

Focaline 6 Flexible Grazer



Actual size shown



Focaline 6 is a flexible wall grazer with an extremely focused beam angle of only 10° allowing it to easily skim the surface of a wall, creating pronounced shadows and highlights that enhance the texture. The linear light is field-cuttable and has an array of accessories – from mounting clips to anti-glare louvers – to transform your space.

- Narrow 10° optical beam angle for precise grazing of a wide range of wall heights
- Field-cuttable every 6 inches
- High performance 4000+ peak center beam candela
- High CRI of 95+ for excellent color rendering
- Pair with optional anti-glare louvers to cut down unsightly glare
- Optional mounting accessories include a mounting bracket that clips directly to the tape or an aluminum channel
- Adjustable brackets provide precise positioning, ensuring optimal illumination angles

TECHNICAL INFORMATION

Color Temperature	2700K, 3000K, 3500K, 4000K	Power Cable Length	6 in. / 24 in.
Power Consumption per Foot	6 Watts	Diode Type	CSP 1313
Input Voltage	24V DC	Diodes per Foot	14
Lumens Per Foot	439 (avg.)	Diode Spacing	0.86 in.
Spool Length*	33 ft.	Location	Indoor/Outdoor, Dry/Wet, IP68***
Tape Dimensions (W x H)	0.78 in. x 0.4 in.	Operating Temperature	32 ~ 104° F (-20 ~ 40° C)
Maximum Run Length	33 ft.	Ambient Temperature	-4 ~ 104°F (-20 ~ 40°C)
Maximum Wall Height	12+ ft.**	Certifications/Standards:	RoHs, UL, CE Commission in accordance with the Title 24 JA8 2016 std.
Dimmable	Yes	Warranty	6 Years
Beam Angle	10° (+/-3° tolerance)		
Cut Point	Every 6 in.		

* Each 33 ft. Focaline 6 spool comes with a 1 ft., 20 AWG lead wire at one end.

**Focaline 6 is designed to graze walls up to 12 ft. in any space. Certain scenarios will allow for a larger wall.

***Focaline 6 is only rated for wet location if ordered through our customization department. Wet location is achieved with factory-sealed connections.

PRODUCT INFORMATION

Item Number	Voltage	Color Temperature	CRI	Lumens per Foot
AL-01-76-2461	24V DC	2700K	95	422
AL-01-76-2462	24V DC	3000K	96	415
AL-01-76-2468	24V DC	3500K	95	445
AL-01-76-2463	24V DC	4000K	96	473

SKU BUILDER

Company	Location	Tape Model	Voltage	CCT**	Length	# of Leads	Lead Length 1	Lead Length 2
AL	O <i>Outdoor</i>	FocaLine6	24V	☐ 2700K ☐ 3000K ☐ 3500K ☐ 4000K	inches	☐ 1LEAD ☐ 2LEAD	inches	inches

VOLTAGE DROP GUIDANCE CHART

Standard Non-XT 12V Voltage Drop and Wire Length Distance Chart (3% Drop or 11V)

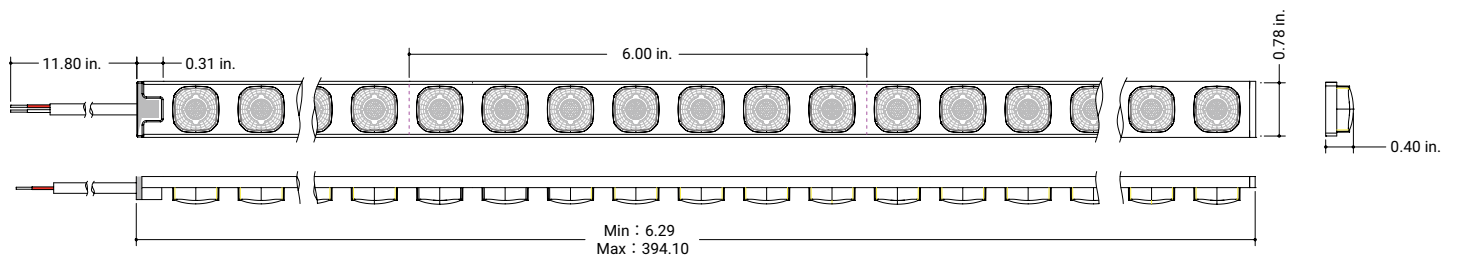
Wire Gauge	Copper Wire Resistance (O/kFT)	10W (0.83A)	20W (1.67A)	30W (2.50A)	40W (3.33A)	50W (4.17A)	60W (5A)
22 AWG	16.14	14 ft.	7 ft.	5 ft.	4 ft.	3 ft.	3 ft.
20 AWG	10.15	22 ft.	11 ft.	8 ft.	6 ft.	5 ft.	4 ft.
18 AWG	6.39	34 ft.	17 ft.	12 ft.	9 ft.	7 ft.	6 ft.
16 AWG	4.02	54 ft.	27 ft.	18 ft.	14 ft.	11 ft.	9 ft.
14 AWG	2.53	86 ft.	43 ft.	29 ft.	22 ft.	18 ft.	15 ft.
12 AWG	1.59	137 ft.	69 ft.	46 ft.	35 ft.	28 ft.	23 ft.
10 AWG	0.99	217 ft.	109 ft.	73 ft.	55 ft.	44 ft.	37 ft.

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.

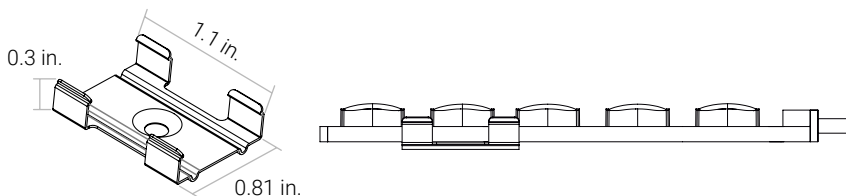
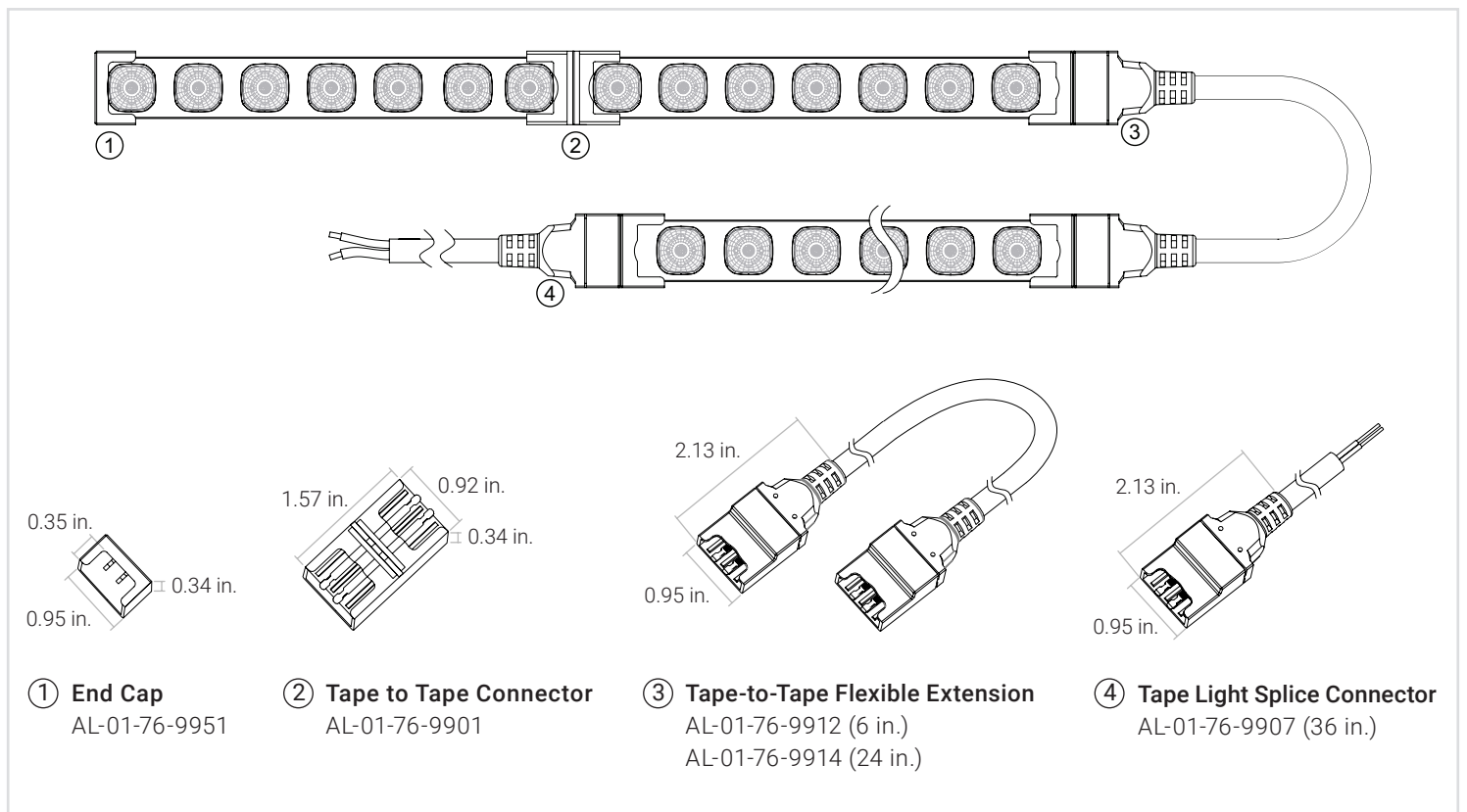
Note: These tables provide general guidelines for determining Wire Gauge based on total load and distance from LED driver to beginning of luminaire.

TAPE LIGHT DIMENSION DIAGRAMS

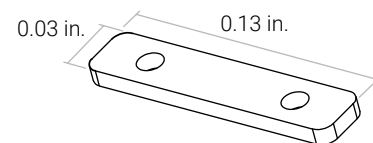


ACCESSORIES

Connecting Accessories



Metal Mounting Clips/Screws - Pack of 5
(Attach directly to FocaLine 6)
AL-01-76-9981-AL



Straight Connector (Pack of 2) - For connecting two FocaLine 6 channels together
AL-01-76-9992-AL

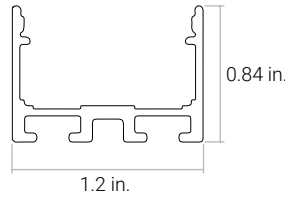
ACCESSORIES

Surface-Mount Channel Kit

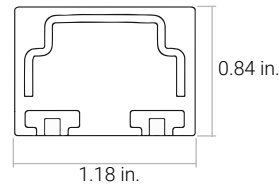
Surface-Mount Channel Kit (4 ft., Black)

1 Black Aluminum Channel, 1 Premium Clear Cover, 2 Black End Caps, 7 Inner Clips, 4 Metal Mounting Clips/Screws and 2 Metal Straight Connectors

