

Light efficiency:

Infinity Lumen/Watt

Output: 37682 lm

Light quality:

CRI: 81.9

Peak: 18403 cd

Color temperature:

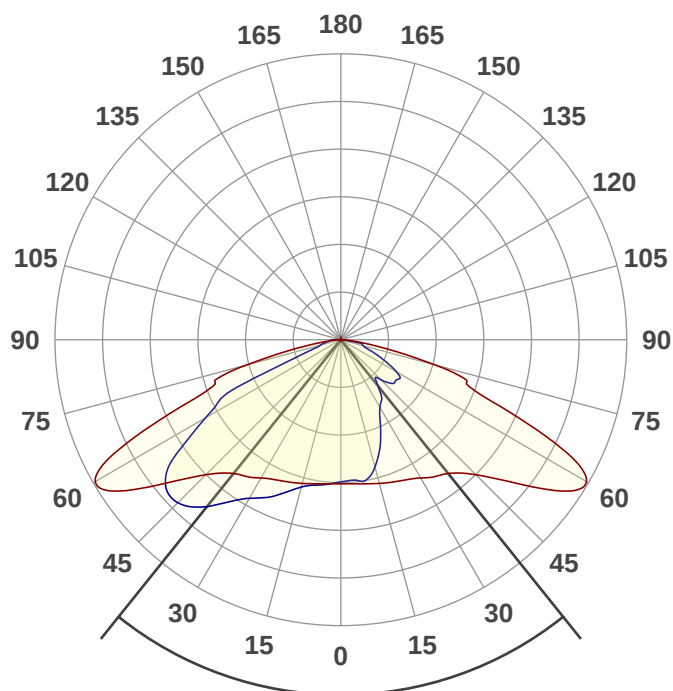
5228 K

Product name:

ALD-50K30W-C-BRC3 Type III-S

Date and time:

4/17/2019 12:35:44 PM



Beam angle

77.5°

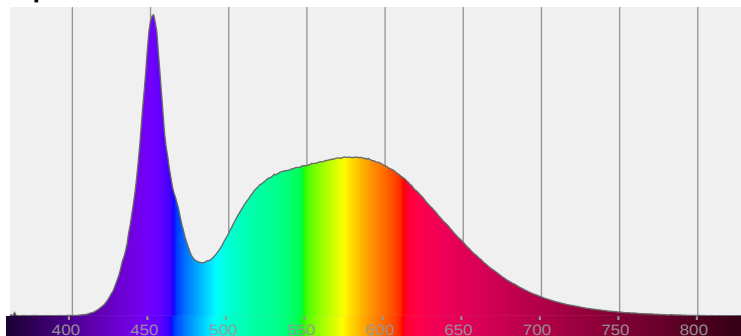


CIE 1931

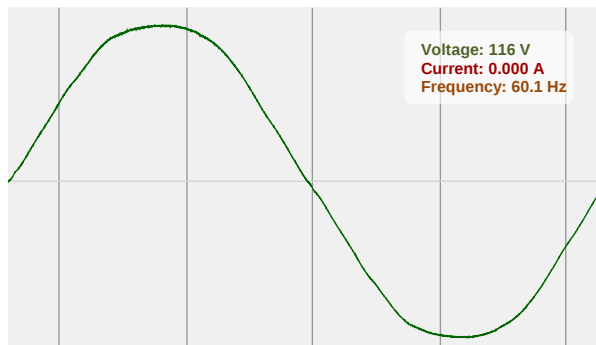
x: 0.339

y: 0.346

Spectra



Power



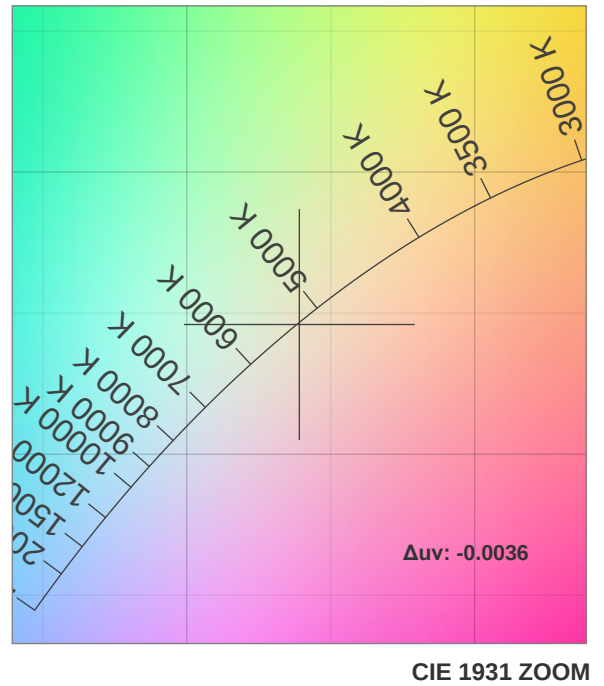
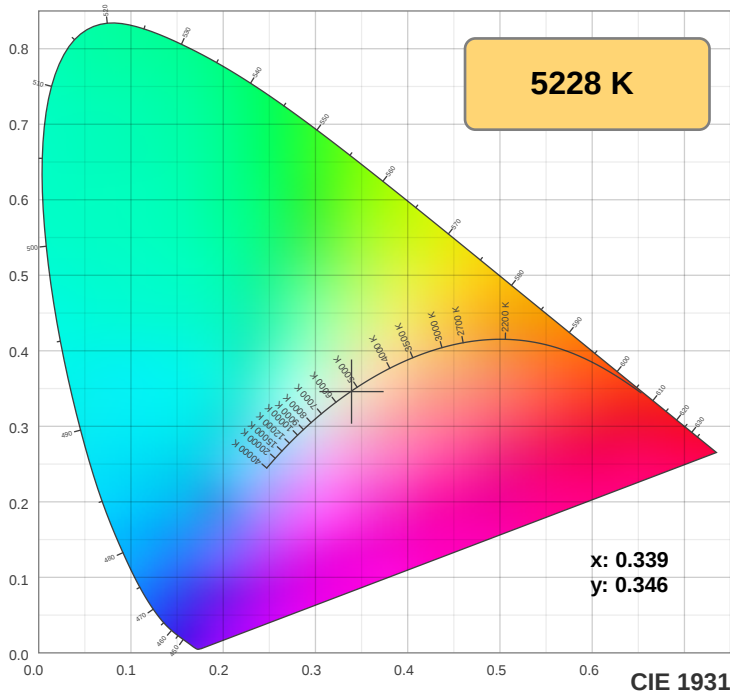
T 314.743.3067

