

Varien® 5.5 Dim-to-Warm LED Tape Light



Alloy LED is at the forefront of dim-to-warm LED technology. Featuring an intelligent circuit, Varien Dim-to-Warm Tape automatically changes Kelvin temp. from 3000K to 1800K when used with Lutron® CL dimmers, giving you a more neutral white light while you work and a warm candlelight while you relax.



- The light warms as it is dimmed
- Use only with “No Minimum Load” PrimaVolt® Dimmable Drivers or PowerFactor Dimmable Drivers
- Compatible with Lutron® CL dimmers
- No batteries, controllers, or receivers required
- Intelligent circuit eliminates the need for accessories and saves costs

Stocked Color Temp. (Kelvin)	1800K-3000K
Power Consumption per ft.	5.5 Watts/230mA
Input Voltage	24V DC
Diodes per foot	64
Diode Spacing	0.45 inches
Tape Height	0.1 inches
Beam Angle	120°
Field Cuttable (UL 2108)	Every 2.8 inches
Max Run Length	16.4 ft.
Dimmable	Yes

Diode Type	2016 SMD
Mounting	3M™ Self-Adhesive Tape (non-porous)
Operating Temp.	-13° F to 140° F
Ambient Temp.	-40° F to 186° F
Location	Indoor, Dry
Spool Lengths*	16.4 ft.
Certifications	UL Listed, UL 2108, CE, RoHS
Warranty	6 Year Limited

*Each spool comes with 36 in. lead wires at one end and a 36 in. wire with female DC plug at the other end. Wire is 20 AWG.

16.4 ft. spool Item #	Voltage	Kelvin temp. (CCT)	CRI	R9 Values	R13 Values	Lumens / foot
AL-01-81-2401	24V DC	1800K~3000K	93	90	94	315~348

Accessories (sold separately)



Amp Champ

Professional Connector - for a more secure connection.

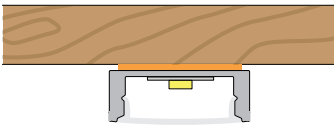
Accepts many combinations of tape and wire. Includes spade connectors for stranded wire, 3M® adhesive backing, and pre-attached 6 inch in-wall-rated 18 AWG lead wire.

AL-01-81-9900

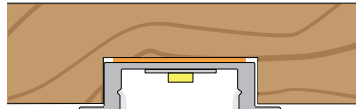
AL-01-81-9900-5 **(5 pack)**

AL-01-81-9900-10 **(10 pack)**

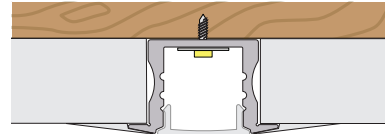
→ Popular Channel Pairings



Surfa 6
Surface-Mount



Naro 4
Recessed



Ankr 4
Mud-In / In-Wall



Click the square to see the Tape Light and Channel Compatibility & Hotspot Guide for a complete list of compatible channels and hotspot ratings.

Wire and Tape Light Management



Wire Harness

Holds wire in place securely.
L = 0.95 / W = 0.3 / H = 0.22 in.
[AL-01-99-9901]



Tape Harness

Provides extra security for tape light, especially at the ends of a run.
L = 0.87 / W = 0.2 / H = 0.125 in.
[AL-01-99-9900]

Compatible Power Supplies (sold separately)

Alloy LED Primavolt® “No Min. Load” Dimmable Drivers*

Smooth dimming using forward-phase ELV, MLV, and TRIAC dimmers.



dry location model



wet location model



Item #	Output	Wattage	Min. Load	Wet Loc.	Class 2
AL-98-03-24024-NM	24V DC	24W	none	Y	Y
AL-98-03-24060-NM	24V DC	60W	none	N	Y
AL-98-03-24096-NM	24V DC	96W	none	Y	Y
AL-98-03-24150-NM	24V DC	150W	none	Y	N
AL-98-03-24200-NM	24V DC	200W	none	Y	N

* Note: This tape light is compatible ONLY with PrimaVolt “No Minimum Load” Dimmable Drivers.

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.

Lutron® Dimming Accessories

By participating in Lutron’s 2017 OEM Advantage program, Alloy LED is able to offer a range of the highest quality low voltage power supplies and selected controls on the market.



Hi-lume Premier
0.1% EcoSystem /
3-wire LED Driver
(96W 24VDC)



Hi-lume 1% LED
Driver 40W
- EcoSystem / 3-wire
control
- 2-wire 120V forward
phase control



Lutron Vive PowPak RF Module
- RF module for EcoSystem LED
driver control
- Use with the Lutron EcoSystem
drivers shown to “Vive-enable”
Alloy LED products

Lutron® Hi-lume LED Drivers

Item #	Output	Wattage	Min. Load	Class 2
AL-98-07-12040	12V DC	40W	n/a	Y
AL-98-07-12040-3WIRE	12V DC	40W	n/a	Y
AL-98-07-24040	24V DC	40W	n/a	Y
AL-98-07-24040-3WIRE	24V DC	40W	n/a	Y
AL-98-07-24096-3WIRE	24V DC	96W	n/a	Y

Lutron® Controls

Item #	Desc.	Voltage
AL-98-07-9901	EcoSystem Control Module	n/a
AL-98-07-9901-8	EcoSystem Control Module - 8 pack	n/a
AL-98-07-9950	CL Dimmer	120V AC
AL-98-07-9950-FPLATE	CL Dimmer faceplate	n/a

Dimmers & Switches

SlimDim Wireless Dimmers

Using long-range RF technology, these LED dimmers avoid the need for connecting directly to a power supply, offering freedom to mount anywhere. Can also be used as a fob for mobile, hand-held control.



Remote Control Dimmer Switch

Provides full dimming and on/off control, and includes a touch wheel that allows for direct visual selection of brightness. It can also operate up to four independent zones

