WIZ PRO CV BRIDGEBOX

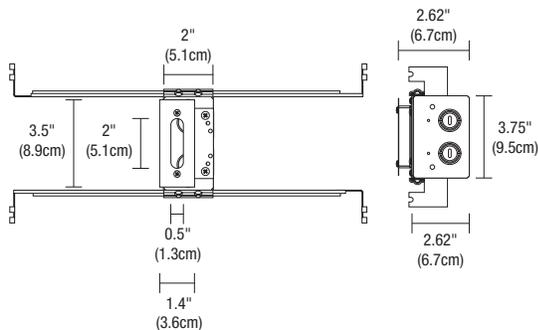
The slim profile 1RE Canopy with 4 Gang Junction Box come with adjustable hanger bars and a Pure Smart WIZ Pro CV Bridgebox allowing wireless control of Flex Neon. Two Class 2, 14AWG stranded conductors from the Remote Power Supply up to 40 ft away are required.

System	Type	Wattage	Control	Color Temperature	System Code
<b>C</b>	<b>1RE4G</b>	<b>96W</b>	<b>WZ</b>	<b>TC5W5</b>	<b>FN</b>
C Channel	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	FN Flex Neon



### 1" RECTANGLE CANOPY & J-BOX (INCLUDED WITH 1R SELECTED IN FIXTURE ORDERING CODE)

The Slim-Profile Junction Box with Hanger Bars mounts to studs spaced between 14.5" and 25" apart behind drywall. Allows low voltage DC wires from Remote Power Supply to connect to channel wires. The Junction Box opening is covered by the fixture for a clean, safe connection. Includes a GooF Plate, for poor plastering around J-box.



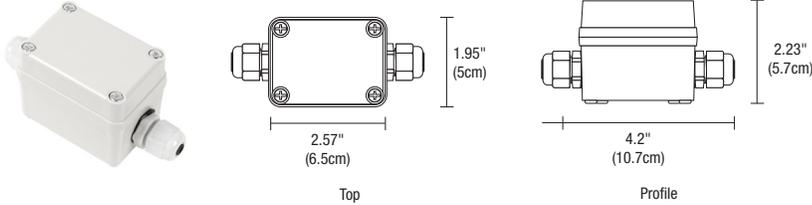
System	Canopy	Product
<b>C</b>	<b>1RE</b>	<b>JBOX</b>
C Channel	1RE 1" Rectangle	JBOX Junction Box

PROJECT	FIXTURE TYPE	DATE
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**OUTDOOR EXTRA PARTS**

**WET LOCATION JUNCTION BOX FOR SPLICING**

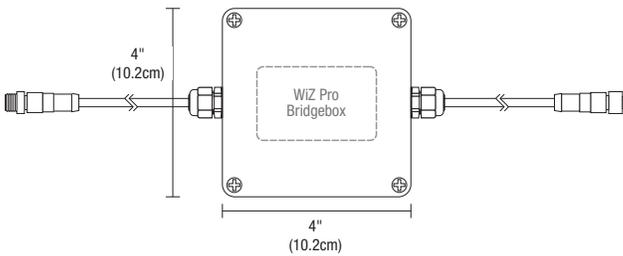
Wet-rated low voltage Splice Box with connectors.



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

**PURE SMART WET LOCATION JUNCTION BOX WITH 8FT POWER CABLE AND WIZ PRO UR BRIDGEBOX**

This watertight Junction Box is especially designed for lighting in wet and damp locations. The Junction Box comes standard with a 8ft of outdoor cable and both male and female barrel connectors providing easy, safe, and reliable connections for 24V low voltage luminaires. Included with the Junction Box is one WiZ Pro type Bridgebox allowing for 5 Channel wireless control of the TruColor RGBTW luminaire. This box is approved for indoor and outdoor usage and complies with all the requirements of UL1241 and the National Electric Code.



Product	Type	Wattage	Controls	Type	Option	System
<b>BR</b>	<b>JBC</b>	<b>96W</b>	<b>WZ</b>	<b>TC5W5</b>	<b>W</b>	<b>FN</b>
BR Bridgebox for LED Soft Strip and Flex Neon	JBC Outdoor Junction Box with two Barrel Connectors, 4 conductor input and 6 conductor output.	96W 96 Watts	WZ Wiz Connected Bridgebox Included	TC5W5 5 Watts RGB & 5 Watts Tunable White TC5W7 5 Watts RGB & 7 Watts Tunable White	W Wet Location	FN Flex Neon

**DIRECT BURIAL LOCATION CABLE ORDER PER FOOT**

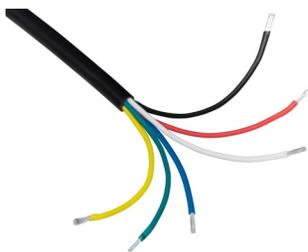
Our Direct Burial, 2 Conductor, 14 Gauge Cable is a durable and adaptable cable suitable for transmitting power, control, and switching in outdoor wet and in ground environments. Keep within 40 ft between fixture and power supply. Cable sold by the foot, simply specify the length needed by the foot.