F 314.972.6202

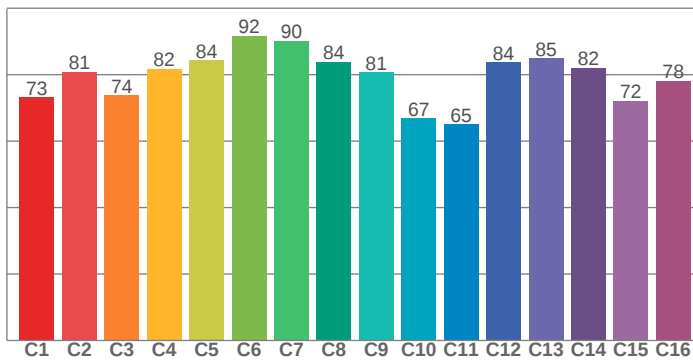
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

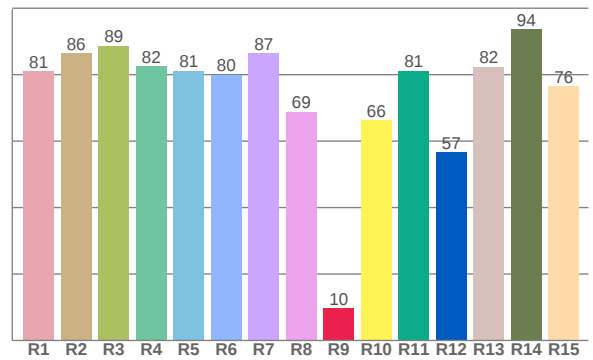
Color Specifications



TM30: 79.3



CRI: 81.9 (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
81.1	86.4	88.7	82.5	81.2	80.0	86.5	68.9	9.7	66.3	81.2	56.7	82.4	93.7	76.5

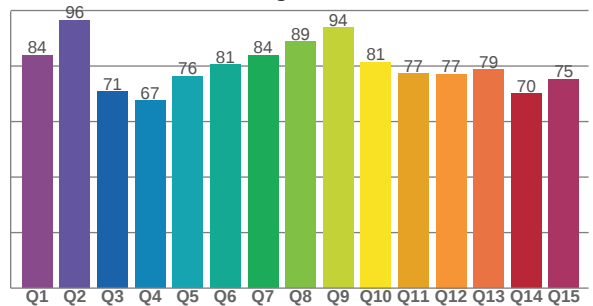
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
73.1	80.8	73.8	81.7	84.3	91.8	90.2	83.9	80.7	66.9	65.1	83.7	84.9	82.0	72.2	78.1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83.8	96.5	70.7	67.5	76.4	80.6	83.9	88.8	93.8	81.4	77.2	77.1	78.7	70.1	75.3

CQS: 78.6



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
5228 K	81.9	9.7	79.3	95.6	78.6	0.339	0.346	0.210	0.321	-0.0036



