

Light efficiency:

127 Lumen/Watt

Output: 12885 lm

Light quality:

CRI: 84.5

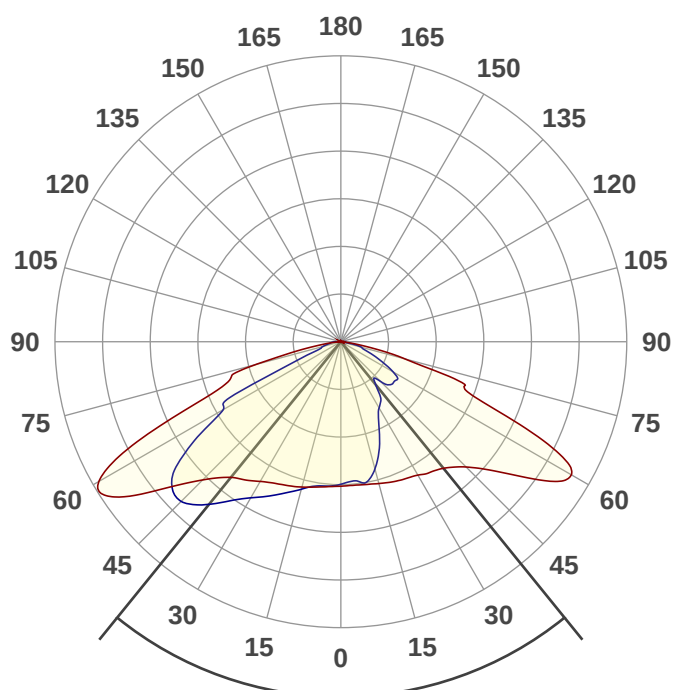
Peak: 6433 cd

Color temperature:

5034 K

Power: 101.1 W

PF: 1.0



Product name:

ALD-50K10W-C-BRC3 Type III-S

Date and time:

4/10/2019 8:18:42 AM

Beam angle

78.1°

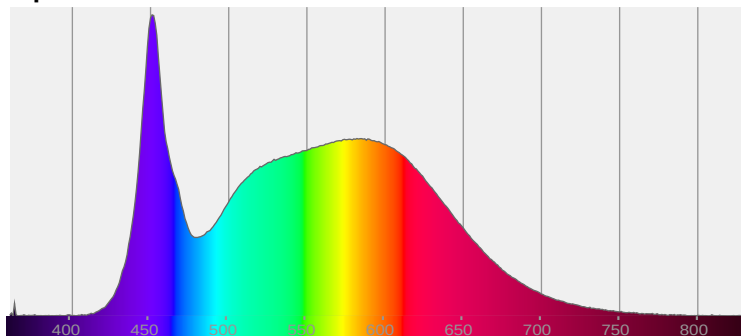


CIE 1931

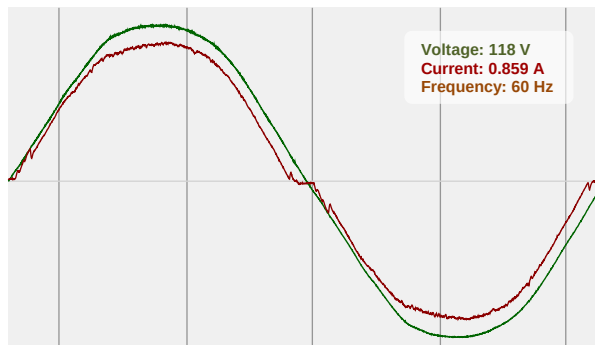
x: 0.345

y: 0.357

Spectra



Power



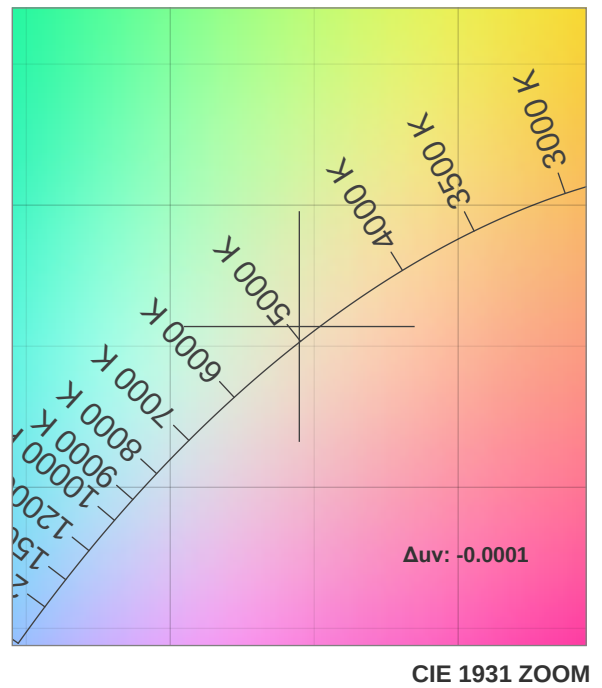
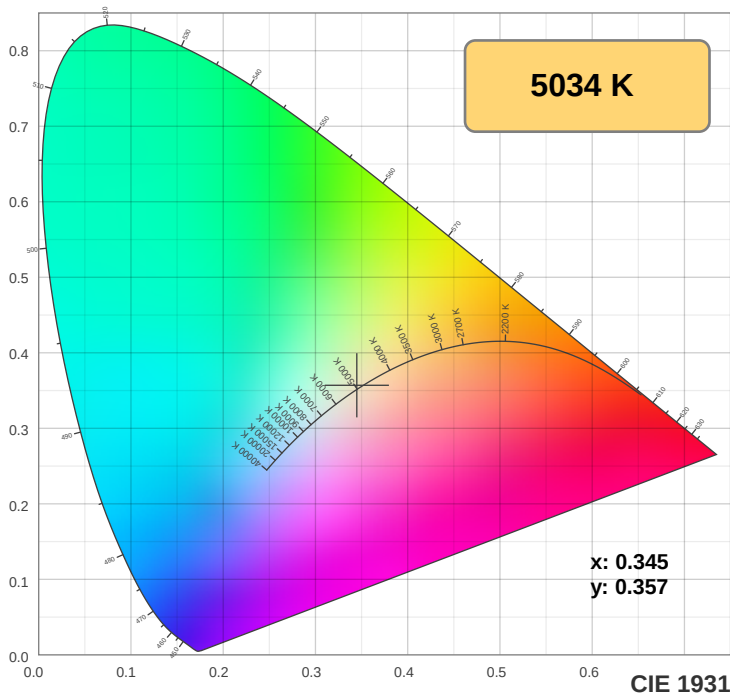
T 314.743.3067

