

Light efficiency:

132 Lumen/Watt

Output: 11799 lm

Light quality:

CRI: 86.6

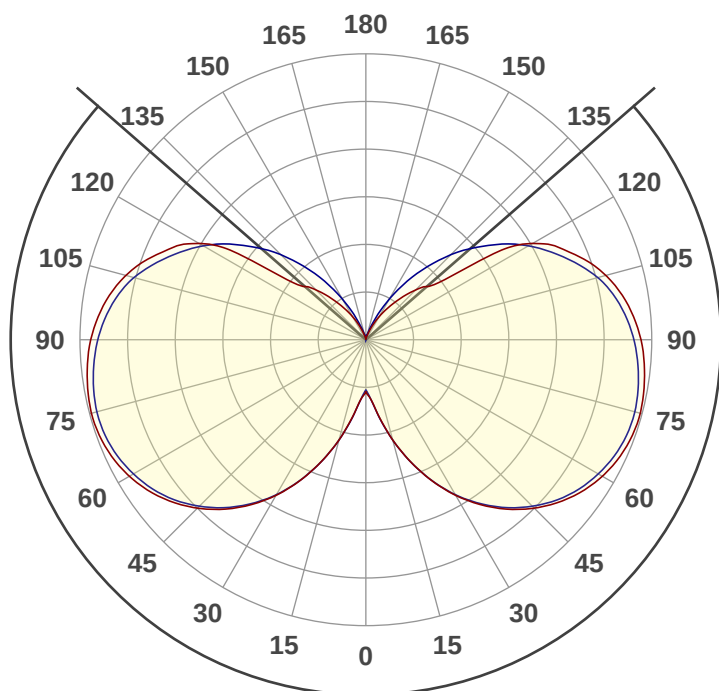
Peak: 1309 cd

Color temperature:

5361 K

Power: 89.7 W

PF: 1.0



Product name:

ACL-50K90W-EX39 Closed

Date and time:

7/24/2019 2:36:54 PM

Beam angle

262.2°

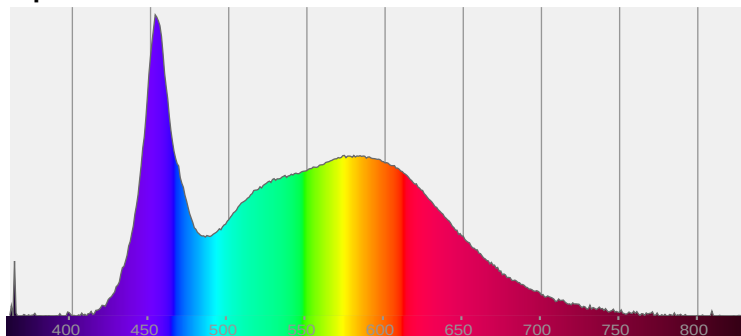


CIE 1931

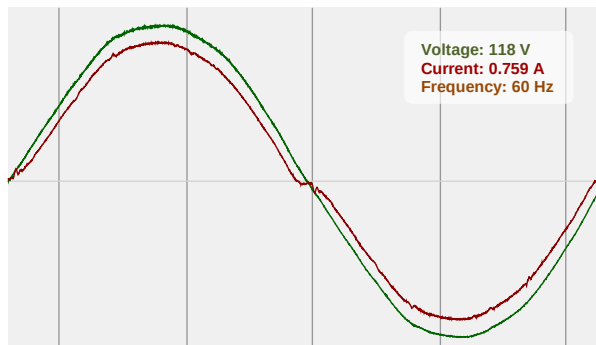
x: 0.336

y: 0.339

Spectra



Power



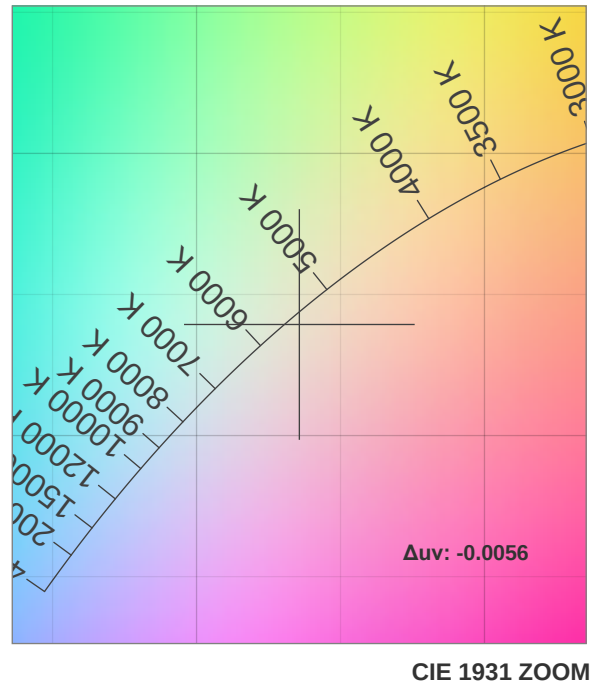
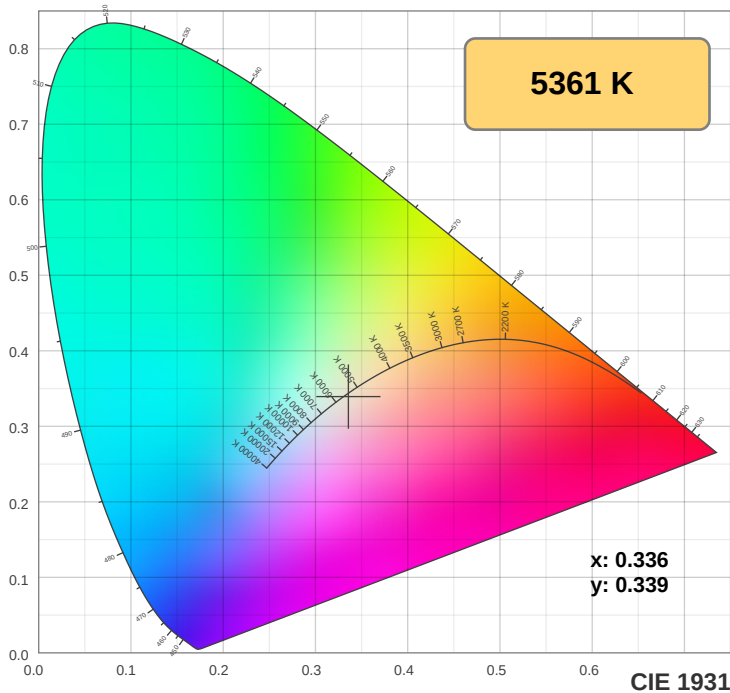
T 314.743.3067

