

Light efficiency:

121 Lumen/Watt

Light quality:

CRI: 86.5

Color temperature:

5219 K

Output: 3517 lm

Peak: 7500 cd

Power: 29.0 W

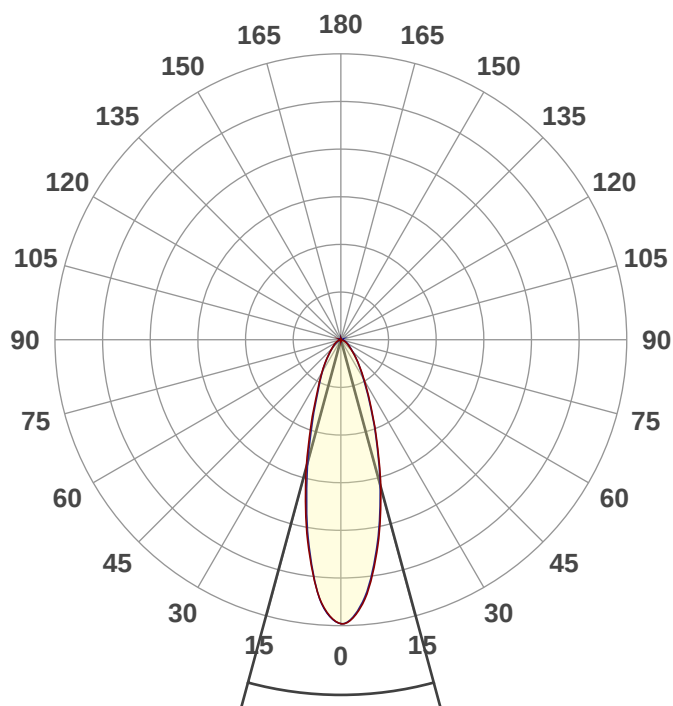
PF: 0.99

Product name:

FLL-AW50K29-DS30

Date and time:

7/29/2020 11:14:13 AM



Beam angle

30.3°

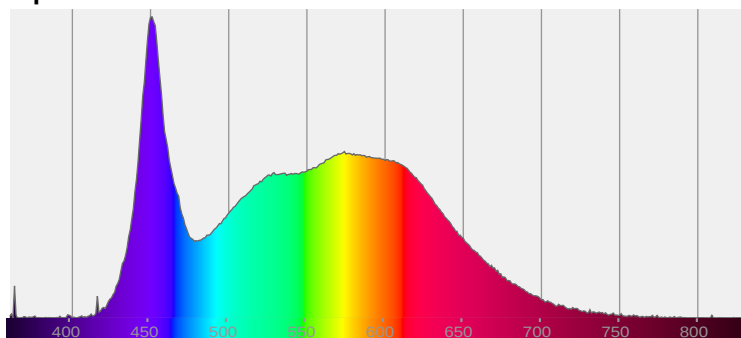


CIE 1931

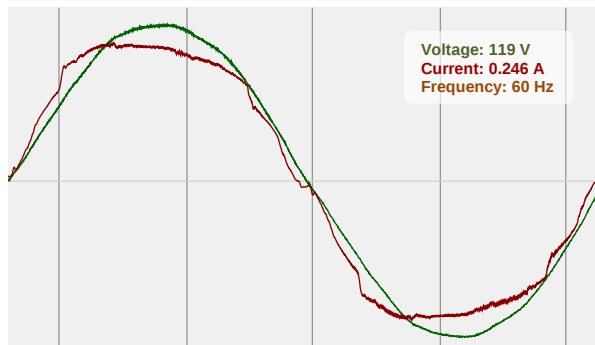
x: 0.339

y: 0.344

Spectra



Power



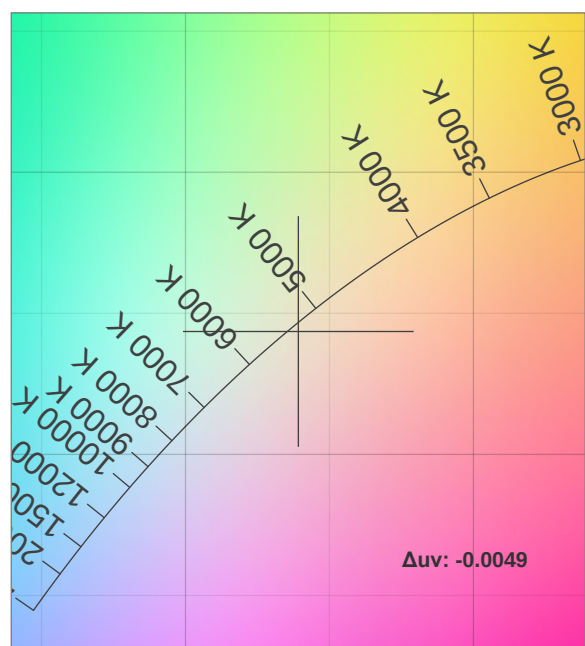
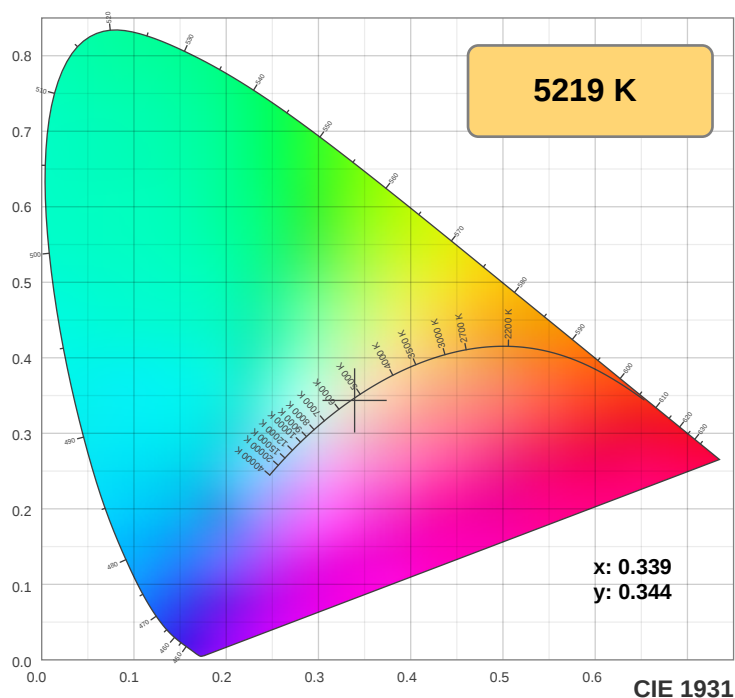
T 314.743.3067

