

Light efficiency:

133 Lumen/Watt

Light quality:

CRI: 86.1

Color temperature:

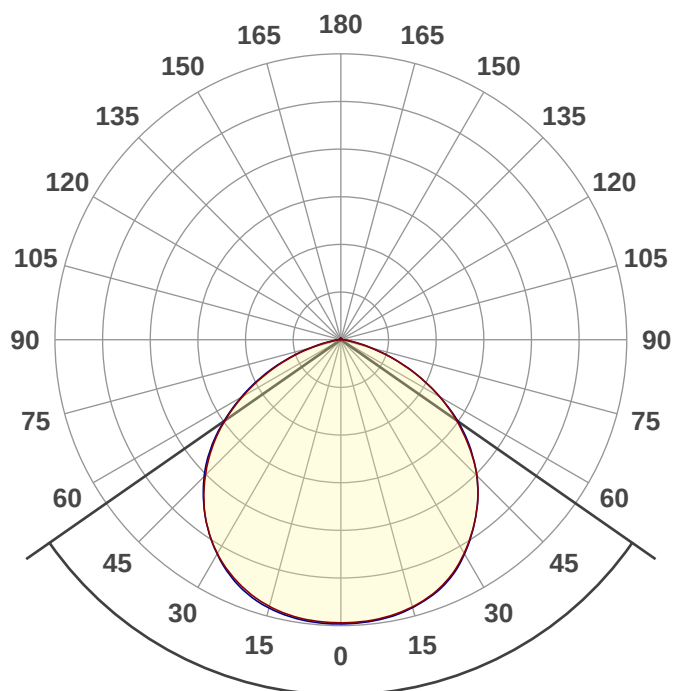
5266 K

Output: 11997 lm

Peak: 4388 cd

Power: 90.4 W

PF: 1.0



Beam angle **110.2°**

Product name:

ACL-50K90W-EX39

Date and time:

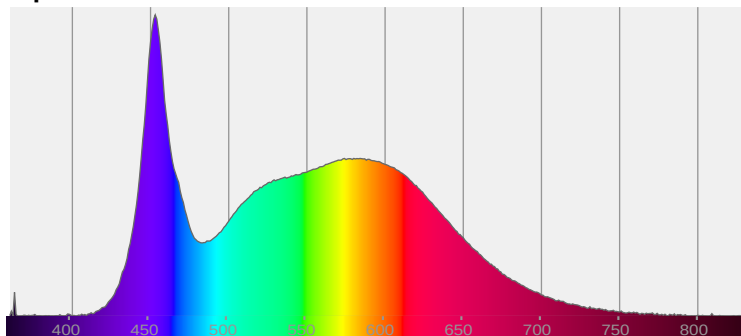
7/24/2019 3:44:25 PM

CIE 1931

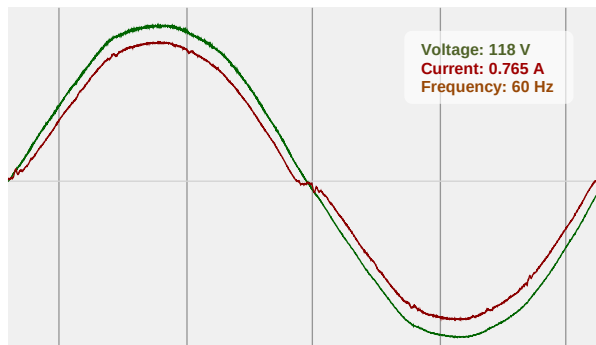
x: 0.338

y: 0.342

Spectra



Power



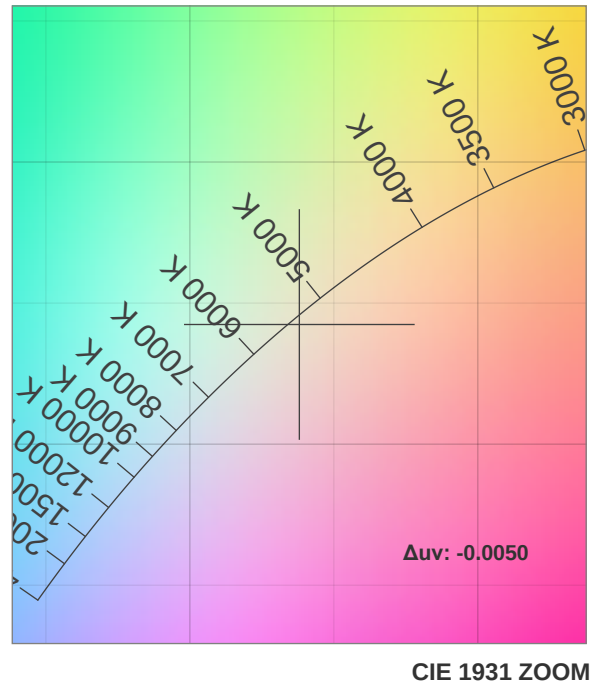
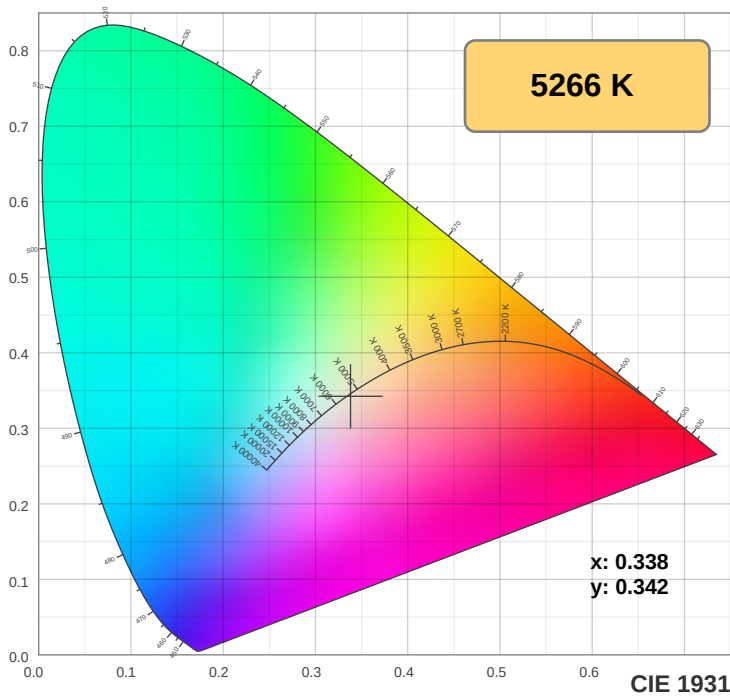
T 314.743.3067

