

Light efficiency:

167 Lumens/Watt

Light quality:

CRI: 74.9

Color temperature:

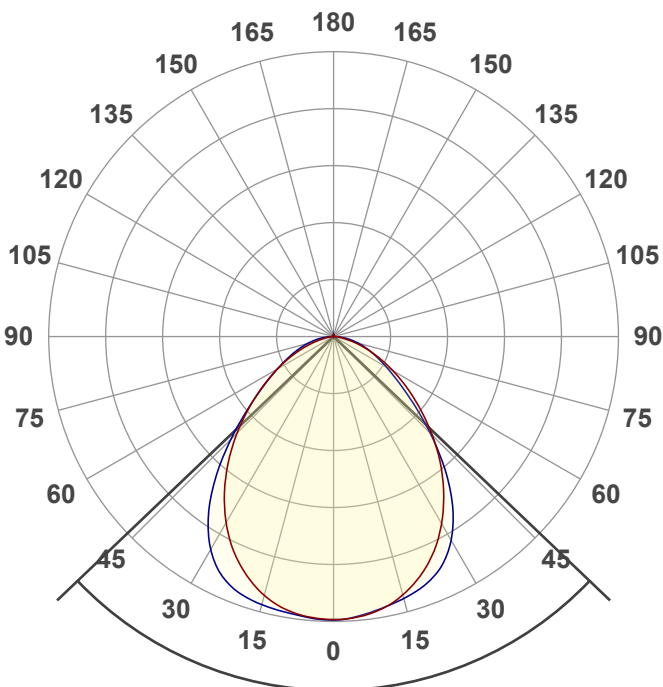
3895 K

Output: 19766 lm

Peak: 8791 cd

Power: 118.1 W

PF: 1.0



Product name:

FLCKM2-SW3B150-BRK 120W 40K

Date and time:

11/12/2024 1:29:06 PM

Beam angle

92.7°

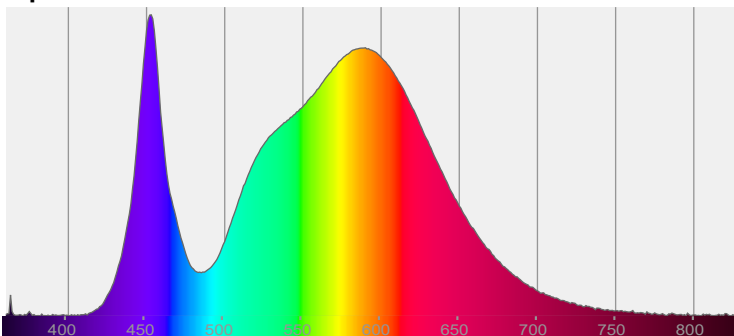


CIE 1931

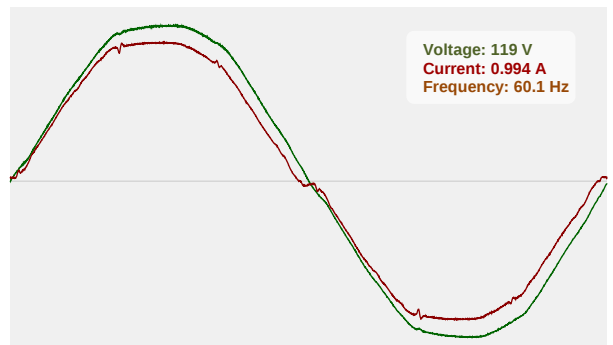
x: 0.385

y: 0.380

Spectra



Power



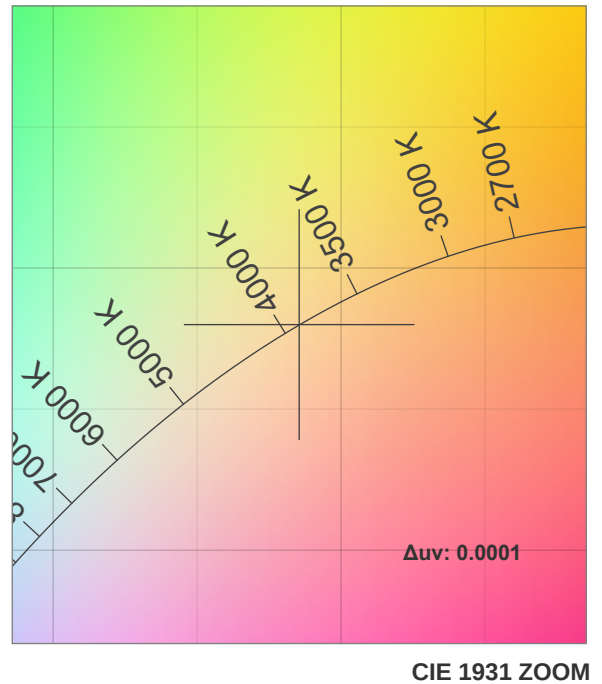
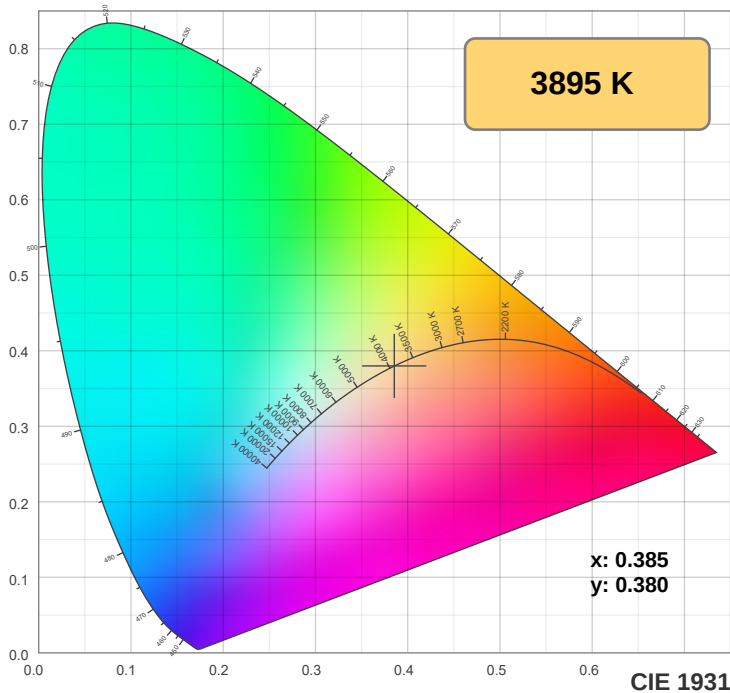
T 314.743.3067