F 314.972.6202

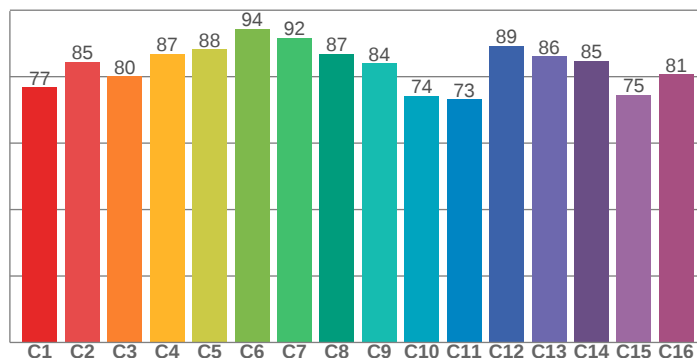
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

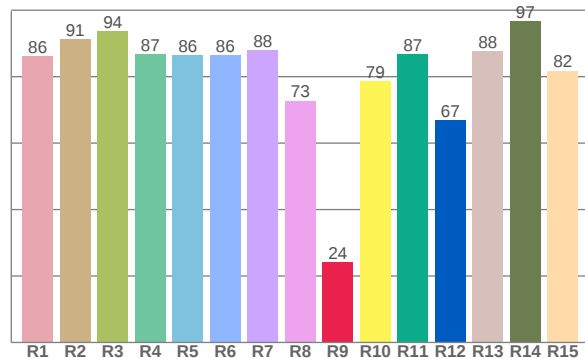
Color details



TM30: 83.3



CRI: 86.5 (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
86.1	91.3	93.7	86.8	86.5	86.5	88.0	72.7	24.1	78.6	86.8	66.9	87.7	96.8	81.8

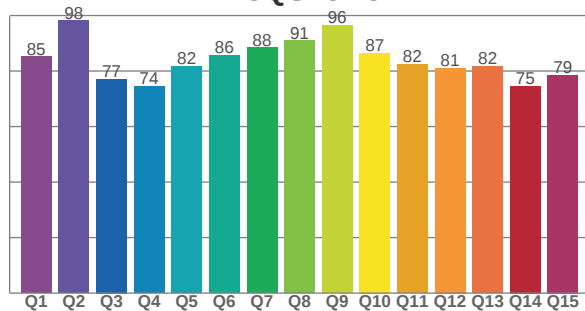
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
76.8	84.5	80.1	86.8	88.2	94.4	91.7	86.9	84.0	74.2	73.1	89.2	86.1	84.7	74.5	80.7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
85.3	98.1	77.1	74.5	81.8	85.7	88.4	91.0	96.5	86.5	82.4	81.1	81.7	74.6	78.5

CQS: 82.8



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
5219 K	86.5	24.1	83.3	96.2	82.8	0.339	0.344	0.211	0.320	-0.0049