F 314.972.6202

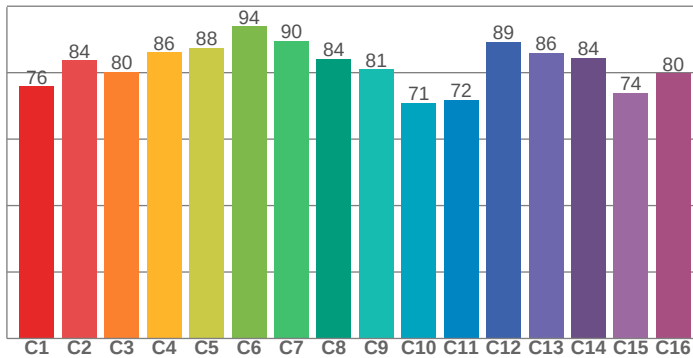
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

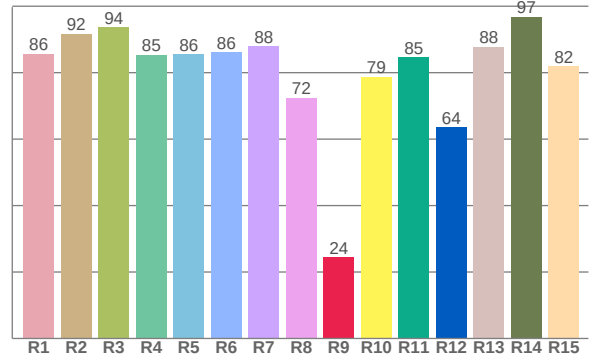
Color Specifications



TM30: 82.2



CRI: 86.1 (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
85.7	91.8	93.6	85.4	85.5	86.1	87.9	72.5	24.5	78.8	84.7	63.6	87.8	96.8	81.9

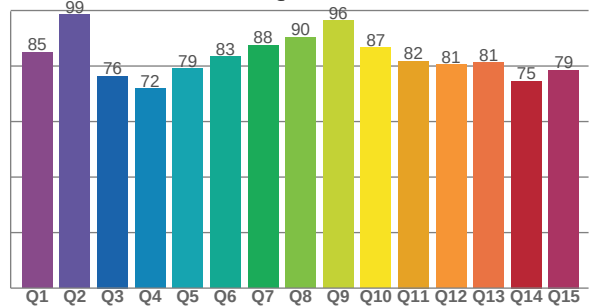
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
75.9	83.7	80.2	86.1	87.5	93.9	89.6	84.2	81.0	71.0	71.9	89.3	86.0	84.4	73.9	79.8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
85.0	98.5	76.4	71.9	79.0	83.4	87.5	90.3	96.4	86.5	81.8	80.6	81.3	74.6	78.6

CQS: 81.9



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
5266 K	86.1	24.5	82.2	95.2	81.9	0.338	0.342	0.210	0.319	-0.0050



