

Light efficiency:

110 Lumen/Watt

Output: 4498 lm

Light quality:

CRI: 81.3

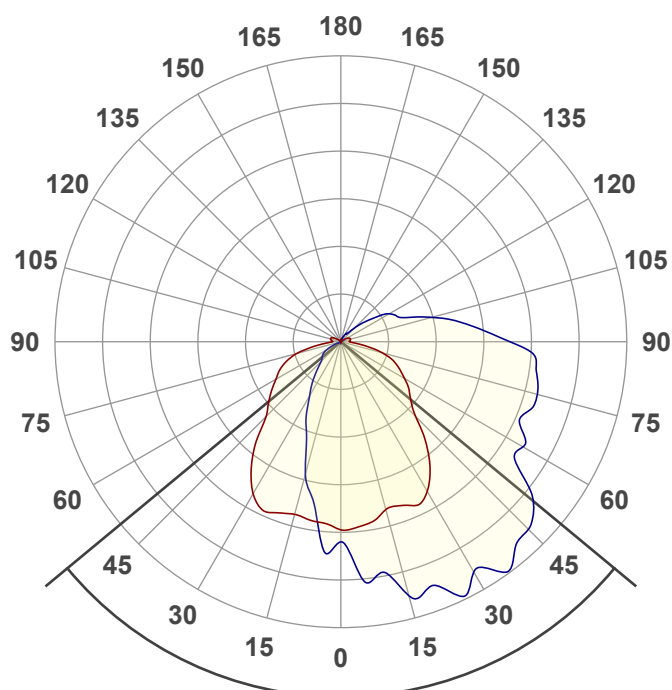
Peak: 1641 cd

Color temperature:

5111 K

Power: 40.8 W

PF: 0.99



Product name:

WPG-50K40W-S

Date and time:

6/5/2019 11:58:30 AM

Beam angle

100.7°

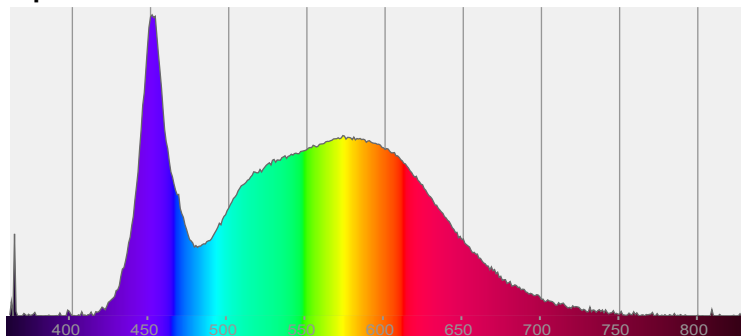


CIE 1931

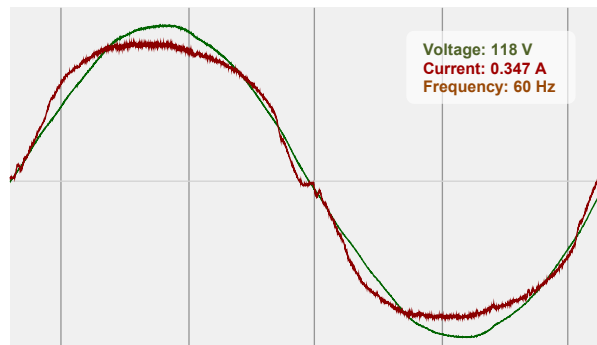
x: 0.343

y: 0.358

Spectra



Power



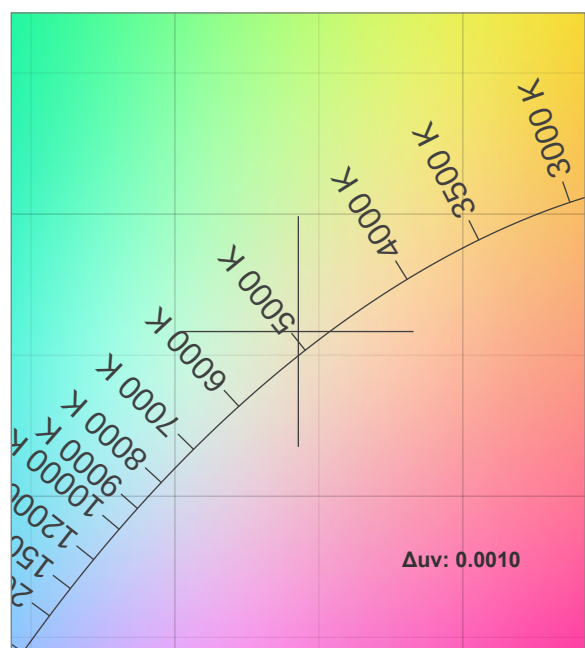
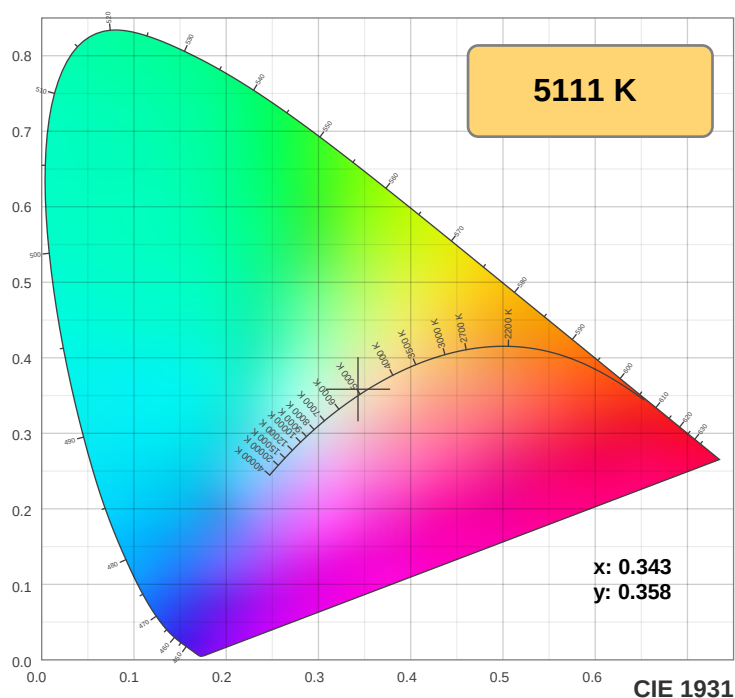
T 314.743.3067

