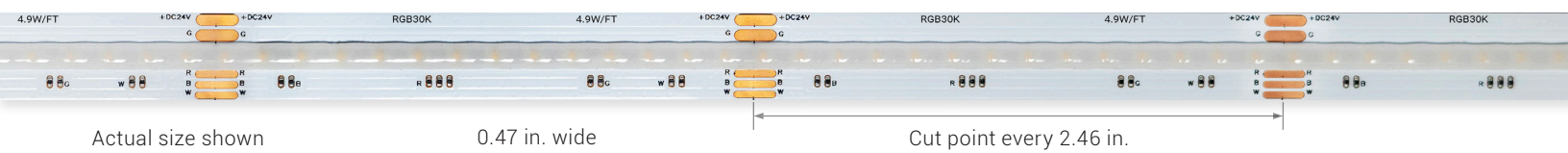


ALLOY LED® Specifications

Radialux™ 4.9 COB RGBW LED Tape Light



Radialux 4.9 COB RGBW is a 4-channel LED tape light that delivers rich RGB color alongside a dedicated warm white (3000K)—all in a seamless COB format for ultra-smooth, dot-free illumination. Designed for bold accent lighting, hospitality spaces, and modern interiors, it offers both dynamic color and soft, comfortable white light in a single, flexible solution. The dedicated 3000K white channel ensures natural, warm tones for balanced illumination without RGB color mixing.

- 4-channel design for full-color customization and white control
- Red, green, blue, and a dedicated 3000K warm white
- Smooth, dot-free light from end to end
- Ideal for accent lighting, coves, backlighting, and hospitality applications

TECHNICAL INFORMATION

Color	RGBW
Power Consumption per Foot	4.9 Watts
Input Voltage	24V DC
Diodes per Foot	273
Diode Spacing	0.044 inches
Tape Height	0.07 inches
Beam Angle	140°
Field Cuttable (UL 2108)	Every 2.46 in.
Maximum Run Length	16 ft.
Dimmable	Yes (with color controller)

Diode Type	CSP
Mounting	3M™ Self-Adhesive Tape (Non-porous)
Operating Temperature	-13° F to 140° F
Ambient Temperature	-40° F to 176° F
Spool Length	16 ft.
Environment	Indoor, Dry
Certifications	UL 2108 Listed, RoHS
Warranty	6 Year Limited

Each spool includes 36 in., 20 AWG tinned lead wires at both ends of the tape light.

**CUSTOMIZATION**

This product is ONLY offered with soldered leads. Contact us to learn more.

PRODUCT INFORMATION

Item Number	Length	Voltage	Lumens
AL-02-61-2401	16 ft.	24V DC	257

VOLTAGE DROP GUIDANCE CHART

Standard Non-XT 24V Voltage Drop and Wire Length Distance Chart (3% Drop or 24V)

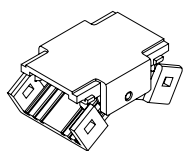
Wire Gauge	Copper Wire Resistance (O/kFT)	10W (0.42A)	20W (0.83A)	30W (1.25A)	40W (1.67A)	50W (2.08A)	60W (2.50A)	70W (2.92A)	80W (3.33A)	90W (3.75A)	96W (4A)
22 AWG	16.14	54 ft.	27 ft.	18 ft.	14 ft.	11 ft.	9 ft.	8 ft.	7 ft.	6 ft.	6 ft.
20 AWG	10.15	86 ft.	43 ft.	29 ft.	22 ft.	18 ft.	15 ft.	13 ft.	11 ft.	10 ft.	9 ft.
18 AWG	6.39	136 ft.	68 ft.	46 ft.	34 ft.	28 ft.	23 ft.	20 ft.	17 ft.	16 ft.	15 ft.
16 AWG	4.02	216 ft.	108 ft.	72 ft.	54 ft.	44 ft.	36 ft.	31 ft.	27 ft.	24 ft.	23 ft.
14 AWG	2.53	343 ft.	172 ft.	115 ft.	86 ft.	69 ft.	58 ft.	49 ft.	43 ft.	39 ft.	36 ft.
12 AWG	1.59	545 ft.	273 ft.	182 ft.	137 ft.	109 ft.	91 ft.	78 ft.	69 ft.	61 ft.	57 ft.
10 AWG	0.99	865 ft.	433 ft.	289 ft.	217 ft.	173 ft.	145 ft.	124 ft.	109 ft.	97 ft.	91 ft.

Note: These tables provide general guidelines for determining Wire Gauge based on total load and distance from LED driver to beginning of luminaire.

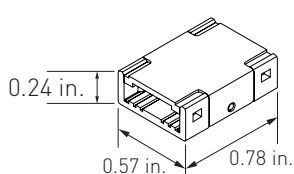
ACCESSORIES (SOLD SEPARATELY)

Recommended Accessories

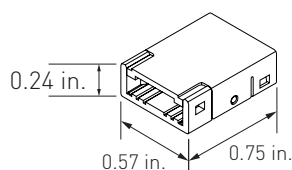
In-Wall-Rated Tape Light Connectors (20 AWG)



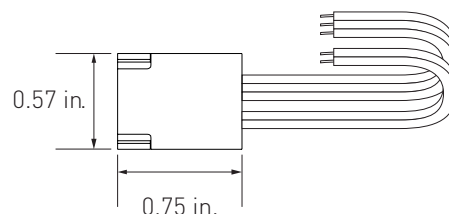
Tape-to-Tape Connector



Tape-to-Tape Connector



Tape Light Splice Connector



Tape Light Splice Connector

Item Number	Description
AL-02-61-9901	Tape-to-Tape Connector
AL-02-61-9901-10	Tape-to-Tape Connector (10-pack)

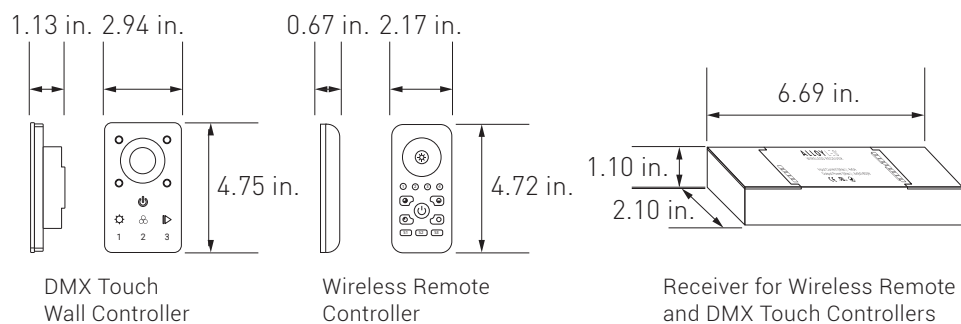
Item Number	Description	Wire
AL-02-61-9902	Tape Light Splice Connector	6 in.
AL-02-61-9902-10	Tape Light Splice Connector (10-pack)	6 in.

