

Light efficiency:

136 Lumen/Watt

Output: 10459 lm

Light quality:

CRI: 84.2

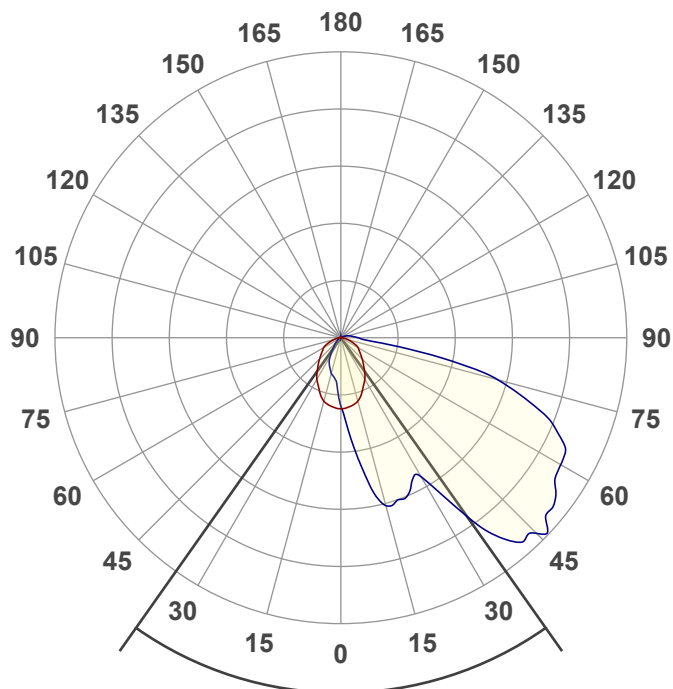
Peak: 6814 cd

Color temperature:

5042 K

Power: 76.7 W

PF: 1.0



Product name:

WPGL-50K80-H (GS)

Date and time:

5/19/2021 11:50:45 AM

Beam angle

70.4°

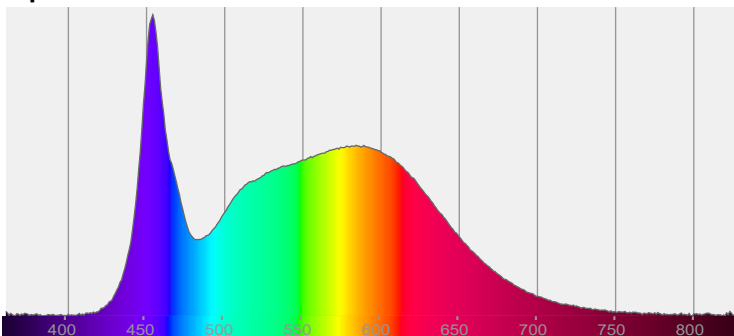


CIE 1931

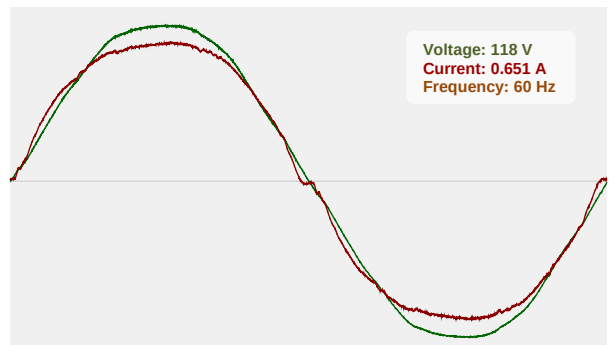
x: 0.345

y: 0.356

Spectra



Power



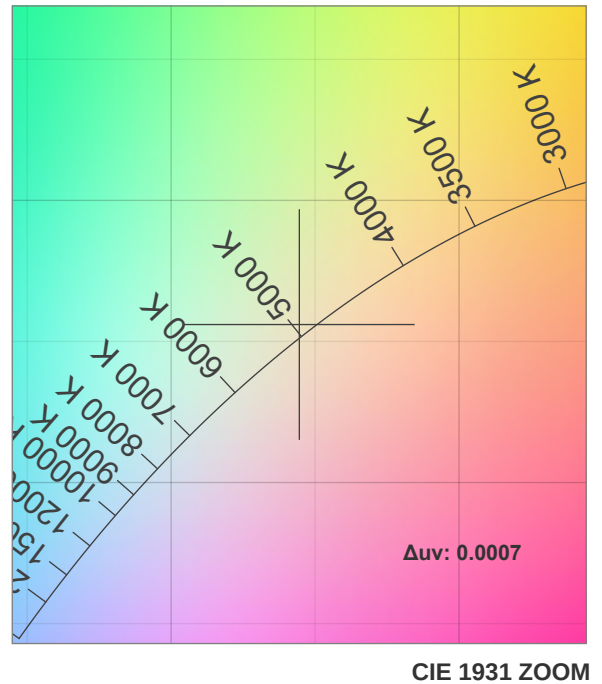
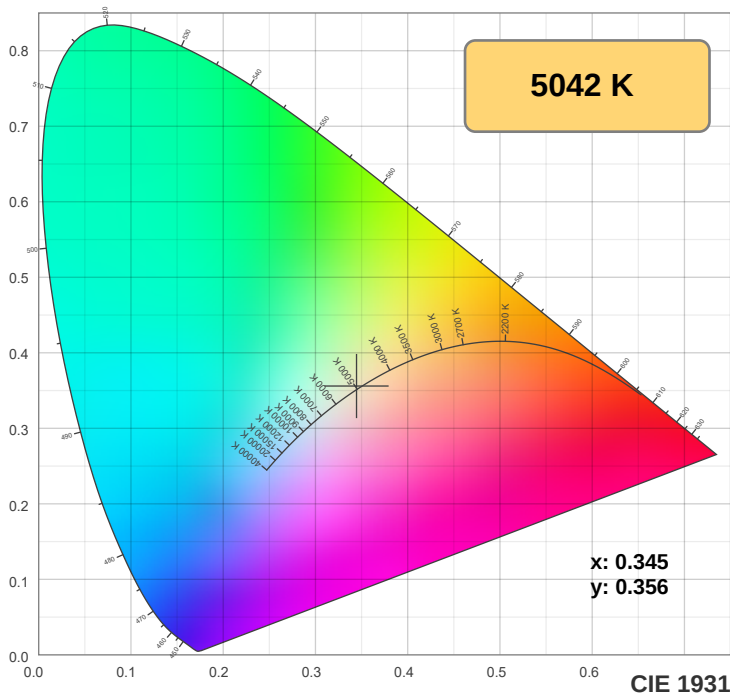
T 314.743.3067

F 314.972.6202

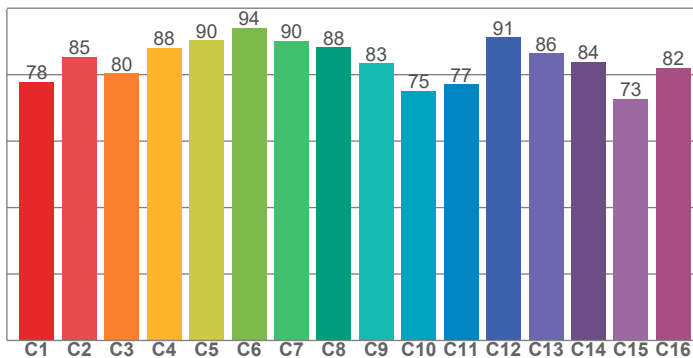
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

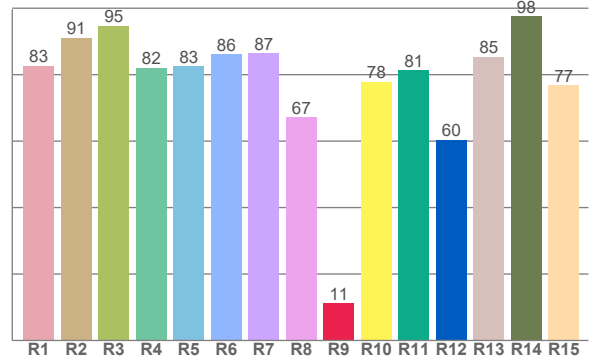
Color Specifications



TM30: 83.9



CRI: 84.2 (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
82.7	91.1	94.8	82.1	82.6	86.1	86.5	67.3	11.2	77.8	81.4	60.4	85.5	97.6	76.8

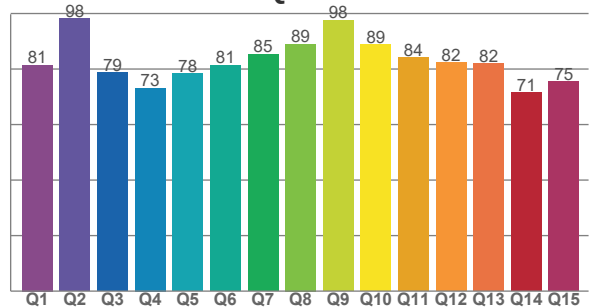
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77.8	85.3	80.4	88.1	90.3	94.2	90.2	88.2	83.4	75.1	77.0	91.2	86.4	83.9	72.7	82.0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
81.4	98.2	78.7	73.2	78.4	81.4	85.3	89.0	97.6	88.8	84.1	82.4	81.9	71.5	75.4

CQS: 81.6



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
5042 K	84.2	11.2	83.9	94.4	81.6	0.345	0.356	0.209	0.324	0.0007