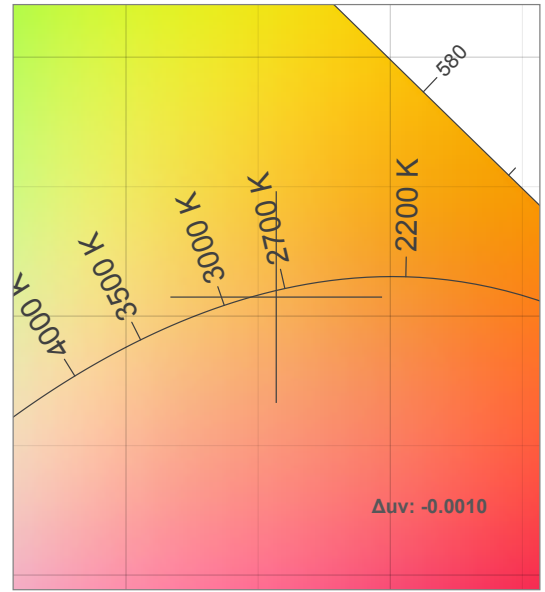
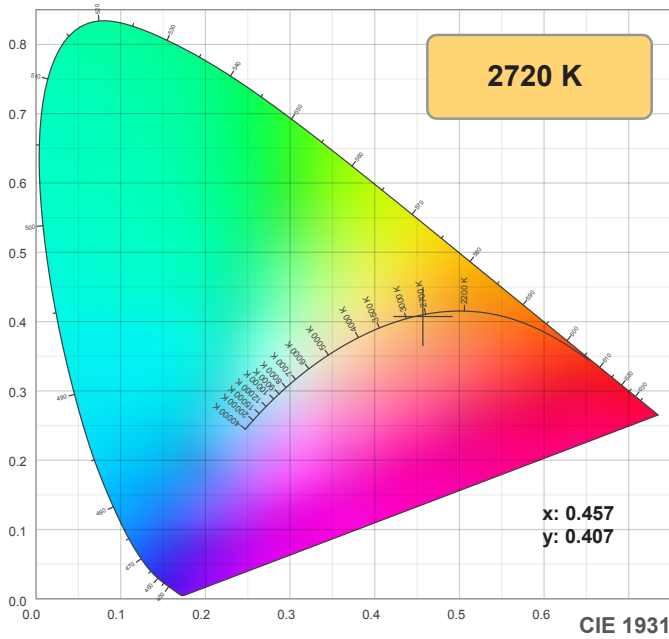


AL-70-01-0001	SlimDim Wireless Dimmer
AL-70-01-0002	Single Color Receiver (96W max.) [sold separately]

AL-60-03-0001	Remote Control Dimmer Switch
AL-70-01-0002	Single Channel Receiver (sold separately)
AL-60-03-0004-V2	Wireless Receiver (sold separately)

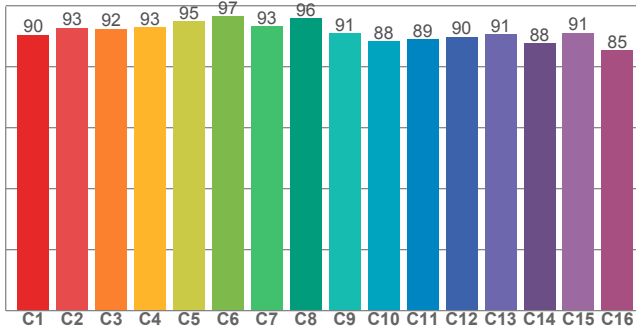
Note: specifications are representative of the diode type and not a particular tape light article.

20%

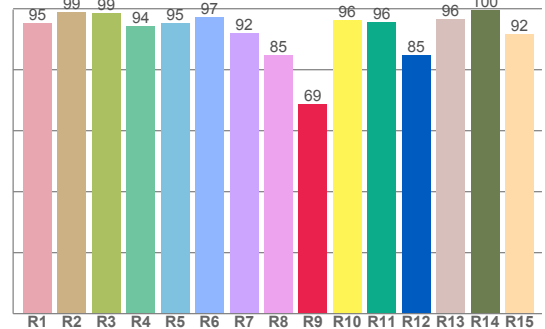


CIE 1931 ZOOM

TM30: 91.3



CRI: 94.5 (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	98.7	98.6	94.2	95.1	97.2	92.1	84.9	68.7	96.1	95.5	84.7	96.4	99.6	91.7

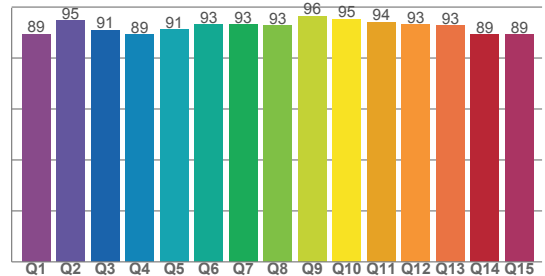
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90.5	92.7	92.5	93.0	94.8	96.6	93.2	95.9	91.1	88.3	88.9	89.8	90.6	87.7	91.1	85.3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
89.4	94.7	91.0	89.2	91.2	93.1	93.1	92.8	96.4	95.4	94.1	93.1	92.7	89.3	89.3

CQS: 91.9



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
2720 K	94.5	68.7	91.3	98.5	91.9	0.457	0.407	0.262	0.350	-0.0010

