Light efficiency:

135 Lumen/Watt

Light quality:

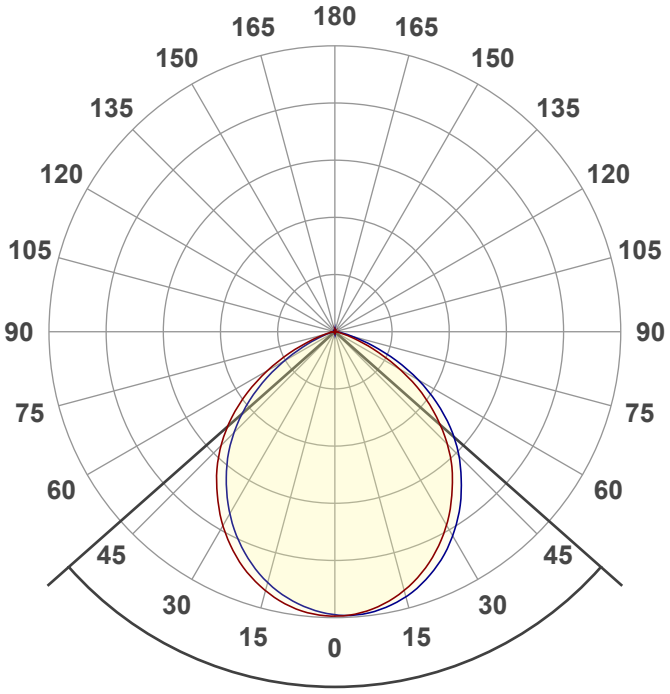
CRI: 95.2

Color temperature:

4196 K

Output: 2483 lm
Peak: 1132 cd

Power: 18.4 W
PF: 0.99



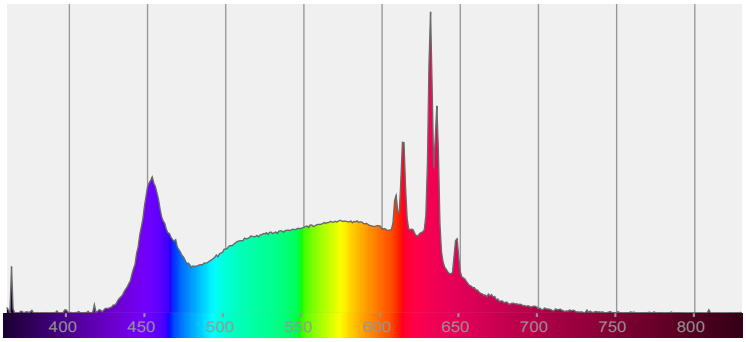
Beam angle 97°

CIE 1931
x: 0.371
y: 0.368

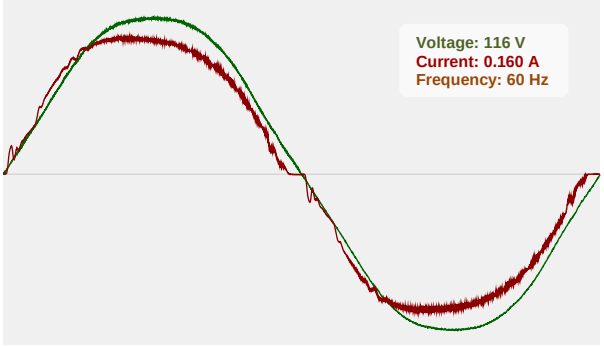
Product name:
CDL6D-SW5A-SP27W (19 W)