TM30 details

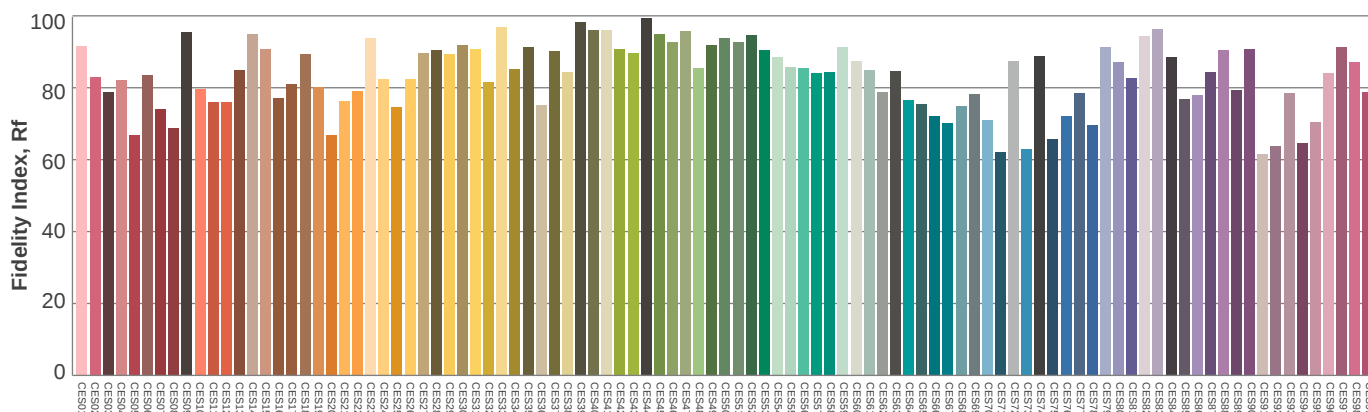
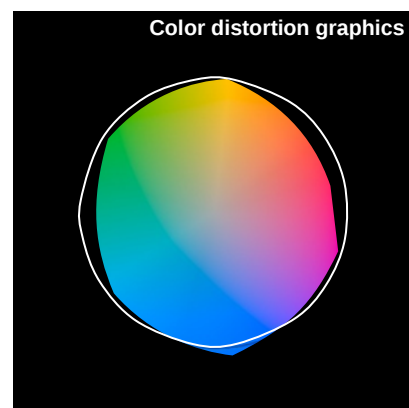
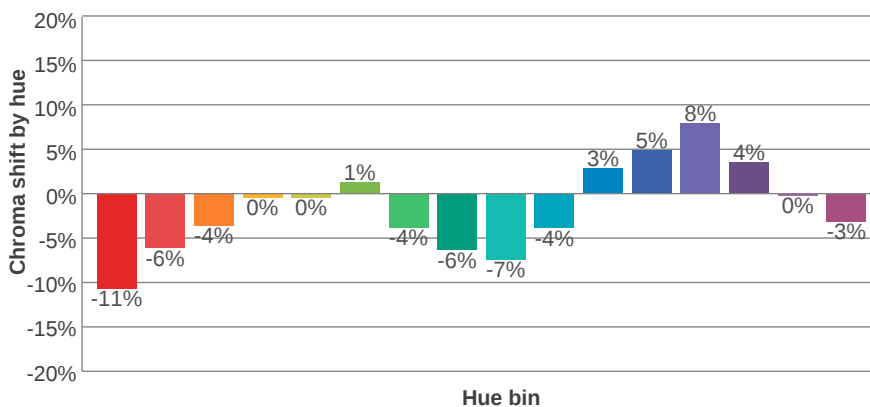
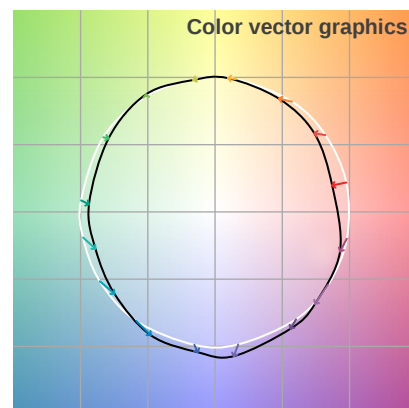
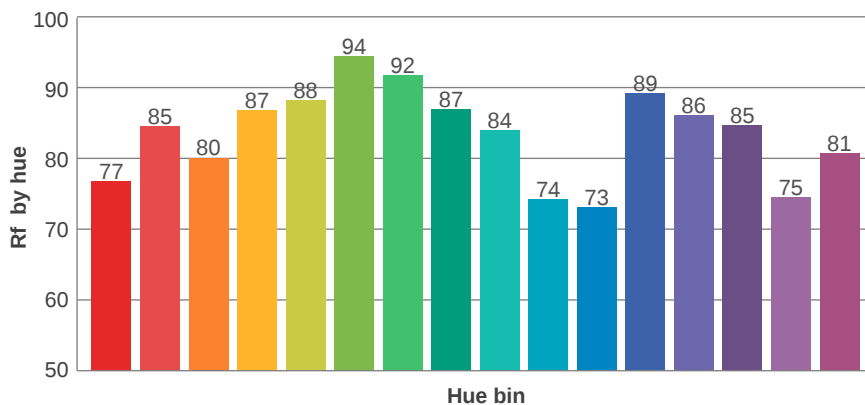
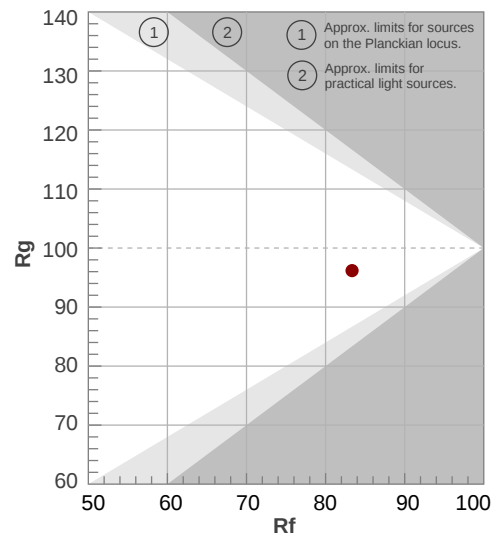
Rf 83.3