F 314.972.6202

email: commercial-sales@superbrightleds.com

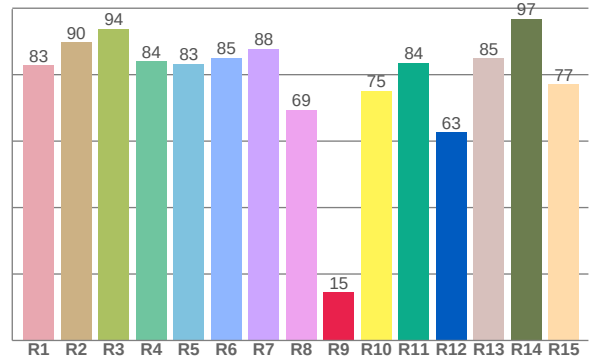
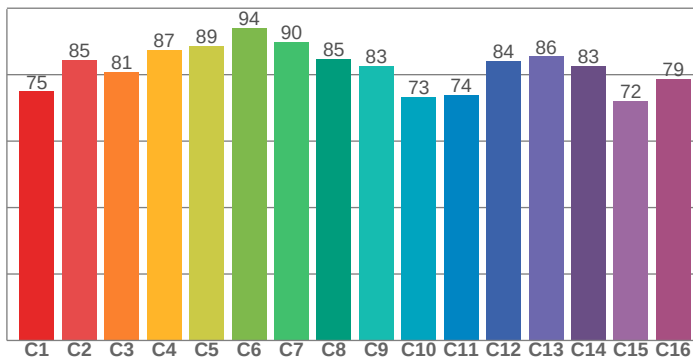
www.superbrightleds.com/

Color Specifications



TM30: 82.7

CRI: 84.5 (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
82.9	89.7	93.9	84.1	83.3	85.1	87.9	69.4	14.5	75.1	83.6	62.7	84.9	96.9	77.1

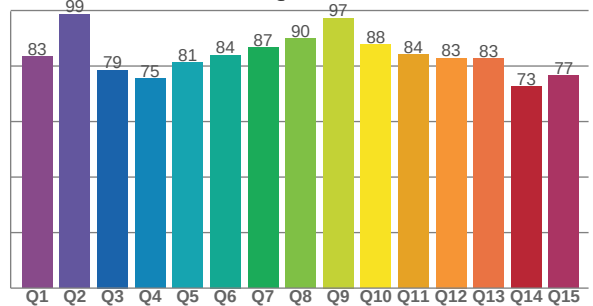
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
75.0	84.5	80.8	87.4	88.6	94.2	89.9	84.7	82.6	73.3	73.9	84.2	85.5	82.6	72.1	78.8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83.4	98.6	78.5	75.4	81.3	84.0	86.6	89.9	97.3	87.8	84.1	82.9	82.8	72.6	76.6

CQS: 82.6



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
5034 K	84.5	14.5	82.7	94.5	82.6	0.345	0.357	0.209	0.325	-0.0001



