

Light efficiency:

129 Lumen/Watt

Output: 15053 lm

Light quality:

CRI: 84.2

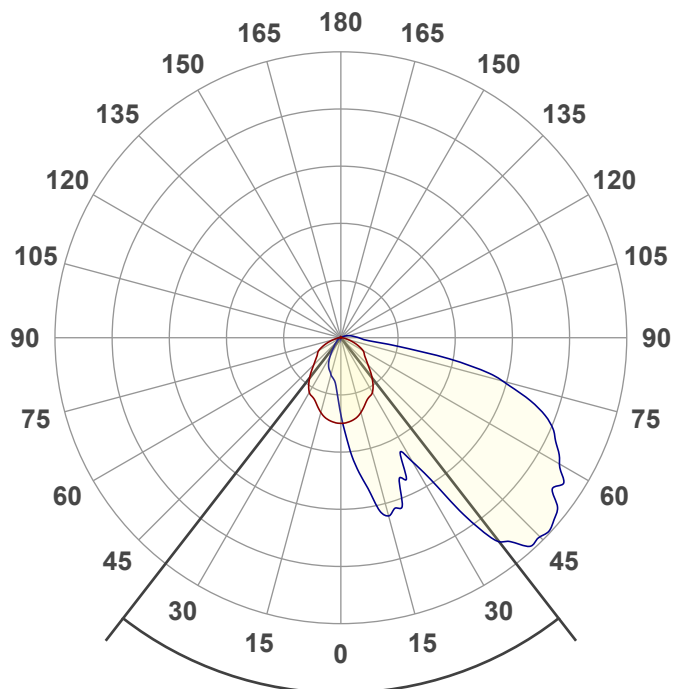
Peak: 9584 cd

Color temperature:

5073 K

Power: 117.1 W

PF: 1.0



Product name:

WPGL-50K120-H (GS)

Date and time:

5/20/2021 10:17:32 AM

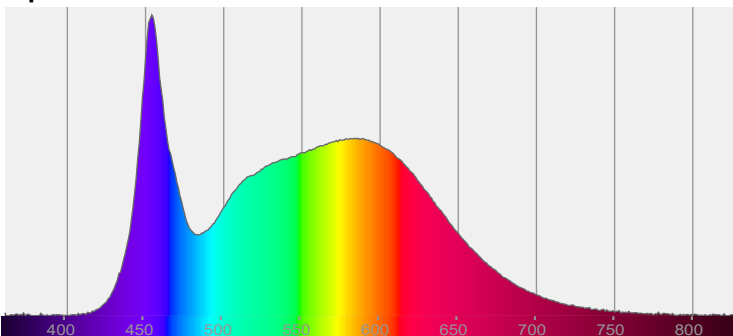


CIE 1931

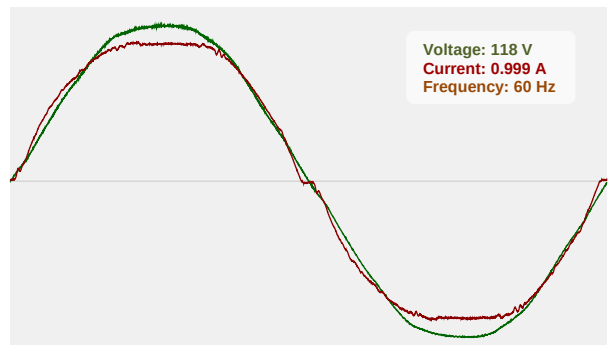
x: 0.344

y: 0.355

Spectra



Power



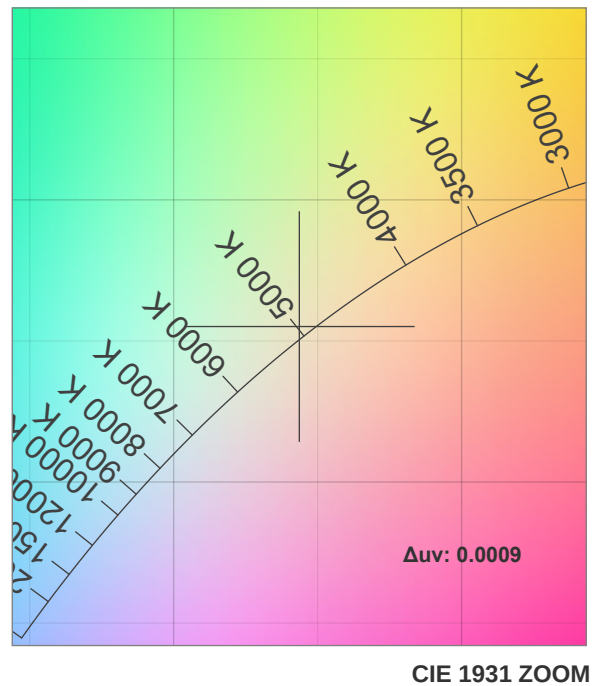
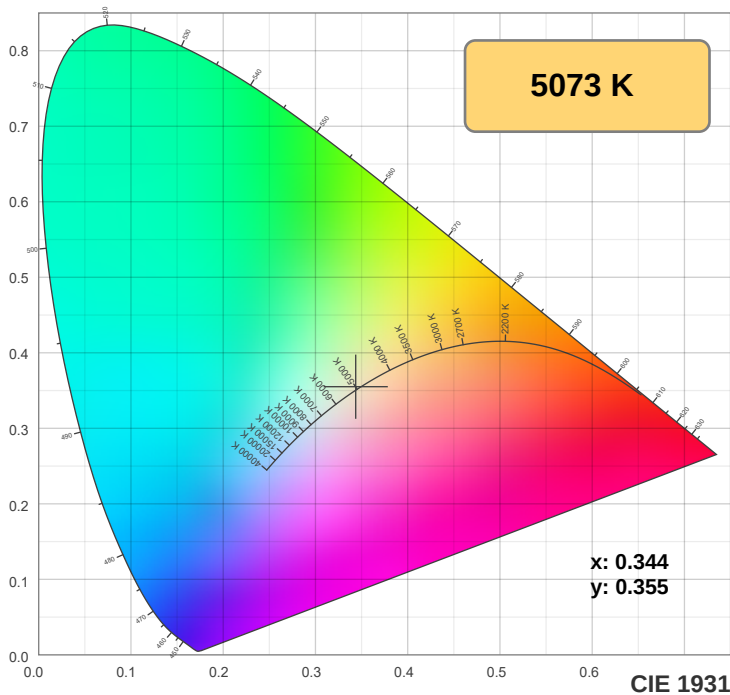
T 314.743.3067

F 314.972.6202

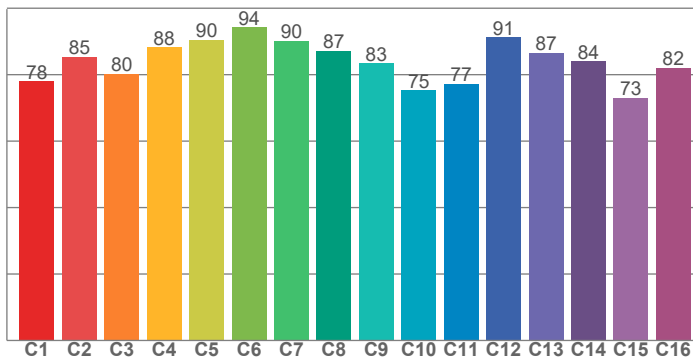
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

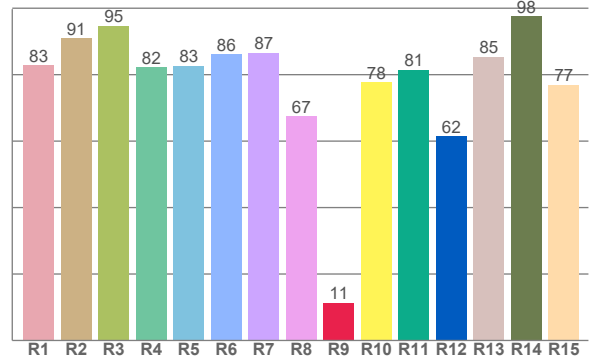
Color Specifications



TM30: 84.0



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
82.8	91.0	94.7	82.2	82.7	86.2	86.6	67.4	11.3	77.7	81.5	61.5	85.5	97.6	76.9

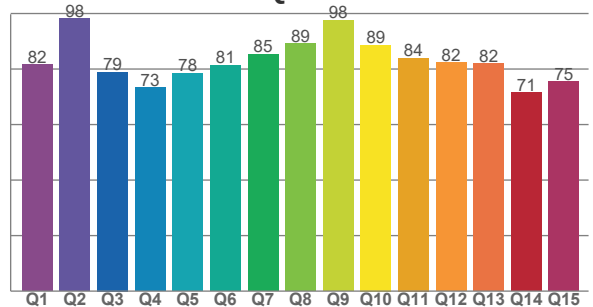
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77.9	85.3	80.3	88.2	90.5	94.2	90.2	87.1	83.5	75.3	77.3	91.2	86.6	84.0	73.0	82.1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
81.6	98.2	78.9	73.3	78.5	81.4	85.3	89.1	97.5	88.7	84.0	82.3	81.9	71.5	75.5

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
5073 K	84.2	11.3	84.0	94.3	81.6	0.344	0.355	0.209	0.324	0.0009