Fidelity index Rf

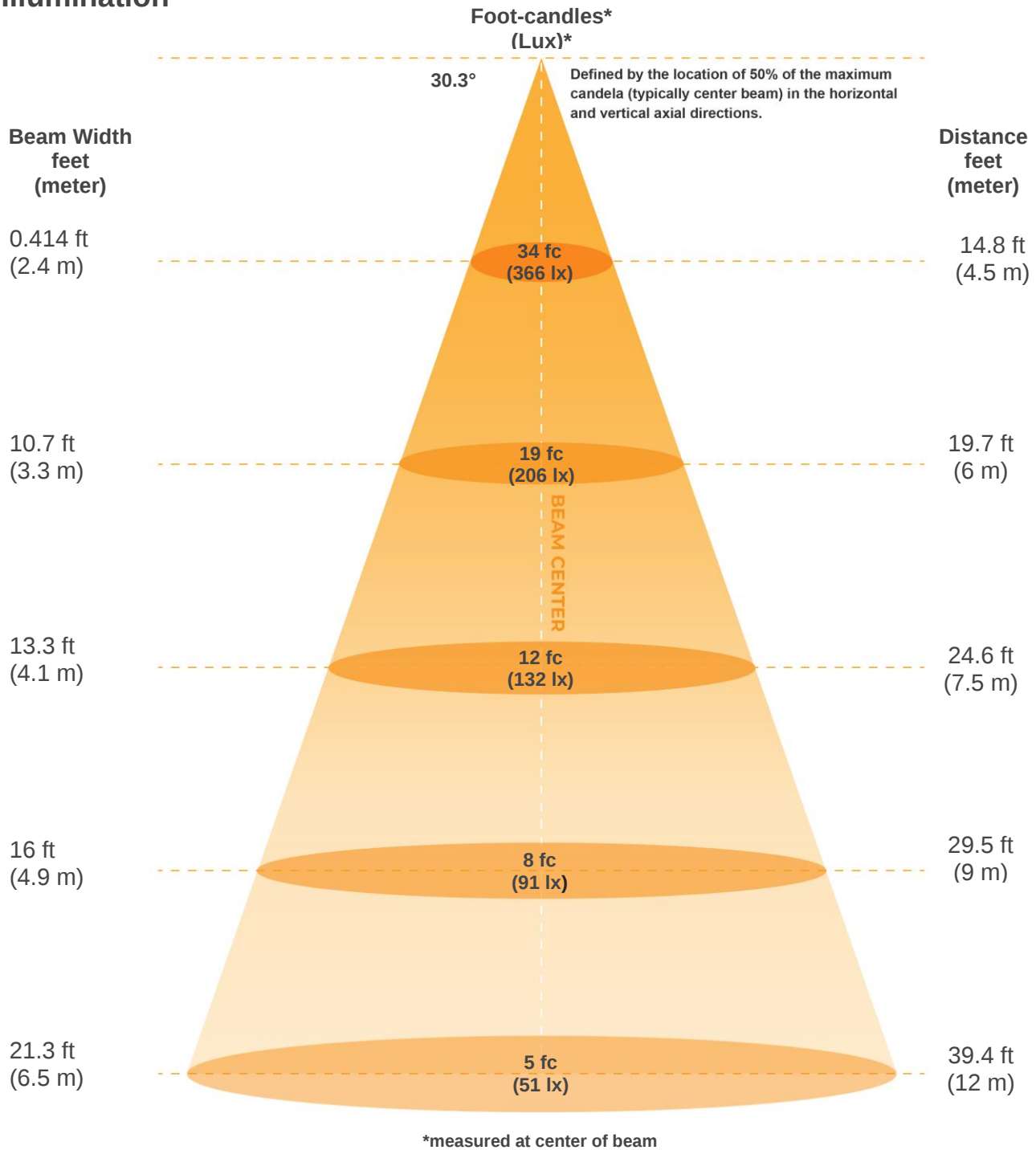
Rg 96.2

Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	77	-11%	0%
2	85	-6%	6%
3	80	-4%	9%
4	87	0%	6%
5	88	0%	3%
6	94	1%	-1%
7	92	-4%	-2%
8	87	-6%	2%
9	84	-7%	10%
10	74	-4%	14%
11	73	3%	15%
12	89	5%	3%
13	86	8%	-5%
14	85	4%	-7%
15	75	0%	-17%
16	81	-3%	-10%



Illumination



Beam intensities from 1-20m

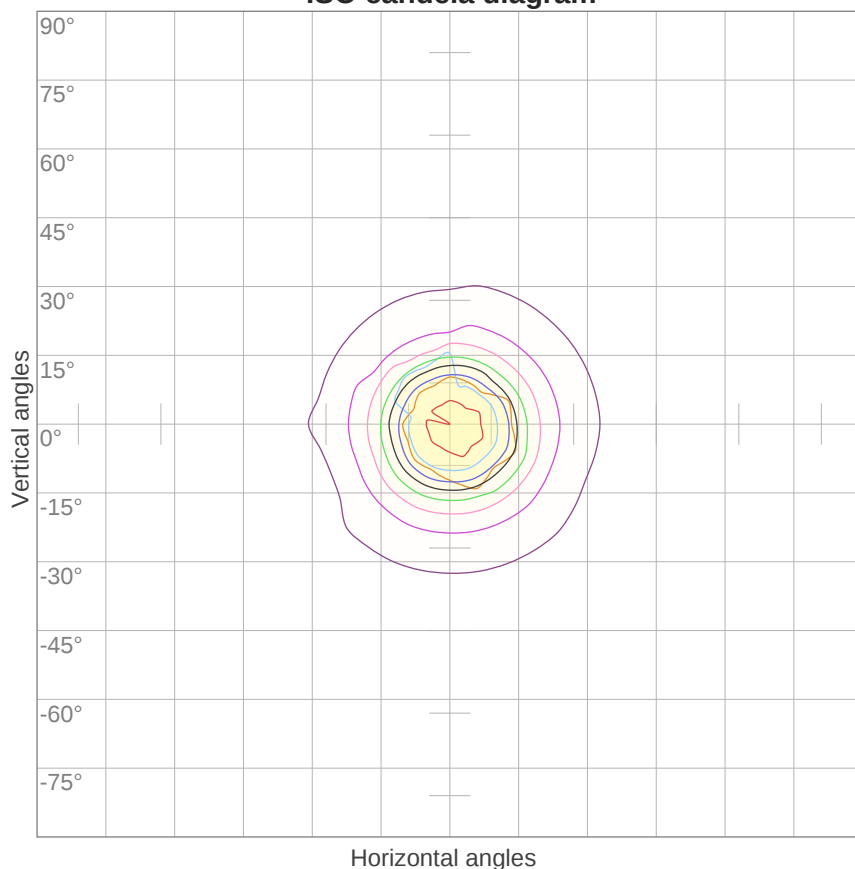
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
7409lx	1852lx	823lx	463lx	296lx	206lx	151lx	116lx	91lx	74lx	61lx	51lx	44lx	38lx	33lx	29lx	26lx	23lx	21lx	19lx
688.4fc	172.1fc	76.5fcd	43fcd	27.5fcd	19.1fcd	14fcd	10.8fcd	8.5fcd	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
30.3°	70.7°	114.1°	95.2%	86.2%



