

Light efficiency:

119 Lumen/Watt

Output: 22387 lm

Light quality:

CRI: 84.9

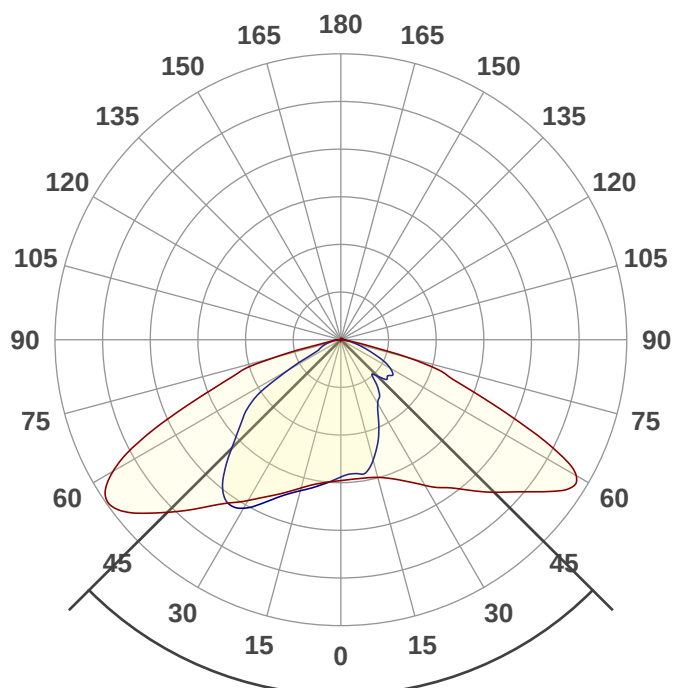
Peak: 11397 cd

Color temperature:

5139 K

Power: 188 W

PF: 1.0



Product name:

ALD-50K19W-C-BRC3 Type II-M

Date and time:

4/4/2019 11:33:09 AM

Beam angle

90.3°

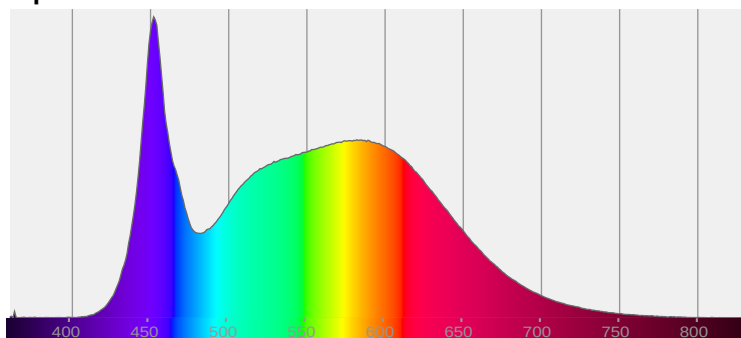


CIE 1931

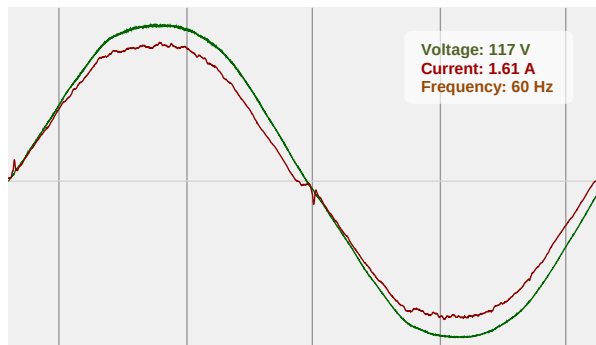
x: 0.342

y: 0.353

Spectra



Power



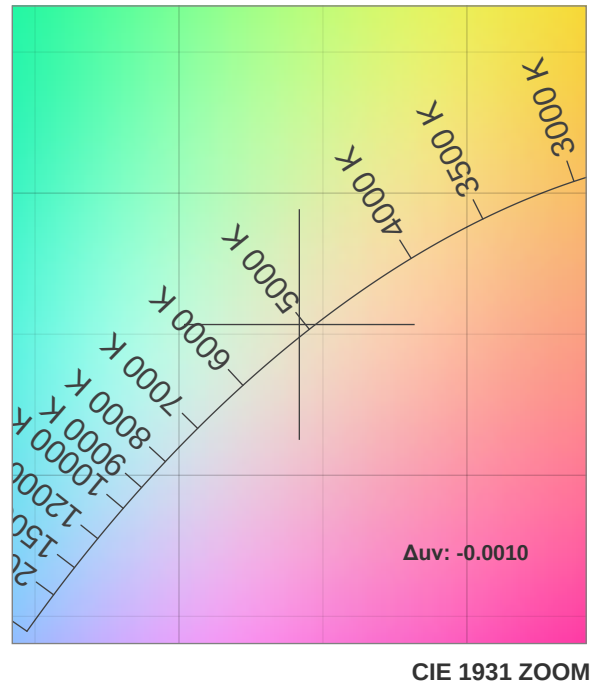
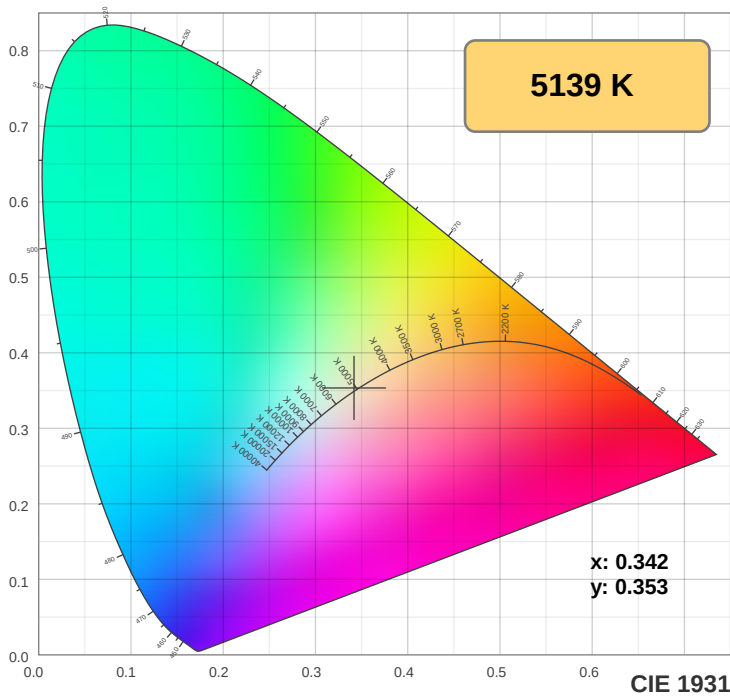
T 314.743.3067