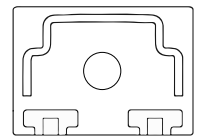
AL-01-76-9924-KIT-BL



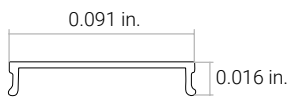
Aluminum Channel



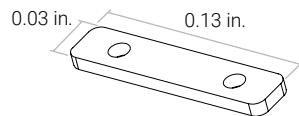
Closed End-Cap



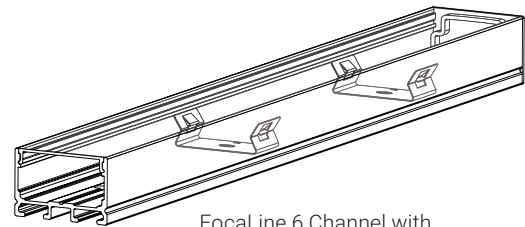
Open End-Cap



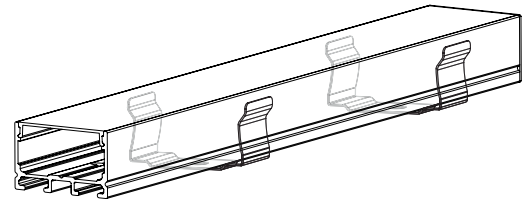
Premium Clear Cover



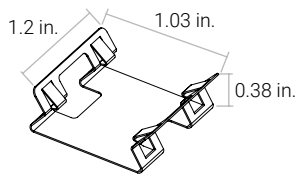
Straight Connector



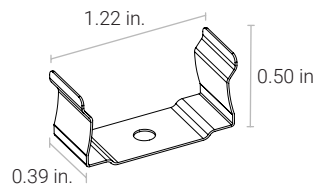
FocaLine 6 Channel with Inner Clips



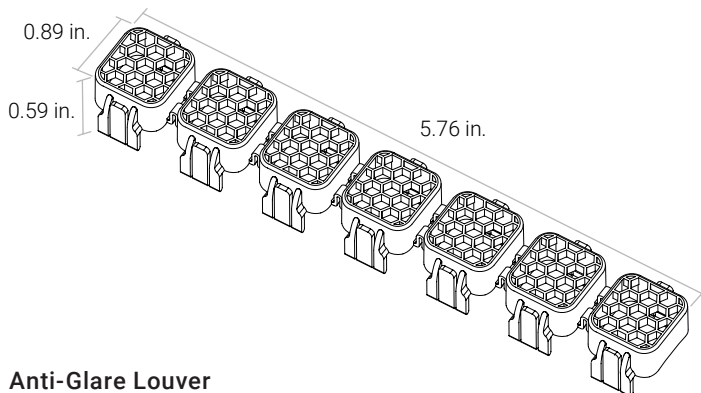
FocaLine 6 Channel with Mounting Clips



Inner Clip
For mounting FocaLine 6
in the channel

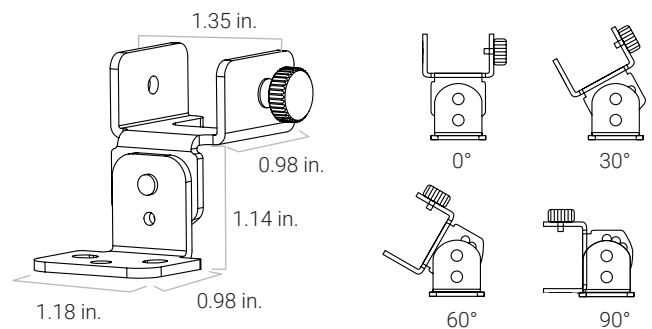


Channel Mounting Clips
For mounting FocaLine 6
channel to a surface



Anti-Glare Louver

AL-01-76-9931-BL (6 in., Black)



Adjustable Channel Mounting Bracket/Screws

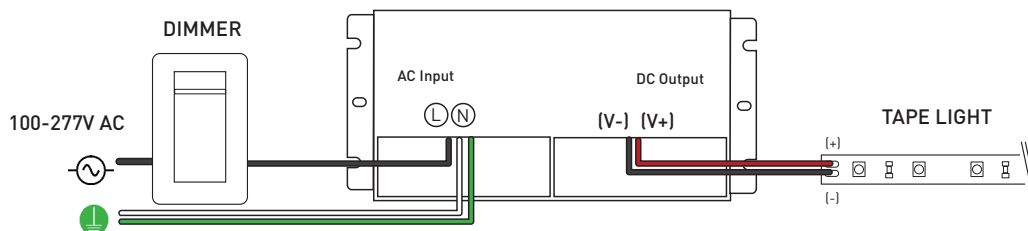
AL-01-76-9986-AL

ALLOY LED® Specifications

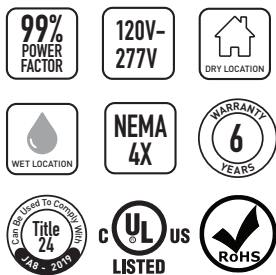
RECOMMENDED POWER SUPPLIES (SOLD SEPARATELY)



Alloy LED PowerFactor™ Dimmable Power Supplies with Integrated UL Listed Junction Box
Compact, highly efficient, and code-compliant power supply with versatile and smooth dimming capabilities.



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



Single Tap Models

Item Number	Output Voltage	Wattage	Wet Location	Minimum Load	Dimensions (L x W x H)	Class 2
AL-98-10-12030	12V DC	30W	Yes (NEMA 4X)	10%	6.50 x 3.72 x 1.02 in.	Yes
AL-98-10-12060	12V DC	60W	Yes (NEMA 4X)	10%	7.40 x 3.72 x 1.02 in.	Yes
AL-98-10-12120	12V DC	120W	Yes (NEMA 4X)	10%	8.66 x 3.72 x 1.57 in.	No
AL-98-10-24030	24V DC	30W	Yes (NEMA 4X)	10%	6.50 x 3.72 x 1.02 in.	Yes
AL-98-10-24060	24V DC	60W	Yes (NEMA 4X)	10%	7.40 x 3.72 x 1.02 in.	Yes
AL-98-10-24096	24V DC	96W	Yes (NEMA 4X)	10%	8.66 x 3.72 x 1.57 in.	Yes
AL-98-10-24150	24V DC	150W	Yes (NEMA 4X)	10%	10.24 x 4.13 x 1.77 in.	No
AL-98-10-24200	24V DC	200W	Yes (NEMA 4X)	10%	10.24 x 4.13 x 1.77 in.	No
AL-98-10-24300	24V DC	300W	Yes (NEMA 4X)	10%	10.94 x 4.33 x 1.77 in.	No

Class 2 Compliant Multi-Tap Models

Item Number	Output Voltage	Wattage	Wet Location	Minimum Load	Dimensions (L x W x H)	Class 2
AL-98-10-12300-MT	12V DC	300W	Yes (NEMA 4X)	10%	11.85 x 4.33 x 1.77 in.	Yes
AL-98-10-24192-MT	24V DC	192W	Yes (NEMA 4X)	10%	10.94 x 4.33 x 1.77 in.	Yes
AL-98-10-24288-MT	24V DC	288W	Yes (NEMA 4X)	10%	11.85 x 4.33 x 1.77 in.	Yes

Note: PowerFactor assumes 80% load.
Inspectors prefer power supply to be used with junction box.
For dimmer compatibility, refer to drivers specification sheet.

ALLOY LED® Specifications

RECOMMENDED POWER SUPPLIES (SOLD SEPARATELY)

Alloy LED Primavolt® No Minimum Load Dimmable Power Supplies with ETL Listed Junction Box

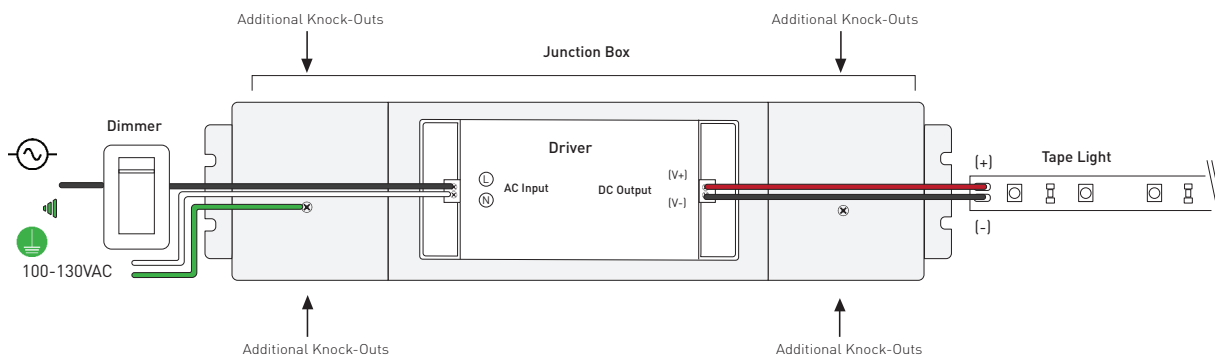
Code-compliant power supply with versatile and smooth dimming capabilities. Compatible with Incandescent, On/Off, ELV and MLV dimmers.



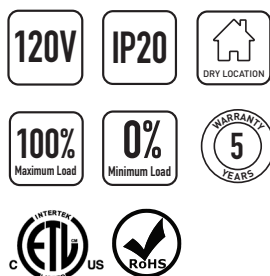
Dry Location Model
White model for 60W and lower



Wet Location Model
Black model for 80W and higher



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



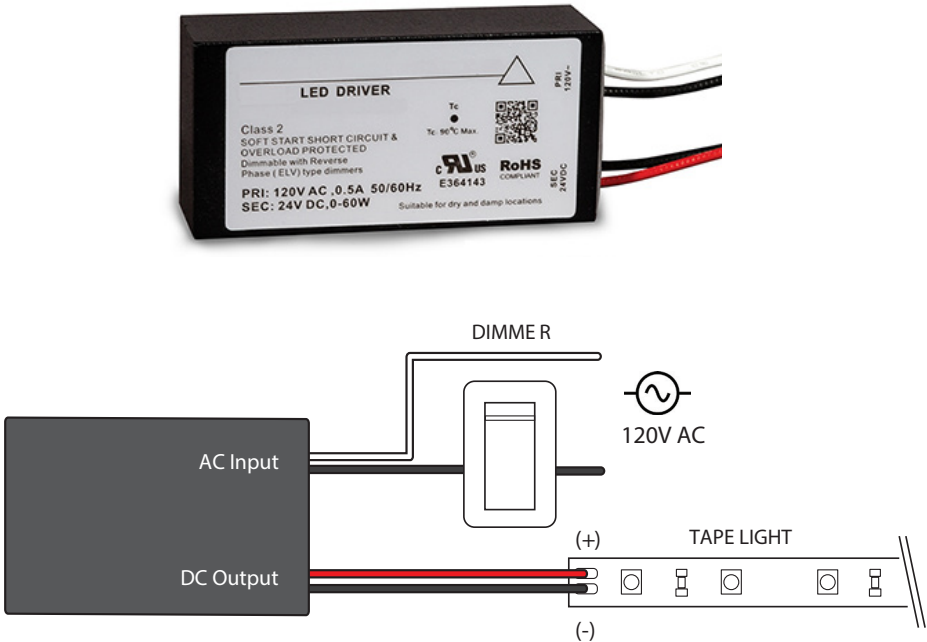
Item Number	Output Voltage	Wattage	Minimum Load	Dimensions (Junction Box) (L x W x H)	Class 2
AL-98-03-12024-NM	12V DC	24W	0%	13.78 x 3.03 x 1.46 in.	Yes
AL-98-03-12048-NM	12V DC	48W	0%	13.78 x 3.03 x 1.46 in.	Yes
AL-98-03-12060-NM	12V DC	60W	0%	13.78 x 3.03 x 1.46 in.	Yes
AL-98-03-12080-NM	12V DC	80W	0%	14.96 x 3.03 x 2.24 in.	No
AL-98-03-12120-NM	12V DC	120W	0%	14.96 x 3.03 x 2.24 in.	No
AL-98-03-24024-NM	24V DC	24W	0%	13.78 x 3.03 x 1.46 in.	Yes
AL-98-03-24048-NM	24V DC	48W	0%	13.78 x 3.03 x 1.46 in.	Yes
AL-98-03-24060-NM	24V DC	60W	0%	13.78 x 3.03 x 1.46 in.	Yes
AL-98-03-24080-NM	24V DC	80W	0%	14.96 x 3.03 x 2.24 in.	Yes
AL-98-03-24096-NM	24V DC	96W	0%	14.96 x 3.03 x 2.24 in.	Yes
AL-98-03-24150-NM	24V DC	150W	0%	15.98 x 3.43 x 2.36 in.	No
AL-98-03-24200-NM	24V DC	200W	0%	15.98 x 3.43 x 2.36 in.	No

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.

RECOMMENDED POWER SUPPLIES (SOLD SEPARATELY)

ELV Dimmable Power Supplies for Remote Enclosures

The drivers are derated, but when installed in a small enclosure with no heatsink or air circulation, we recommend a maximum load of 40W.



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

120V

98%
POWER
FACTOR

WARRANTY
5
YEARS

0%
Min. Load

UL[®] US

Item Number	Output	Wattage	Dimensions (L x W x H)	Class 2
AL-98-08-12060	12V DC	60W	2.66 x 1.30 x 0.83 in.	Yes
AL-98-08-24060	24V DC	60W	2.66 x 1.30 x 0.83 in.	Yes

Note: Inspectors prefer power supply to be used with junction box.
For dimmer compatibility, refer to drivers specification sheet.