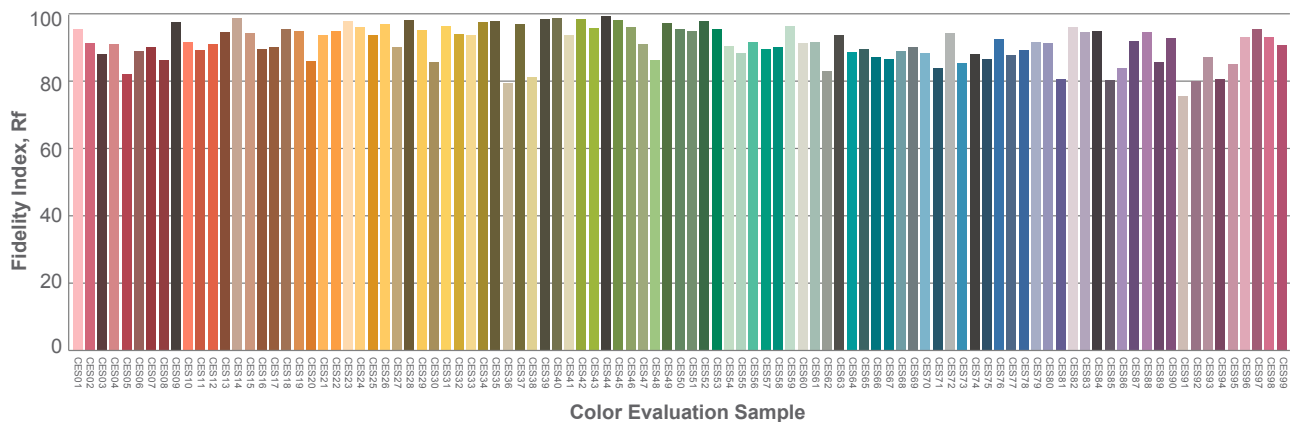
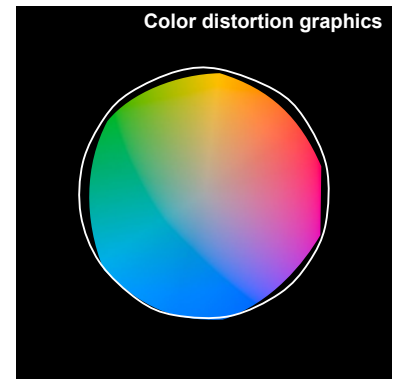
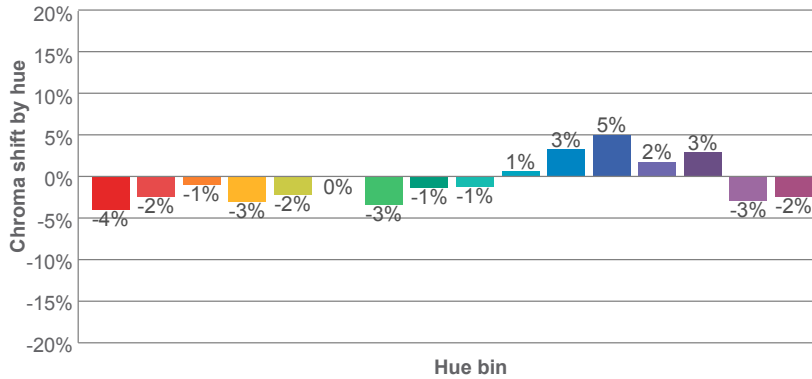
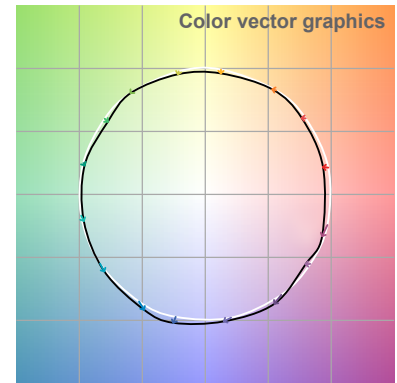
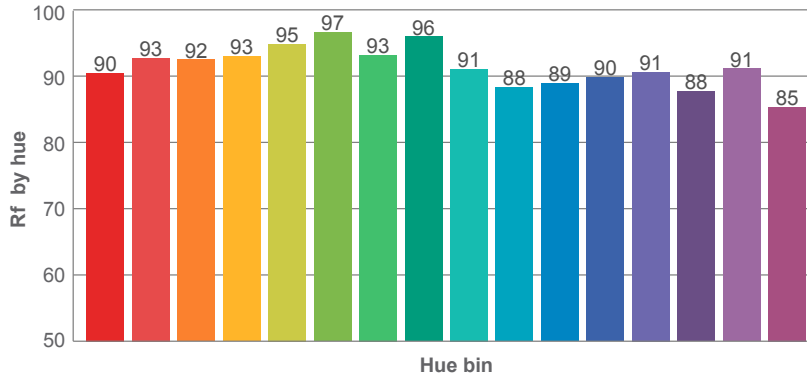
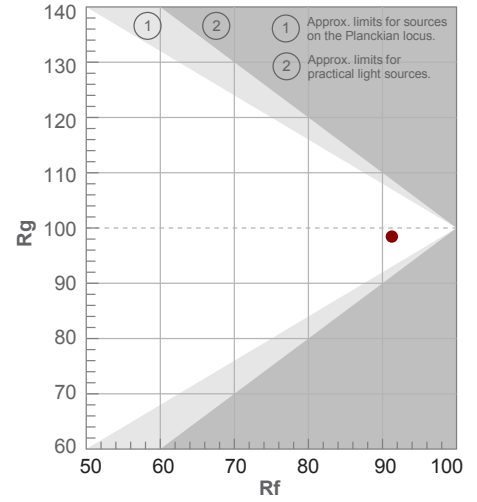
Note: specifications are representative of the diode type and not a particular tape light article.

20%

Rf 91.3
Fidelity index Rf

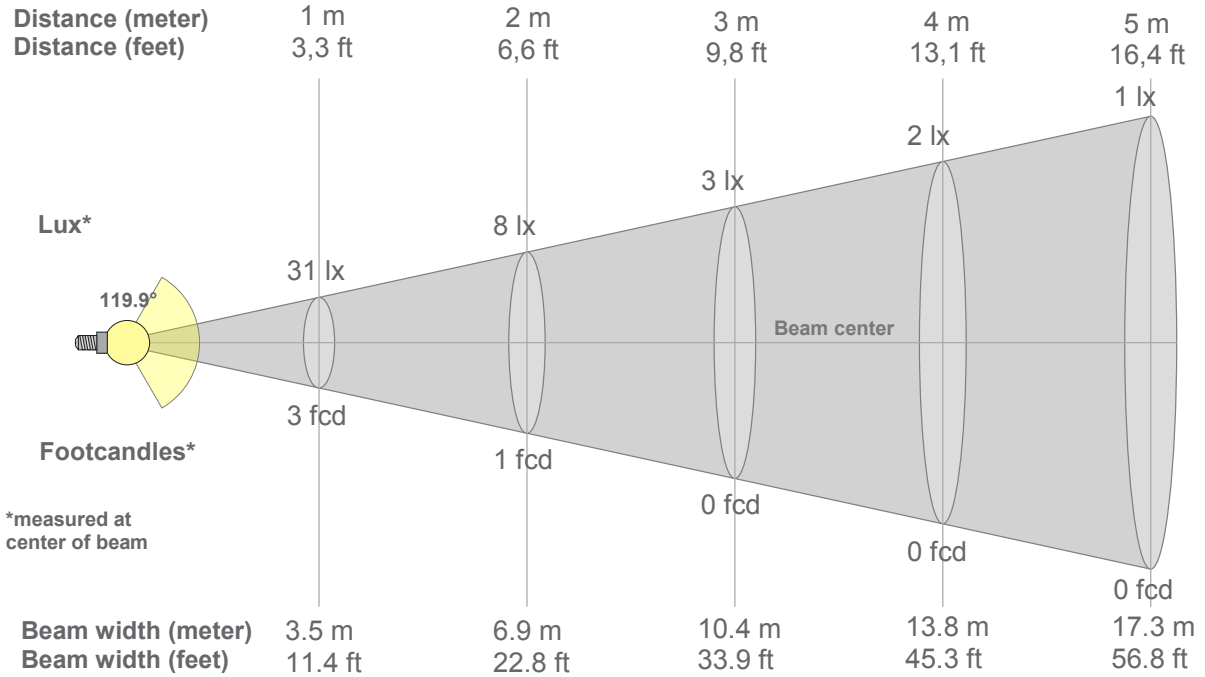
Rg 98.5
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	90	-4%	1%
2	93	-2%	2%
3	92	-1%	3%
4	93	-3%	-1%
5	95	-2%	1%
6	97	0%	0%
7	93	-3%	1%
8	96	-1%	2%
9	91	-1%	5%
10	88	1%	7%
11	89	3%	7%
12	90	5%	-1%
13	91	2%	-6%
14	88	3%	-8%
15	91	-3%	-2%
16	85	-2%	-10%