F 314.972.6202

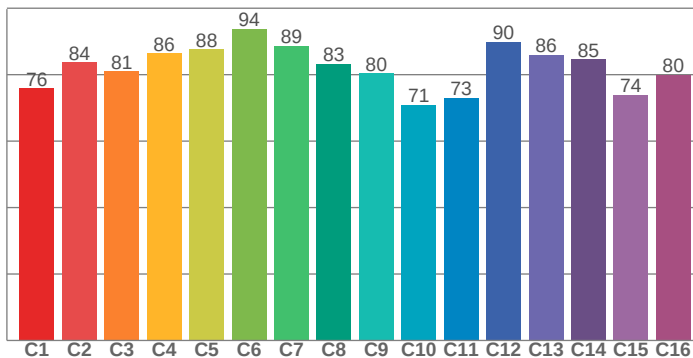
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

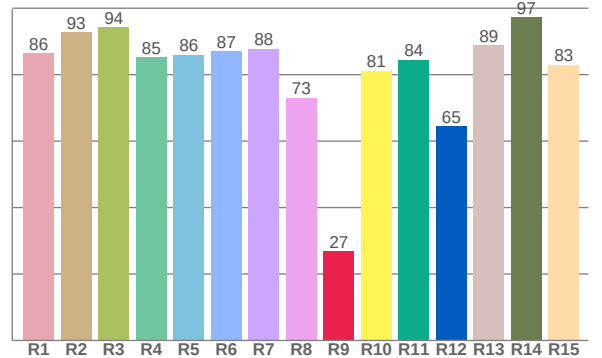
Color Specifications



TM30: 82.3



CRI: 86.6 (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
86.5	92.9	94.2	85.3	86.0	87.0	87.8	73.0	26.9	81.1	84.5	64.5	88.8	97.3	83.0

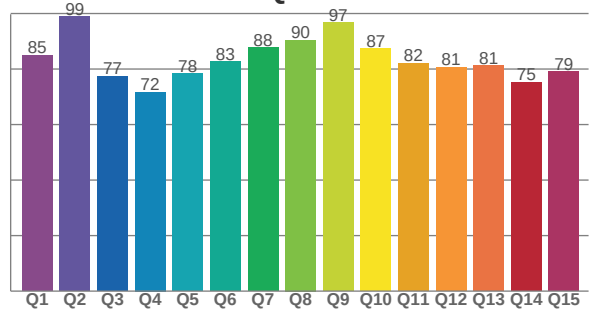
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
75.9	83.8	81.0	86.4	87.7	93.8	88.7	83.3	80.4	70.8	72.9	89.9	85.9	84.6	74.0	79.9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84.9	98.8	77.4	71.7	78.4	82.7	87.7	90.4	96.7	87.3	82.1	80.6	81.3	75.2	79.0

CQS: 82.1



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
5361 K	86.6	26.9	82.3	94.8	82.1	0.336	0.339	0.210	0.318	-0.0056