Date and time:
6/13/2023 10:10:15 AM

Spectra

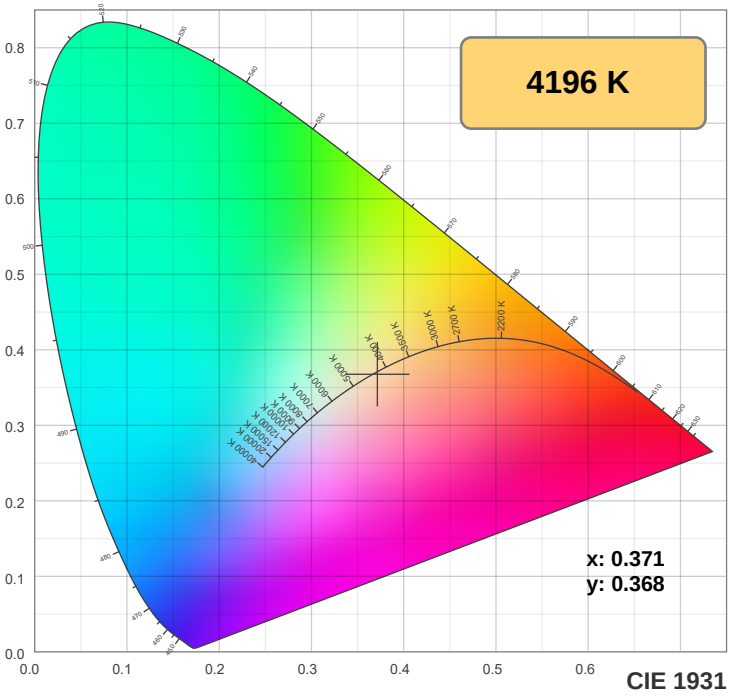


Power

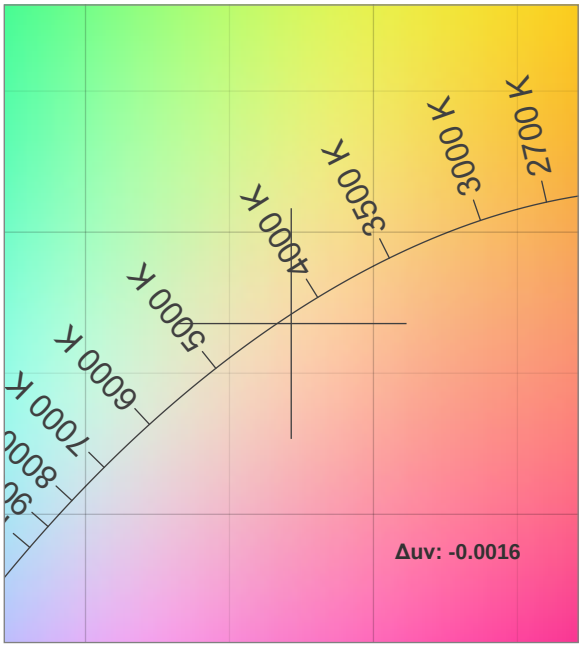


T 314.743.3067
F 314.972.6202
email: commercial-sales@superbrightleds.com
www.superbrightleds.com/

Color Specifications

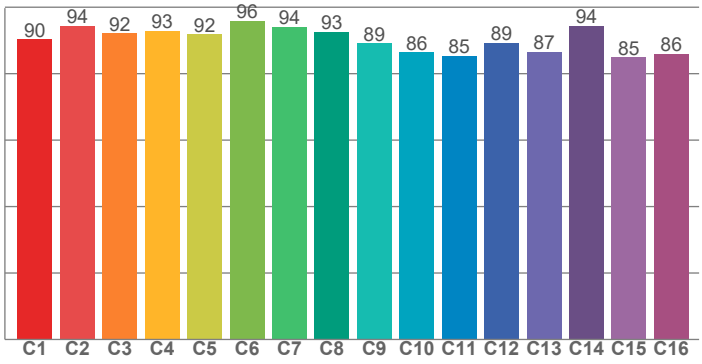


CIE 1931

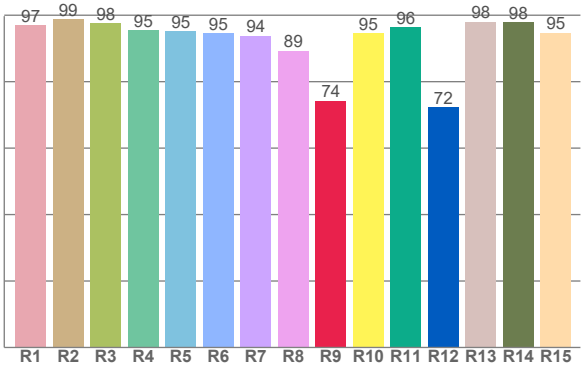


CIE 1931 ZOOM

TM30: 90.2



CRI: 95.2 (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
97.0	98.7	97.5	95.4	95.3	94.6	93.8	89.3	74.3	94.6	96.3	72.3	98.1	97.9	94.8

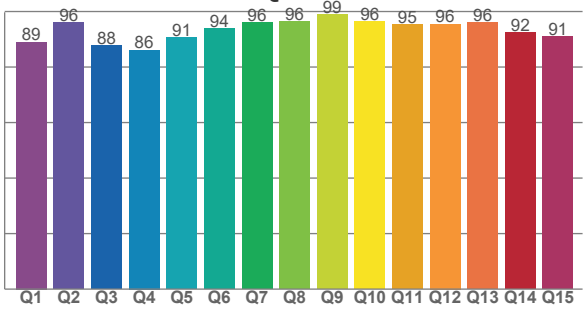
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90.3	94.4	92.1	93.0	91.8	95.9	94.1	92.6	89.1	86.5	85.4	89.3	86.6	94.3	84.9	86.0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
89.1	96.0	87.8	86.1	90.7	93.8	96.0	96.4	98.9	96.4	95.2	95.5	95.9	92.4	91.0

CQS: 92.5



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
4196 K	95.2	74.3	90.2	98.6	92.5	0.371	0.368	0.223	0.331	-0.0016