ALLOY LED® Specifications

ACCESSORIES (SOLD SEPARATELY)

Recommended Accessories

See our website for the full range of RGB/RGBW controllers and accessories.



Item Number	Description
AL-60-03-0002*	Wireless Remote Controller
AL-60-03-0003*	DMX Touch Wall Controller
AL-60-03-0004-V2	Receiver for Wireless Remote and DMX Touch Controllers

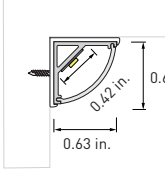
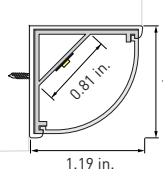
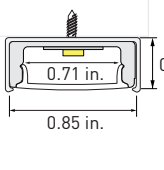
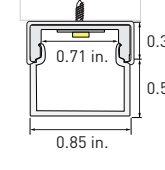
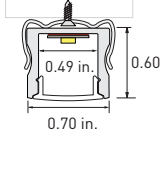
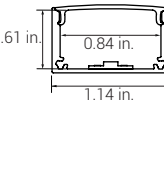
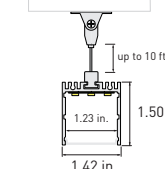
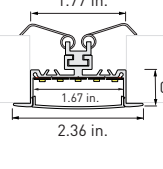
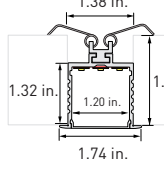
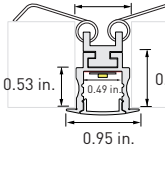
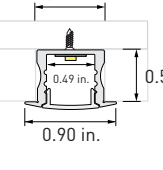
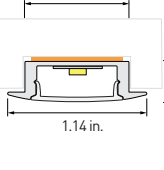
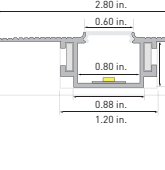
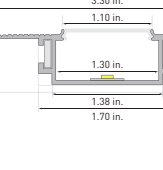
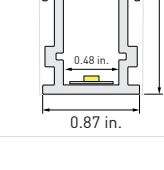
*Use with the Wireless Receiver AL-60-03-0004-V2 (sold separately)



Mean Well Non-Dimmable Drivers

Item Number	Voltage	Wattage	Dimensions
AL-98-04-24036	24V DC	36W	5.83 x 1.58 x 1.18 in.
AL-98-04-24060	24V DC	60W	6.4 x 1.67 x 1.26 in.
AL-98-04-24100	24V DC	100W	7.5 x 2 x 1.46 in.
AL-98-04-24151	24V DC	151W	7.52 x 2.5 x 1.48 in.
AL-98-04-24200	24V DC	200W	8.47 x 5.43 x 1.18 in.

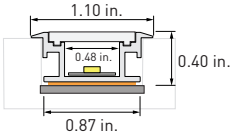
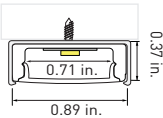
Reduced Hotspot Pairings (Hotspot Rating from 0-5)

Surfa 2: Corner-Mount  Hotspot Rating: 0 ☒ Solder ☐ Connector ☐ TapeMate	Surfa 2X: Corner-Mount  Hotspot Rating: 0 ☒ Solder ☐ Connector ☐ TapeMate	Surfa 6: Surface-Mount  Hotspot Rating: 1 ☒ Solder ☐ Connector ☐ TapeMate
Surfa 6 Surround: Surface-Mount  Hotspot Rating: 0 ☒ Solder ☐ Connector ☐ TapeMate	Surfa 7: Surface-Mount  Hotspot Rating: 0 ☒ Solder ☐ Connector ☐ TapeMate	Surfa 8: Surface-Mount  Hotspot Rating: 0 ☒ Solder ☐ Connector ☐ TapeMate
Suspan 1: Suspended  Hotspot Rating: 0 ☒ Solder ☐ Connector ☐ TapeMate	Ankr 1: In-Wall  Hotspot Rating: 1 ☒ Solder ☐ Connector ☐ TapeMate	Ankr 2: In-Wall  Hotspot Rating: 0 ☒ Solder ☐ Connector ☐ TapeMate
Ankr 3: In-Wall  Hotspot Rating: 0 ☒ Solder ☐ Connector ☐ TapeMate	Ankr 4: Mud-In  Hotspot Rating: 0 ☒ Solder ☐ Connector ☐ TapeMate	Naro 4: Recessed  Hotspot Rating: 1 ☒ Solder ☐ Connector ☐ TapeMate
Mudr 1: In-Wall  Hotspot Rating: 0 ☒ Solder ☐ Connector ☐ TapeMate	Mudr 2: In-Wall  Hotspot Rating: 0 ☒ Solder ☐ Connector ☐ TapeMate	Duro 1: In-Ground  Hotspot Rating: 0 ☒ Solder ☐ Connector ☐ TapeMate

ALLOY LED® Specifications

COMPATIBLE CHANNELS (Diagrams below not to scale)

Reduced Hotspot Pairings (Hotspot Rating from 0-5)