ISO Diagrams

ISO candela diagram



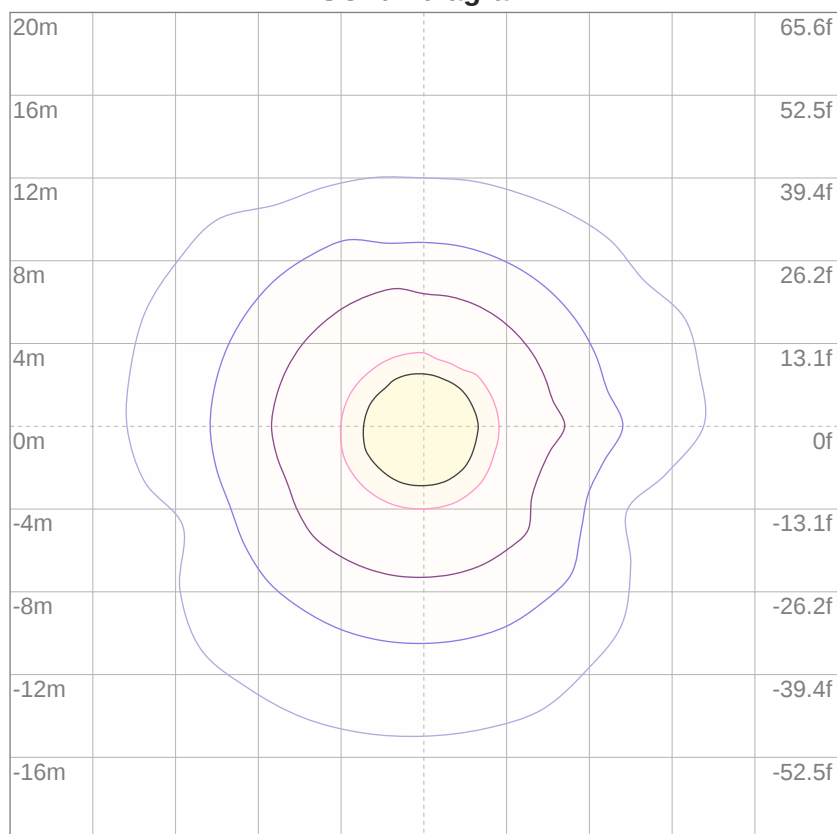
10%	741 cd
20%	1482 cd
30%	2223 cd
40%	2964 cd
50%	3705 cd
60%	4446 cd
70%	5187 cd
80%	5927 cd
90%	6668 cd

Conditions:

Number of c-planes: 16

Candela at center: 7409 cd

ISO lux diagram



3%	2.22 lx
5%	3.70 lx
10%	7.41 lx
30%	22.2 lx
50%	37.0 lx

Conditions:

Number of c-planes: 16

Lux at center: 74.1 lx

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



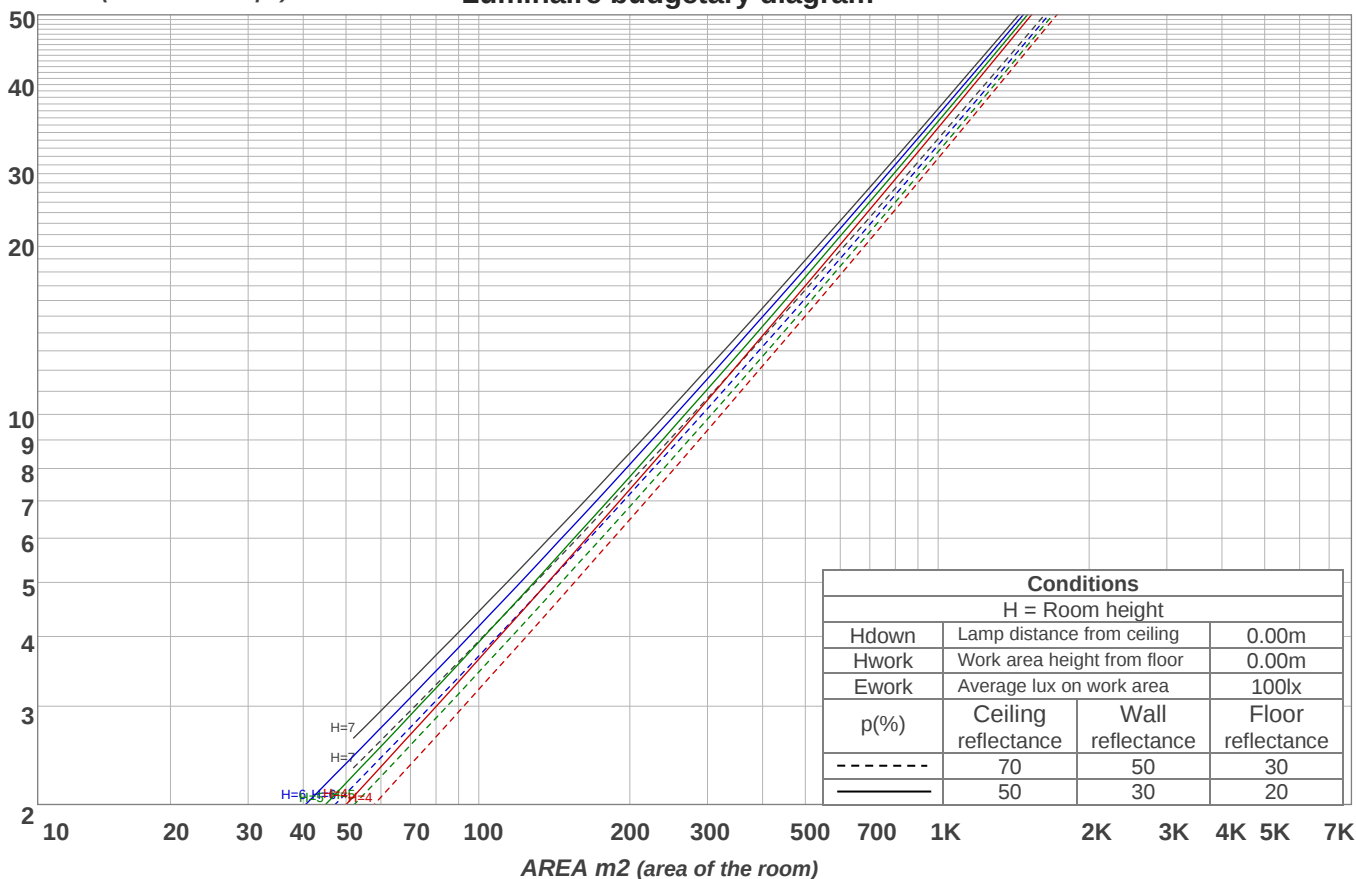
Light planning

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	113	110	107	105	110	108	105	103	104	102	100	100	98	97	96	95	94	92
2	107	102	97	94	105	100	96	93	97	93	90	93	91	88	91	88	87	85
3	101	94	89	85	99	93	88	84	90	86	83	88	84	81	85	83	80	79
4	96	88	82	78	94	87	82	77	85	80	76	83	79	76	81	77	75	73
5	91	83	77	72	90	82	76	72	80	75	71	78	74	70	76	73	70	68
6	87	78	72	67	85	77	71	67	75	70	66	74	69	66	73	69	66	64
7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60
8	79	70	64	59	78	69	63	59	68	63	59	67	62	59	66	62	58	57
9	76	66	60	56	75	66	60	56	65	60	56	64	59	56	63	59	56	54
10	73	63	57	53	72	63	57	53	62	57	53	61	56	53	60	56	53	52

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°
596 lm	1033 lm	752 lm	483 lm	298 lm	187 lm	101 lm	40.1 lm	12.2 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
2.16 lm	1.48 lm	1.41 lm	1.46 lm	1.88 lm	2.01 lm	1.88 lm	1.29 lm	0.452 lm

