

Light efficiency:

116 Lumen/Watt

Light quality:

CRI: 86.6

Color temperature:

5286 K

Output: 5525 lm

Peak: 11542 cd

Power: 47.7 W

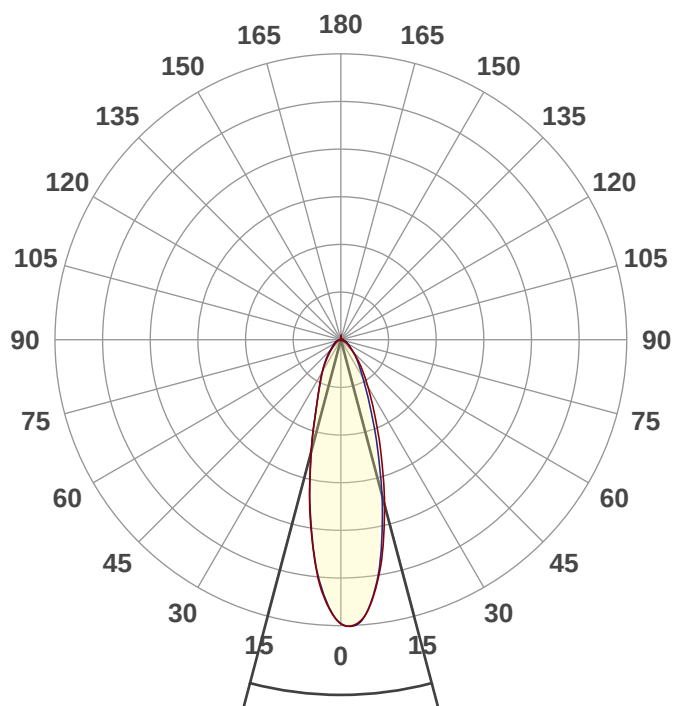
PF: 0.99

Product name:

FLL-AW50K50-D30

Date and time:

7/28/2020 3:25:18 PM



Beam angle

29.6°

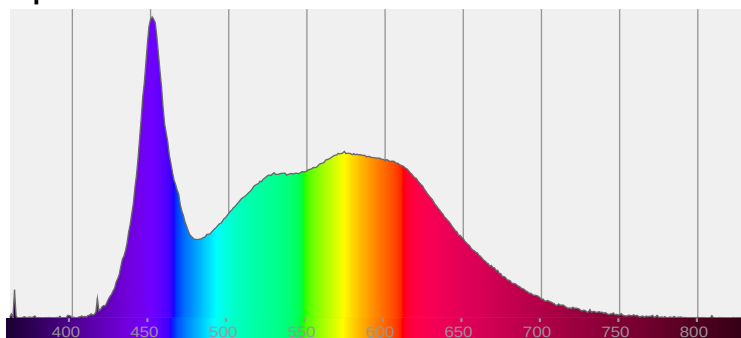


CIE 1931

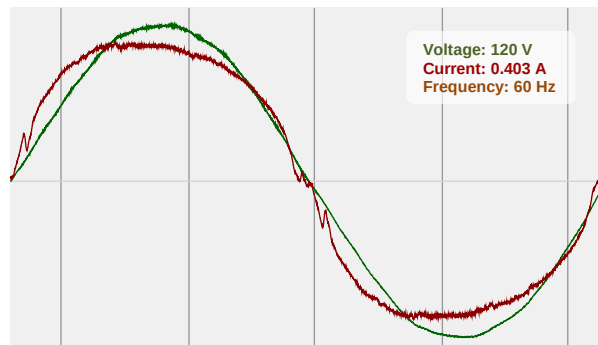
x: 0.338

y: 0.341

Spectra



Power



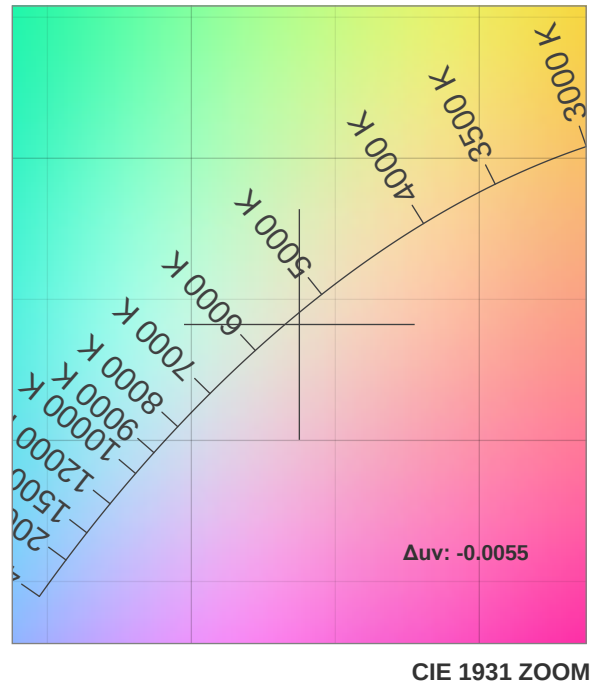
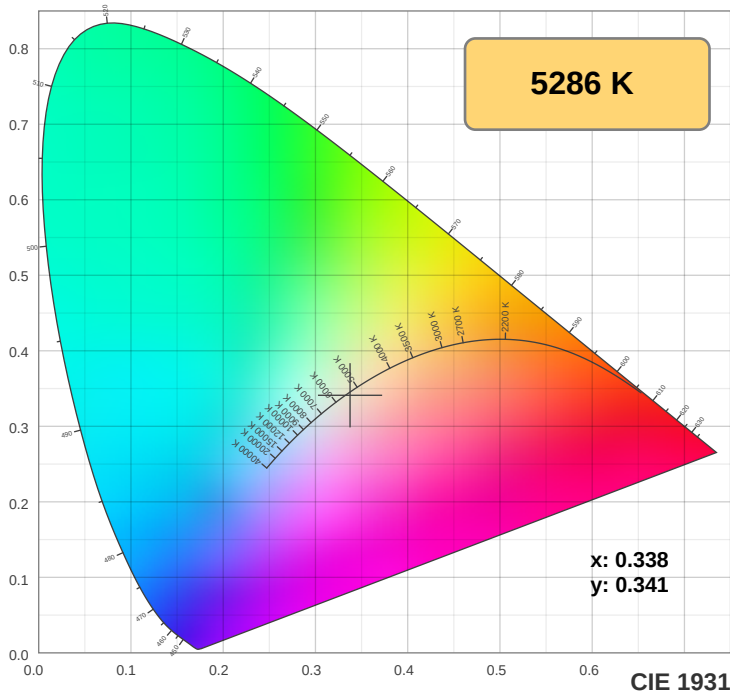
T 314.743.3067