F 314.972.6202

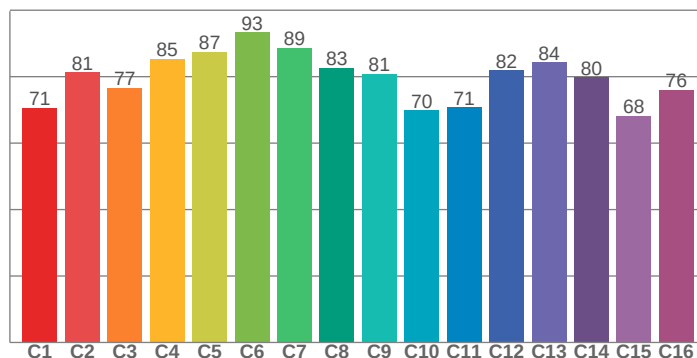
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

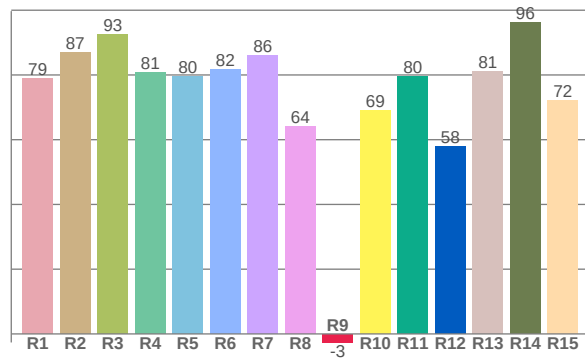
Color Specifications



TM30: 80.3



CRI: 81.3 (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
78.8	86.9	92.5	80.7	79.5	81.8	86.1	64.1	-2.6	69.0	79.7	58.1	81.0	96.1	72.0

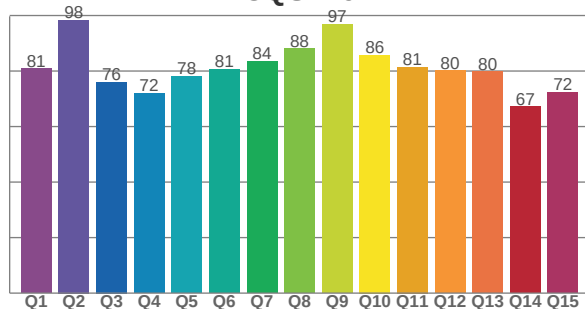
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
70.6	81.3	76.7	85.3	87.5	93.3	88.7	82.6	80.8	69.8	70.7	81.9	84.3	79.8	68.2	76.0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
80.8	98.4	76.1	72.0	78.1	80.7	83.6	88.1	96.8	85.8	81.5	80.1	79.8	67.2	72.3

CQS: 79.7



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
5111 K	81.3	-2.6	80.3	93.3	79.7	0.343	0.358	0.207	0.325	0.0010