TM30 Report

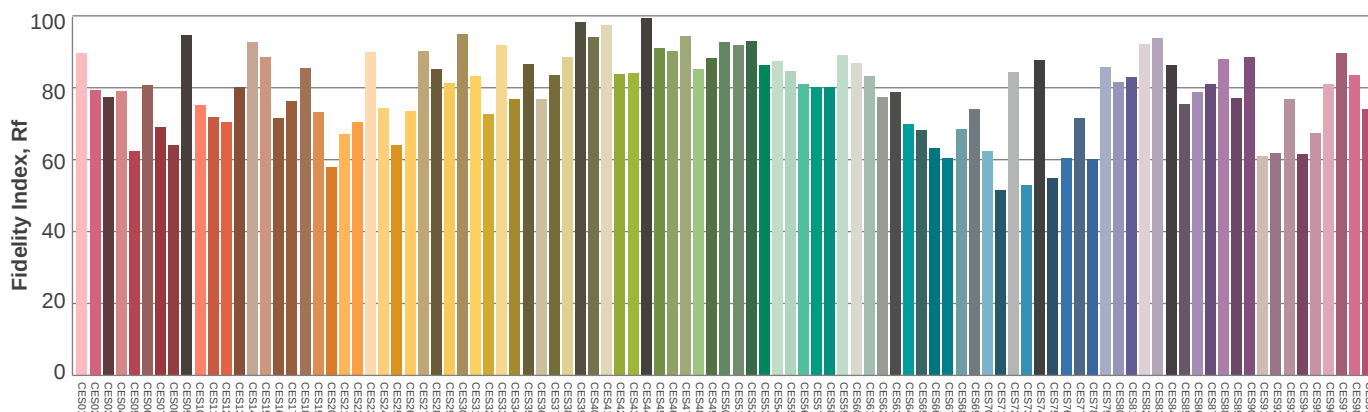
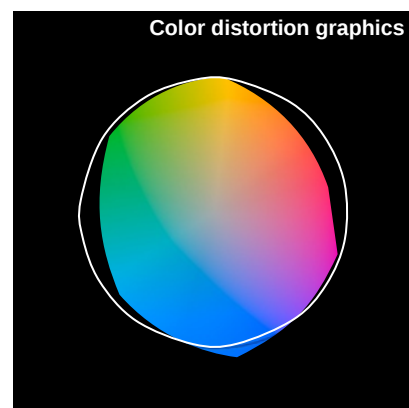
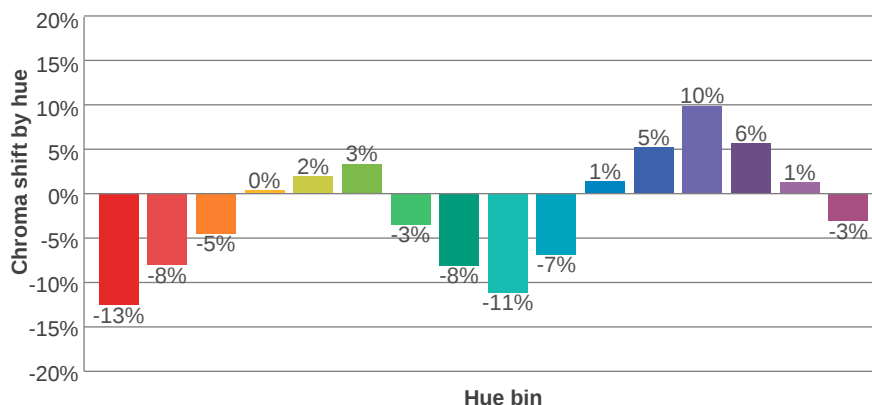
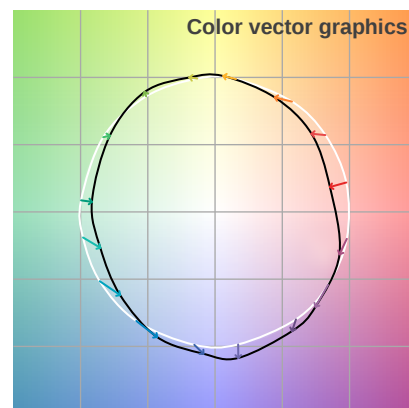
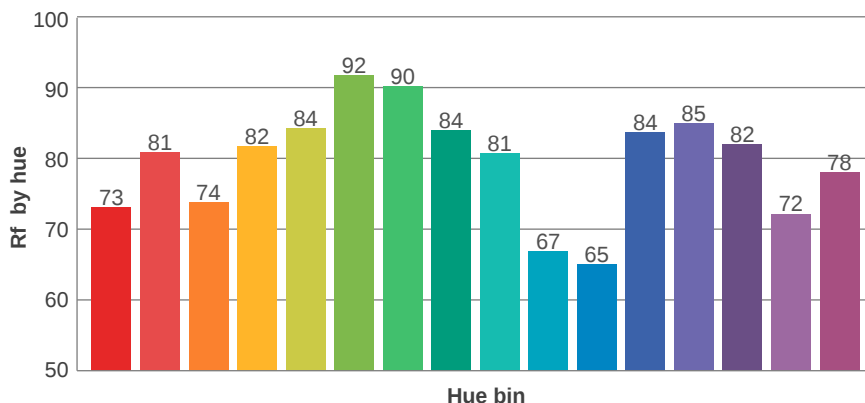
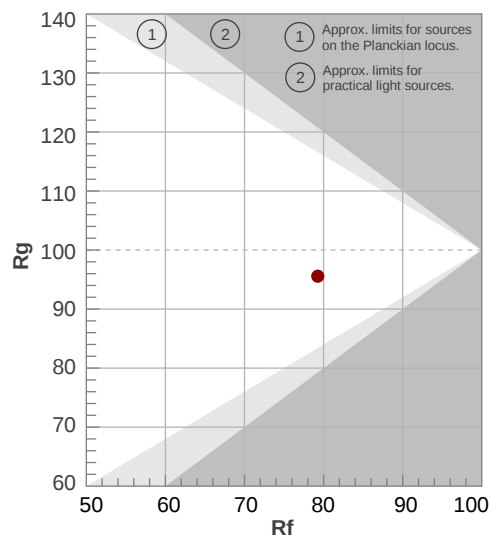
Rf 79.3