F 314.972.6202

email: commercial-sales@superbrightleds.com

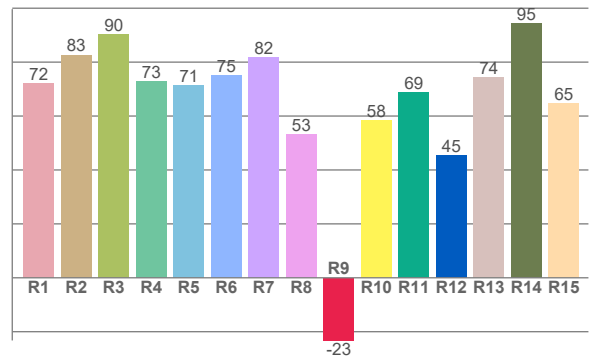
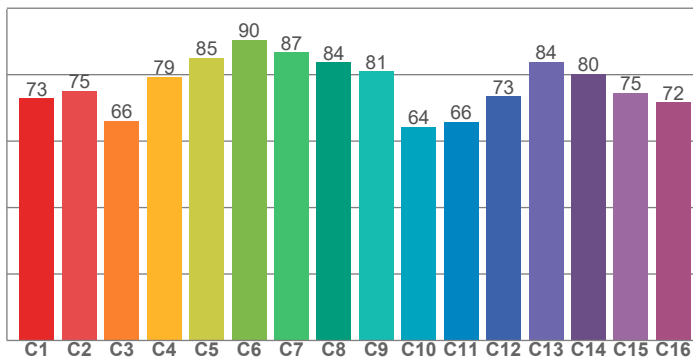
www.superbrightleds.com/

Color Specifications



TM30: 76.8

CRI: 74.9 (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
72.2	82.7	90.3	72.8	71.4	75.1	81.8	53.2	-23.3	58.4	68.8	45.3	74.5	94.5	64.7

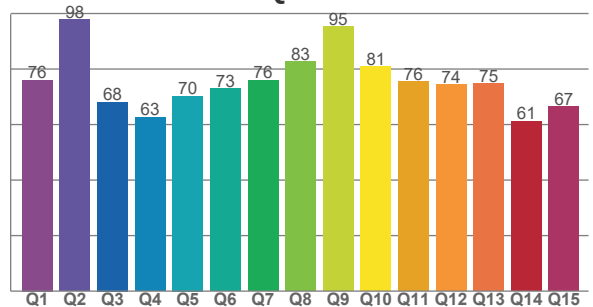
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
72.8	75.1	66.2	79.4	85.0	90.5	86.7	83.8	81.0	64.3	65.8	73.4	83.8	80.3	74.6	71.6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
76.0	97.8	68.1	62.6	70.3	73.0	75.9	82.7	95.3	80.9	75.6	74.4	74.8	61.2	66.5

CQS: 73.7



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
3895 K	74.9	-23.3	76.8	93.6	73.7	0.385	0.380	0.227	0.336	0.0001