ALLOY LED® Specifications

DIMMING ACCESSORIES (SOLD SEPARATELY)

Lutron® Dimming Accessories

By participating in Lutron's 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 Number	Output	Wattage	Minimum Load	Class 2
AL-98-07-12040	12V DC	40W	N/A	Yes
AL-98-07-12040-3WIRE	12V DC	40W	N/A	Yes
AL-98-07-24040	24V DC	40W	N/A	Yes
AL-98-07-24040-3WIRE	24V DC	40W	N/A	Yes
AL-98-07-24096-3WIRE	24V DC	96W	N/A	Yes

Lutron® Controls

Item Number	Description	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

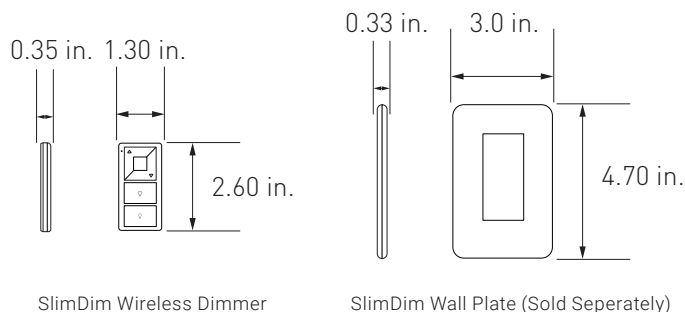
DIMMING ACCESSORIES (SOLD SEPARATELY)

Dimmers and Switches

SlimDim Wireless Dimmer Switch

Using long-range RF technology, these LED dimmers connect wirelessly to a receiver, offering freedom to mount anywhere. Can also be used as a fob for mobile, hand-held control.

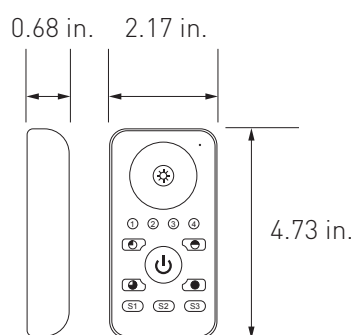
AL-70-01-0001	SlimDim Wireless Dimmer
AL-70-01-0002	Single Color Receiver (96W max.) (sold separately) 
AL-98-07-9950 -FPLATE	SlimDim Wall Plate (sold separately)



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.

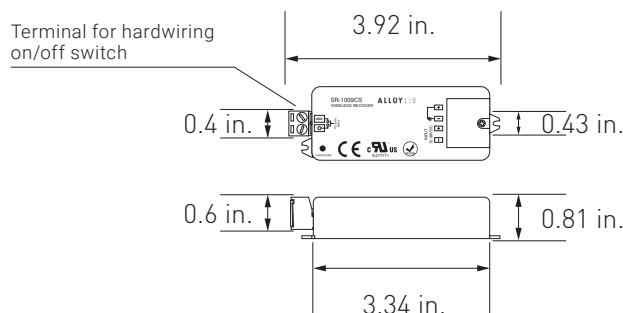
AL-60-03-0001	Remote Control Dimmer Switch
AL-70-01-0002	Single Channel Receiver (sold separately) 
AL-60-03-0004-V2	Wireless Receiver (RGB & RGBW) (sold separately) 



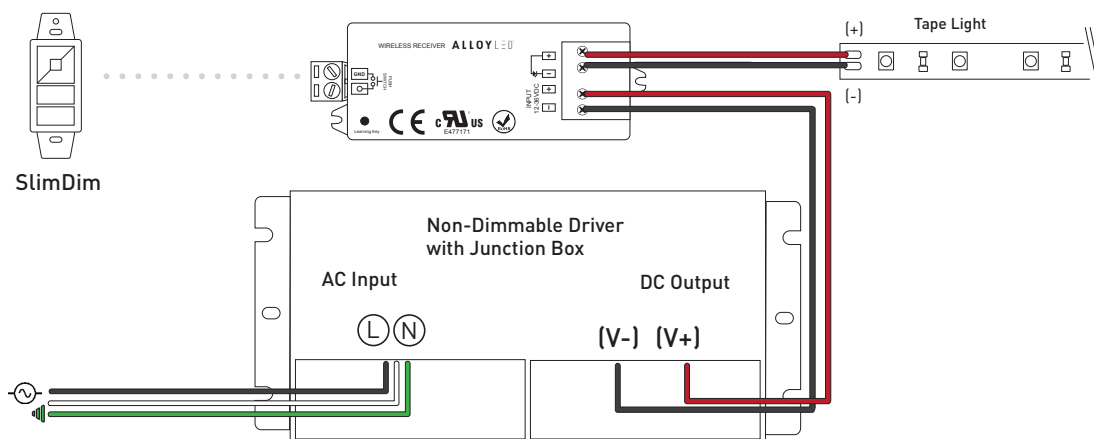
Single Channel Wireless Receiver

Pair with the Remote Control Dimmer Switch or the SlimDim Wireless Dimmer to dim PrimaLine tape lights. Use one remote to make independent lighting zones with multiple receivers with certain controllers.

AL-70-01-0002	Single Channel Wireless Receiver
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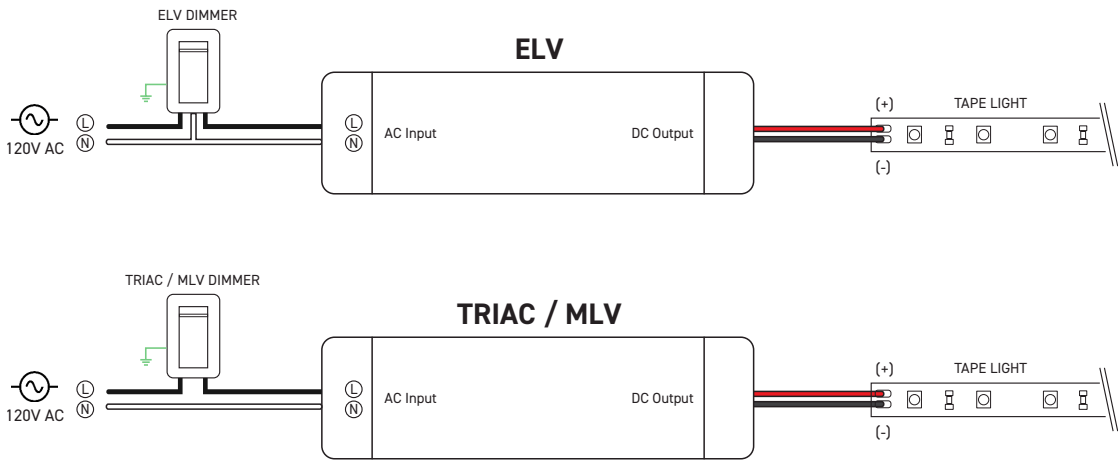
WIRING DIAGRAM



RECOMMENDED POWER SUPPLIES (SOLD SEPARATELY)

Alloy LED TRIAC/MLV/ELV Dimmable Drivers for Remote Locations

Offers stable power in even in the most remote settings. Compatibility with TRIAC, ELV, or MLV dimmers.



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

120V

100%
Maximum Load

20%
Min. Load

DRY LOCATION

UL[®] US
LISTED

CLASS 2

CLASS P

TYPE HL

SELV

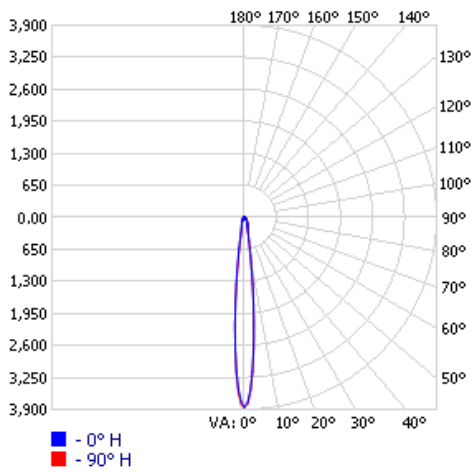
WARRANTY
5
YEARS

Item Number	Output Voltage	Wattage	Dimensions (L x W x H)	Class 2
AL-98-09-12060	12V DC	60W	3.31 x 1.57 x 0.98	Yes
AL-98-09-24096	24V DC	96W	3.31 x 1.57 x 0.98	Yes

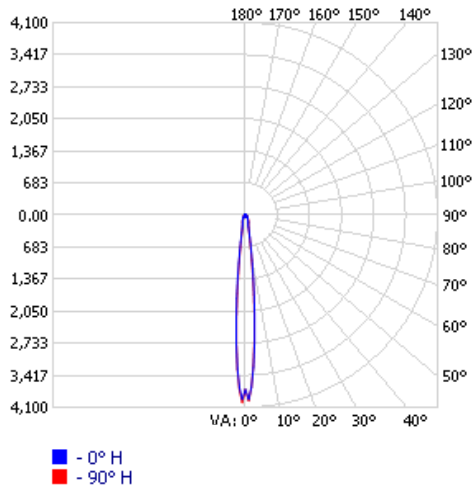
Note: Alloy LED strongly recommends using Listed Class 2 power supplies for all installations. Always install in accordance with local and national electrical code regulations. Inspectors prefer power supply to be used with junction box. For dimmer compatibility, refer to drivers specification sheet.

POLAR CANDELA

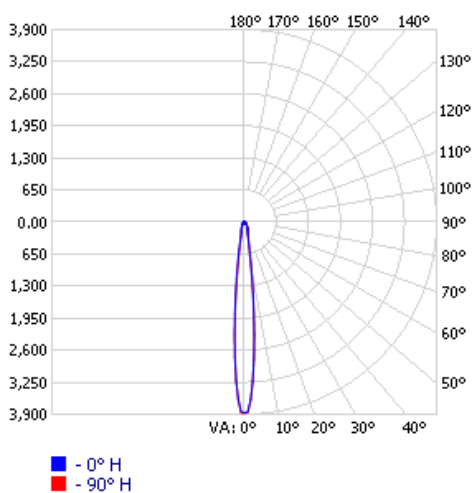
2700K



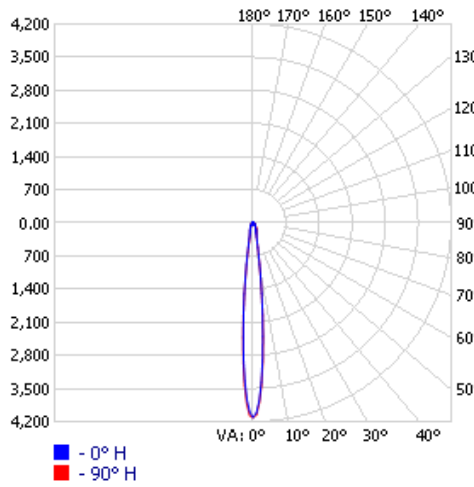
3000K



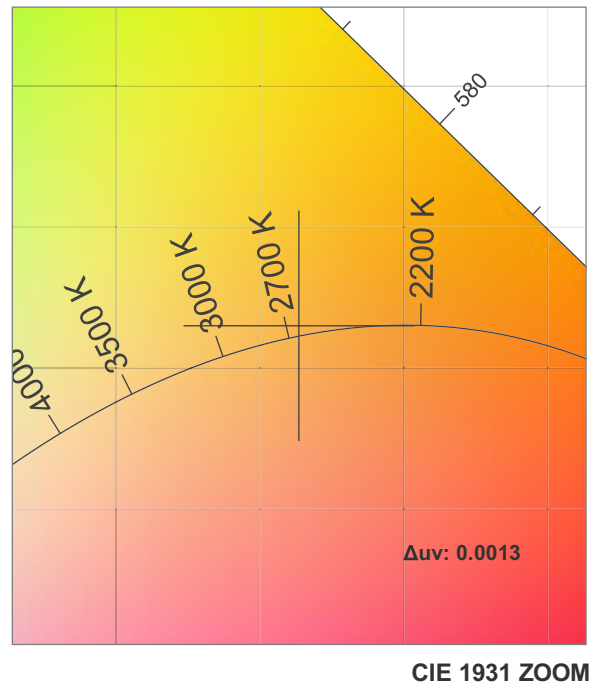
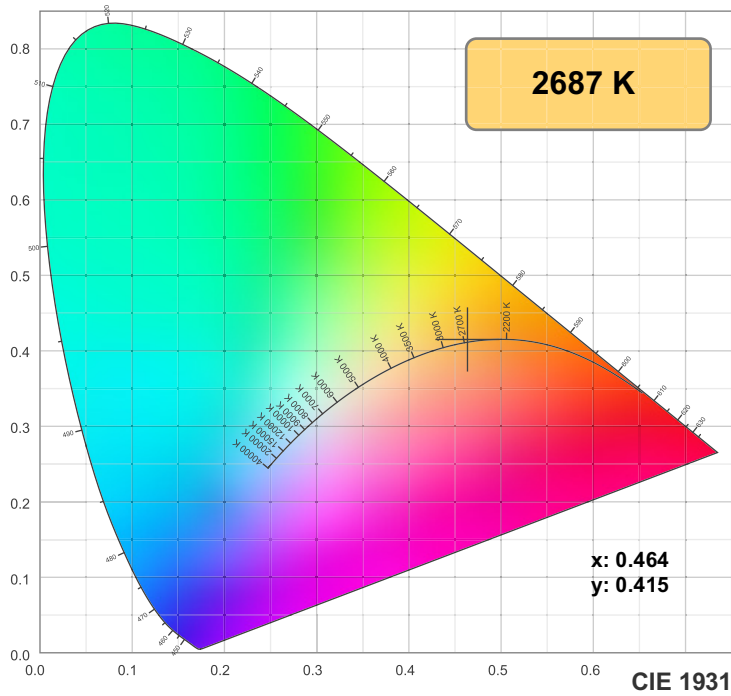
3500K