TM30 Report

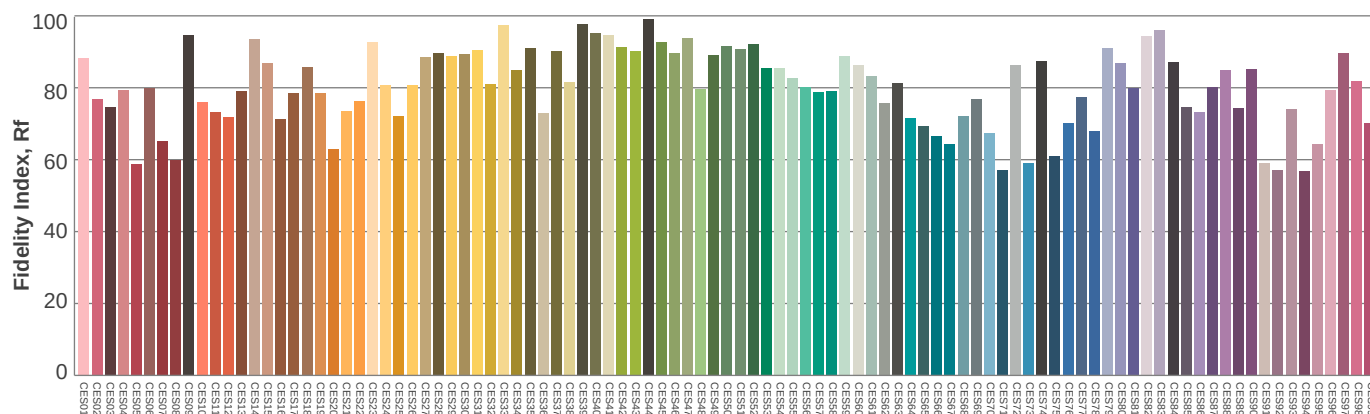
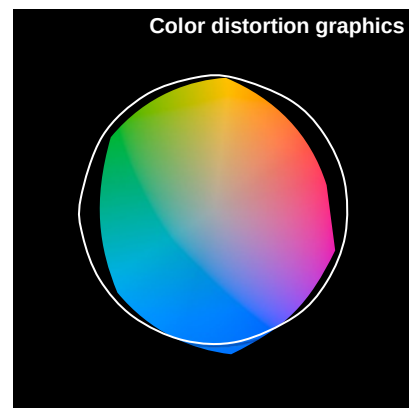
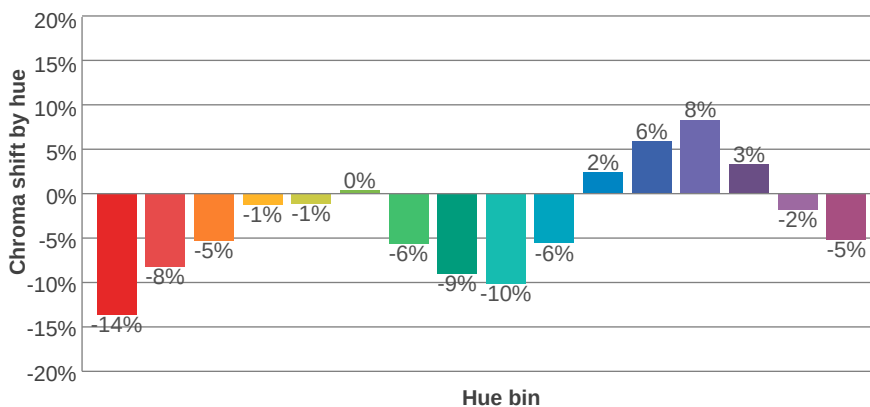
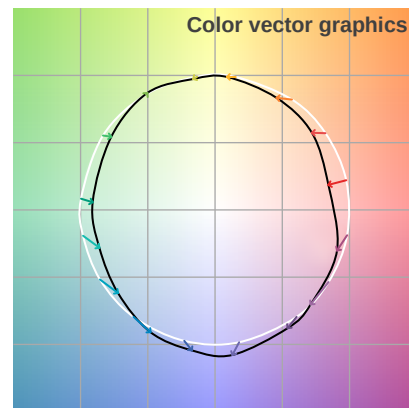
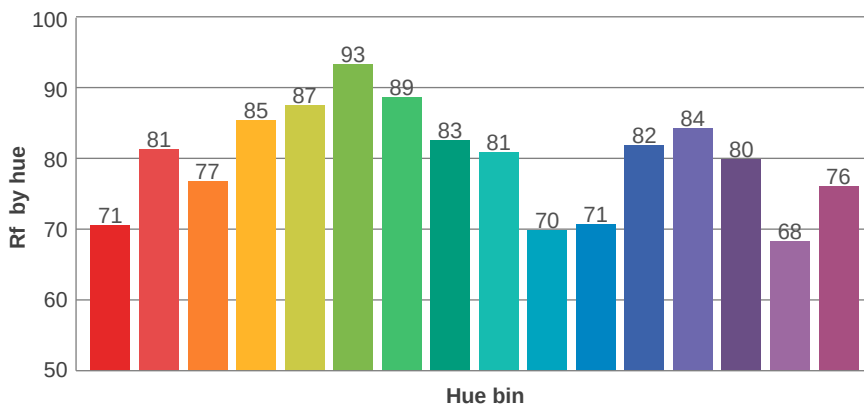
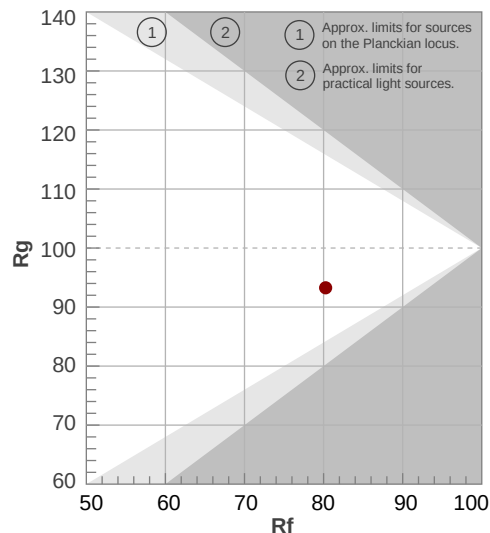
Rf 80.3