T 314.743.3067

F 314.972.6202

email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

TM30 Report

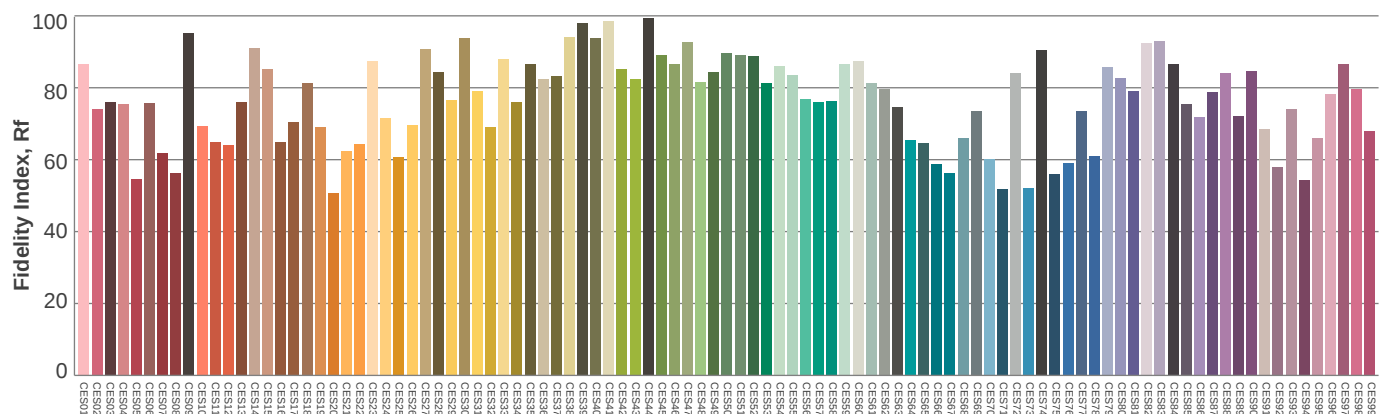
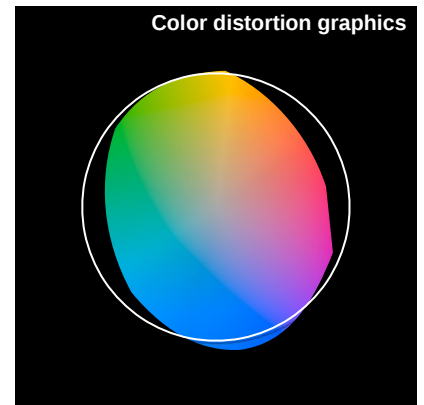
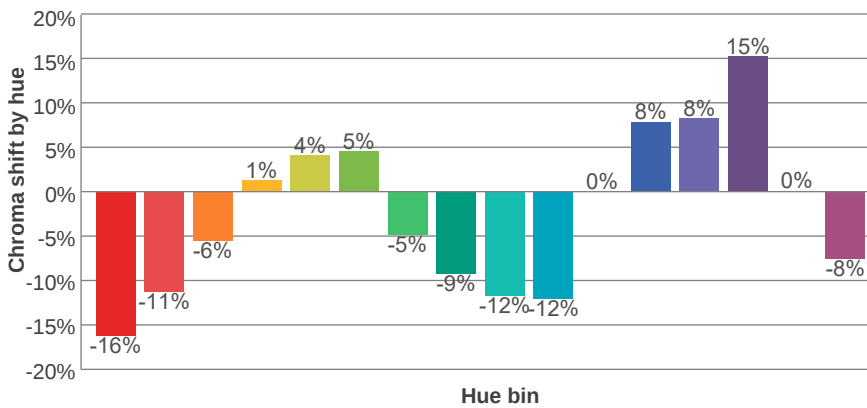
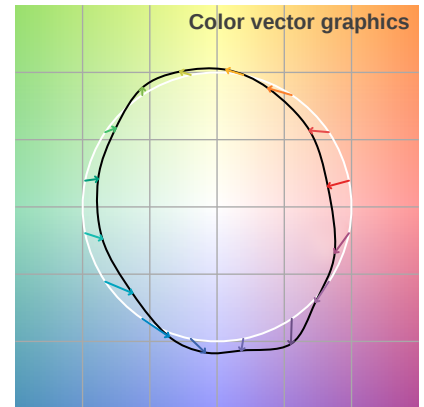
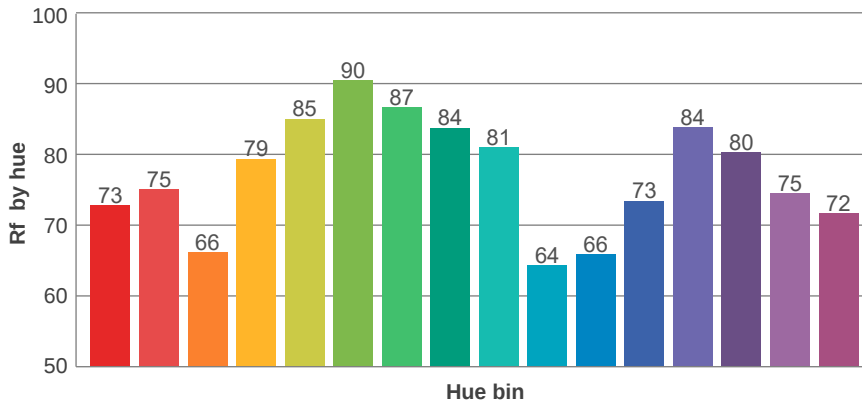
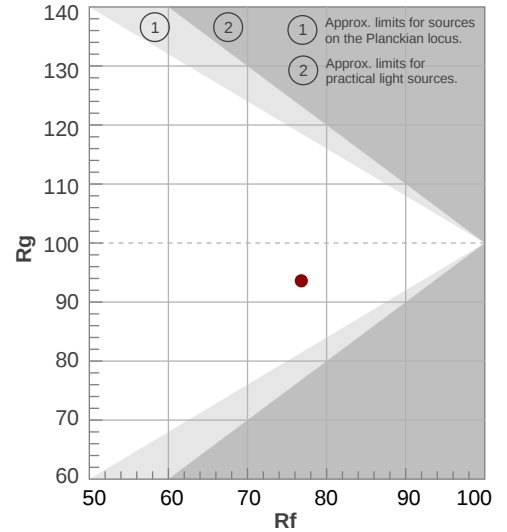
Rf 76.8