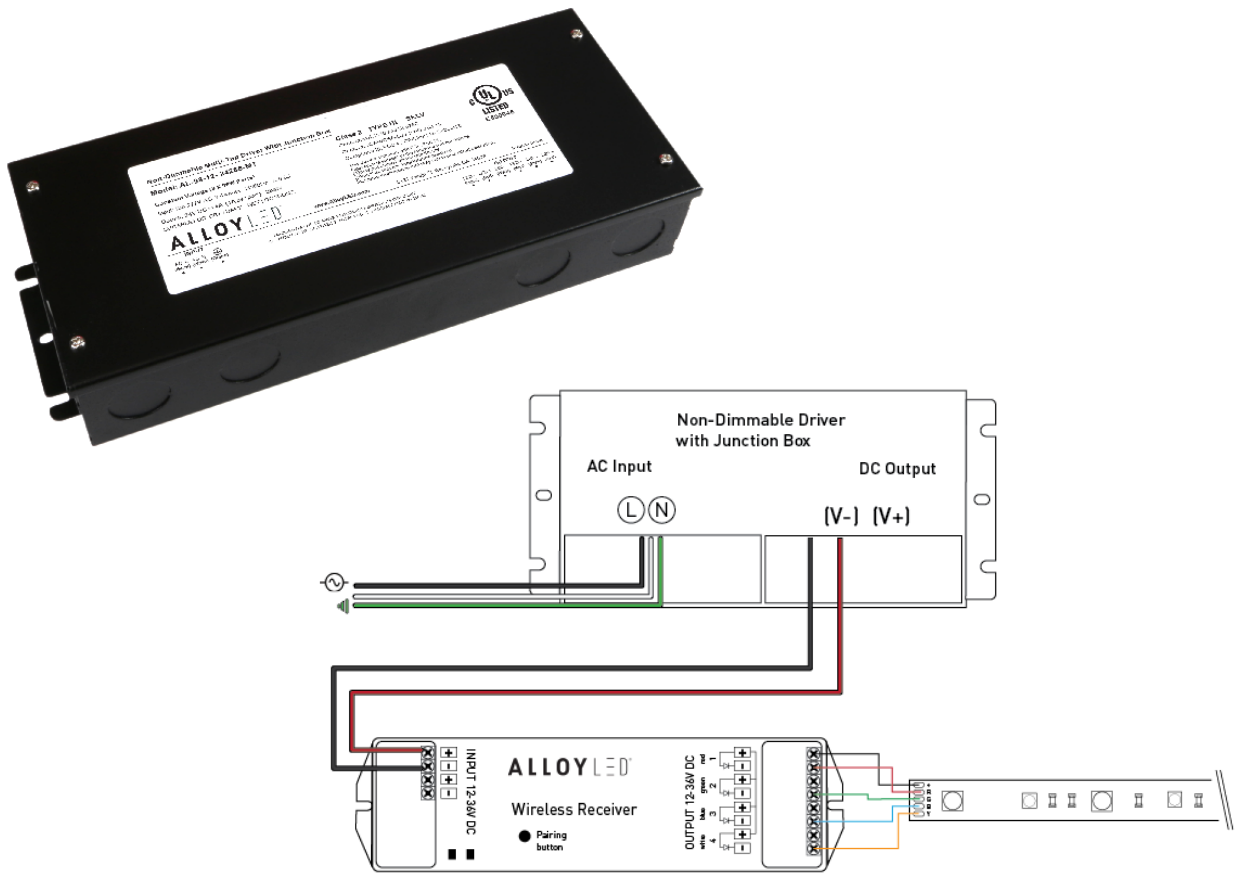
Duro 2: In-Ground  Hotspot Rating: 0 ☒ Solder ☐ Connector ☐ TapeMate	Polymer LP: Surface-Mount  Hotspot Rating: 1 ☒ Solder ☐ Connector ☐ TapeMate
--	--

ALLOY LED® Specifications

RECOMMENDED POWER SUPPLIES (SOLD SEPARATELY)



Alloy LED PowerFactor™ Non-Dimmable Power Supplies with Integrated UL Listed Junction Box
Reliable, efficient low voltage power to RGB and RGBW color controllers and for use with white tape light on an on/off switch



Wiring diagram is for reference only. Please refer to dimmer wiring specifications sheet for accurate directions.

120V-277V

NEMA 4X

99% POWER FACTOR

CLASS 2

WET LOCATION

DRY LOCATION

WARRANTY 6 YEARS

RoHS

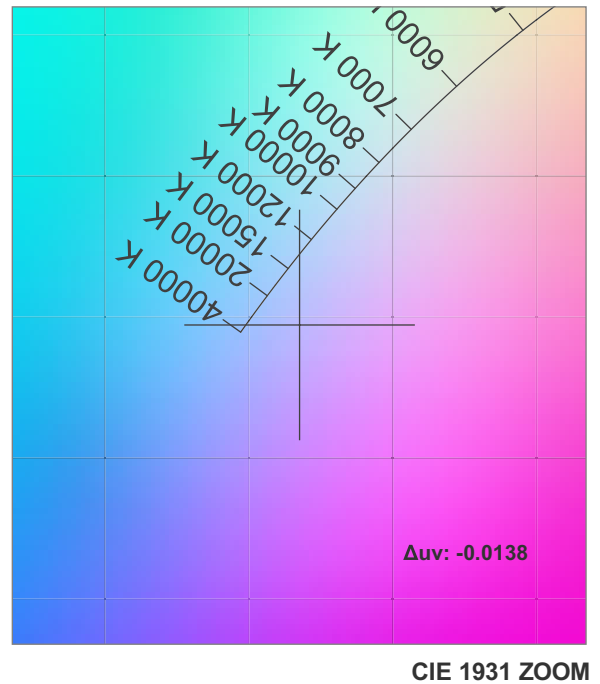
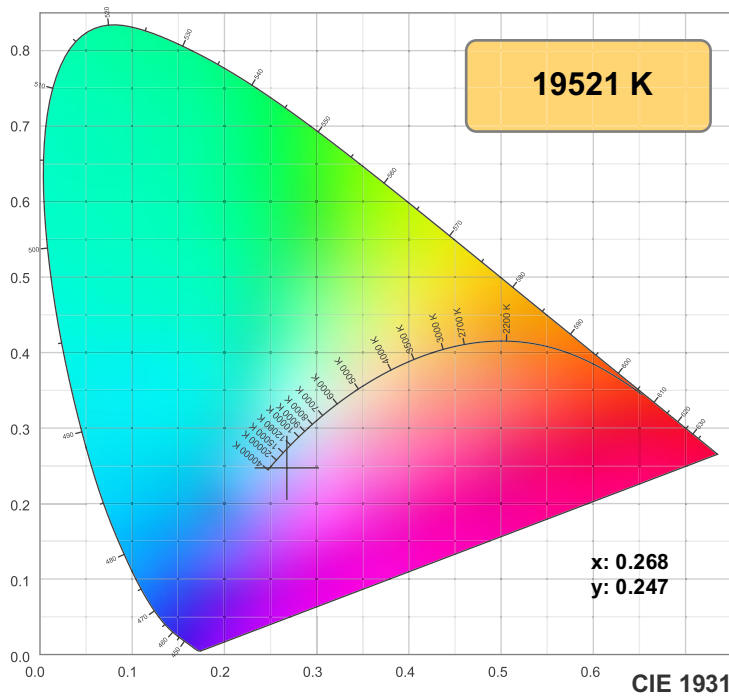
UL LISTED