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

20%



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
31lx	8lx	3lx	2lx	1lx	1lx	1lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx
2.9fcd	0.7fcd	0.3fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd

Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
31.1	30.9	30.4	29.7	28.9	27.9	26.6	25.2	23.6	21.8	19.9	17.8	15.5	13.1	10.6	7.9	5.4	3.0	1.2	0.4
100%	99%	98%	96%	93%	90%	86%	81%	76%	70%	64%	57%	50%	42%	34%	26%	17%	10%	4%	1%

Intensities in 90° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
31.1	30.9	30.4	29.7	28.9	27.9	26.6	25.2	23.6	21.8	19.9	17.8	15.5	13.1	10.6	7.9	5.4	3.0	1.2	0.4
100%	99%	98%	96%	93%	90%	86%	81%	76%	70%	64%	57%	50%	42%	34%	26%	17%	10%	4%	1%

Intensities in 180° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
31.1	31.0	30.7	30.1	29.2	28.2	26.9	25.4	23.8	21.9	19.9	17.8	15.5	13.1	10.6	8.0	5.4	3.0	1.2	0.4
100%	100%	99%	97%	94%	91%	87%	82%	77%	71%	64%	57%	50%	42%	34%	26%	18%	10%	4%	1%

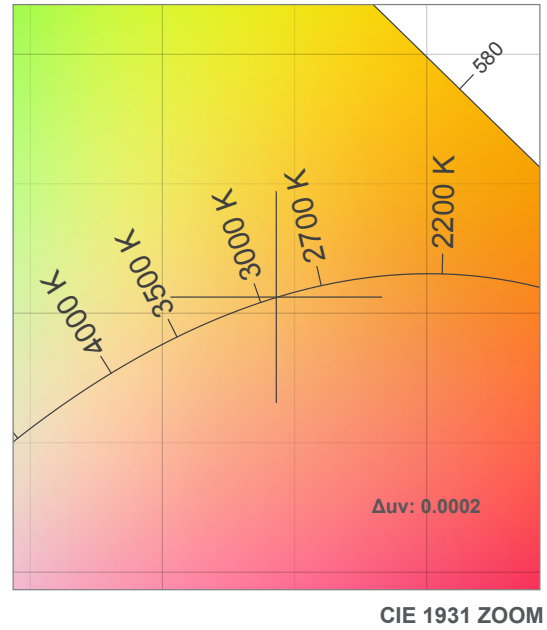
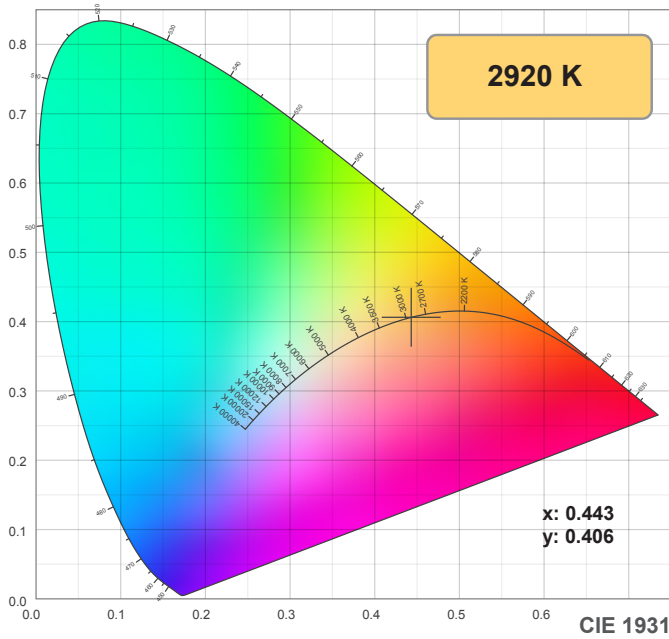
Intensities in 270° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
31.1	31.0	30.7	30.1	29.2	28.2	26.9	25.4	23.8	21.9	19.9	17.8	15.5	13.1	10.6	8.0	5.4	3.0	1.2	0.4
100%	100%	99%	97%	94%	91%	87%	82%	77%	71%	64%	57%	50%	42%	34%	26%	18%	10%	4%	1%

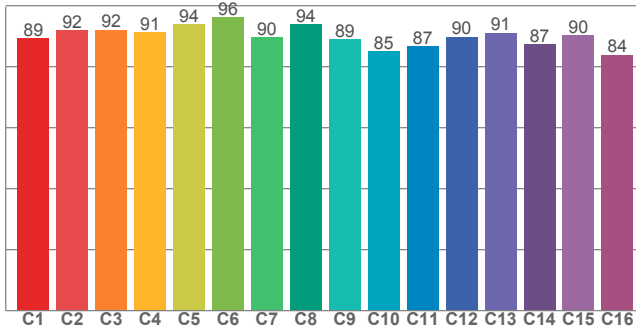
Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
119.9°	169.4°	182.9°	73.3%	48.9%

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

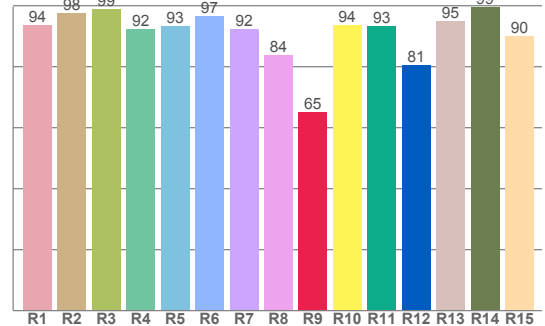
50%



TM30: 90.0



CRI: 93.6 (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
93.8	97.7	98.9	92.5	93.2	96.6	92.2	83.8	65.2	93.6	93.2	80.6	94.9	99.5	90.2

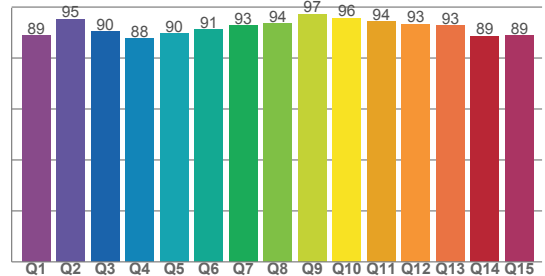
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89.2	91.9	92.1	91.4	94.0	96.1	89.7	93.9	88.9	85.1	86.7	89.8	91.2	87.3	90.4	84.0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
88.8	95.2	90.3	87.7	89.7	91.3	92.8	93.6	97.2	95.7	94.2	93.4	92.8	88.6	89.0