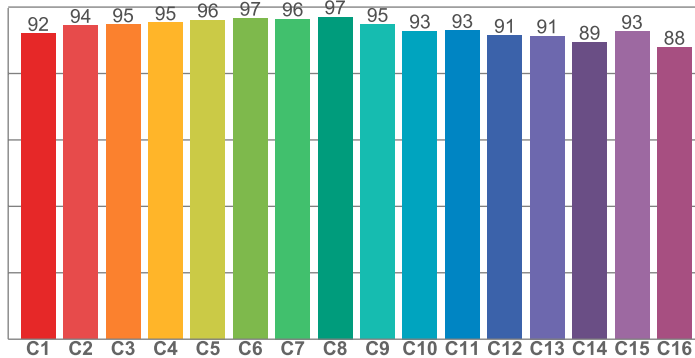
4000K



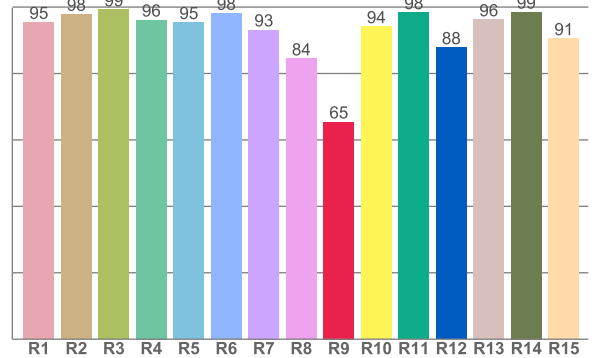
2700K



TM-30: 93.5



CRI: 95.0 (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
95.4	97.9	99.2	96.1	95.4	98.1	93.2	84.4	65.4	94.1	98.3	87.8	96.2	98.5	90.5

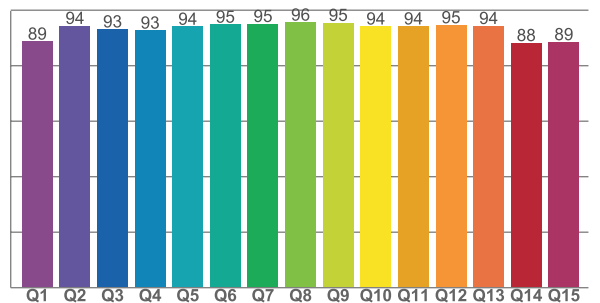
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.0	94.5	94.7	95.3	96.1	96.6	96.5	97.1	94.8	92.8	92.9	91.5	91.3	89.4	92.7	87.9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
88.7	94.4	93.1	92.7	94.1	94.8	95.1	95.6	95.5	94.2	94.2	94.6	94.4	88.2	88.5

CQS: 92.6



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 deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
2687 K	95.0	65.4	93.5	98.1	92.6	0.464	0.415	0.263	0.353	0.0013

2700K

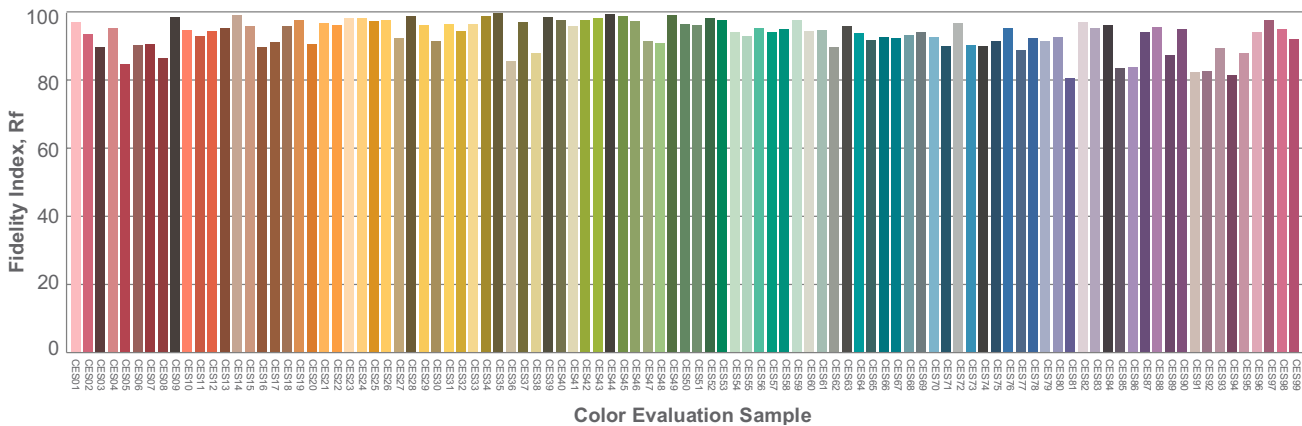
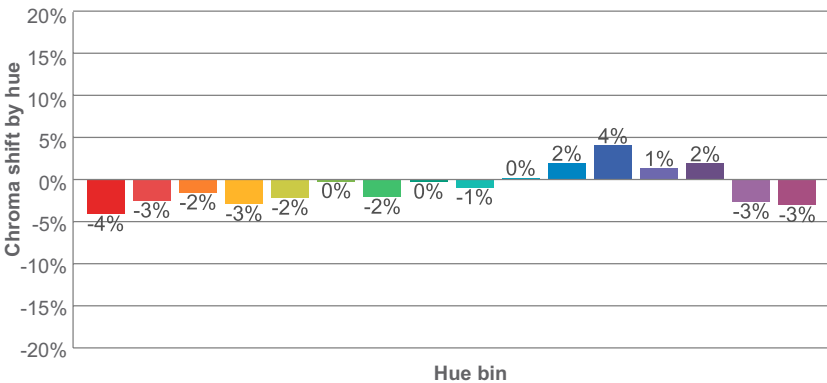
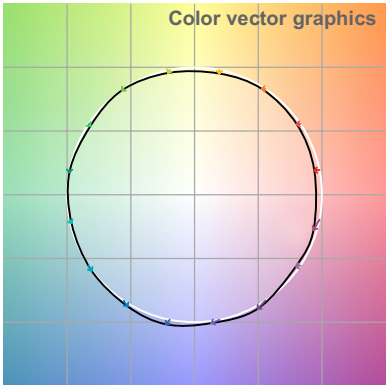
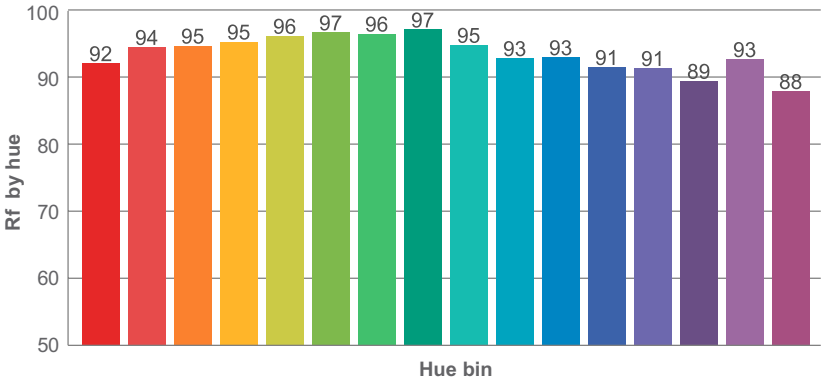
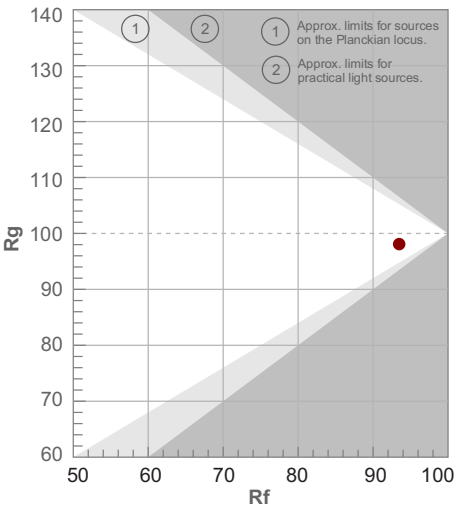
Rf 93.5

Fidelity index Rf

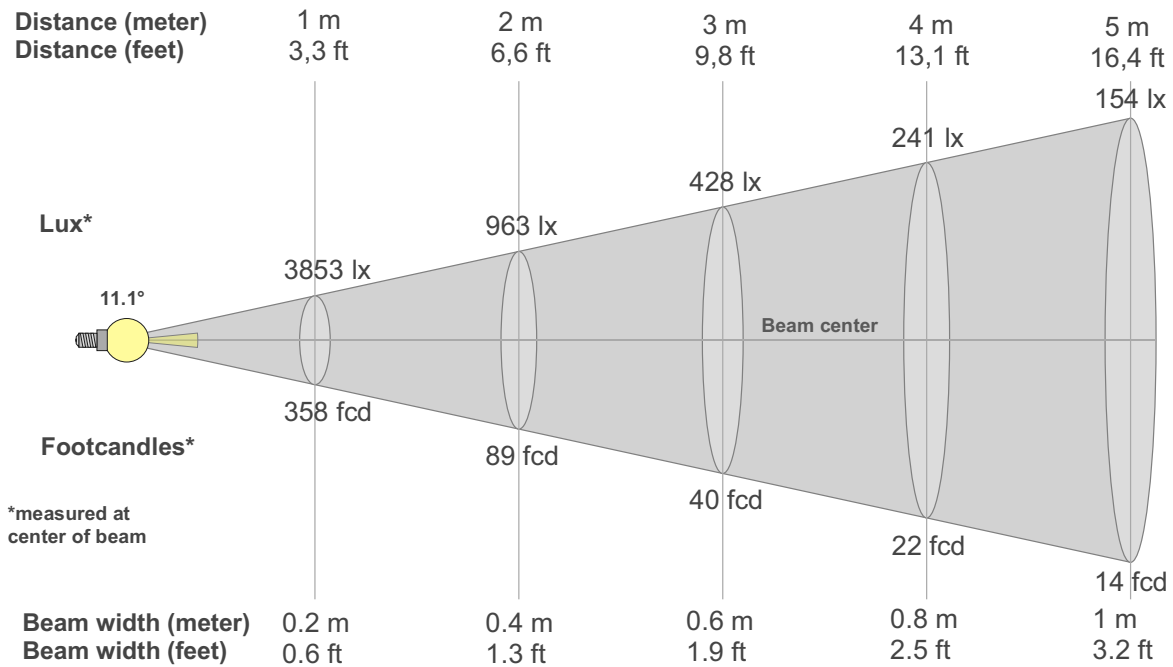
Rg 98.1

Gamut index Rg

Hue Bin	Rr	Shifts (%)	
		Chroma	Hue
1	92	-4%	0%
2	94	-3%	1%
3	95	-2%	2%
4	95	-3%	-1%
5	96	-2%	2%
6	97	0%	2%
7	96	-2%	0%
8	97	0%	2%
9	95	-1%	3%
10	93	0%	5%
11	93	2%	5%
12	91	4%	-2%
13	91	1%	-7%
14	89	2%	-8%
15	93	-3%	-3%
16	88	-3%	-9%



2700K



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
3853lx	963lx	428lx	241lx	154lx	107lx	79lx	60lx	48lx	39lx	32lx	27lx	23lx	20lx	17lx	15lx	13lx	12lx	11lx	10lx
358fcd	89.5fcd	39.8fcd	22.4fcd	14.3fcd	9.9fcd	7.3fcd	5.6fcd	4.4fcd	3.6fcd	3fcd	2.5fcd	2.1fcd	1.8fcd	1.6fcd	1.4fcd	1.2fcd	1.1fcd	1fcd	0.9fcd

Intensities in 0° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
3853	3749	3498	3117	2658	2188	1750	1359	1038	796	618	487	393	329	286	256	234	217	204	193
100%	97%	91%	81%	69%	57%	45%	35%	27%	21%	16%	13%	10%	9%	7%	7%	6%	6%	5%	5%