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

TM30 Report

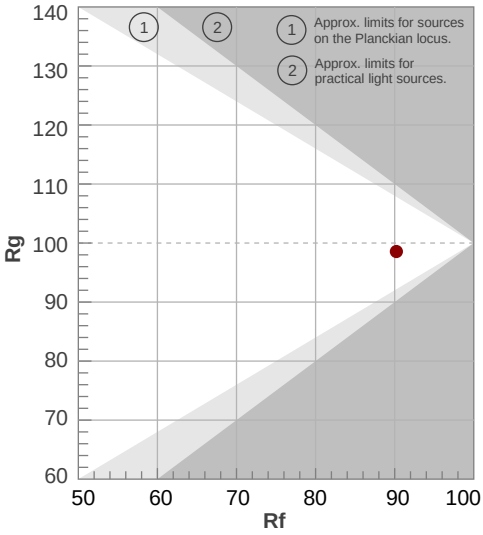
Rf 90.2

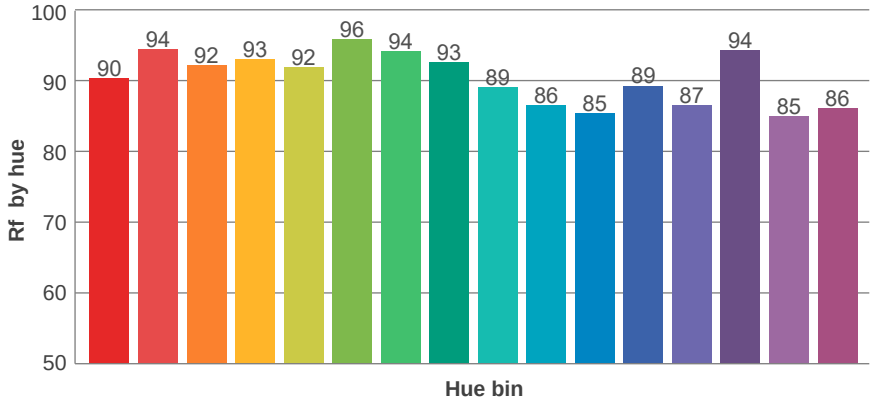
Fidelity index Rf

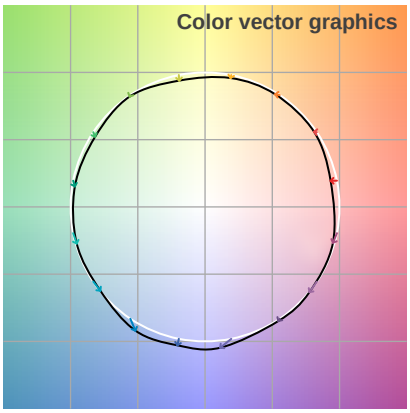
Rg 98.6

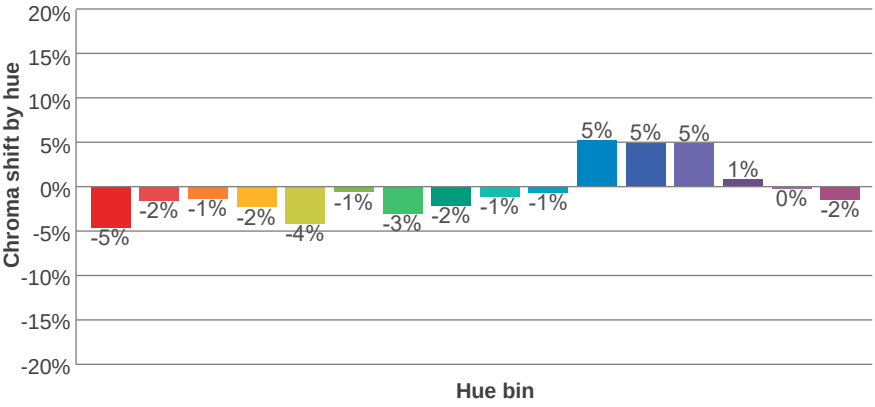
Gammut index Rg

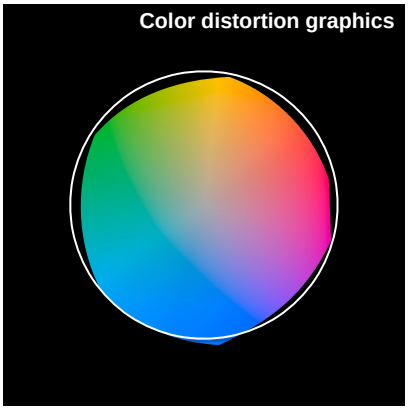
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	90	-5%	1%
2	94	-2%	1%
3	92	-1%	3%
4	93	-2%	0%
5	92	-4%	1%
6	96	-1%	1%
7	94	-3%	2%
8	93	-2%	4%
9	89	-1%	8%
10	86	-1%	9%
11	85	5%	8%
12	89	5%	0%
13	87	5%	-9%
14	94	1%	-2%
15	85	0%	-10%
16	86	-2%	-8%