CQS: 91.4



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
2920 K	93.6	65.2	90.0	97.3	91.4	0.443	0.406	0.254	0.349	0.0002

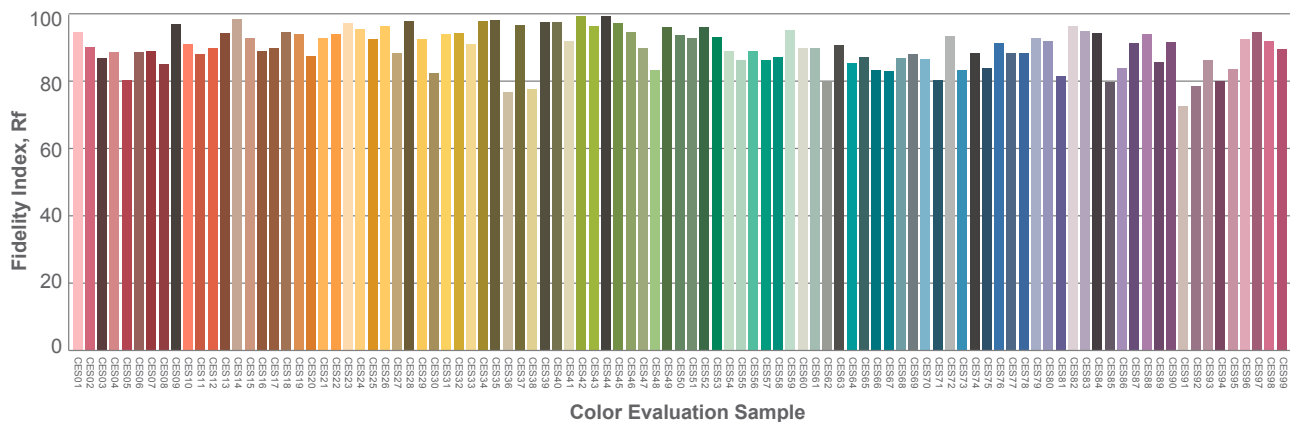
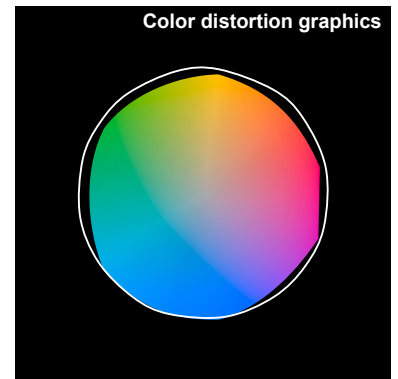
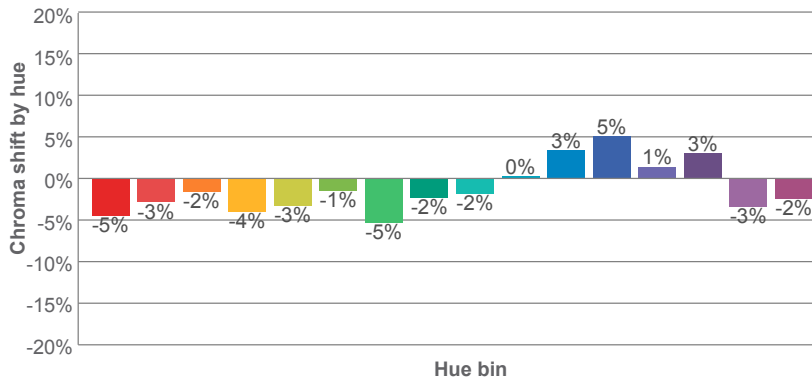
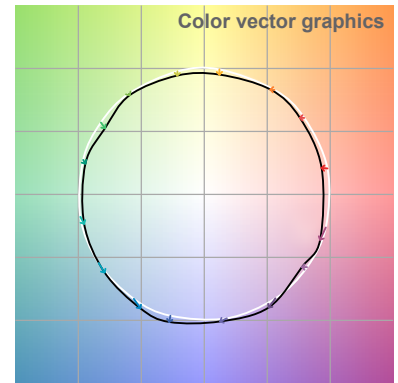
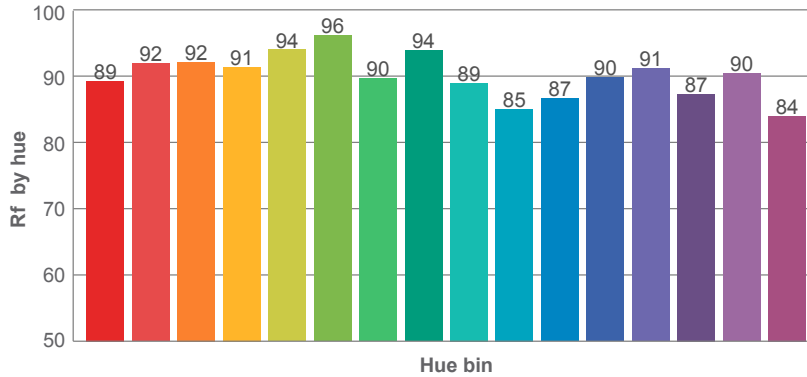
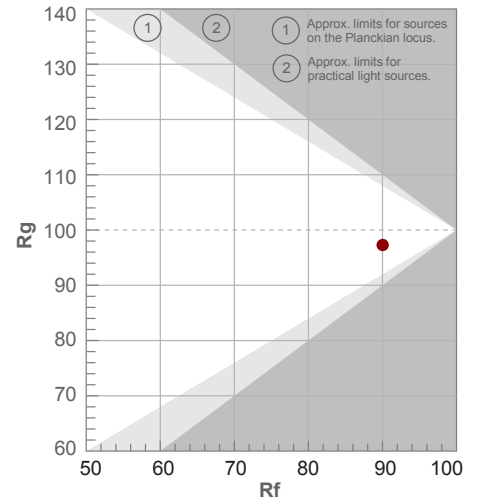
Note: specifications are representative of the diode type and not a particular tape light article.

