

Light efficiency:

145 Lumen/Watt

Output: 17683 lm

Light quality:

CRI: 87.2

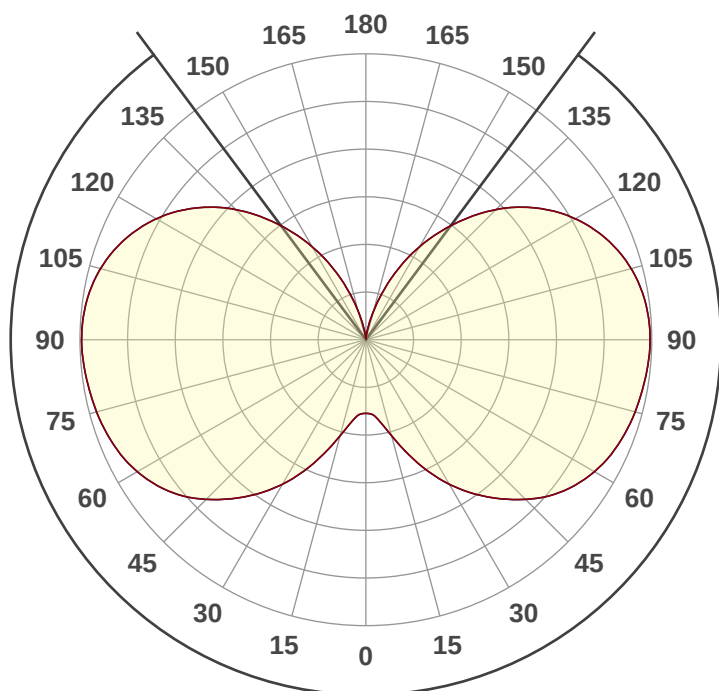
Peak: 1778 cd

Color temperature:

5445 K

Power: 122 W

PF: 1.0



Product name:

CL-50K120-EX39

Date and time:

9/26/2019 10:37:13 AM

Beam angle

286.7°

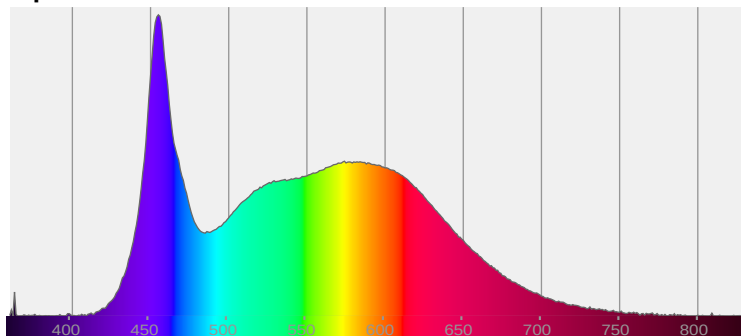


CIE 1931

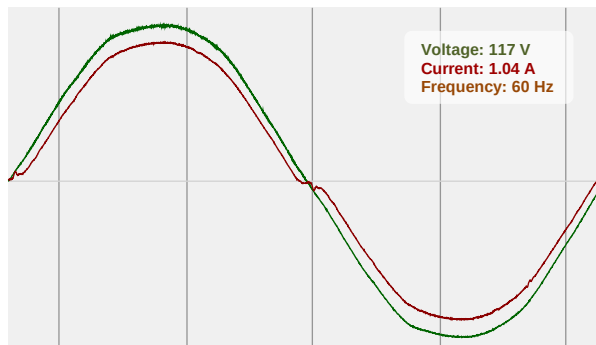
x: 0.334

y: 0.340

Spectra



Power



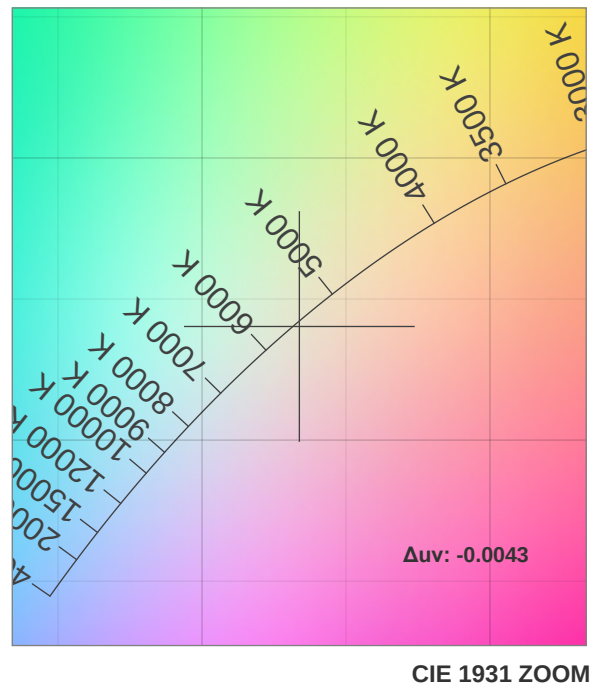
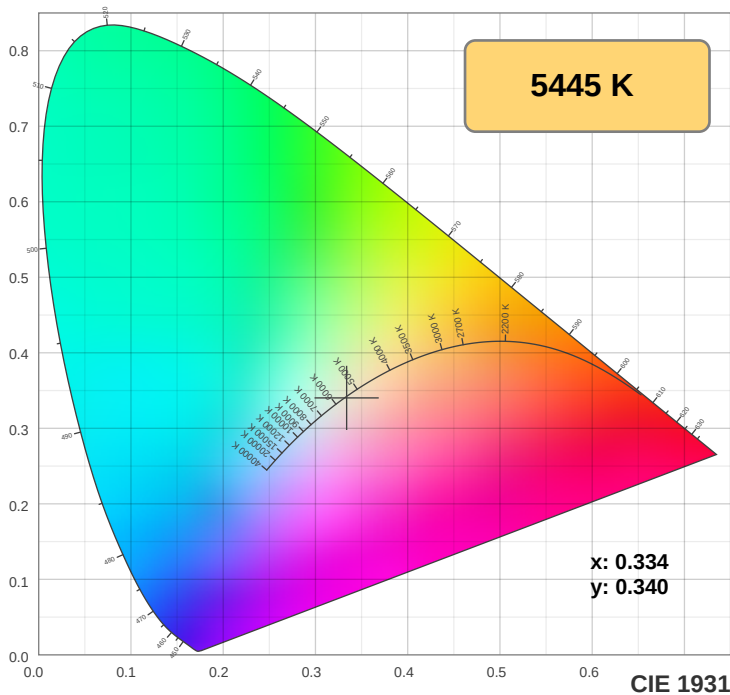
T 314.743.3067

F 314.972.6202

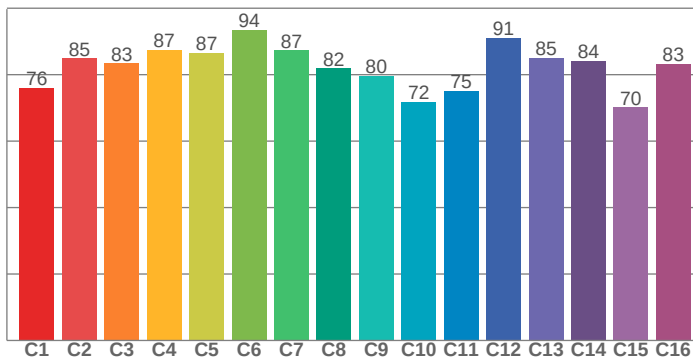
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

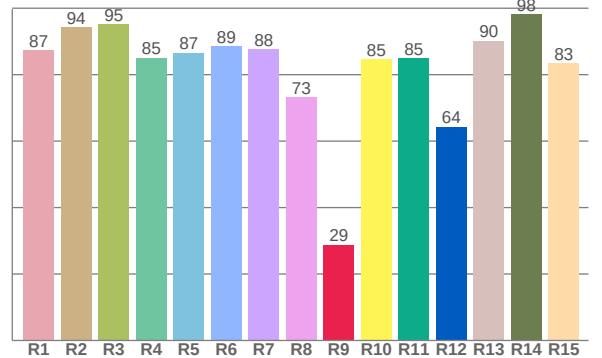
Color Specifications



TM30: 82.6



CRI: 87.2 (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
87.3	94.3	95.2	85.1	86.6	88.6	87.6	73.2	28.9	84.7	84.9	64.3	90.2	98.2	83.5

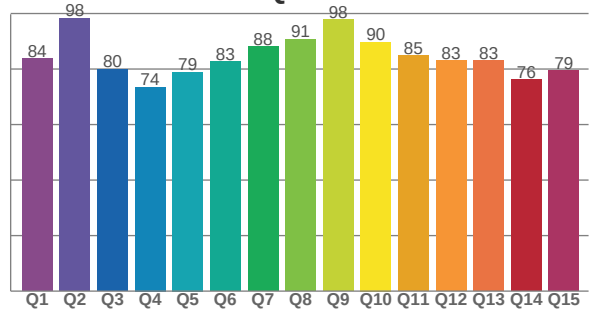
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
76.0	84.9	83.4	87.4	86.6	93.6	87.3	81.9	79.7	71.7	75.1	91.0	85.1	84.1	70.1	83.2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83.8	98.3	80.0	73.6	78.9	82.7	88.1	90.8	97.8	89.8	84.8	82.9	83.0	76.2	79.4