TM30 Report

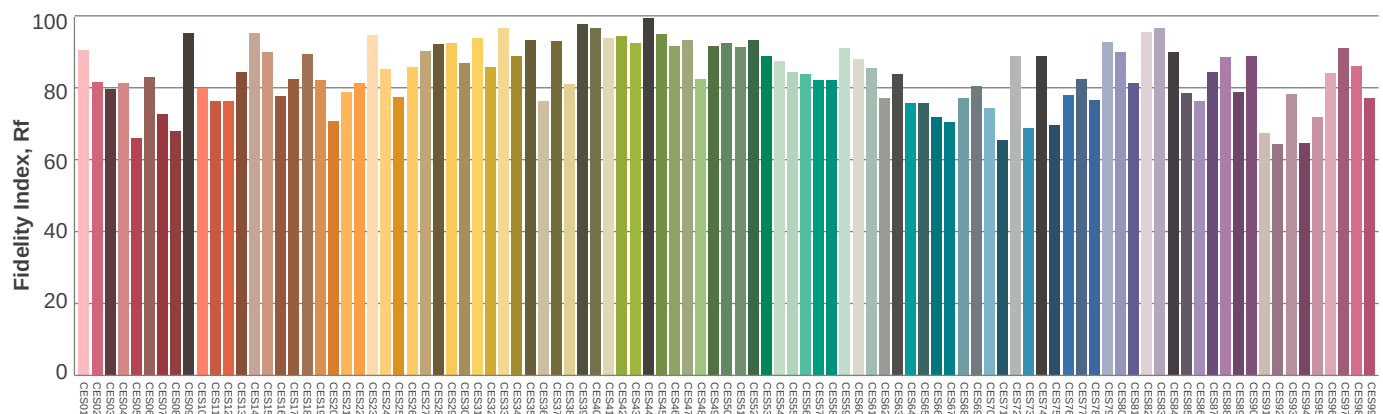
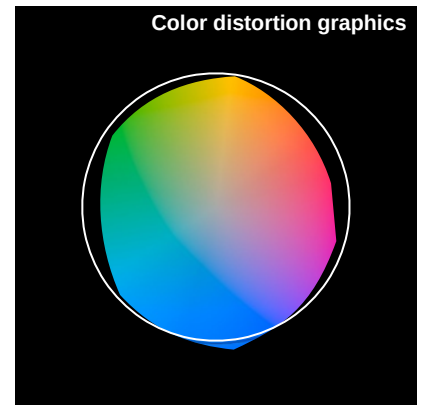
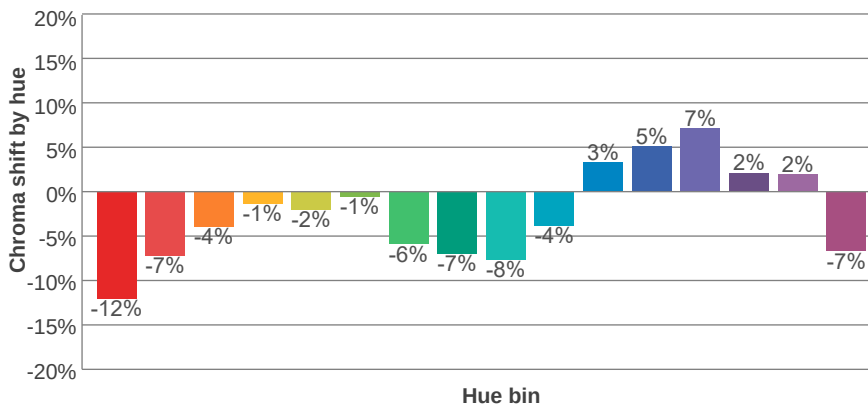
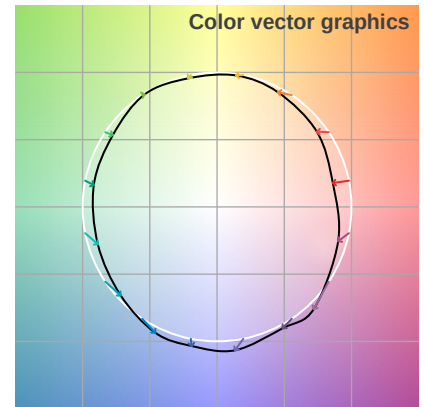
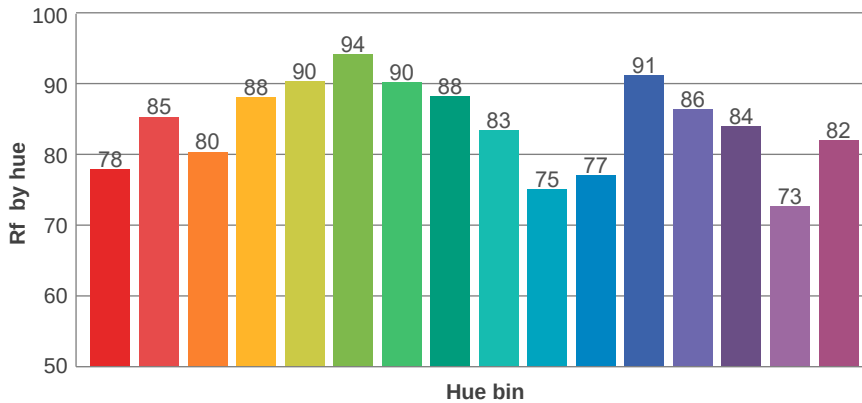
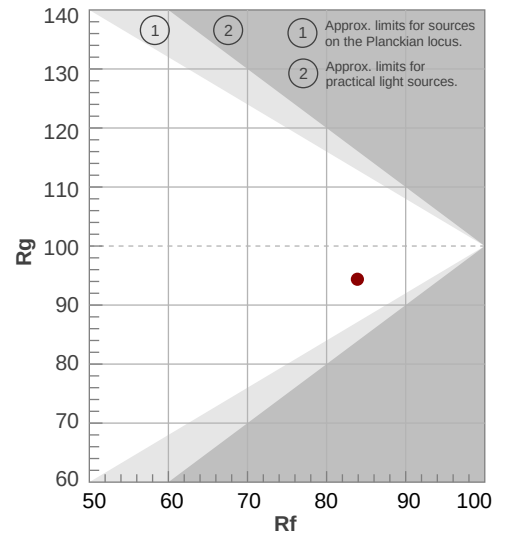
Rf 83.9