TM30 Report

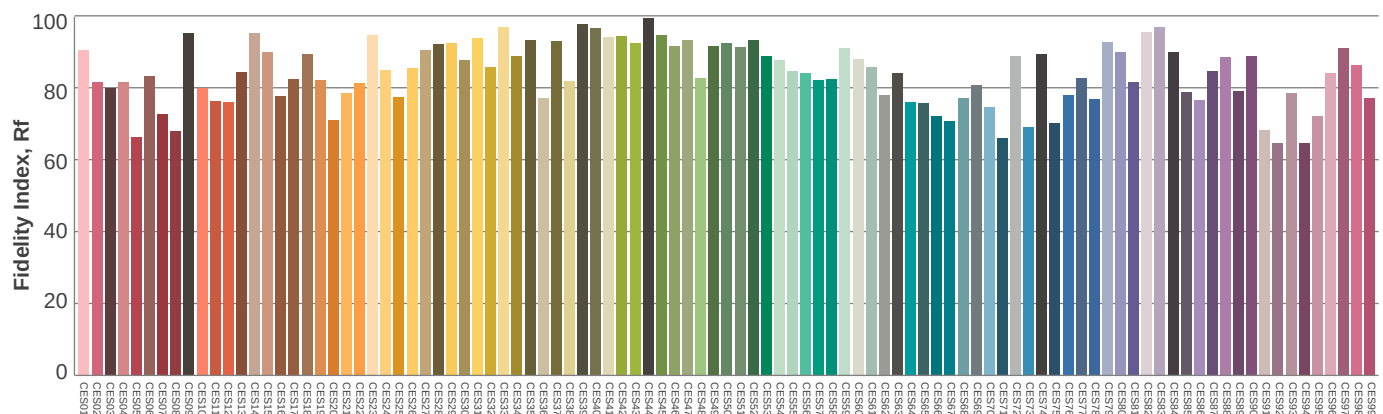
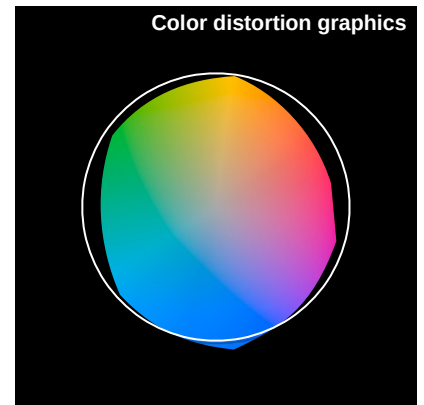
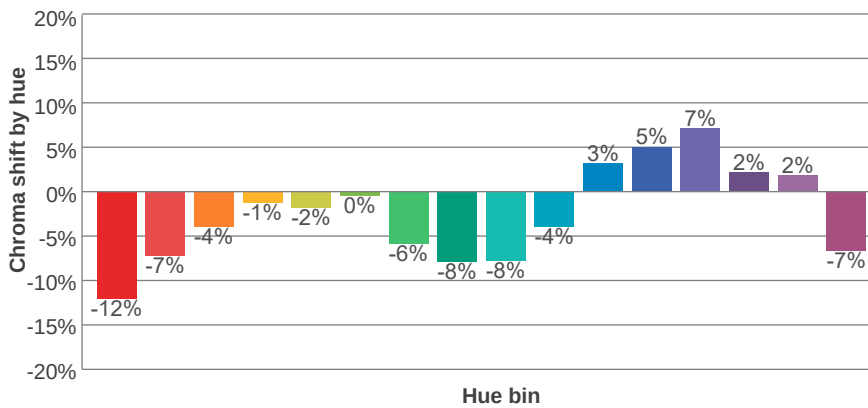
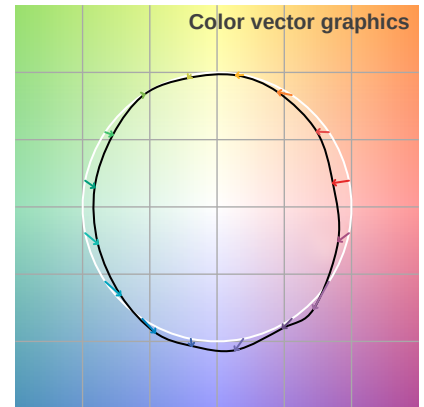
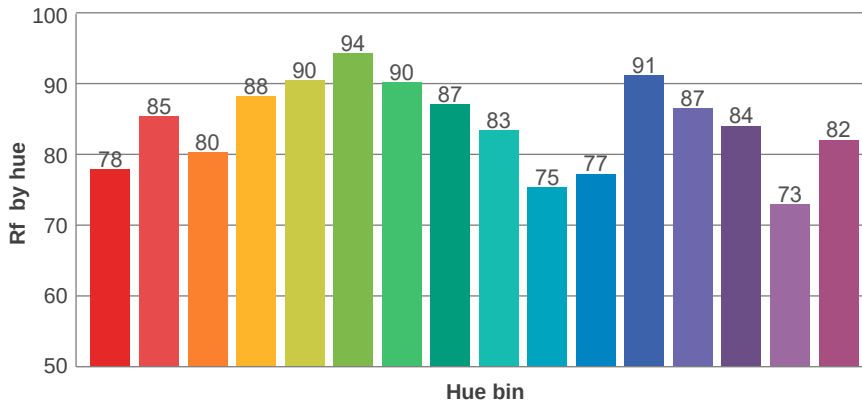
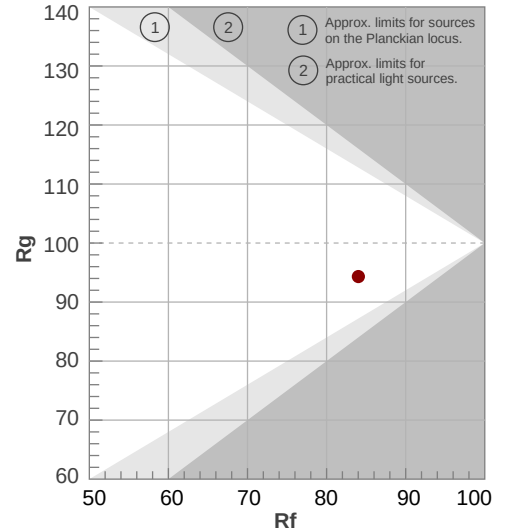
Rf 84.0