Intensities in 90° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
3853	3789	3532	3147	2683	2202	1746	1346	1022	779	601	474	389	334	299	273	253	238	227	217
100%	98%	92%	82%	70%	57%	45%	35%	27%	20%	16%	12%	10%	9%	8%	7%	7%	6%	6%	6%

Intensities in 180° c-plane

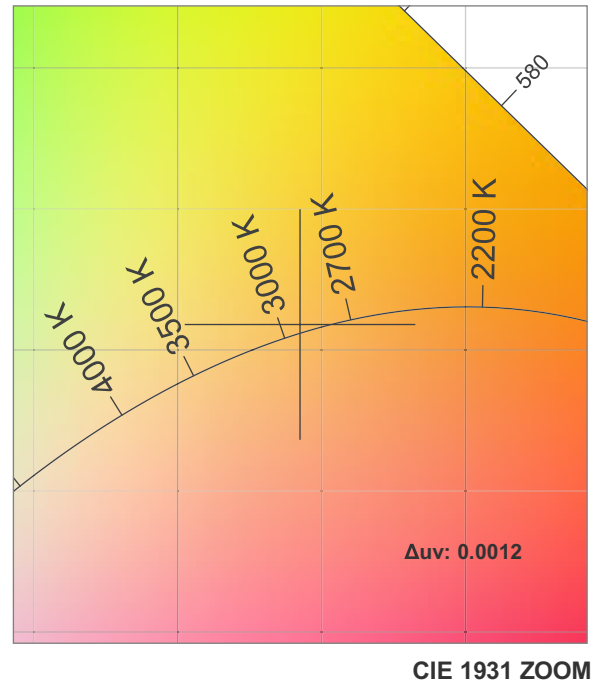
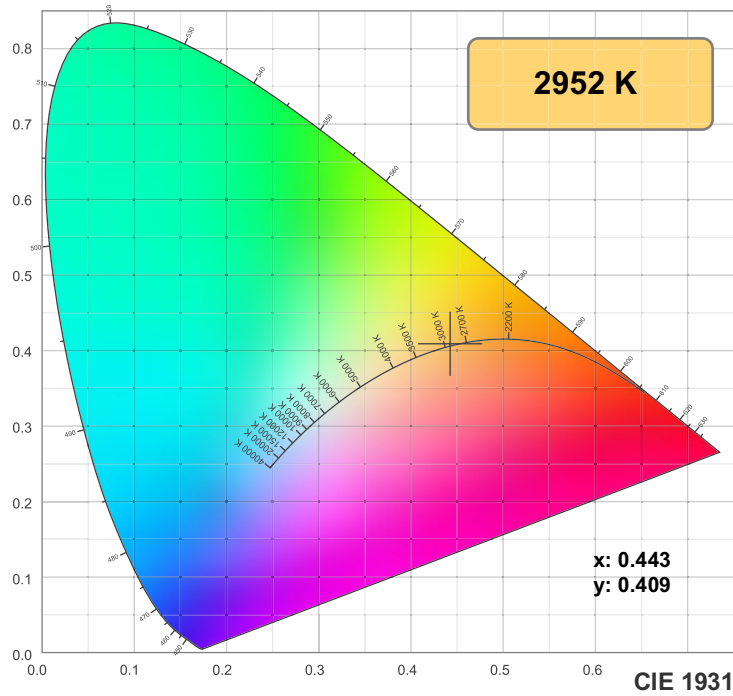
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
3853	3736	3486	3111	2656	2189	1750	1361	1043	799	612	475	377	312	267	238	216	199	185	175
100%	97%	90%	81%	69%	57%	45%	35%	27%	21%	16%	12%	10%	8%	7%	6%	6%	5%	5%	5%

Intensities in 270° c-plane

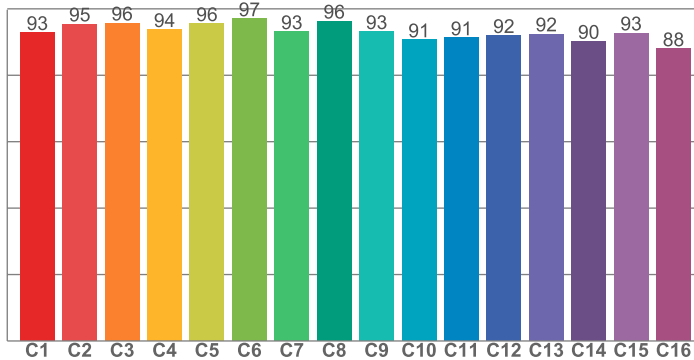
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
3853	3803	3548	3160	2695	2207	1734	1303	958	709	535	415	334	279	243	217	198	184	171	161
100%	99%	92%	82%	70%	57%	45%	34%	25%	18%	14%	11%	9%	7%	6%	6%	5%	5%	4%	4%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11.1°	23.7°	60.4°	93.6%	83.8%

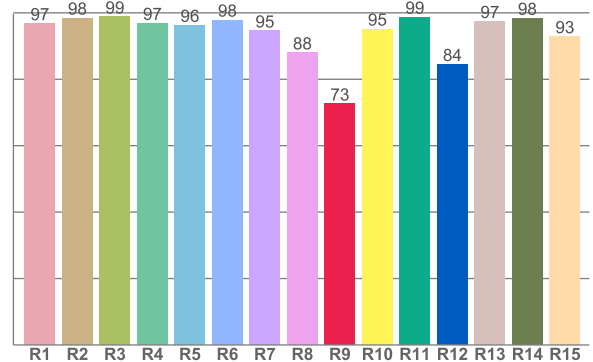
3000K



TM-30: 93.1



CRI: 95.9 (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
96.8	98.4	98.8	96.8	96.3	97.8	94.6	88.0	72.6	95.1	98.7	84.5	97.4	98.4	92.8

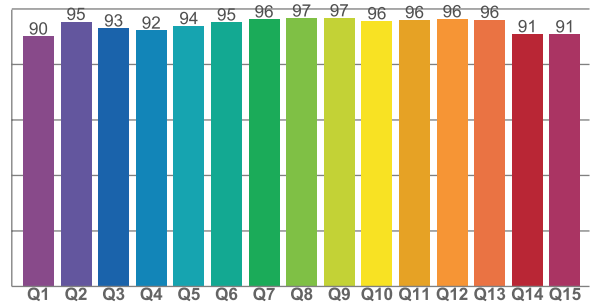
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.8	95.4	95.7	93.7	95.5	97.0	93.1	96.3	93.1	90.6	91.2	91.9	92.4	90.2	92.7	88.0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
90.1	95.4	93.0	92.2	93.9	95.2	96.3	96.6	96.7	95.6	96.0	96.3	96.1	91.0	90.9

CQS: 93.8



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
2952 K	95.9	72.6	93.1	98.1	93.8	0.443	0.409	0.252	0.349	0.0012

3000K

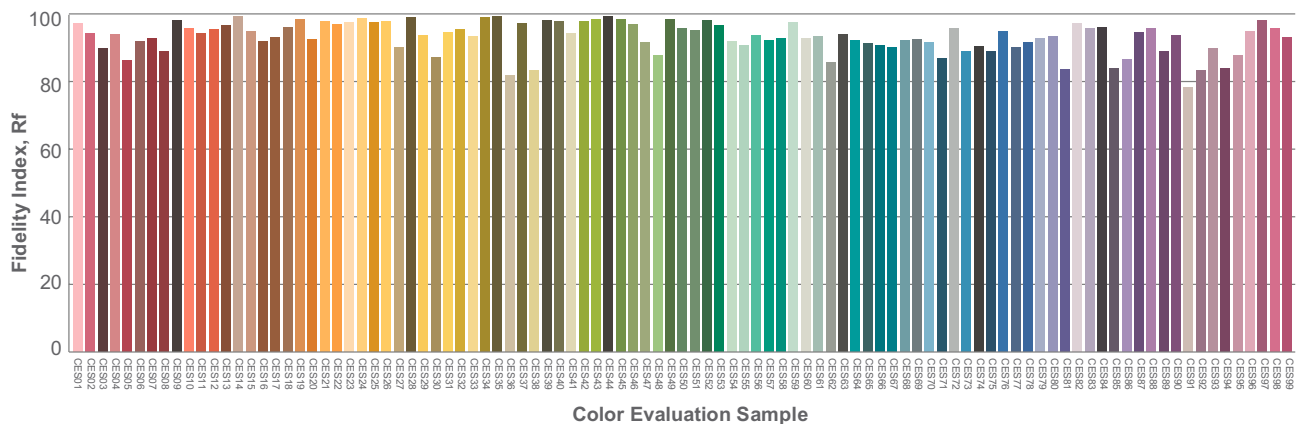
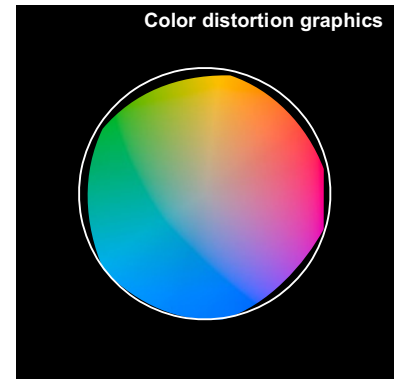
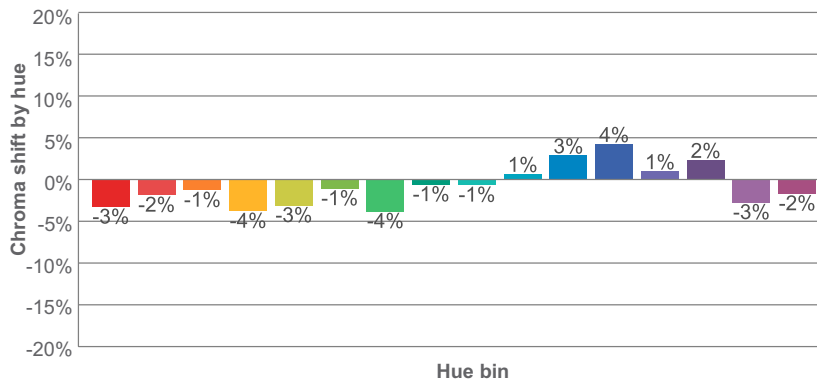
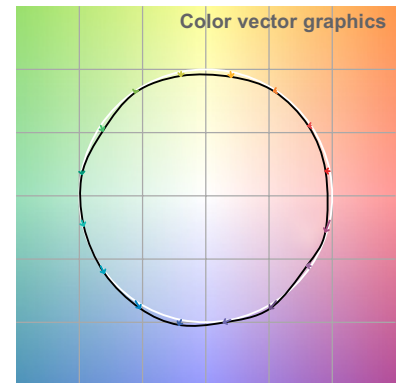
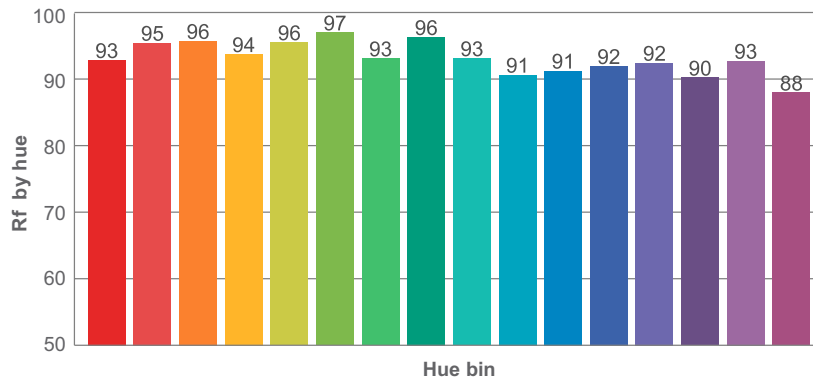
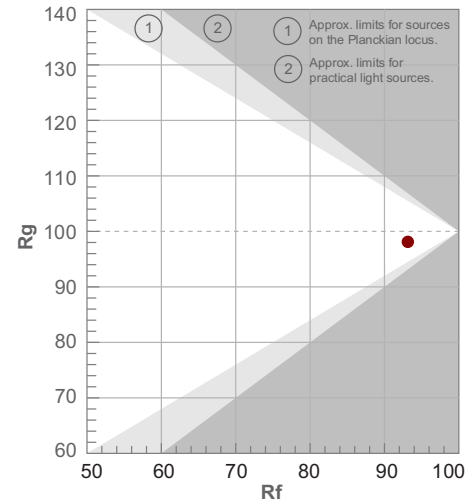
Rf 93.1