Fidelity index Rf

Rg 94.4

Gamut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	78	-12%	1%
2	85	-7%	5%
3	80	-4%	10%
4	88	-1%	5%
5	90	-2%	2%
6	94	-1%	-2%
7	90	-6%	-1%
8	88	-7%	2%
9	83	-8%	10%
10	75	-4%	15%
11	77	3%	14%
12	91	5%	2%
13	86	7%	-8%
14	84	2%	-10%
15	73	2%	-23%
16	82	-7%	-7%



Color Evaluation Sample



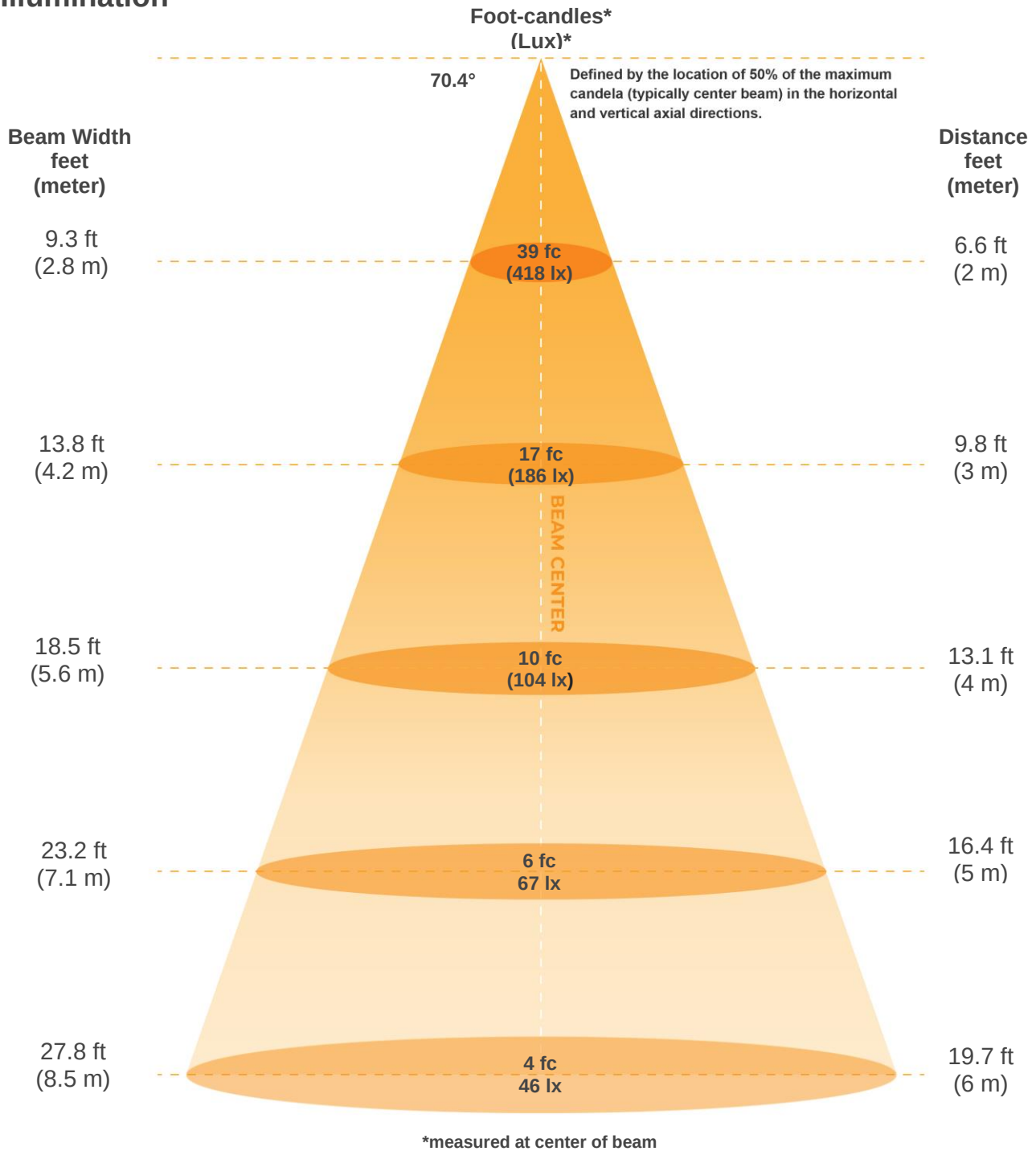
T 314.743.3067

F 314.972.6202

email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

Illumination



Beam intensities from 1-20m

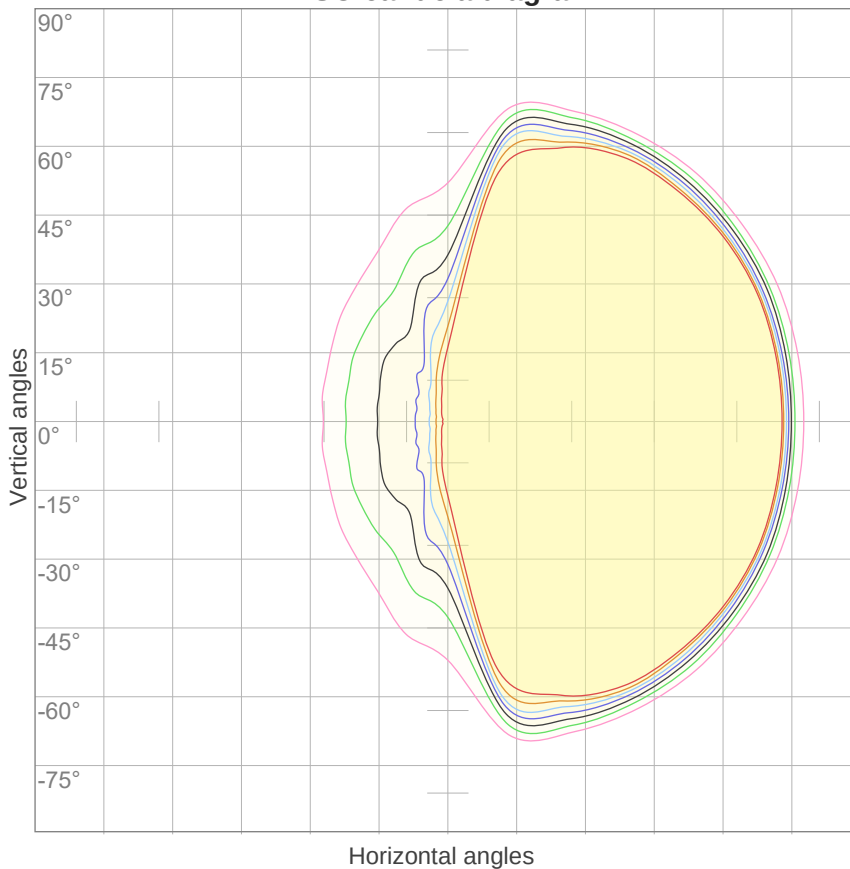