Product	Gauge	Cable
<b>DB</b>	<b>14G</b>	<b>2C</b>
DB Direct Burial	14G 14 Gauge	2C 2 Conductor

**WET AND DAMP LOCATION CABLE ORDER PER FOOT**

Our Wet Location, 6 Conductor, 14 Gauge Cable is a durable and adaptable cable suitable for transmitting power, control, and switching in indoor and outdoor wet and damp environments. Cable sold by the foot, simply specify the length needed by the foot. Keep within 50 ft between fixture and power supply. Cable sold by the foot, simply specify the length needed by the foot.

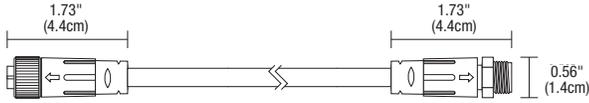


Product	Gauge	Cable
<b>OC</b>	<b>14G</b>	<b>6C</b>
OC Outdoor Cable	14G 14 Gauge	6C 6 Conductor

PROJECT	FIXTURE TYPE	DATE
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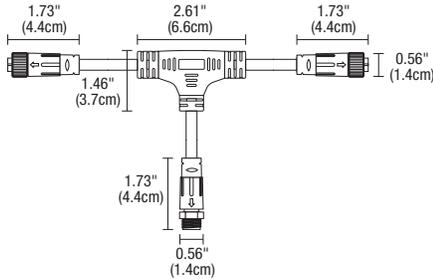
24VDC, INDOOR/OUTDOOR TRUCOLOR™ RGBTW



### POWER CABLE CONNECTOR WET LOCATION

The flexible power cable connector is designed to work in outdoor environments for safe and reliable connections. This Flexible Connector is easy to install and configure, helping you create innovative lighting designs in an outdoor commercial or residential space.

Product	Type	Size	Conductor	Option
<b>SS</b>	<b>CFX</b>	<b>16IN</b>	<b>6C</b>	<b>W</b>
SS Soft Strip and Flex Neon	CFX Flexible Connector	16IN 16" 96IN 96"	6C 6 Conductor	W Wet Location



### WET LOCATION T-CONNECTOR

Our Wet Location T-Connector is a robust rugged design especially suited to withstand the challenges of damp and wet environments. This unique T-Connector has one Male and two Female Connectors and is suitable for multiple indoor and outdoor uses. Versatile design is easy to use, making installation quick and efficient.

Product	Type	Size	Size	Option
<b>SS</b>	<b>CFX</b>	<b>4IN</b>	<b>6YC</b>	<b>W</b>
SS Soft Strip and Flex Neon	CFX Flexible Connector	4IN 4"	6YC Y-Shape 6 Conductor	W Wet Location

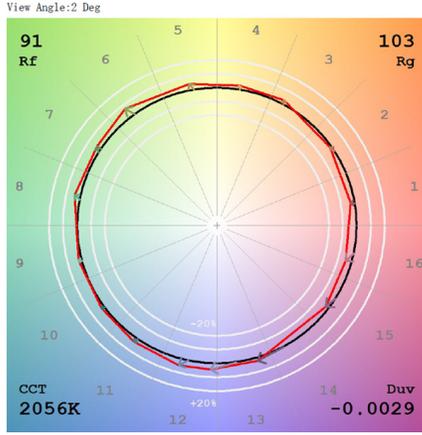
PROJECT		FIXTURE TYPE		DATE	
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# OUTDOOR TM30 DATA

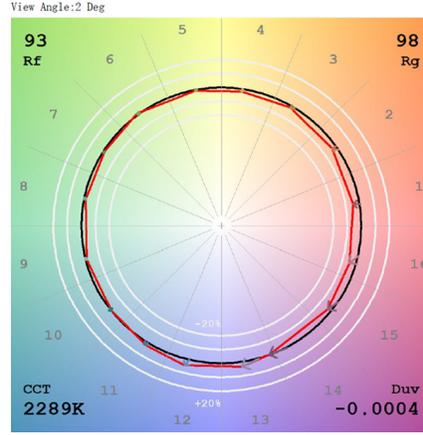
24VDC, INDOOR/OUTDOOR, TRUCOLOR™ RGBTW

**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.

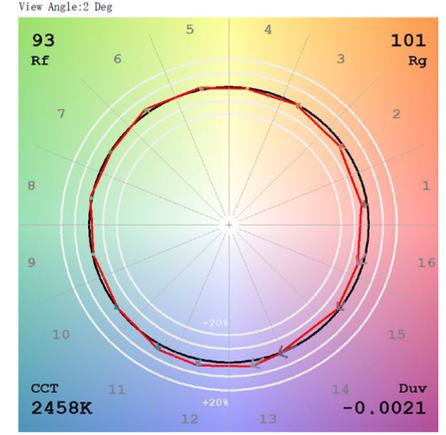
## 2000K (TruColor™ RGBTW)