Item Number	Output Voltage	Wattage	Wet Location	Minimum Load	Dimensions (Junction box) (L x W x H)	Class 2
AL-98-12-24030	24V DC	30W	Yes (NEMA 4X)	10%	6.5 x 3.72 x 1.57 in.	Yes
AL-98-12-24060	24V DC	60W	Yes (NEMA 4X)	10%	7.4 x 3.72 x 1.57 in.	Yes
AL-98-12-24080	24V DC	80W	Yes (NEMA 4X)	10%	8.66 x 3.72 x 1.57 in.	Yes
AL-98-12-24096	24V DC	96W	Yes (NEMA 4X)	10%	8.66 x 3.72 x 1.57 in.	Yes
AL-98-12-24192-MT	24V DC	2*96W	Yes (NEMA 4X)	10%	10.94 x 4.25 x 1.77 in.	Yes
AL-98-12-24288-MT	24V DC	3*96W	Yes (NEMA 4X)	10%	11.85 x 4.25 x 1.77 in.	Yes

Note: Alloy LED strongly recommends using Listed Class 2 power supplies for all installations.
Always install in accordance with local and national electrical code regulations.
Inspectors prefer power supply to be used with junction box.
For dimmer compatibility, refer to drivers specification sheet.

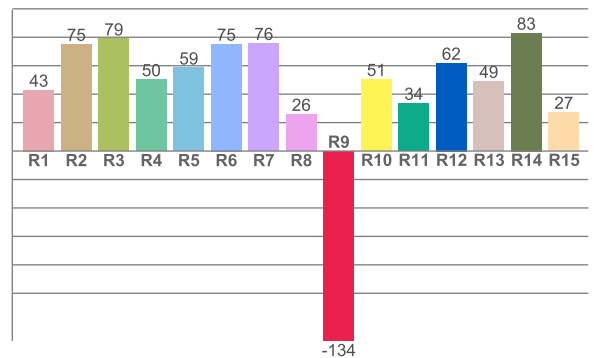
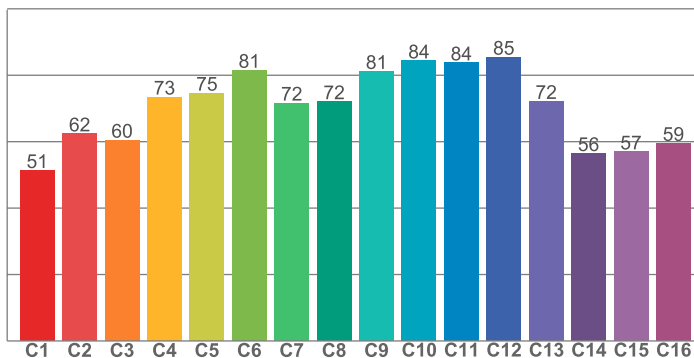
Note: Specifications are representative of the diode type and not a particular tape light article.

RGBW - RGB & 3000K WHITE



TM-30: 71.6

CRI: 60.4 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
43.0	75.2	79.0	50.3	58.6	75.3	75.8	25.9	-133.5	50.5	33.7	61.9	49.1	83.0	27.4

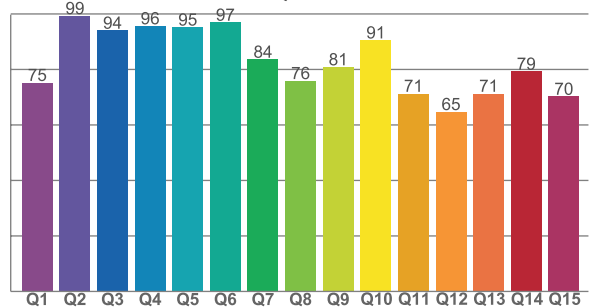
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
51.3	62.3	60.5	73.4	74.6	81.5	71.6	72.0	81.2	84.3	83.7	85.4	72.1	56.4	56.9	59.5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
75.2	99.3	94.0	95.7	95.2	96.9	83.6	75.9	80.9	90.5	71.3	64.7	71.3	79.3	70.2

CQS: 79.6



Color parameters

Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
19521 K	60.4	-133.5	71.6	113.5	79.6	0.268	0.247	0.197	0.273	-0.0138

Note: Specifications are representative of the diode type and not a particular tape light article.