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
1672lx	418lx	186lx	104lx	67lx	46lx	34lx	26lx	21lx	17lx	14lx	12lx	10lx	9lx	7lx	7lx	6lx	5lx	5lx	4lx
155.3fc	38.8fcd	17.3fcd	9.7fcd	6.2fcd	4.3fcd	3.2fcd	2.4fcd	1.9fcd	1.6fcd	1.3fcd	1.1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd	0.5fcd	0.5fcd	0.4fcd	0.4fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
70.4°	127.6°	162.7°	64.8%	36.7%



ISO Diagrams

ISO candela diagram



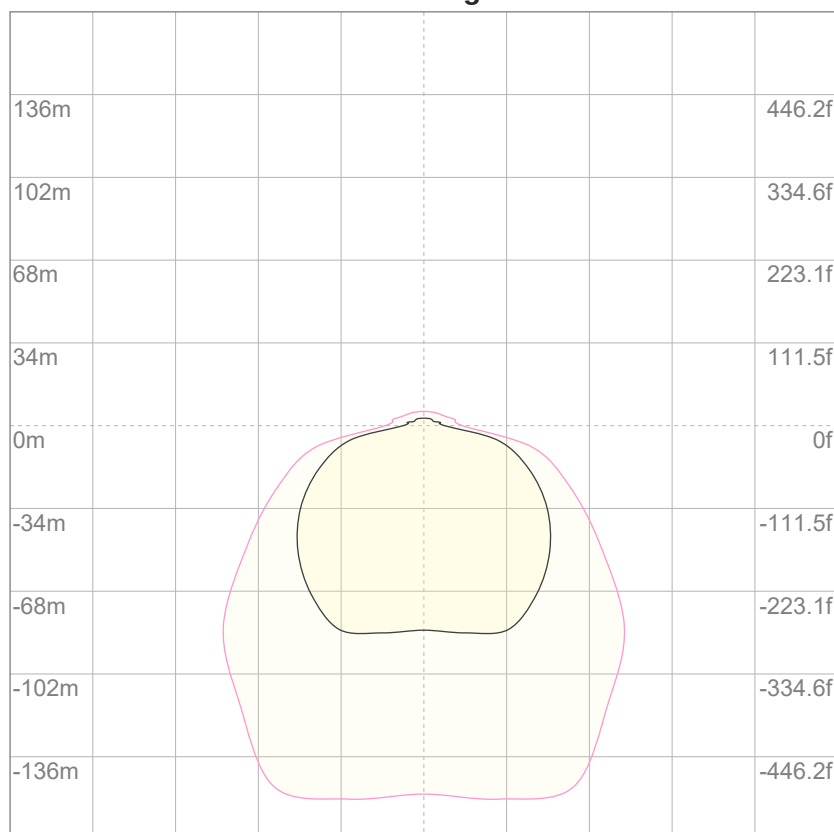
10%	167 cd
20%	334 cd
30%	502 cd
40%	669 cd
50%	836 cd
60%	1003 cd
70%	1170 cd
80%	1337 cd
90%	1505 cd