TM30 Report

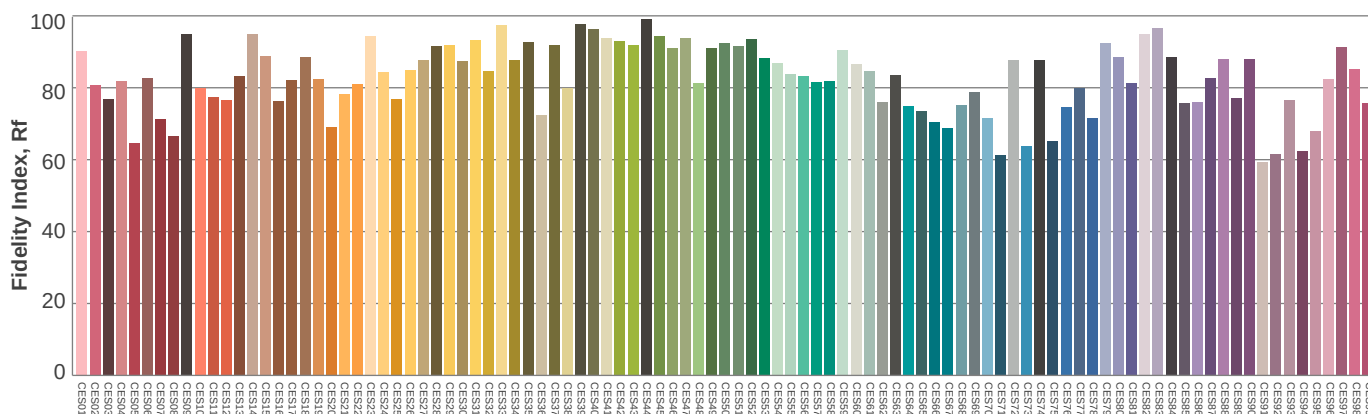
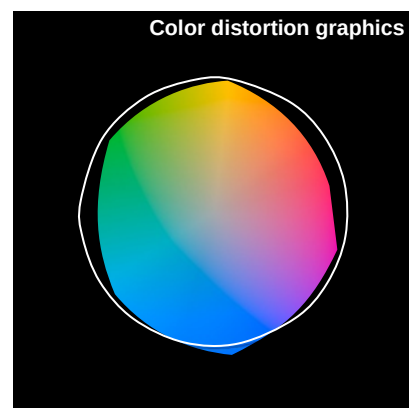
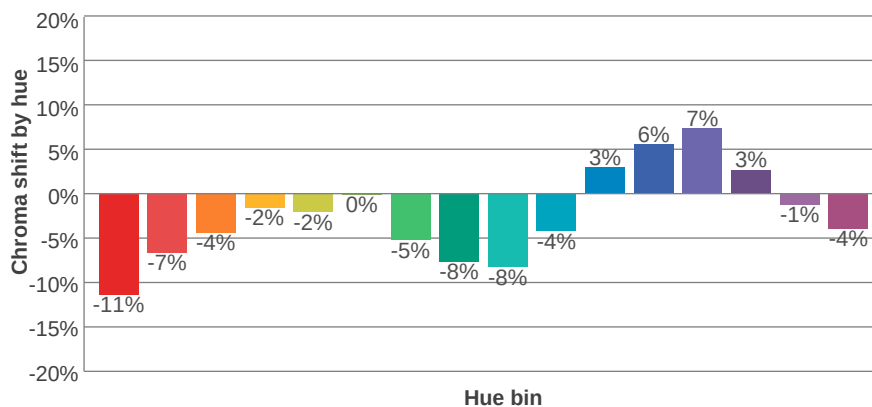
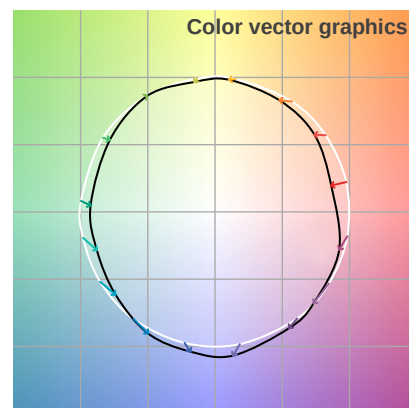
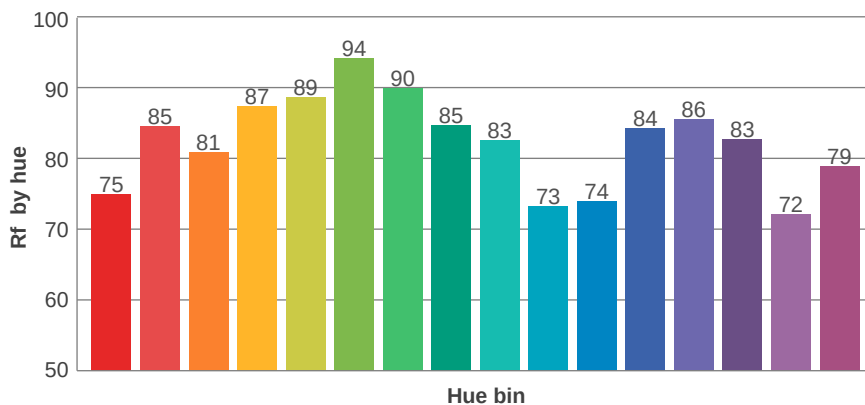
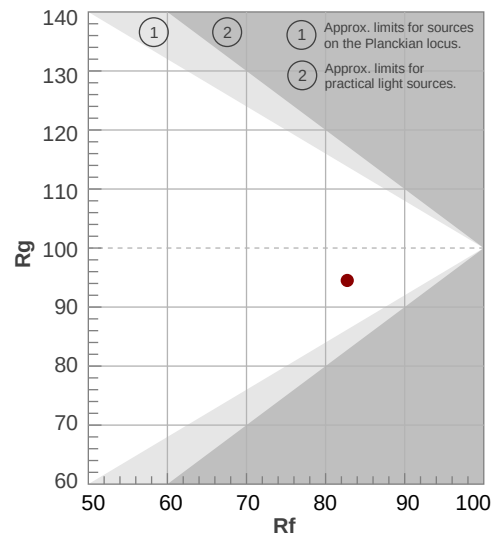
Rf 82.7