F 314.972.6202

email: commercial-sales@superbrightleds.com

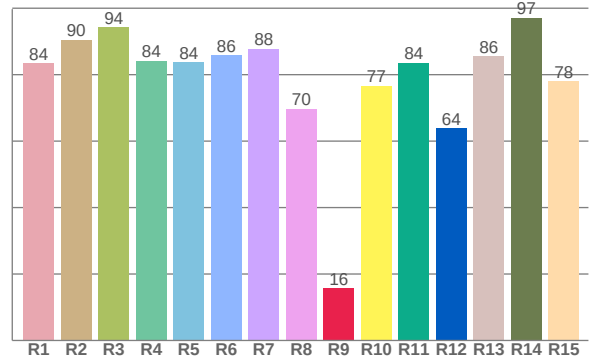
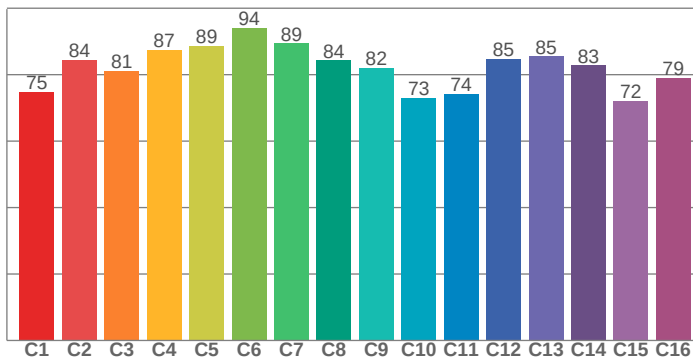
www.superbrightleds.com/

Color Specifications



TM30: 82.7

CRI: 84.9 (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
83.5	90.5	94.2	84.2	83.8	85.8	87.8	69.8	15.8	76.7	83.6	64.0	85.6	97.1	78.0

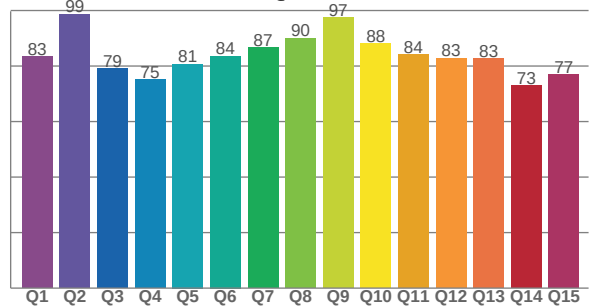
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
74.9	84.4	81.1	87.4	88.6	94.1	89.4	84.3	82.1	73.0	74.3	84.8	85.5	82.8	72.2	79.0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83.5	98.7	79.0	75.1	80.7	83.6	86.7	90.0	97.4	88.1	84.1	82.8	82.7	72.9	76.9

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
5139 K	84.9	15.8	82.7	94.3	82.6	0.342	0.353	0.208	0.323	-0.0010