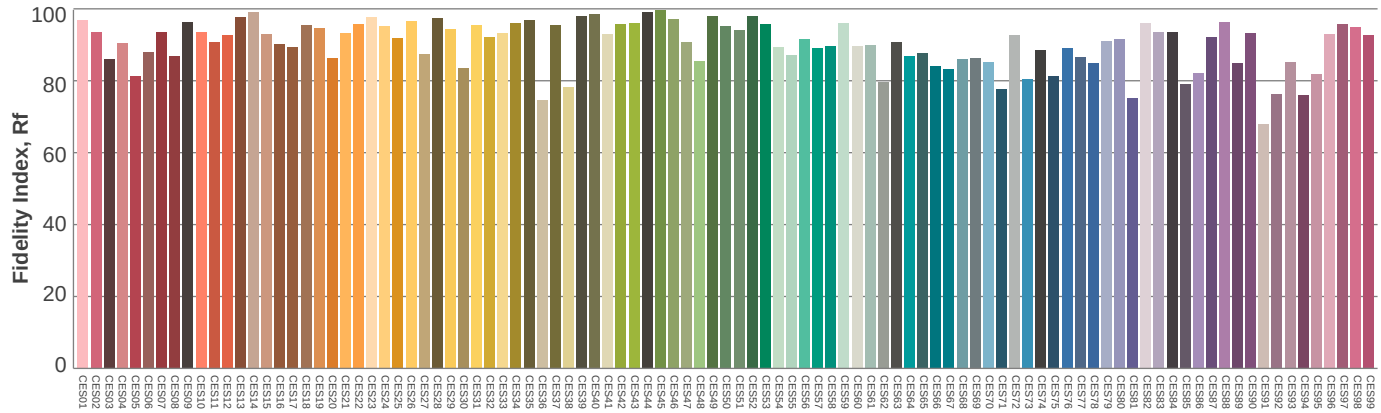






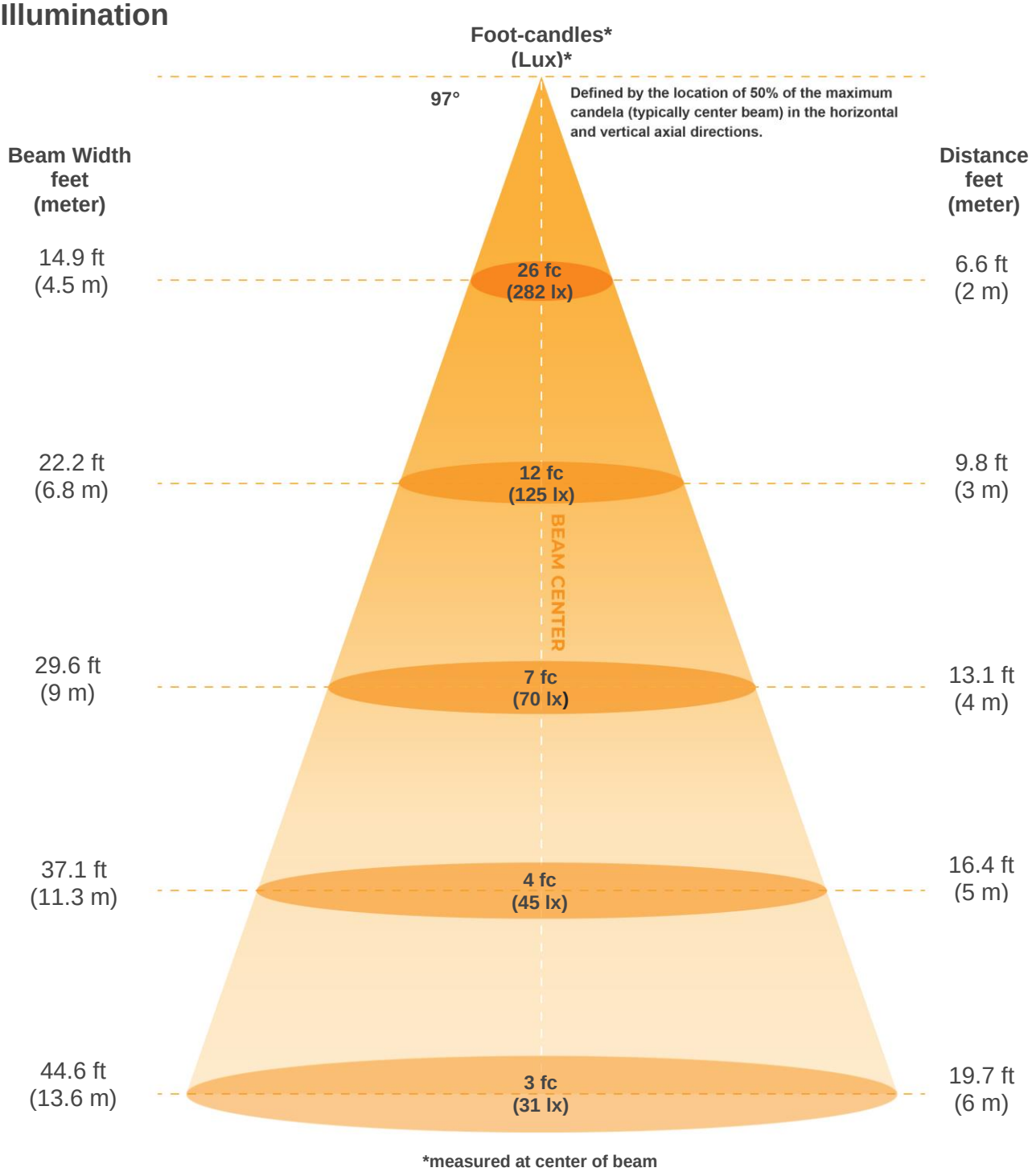






T 314.743.3067
F 314.972.6202
email: commercial-sales@superbrightleds.com
www.superbrightleds.com/