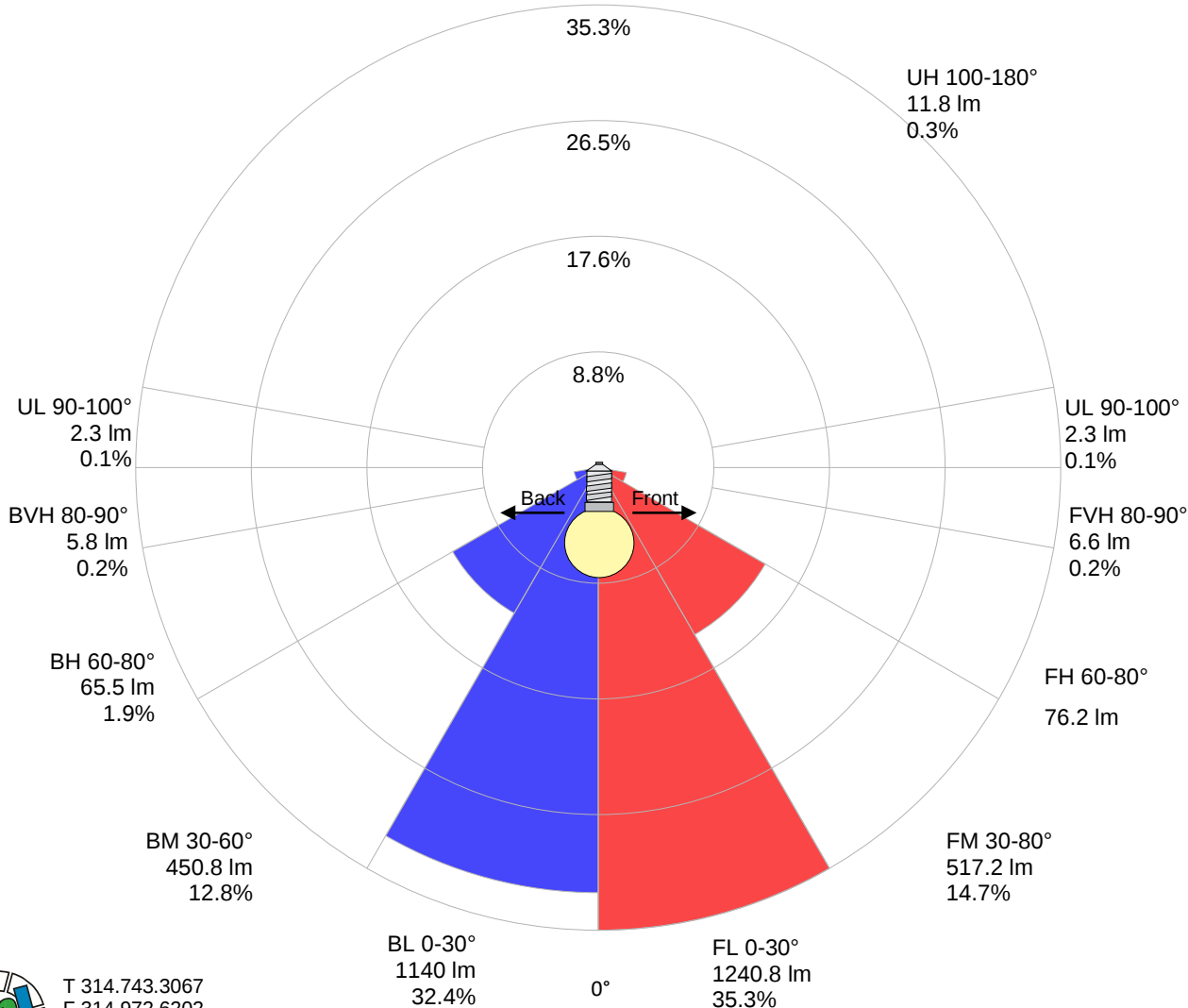


Road report

LCS table

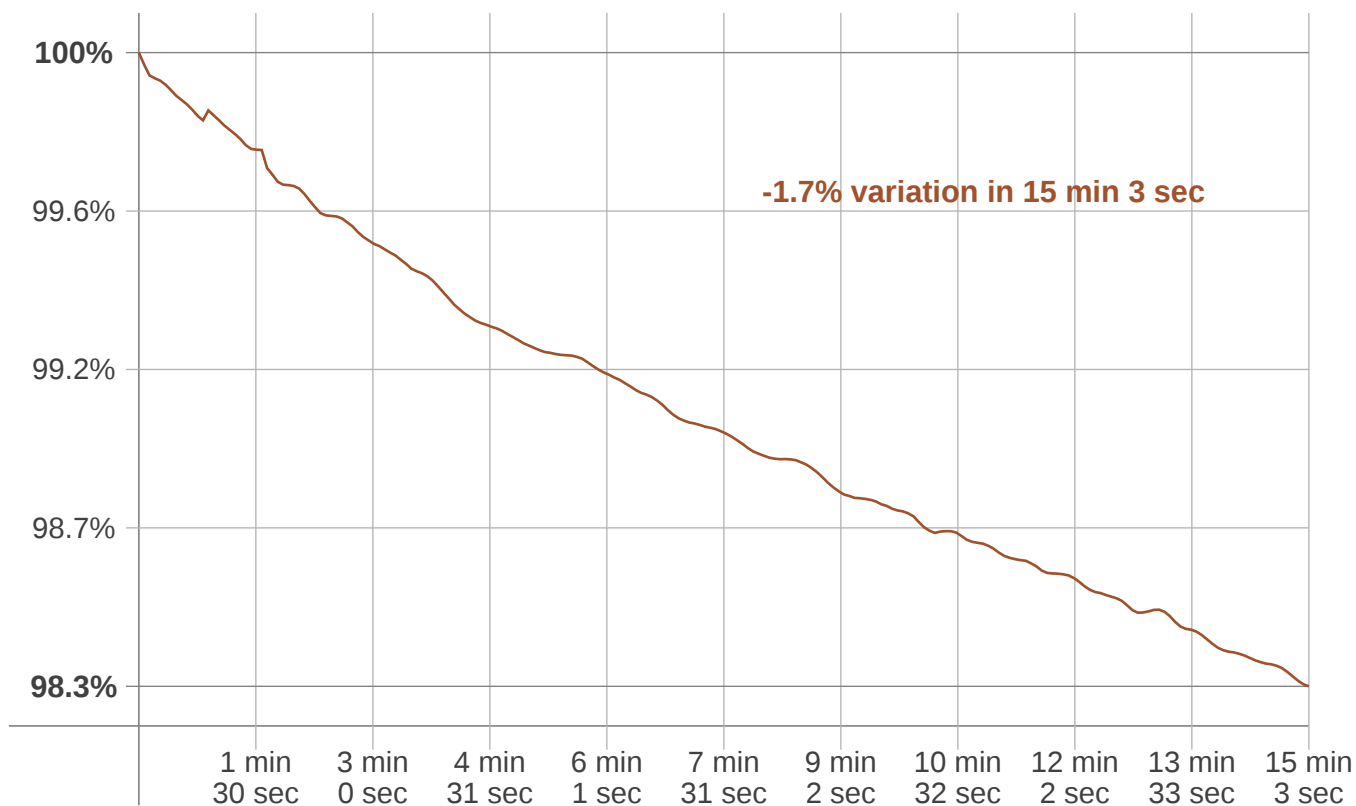
BUG rating:	B3 U2 G0	
Forward light	Lumens	Lumens %
Low(0-30):	1240.8	35.3%
Medium(30-60):	517.2	14.7%
High(60-80):	76.2	2.2%
Very high(80-90):	6.6	0.2%
Back light		
Low(0-30):	1140	32.4%
Medium(30-60):	450.8	12.8%
High(60-80):	65.5	1.9%
Very high(80-90):	5.8	0.2%
Uplight		
Low(90-100):	2.3	0.1%
High(100-180):	11.8	0.3%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	15 min 3 sec
Warmup variation	-1.7%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5155 K	+64 K	5219 K