Fidelity index Rf

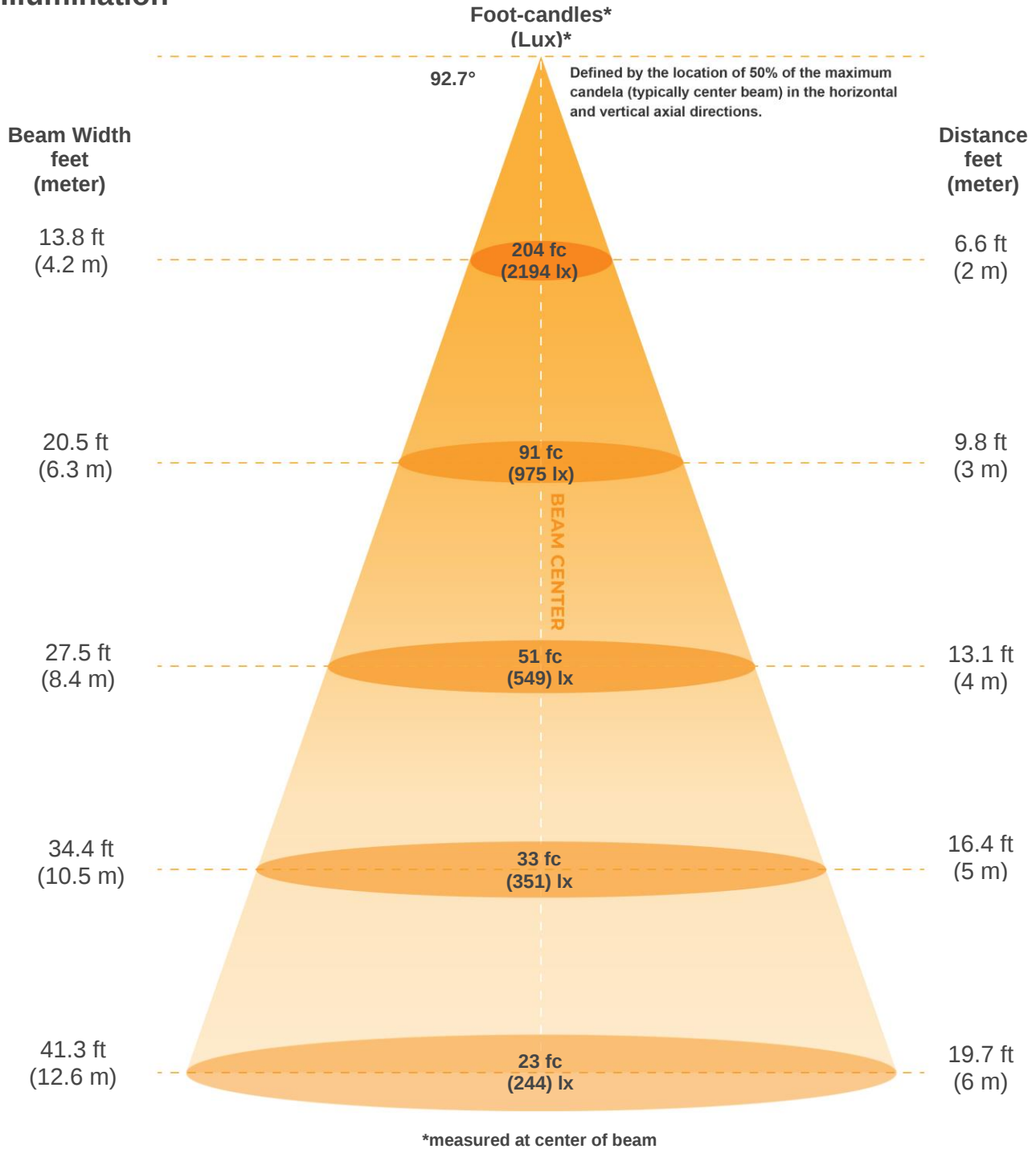
Rg 93.6

Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	73	-16%	-1%
2	75	-11%	9%
3	66	-6%	17%
4	79	1%	13%
5	85	4%	7%
6	90	5%	-3%
7	87	-5%	-7%
8	84	-9%	-3%
9	81	-12%	7%
10	64	-12%	18%
11	66	0%	24%
12	73	8%	12%
13	84	8%	-3%
14	80	15%	-11%
15	75	0%	-18%
16	72	-8%	-16%