Fidelity index Rf

Rg 94.3

Gammut 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%	3%
6	94	0%	-2%
7	90	-6%	-1%
8	87	-8%	3%
9	83	-8%	10%
10	75	-4%	15%
11	77	3%	14%
12	91	5%	2%
13	87	7%	-8%
14	84	2%	-9%
15	73	2%	-23%
16	82	-7%	-7%



Color Evaluation Sample



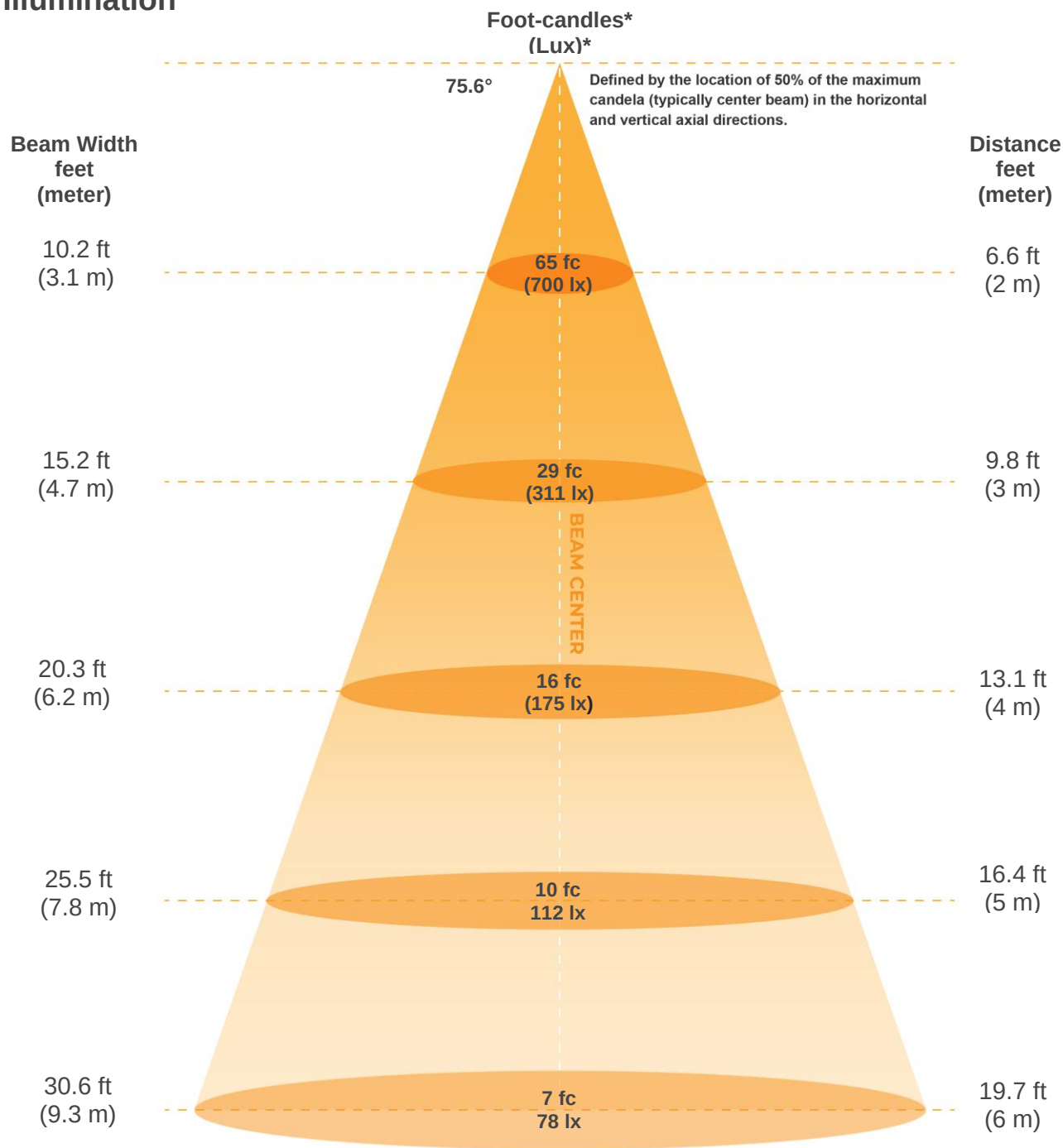
T 314.743.3067

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Illumination



*measured at center of beam

Beam intensities from 1-20m

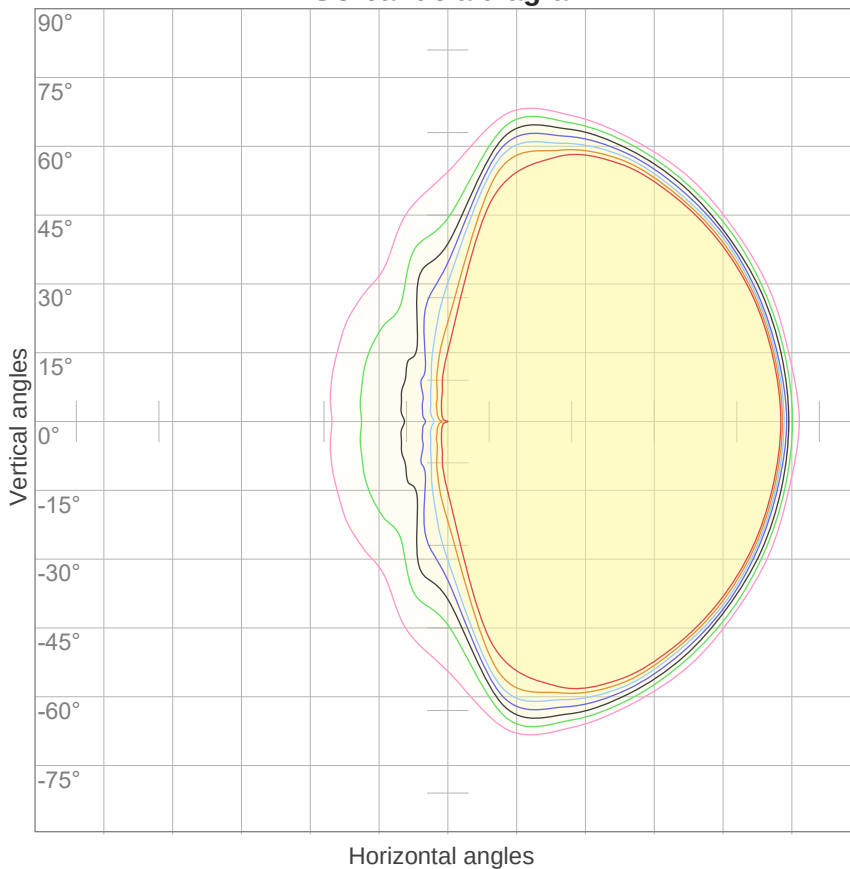
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
2801lx	700lx	311lx	175lx	112lx	78lx	57lx	44lx	35lx	28lx	23lx	19lx	17lx	14lx	12lx	11lx	10lx	9lx	8lx	7lx
260.2fcd	65.1fcd	28.9fcd	16.3fcd	10.4fcd	7.2fcd	5.3fcd	4.1fcd	3.2fcd	2.6fcd	2.2fcd	1.8fcd	1.5fcd	1.3fcd	1.2fcd	1fcd	0.9fcd	0.8fcd	0.7fcd	0.7fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
75.6°	132.8°	166°	64.2%	36.4%