TM30 Report

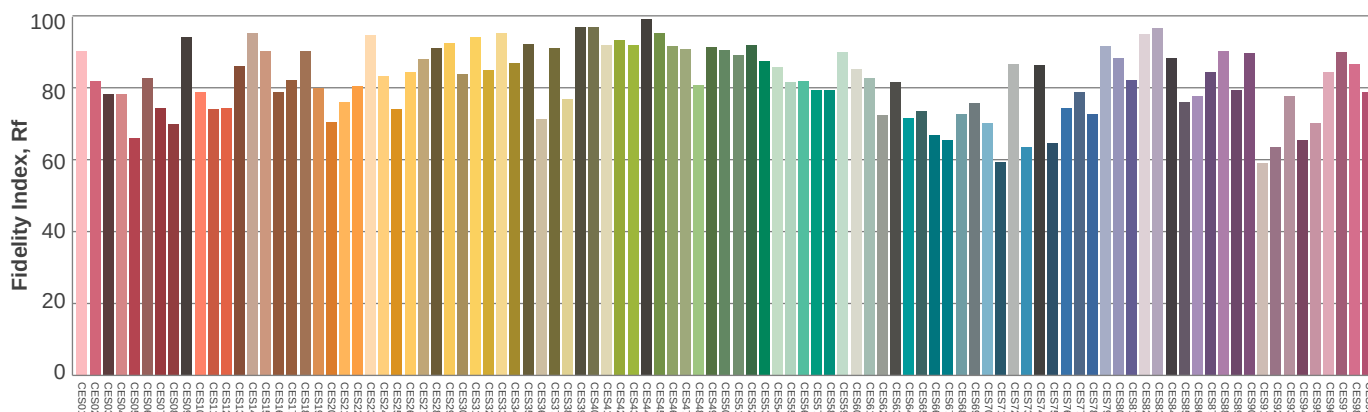
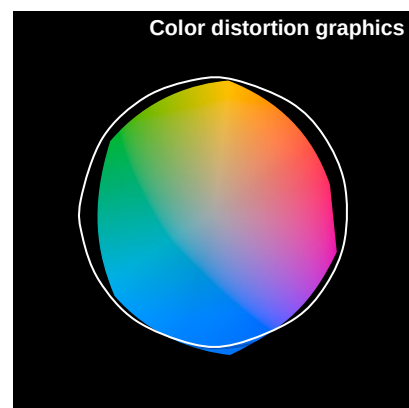
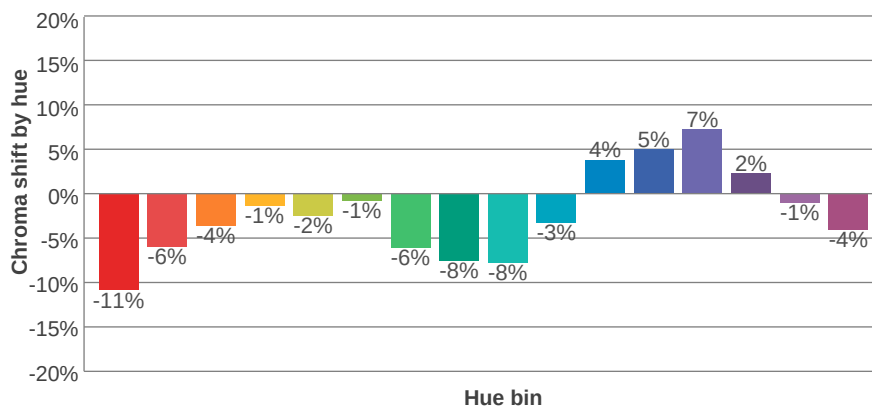
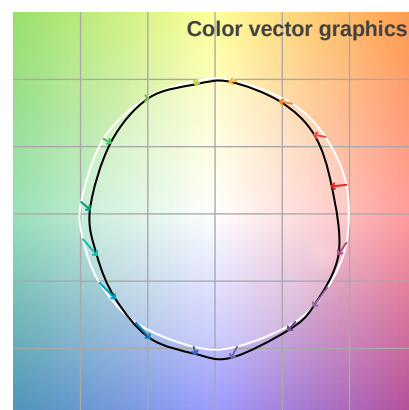
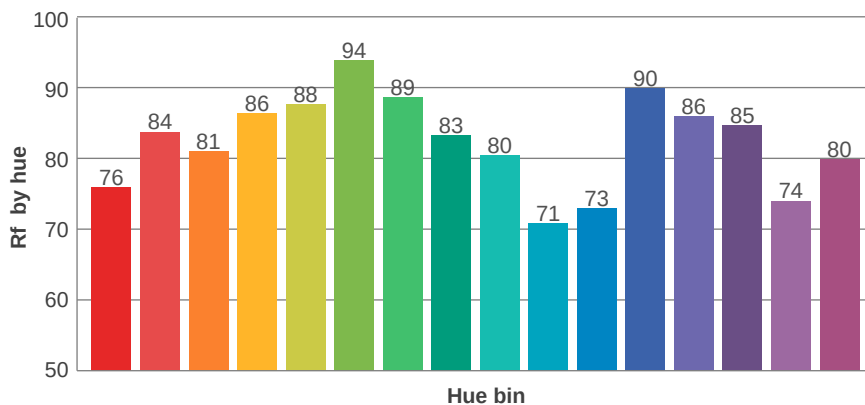
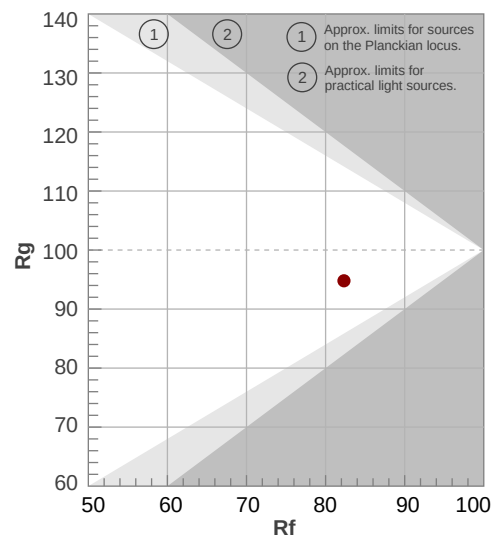
Rf 82.3