Fidelity index Rf

Rg 95.6

Gammut index Rg

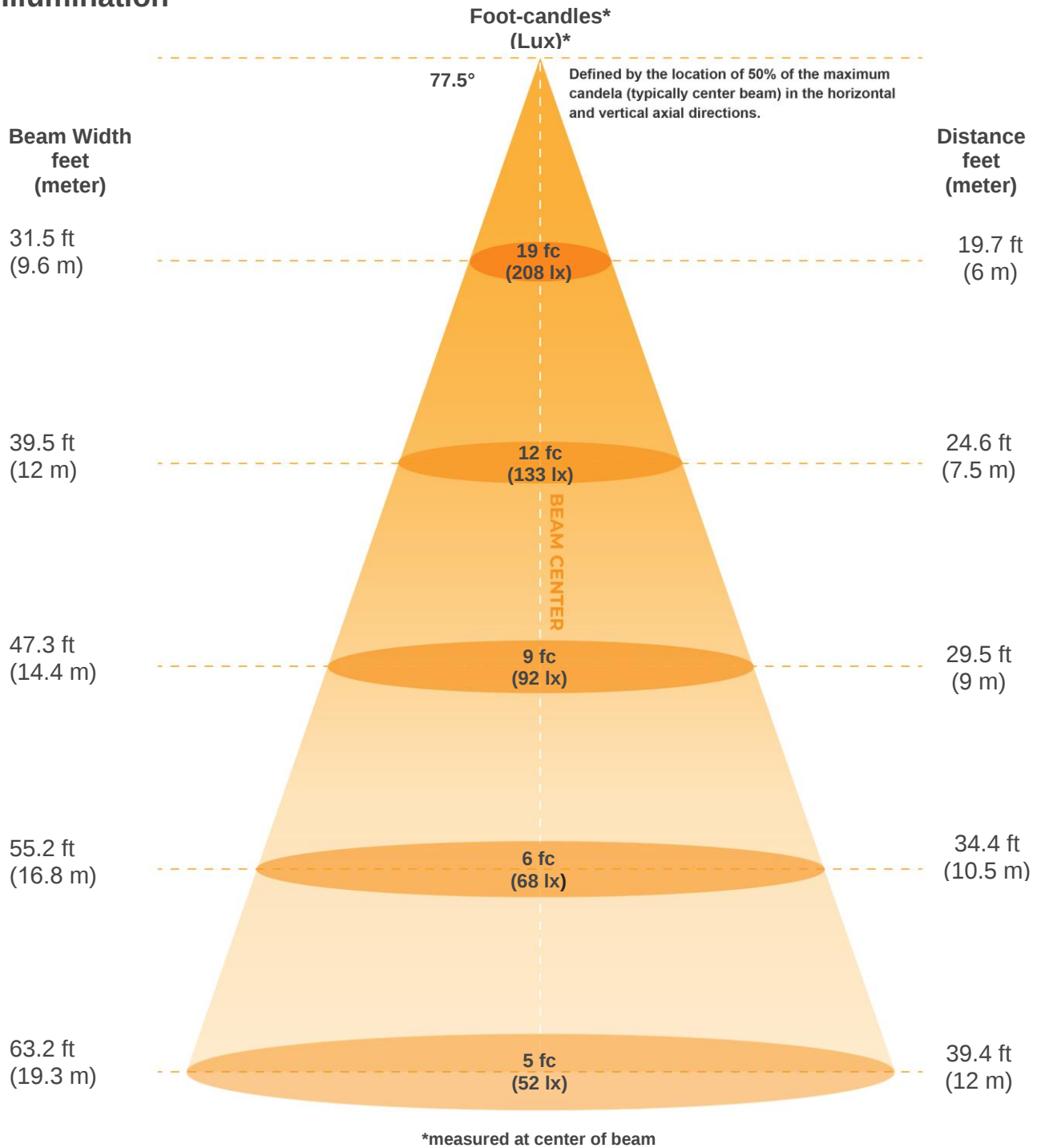
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	73	-13%	-1%
2	81	-8%	7%
3	74	-5%	12%
4	82	0%	10%
5	84	2%	6%
6	92	3%	-1%
7	90	-3%	-4%
8	84	-8%	-1%
9	81	-11%	10%
10	67	-7%	17%
11	65	1%	19%
12	84	5%	8%
13	85	10%	-2%
14	82	6%	-7%
15	72	1%	-19%
16	78	-3%	-12%