Fidelity index Rf

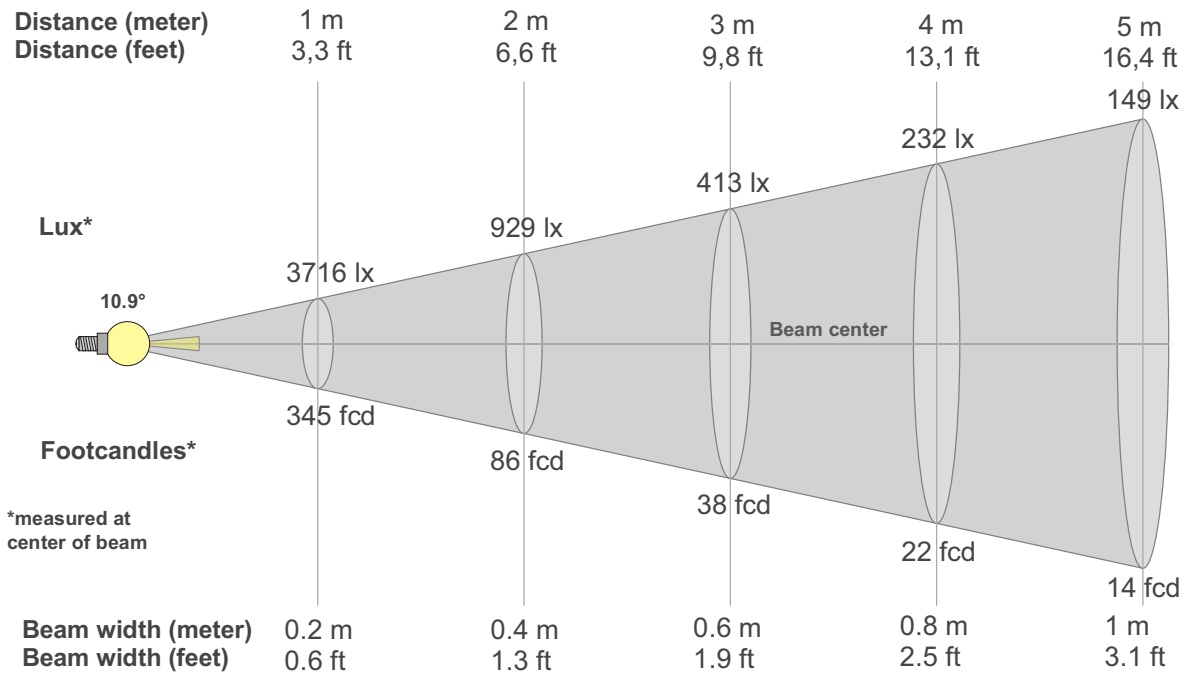
Rg 98.1

Gamut index Rg

Hue Bin	R _f	Shifts (%)	
		Chroma	Hue
1	93	-3%	1%
2	95	-2%	1%
3	96	-1%	1%
4	94	-4%	-2%
5	96	-3%	1%
6	97	-1%	1%
7	93	-4%	2%
8	96	-1%	2%
9	93	-1%	4%
10	91	1%	6%
11	91	3%	6%
12	92	4%	-1%
13	92	1%	-6%
14	90	2%	-7%
15	93	-3%	-1%
16	88	-2%	-9%



3000K



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
3716lx	929lx	413lx	232lx	149lx	103lx	76lx	58lx	46lx	37lx	31lx	26lx	22lx	19lx	17lx	15lx	13lx	11lx	10lx	9lx
345.2fcd	86.3fcd	38.4fcd	21.6fcd	13.8fcd	9.6fcd	7fcd	5.4fcd	4.3fcd	3.5fcd	2.9fcd	2.4fcd	2fcd	1.8fcd	1.5fcd	1.3fcd	1.2fcd	1.1fcd	1fcd	0.9fcd

Intensities in 0° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
3716	3929	3662	3250	2761	2255	1779	1375	1053	806	621	487	391	324	279	246	223	205	192	181
100%	106%	99%	87%	74%	61%	48%	37%	28%	22%	17%	13%	11%	9%	7%	7%	6%	6%	5%	5%

Intensities in 90° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
3716	3962	3662	3222	2705	2185	1706	1298	979	747	580	461	378	320	279	251	230	214	201	190
100%	107%	99%	87%	73%	59%	46%	35%	26%	20%	16%	12%	10%	9%	8%	7%	6%	6%	5%	5%

Intensities in 180° c-plane

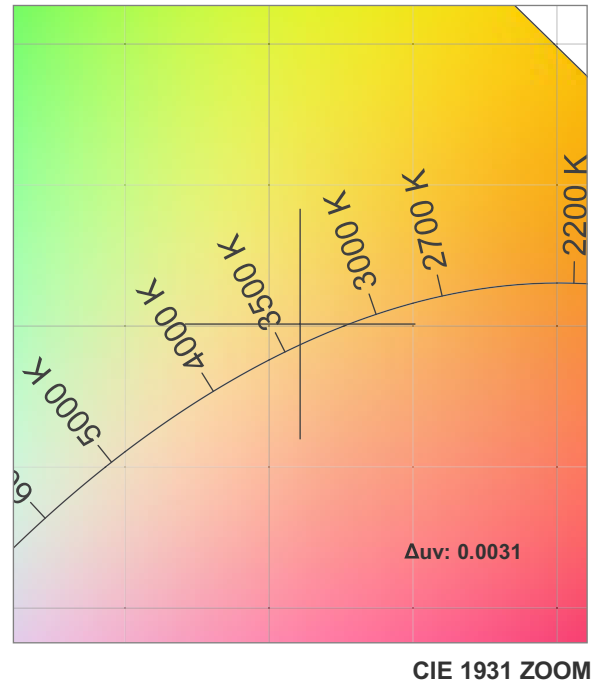
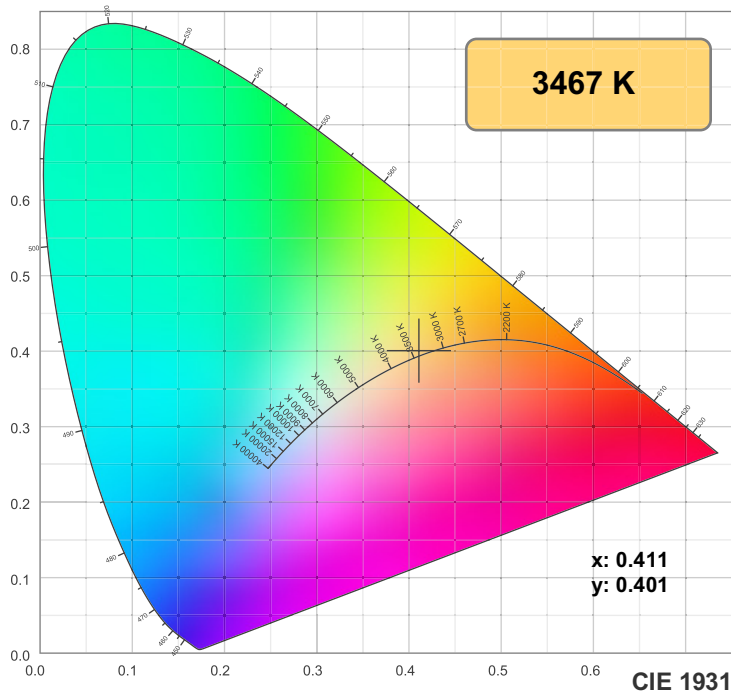
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
3716	3931	3671	3274	2778	2259	1777	1363	1026	771	588	460	372	313	273	245	223	208	195	186
100%	106%	99%	88%	75%	61%	48%	37%	28%	21%	16%	12%	10%	8%	7%	7%	6%	6%	5%	5%

Intensities in 270° c-plane

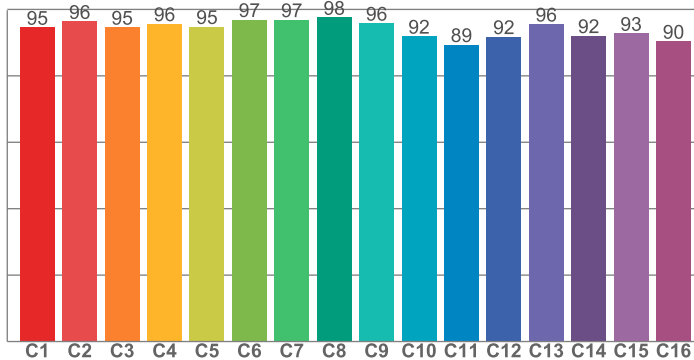
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
3716	3998	3717	3281	2753	2199	1680	1243	913	681	523	418	348	299	264	240	222	209	197	187
100%	108%	100%	88%	74%	59%	45%	33%	25%	18%	14%	11%	9%	8%	7%	6%	6%	6%	5%	5%

Beam angle 50%	Field angle 10%	Cutoff angle 2.5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
10.9°	24.3°	64.1°	93.5%	83.2%

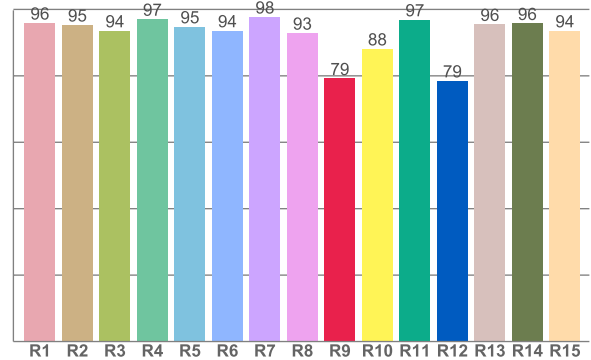
3500K



TM-30: 94.1



CRI: 95.1 (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
95.9	95.3	93.6	97.1	94.8	93.6	97.7	92.9	79.2	88.1	96.9	78.5	95.5	95.8	93.6

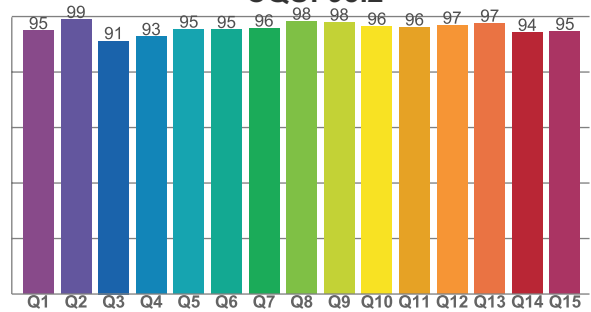
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
94.6	96.4	94.6	95.7	94.8	96.9	96.9	97.6	95.8	91.9	89.4	91.8	95.6	92.1	92.8	90.4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
94.8	98.8	91.2	92.6	95.3	95.2	95.7	98.2	97.9	96.4	96.1	96.8	97.5	94.2	94.5