ISO Diagrams

ISO candela diagram



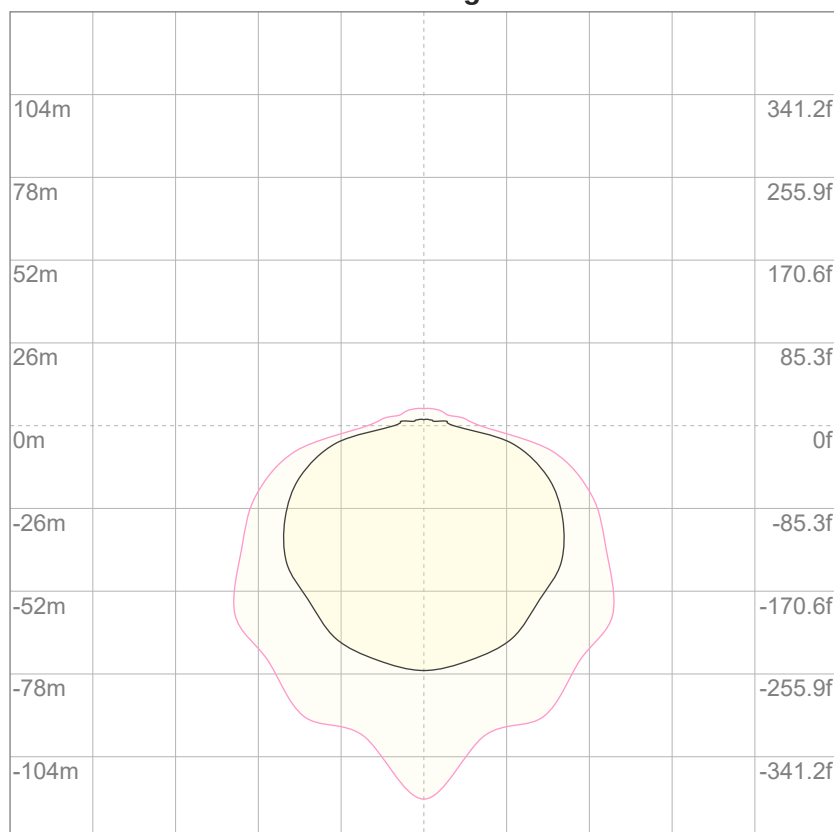
10%	280 cd
20%	560 cd
30%	840 cd
40%	1120 cd
50%	1401 cd
60%	1681 cd
70%	1961 cd
80%	2241 cd
90%	2521 cd

Conditions:

Number of c-planes: 16

Candela at center: 2801 cd

ISO lux diagram



3%	0.840 lx
5%	1.40 lx
10%	2.80 lx
30%	8.40 lx
50%	14.0 lx

Conditions:

Number of c-planes: 16

Lux at center: 28.0 lx

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



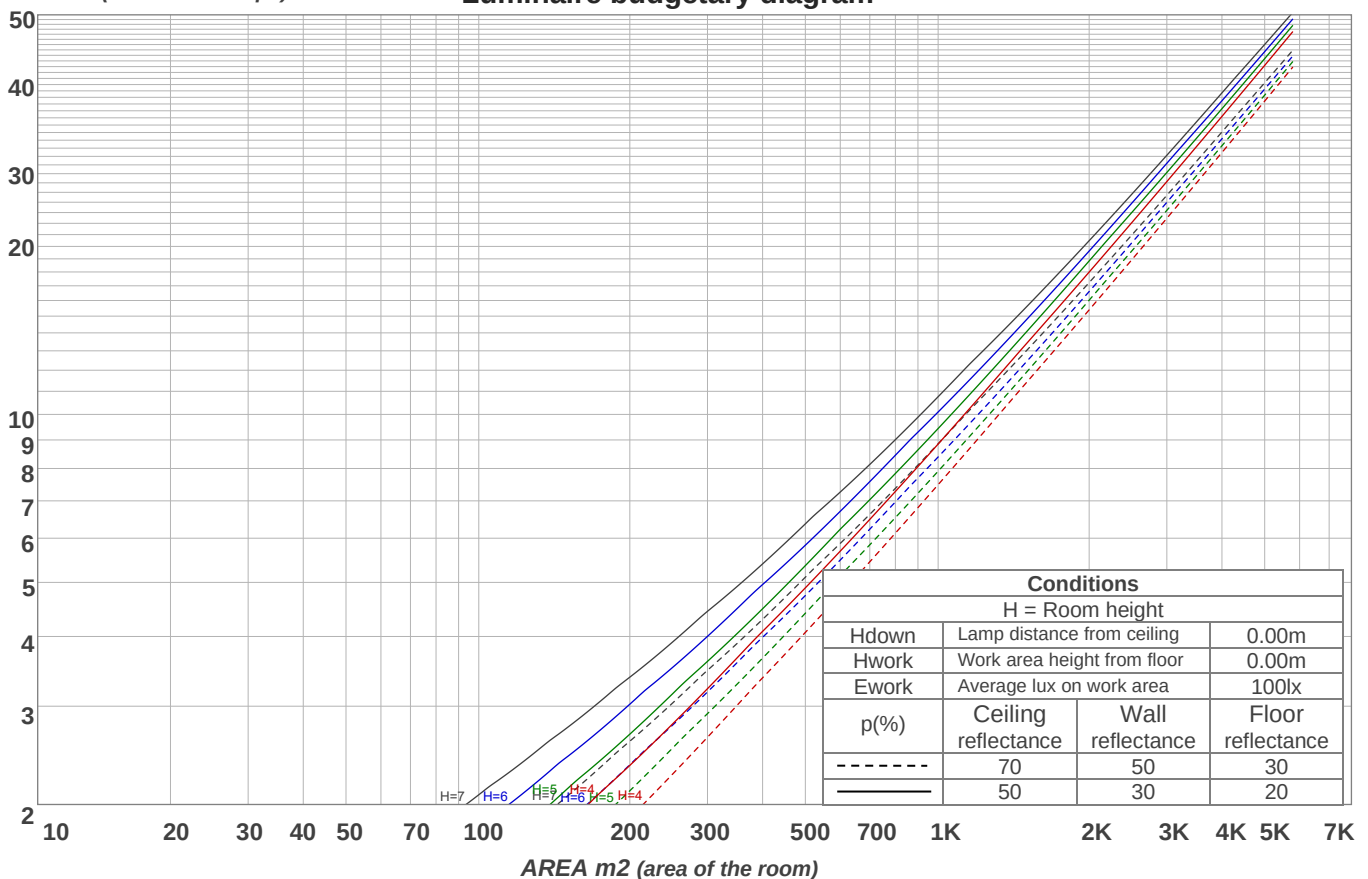
Light Planning

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	86	83	85	82	80	77
2	95	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	34	27	41	33	27	39	32	26	38	31	26	24
8	54	39	30	24	52	39	30	24	37	29	23	36	28	23	34	28	23	21
9	50	36	27	21	49	35	27	21	34	26	21	33	25	20	31	25	20	18