Illumination



Beam intensities from 1-20m

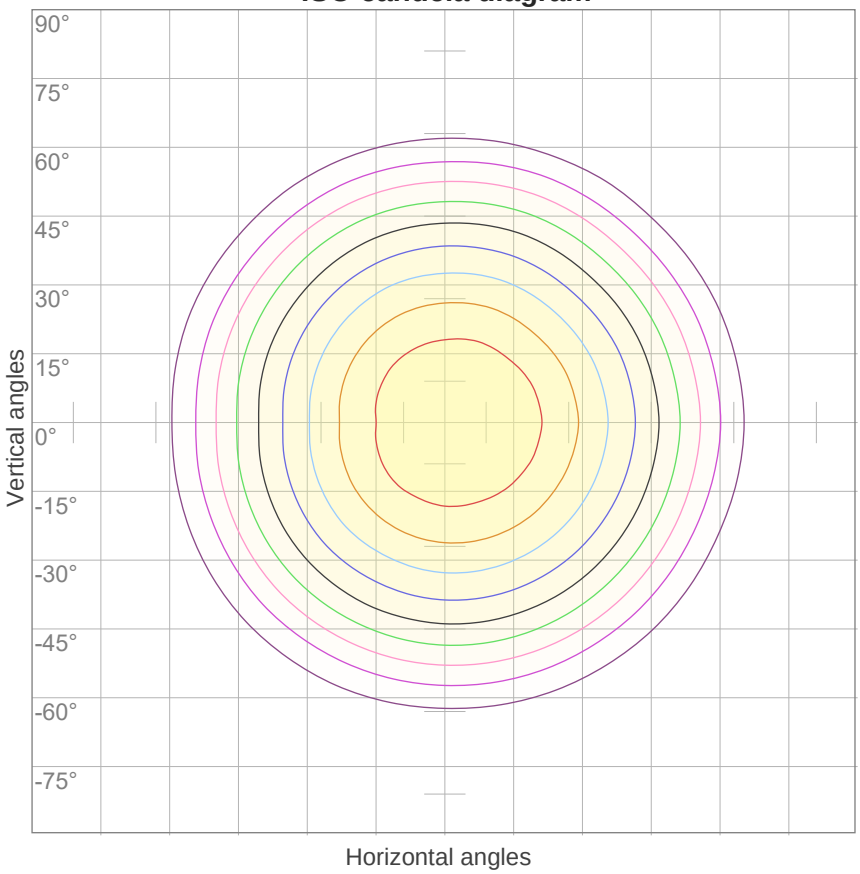
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
1128lx	282lx	125lx	70lx	45lx	31lx	23lx	18lx	14lx	11lx	9lx	8lx	7lx	6lx	5lx	4lx	4lx	3lx	3lx	3lx
104.8fc	26.2fcd	11.6fcd	6.5fcd	4.2fcd	2.9fcd	2.1fcd	1.6fcd	1.3fcd	1fcd	0.9fcd	0.7fcd	0.6fcd	0.5fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd	0.3fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
97°	138.6°	154.7°	89.3%	64.6%

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

ISO Diagrams

ISO candela diagram



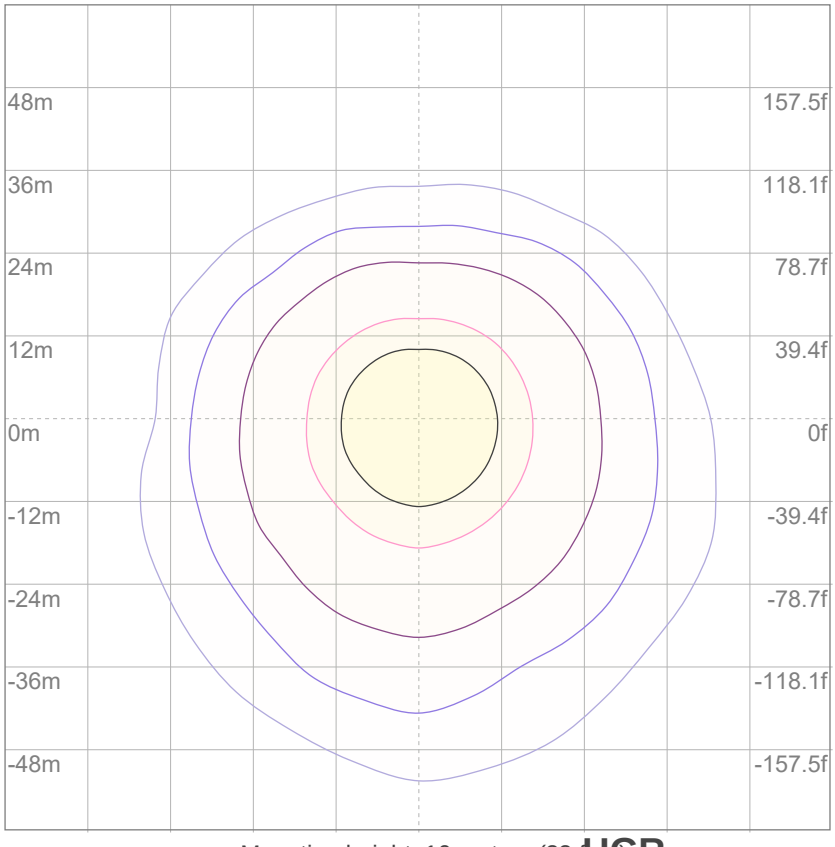
10%	113 cd
20%	226 cd
30%	338 cd
40%	451 cd
50%	564 cd
60%	677 cd
70%	789 cd
80%	902 cd
90%	1015 cd