Fidelity index Rf

Rg 93.3

Gammut index Rg

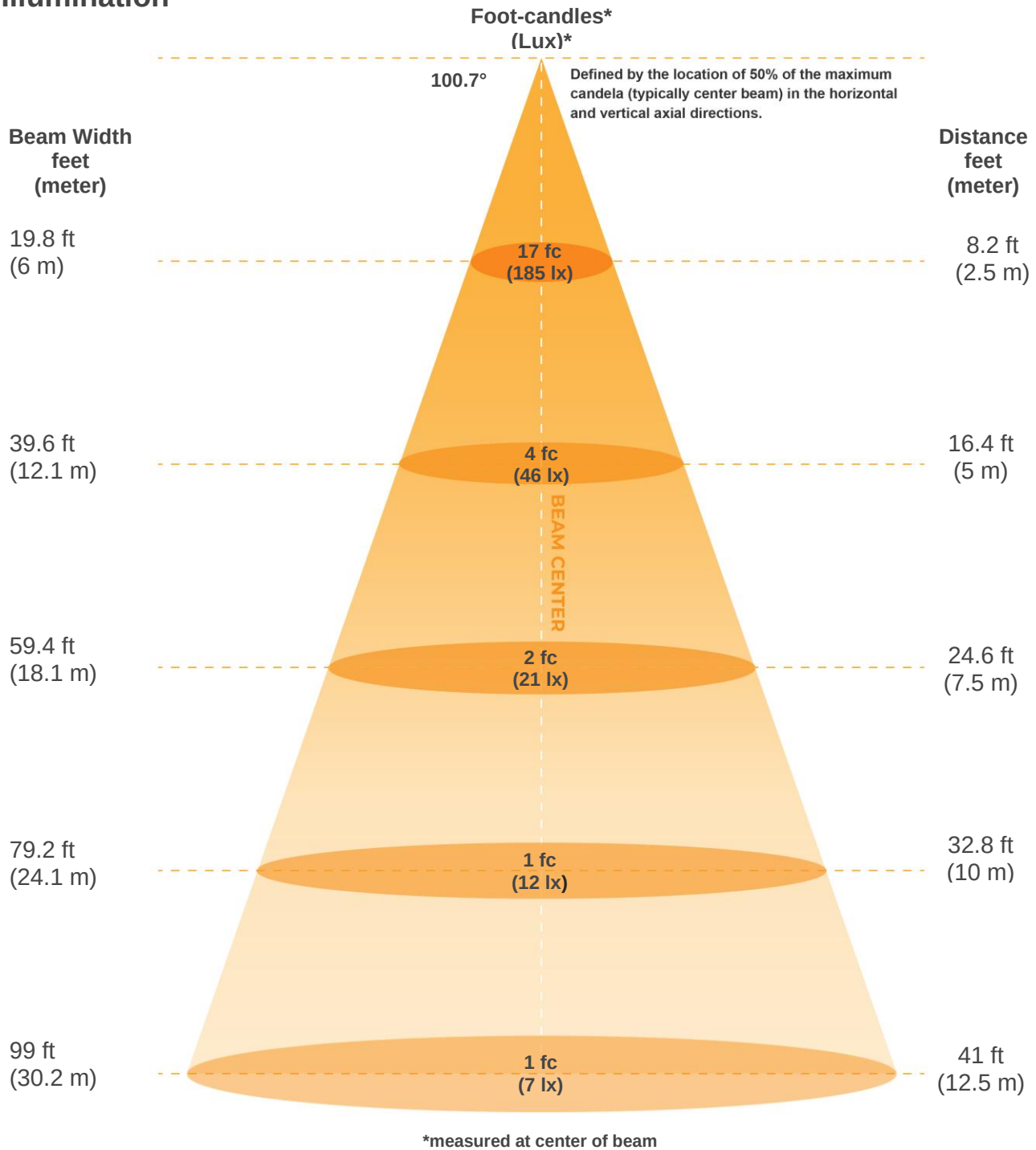
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	71	-14%	-1%
2	81	-8%	6%
3	77	-5%	10%
4	85	-1%	6%
5	87	-1%	3%
6	93	0%	-1%
7	89	-6%	-3%
8	83	-9%	1%
9	81	-10%	11%
10	70	-6%	16%
11	71	2%	17%
12	82	6%	7%
13	84	8%	-7%
14	80	3%	-10%
15	68	-2%	-21%
16	76	-5%	-13%



Color Evaluation Sample



Illumination



Beam intensities from 1-20m

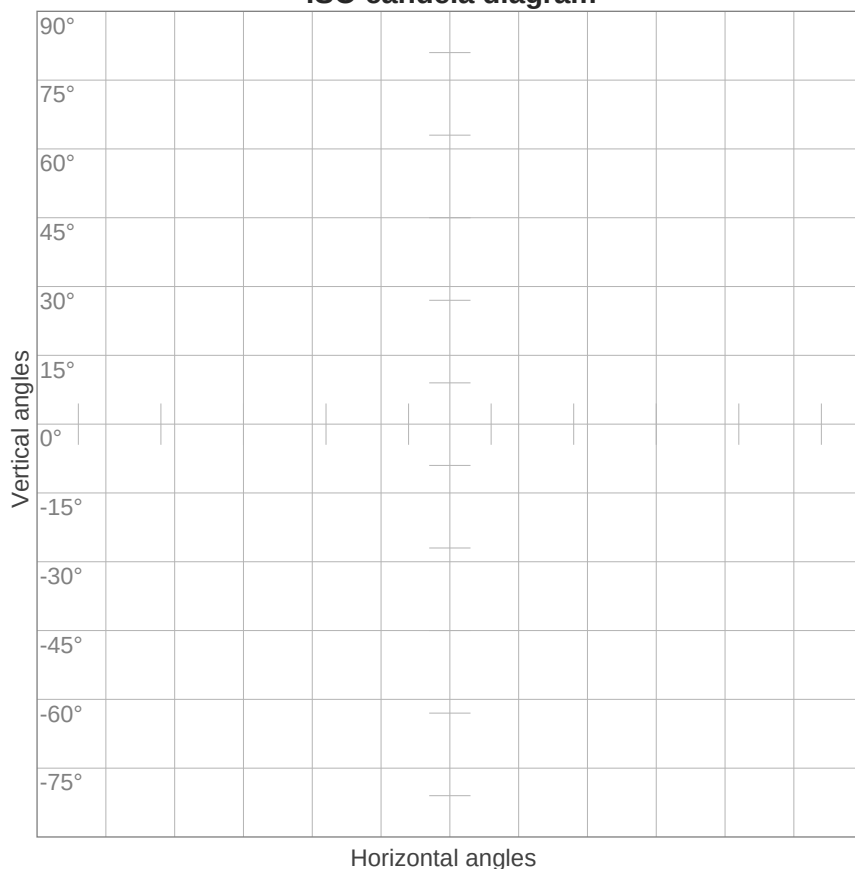
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
1155lx	289lx	128lx	72lx	46lx	32lx	24lx	18lx	14lx	12lx	10lx	8lx	7lx	6lx	5lx	5lx	4lx	4lx	3lx	3lx
107.3fc	26.8fcd	11.9fcd	6.7fcd	4.3fcd	3fcd	2.2fcd	1.7fcd	1.3fcd	1.1fcd	0.9fcd	0.7fcd	0.6fcd	0.5fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd	0.3fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
100.7°	173.5°	226.4°	57.7%	39.2%