Fidelity index Rf

Rg 94.8

Gammut index Rg

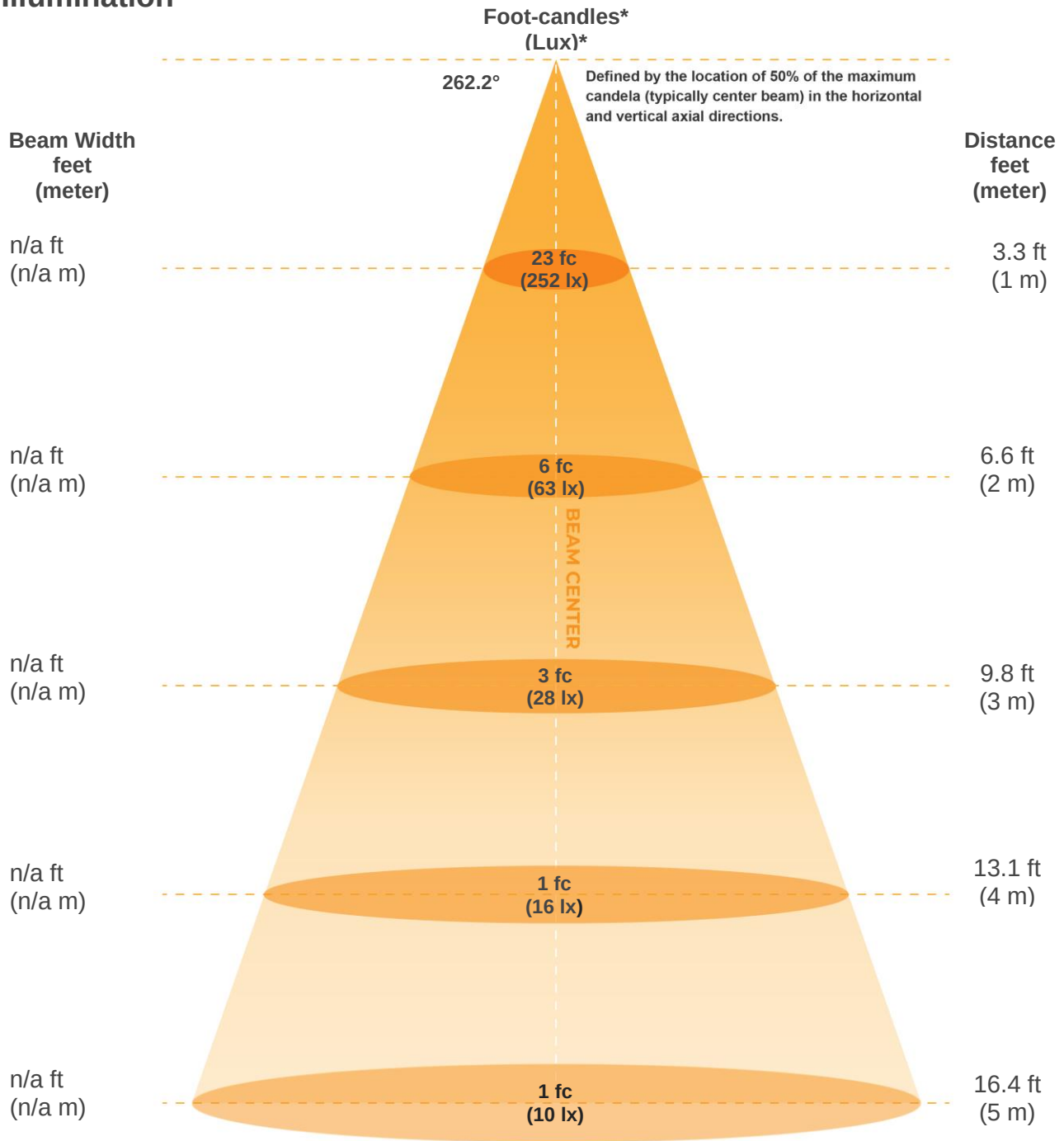
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	76	-11%	1%
2	84	-6%	6%
3	81	-4%	8%
4	86	-1%	5%
5	88	-2%	2%
6	94	-1%	-1%
7	89	-6%	-1%
8	83	-8%	4%
9	80	-8%	13%
10	71	-3%	16%
11	73	4%	15%
12	90	5%	2%
13	86	7%	-6%
14	85	2%	-8%
15	74	-1%	-17%
16	80	-4%	-9%