TM30 Report

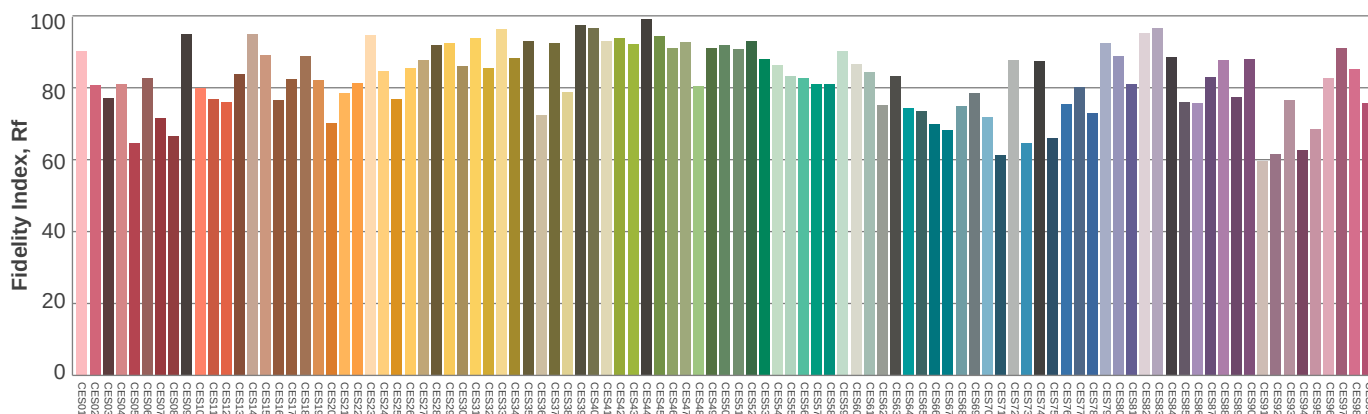
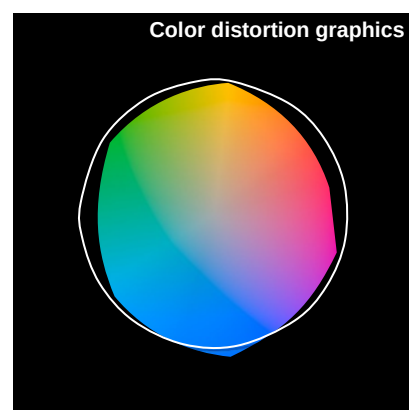
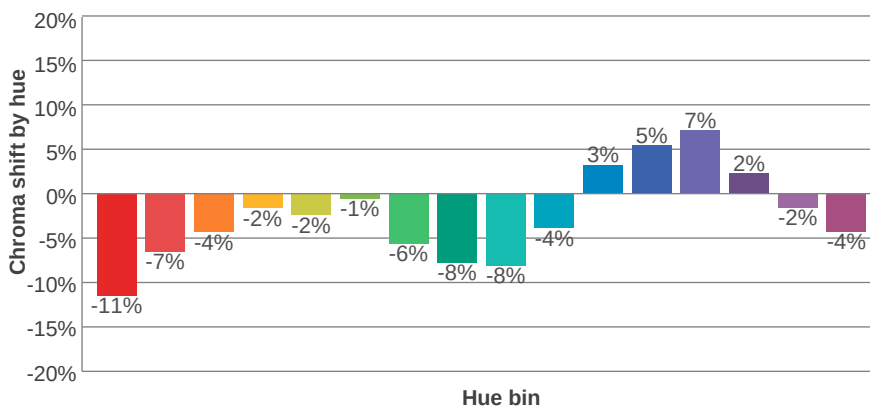
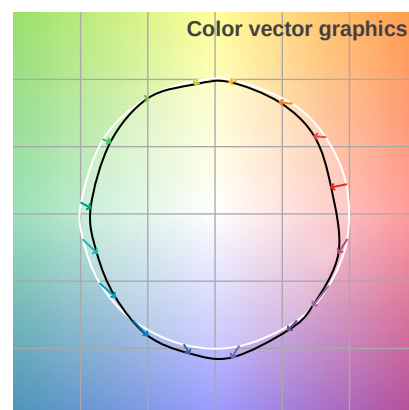
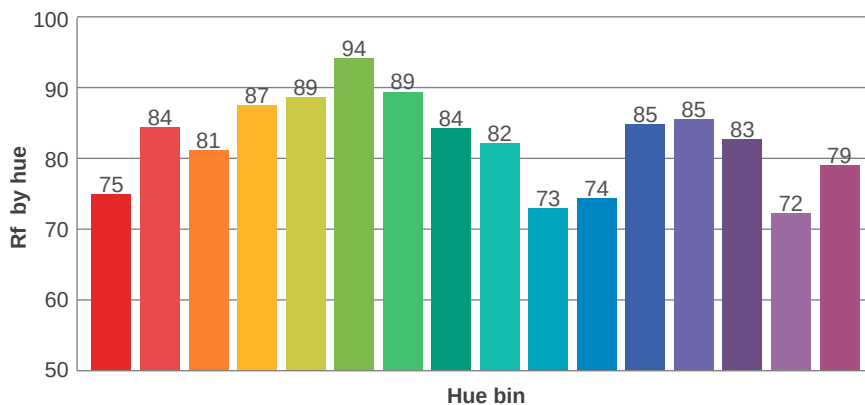
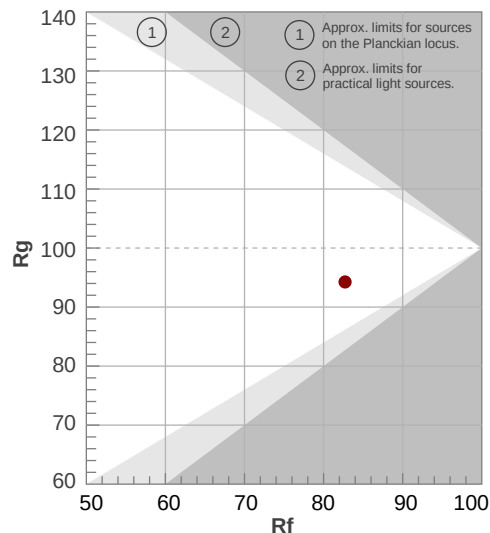
Rf 82.7