Conditions:

Number of c-planes: 16

Candela at center: 1128 cd

ISO lux diagram



3%	0.338 lx
5%	0.564 lx
10%	1.13 lx
30%	3.38 lx
50%	5.64 lx

Conditions:

Number of c-planes: 16

Lux at center: 11.3 lx

Lux distribution on a surface when lamp is mounted at 10 meters from the surface.

UGR

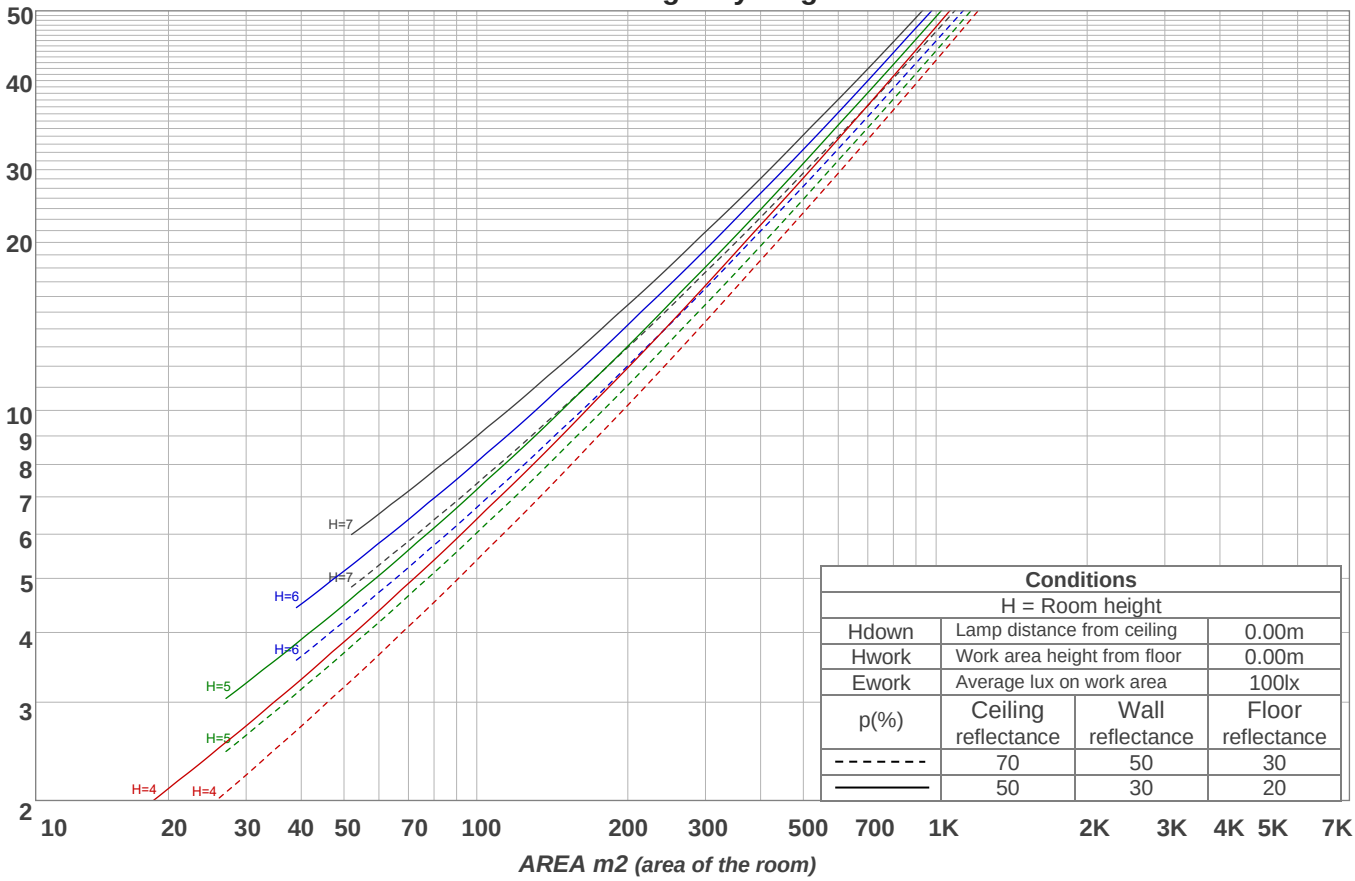
T 314.743.3067
F 314.972.6202
email: commercial-sales@superbrightleds.com
www.superbrightleds.com/