Color Evaluation Sample



Illumination



*measured at center of beam

Beam intensities from 1-20m

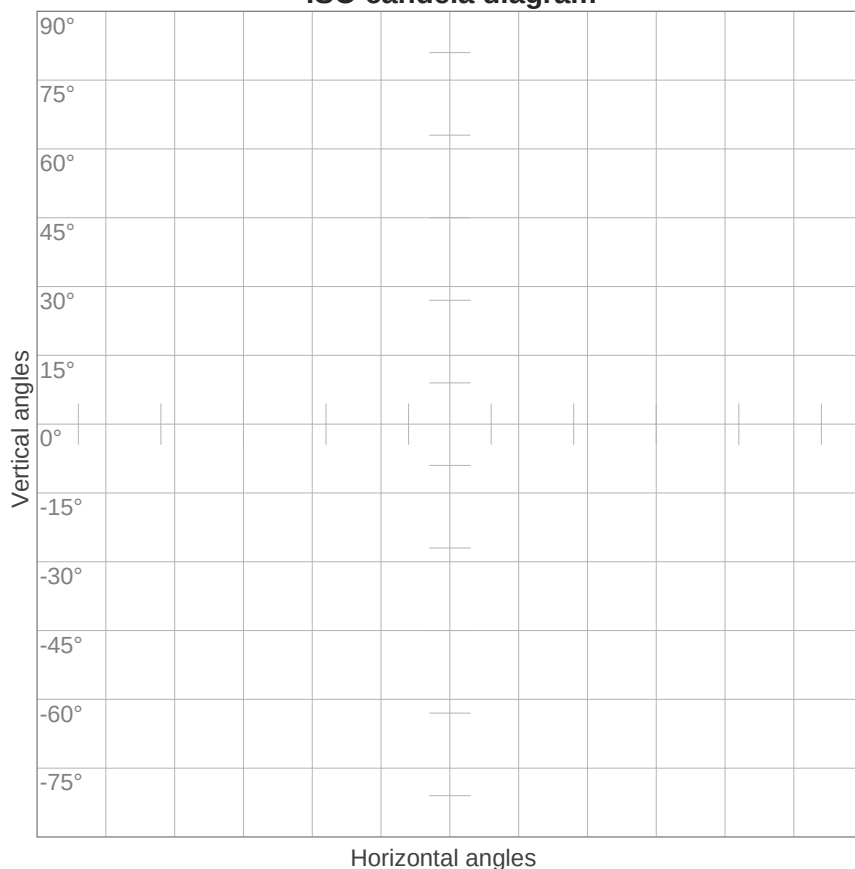
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
252lx	63lx	28lx	16lx	10lx	7lx	5lx	4lx	3lx	3lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx
23.5fcd	5.9fcd	2.6fcd	1.5fcd	0.9fcd	0.7fcd	0.5fcd	0.4fcd	0.3fcd	0.2fcd	0.2fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	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
262.2°	309°	325.4°	25.3%	12.4%



ISO Diagrams

ISO candela diagram



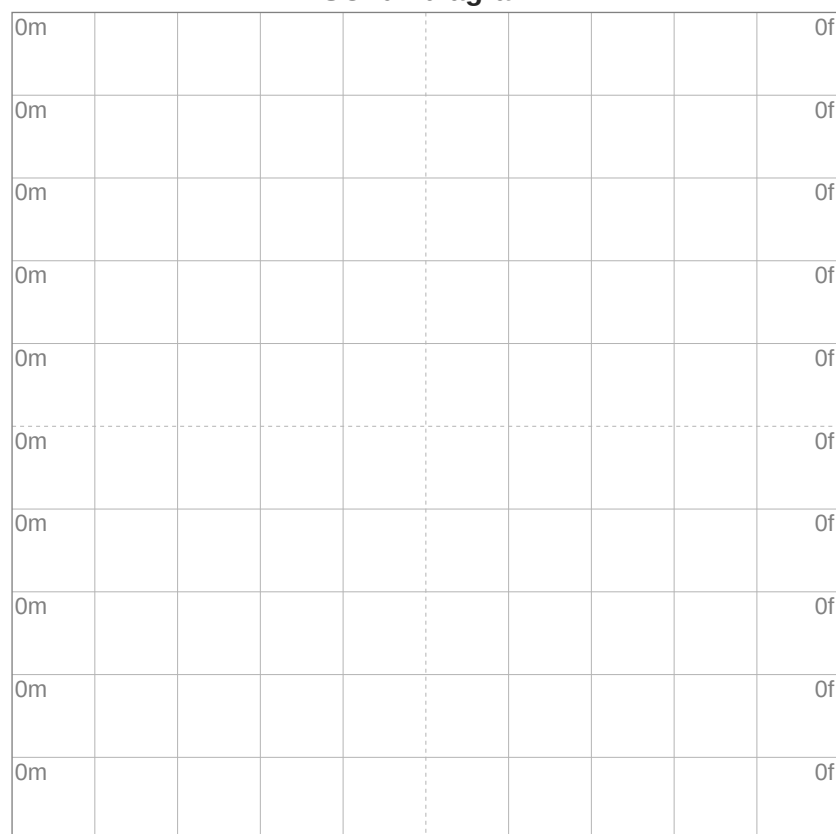
10%	25 cd
20%	50 cd
30%	76 cd
40%	101 cd
50%	126 cd
60%	151 cd
70%	177 cd
80%	202 cd
90%	227 cd

Conditions:

Number of c-planes: 16

Candela at center: 252 cd

ISO lux diagram



3%	75.7m lx
5%	0.126 lx
10%	0.252 lx
30%	0.757 lx
50%	1.26 lx

Conditions:

Number of c-planes: 16

Lux at center: 2.52 lx

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



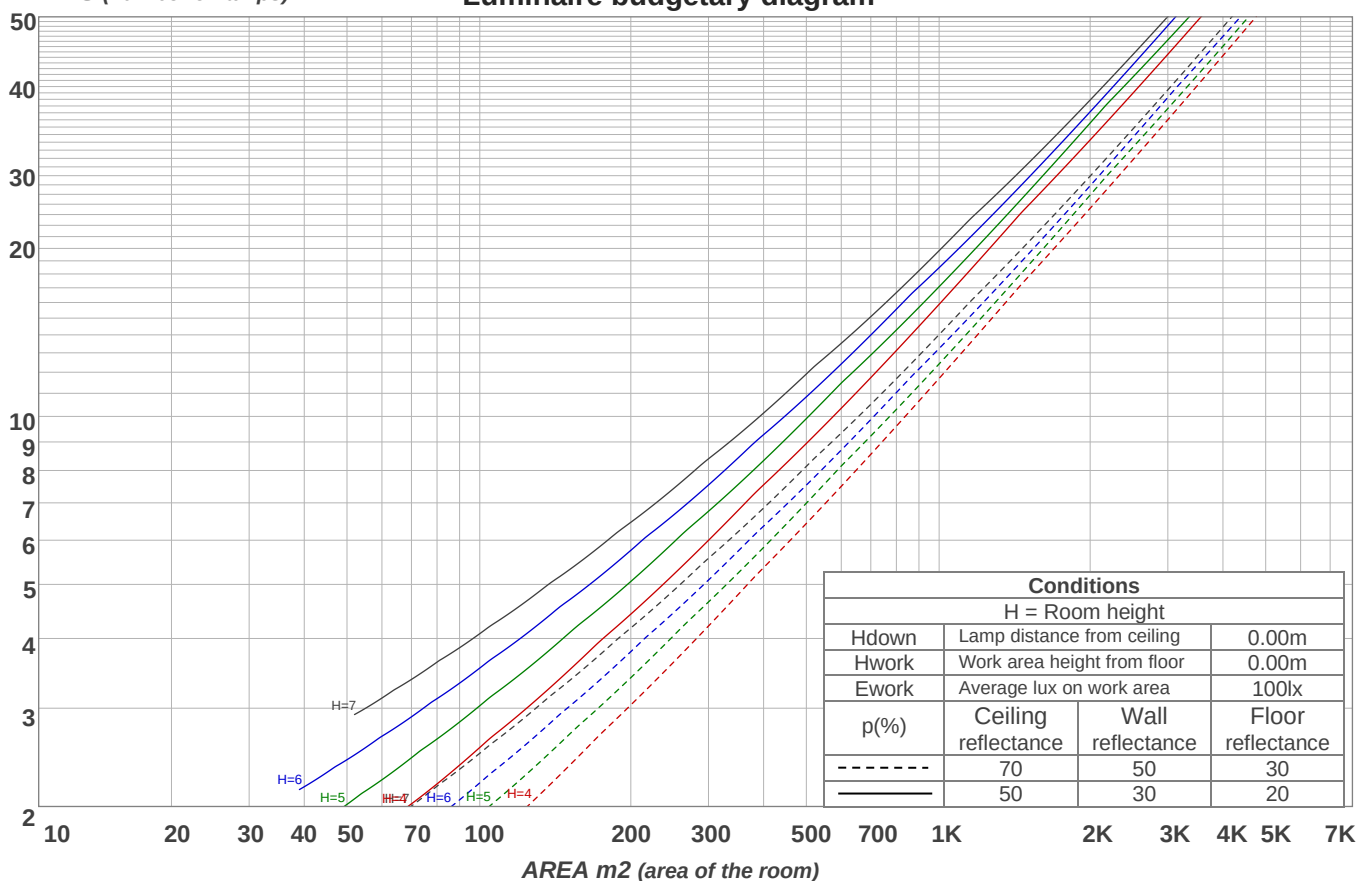
Light Planning

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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59
1	94	87	81	75	87	80	75	70	68	64	60	58	54	51	47	45	42	37
2	83	72	64	56	76	67	59	53	57	50	45	47	42	38	38	34	31	26
3	74	62	52	44	68	57	48	41	48	41	35	40	34	29	32	28	24	20
4	67	53	43	36	61	49	40	33	41	34	28	34	28	24	27	23	19	15
5	61	47	37	29	56	43	34	27	36	29	23	30	24	19	24	19	15	12
6	56	41	32	25	51	38	29	23	32	25	19	27	21	16	21	17	13	10
7	51	37	28	21	47	34	26	20	29	22	17	24	18	14	19	14	11	8
8	47	33	24	18	43	31	22	17	26	19	14	22	16	12	17	13	9	7
9	44	30	21	16	40	28	20	15	24	17	12	20	14	10	16	11	8	6
10	41	27	19	14	38	25	18	13	22	15	11	18	13	9	15	10	7	5

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°
29.7 lm	139 lm	331 lm	577 lm	835 lm	1069 lm	1248 lm	1350 lm	1373 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
1319 lm	1182 lm	962 lm	690 lm	420 lm	205 lm	60.1 lm	7.32 lm	0.792 lm