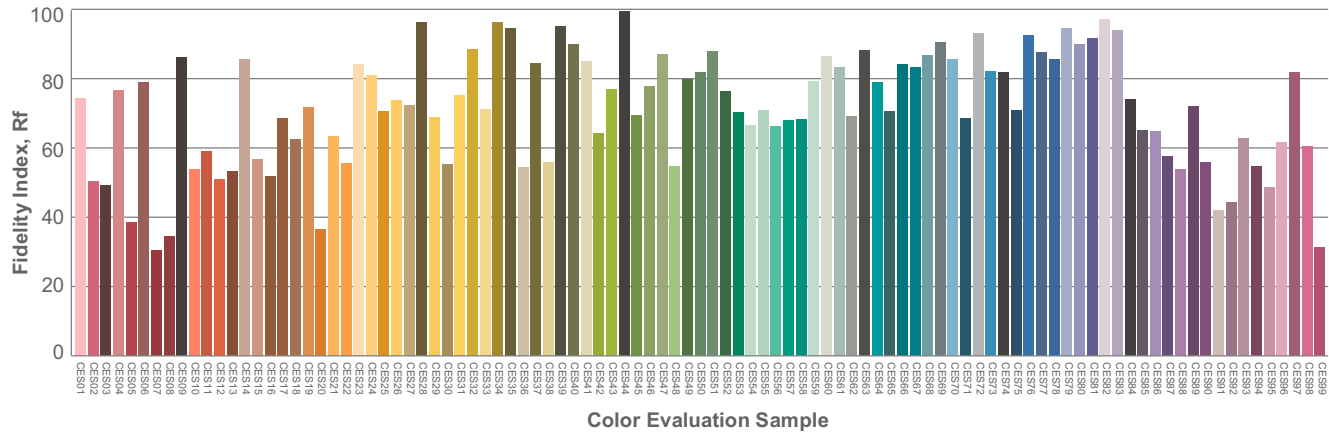
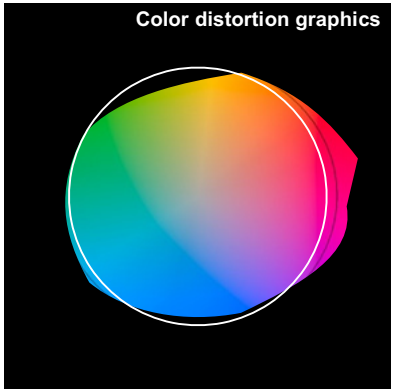
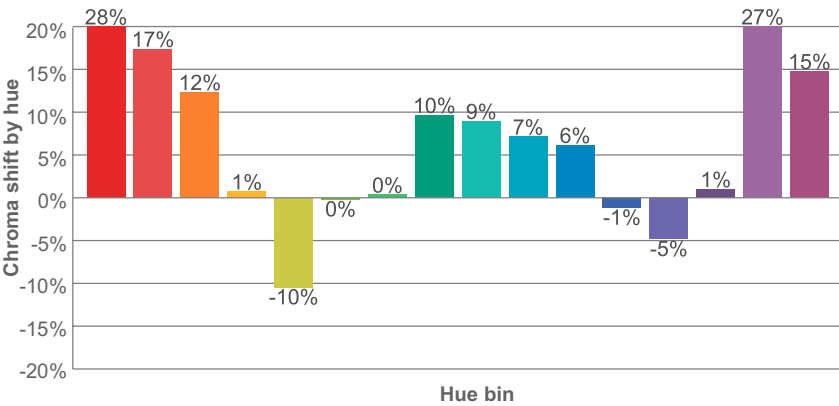
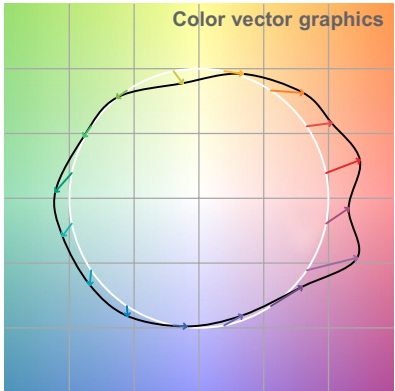
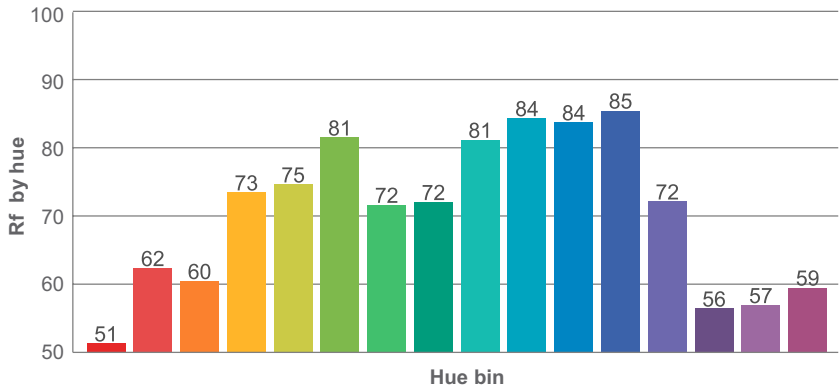
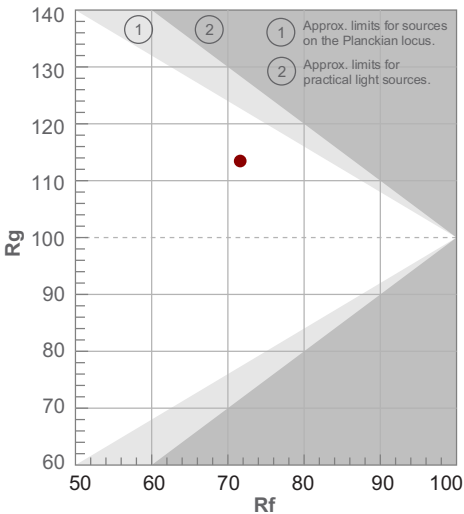
Rf 71.6