Fidelity index Rf

Rg 94.5

Gamut index Rg

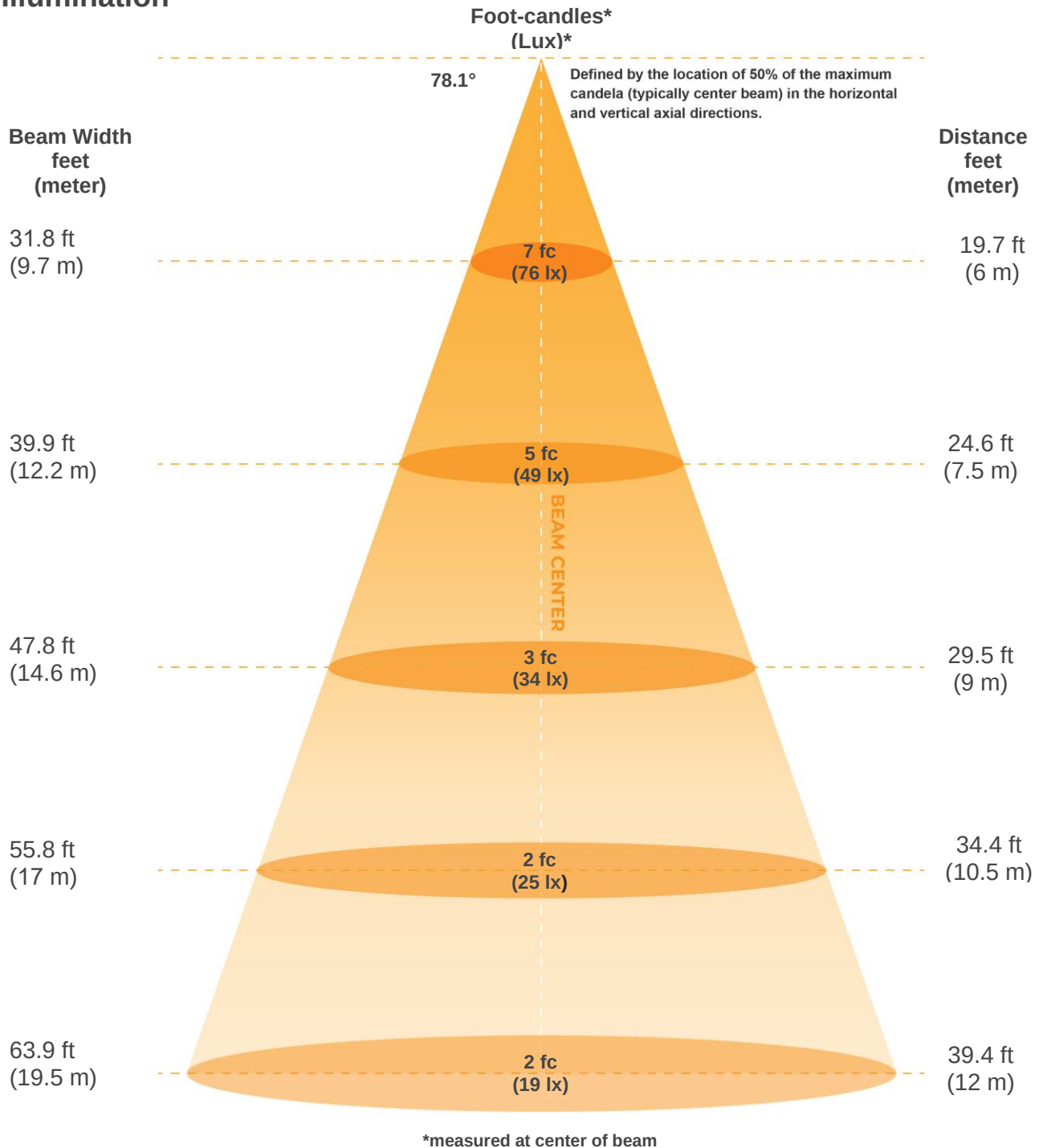
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	75	-11%	0%
2	85	-7%	5%
3	81	-4%	8%
4	87	-2%	5%
5	89	-2%	2%
6	94	0%	-1%
7	90	-5%	-2%
8	85	-8%	2%
9	83	-8%	11%
10	73	-4%	14%
11	74	3%	15%
12	84	6%	6%
13	86	7%	-7%
14	83	3%	-9%
15	72	-1%	-18%
16	79	-4%	-11%