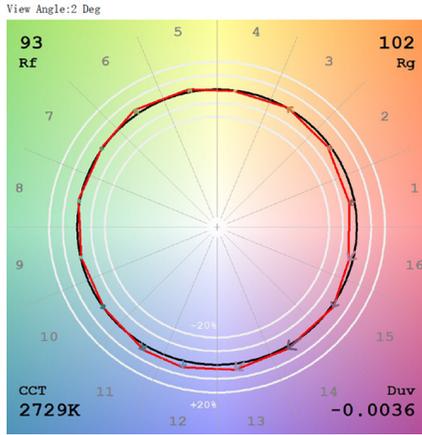
## 2200K (TruColor™ RGBTW)



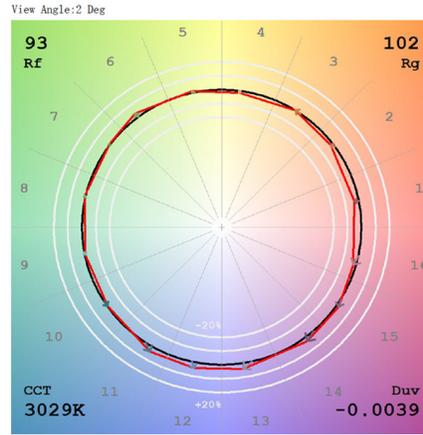
## 2400K (TruColor™ RGBTW)



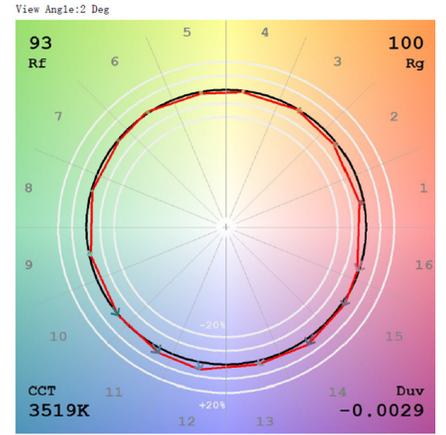
## 2700K (TruColor™ RGBTW)



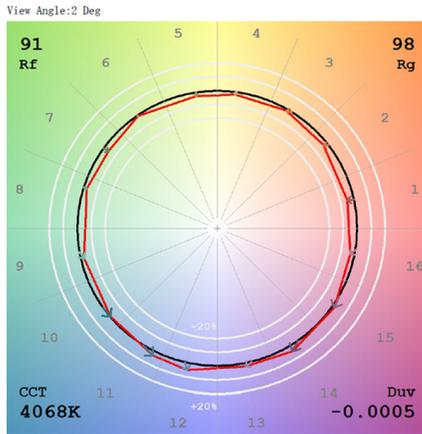
## 3000K (TruColor™ RGBTW)



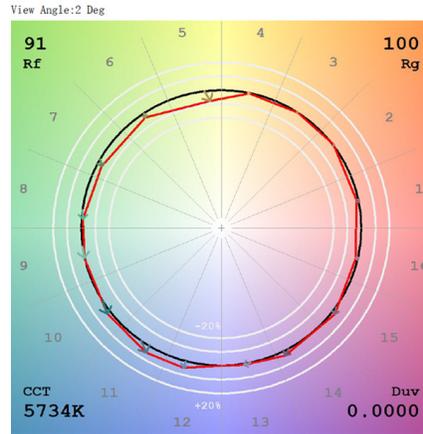
## 3500K (TruColor™ RGBTW)



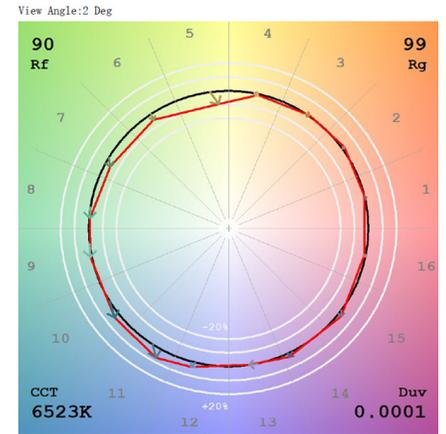
## 4000K (TruColor™ RGBTW)



## 5700K (TruColor™ RGBTW)



## 6500K (TruColor™ RGBTW)



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