50%

Rf 90.0
Fidelity index Rf

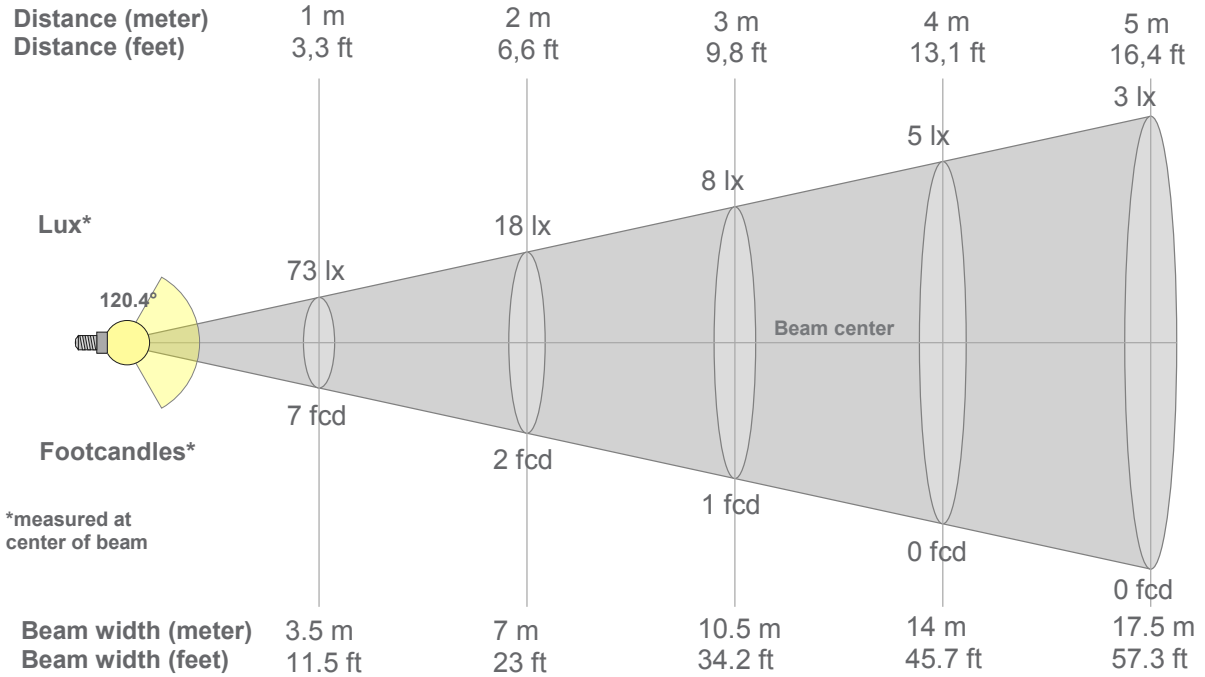
Rg 97.3
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	89	-5%	1%
2	92	-3%	2%
3	92	-2%	3%
4	91	-4%	-1%
5	94	-3%	1%
6	96	-1%	0%
7	90	-5%	2%
8	94	-2%	3%
9	89	-2%	6%
10	85	0%	9%
11	87	3%	8%
12	90	5%	0%
13	91	1%	-6%
14	87	3%	-9%
15	90	-3%	-2%
16	84	-2%	-11%



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

50%



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
73lx	18lx	8lx	5lx	3lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx
6.7fcd	1.7fcd	0.7fcd	0.4fcd	0.3fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd

Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
72.6	72.0	70.9	69.3	67.5	65.0	62.1	58.8	55.0	51.0	46.6	41.8	36.5	30.9	24.9	18.8	12.7	7.0	2.5	0.9
100%	99%	98%	96%	93%	90%	86%	81%	76%	70%	64%	58%	50%	43%	34%	26%	17%	10%	3%	1%

Intensities in 90° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
72.6	72.0	70.9	69.3	67.5	65.0	62.1	58.8	55.0	51.0	46.6	41.8	36.5	30.9	24.9	18.8	12.7	7.0	2.5	0.9
100%	99%	98%	96%	93%	90%	86%	81%	76%	70%	64%	58%	50%	43%	34%	26%	17%	10%	3%	1%

Intensities in 180° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
72.6	72.5	71.7	70.4	68.6	66.1	63.1	59.7	56.0	51.6	46.8	41.8	36.5	30.9	24.9	18.8	12.6	6.9	2.8	0.8
100%	100%	99%	97%	95%	91%	87%	82%	77%	71%	65%	58%	50%	43%	34%	26%	17%	10%	4%	1%

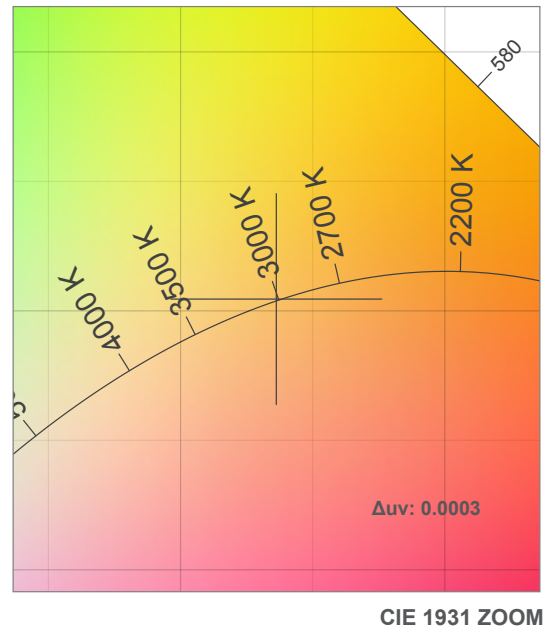
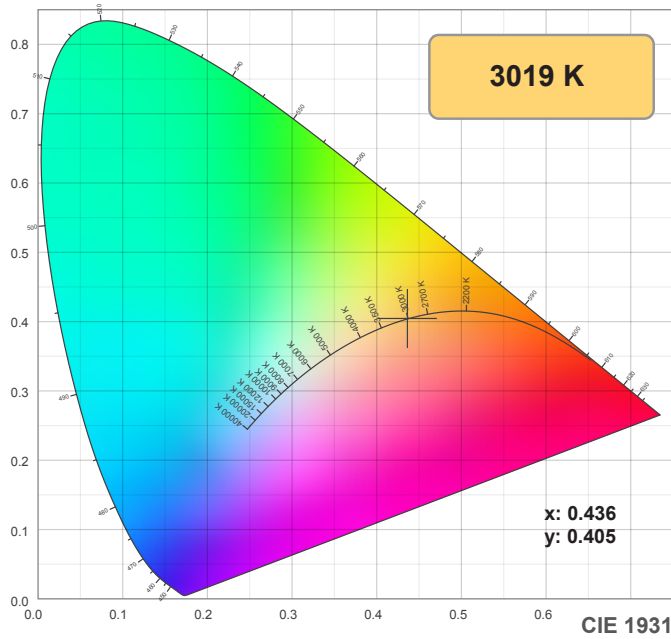
Intensities in 270° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
72.6	72.5	71.7	70.4	68.6	66.1	63.1	59.7	56.0	51.6	46.8	41.8	36.5	30.9	24.9	18.8	12.6	6.9	2.8	0.8
100%	100%	99%	97%	95%	91%	87%	82%	77%	71%	65%	58%	50%	43%	34%	26%	17%	10%	4%	1%