Color Evaluation Sample



Illumination



Beam intensities from 1-20m

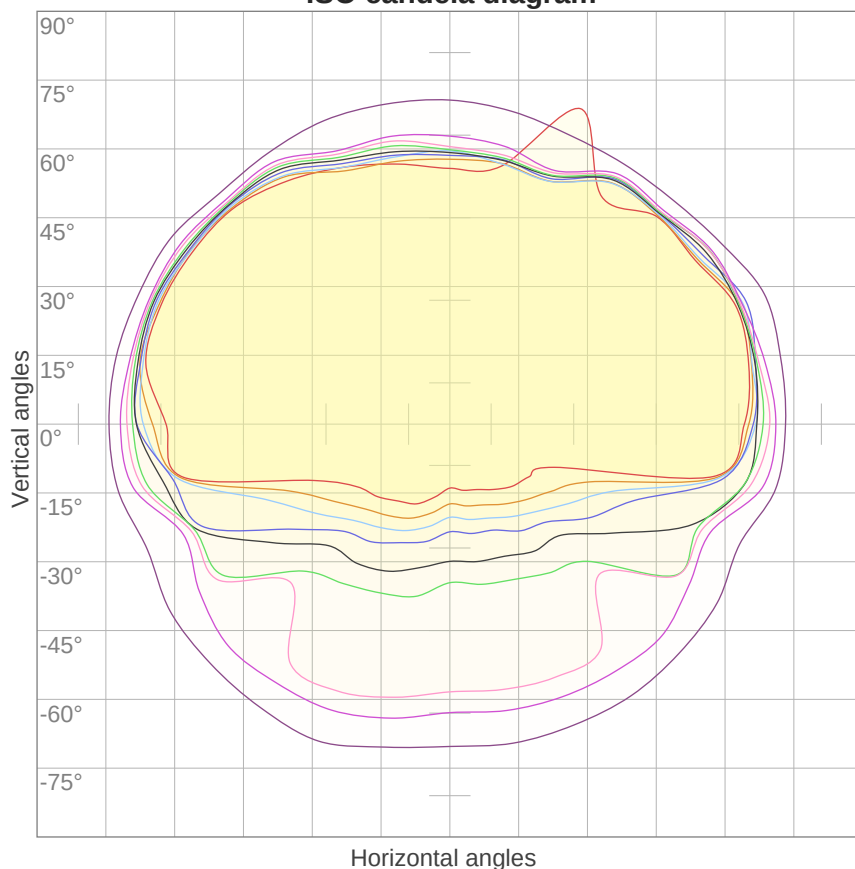
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
2731lx	683lx	303lx	171lx	109lx	76lx	56lx	43lx	34lx	27lx	23lx	19lx	16lx	14lx	12lx	11lx	9lx	8lx	8lx	7lx
253.7fc	63.4fcd	28.2fcd	15.9fcd	10.1fcd	7fcd	5.2fcd	4fcd	3.1fcd	2.5fcd	2.1fcd	1.8fcd	1.5fcd	1.3fcd	1.1fcd	1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
78.1°	148.1°	168.8°	72.5%	40.1%



ISO Diagrams

ISO candela diagram



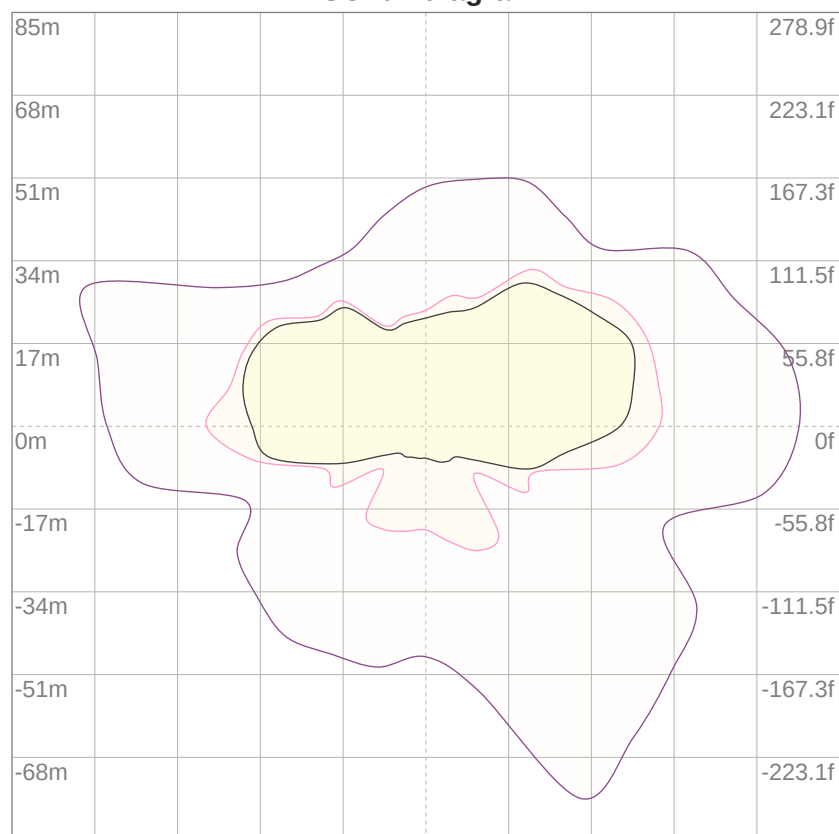
10%	273 cd
20%	546 cd
30%	819 cd
40%	1092 cd
50%	1365 cd
60%	1638 cd
70%	1911 cd
80%	2184 cd
90%	2457 cd

Conditions:

Number of c-planes: 16

Candela at center: 2731 cd

ISO lux diagram



3%	0.819 lx
5%	1.37 lx
10%	2.73 lx
30%	8.19 lx
50%	13.7 lx

Conditions:

Number of c-planes: 16

Lux at center: 27.3 lx

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



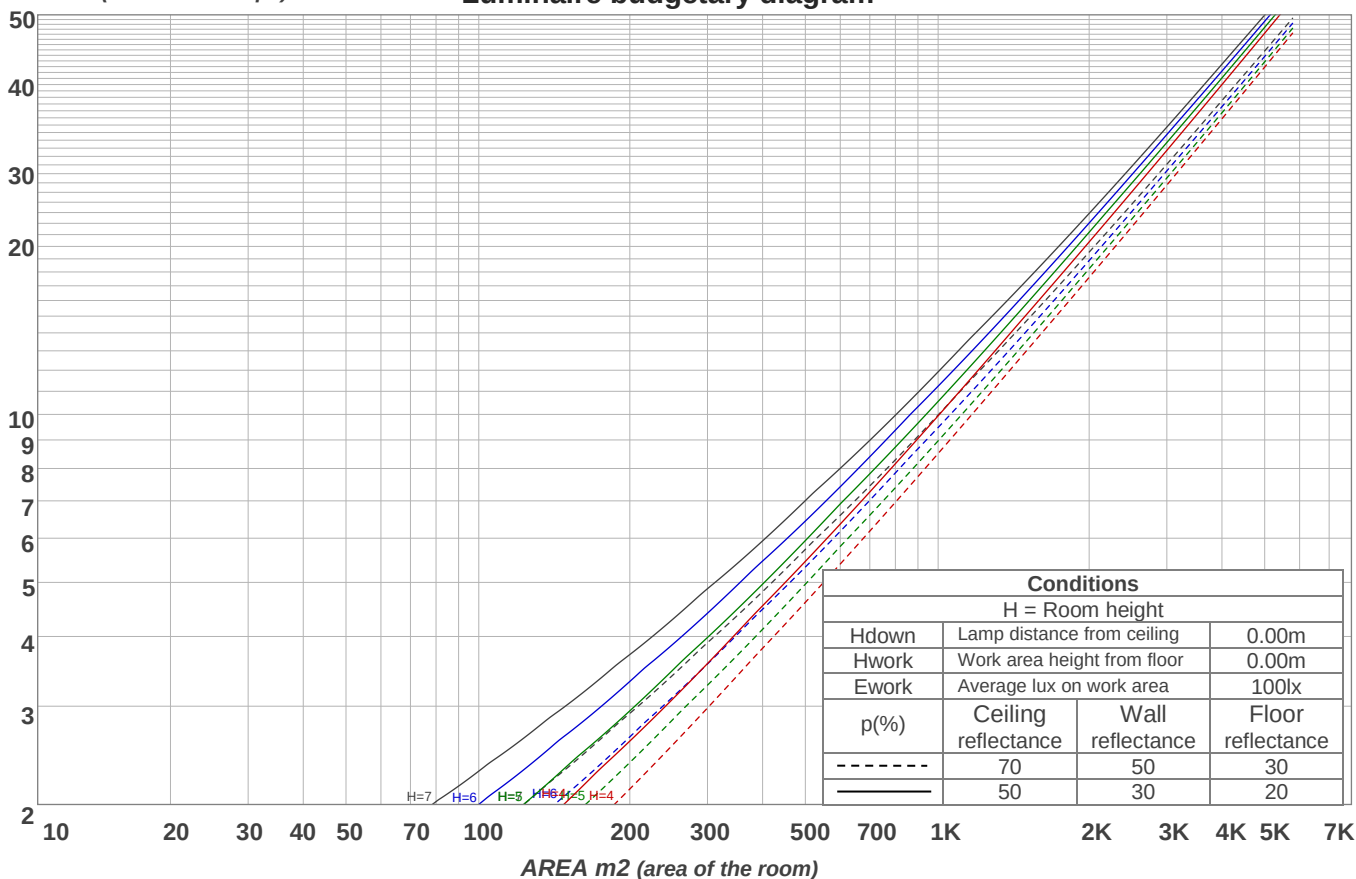
Light Planning

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	102	102	102	100
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	88	80	74	94	86	79	73	82	76	71	79	74	70	76	72	68	66
3	87	75	66	59	84	74	65	59	71	63	57	68	62	56	65	60	55	53
4	79	65	56	48	76	64	55	48	61	53	47	59	52	46	57	51	46	43
5	71	57	47	40	69	56	47	40	54	46	39	52	45	39	50	44	38	36
6	65	51	41	34	63	50	41	34	48	40	33	46	39	33	44	38	33	30
7	60	45	36	29	58	45	36	29	43	35	29	41	34	29	40	33	28	26
8	56	41	32	25	54	40	31	25	39	31	25	37	30	25	36	30	25	23
9	52	37	28	22	50	37	28	22	35	28	22	34	27	22	33	27	22	20
10	48	34	26	20	47	34	25	20	32	25	20	31	25	20	31	24	20	18

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°
261 lm	784 lm	1260 lm	1755 lm	2388 lm	2891 lm	2455 lm	921 lm	136 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
6.61 lm	3.82 lm	4.65 lm	4.93 lm	4.79 lm	4.24 lm	3.23 lm	2.02 lm	0.687 lm