10	47	33	24	19	46	32	24	19	31	24	18	30	23	18	29	23	18	16

LAMPS (number of lamps)

Luminaire budgetary diagram



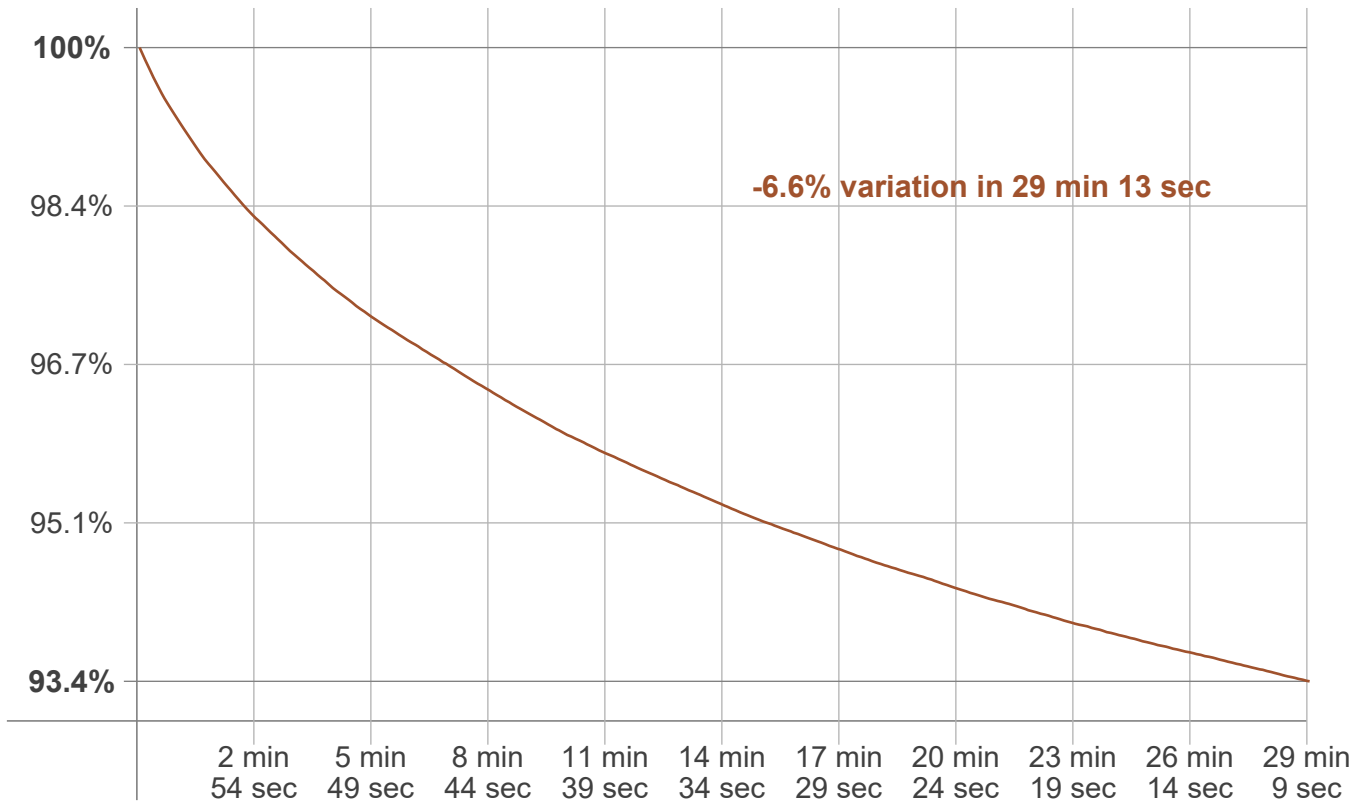
Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
262 lm	894 lm	1344 lm	1807 lm	2512 lm	2850 lm	2918 lm	1744 lm	390 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
161 lm	88.2 lm	36.9 lm	15.1 lm	11.2 lm	8.89 lm	5.57 lm	3.39 lm	1.38 lm