F 314.972.6202

email: commercial-sales@superbrightleds.com

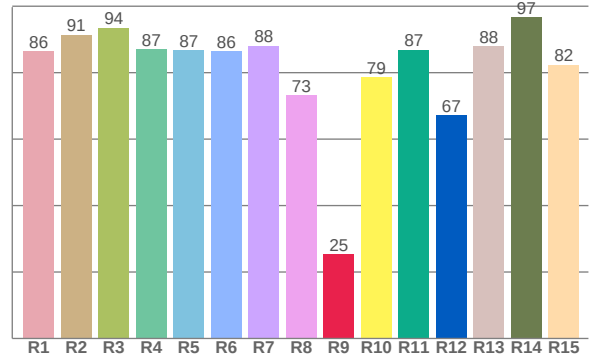
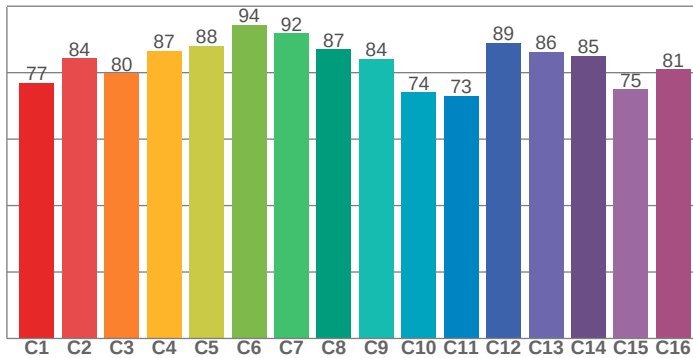
www.superbrightleds.com/

Color details



TM30: 83.3

CRI: 86.6 (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
86.4	91.5	93.5	87.0	86.8	86.5	88.1	73.2	25.3	78.7	86.9	67.2	88.0	96.7	82.4

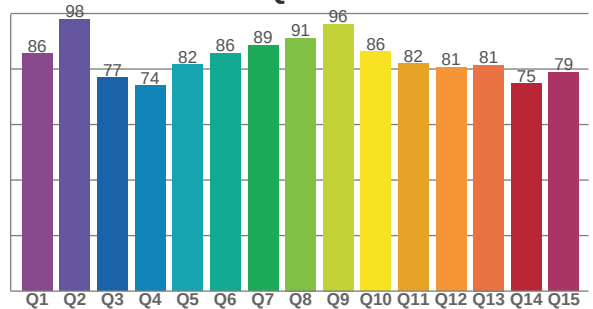
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77.0	84.4	79.8	86.6	88.1	94.3	91.8	87.1	84.1	74.1	73.0	88.9	86.3	85.0	74.9	81.0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
85.6	98.0	76.9	74.1	81.5	85.7	88.6	91.1	96.2	86.2	82.0	80.7	81.5	74.8	78.8

CQS: 82.7



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
5286 K	86.6	25.3	83.3	96.3	82.7	0.338	0.341	0.210	0.319	-0.0055