Color Evaluation Sample



Illumination



Beam intensities from 1-20m

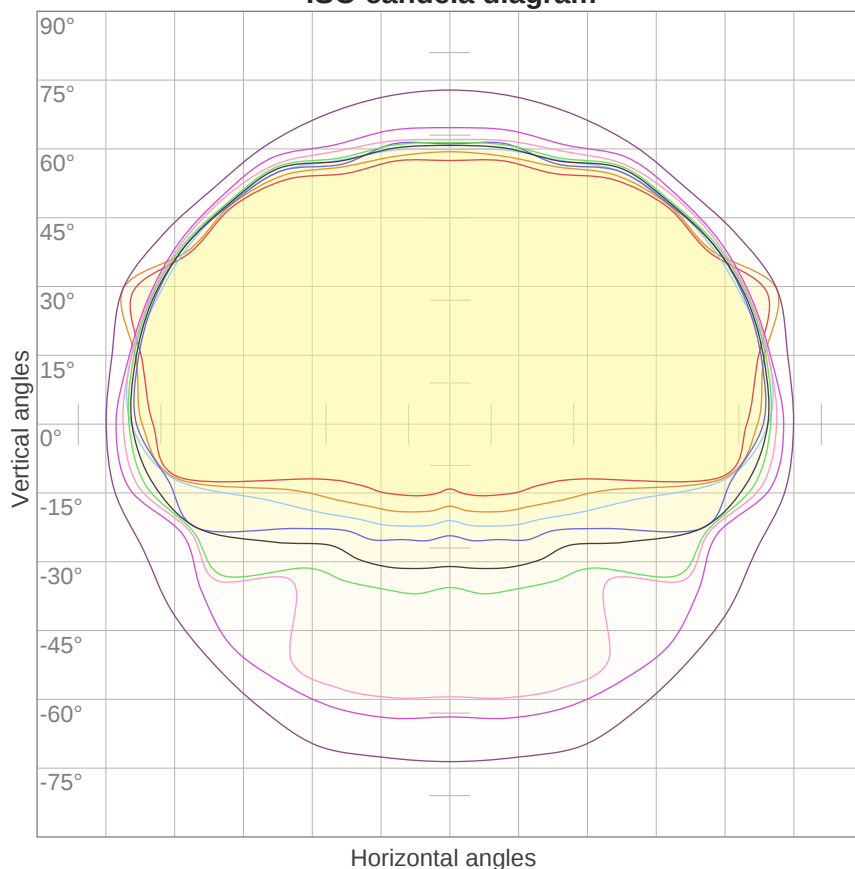
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
7474lx	1869lx	830lx	467lx	299lx	208lx	153lx	117lx	92lx	75lx	62lx	52lx	44lx	38lx	33lx	29lx	26lx	23lx	21lx	19lx
694.4fc	173.6fc	77.2fcd	43.4fcd	27.8fcd	19.3fcd	14.2fcd	10.8fcd	8.6fcd	6.9fcd	5.7fcd	4.8fcd	4.1fcd	3.5fcd	3.1fcd	2.7fcd	2.4fcd	2.1fcd	1.9fcd	1.7fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
77.5°	151.8°	172.3°	68.7%	37.3%



ISO Diagrams

ISO candela diagram



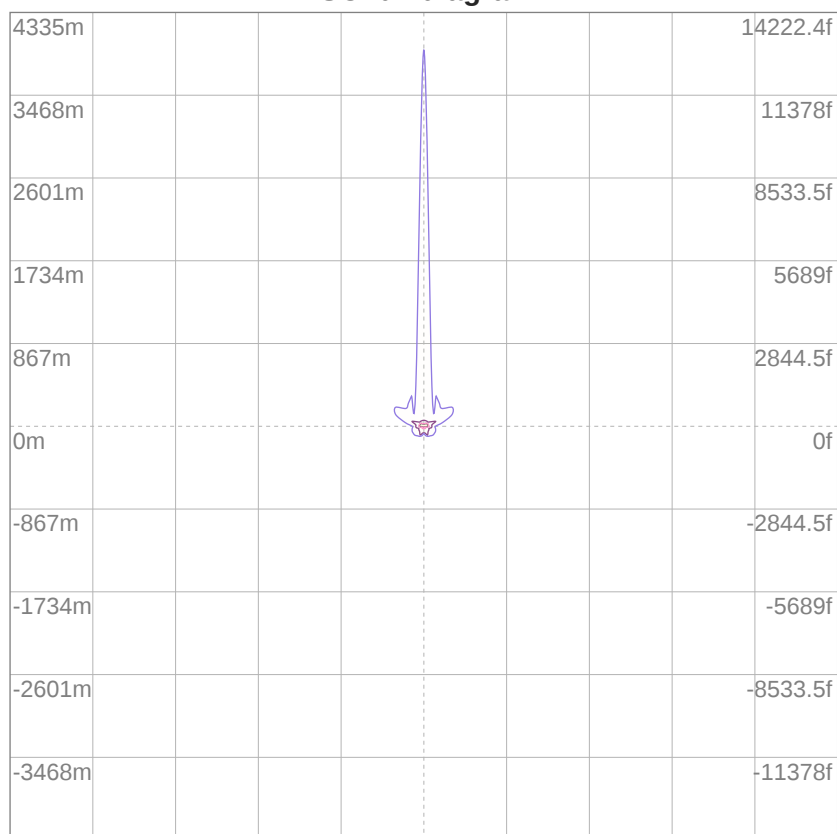
10%	747 cd
20%	1495 cd
30%	2242 cd
40%	2990 cd
50%	3737 cd
60%	4485 cd
70%	5232 cd
80%	5979 cd
90%	6727 cd

Conditions:

Number of c-planes: 16

Candela at center: 7474 cd

ISO lux diagram



3%	2.24 lx
5%	3.74 lx
10%	7.47 lx
30%	22.4 lx
50%	37.4 lx

Conditions:

Number of c-planes: 16

Lux at center: 74.7 lx

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



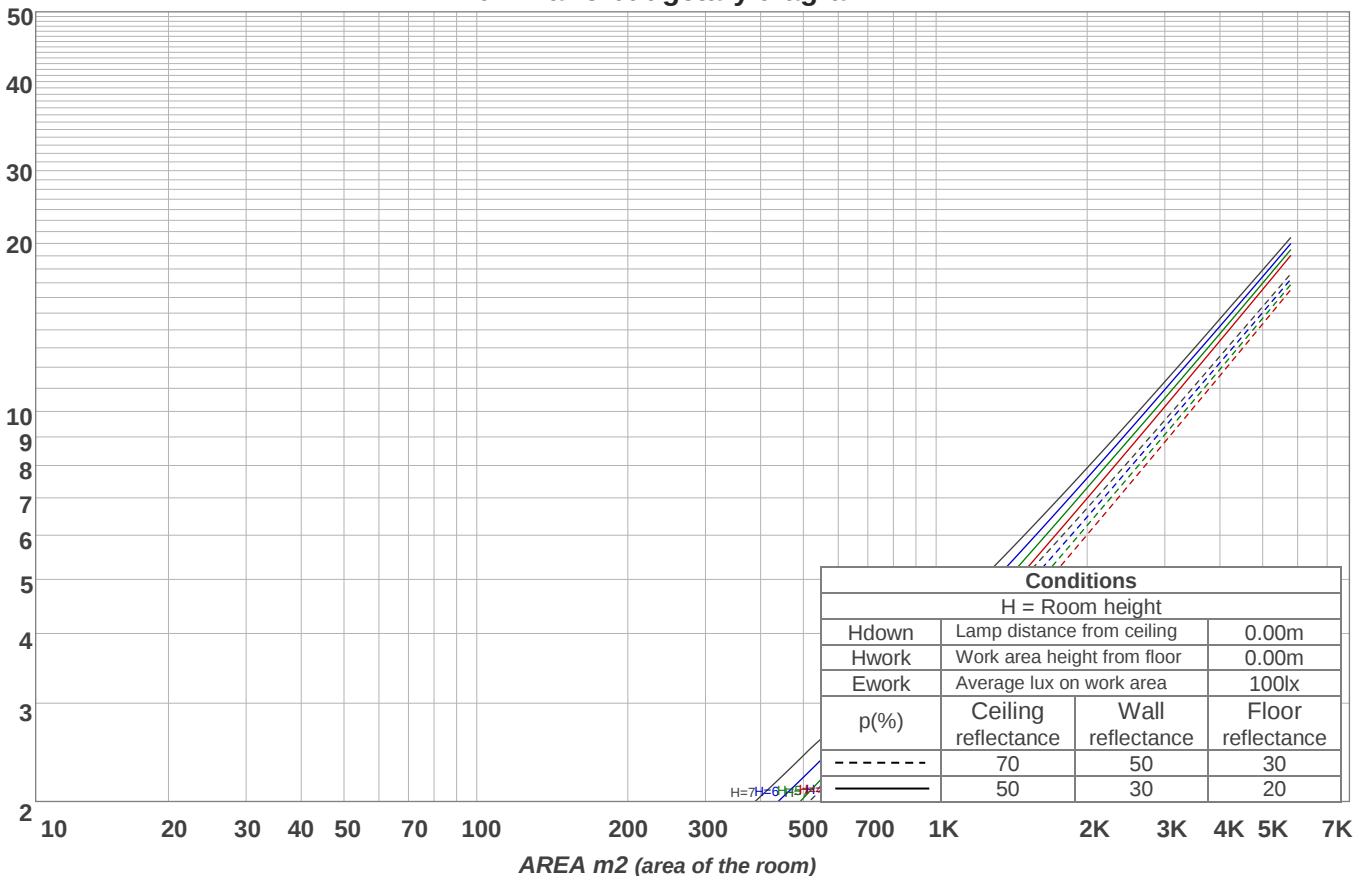
Light Planning

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	102	102	102	100
1	107	102	97	93	104	99	95	91	95	91	88	91	88	85	87	85	83	80
2	96	86	78	72	93	84	77	71	81	75	69	77	72	68	74	70	66	64
3	86	74	64	57	83	72	63	56	69	61	55	66	60	54	63	58	53	51
4	77	64	54	46	75	62	53	46	60	52	45	57	50	44	55	49	44	41
5	70	56	46	38	68	55	45	38	52	44	37	50	43	37	48	42	37	34
6	64	49	39	32	62	48	39	32	46	38	32	45	37	31	43	36	31	29
7	59	44	34	28	57	43	34	27	42	33	27	40	32	27	38	32	27	24
8	55	40	30	24	53	39	30	24	38	29	24	36	29	23	35	28	23	21
9	51	36	27	21	49	35	27	21	34	26	21	33	26	21	32	25	21	19
10	47	33	24	19	46	32	24	19	31	24	19	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°
674 lm	2060 lm	3412 lm	4925 lm	6635 lm	8179 lm	7632 lm	3425 lm	599 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
51.7 lm	12.3 lm	15.0 lm	15.0 lm	13.9 lm	13.8 lm	10.3 lm	7.07 lm	2.55 lm