CQS: 83.2



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
5445 K	87.2	28.9	82.6	94.2	83.2	0.334	0.340	0.208	0.318	-0.0043



TM30 Report

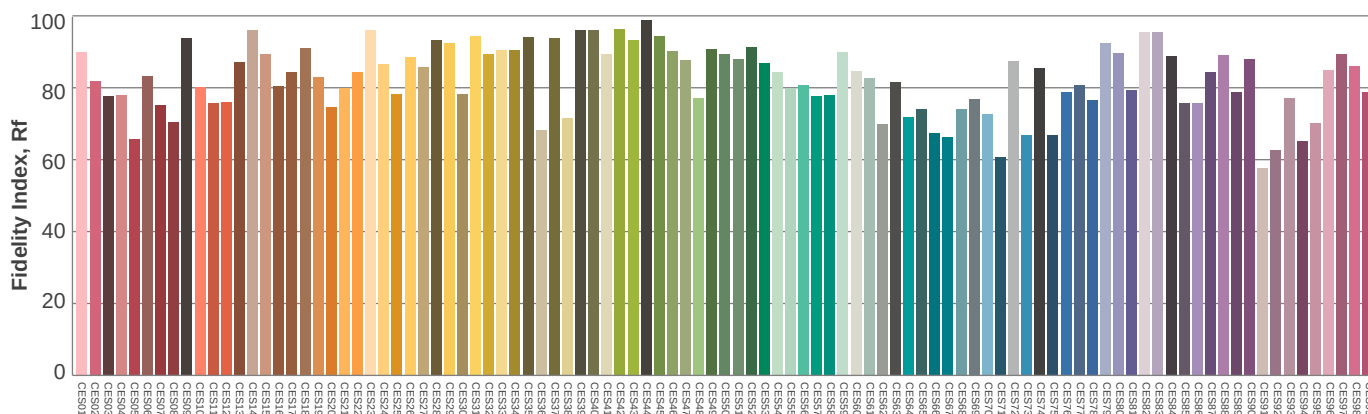
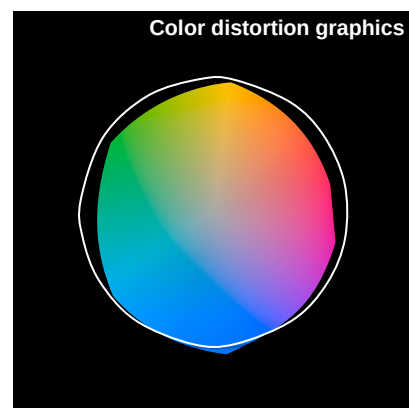
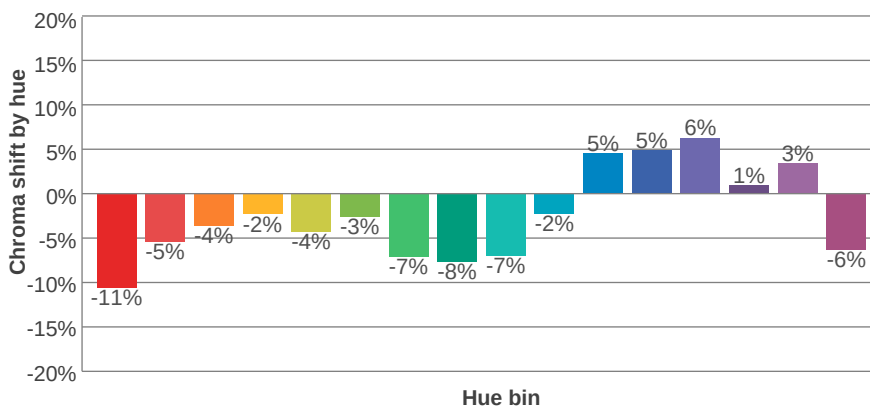
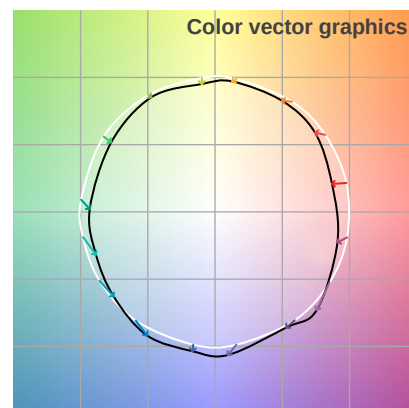
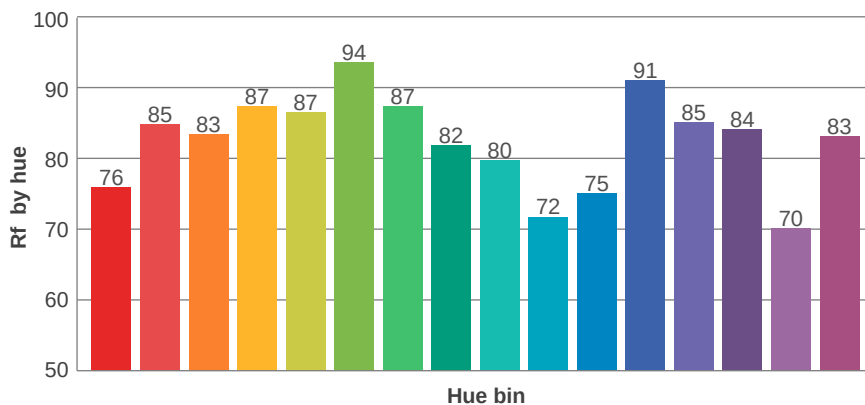
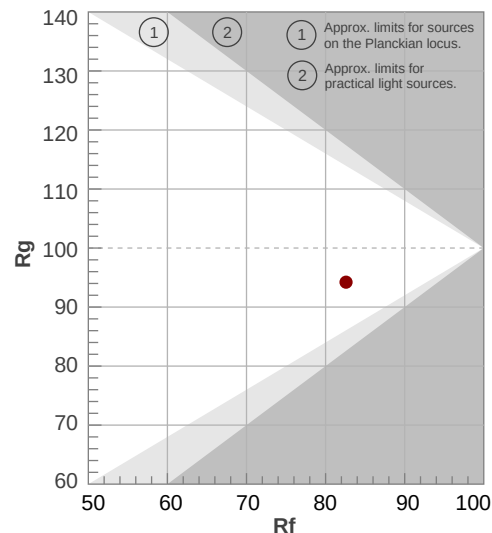
Rf 82.6