TM30 details

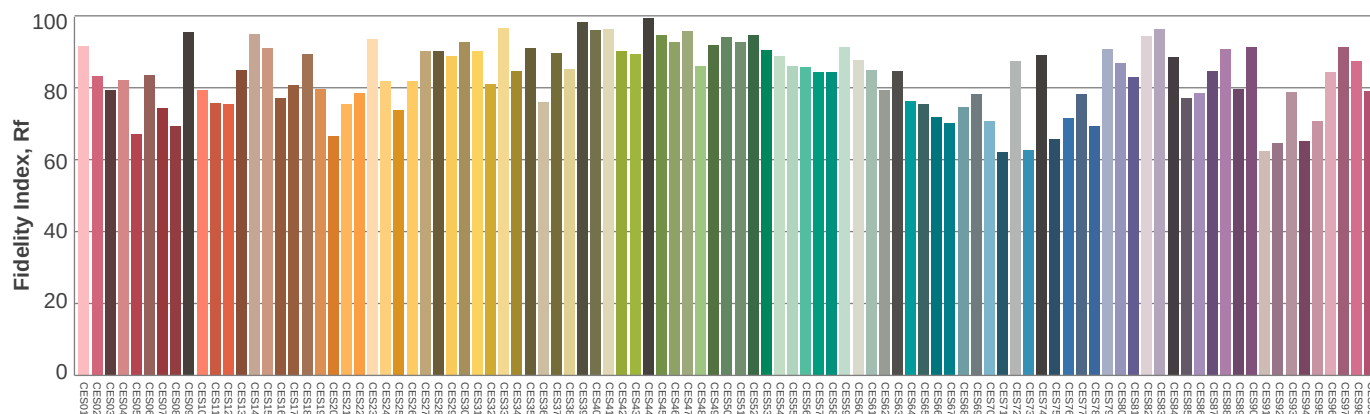
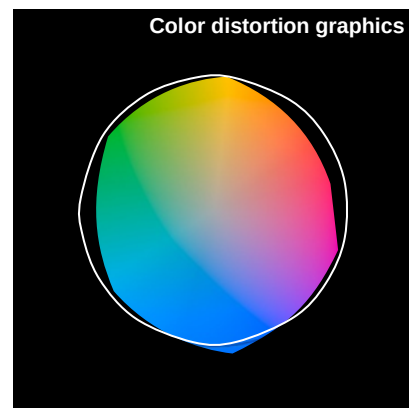
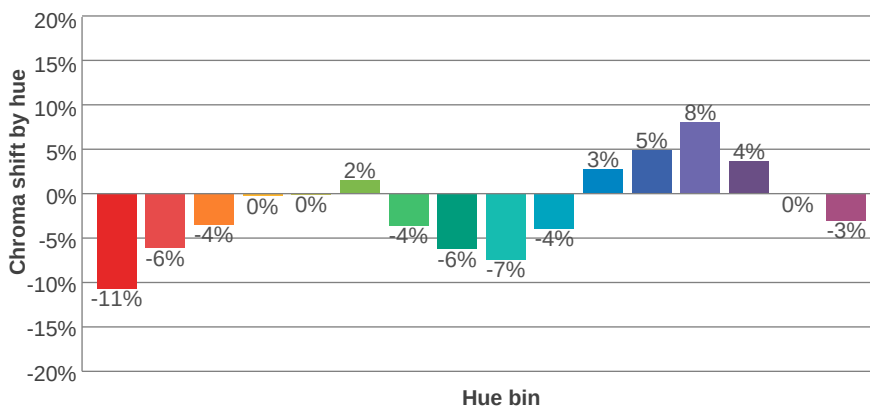
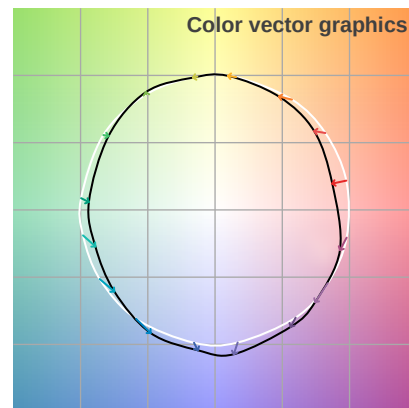
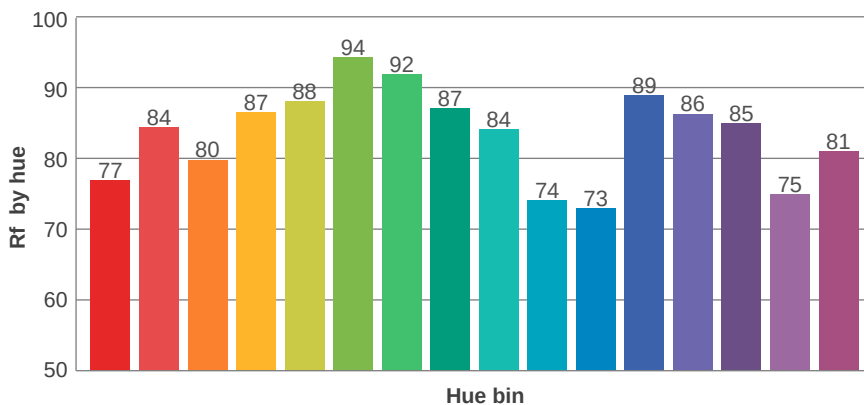
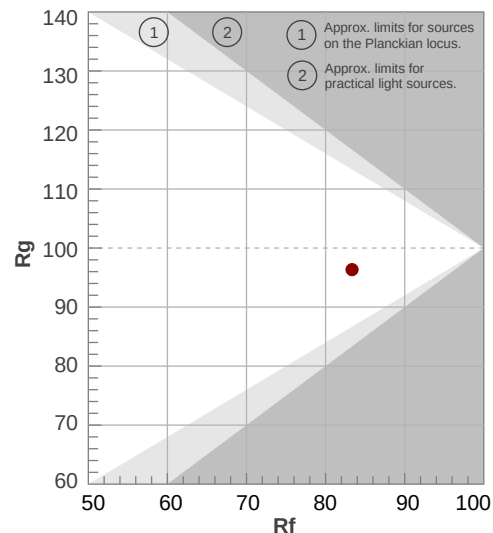
Rf 83.3