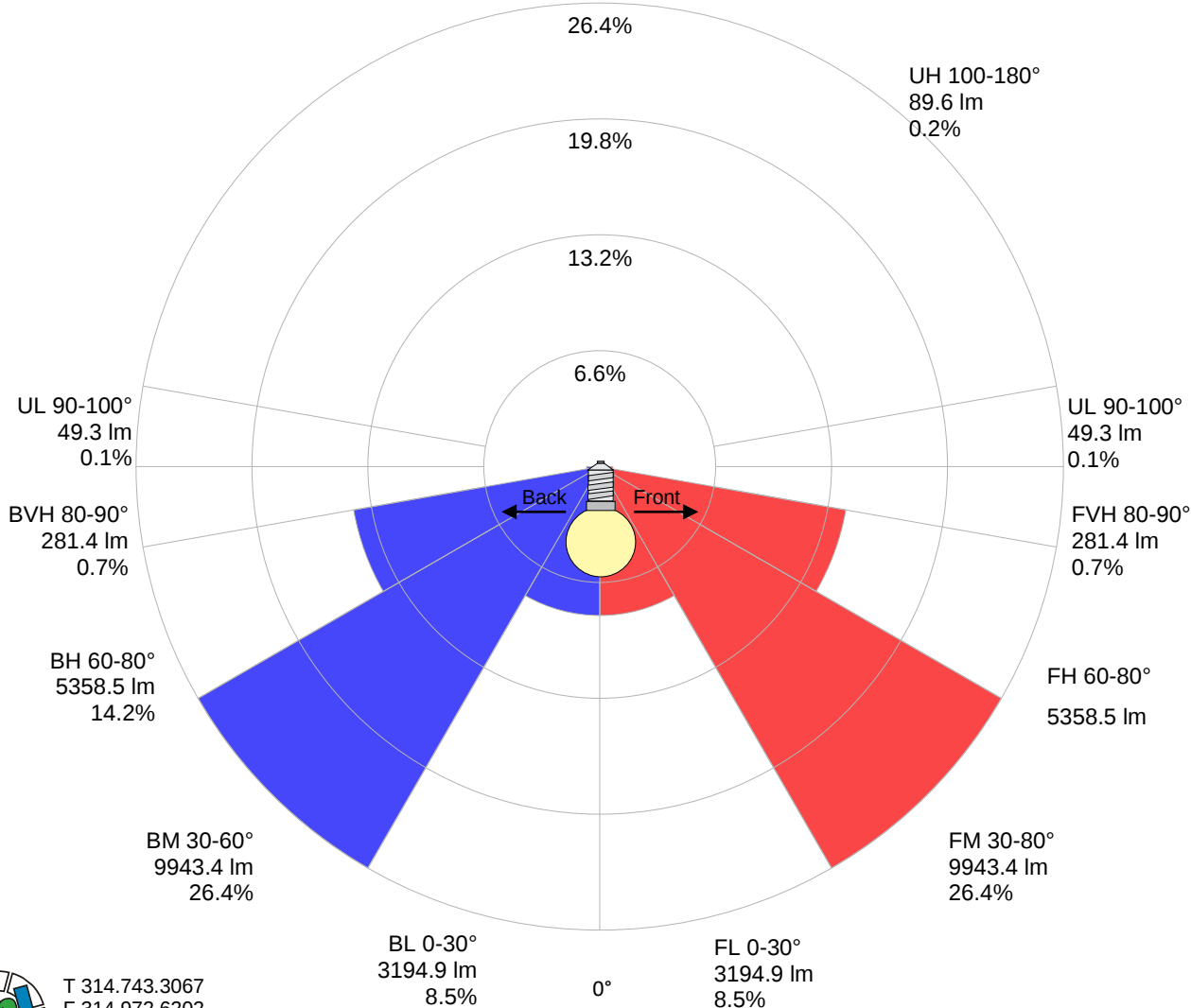


Road Report

LCS table

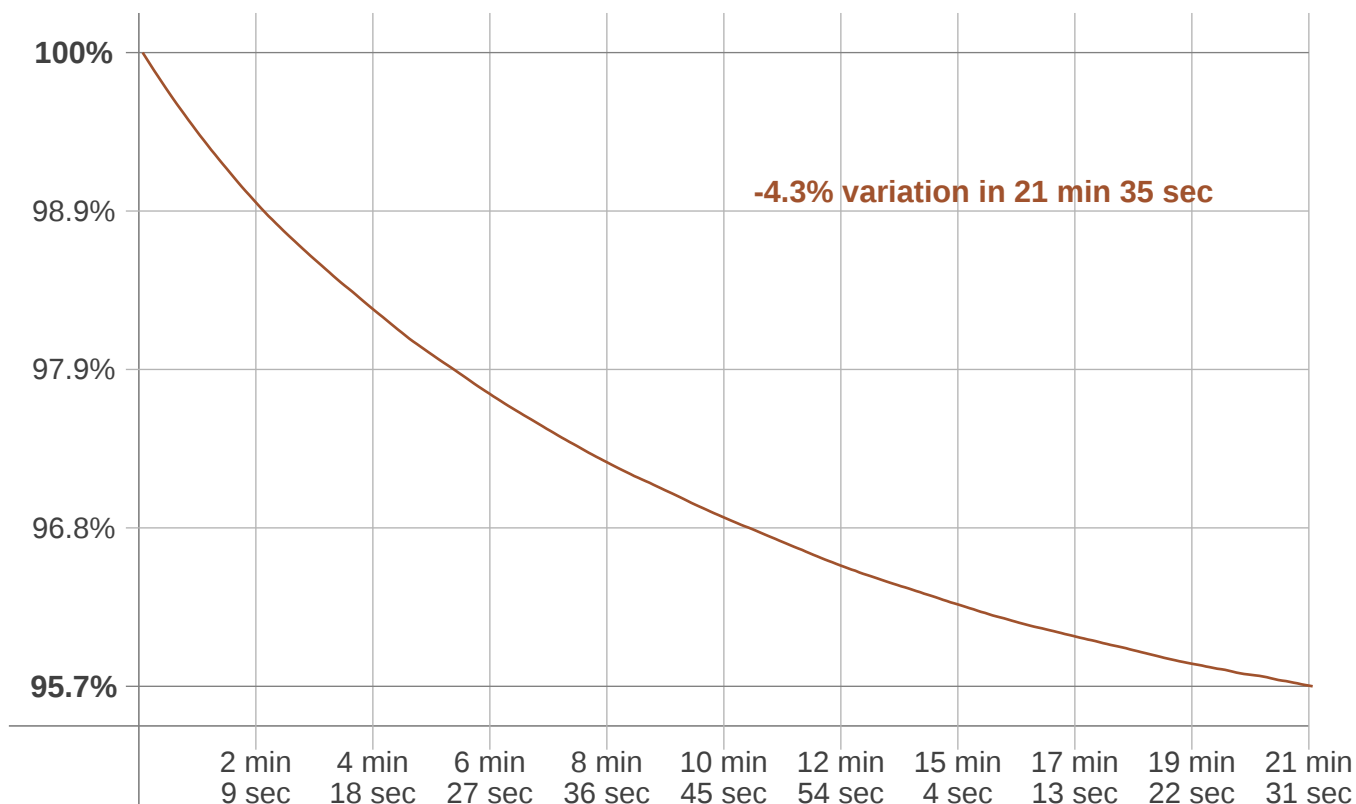
BUG rating:	B5 U3 G5	
Forward light	Lumens	Lumens %
Low(0-30):	3194.9	8.5%
Medium(30-60):	9943.4	26.4%
High(60-80):	5358.5	14.2%
Very high(80-90):	281.4	0.7%
Back light		
Low(0-30):	3194.9	8.5%
Medium(30-60):	9943.4	26.4%
High(60-80):	5358.5	14.2%
Very high(80-90):	281.4	0.7%
Uplight		
Low(90-100):	49.3	0.1%
High(100-180):	89.6	0.2%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	21 min 35 sec
Warmup variation	-4.3%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5143 K	+85 K	5228 K