Fidelity index Rf

Rg 94.2

Gamut index Rg

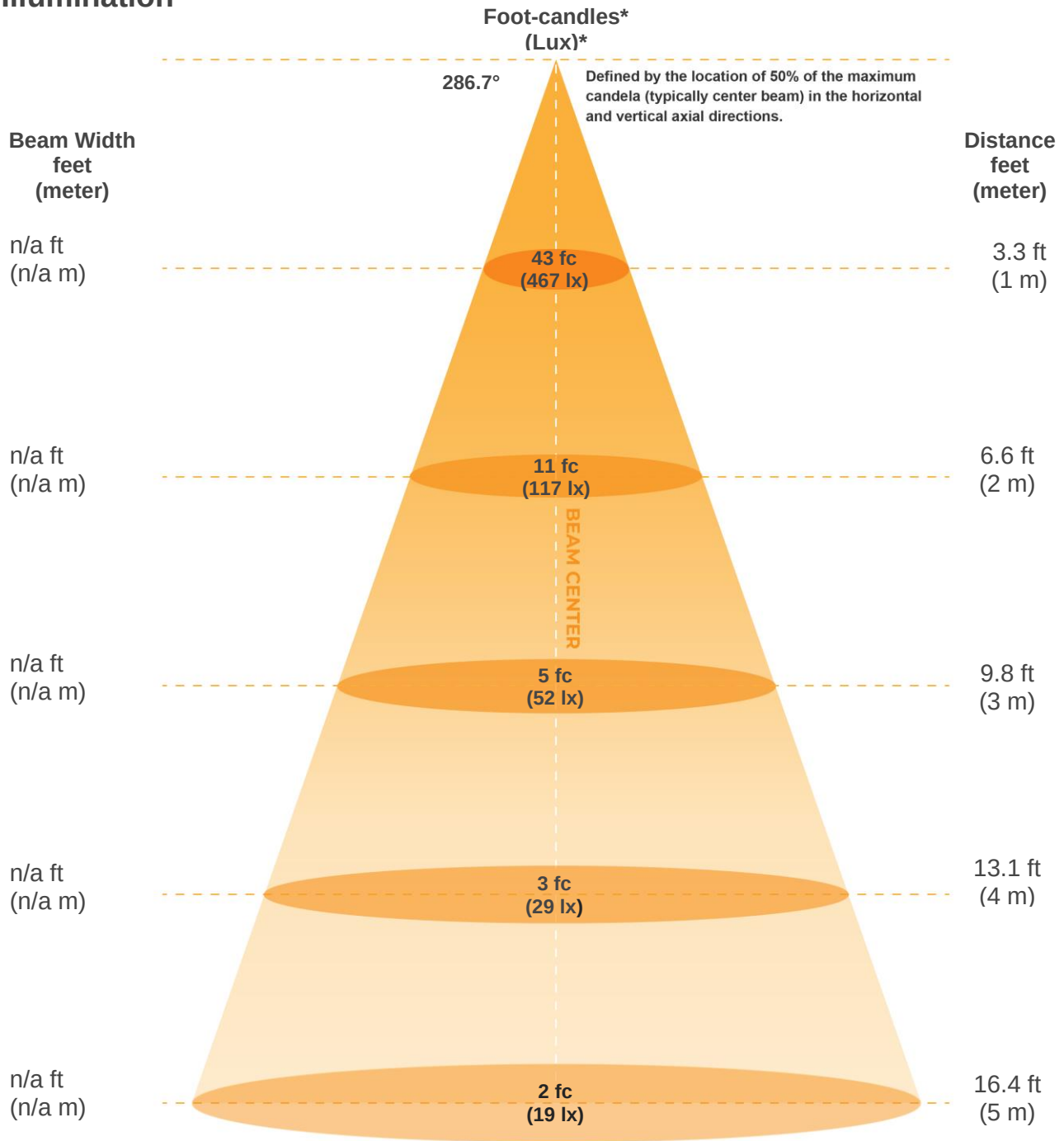
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	76	-11%	1%
2	85	-5%	6%
3	83	-4%	7%
4	87	-2%	3%
5	87	-4%	1%
6	94	-3%	-1%
7	87	-7%	0%
8	82	-8%	6%
9	80	-7%	15%
10	72	-2%	16%
11	75	5%	13%
12	91	5%	0%
13	85	6%	-8%
14	84	1%	-8%
15	70	3%	-22%
16	83	-6%	-5%