Fidelity index Rf

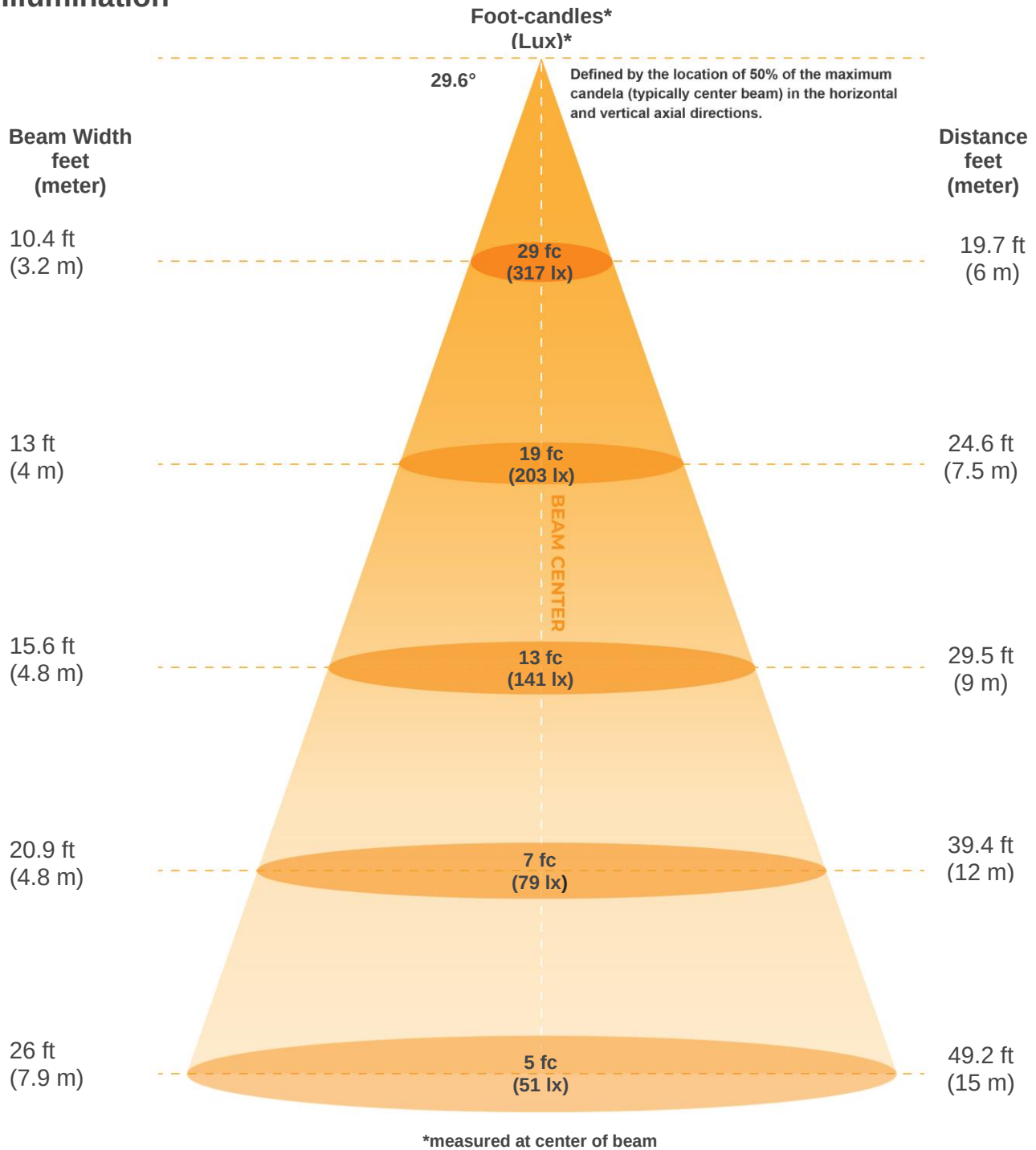
Rg 96.3

Gammut index Rg

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



Illumination



Beam intensities from 1-20m

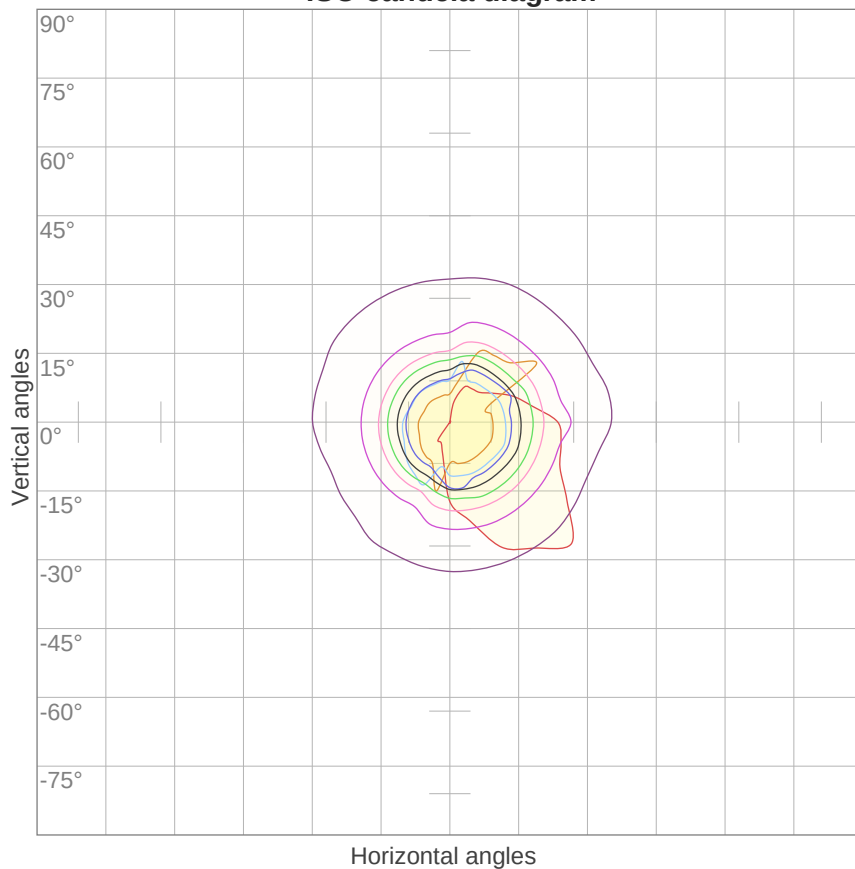
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
11417lx	2854lx	1269lx	714lx	457lx	317lx	233lx	178lx	141lx	114lx	94lx	79lx	68lx	58lx	51lx	45lx	40lx	35lx	32lx	29lx
1060.7fcd	265.2fcd	117.9fcd	66.3fcd	42.4fcd	29.5fcd	21.6fcd	16.6fcd	13.1fcd	10.6fcd	8.8fcd	7.4fcd	6.3fcd	5.4fcd	4.7fcd	4.1fcd	3.7fcd	3.3fcd	2.9fcd	2.7fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
29.6°	71.7°	116.4°	93.4%	84.0%