Fidelity index Rf

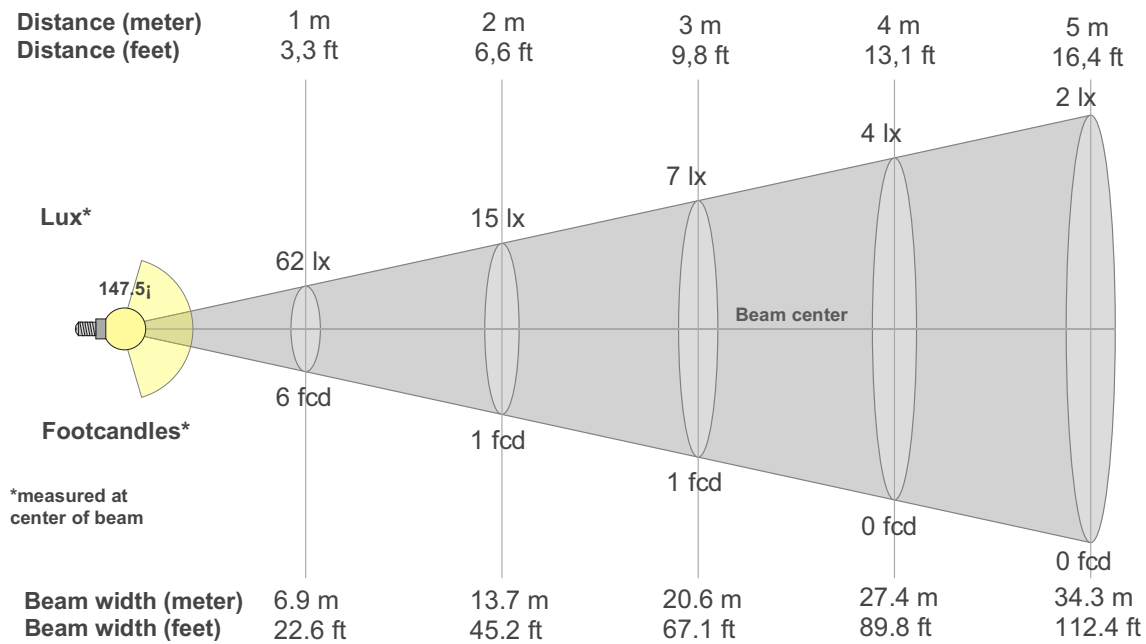
Rg 113.5

Gamut index Rg

Hue Bin	R _f	Shifts (%)	
		Chroma	Hue
1	51	28%	5%
2	62	17%	-9%
3	60	12%	-22%
4	73	1%	-14%
5	75	-10%	-5%
6	81	0%	10%
7	72	0%	10%
8	72	10%	17%
9	81	9%	8%
10	84	7%	9%
11	84	6%	5%
12	85	-1%	10%
13	72	-5%	15%
14	56	1%	28%
15	57	27%	30%
16	59	15%	15%



Note: Specifications are representative of the diode type and not a particular tape light article.



Beam intensities from 1-20m

1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
62lx	15lx	7lx	4lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx
5.8fcd	1.4fcd	0.6fcd	0.4fcd	0.2fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd

Intensities in 0i c-plane

0i	9i	18i	27i	36i	45i	54i	63i	72i	81i	90i	99i	108i	117i	126i	135i	144i	153i	162i	171i
61.9	61.6	60.3	58.4	55.7	52.3	48.4	44.6	41.2	37.2	29.0	6.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
100%	99%	97%	94%	90%	84%	78%	72%	67%	60%	47%	10%	1%	0%	0%	0%	0%	0%	0%	1%

Intensities in 90i c-plane

0i	9i	18i	27i	36i	45i	54i	63i	72i	81i	90i	99i	108i	117i	126i	135i	144i	153i	162i	171i
61.9	61.5	59.1	55.1	49.6	42.8	34.8	25.7	16.1	7.1	0.9	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3
100%	99%	95%	89%	80%	69%	56%	42%	26%	11%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%

Intensities in 180i c-plane

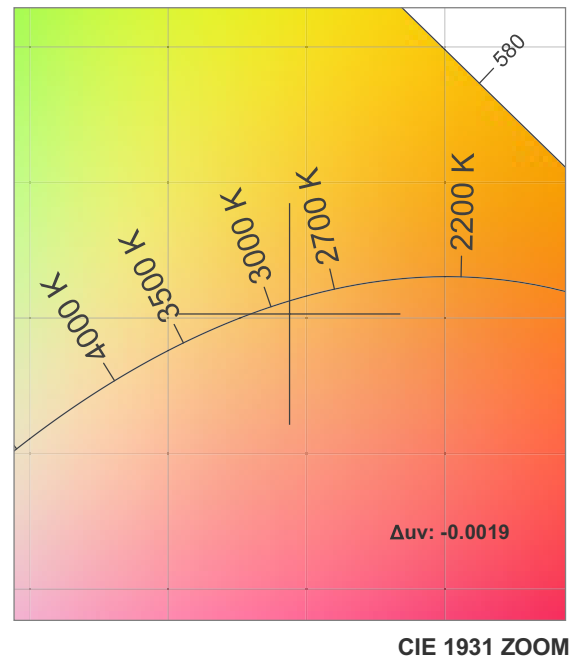
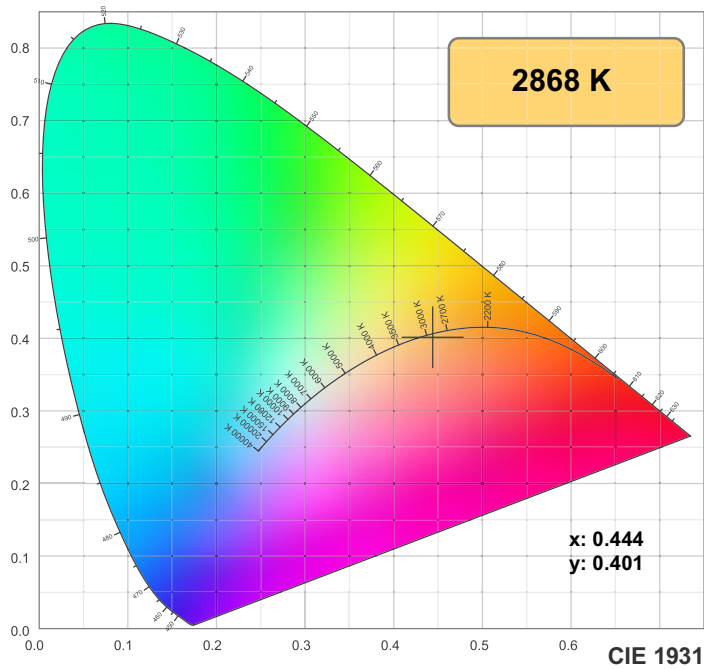
0i	9i	18i	27i	36i	45i	54i	63i	72i	81i	90i	99i	108i	117i	126i	135i	144i	153i	162i	171i
61.9	61.6	60.3	58.4	55.7	52.3	48.4	44.6	41.2	37.2	29.0	6.2	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3
100%	99%	97%	94%	90%	84%	78%	72%	67%	60%	47%	10%	1%	0%	0%	0%	0%	0%	0%	1%