Conditions:

Number of c-planes: 16

Candela at center: 1672 cd

ISO lux diagram



3%	0.502 lx
5%	0.836 lx
10%	1.67 lx
30%	5.02 lx
50%	8.36 lx

Conditions:

Number of c-planes: 16

Lux at center: 16.7 lx

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



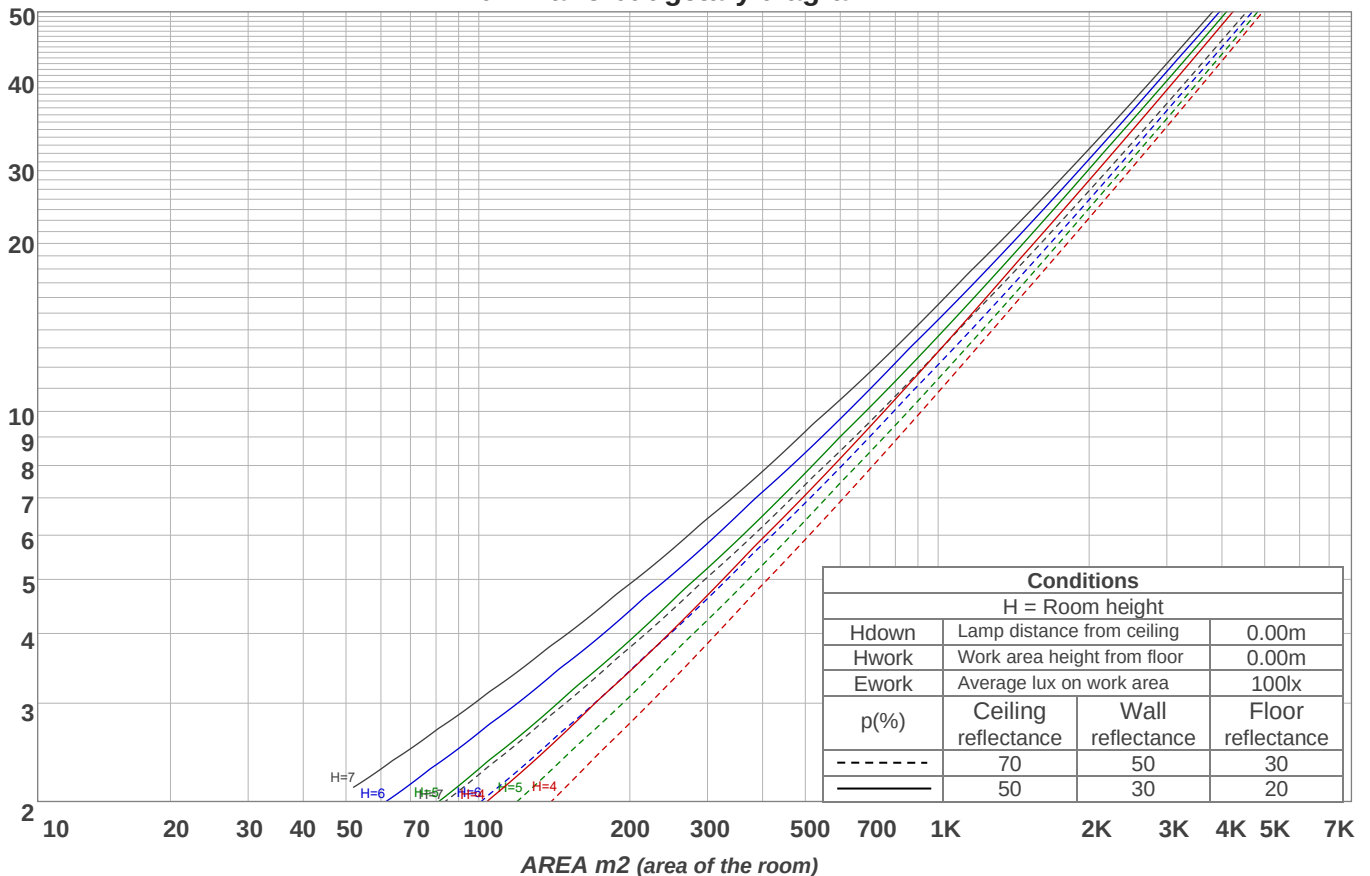
Light Planning

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	110	110	110	105	105	105	100	100	100	98
1	106	100	95	91	103	98	93	89	93	89	86	89	85	83	85	82	80	77
2	94	85	77	70	91	83	75	69	79	72	67	75	70	65	71	67	63	61
3	85	72	63	55	82	71	62	55	67	60	53	64	58	52	61	56	51	48
4	76	63	53	45	74	61	52	45	58	50	44	56	48	43	53	47	42	39