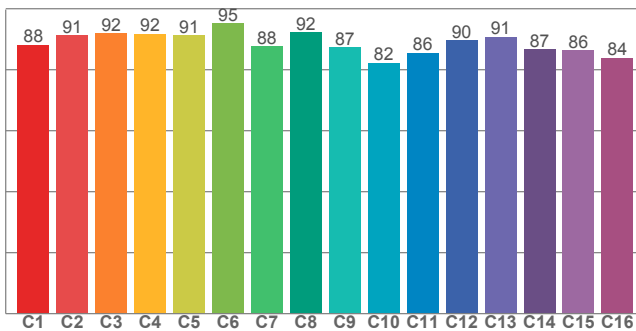
Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
120.4°	169.4°	183°	73.4%	48.8%

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

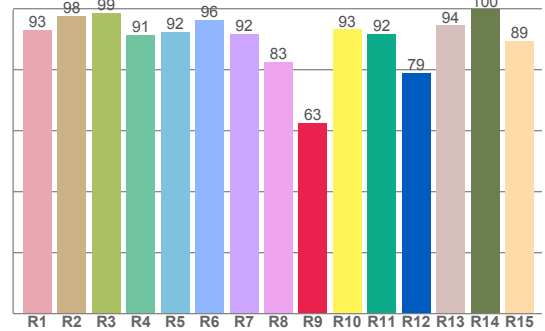
100%



TM30: 89.0



CRI: 92.9 (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
93.1	97.6	98.6	91.2	92.4	96.3	91.6	82.6	62.6	93.1	91.7	78.8	94.5	99.7	89.4

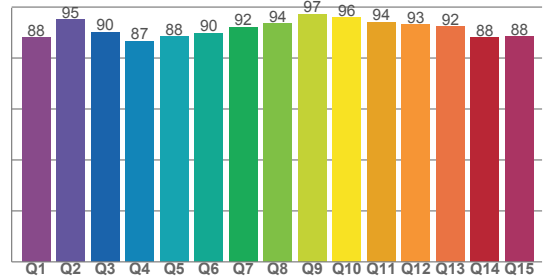
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
88.2	91.3	92.0	91.7	91.3	95.1	87.7	92.4	87.4	82.2	85.5	89.6	90.8	86.7	86.4	83.9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
88.0	95.2	90.1	86.7	88.3	89.8	92.1	93.6	97.2	95.8	94.1	93.1	92.5	87.9	88.4

CQS: 90.8



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
3019 K	92.9	62.6	89.0	96.6	90.8	0.436	0.405	0.250	0.348	0.0003

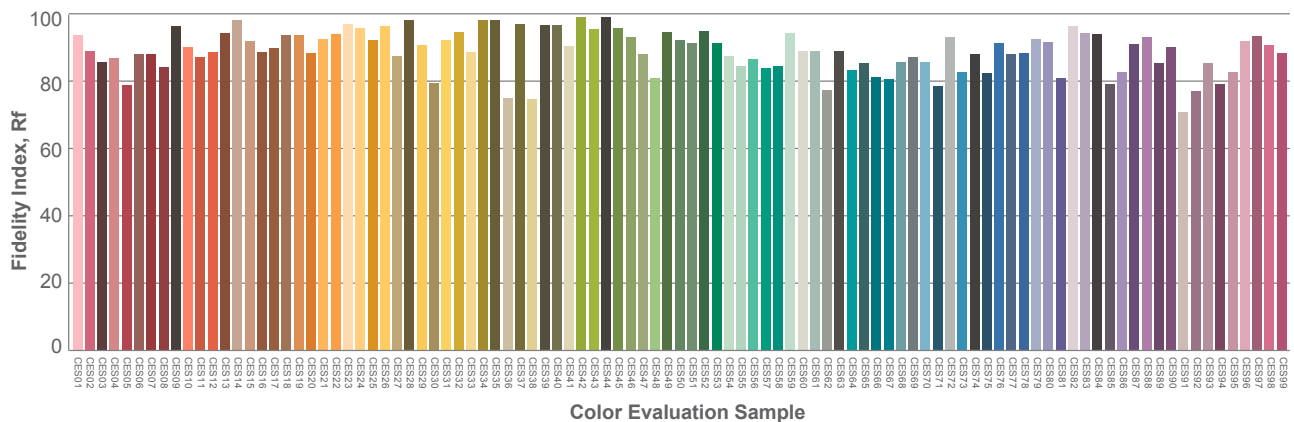
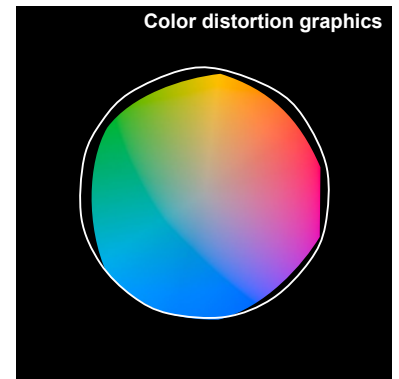
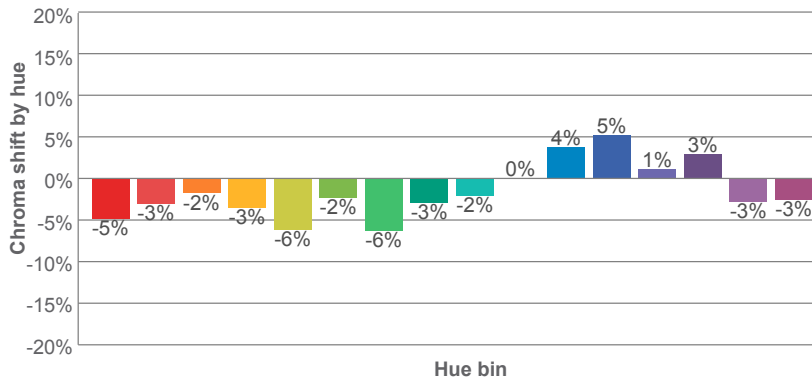
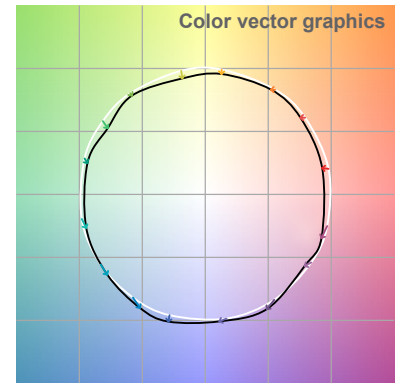
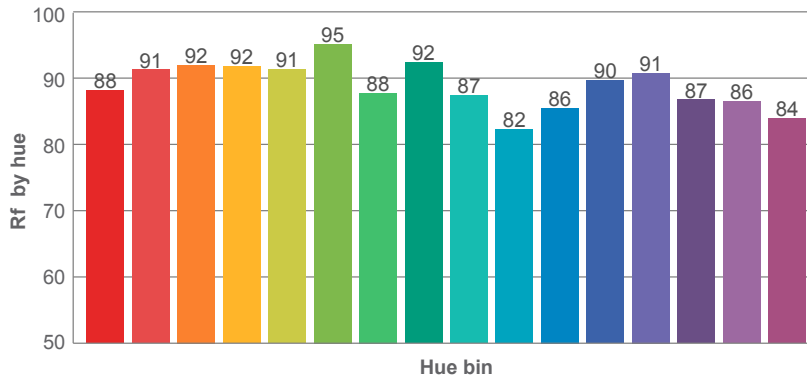
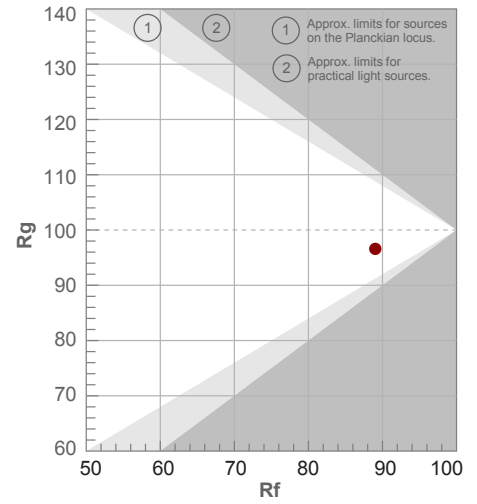
Note: specifications are representative of the diode type and not a particular tape light article.