ISO Diagrams

ISO candela diagram



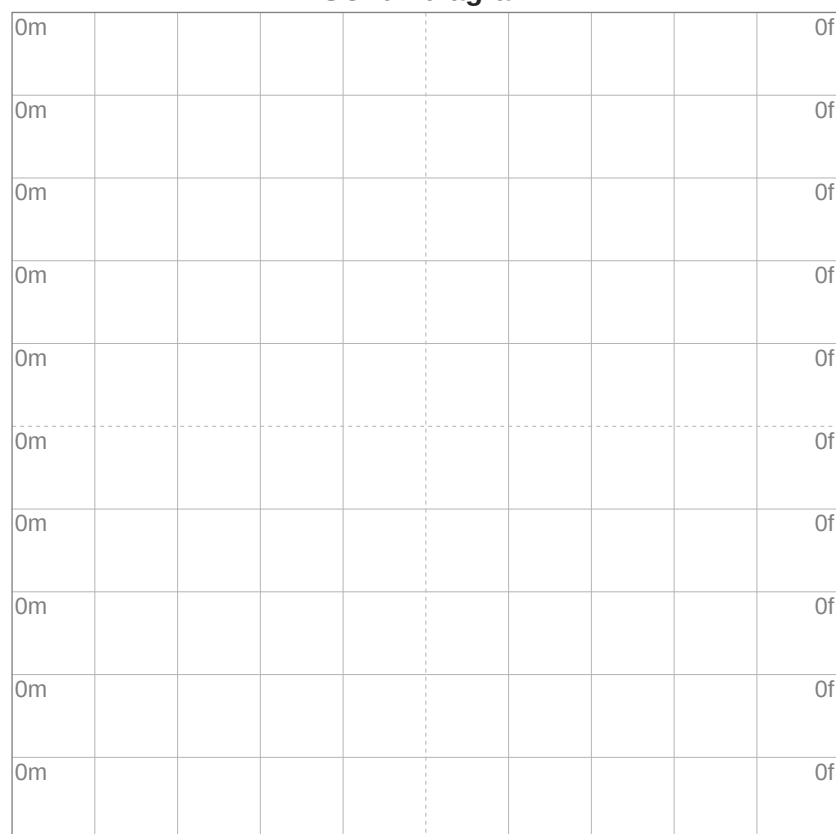
10%	115 cd
20%	231 cd
30%	346 cd
40%	462 cd
50%	577 cd
60%	693 cd
70%	808 cd
80%	924 cd
90%	1039 cd

Conditions:

Number of c-planes: 16

Candela at center: 1155 cd

ISO lux diagram



3%	0.346 lx
5%	0.577 lx
10%	1.15 lx
30%	3.46 lx
50%	5.77 lx

Conditions:

Number of c-planes: 16

Lux at center: 11.5 lx

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



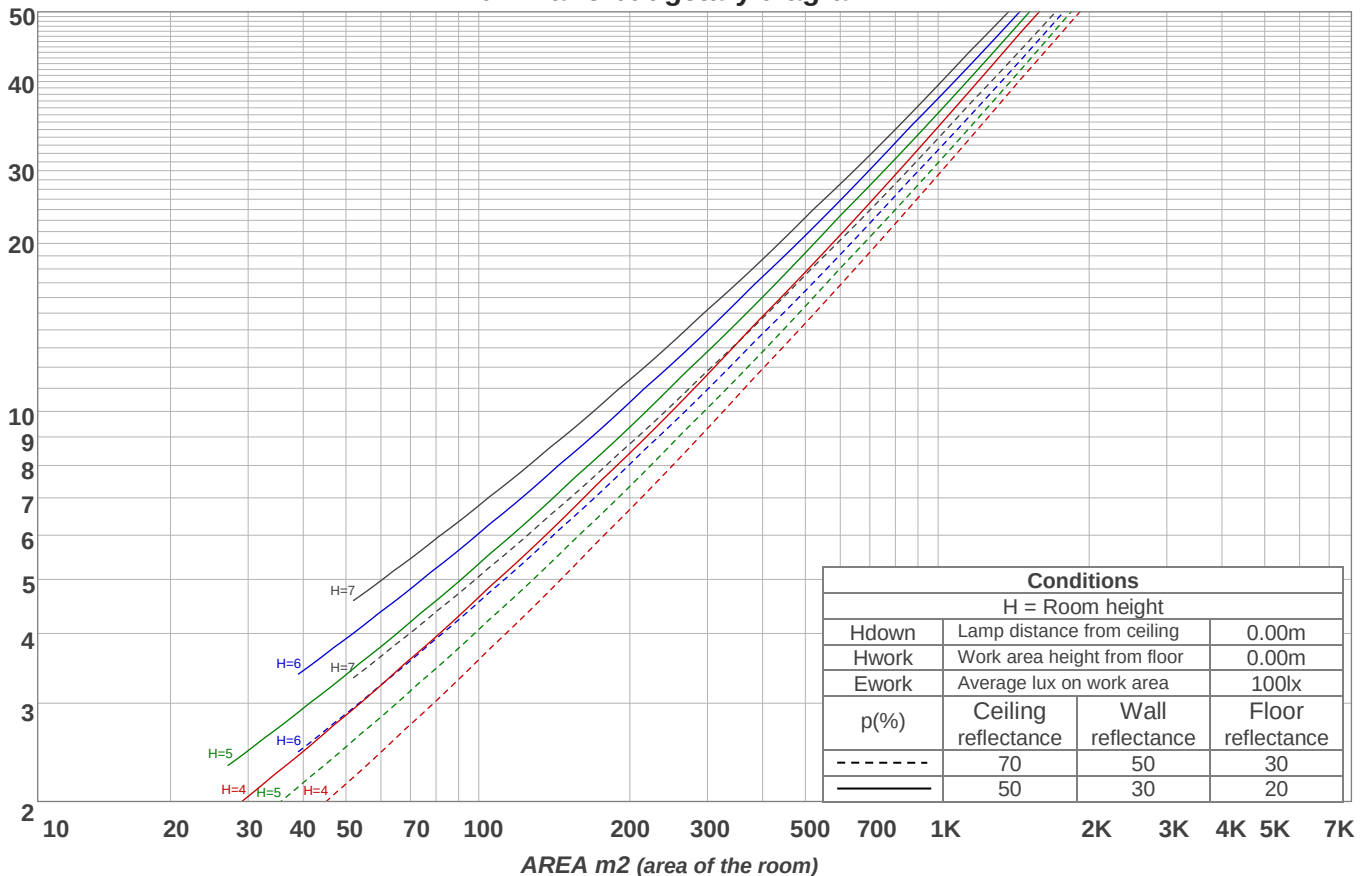
Light Planning

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	116	116	116	116	111	111	111	111	103	103	103	96	96	96	89	89	89	86
1	102	96	91	86	98	93	88	84	86	82	78	79	76	73	74	71	69	66
2	92	83	75	68	88	80	73	67	74	68	63	68	64	59	63	59	56	53
3	84	72	63	56	80	69	61	55	64	58	52	60	54	49	55	51	47	44
4	76	64	54	47	73	61	53	46	57	50	44	53	47	42	49	44	40	37
5	70	57	47	40	67	55	46	39	51	43	38	47	41	36	44	39	34	32
6	65	51	42	35	62	49	41	34	46	38	33	43	36	31	40	35	30	28
7	60	46	37	31	57	45	36	30	42	34	29	39	33	28	37	31	27	24
8	56	42	33	27	53	41	33	27	38	31	26	36	30	25	34	28	24	22
9	52	39	30	25	50	37	29	24	35	28	23	33	27	22	31	26	22	20
10	49	36	28	22	47	34	27	22	33	26	21	31	25	20	29	24	20	18

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°
115 lm	318 lm	468 lm	568 lm	584 lm	543 lm	478 lm	426 lm	368 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
259 lm	163 lm	105 lm	60.8 lm	26.8 lm	10.9 lm	3.91 lm	0.854 lm	0.243 lm