Light Planning

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 Lumens delivered to the task surface													
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	111	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	87
2	102	95	89	84	99	93	88	83	90	85	81	86	83	79	83	80	78	76
3	94	85	77	72	92	83	76	71	80	74	70	77	73	69	75	71	67	65
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59	57
5	80	68	60	54	78	67	59	54	65	58	53	63	57	53	61	56	52	50
6	74	62	54	48	72	61	53	47	59	52	47	58	51	47	56	50	46	44
7	69	56	48	42	67	56	48	42	54	47	42	53	46	42	51	46	41	40
8	64	52	44	38	63	51	43	38	50	43	38	48	42	38	47	42	37	36
9	60	48	40	35	59	47	40	34	46	39	34	45	39	34	44	38	34	32
10	57	44	36	31	55	43	36	31	42	36	31	42	35	31	41	35	31	29

Luminaire budgetary diagram



Zonal Lumen Summary

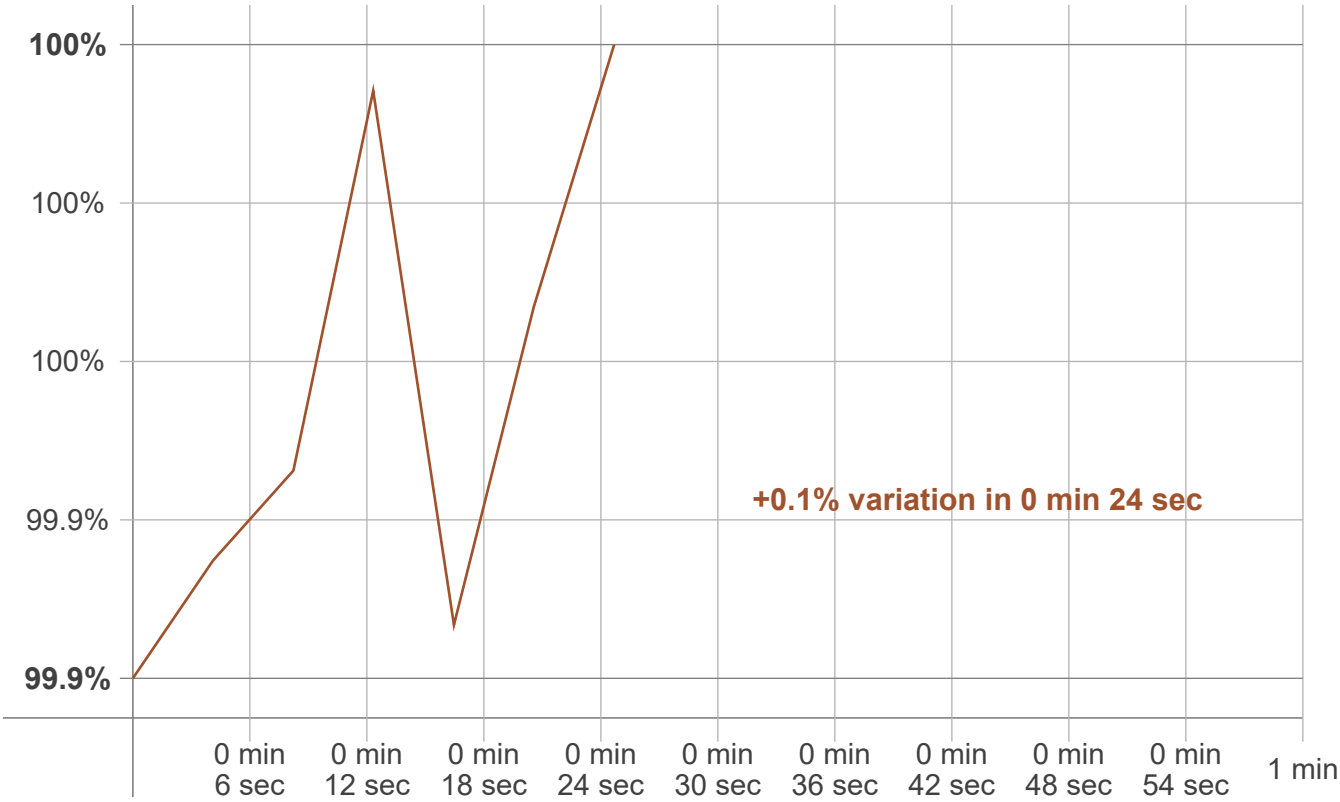
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
106 lm	300 lm	441 lm	506 lm	488 lm	377 lm	196 lm	53.4 lm	8.77 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
1.17 lm	0.987 lm	1.04 lm	1.05 lm	0.997 lm	0.931 lm	0.726 lm	0.471 lm	0.160 lm