Fidelity index Rf

Rg 94.3

Gammut index Rg

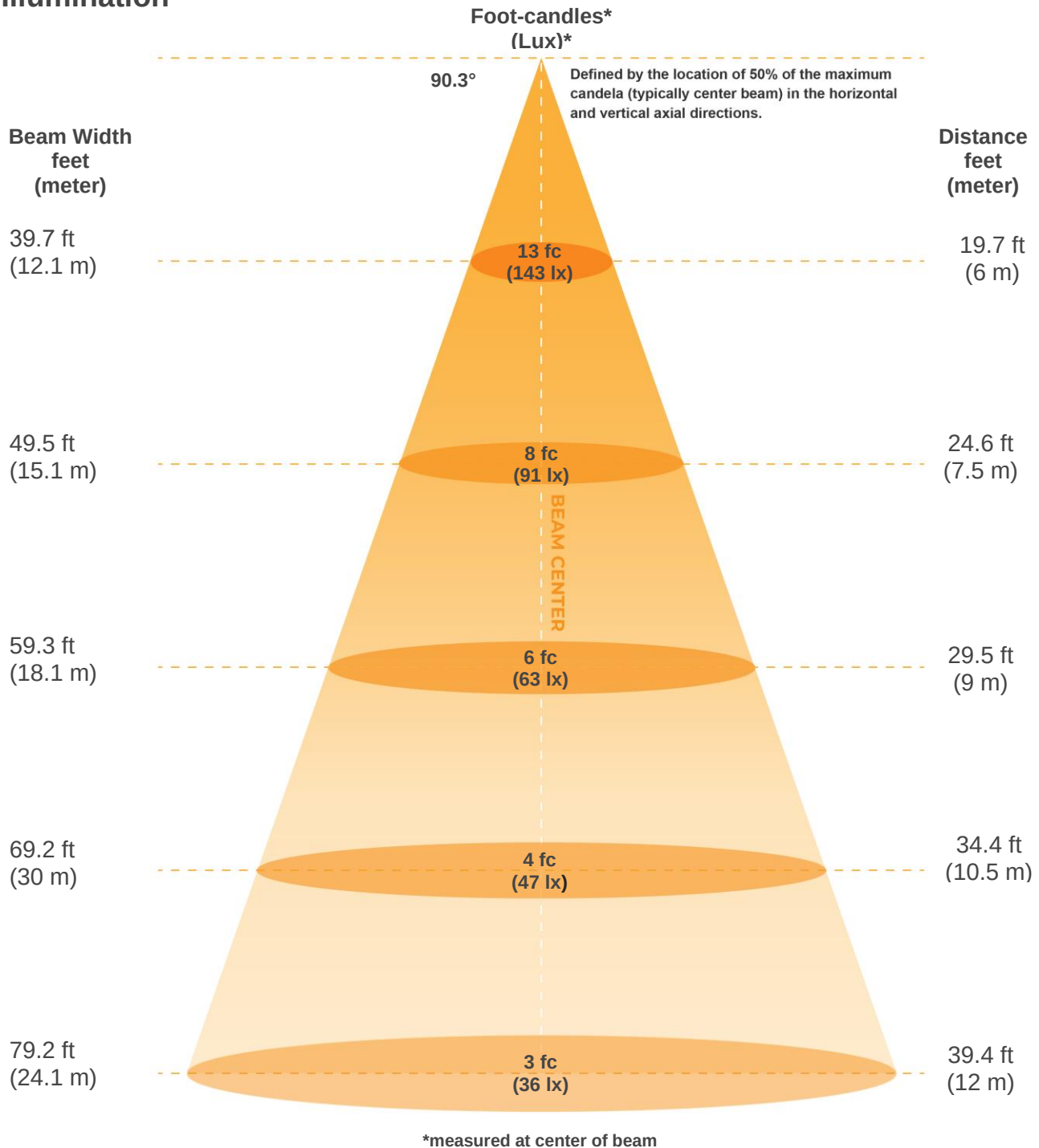
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	75	-11%	0%
2	84	-7%	5%
3	81	-4%	8%
4	87	-2%	4%
5	89	-2%	2%
6	94	-1%	-1%
7	89	-6%	-1%
8	84	-8%	2%
9	82	-8%	12%
10	73	-4%	14%
11	74	3%	15%
12	85	5%	5%
13	85	7%	-7%
14	83	2%	-9%
15	72	-2%	-18%
16	79	-4%	-11%