Intensities in 270i c-plane

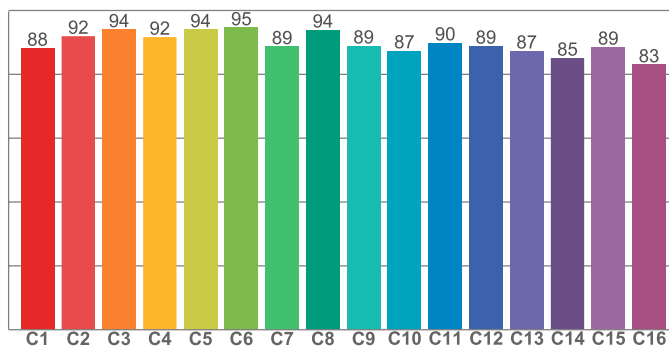
0i	9i	18i	27i	36i	45i	54i	63i	72i	81i	90i	99i	108i	117i	126i	135i	144i	153i	162i	171i
61.9	61.5	59.1	55.1	49.6	42.8	34.8	25.7	16.1	7.1	0.9	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3
100%	99%	95%	89%	80%	69%	56%	42%	26%	11%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120i cone	Intensity ratio in 90i cone
147.5i	187.8i	195.3i	61.0%	39.3%

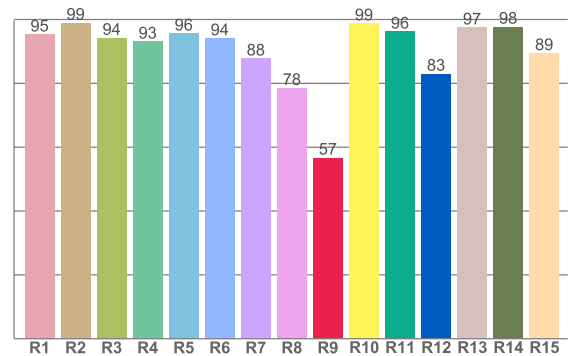
RGBW - 3000K WHITE ONLY



TM-30: 89.9



CRI: 92.2 (R1-R8)



CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
95.3	98.9	94.2	93.0	95.6	94.1	87.7	78.5	56.7	98.8	96.2	83.0	97.5	97.7	89.4

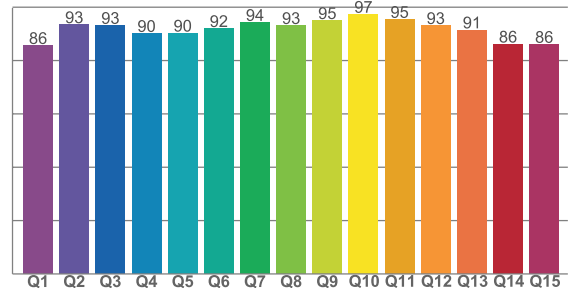
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
88.2	91.9	94.0	91.7	94.0	94.6	88.7	93.9	88.9	87.4	89.9	88.9	87.3	85.1	88.5	83.0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
85.6	93.4	93.1	90.1	90.2	92.0	94.2	93.1	94.9	97.3	95.4	93.1	91.4	86.1	86.0

CQS: 90.9



Color parameters

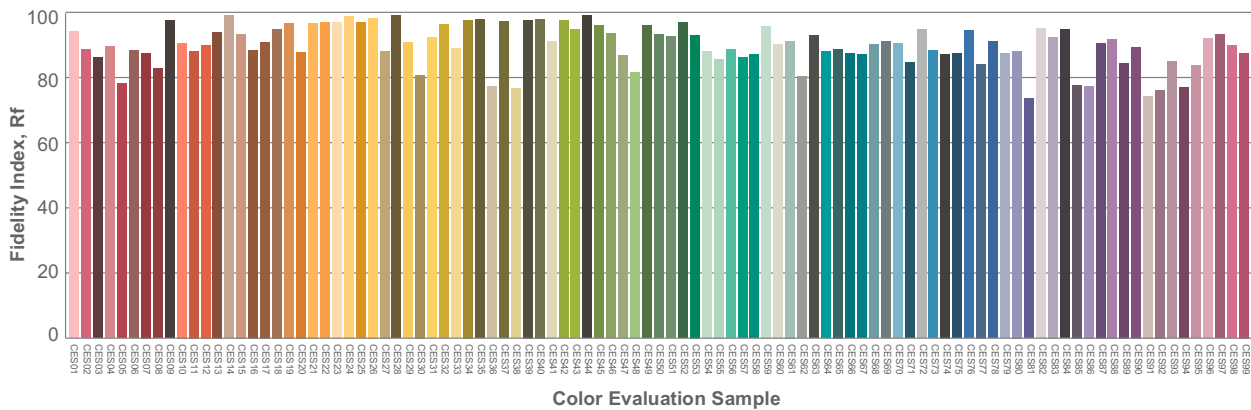
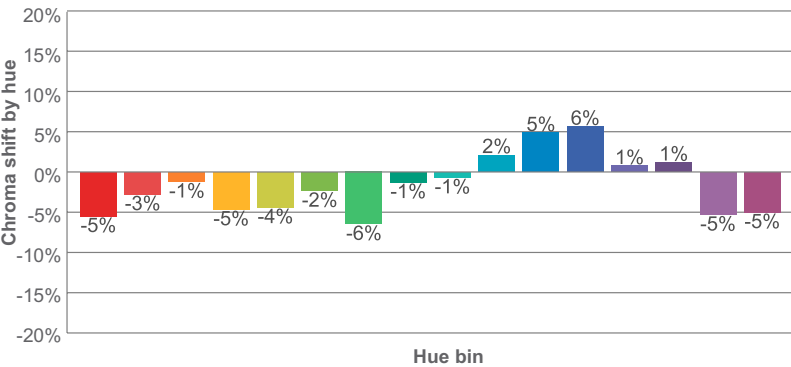
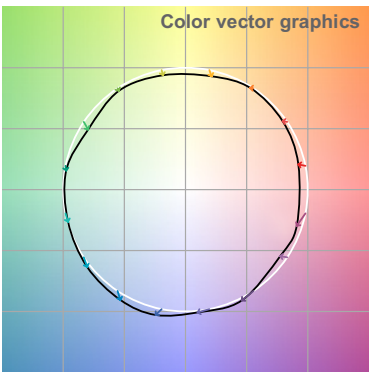
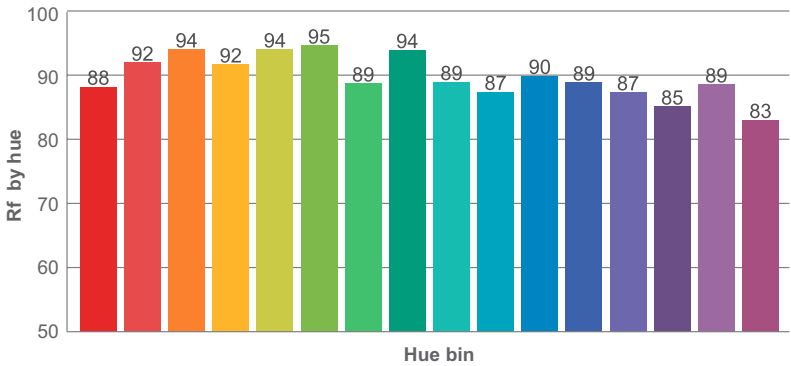
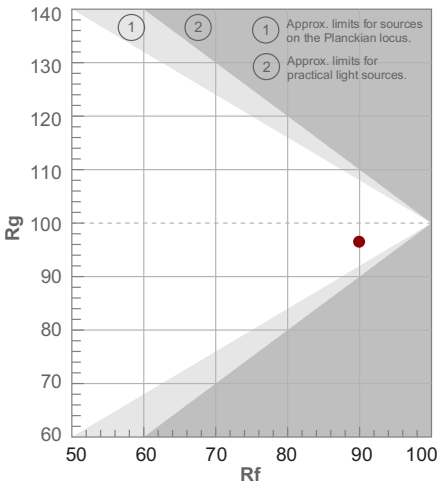
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
2868 K	92.2	56.7	89.9	96.5	90.9	0.444	0.401	0.256	0.348	-0.0019