TM30 Report

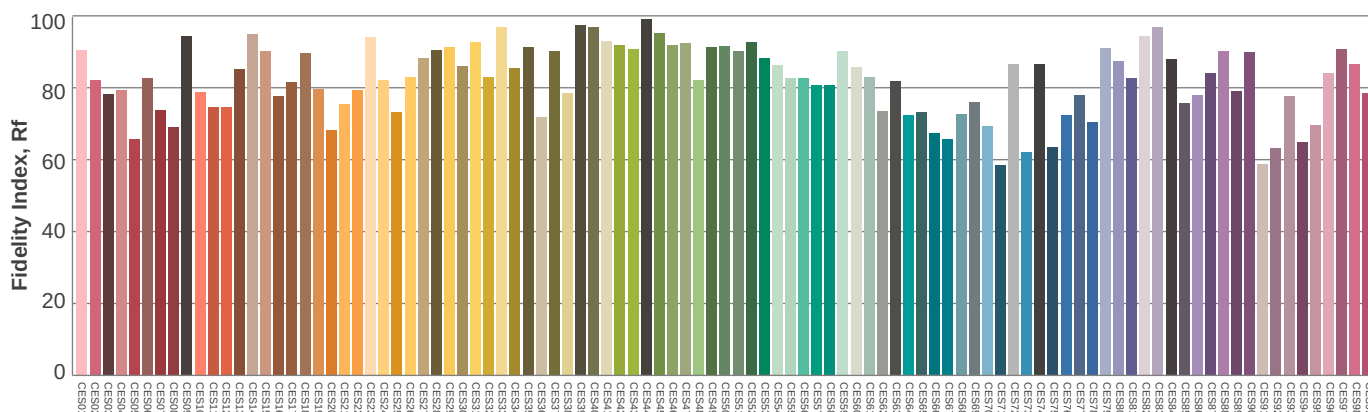
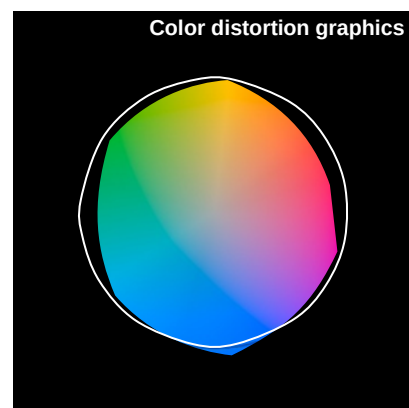
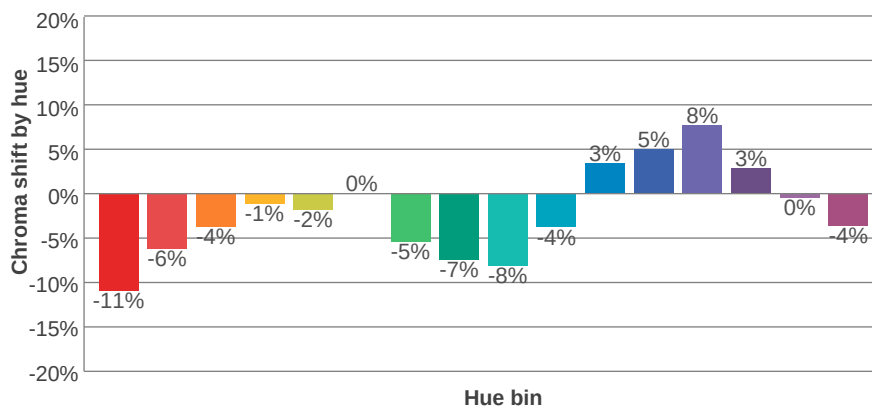
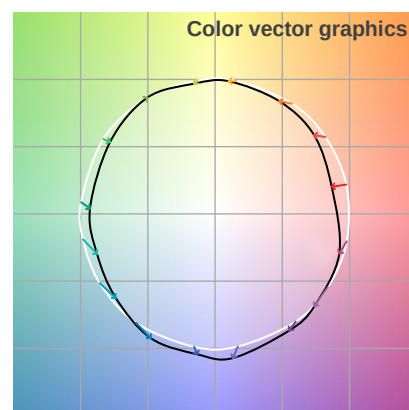
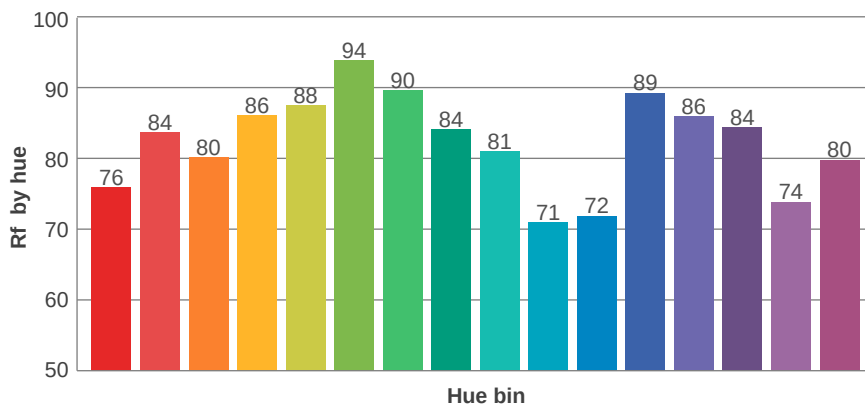
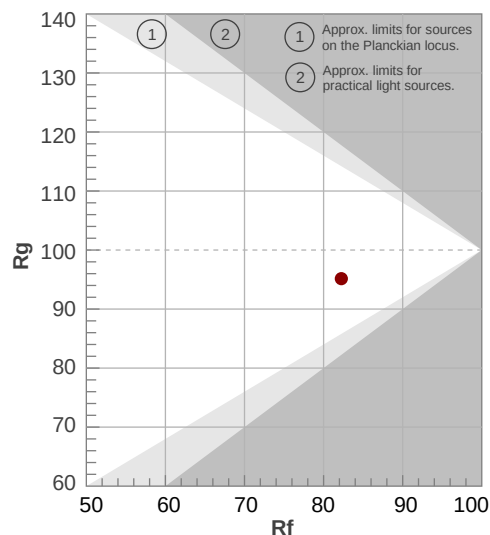
Rf 82.2