Color Evaluation Sample



Illumination



Beam intensities from 1-20m

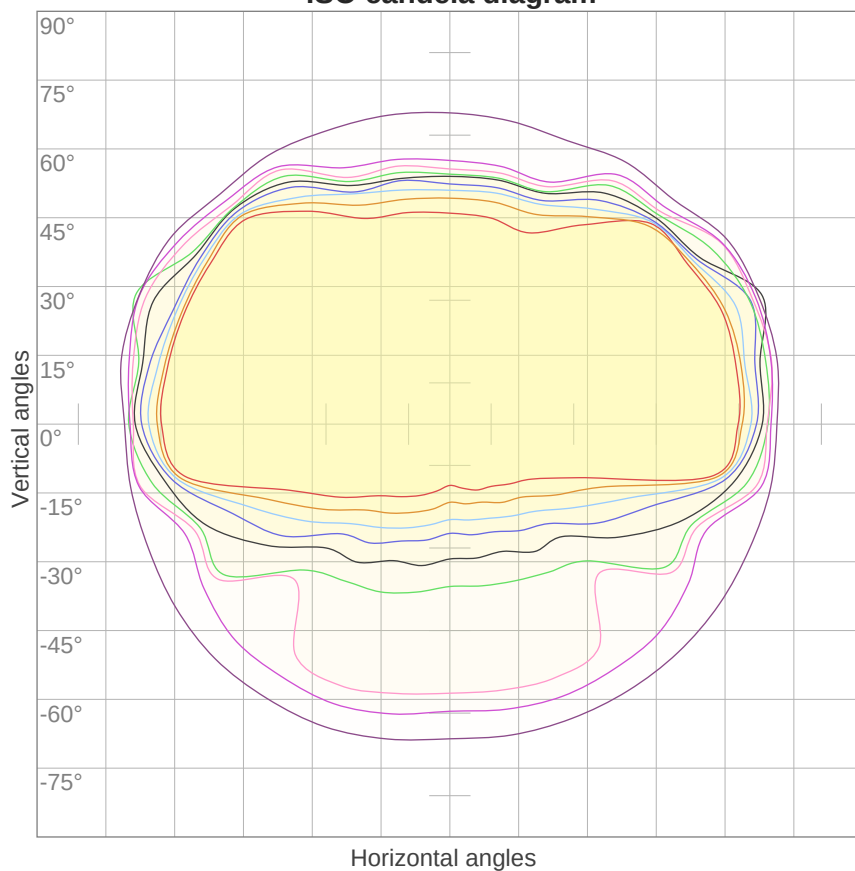
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
5132lx	1283lx	570lx	321lx	205lx	143lx	105lx	80lx	63lx	51lx	42lx	36lx	30lx	26lx	23lx	20lx	18lx	16lx	14lx	13lx
476.8fc	119.2fc	53fcd	29.8fcd	19.1fcd	13.2fcd	9.7fcd	7.4fcd	5.9fcd	4.8fcd	3.9fcd	3.3fcd	2.8fcd	2.4fcd	2.1fcd	1.9fcd	1.6fcd	1.5fcd	1.3fcd	1.2fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
90.3°	148.2°	168.5°	76.6%	45.9%



ISO Diagrams

ISO candela diagram



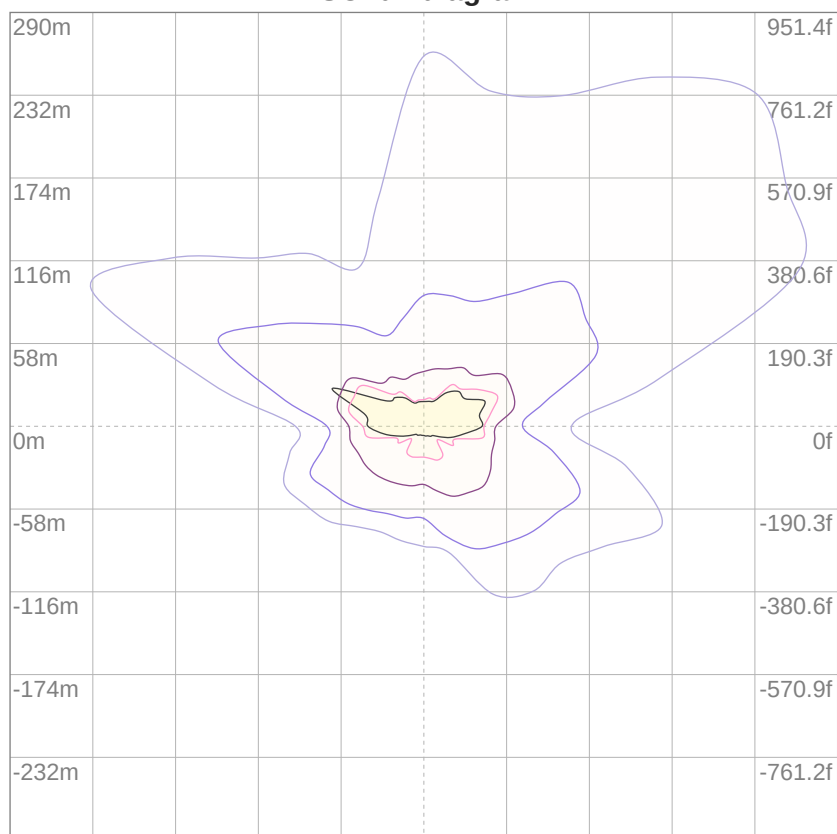
10%	513 cd
20%	1026 cd
30%	1540 cd
40%	2053 cd
50%	2566 cd
60%	3079 cd
70%	3593 cd
80%	4106 cd
90%	4619 cd

Conditions:

Number of c-planes: 16

Candela at center: 5132 cd

ISO lux diagram



3%	1.54 lx
5%	2.57 lx
10%	5.13 lx
30%	15.4 lx
50%	25.7 lx

Conditions:

Number of c-planes: 16

Lux at center: 51.3 lx

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



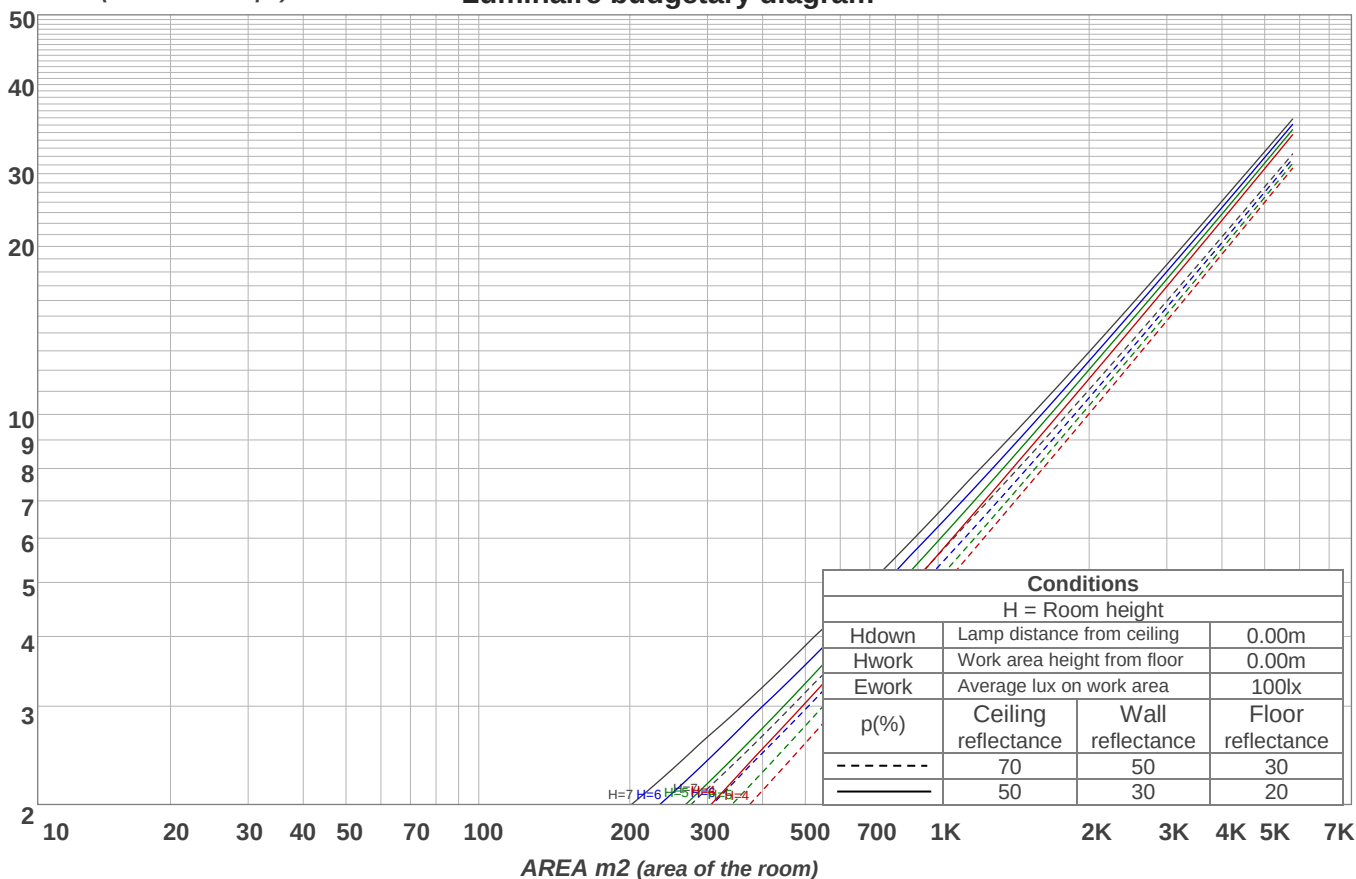
Light Planning

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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	89	82	76	95	87	81	75	84	78	73	80	76	72	77	73	70	68
3	88	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	80	68	58	51	78	66	57	51	64	56	50	61	55	49	59	53	48	46
5	73	60	50	43	71	58	49	43	56	48	42	54	47	42	52	46	41	39
6	67	53	44	37	65	52	43	37	50	42	36	48	41	36	47	40	35	33
7	62	48	38	32	60	47	38	32	45	37	31	44	36	31	42	36	31	29
8	57	43	34	28	56	42	34	28	41	33	28	40	32	27	38	32	27	25
9	53	39	30	25	52	38	30	25	37	30	24	36	29	24	35	29	24	22
10	50	36	28	22	48	35	27	22	34	27	22	33	26	22	32	26	22	20

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°
495 lm	1507 lm	2529 lm	3612 lm	4374 lm	4625 lm	3563 lm	1397 lm	227 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
9.30 lm	6.08 lm	7.37 lm	8.41 lm	8.16 lm	7.47 lm	5.85 lm	3.77 lm	1.31 lm