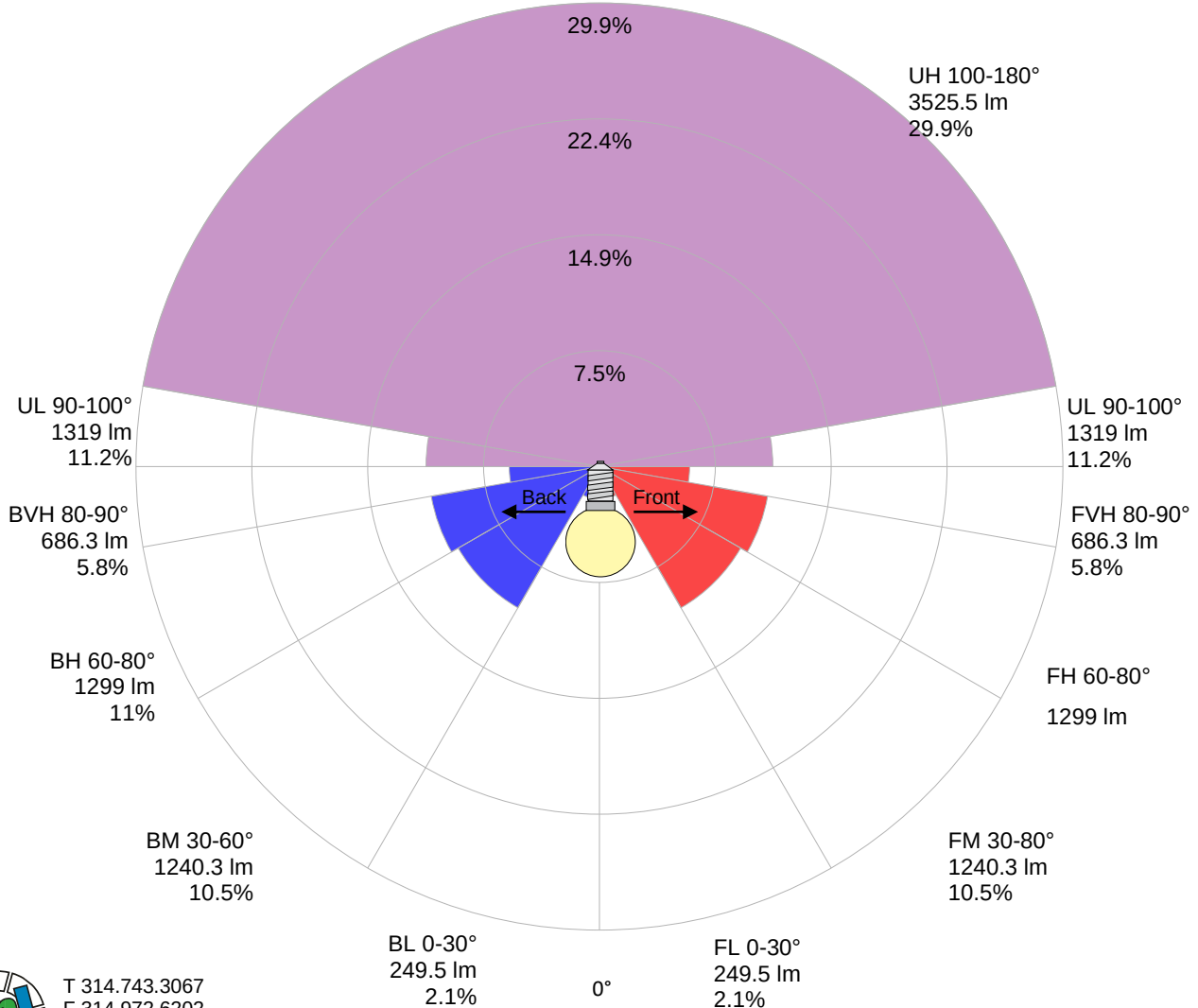


Road Report

LCS table

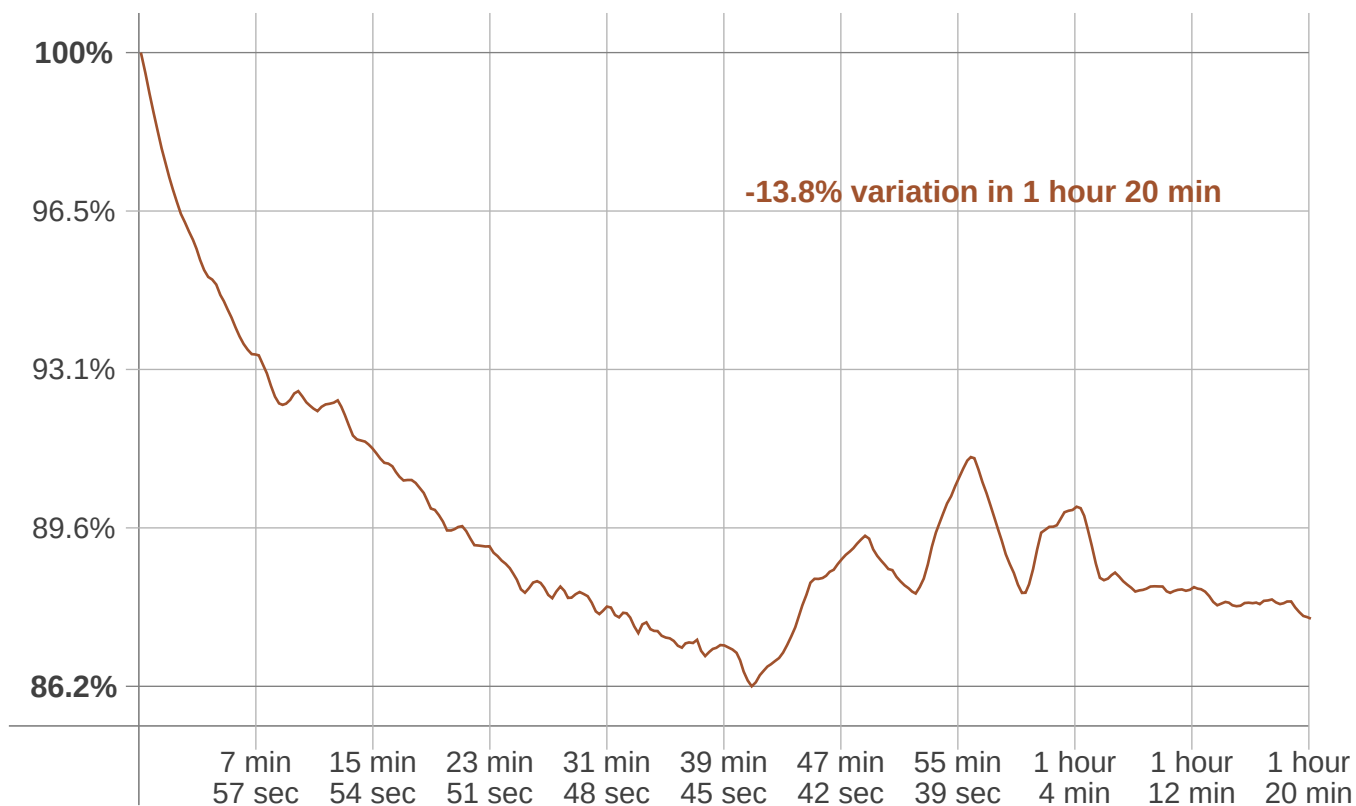
BUG rating:	B3 U5 G4	
Forward light	Lumens	Lumens %
Low(0-30):	249.5	2.1%
Medium(30-60):	1240.3	10.5%
High(60-80):	1299	11%
Very high(80-90):	686.3	5.8%
Back light		
Low(0-30):	249.5	2.1%
Medium(30-60):	1240.3	10.5%
High(60-80):	1299	11%
Very high(80-90):	686.3	5.8%
Uplight		
Low(90-100):	1319	11.2%
High(100-180):	3525.5	29.9%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	1 hour 20 min
Warmup variation	-14.0%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5157 K	+204 K	5361 K