Color Evaluation Sample



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
467lx	117lx	52lx	29lx	19lx	13lx	10lx	7lx	6lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx	1lx	1lx
43.4fcd	10.8fcd	4.8fcd	2.7fcd	1.7fcd	1.2fcd	0.9fcd	0.7fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
286.7°	330.5°	343.9°	22.1%	10.7%



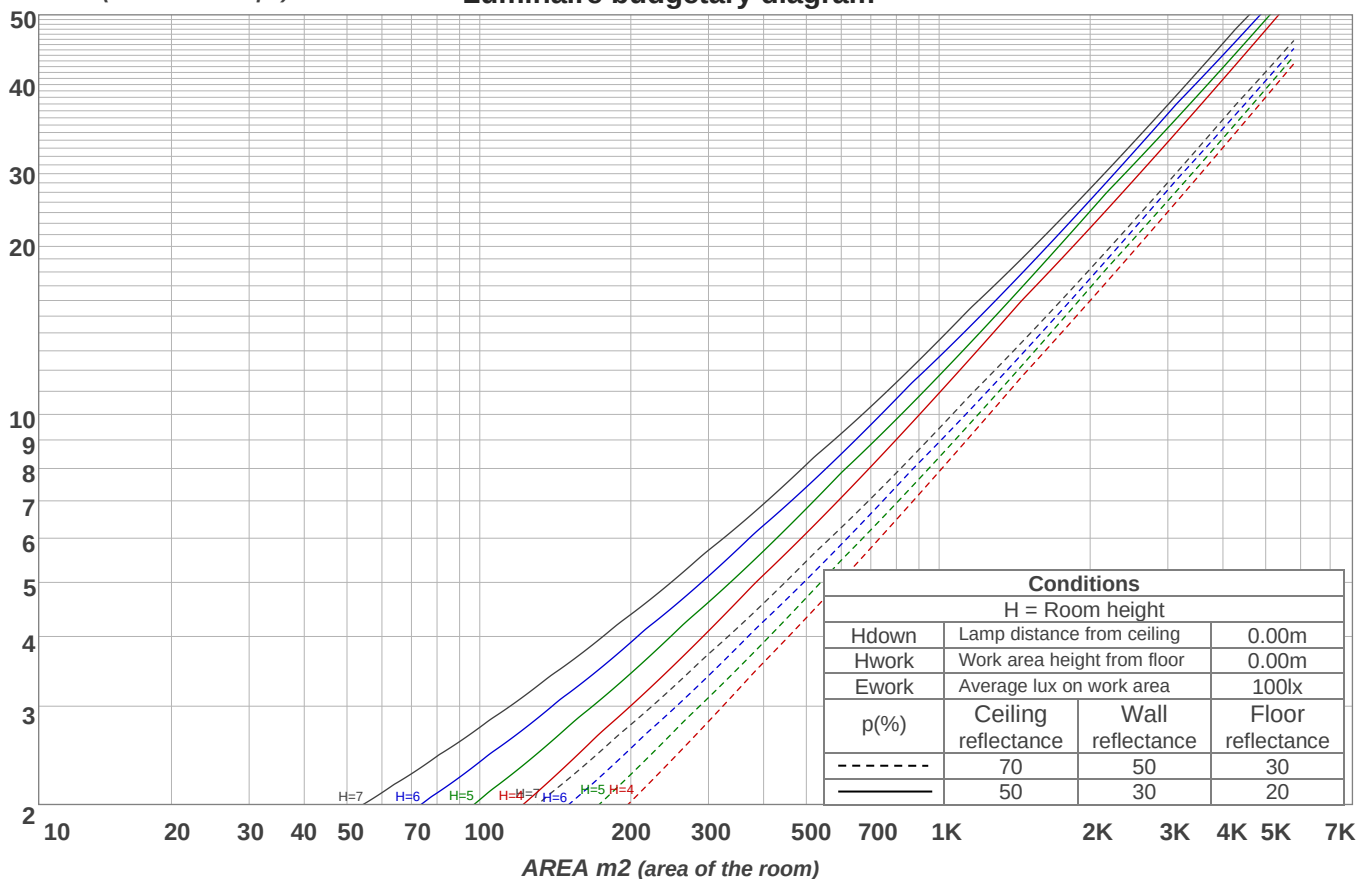
Light Planning

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	108	108	108	108	100	100	100	100	85	85	85	71	71	71	59	59	59	53
1	93	86	80	75	85	79	74	69	66	62	58	54	51	48	43	41	39	33
2	82	72	64	57	75	66	59	52	55	49	44	44	40	36	35	31	28	23
3	74	62	52	45	67	56	48	41	47	40	34	37	32	28	29	25	22	17
4	67	53	44	36	61	49	40	33	40	33	28	32	27	22	25	21	17	13
5	61	47	37	30	55	43	34	27	35	28	23	28	23	18	22	18	14	11
6	55	41	32	25	50	38	29	23	31	24	19	25	20	15	19	15	12	9
7	51	37	28	21	46	34	26	20	28	21	16	23	17	13	17	13	10	7
8	47	33	24	18	43	30	23	17	25	19	14	20	15	11	16	12	8	6
9	44	30	22	16	40	28	20	15	23	17	12	19	13	10	14	10	7	5
10	41	27	19	14	37	25	18	13	21	15	11	17	12	9	13	9	6	4

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°
46.9 lm	182 lm	421 lm	741 lm	1094 lm	1426 lm	1679 lm	1844 lm	1932 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
1932 lm	1816 lm	1585 lm	1265 lm	893 lm	529 lm	237 lm	56.0 lm	3.34 lm