Fidelity index Rf

Rg 95.2

Gammut index Rg

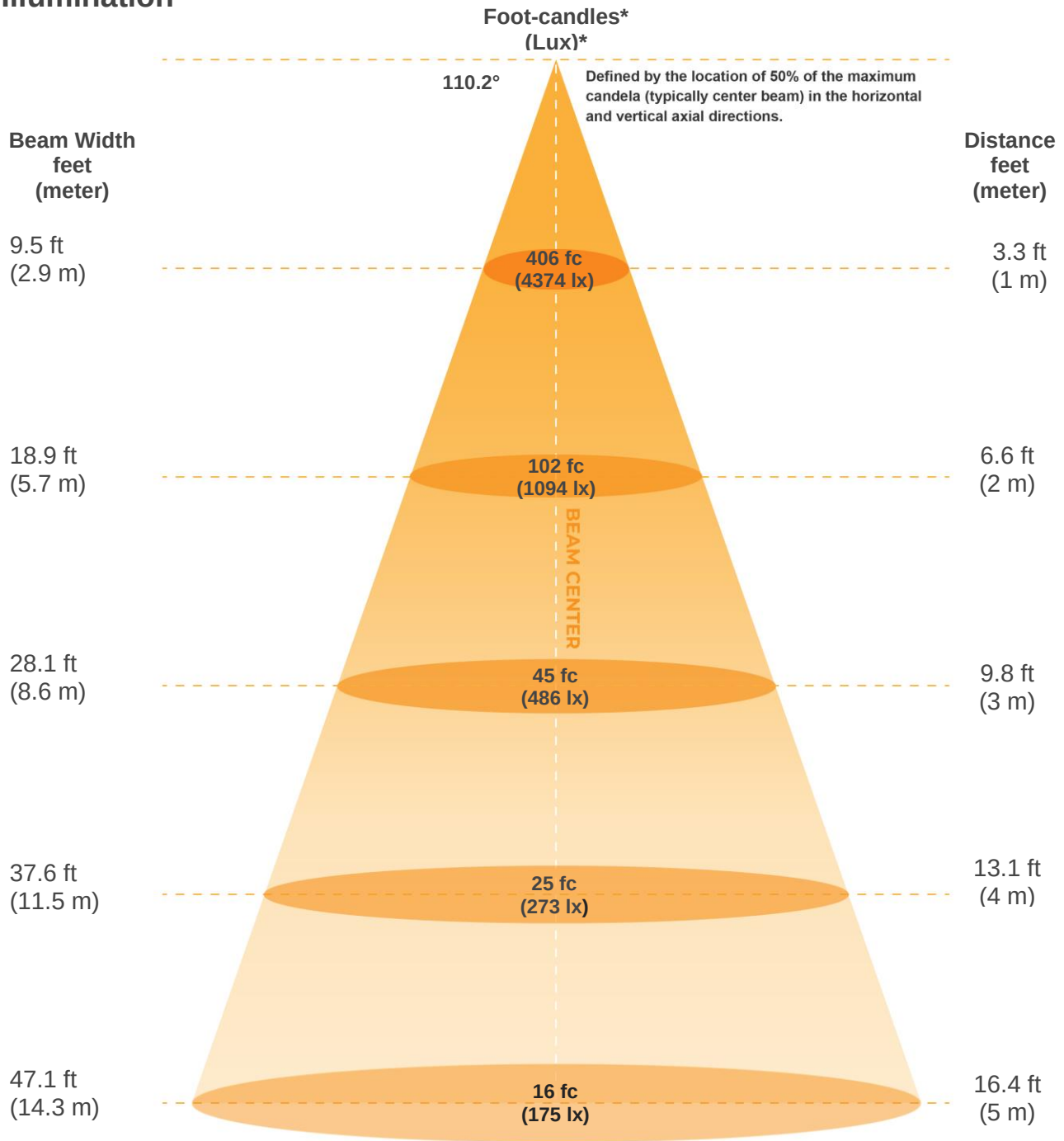
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	76	-11%	0%
2	84	-6%	6%
3	80	-4%	9%
4	86	-1%	5%
5	88	-2%	3%
6	94	0%	-1%
7	90	-5%	-1%
8	84	-7%	3%
9	81	-8%	13%
10	71	-4%	16%
11	72	3%	15%
12	89	5%	3%
13	86	8%	-5%
14	84	3%	-8%
15	74	0%	-17%
16	80	-4%	-10%