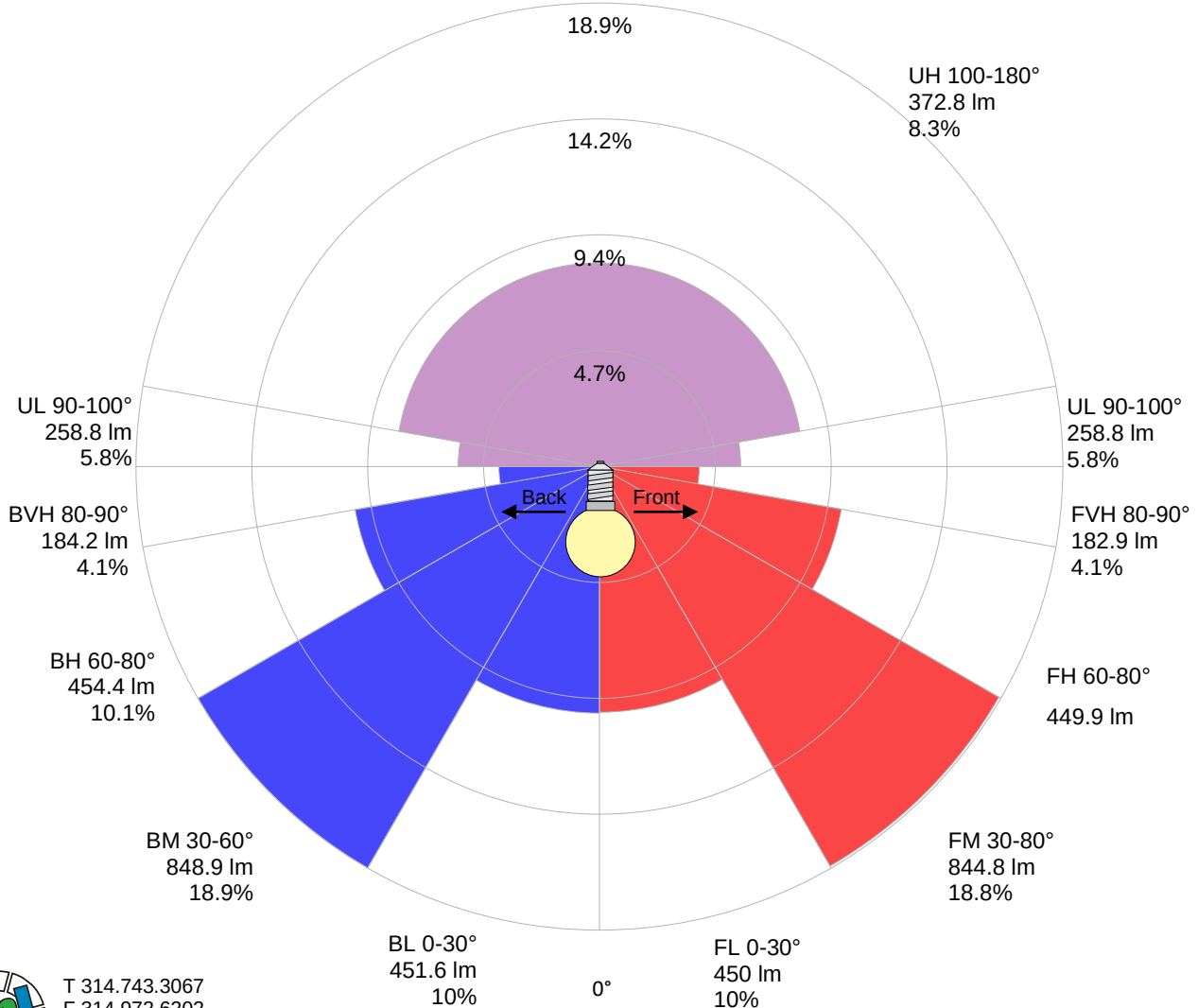


Road Report

LCS table

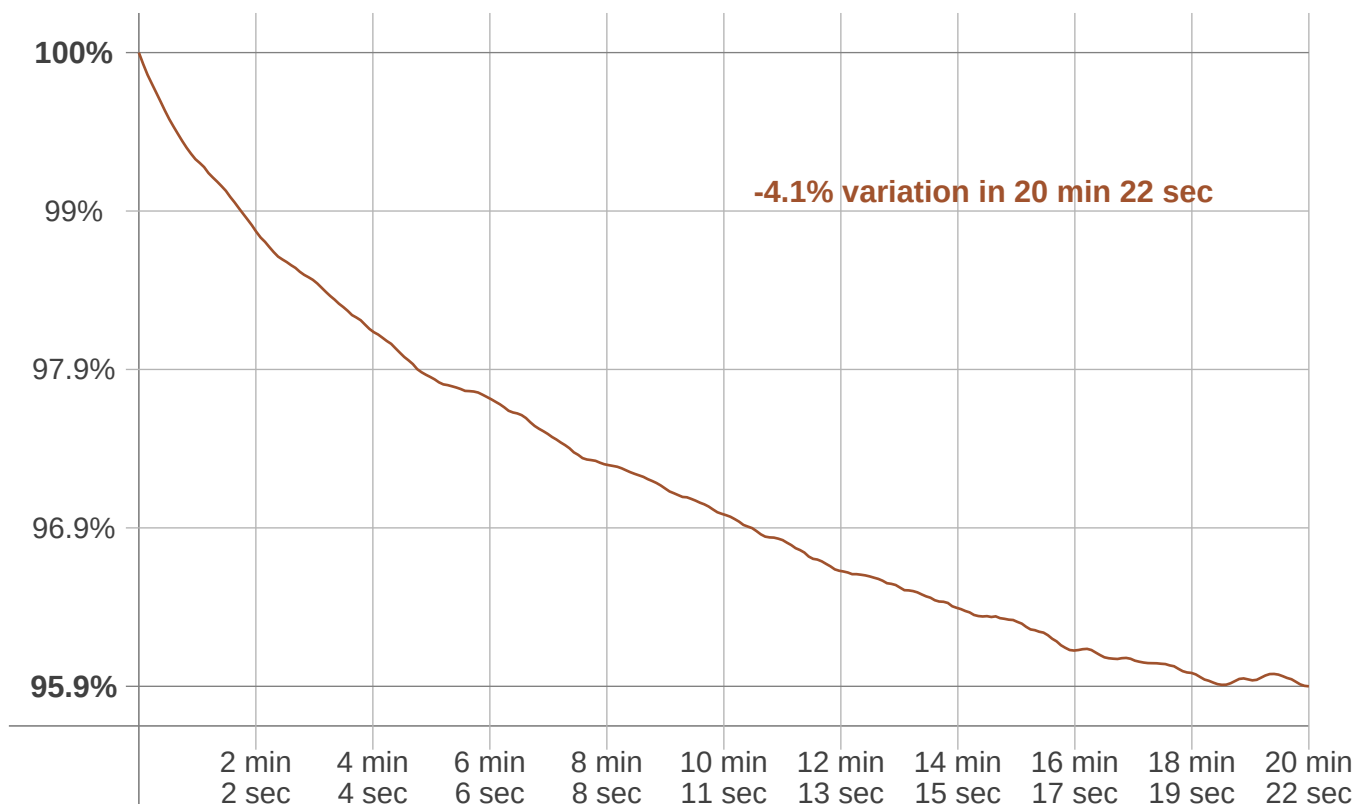
BUG rating:	B1 U3 G2	
Forward light	Lumens	Lumens %
Low(0-30):	450	10%
Medium(30-60):	844.8	18.8%
High(60-80):	449.9	10%
Very high(80-90):	182.9	4.1%
Back light		
Low(0-30):	451.6	10%
Medium(30-60):	848.9	18.9%
High(60-80):	454.4	10.1%
Very high(80-90):	184.2	4.1%
Uplight		
Low(90-100):	258.8	5.8%
High(100-180):	372.8	8.3%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	20 min 22 sec
Warmup variation	-4.1%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5070 K	+41 K	5111 K