CQS: 95.2



Color parameters

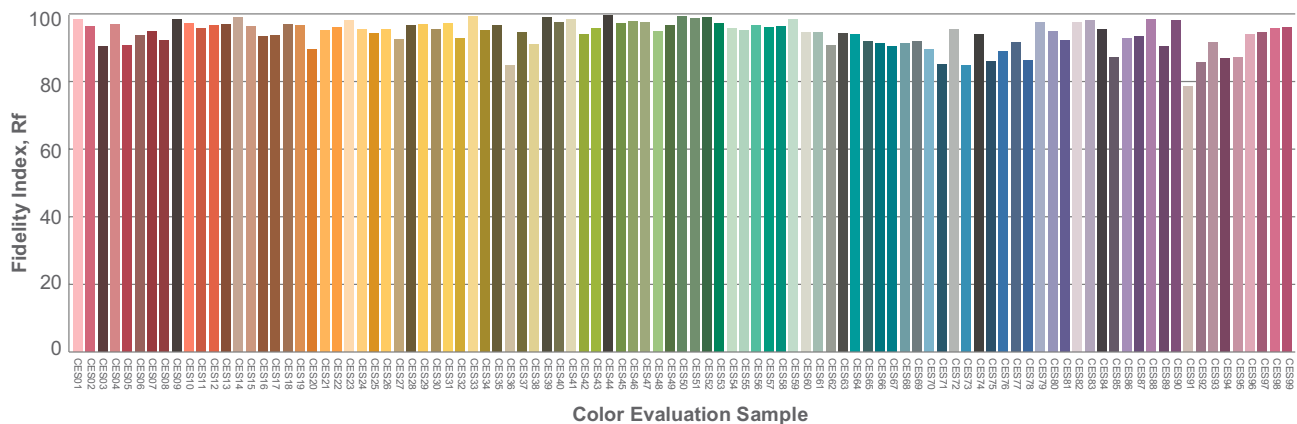
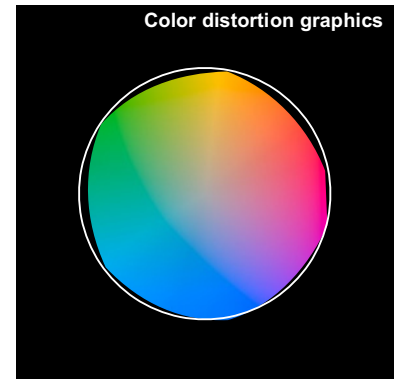
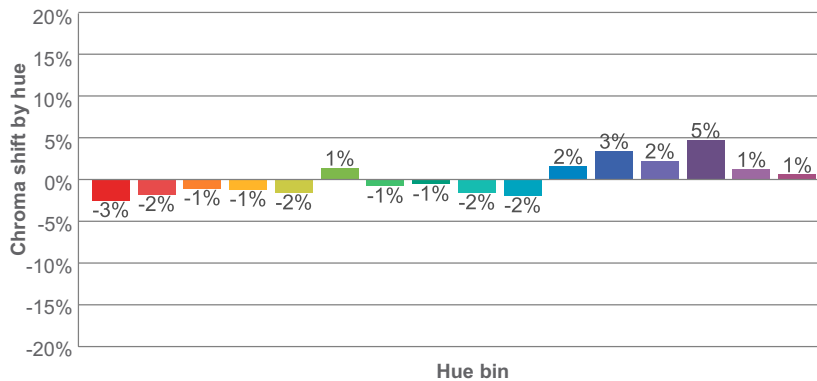
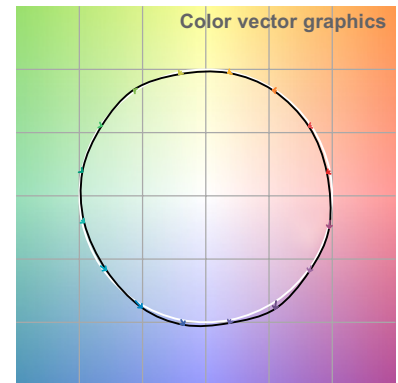
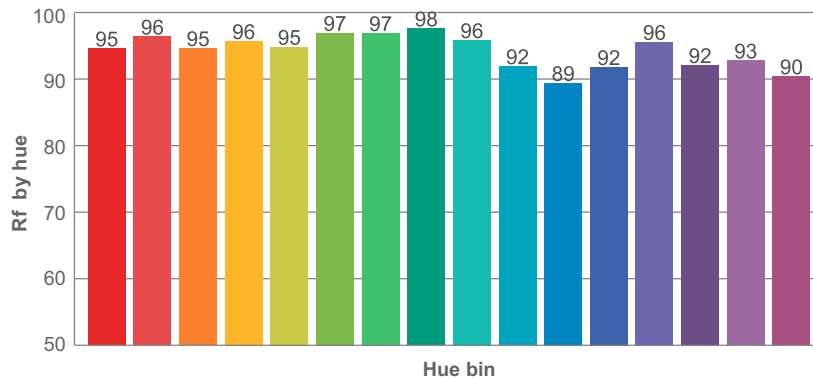
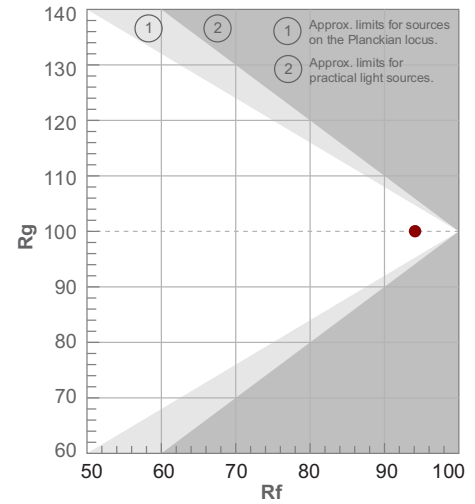
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
3467 K	95.1	79.2	94.1	100.0	95.2	0.411	0.401	0.235	0.344	0.0031

3500K

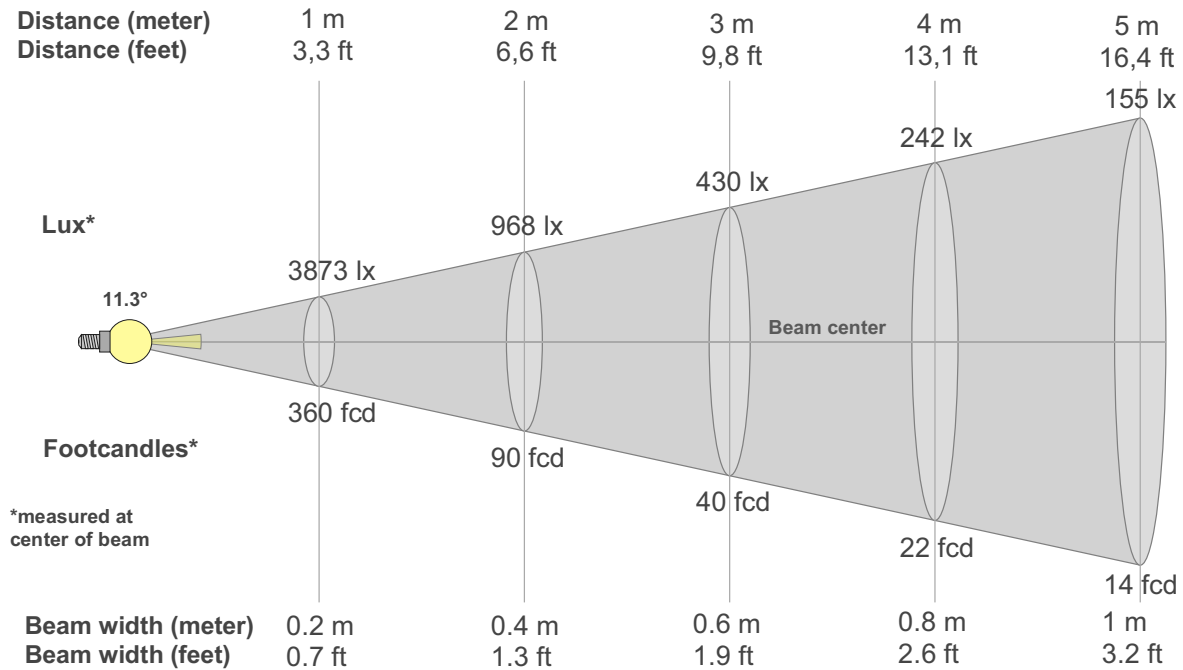
Rf 94.1
Fidelity index Rf

Rg 100.0
Gamut index Rg

Hue Bin	R _f	Shifts (%)	
		Chroma	Hue
1	95	-3%	-1%
2	96	-2%	0%
3	95	-1%	2%
4	96	-1%	1%
5	95	-2%	2%
6	97	1%	1%
7	97	-1%	0%
8	98	-1%	0%
9	96	-2%	2%
10	92	-2%	5%
11	89	2%	7%
12	92	3%	3%
13	96	2%	-1%
14	92	5%	-4%
15	93	1%	-4%
16	90	1%	-6%



3500K



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
3873lx	968lx	430lx	242lx	155lx	108lx	79lx	61lx	48lx	39lx	32lx	27lx	23lx	20lx	17lx	15lx	13lx	12lx	11lx	10lx
359.8fc	89.9fcd	40fcd	22.5fcd	14.4fcd	10fcd	7.3fcd	5.6fcd	4.4fcd	3.6fcd	3fcd	2.5fcd	2.1fcd	1.8fcd	1.6fcd	1.4fcd	1.2fcd	1.1fcd	1fcd	0.9fcd

Intensities in 0° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
3873	3843	3600	3235	2790	2309	1840	1431	1094	835	644	509	414	347	300	267	243	224	210	198
100%	99%	93%	84%	72%	60%	48%	37%	28%	22%	17%	13%	11%	9%	8%	7%	6%	6%	5%	5%

Intensities in 90° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
3873	3862	3606	3220	2750	2248	1765	1346	1016	768	590	472	395	342	305	279	260	245	233	222
100%	100%	93%	83%	71%	58%	46%	35%	26%	20%	15%	12%	10%	9%	8%	7%	7%	6%	6%	6%

Intensities in 180° c-plane

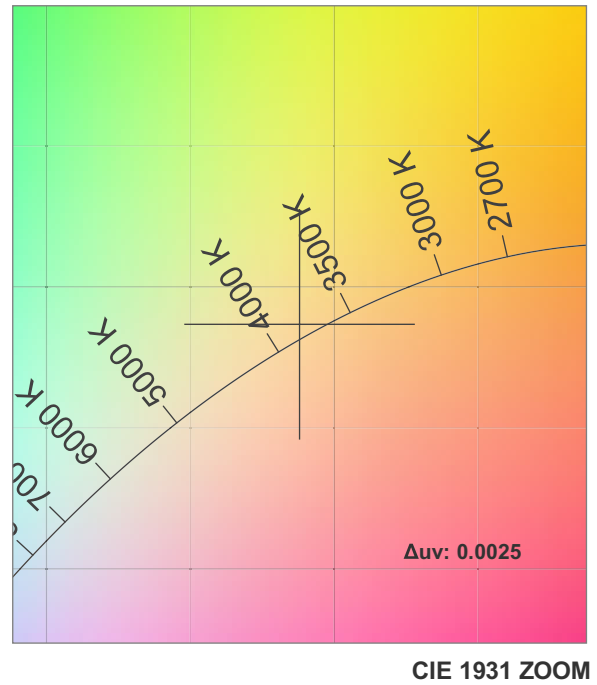
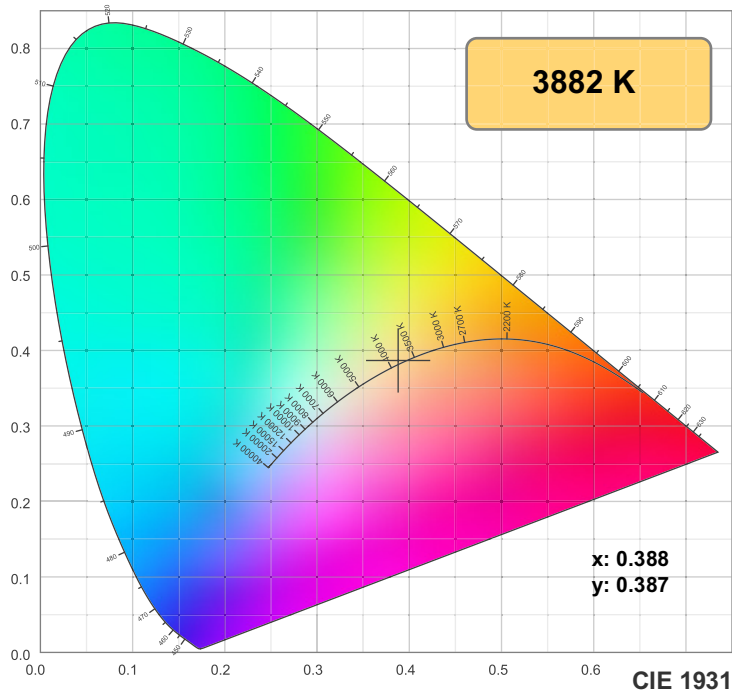
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
3873	3839	3591	3216	2759	2289	1847	1465	1148	895	700	553	443	364	310	271	243	222	207	195
100%	99%	93%	83%	71%	59%	48%	38%	30%	23%	18%	14%	11%	9%	8%	7%	6%	6%	5%	5%

Intensities in 270° c-plane

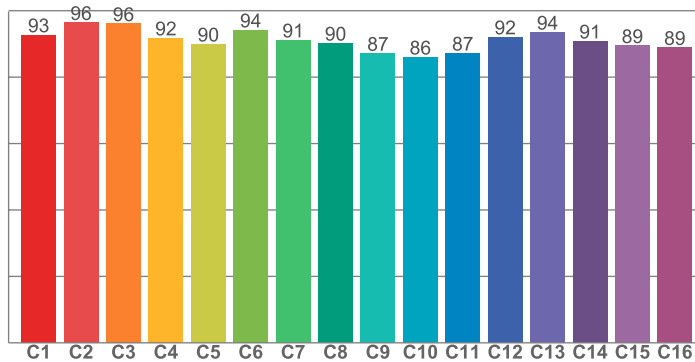
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
3873	3873	3613	3213	2734	2239	1773	1367	1036	786	604	476	385	321	274	241	218	201	187	176
100%	100%	93%	83%	71%	58%	46%	35%	27%	20%	16%	12%	10%	8%	7%	6%	6%	5%	5%	5%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11.3°	24.5°	62.6°	93.4%	83.6%