Output change

Output start	Output change	Output end
39341 lm	-1659 lm	37682 lm

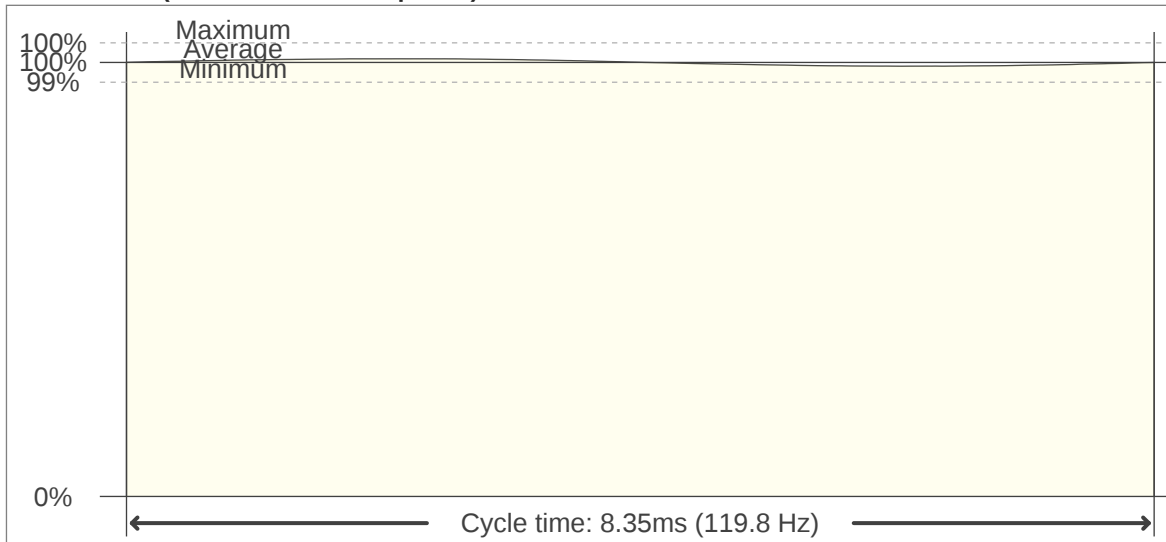


Flicker

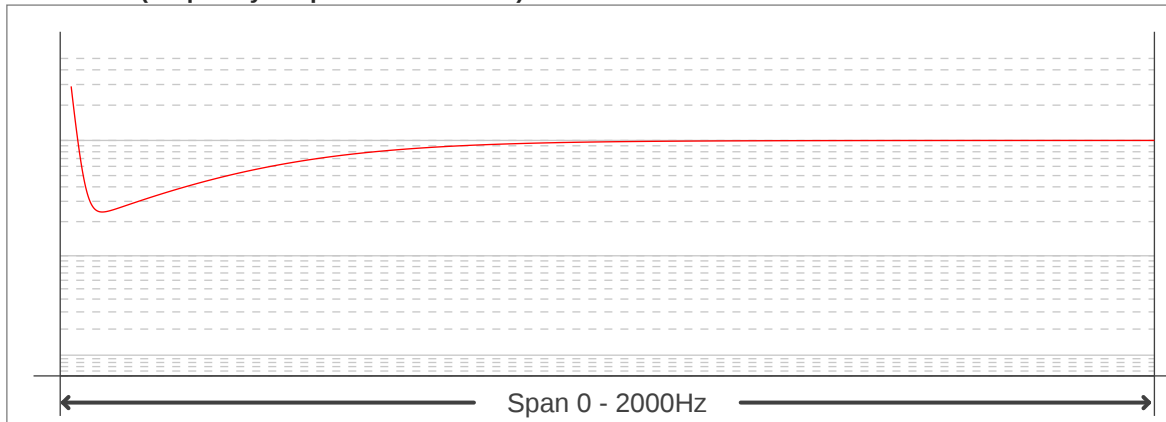
Flicker curve (complete sampled flicker signal)



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:	0.9 %
SVM: (Visual flicker)	0.03

Flicker conditions:

Sample rate:	40000 samples/second
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