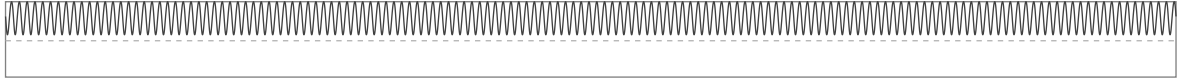
Output change

Output start	Output change	Output end
4676 lm	-178 lm	4498 lm

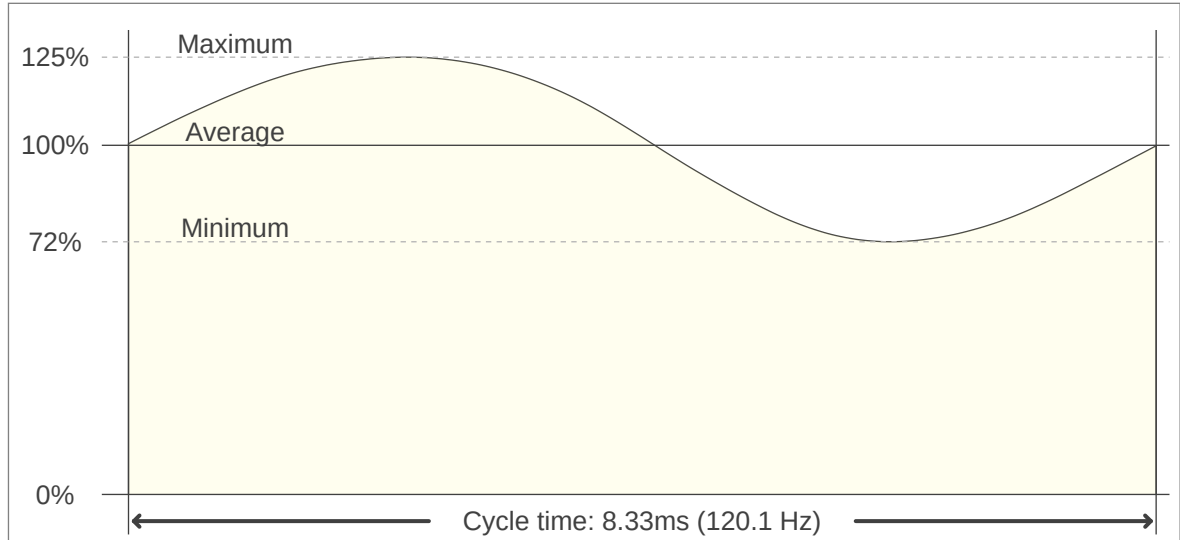


Flicker

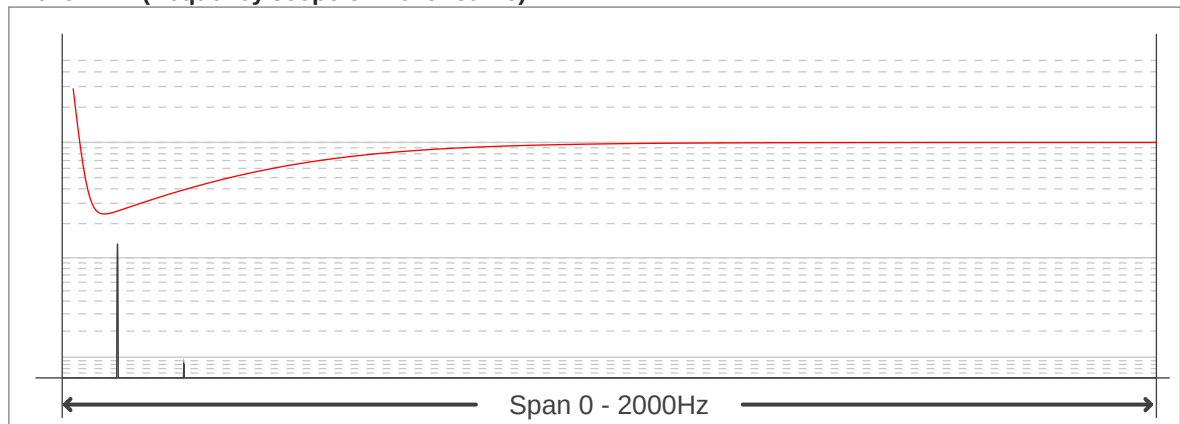
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	120.12 Hz
Flicker index:	0.08
Flicker percentage:	26.84 %
SVM: (Visual flicker)	0.96

Flicker conditions:

Sample rate:	40000 samples/second
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