5	70	55	45	37	67	54	44	37	51	43	36	49	42	36	47	40	35	33
6	64	49	39	32	61	48	38	31	46	37	31	44	36	30	42	35	30	28
7	59	44	34	27	57	43	33	27	41	33	27	39	32	26	38	31	26	24
8	54	39	30	24	52	39	30	24	37	29	23	35	28	23	34	28	23	20
9	50	36	27	21	49	35	27	21	34	26	20	32	25	20	31	25	20	18
10	47	33	24	19	46	32	24	18	31	23	18	30	23	18	29	22	18	16

LAMPS (number of lamps)

Luminaire budgetary diagram



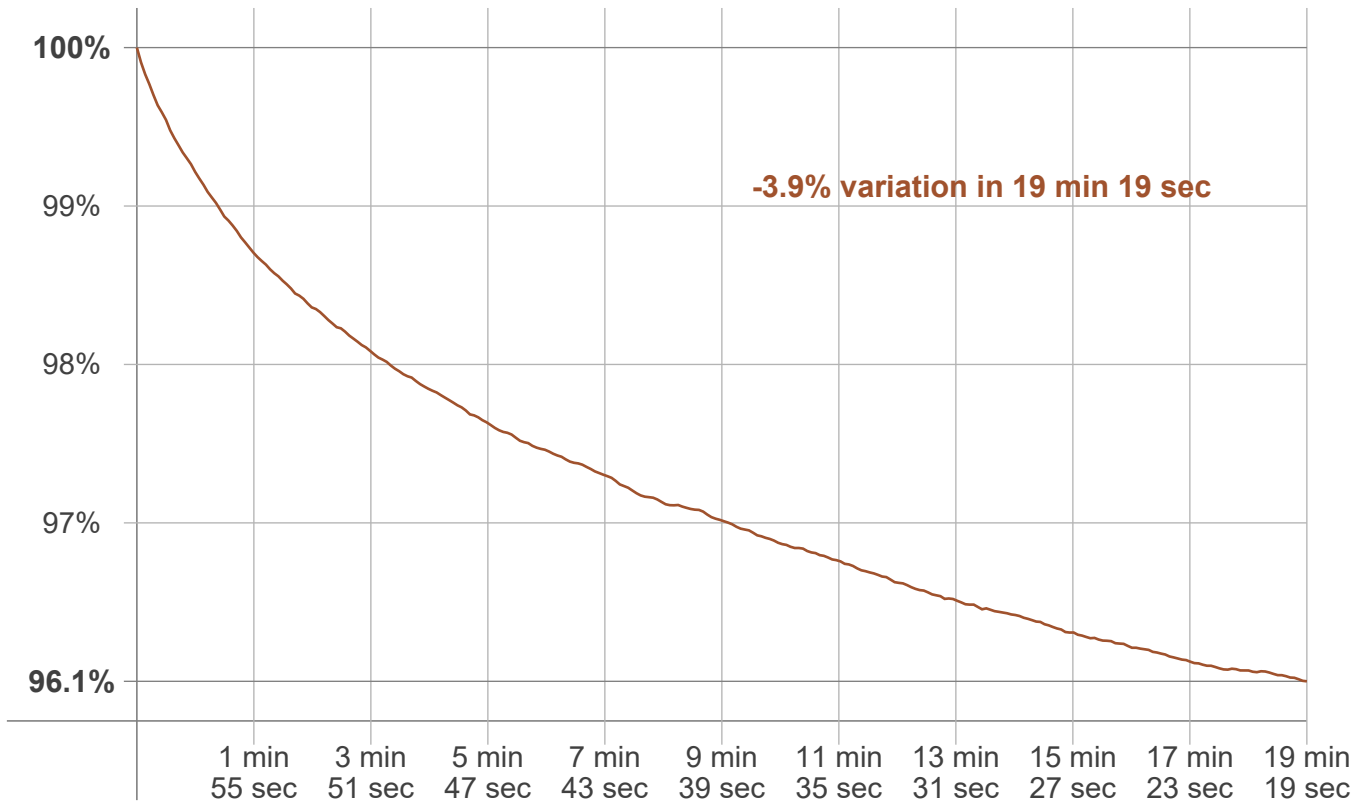
Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
166 lm	585 lm	948 lm	1304 lm	1774 lm	1999 lm	1917 lm	1244 lm	299 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
111 lm	59.3 lm	24.3 lm	9.92 lm	6.76 lm	5.19 lm	3.52 lm	2.09 lm	0.717 lm