Note: Specifications are representative of the diode type and not a particular tape light article.

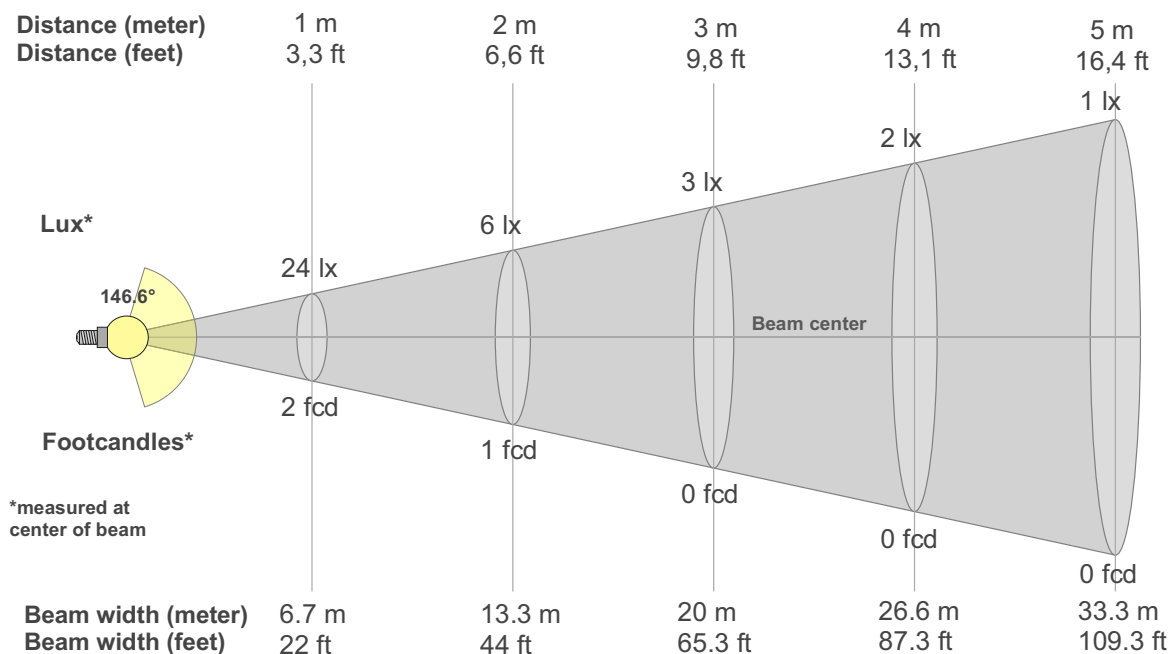
Rf 89.9
Fidelity index Rf

Rg 96.5
Gamut index Rg

Hue Bin	Rf	Shifts (%)	
		Chroma	Hue
1	88	-5%	2%
2	92	-3%	3%
3	94	-1%	2%
4	92	-5%	-3%
5	94	-4%	0%
6	95	-2%	0%
7	89	-6%	3%
8	94	-1%	4%
9	89	-1%	7%
10	87	2%	8%
11	90	5%	6%
12	89	6%	-4%
13	87	1%	-10%
14	85	1%	-12%
15	89	-5%	-2%
16	83	-5%	-11%



Note: Specifications are representative of the diode type and not a particular tape light article.



Beam intensities from 1-20m

1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
24lx	6lx	3lx	2lx	1lx	1lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx
2.3fcd	0.6fcd	0.3fcd	0.1fcd	0.1fcd	0.1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd

Intensities in 0° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
24.4	24.3	23.9	23.1	22.0	20.6	19.0	17.5	16.2	14.5	11.3	2.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
100%	100%	98%	95%	90%	84%	78%	72%	66%	59%	46%	10%	1%	1%	0%	0%	1%	1%	1%	0%

Intensities in 90° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
24.4	24.0	23.1	21.5	19.4	16.7	13.5	9.9	6.2	2.7	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
100%	98%	94%	88%	79%	68%	55%	41%	25%	11%	1%	0%	0%	0%	0%	0%	0%	0%	1%	1%

Intensities in 180° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
24.4	24.3	23.9	23.1	22.0	20.6	19.0	17.5	16.2	14.5	11.3	2.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
100%	100%	98%	95%	90%	84%	78%	72%	66%	59%	46%	10%	1%	1%	0%	0%	1%	1%	1%	0%

Intensities in 270° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
24.4	24.0	23.1	21.5	19.4	16.7	13.5	9.9	6.2	2.7	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
100%	98%	94%	88%	79%	68%	55%	41%	25%	11%	1%	0%	0%	0%	0%	0%	0%	0%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
146.6°	187.8°	195.2°	61.2%	39.5%