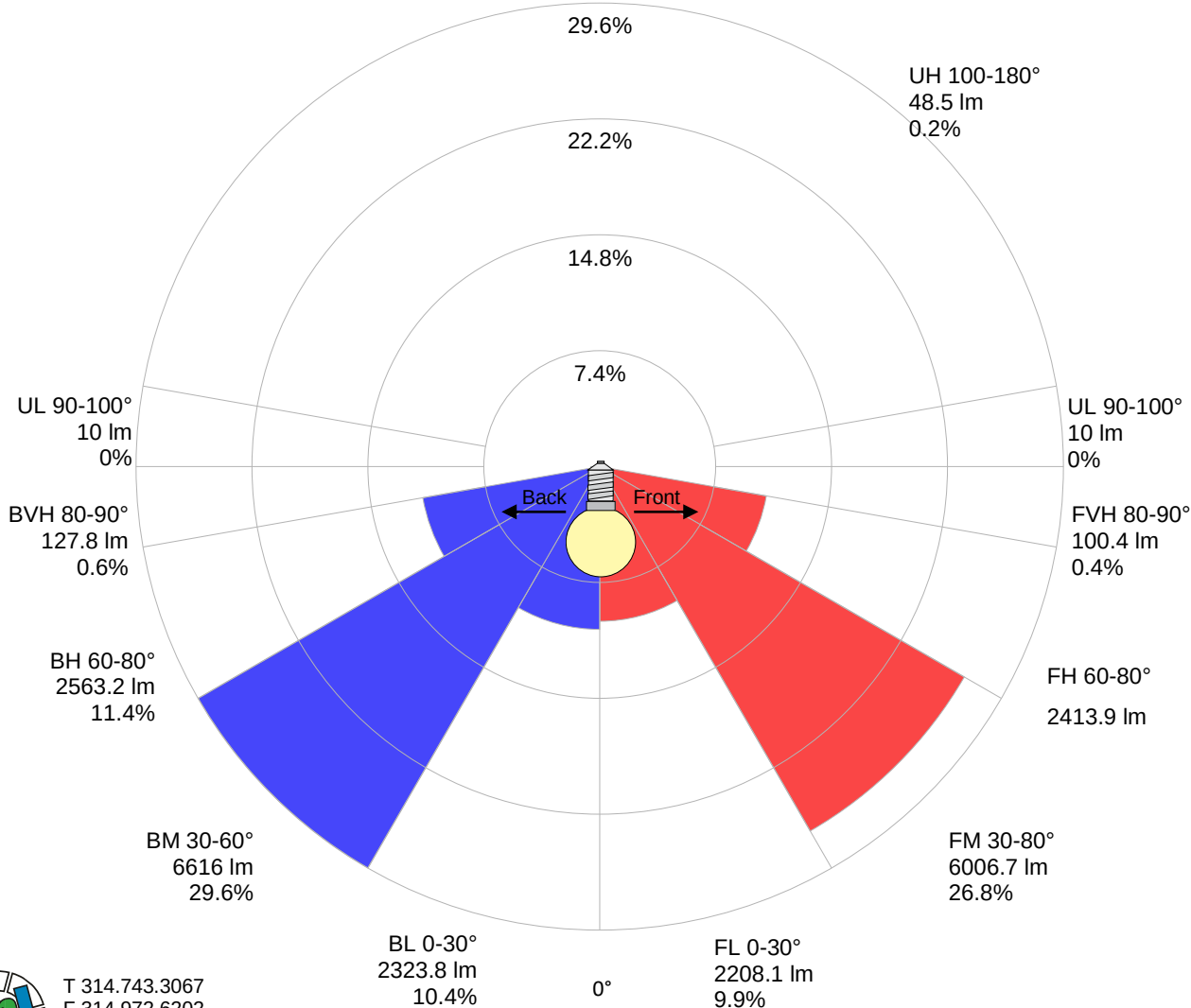


Road Report

LCS table

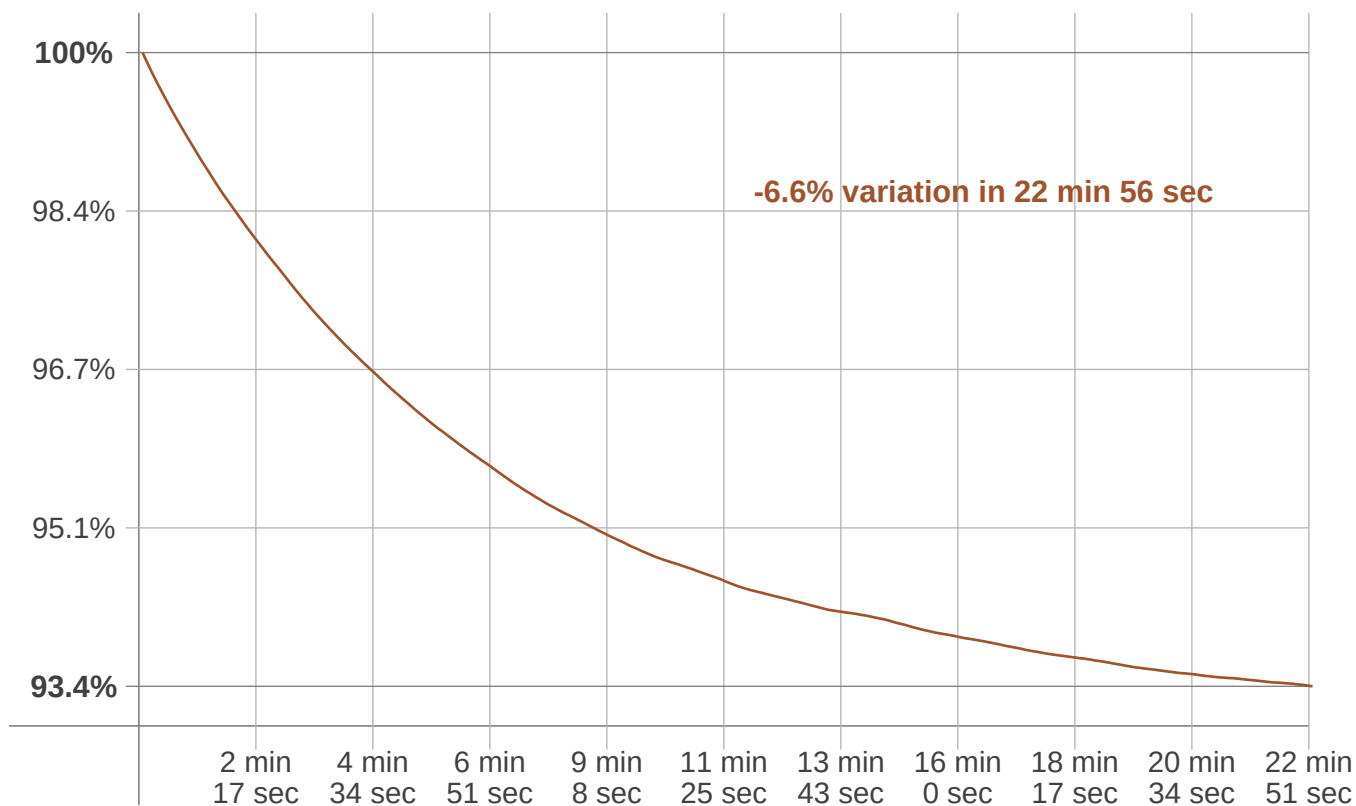
BUG rating:	B4 U2 G4	
Forward light	Lumens	Lumens %
Low(0-30):	2208.1	9.9%
Medium(30-60):	6006.7	26.8%
High(60-80):	2413.9	10.8%
Very high(80-90):	100.4	0.4%
Back light		
Low(0-30):	2323.8	10.4%
Medium(30-60):	6616	29.6%
High(60-80):	2563.2	11.4%
Very high(80-90):	127.8	0.6%
Uplight		
Low(90-100):	10	0%
High(100-180):	48.5	0.2%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	22 min 56 sec
Warmup variation	-6.6%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5019 K	+120 K	5139 K