Stabilization

Warmup curve



Warmup result

Warmup time:	Lamp stabilized in 19 min 19 sec
Warmup variation	-3.9%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
4973 K	+69 K	5042 K

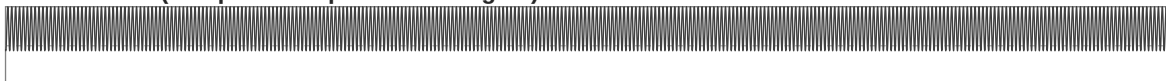
Output change

Output start	Output change	Output end
10856 lm	-396 lm	10459 lm

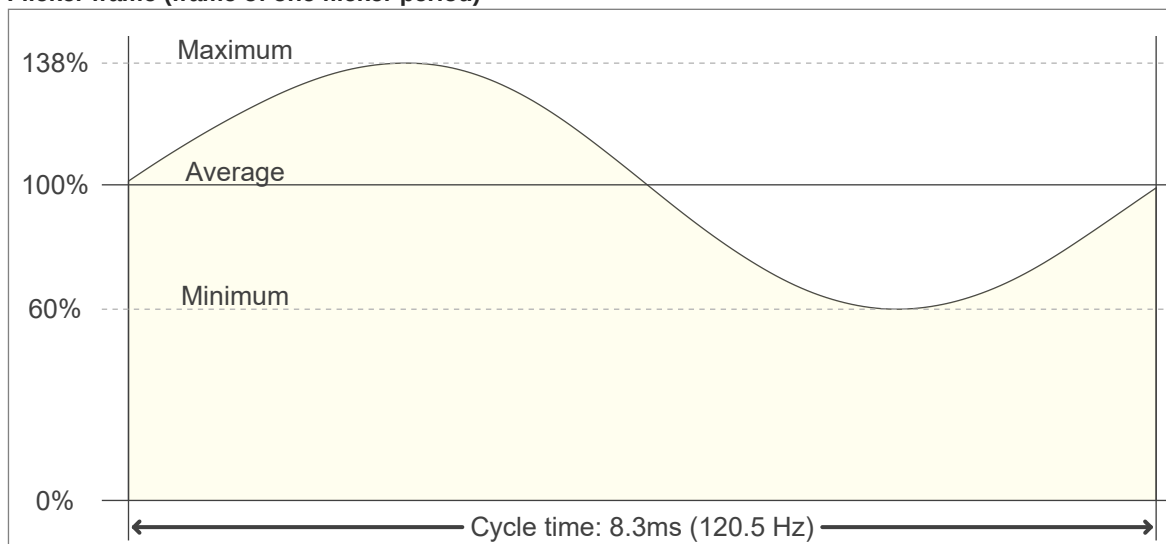


Flicker Specifications

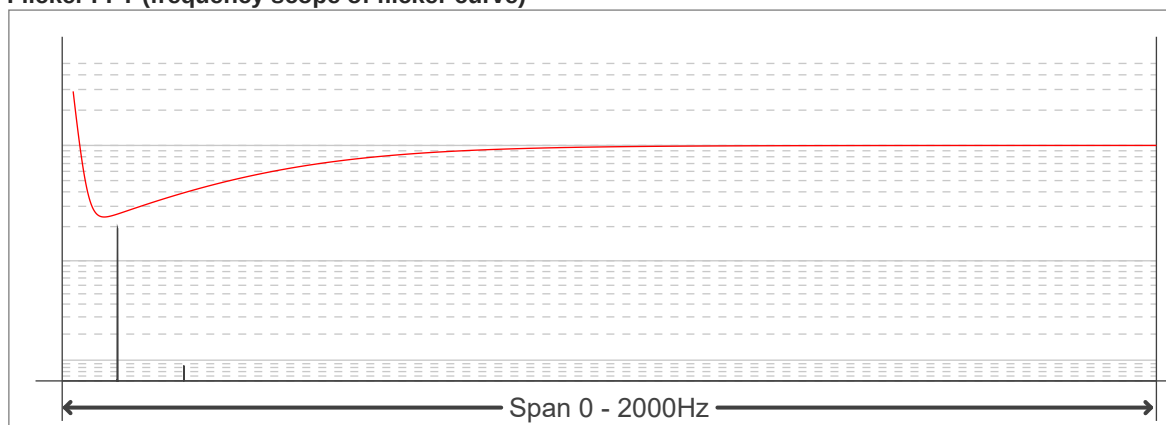
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	120.48 Hz
Flicker index:	0.12
Flicker percentage:	39.26 %
SVM: (Visual flicker)	1.4

Flicker conditions:

Sample rate:	20000 samples/second
--------------	----------------------