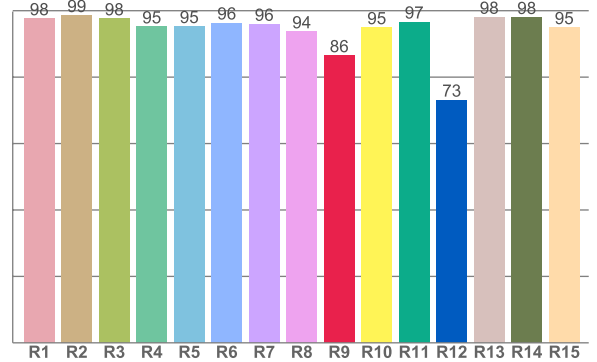
4000K



TM-30: 91.0



CRI: 96.3 (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
97.6	98.6	97.6	95.2	95.3	96.3	95.9	93.7	86.5	94.9	96.6	73.1	98.0	98.0	94.9

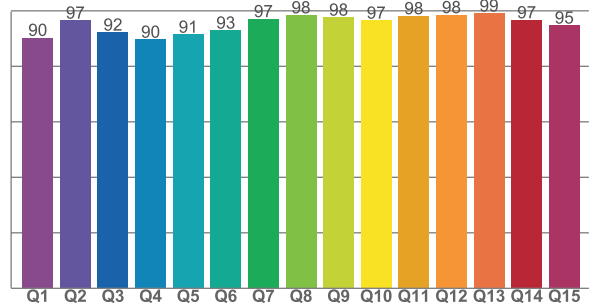
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
92.7	96.4	96.1	91.8	89.9	94.2	91.2	90.2	87.1	86.0	87.2	92.1	93.5	90.8	89.5	88.9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
90.3	96.5	92.2	89.6	91.4	92.9	97.1	98.4	97.6	96.5	98.1	98.5	99.1	96.6	94.7

CQS: 94.4



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
3882 K	96.3	86.5	91.0	97.5	94.4	0.388	0.387	0.226	0.338	0.0025

4000K

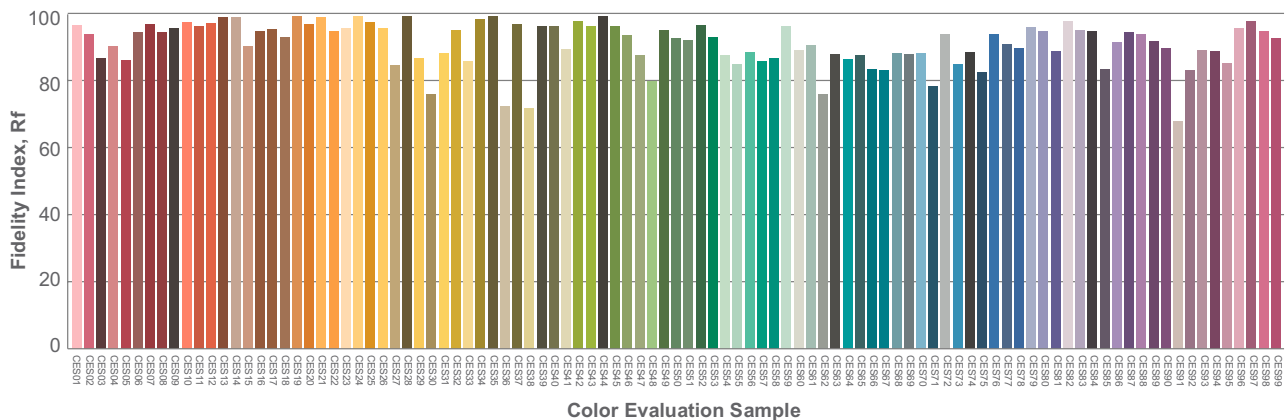
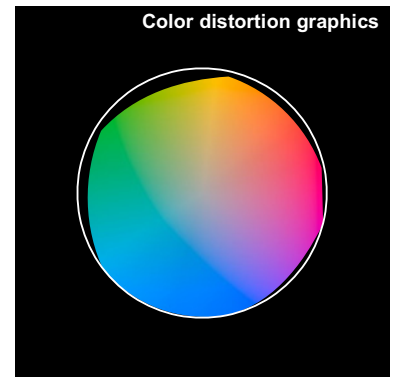
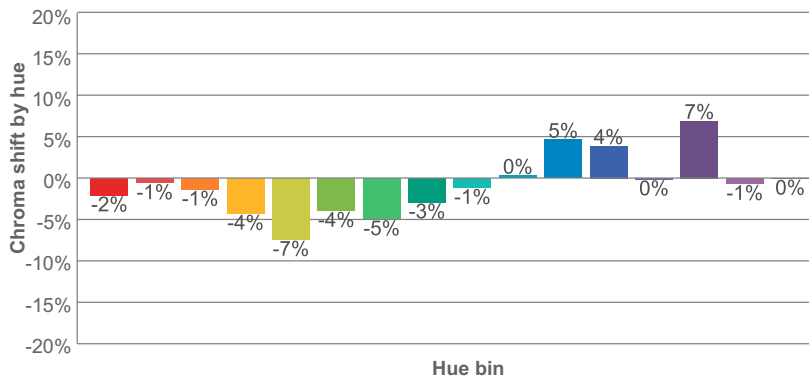
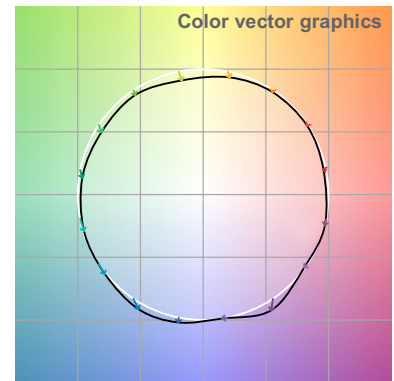
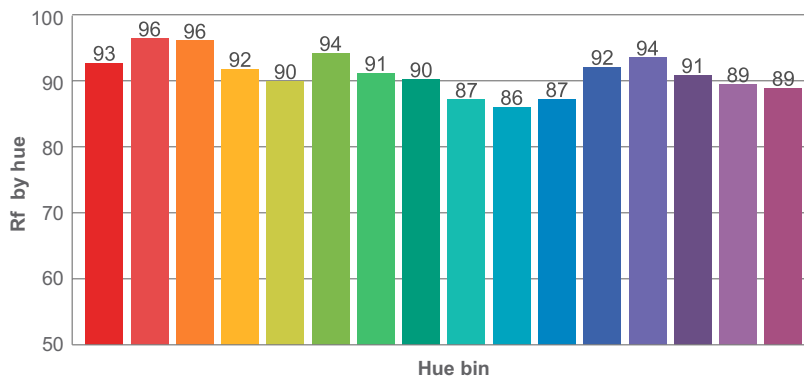
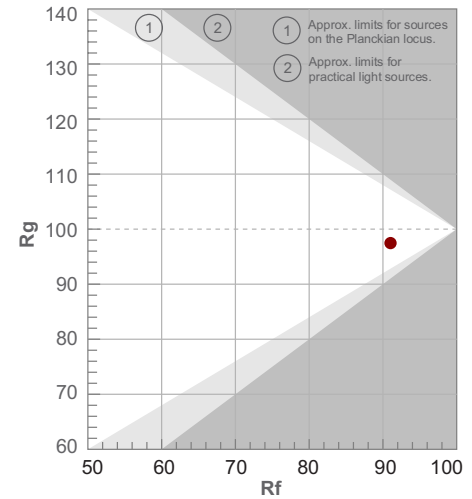
Rf 91.0

Fidelity index Rf

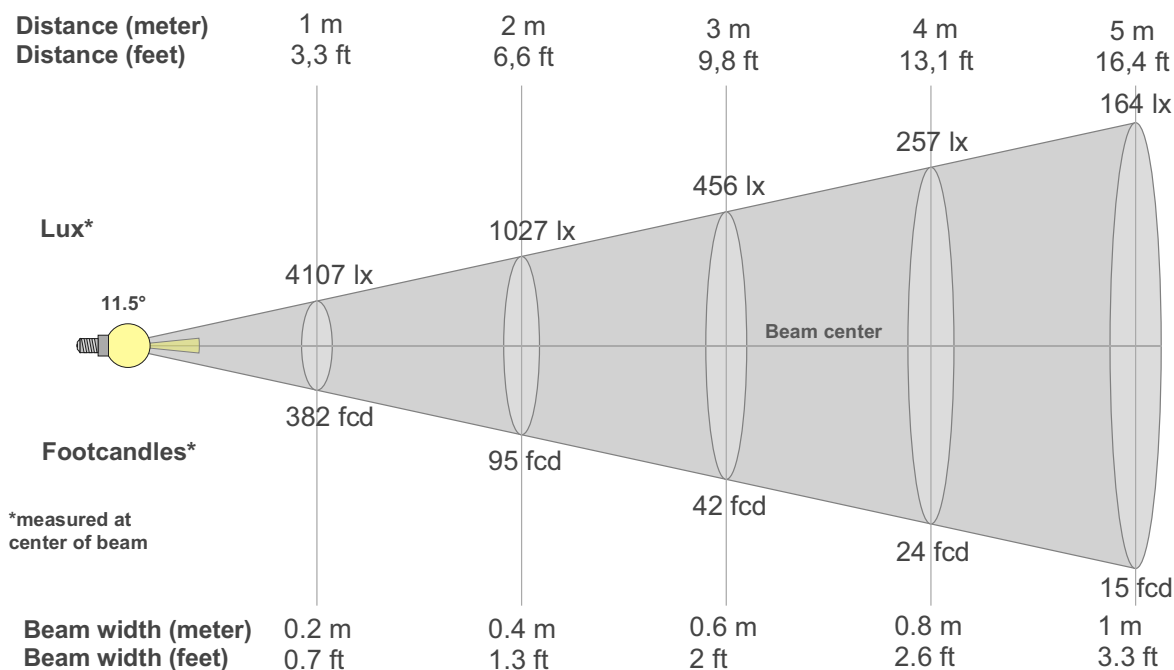
Rg 97.5

Gamut index Rg

Hue Bin	R _f	Shifts (%)	
		Chroma	Hue
1	93	-2%	1%
2	96	-1%	0%
3	96	-1%	-1%
4	92	-4%	-3%
5	90	-7%	-1%
6	94	-4%	1%
7	91	-5%	4%
8	90	-3%	5%
9	87	-1%	10%
10	86	0%	9%
11	87	5%	8%
12	92	4%	0%
13	94	0%	-4%
14	91	7%	-6%
15	89	-1%	-4%
16	89	0%	-5%



4000K



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
4107lx	1027lx	456lx	257lx	164lx	114lx	84lx	64lx	51lx	41lx	34lx	29lx	24lx	21lx	18lx	16lx	14lx	13lx	11lx	10lx
381.6fcd	95.4fcd	42.4fcd	23.8fcd	15.3fcd	10.6fcd	7.8fcd	6fcd	4.7fcd	3.8fcd	3.2fcd	2.6fcd	2.3fcd	1.9fcd	1.7fcd	1.5fcd	1.3fcd	1.2fcd	1.1fcd	1fcd

Intensities in 0° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
4107	4012	3761	3369	2896	2401	1929	1507	1156	889	687	539	433	362	314	280	254	235	219	206
100%	98%	92%	82%	71%	58%	47%	37%	28%	22%	17%	13%	11%	9%	8%	7%	6%	6%	5%	5%

Intensities in 90° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
4107	4058	3810	3429	2957	2449	1956	1514	1150	870	666	524	431	369	327	297	275	257	243	232
100%	99%	93%	83%	72%	60%	48%	37%	28%	21%	16%	13%	10%	9%	8%	7%	7%	6%	6%	6%

Intensities in 180° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
4107	3996	3736	3346	2880	2397	1932	1518	1174	902	692	535	426	353	304	270	245	226	212	199
100%	97%	91%	81%	70%	58%	47%	37%	29%	22%	17%	13%	10%	9%	7%	7%	6%	6%	5%	5%

Intensities in 270° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
4107	4068	3818	3431	2957	2450	1956	1513	1142	852	641	496	400	334	288	255	232	215	201	189
100%	99%	93%	84%	72%	60%	48%	37%	28%	21%	16%	12%	10%	8%	7%	6%	6%	5%	5%	5%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
11.5°	24.3°	62.2°	93.3%	83.3%