100%

Rf 89.0
Fidelity index Rf

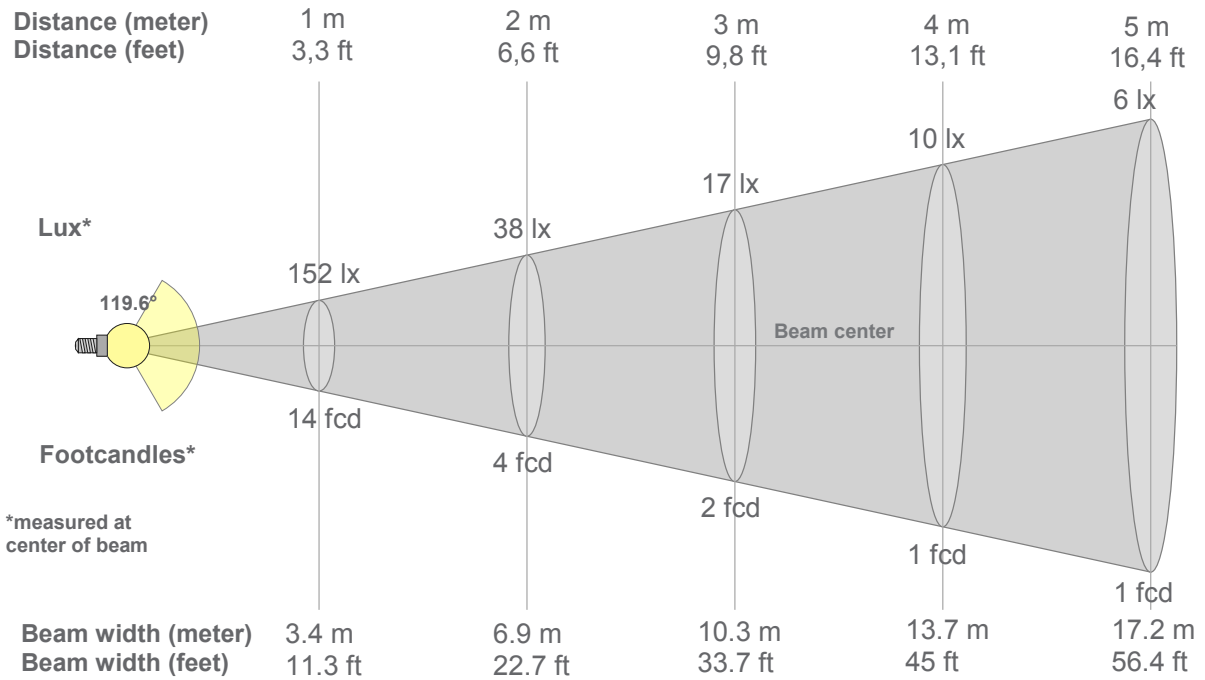
Rg 96.6
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	88	-5%	2%
2	91	-3%	2%
3	92	-2%	3%
4	92	-3%	-1%
5	91	-6%	0%
6	95	-2%	0%
7	88	-6%	3%
8	92	-3%	3%
9	87	-2%	8%
10	82	0%	9%
11	86	4%	9%
12	90	5%	0%
13	91	1%	-6%
14	87	3%	-9%
15	86	-3%	-5%
16	84	-3%	-10%



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

100%



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
152lx	38lx	17lx	10lx	6lx	4lx	3lx	2lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	0lx	0lx	0lx
14.1fcd	3.5fcd	1.6fcd	0.9fcd	0.6fcd	0.4fcd	0.3fcd	0.2fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0fcd	0fcd	0fcd	0fcd

Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
152	151	149	146	141	136	130	123	115	106	97	87	76	64	51	38	25	13	4	1
100%	99%	98%	96%	93%	89%	86%	81%	76%	70%	64%	57%	50%	42%	33%	25%	16%	8%	3%	1%

Intensities in 90° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
152	151	149	146	141	136	130	123	115	106	97	87	76	64	51	38	25	13	4	1
100%	99%	98%	96%	93%	89%	86%	81%	76%	70%	64%	57%	50%	42%	33%	25%	16%	8%	3%	1%

Intensities in 180° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
152	152	151	148	144	139	133	126	117	108	98	87	76	63	51	38	25	13	4	1
100%	100%	99%	97%	95%	91%	87%	83%	77%	71%	64%	57%	50%	42%	33%	25%	16%	9%	3%	1%

Intensities in 270° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
152	152	151	148	144	139	133	126	117	108	98	87	76	63	51	38	25	13	4	1
100%	100%	99%	97%	95%	91%	87%	83%	77%	71%	64%	57%	50%	42%	33%	25%	16%	9%	3%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
119.6°	167.8°	180.7°	74.1%	49.5%