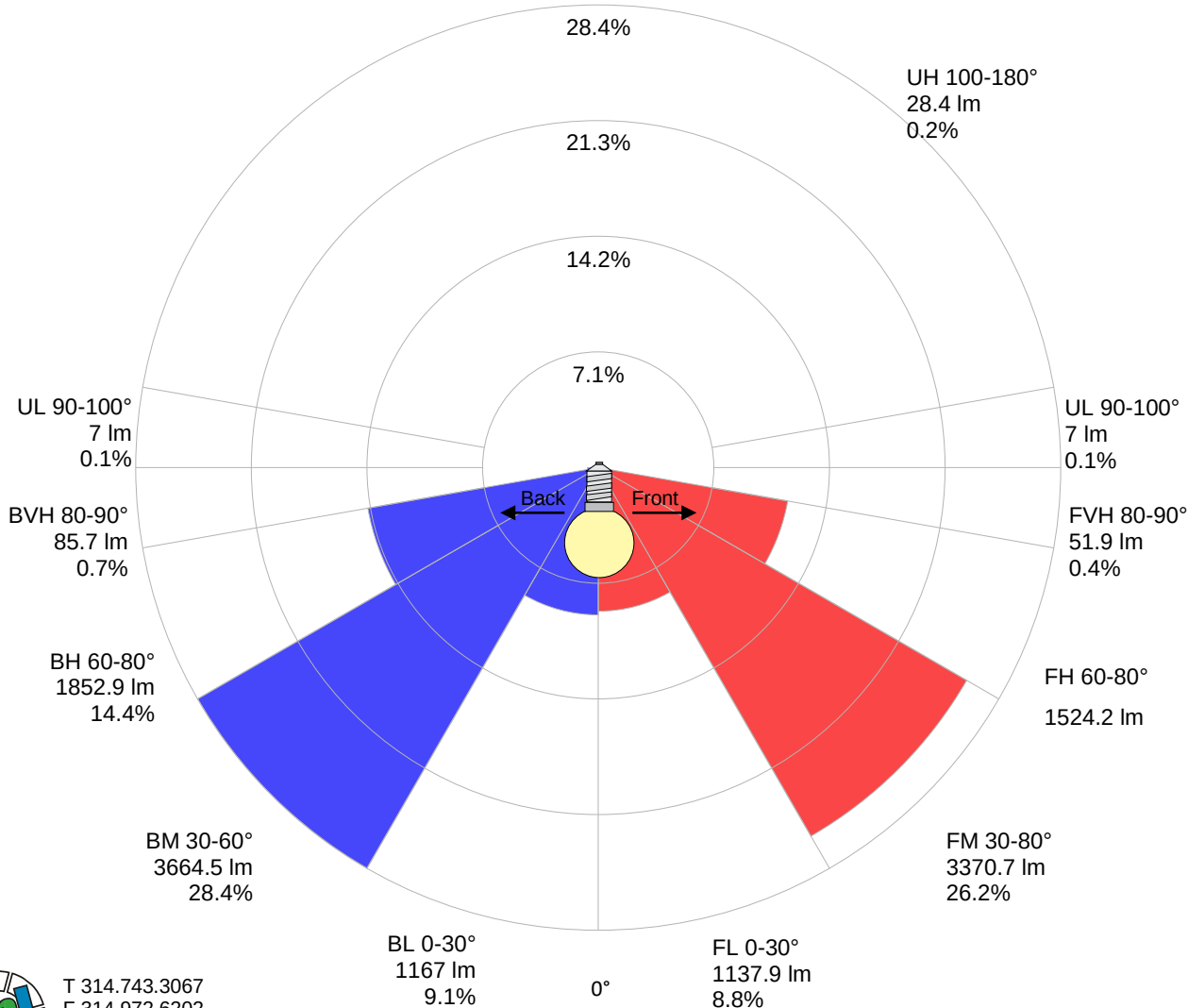


Road Report

LCS table

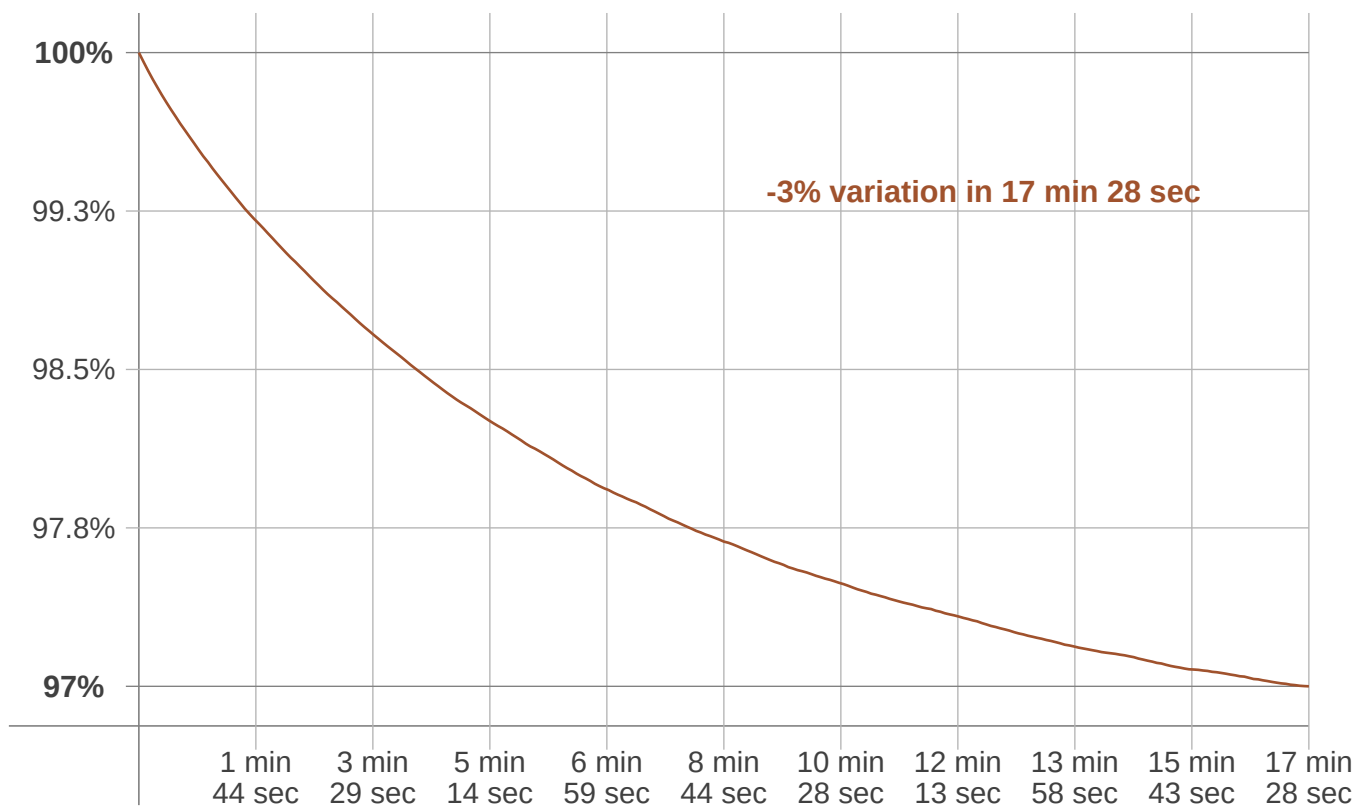
BUG rating:	B3 U2 G3	
Forward light	Lumens	Lumens %
Low(0-30):	1137.9	8.8%
Medium(30-60):	3370.7	26.2%
High(60-80):	1524.2	11.8%
Very high(80-90):	51.9	0.4%
Back light		
Low(0-30):	1167	9.1%
Medium(30-60):	3664.5	28.4%
High(60-80):	1852.9	14.4%
Very high(80-90):	85.7	0.7%
Uplight		
Low(90-100):	7	0.1%
High(100-180):	28.4	0.2%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	17 min 28 sec
Warmup variation	-3.0%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
4974 K	+60 K	5034 K