Color Evaluation Sample



Illumination



*measured at center of beam

Beam intensities from 1-20m

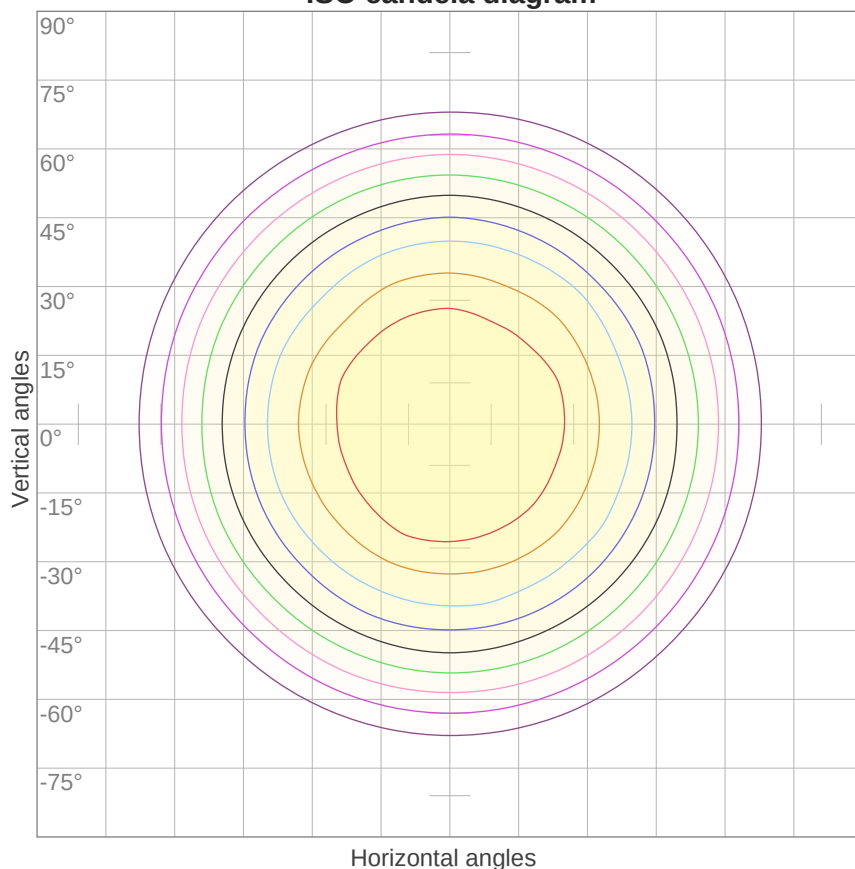
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
4374lx	1094lx	486lx	273lx	175lx	122lx	89lx	68lx	54lx	44lx	36lx	30lx	26lx	22lx	19lx	17lx	15lx	14lx	12lx	11lx
406.4fc	101.6fc	45.2fcd	25.4fcd	16.3fcd	11.3fcd	8.3fcd	6.3fcd	5fcd	4.1fcd	3.4fcd	2.8fcd	2.4fcd	2.1fcd	1.8fcd	1.6fcd	1.4fcd	1.3fcd	1.1fcd	1fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
110.2°	151.5°	166.3°	82.9%	57.2%



ISO Diagrams

ISO candela diagram



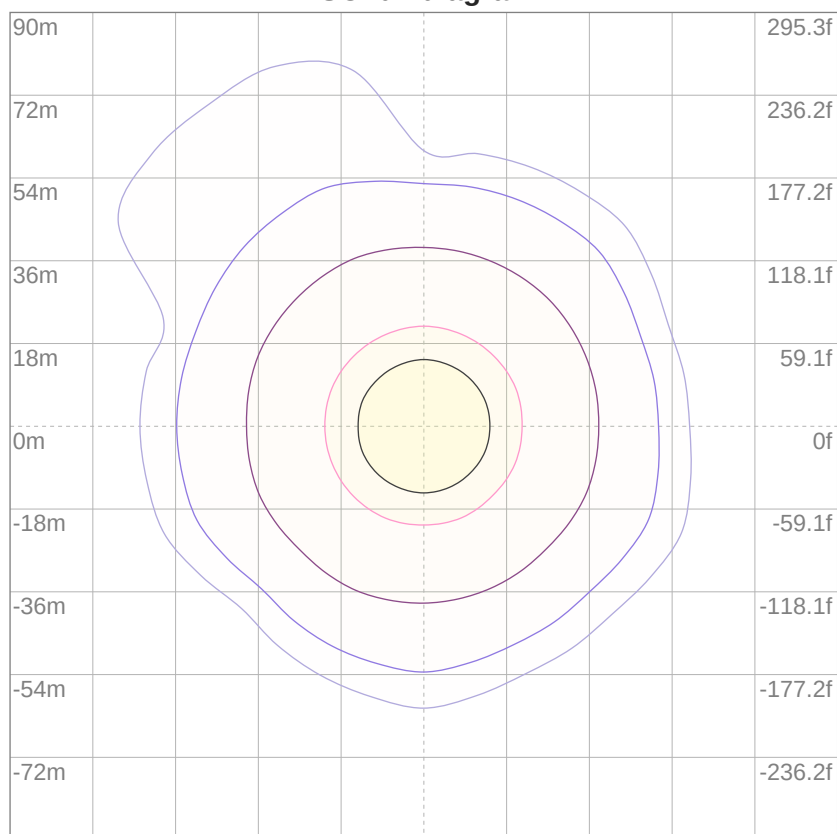
10%	437 cd
20%	875 cd
30%	1312 cd
40%	1750 cd
50%	2187 cd
60%	2625 cd
70%	3062 cd
80%	3499 cd
90%	3937 cd

Conditions:

Number of c-planes: 16

Candela at center: 4374 cd

ISO lux diagram



3%	1.31 lx
5%	2.19 lx
10%	4.37 lx
30%	13.1 lx
50%	21.9 lx

Conditions:

Number of c-planes: 16

Lux at center: 43.7 lx

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



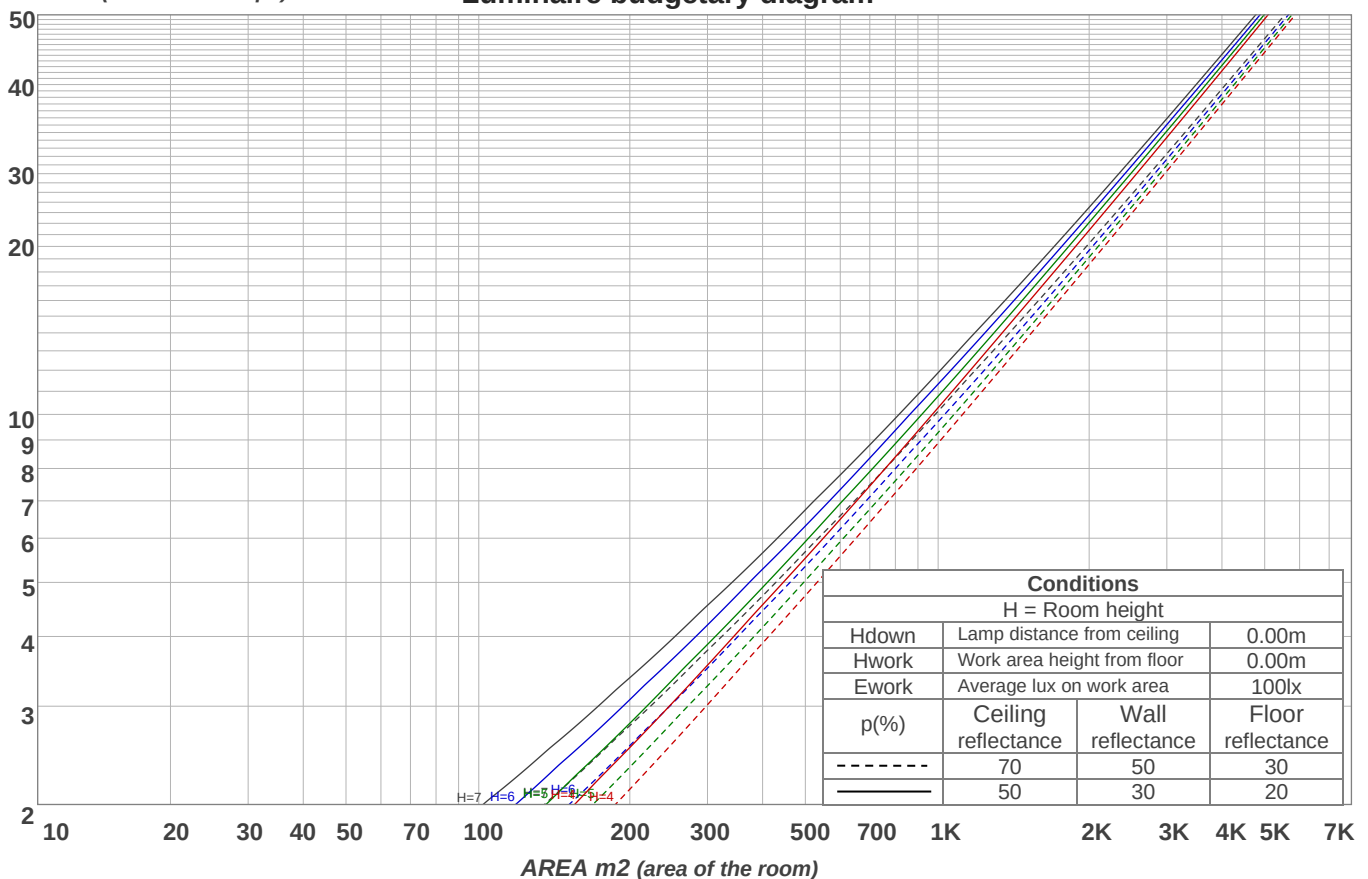
Light Planning

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	111	111	111	106	106	106	101	101	101	99
1	109	105	101	98	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	77	83	79	76	80	77	74	72
3	91	81	74	67	89	80	73	67	77	71	65	74	69	64	71	67	63	61
4	84	72	64	57	82	71	63	57	68	61	56	66	60	55	64	59	54	52
5	77	65	56	50	75	64	55	49	61	54	49	59	53	48	57	52	47	45
6	71	58	50	43	69	57	49	43	55	48	43	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	47	42	37	35
8	62	48	40	34	60	48	40	34	46	39	34	45	38	34	44	38	33	31
9	57	44	36	31	56	44	36	31	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28	38	32	27	37	31	27	26

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°
416 lm	1207 lm	1850 lm	2229 lm	2286 lm	1961 lm	1305 lm	533 lm	93.2 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
23.9 lm	15.7 lm	16.1 lm	17.3 lm	15.9 lm	13.2 lm	9.38 lm	5.00 lm	1.38 lm