Illumination



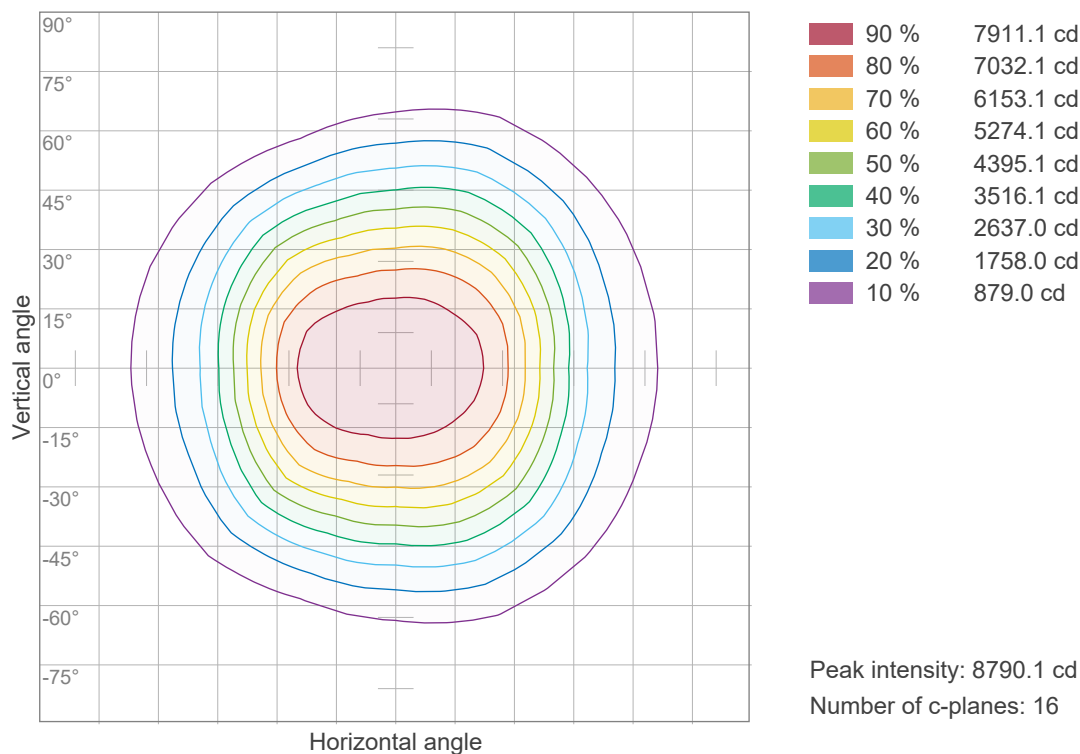
Beam intensities from 1-20m

m	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
ft	3.3	6.6	9.8	13.1	16.4	19.7	23	26.2	29.5	32.8	36.1	39.4	42.7	45.9	49.2	52.5	55.8	59.1	62.3	65.6
lux	8777	2194	975	549	351	244	179	137	108	88	73	61	52	45	39	34	30	27	24	22
fc	815.4	203.9	90.6	51	32.6	22.7	16.6	12.7	10.1	8.2	6.7	5.7	4.8	4.2	3.6	3.2	2.8	2.5	2.3	2

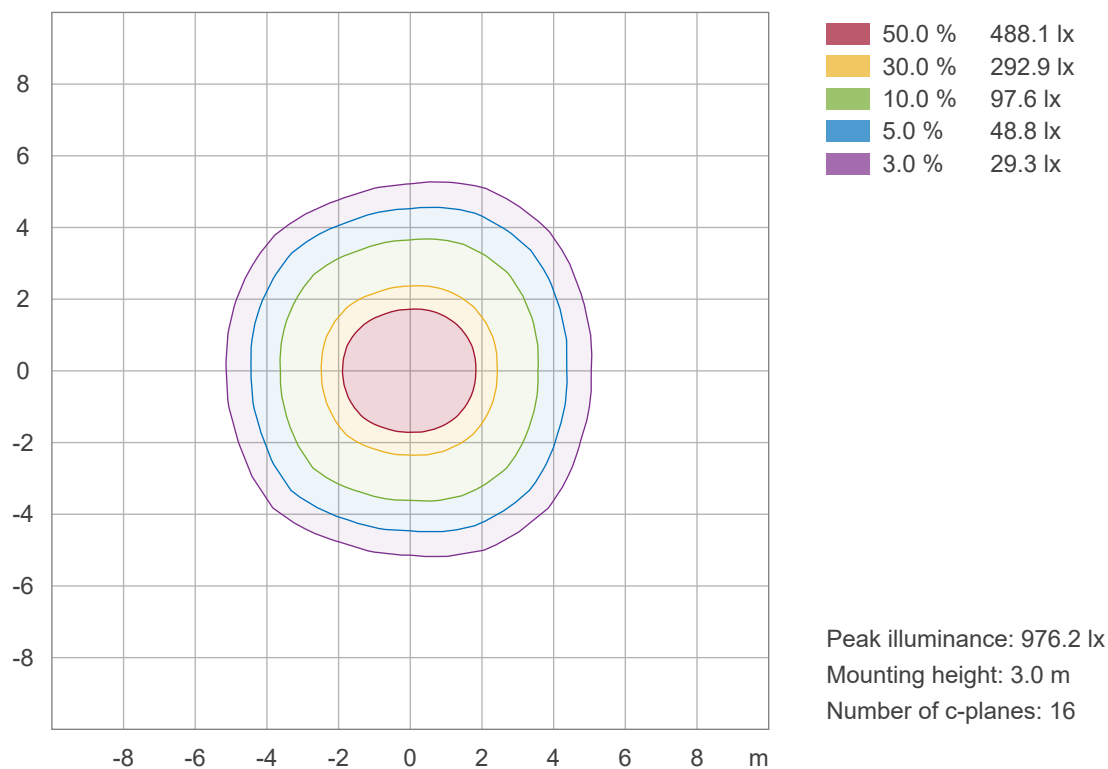
Beam angle 50%	Field angle 10%	Cutoff Angle 2.5%	Intensity Ratio in 120° cone	Intensity Ratio in 90° cone
92.7°	147.2°	169°	85.6%	63.9%