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

Stabilization

Warmup curve



Warmup result

Warmup time:	**Not completed**
Warmup variation	**+0.1%**

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
4197 K	-1 K	4196 K

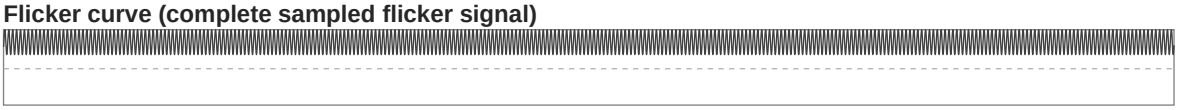
Output change

Output start	Output change	Output end
2483 lm	+1 lm	2483 lm

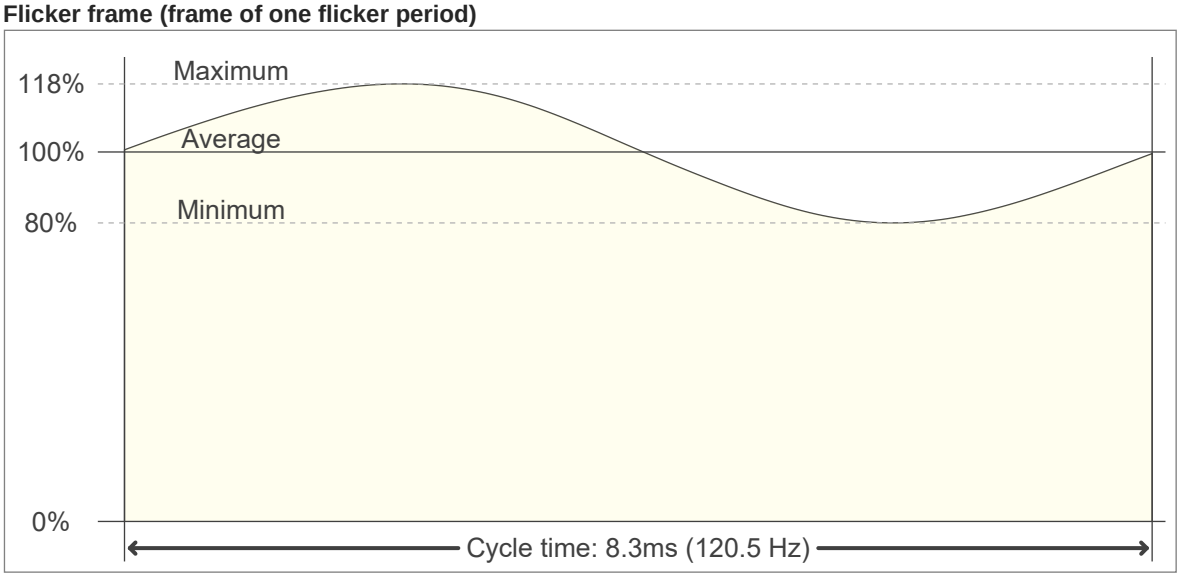
T 314.743.3067
F 314.972.6202
email: commercial-sales@superbrightleds.com
www.superbrightleds.com/

Flicker Specifications

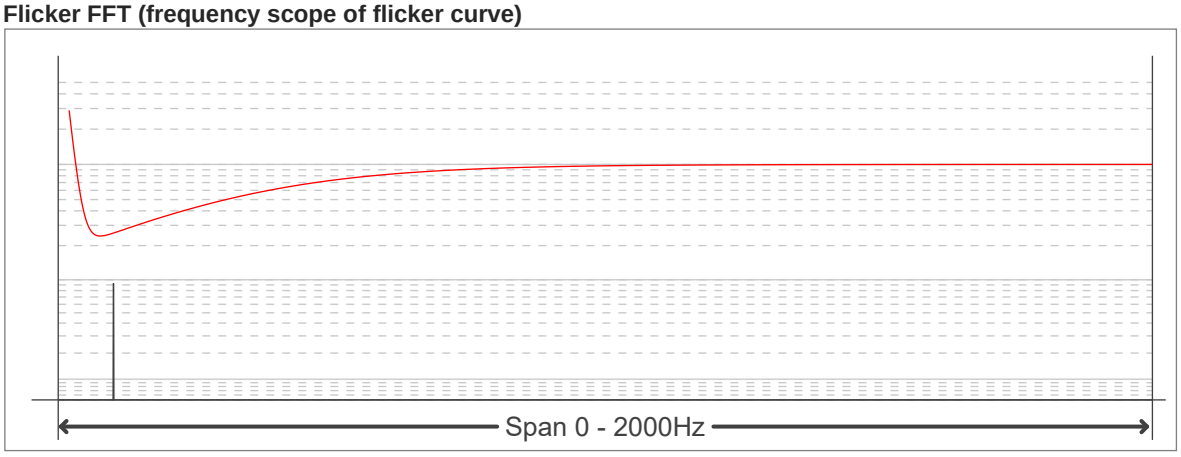
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	**120.48 Hz**
Flicker index:	**0.06**
Flicker percentage:	**18.94 %**
SVM: (Visual flicker)	**0.67**

Flicker conditions:

Sample rate:	**20000 samples/second**

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