ISO Diagrams

ISO candela diagram



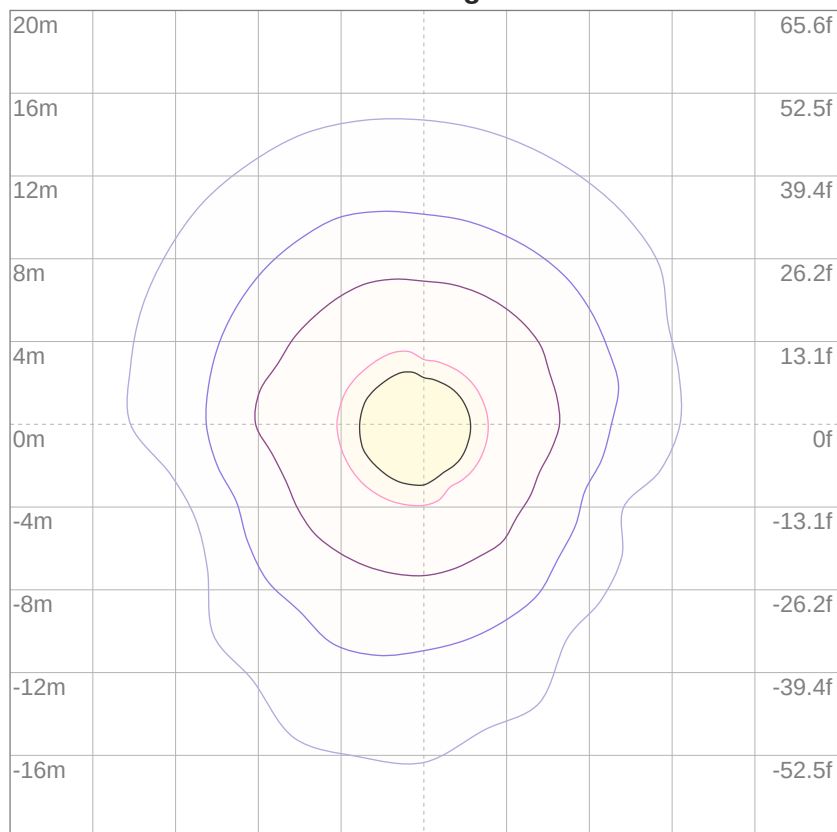
10%	1142 cd
20%	2283 cd
30%	3425 cd
40%	4567 cd
50%	5709 cd
60%	6850 cd
70%	7992 cd
80%	9134 cd
90%	10275 cd

Conditions:

Number of c-planes: 16

Candela at center: 11417 cd

ISO lux diagram



3%	3.43 lx
5%	5.71 lx
10%	11.4 lx
30%	34.3 lx
50%	57.1 lx

Conditions:

Number of c-planes: 16

Lux at center: 114 lx

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



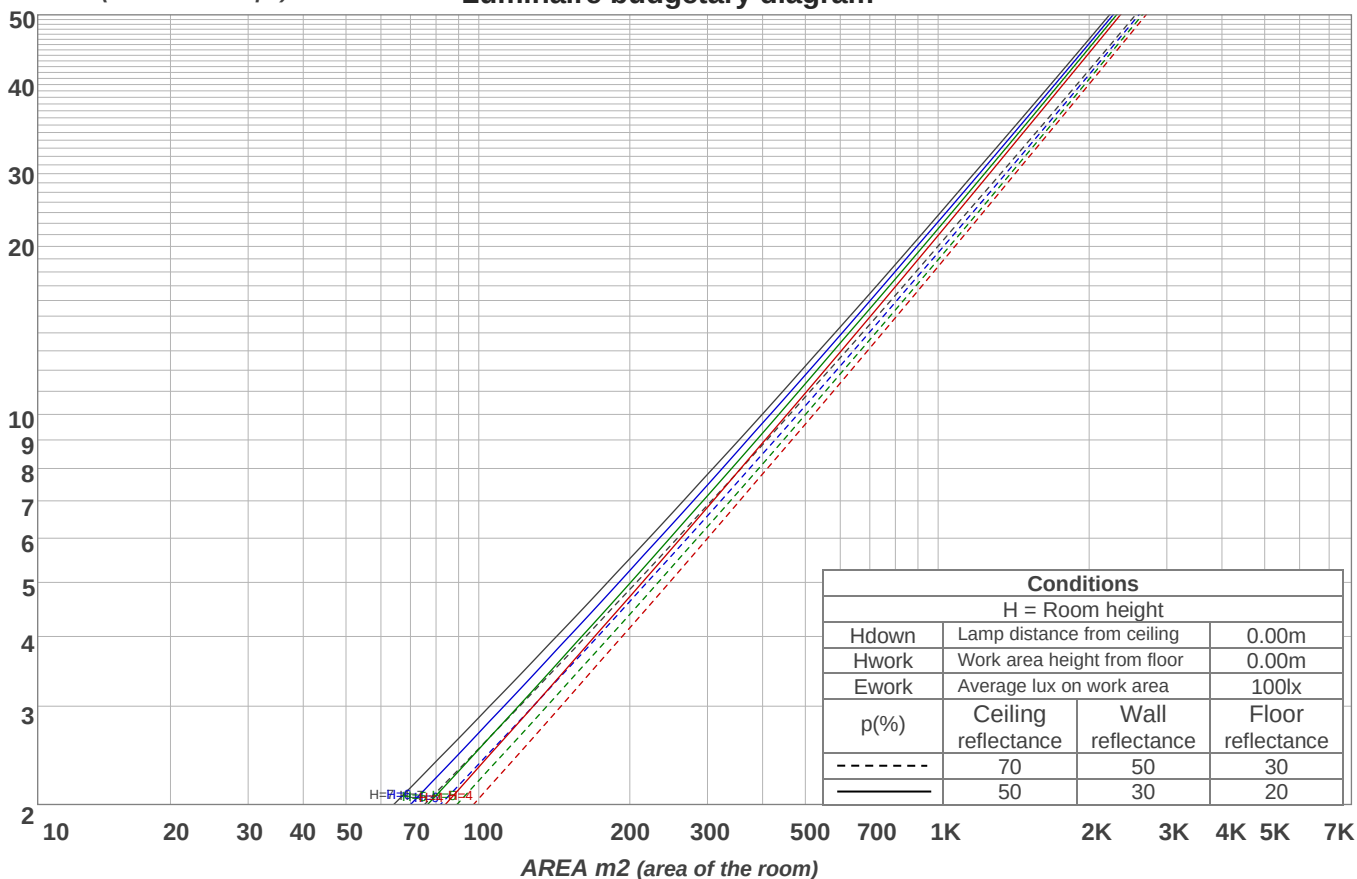
Light planning

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	112	109	106	104	110	107	104	102	103	101	99	99	97	96	96	94	93	91
2	106	101	96	92	104	99	95	91	96	92	89	92	90	87	90	87	85	83
3	100	93	88	83	98	92	87	83	89	85	81	87	83	80	84	81	79	77
4	95	87	81	76	93	86	80	76	83	79	75	81	77	74	79	76	73	71
5	90	81	75	70	88	80	74	70	78	73	69	77	72	69	75	71	68	67
6	86	76	70	66	84	76	70	65	74	69	65	72	68	64	71	67	64	62
7	82	72	66	61	80	71	65	61	70	65	61	69	64	60	68	63	60	59
8	78	68	62	58	77	68	62	58	66	61	57	65	61	57	64	60	57	55
9	75	65	59	55	73	64	58	55	63	58	54	62	58	54	61	57	54	53
10	71	62	56	52	70	61	56	52	60	55	52	60	55	51	59	54	51	50

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°
912 lm	1548 lm	1137 lm	771 lm	486 lm	305 lm	191 lm	111 lm	40.5 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
3.83 lm	2.02 lm	2.13 lm	2.58 lm	3.01 lm	3.36 lm	3.28 lm	2.31 lm	0.819 lm