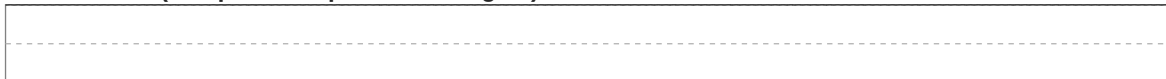
Output change

Output start	Output change	Output end
23929 lm	-1542 lm	22387 lm

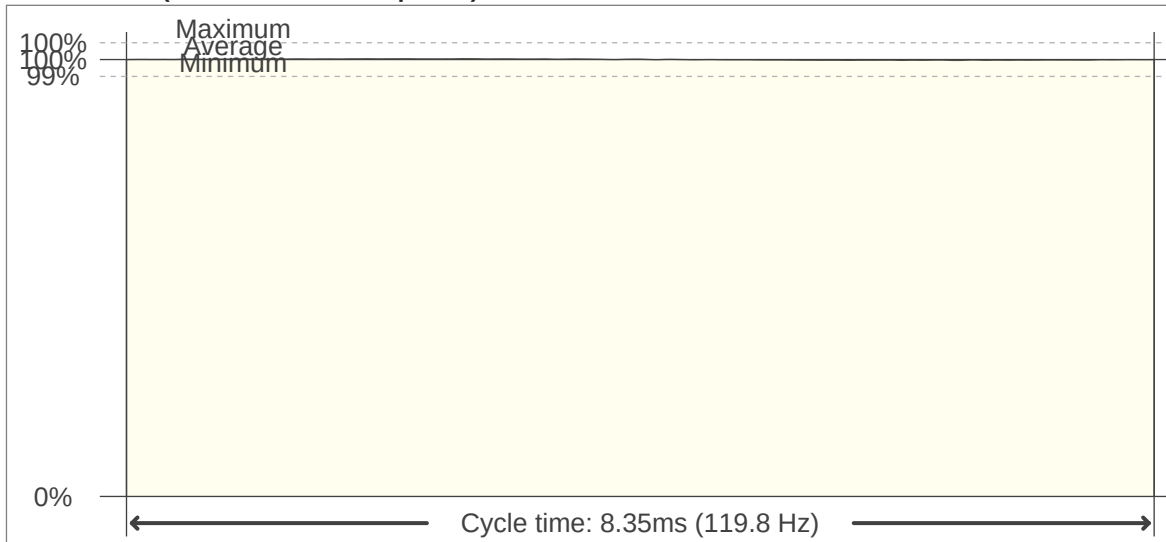


Flicker

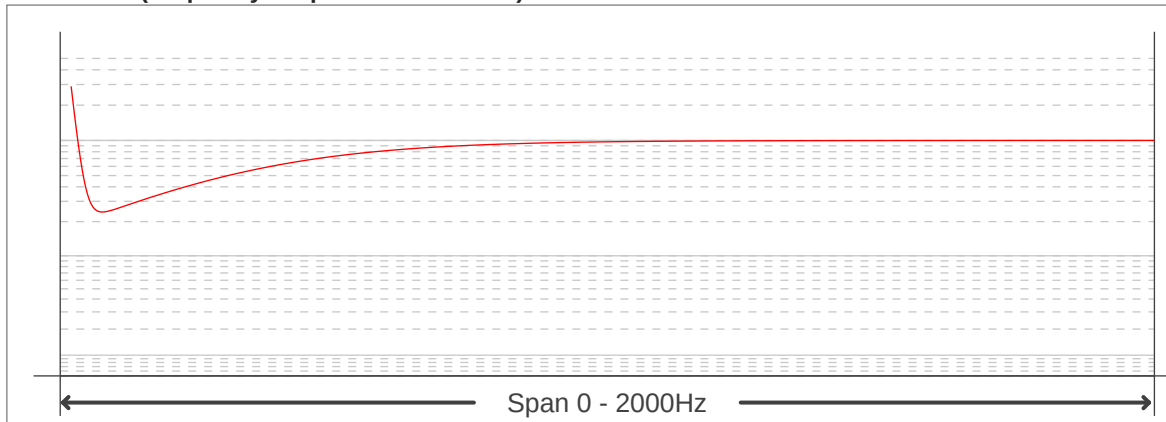
Flicker curve (complete sampled flicker signal)



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:	0.23 %
SVM: (Visual flicker)	0.01

Flicker conditions:

Sample rate:	40000 samples/second
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