Output change

Output start	Output change	Output end
13149 lm	-1350 lm	11799 lm

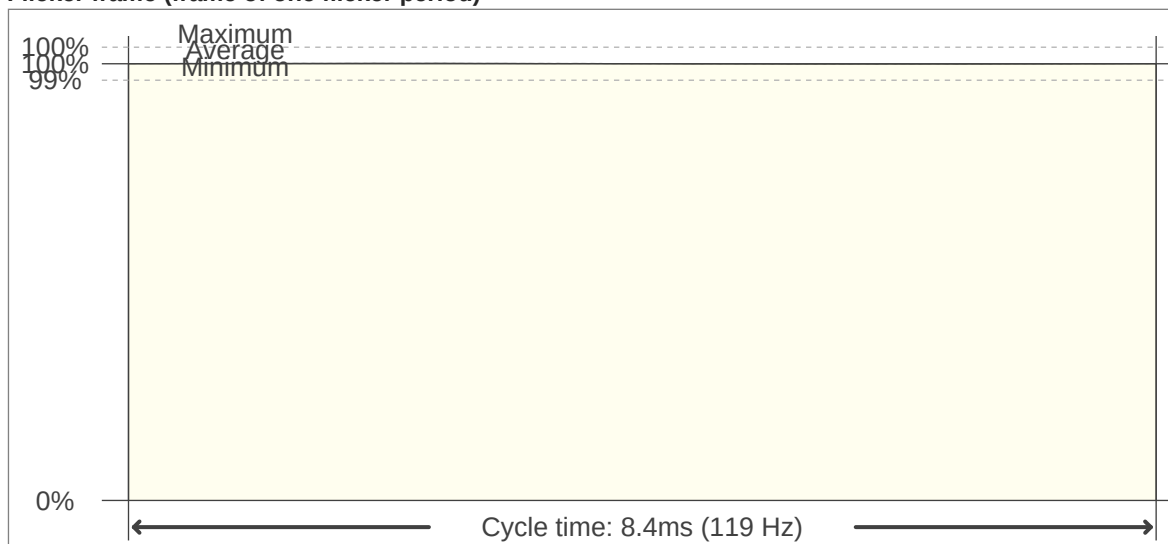


Flicker

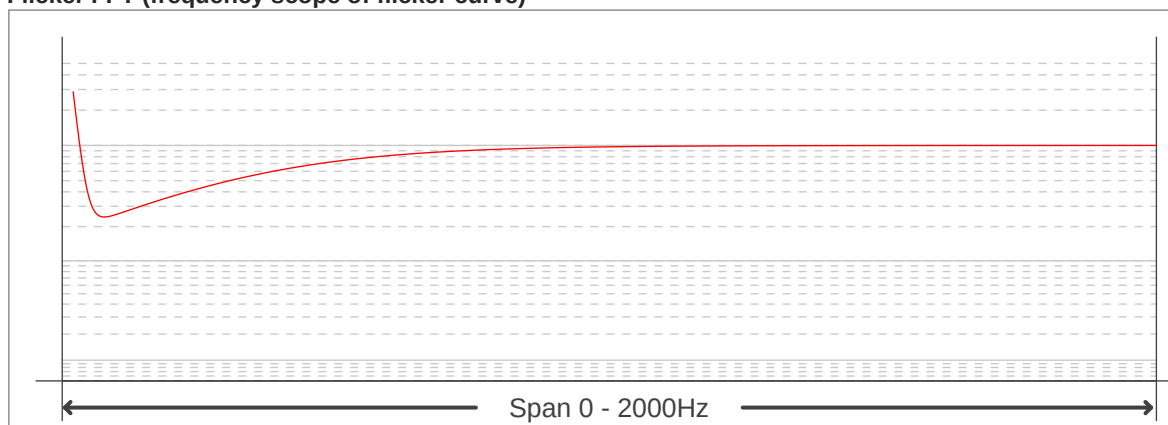
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	119.05 Hz
Flicker index:	0
Flicker percentage:	0.2 %
SVM: (Visual flicker)	0

Flicker conditions:

Sample rate:	40000 samples/second
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