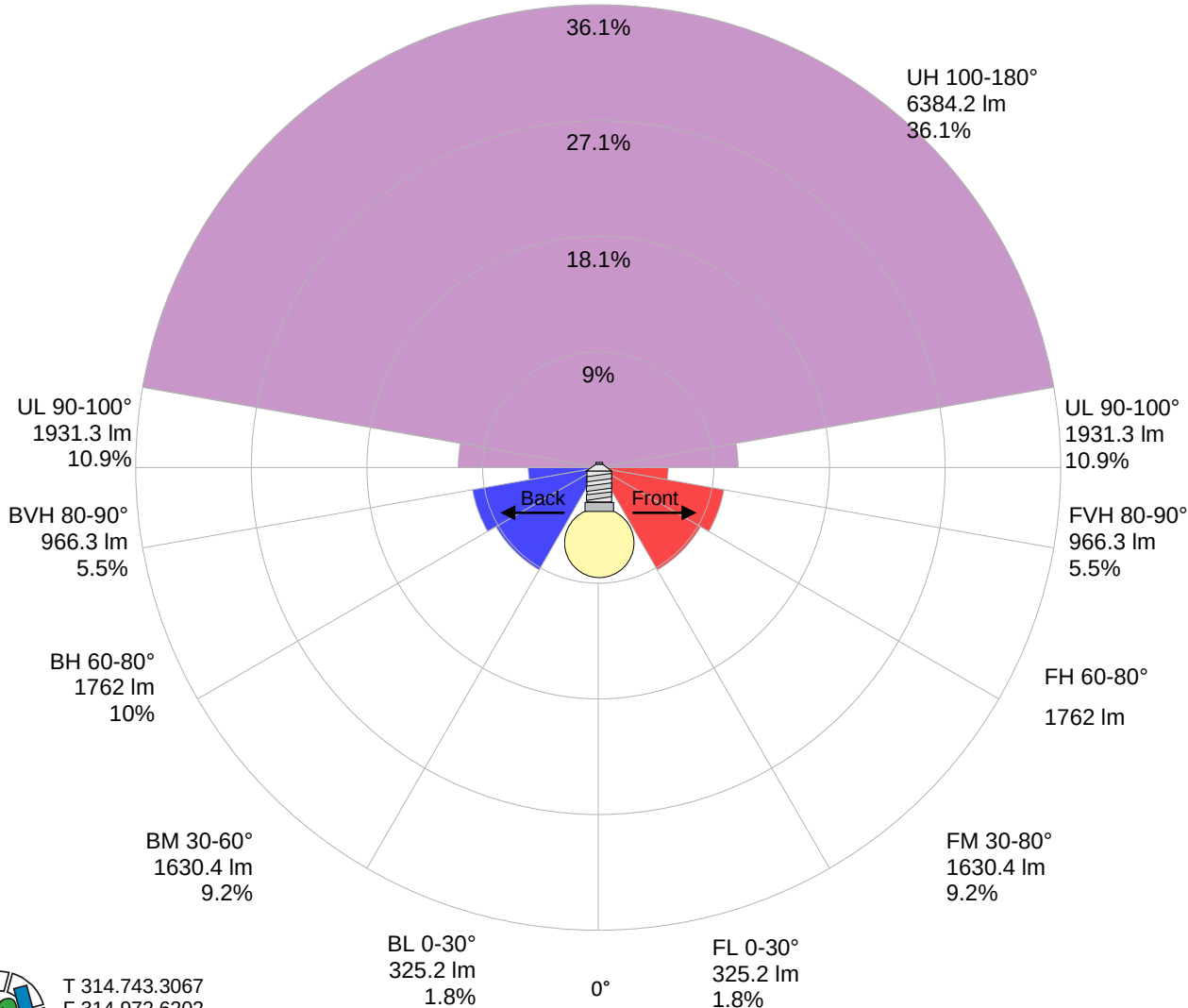


Road Report

LCS table

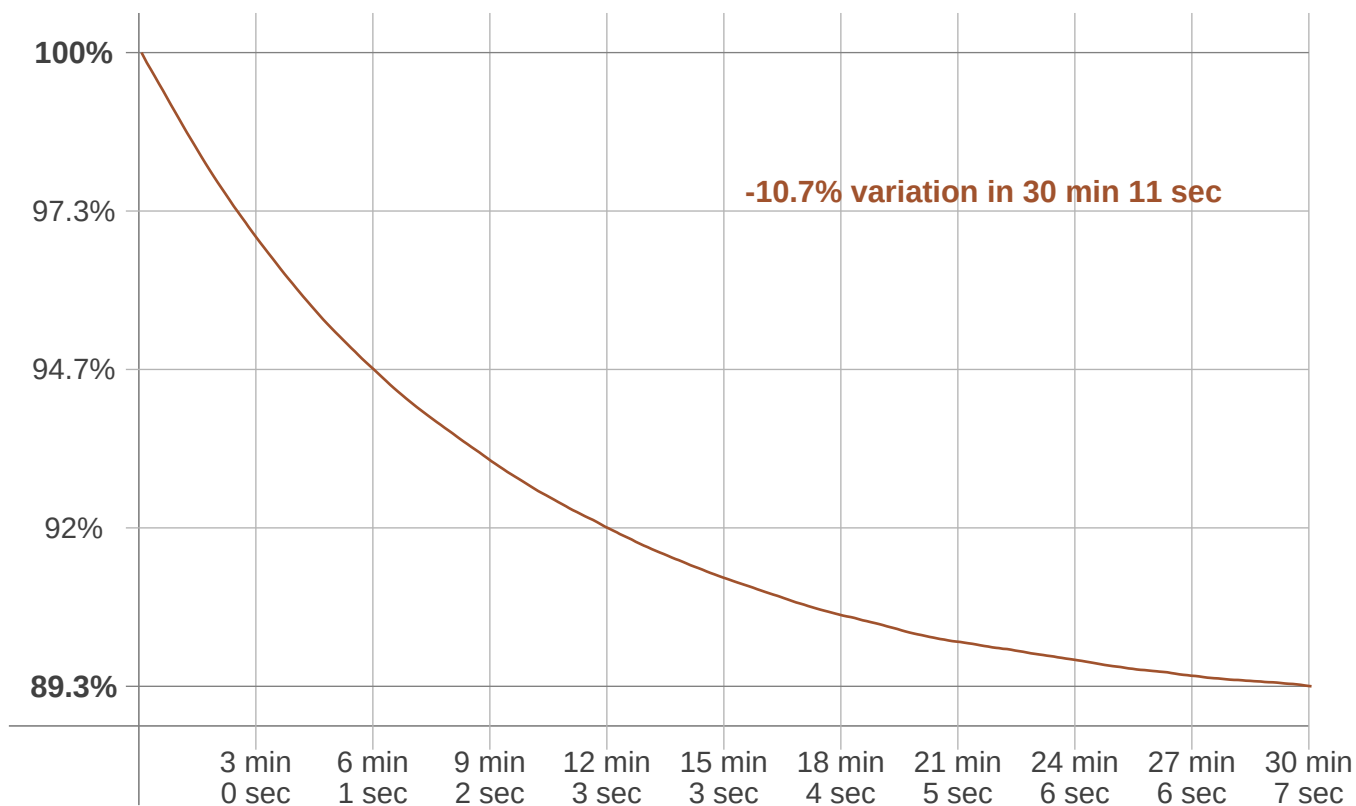
BUG rating:	B3 U5 G5	
Forward light	Lumens	Lumens %
Low(0-30):	325.2	1.8%
Medium(30-60):	1630.4	9.2%
High(60-80):	1762	10%
Very high(80-90):	966.3	5.5%
Back light		
Low(0-30):	325.2	1.8%
Medium(30-60):	1630.4	9.2%
High(60-80):	1762	10%
Very high(80-90):	966.3	5.5%
Uplight		
Low(90-100):	1931.3	10.9%
High(100-180):	6384.2	36.1%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	30 min 11 sec
Warmup variation	-10.8%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5259 K	+186 K	5445 K