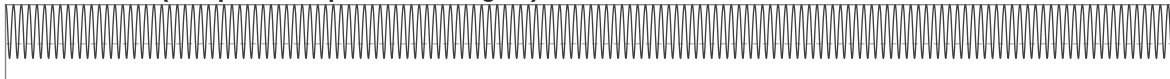
Output change

Output start	Output change	Output end
3573 lm	-56 lm	3517 lm

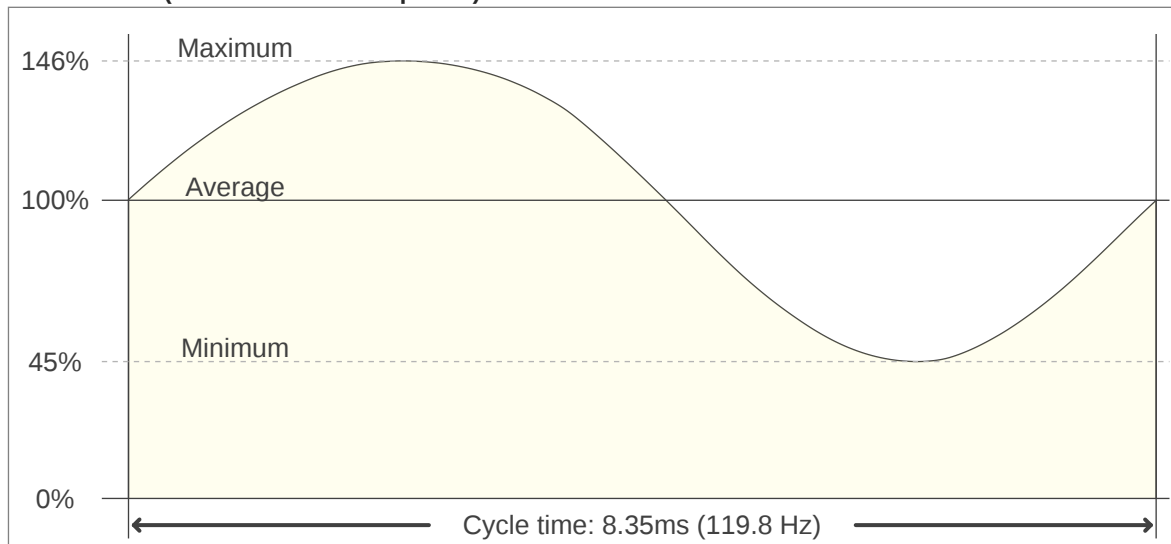


Flicker

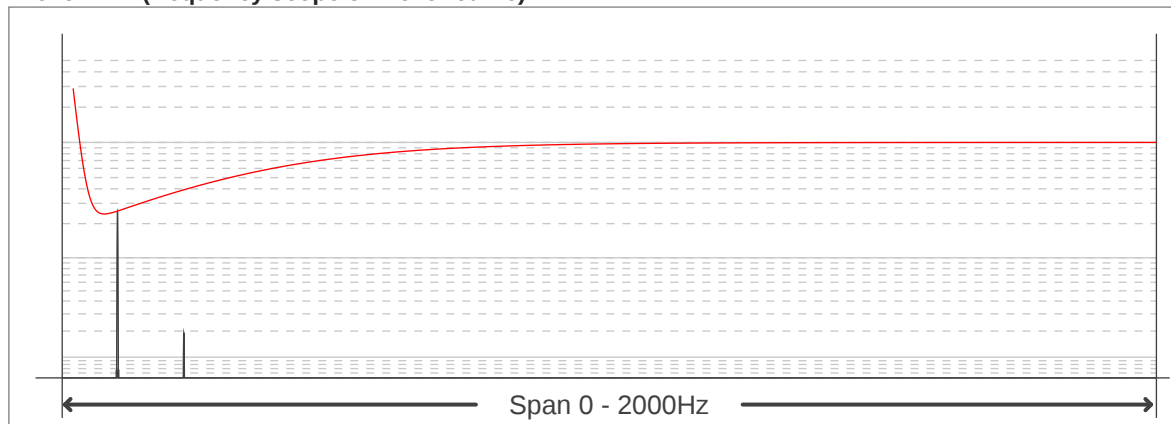
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	119.76 Hz
Flicker index:	0.16
Flicker percentage:	52.39 %
SVM: (Visual flicker)	1.83

Flicker conditions:

Sample rate:	40000 samples/second
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