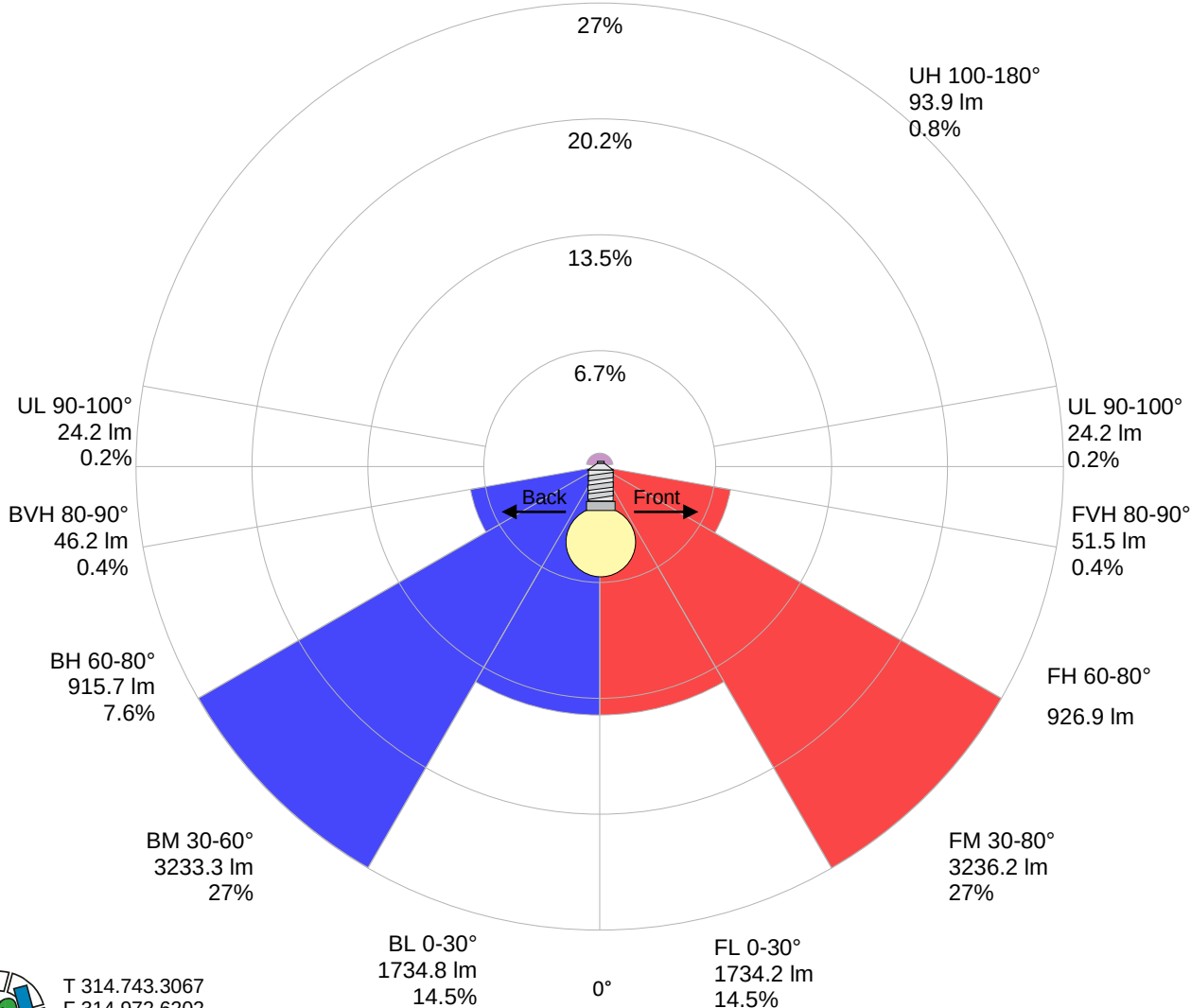


Road Report

LCS table

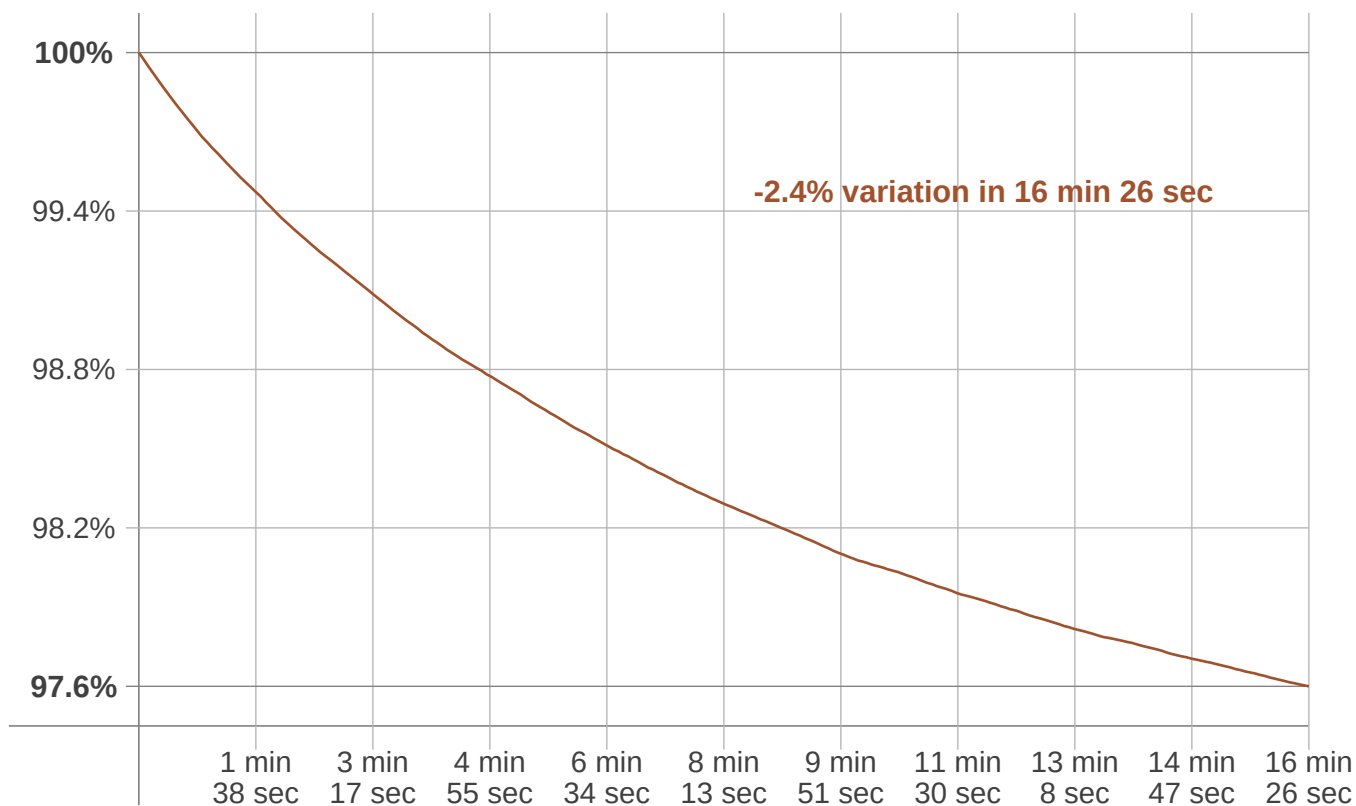
BUG rating:	B3 U3 G2	
Forward light	Lumens	Lumens %
Low(0-30):	1734.2	14.5%
Medium(30-60):	3236.2	27%
High(60-80):	926.9	7.7%
Very high(80-90):	51.5	0.4%
Back light		
Low(0-30):	1734.8	14.5%
Medium(30-60):	3233.3	27%
High(60-80):	915.7	7.6%
Very high(80-90):	46.2	0.4%
Uplight		
Low(90-100):	24.2	0.2%
High(100-180):	93.9	0.8%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	16 min 26 sec
Warmup variation	-2.4%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5210 K	+56 K	5266 K