Iso-intensity Diagram (Iso-candela)



Iso-illuminance Diagram (Iso-lux)



Light Planning – UGR table

Uncorrected, comprehensive UGR table according to 117-1995

[illegible]

UGR data could not be calculated due to missing dimensions. Goto Edit->Photometric->Dimensions and set the fixture/lamp dimensions.

Coefficients of Utilization

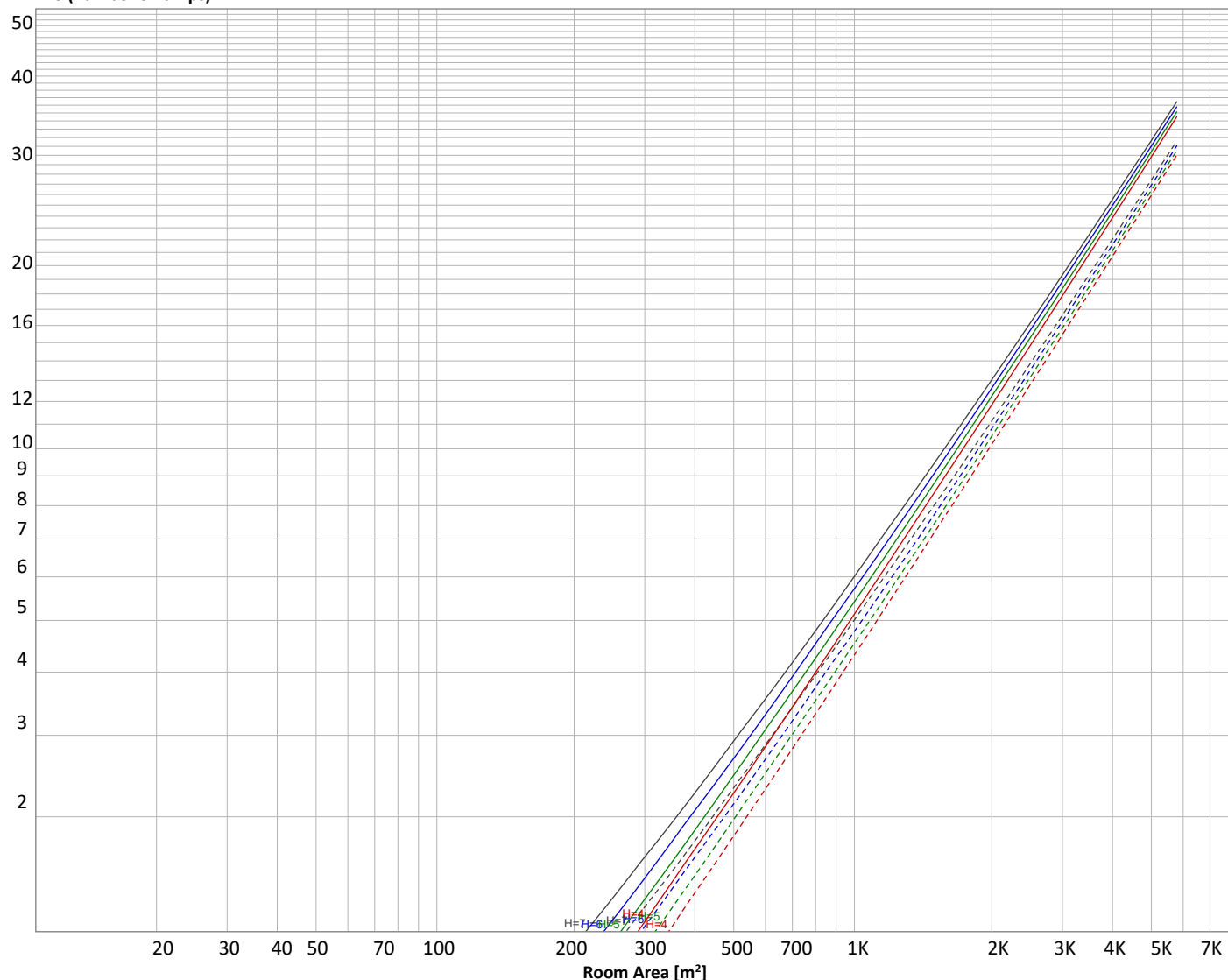
Ceiling reflectance	80			70			50			30			10			0		
Wall reflectance	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
Floor reflectance	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	0
RCR			(RCR: Room Cavity Ratio)			Room Values are expressed as percentage of Lumen delivered to the task surface												
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	91	90	88	86
2	101	94	88	82	98	92	86	81	88	83	79	85	81	78	82	79	76	74
3	93	83	76	70	91	82	75	69	79	73	68	76	71	67	73	69	66	64
4	86	75	67	61	83	73	66	60	71	64	59	69	63	58	66	62	58	55
5	79	67	59	53	77	66	58	53	64	57	52	62	56	51	60	55	51	49
6	74	61	53	47	72	60	52	47	58	51	46	57	50	46	55	50	45	43
7	68	56	48	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	50	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	45	39	34	44	38	34	43	38	33	32
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	35	31	29