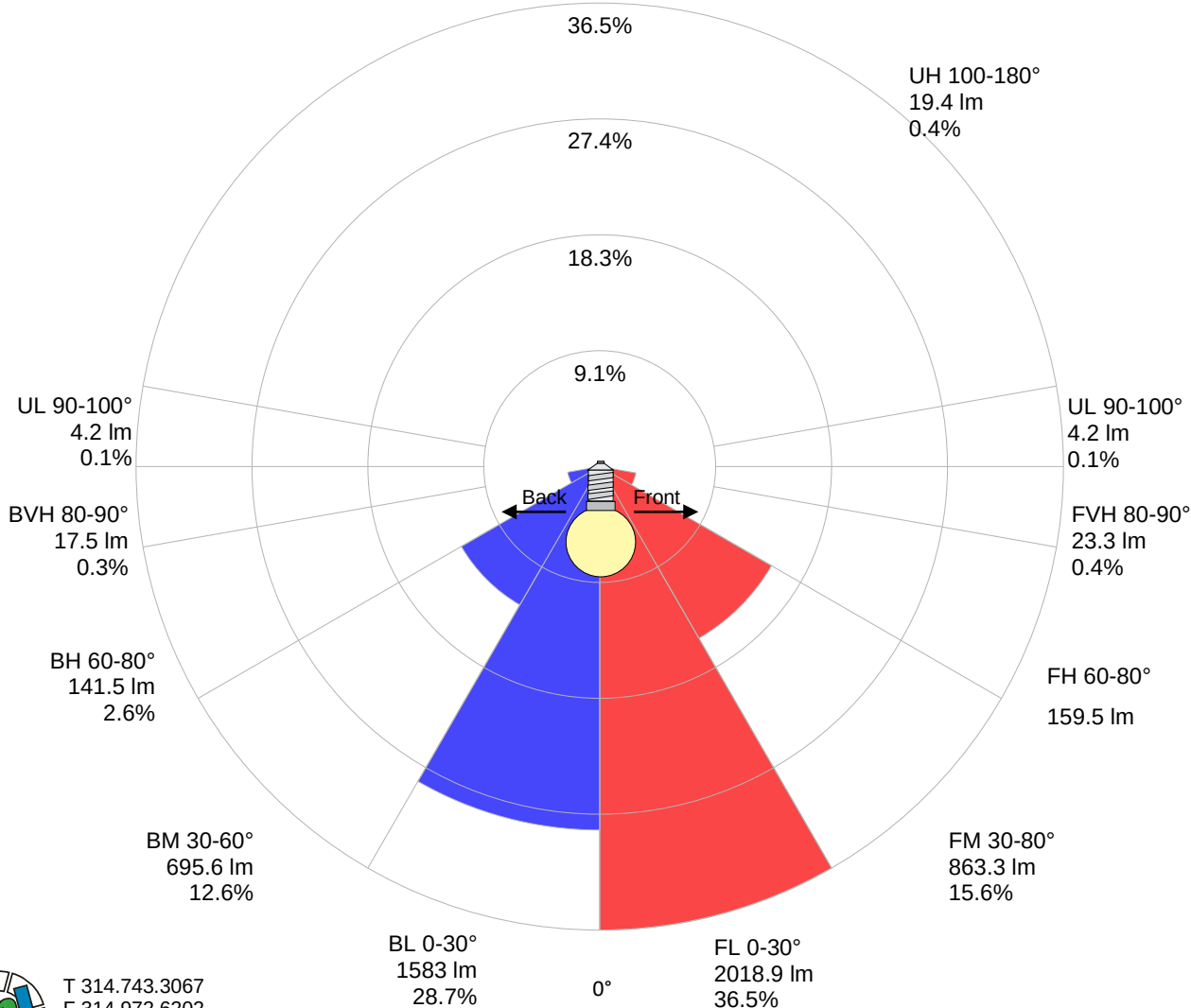


Road report

LCS table

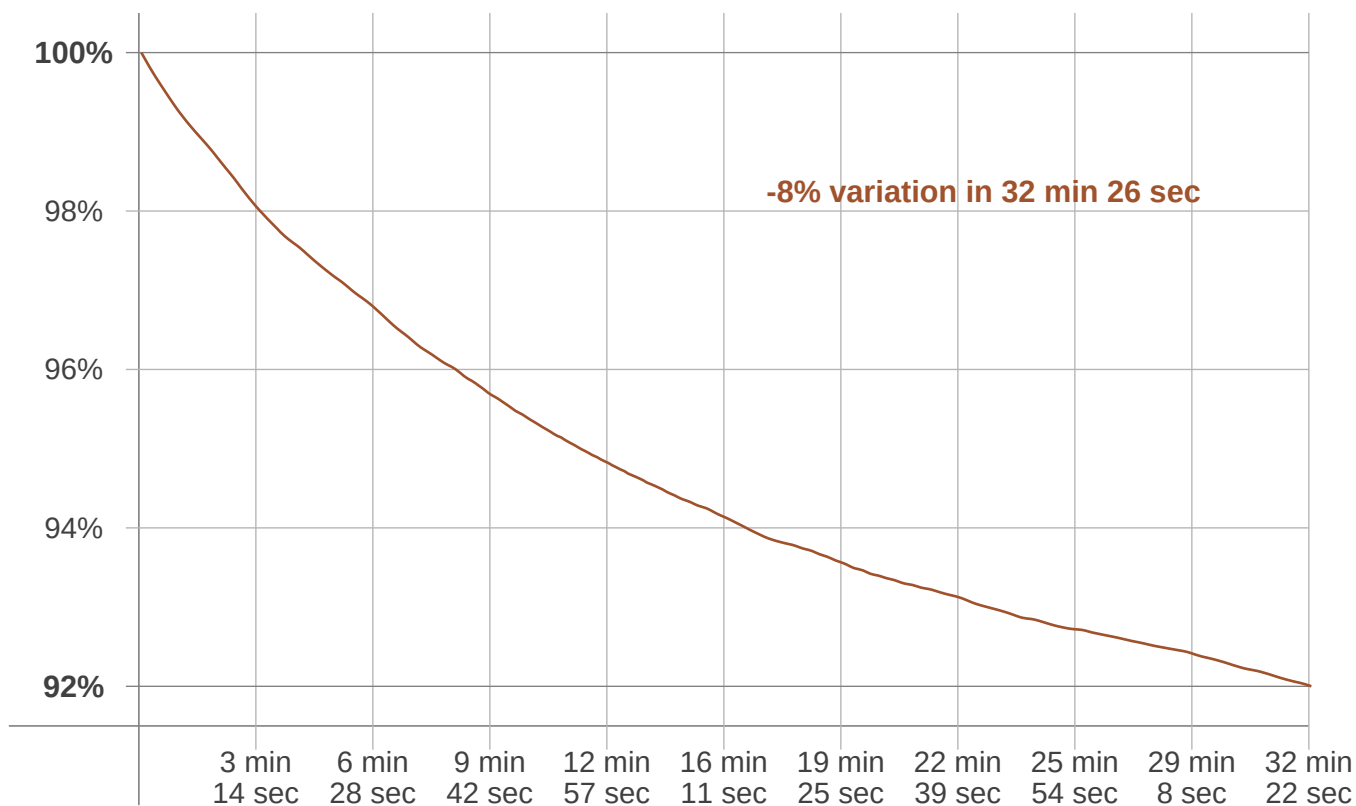
BUG rating:	B3 U2 G1	
Forward light	Lumens	Lumens %
Low(0-30):	2018.9	36.5%
Medium(30-60):	863.3	15.6%
High(60-80):	159.5	2.9%
Very high(80-90):	23.3	0.4%
Back light		
Low(0-30):	1583	28.7%
Medium(30-60):	695.6	12.6%
High(60-80):	141.5	2.6%
Very high(80-90):	17.5	0.3%
Uplight		
Low(90-100):	4.2	0.1%
High(100-180):	19.4	0.4%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	32 min 26 sec
Warmup variation	-8.1%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5163 K	+123 K	5286 K