Output change

Output start	Output change	Output end
12290 lm	-293 lm	11997 lm

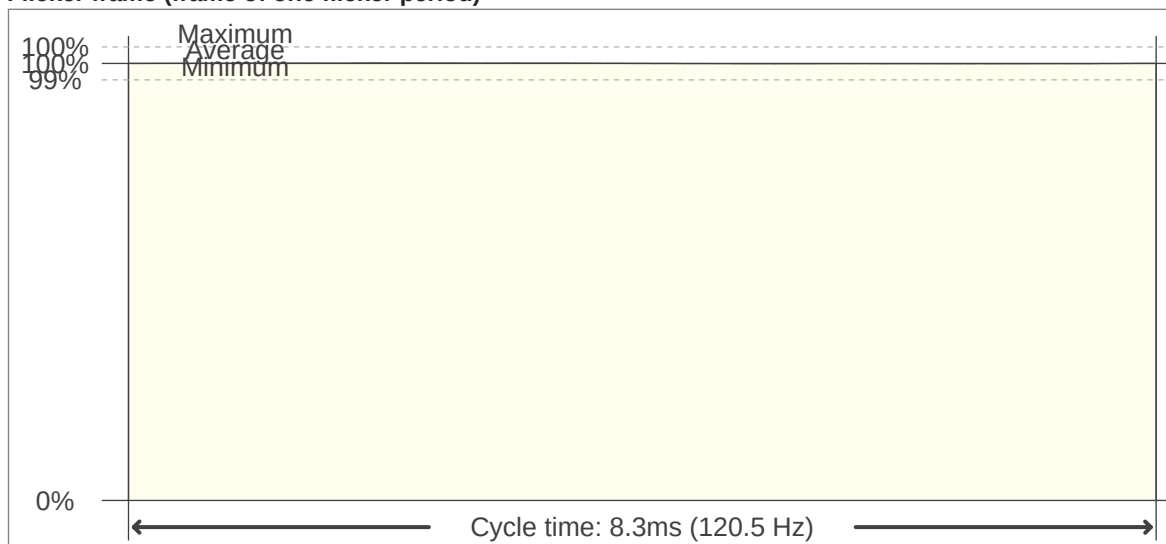


Flicker

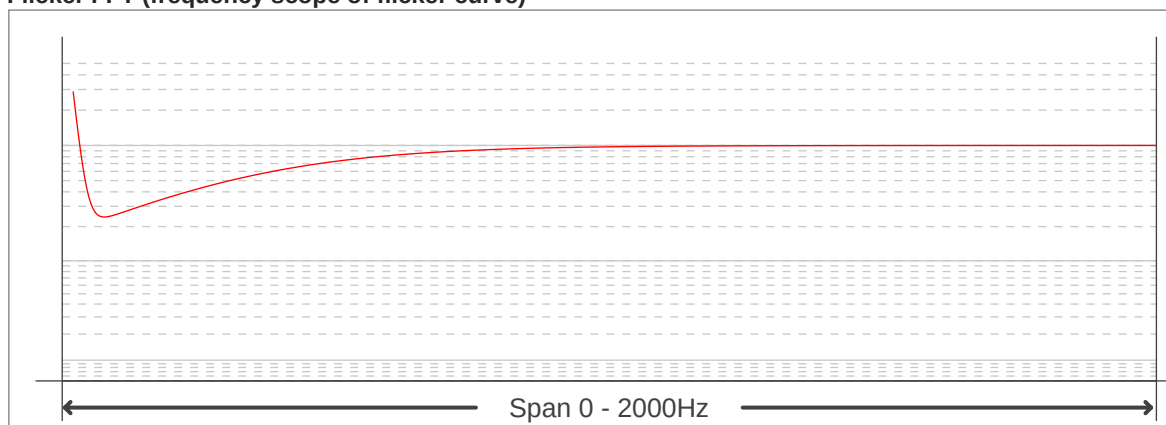
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	120.48 Hz
Flicker index:	0
Flicker percentage:	0.15 %
SVM: (Visual flicker)	0

Flicker conditions:

Sample rate:	40000 samples/second
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