Luminaire budgetary diagram

Uncorrected, comprehensive UGR table according to 117-1995

LAMPS (number of lamps)



Conditions

H = Room height	Flux = 19766 lm	p(%)		
H _{down} = Lamp distance from ceiling =	0.00 m	Line type	Ceiling reflectance	Wall reflectance
H _{work} = Work area height from floor =	0.00 m	-----	70	50
E _{work} = Average lux on work area =	100 lx	_____	50	30
				Floor reflectance
				30
				20

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
829 lm	2368 lm	3541 lm	3999 lm	3571 lm	2619 lm	1643 lm	825 lm	245 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
15.6 lm	14.1 lm	15.9 lm	17.5 lm	17.9 lm	16.9 lm	14.0 lm	9.57 lm	3.34 lm

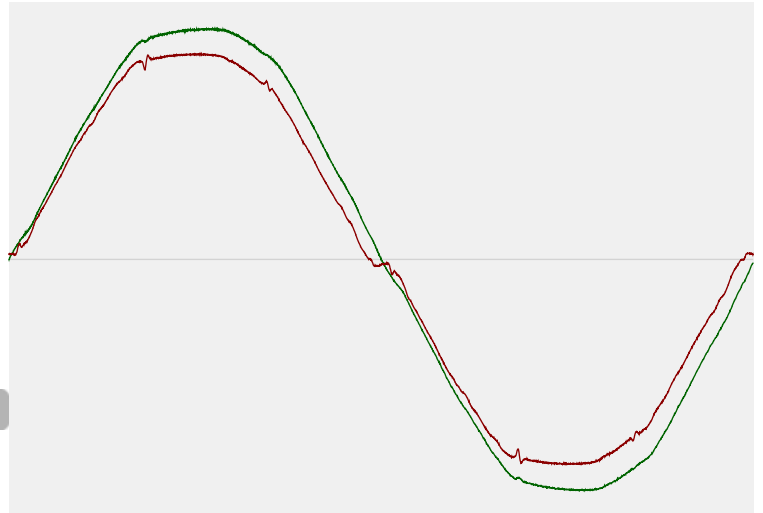


Power Details

Input Power

Power feed to light source	118.1 W
Frequency of input power	60.1 Hz
RMS Input voltage feed, V_{RMS}	119 V
RMS Input current feed, I_{RMS}	0.994 A
Volt-Ampere or apparent power = $V_{RMS} * I_{RMS}$	118.39 VA
Displacement factor of AC power feed	1.0
Power factor of AC current feed	1.0
Total harmonic distortion of the current	5.59%
Total harmonic distortion of the voltage	2.65%