Stabilization

Warmup curve



Warmup result

Warmup time:	Lamp stabilized in 29 min 13 sec
Warmup variation	-6.6%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
4970 K	+103 K	5073 K

Output change

Output start	Output change	Output end
16082 lm	-1029 lm	15053 lm

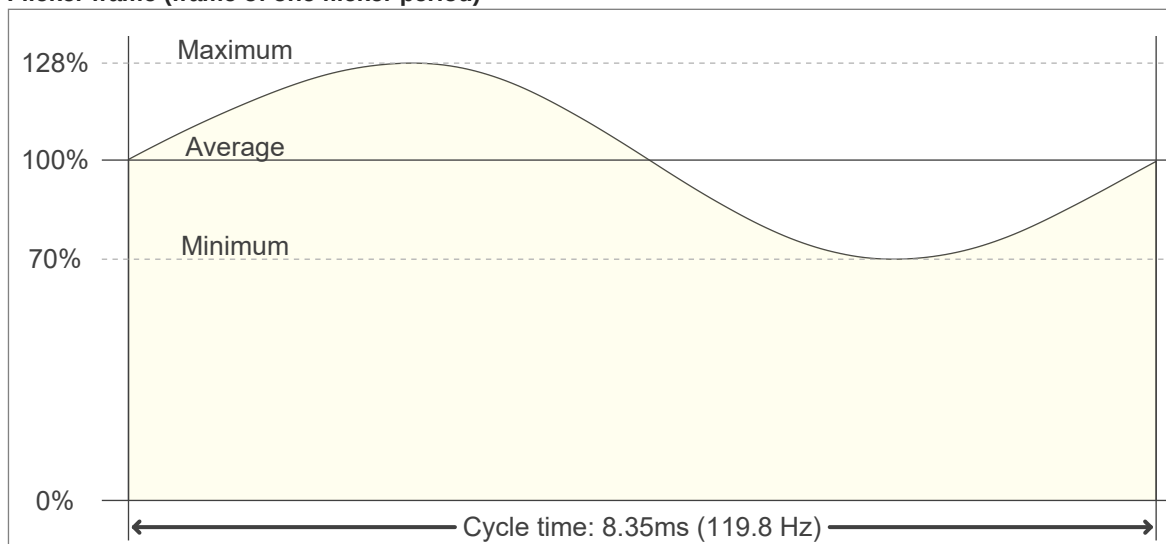


Flicker Specifications

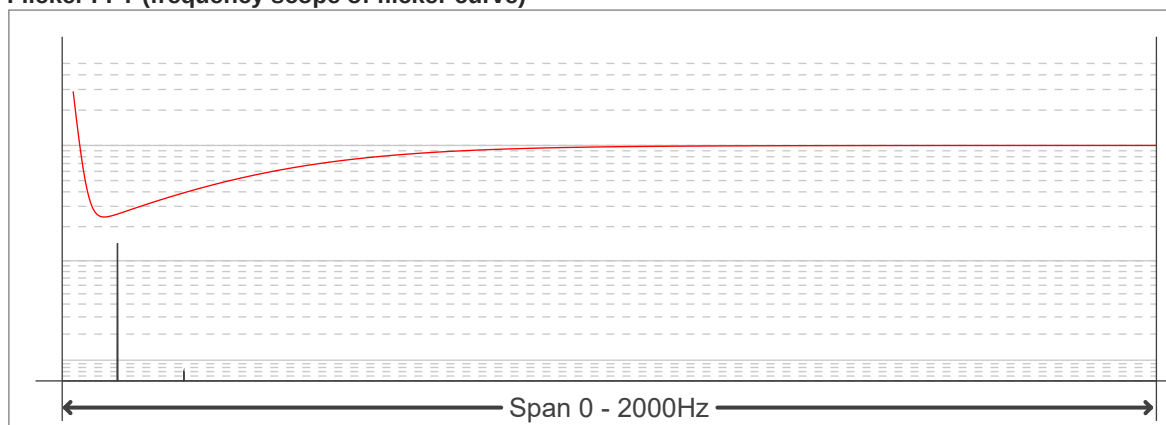
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	119.76 Hz
Flicker index:	0.09
Flicker percentage:	28.97 %
SVM: (Visual flicker)	1.04

Flicker conditions:

Sample rate:	20000 samples/second
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