Output change

Output start	Output change	Output end
13265 lm	-379 lm	12885 lm

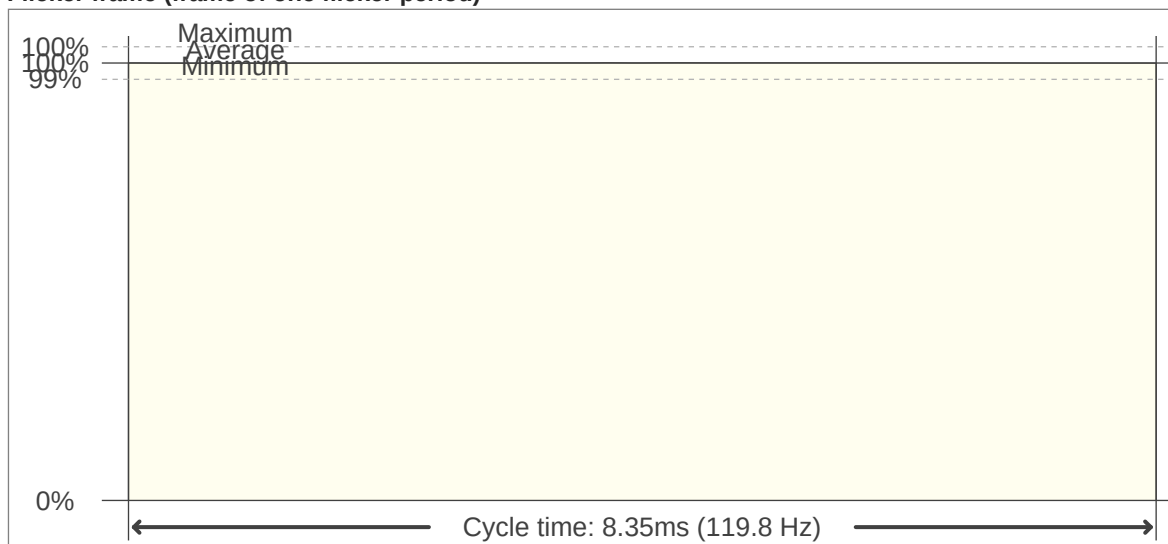


Flicker

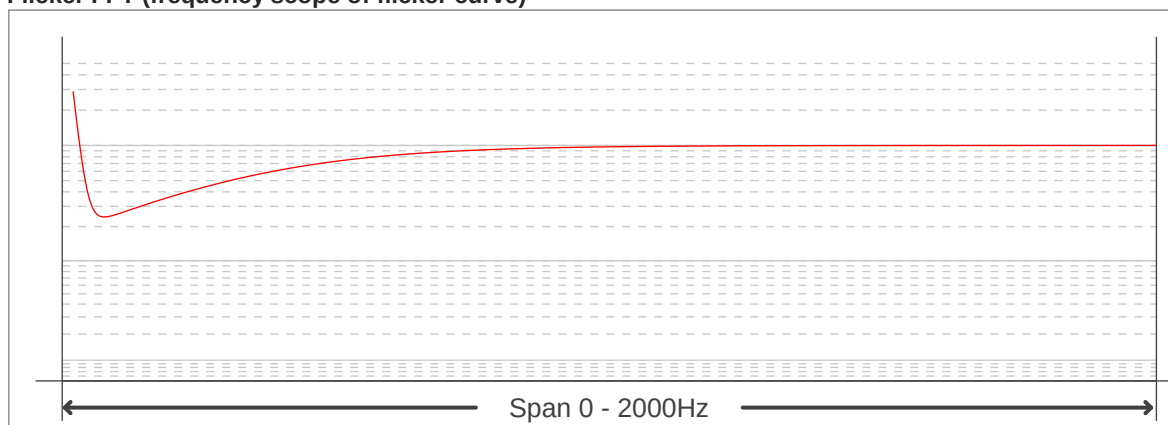
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	119.76 Hz
Flicker index:	0
Flicker percentage:	0.08 %
SVM: (Visual flicker)	0

Flicker conditions:

Sample rate:	40000 samples/second
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