Output change

Output start	Output change	Output end
19617 lm	-1934 lm	17683 lm

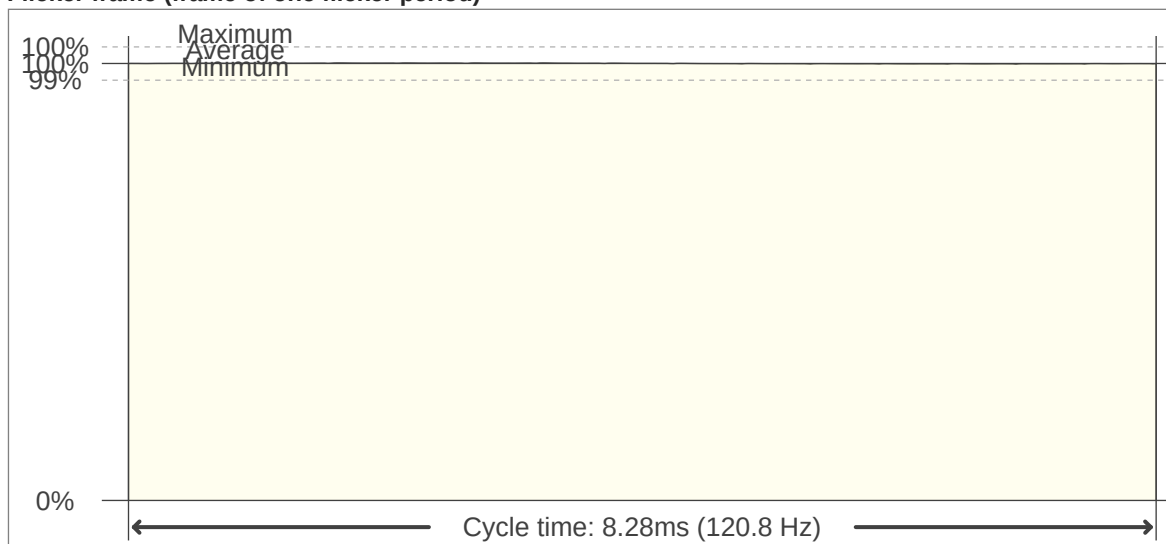


Flicker

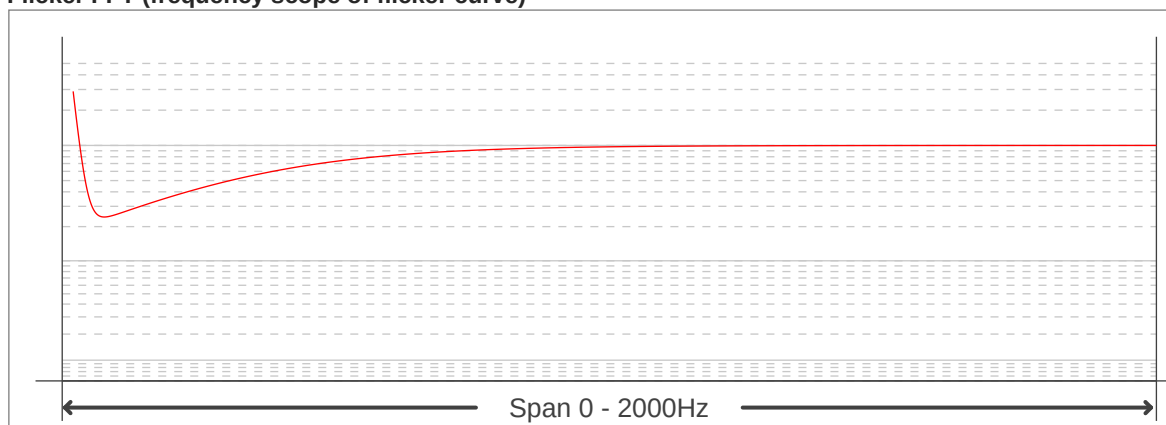
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	120.85 Hz
Flicker index:	0
Flicker percentage:	0.19 %
SVM: (Visual flicker)	0

Flicker conditions:

Sample rate:	40000 samples/second
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