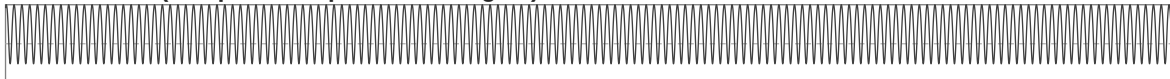
Output change

Output start	Output change	Output end
6001 lm	-476 lm	5525 lm

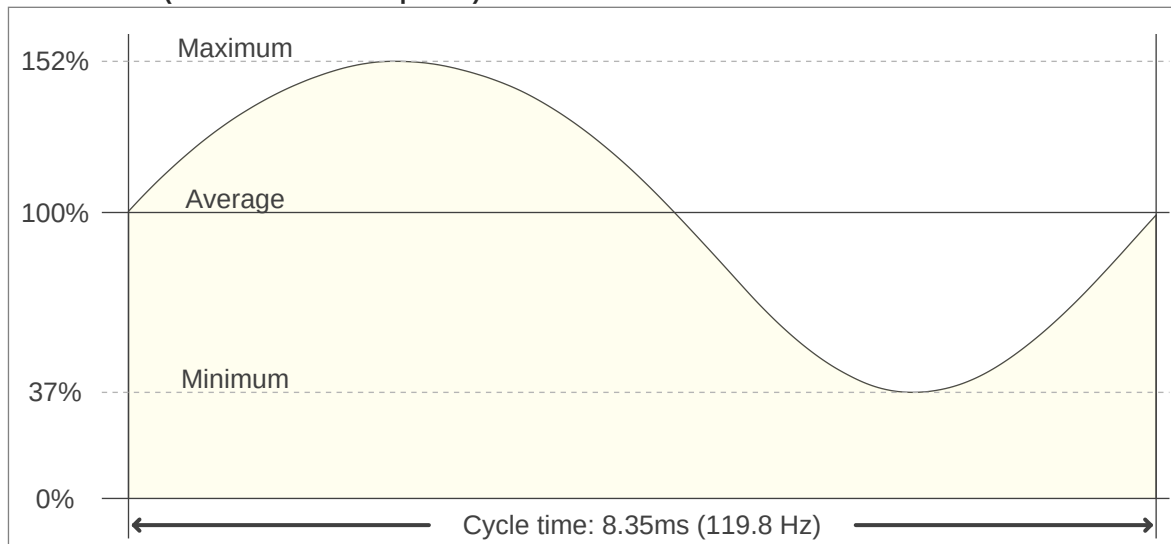


Flicker

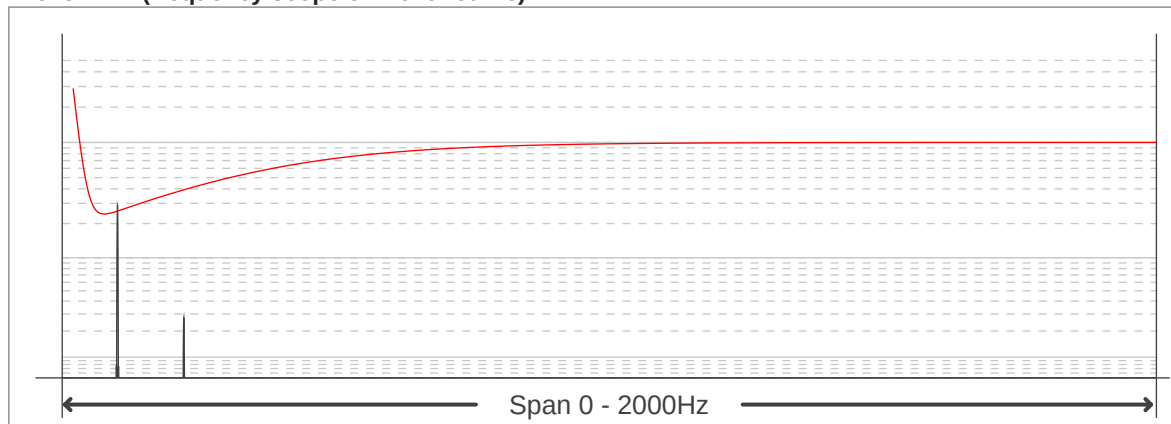
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	119.76 Hz
Flicker index:	0.19
Flicker percentage:	60.99 %
SVM: (Visual flicker)	2.09

Flicker conditions:

Sample rate:	40000 samples/second
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