Input Power Curve



Efficiency

Radiated power efficiency 48.1%



Lumen efficiency 167 lm/W



Stabilization Details

Warmup Conditions

Stable period	15 min
Stable change max	2.0%
Minimum time	15 min

Color Temperature Change

CCT start	3894 K
CCT shift	+1 K
CCT end	3895 K

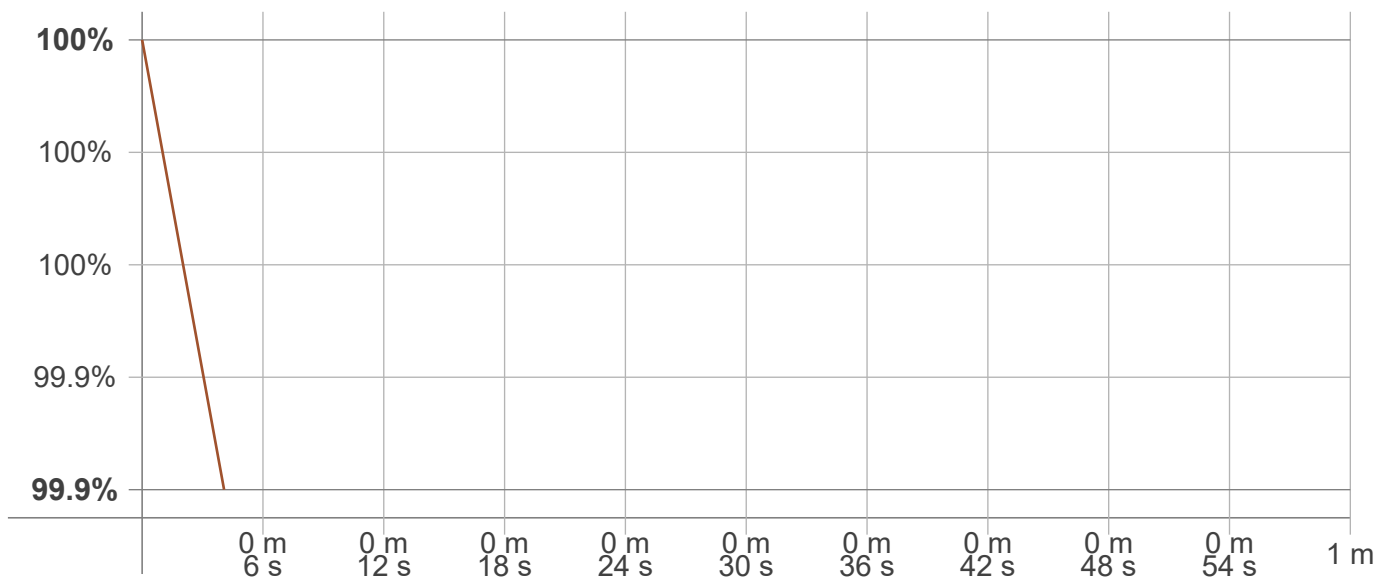
Warmup Result

Total warmup time	Not completed
Warmup variation	-0.1%

Output Change

Output start	19781 lm
Output change	-14 lm
Output end	19766 lm

Stabilization Curve



Flicker /TLA details



T 314.743.3067
F 314.972.6202
email: commercial-sales@superbrightleds.com
www.superbrightleds.com/

Flicker Meter Type Viso Systems LabFlicker
Frequency of input power 60.1 Hz
Flicker/TLA sample rate 20000 samples/s

Measurement time
PstLM 180 sec
All other indices 1.2 sec

Flicker indices according to Illuminating Engineering Society (IES)

Flicker frequency 121.95 Hz
Percent Flicker 1.5 %
Flicker index 0

Flicker indices per California Energy Commission (CEC) 2016b

JA8/10 40 Hz 0.18 %
JA8/10 90 Hz 0.3 %
JA8/10 200 Hz 1.32 %
JA8/10 400 Hz 1.34 %
JA8/10 1000 Hz 1.39 %

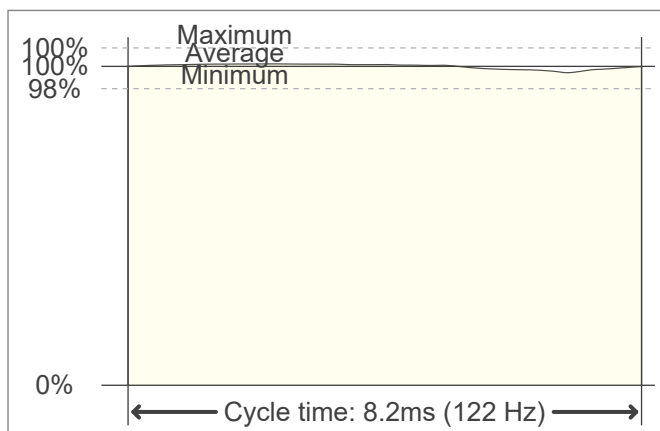
TLA indices (re IEC TR 61547-1, IEC 61000-3-3 and IEC 61000-4-15)

PstLM value ($F < 80$ Hz) 0.13
SVM value ($80 < F < 2000$ Hz) 0.04

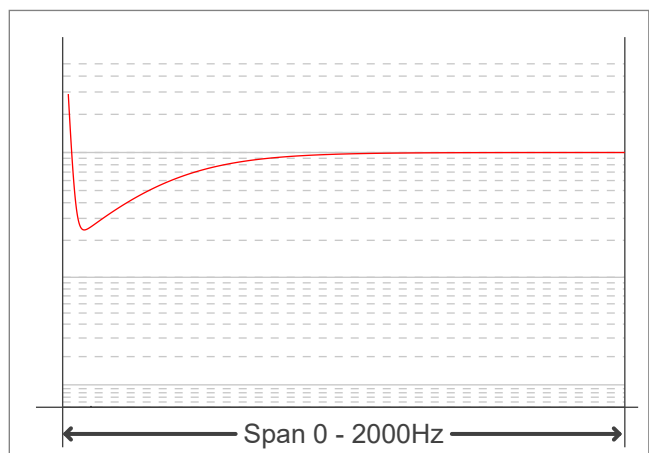
Flicker indices according to Lighting Research Center (2015)

Perception metric, Assist Mp 0.09

Flicker frame (frame of one flicker period in time domain)



Flicker FFT (flicker curve in frequency domain)



IEEE 1789 Frequency/modulation plot

