

Light efficiency:

97 Lumen/Watt

Light quality:

CRI: 81.4

Color temperature:

5112 K

Output: 3953 lm

Peak: 1733 cd

Power: 40.6 W

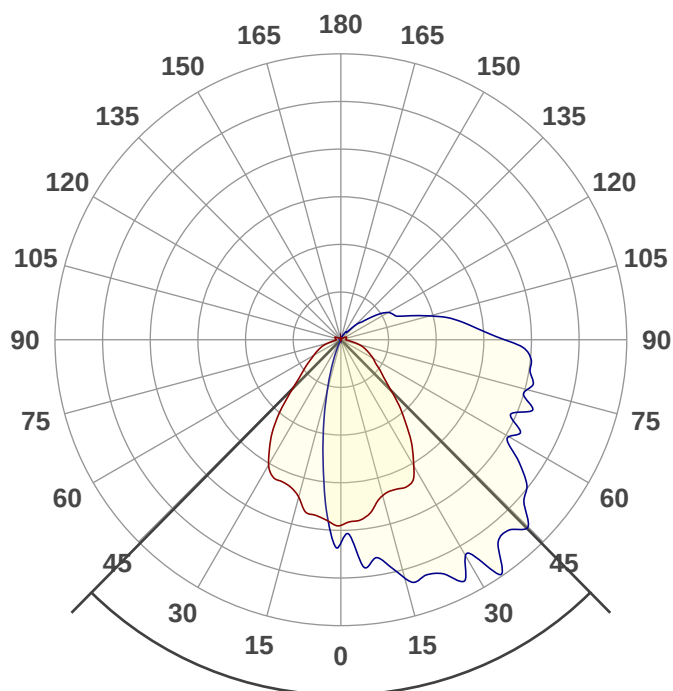
PF: 0.99

Product name:

WPG-50K40W-S (Glare Shield)

Date and time:

6/6/2019 2:15:49 PM



Beam angle

89.2°

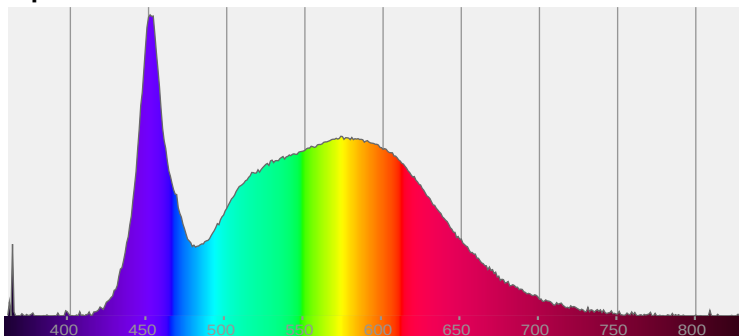


CIE 1931

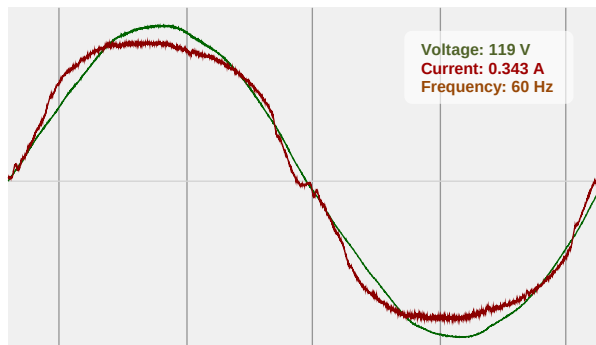
x: 0.343

y: 0.358

Spectra



Power



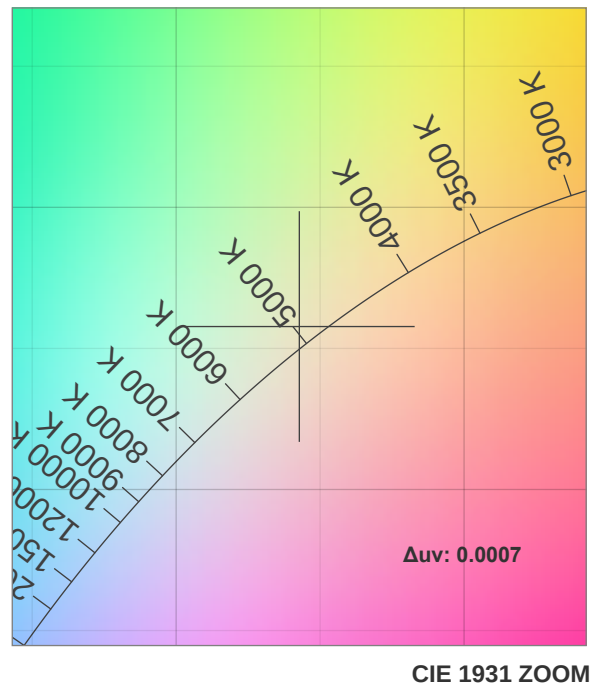
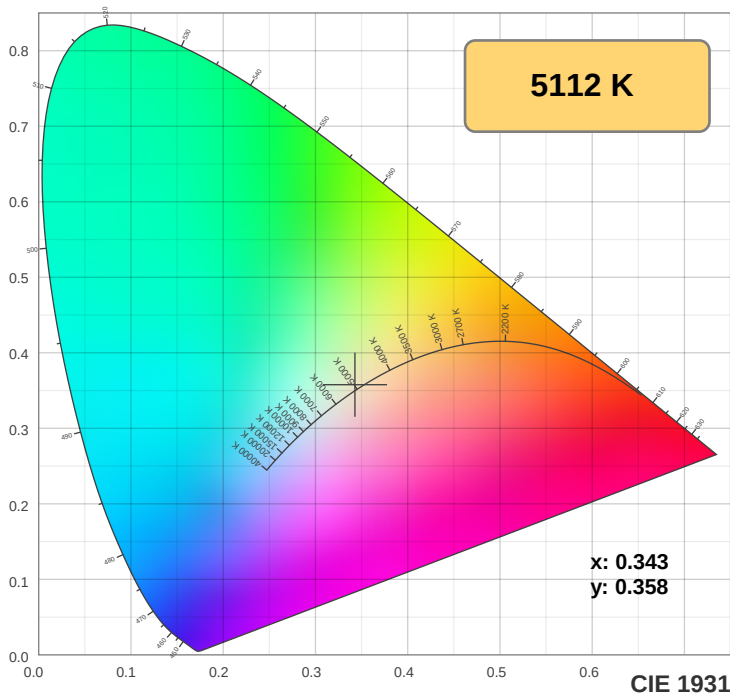
T 314.743.3067

F 314.972.6202

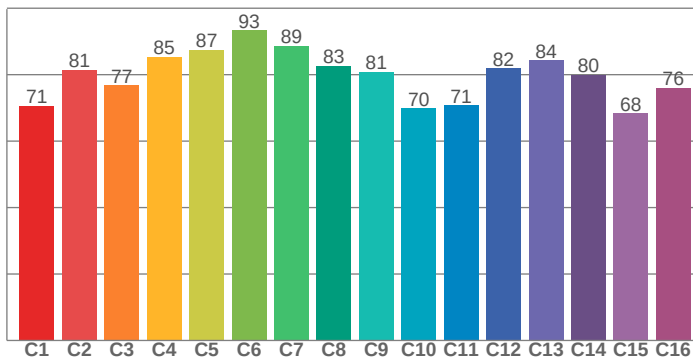
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

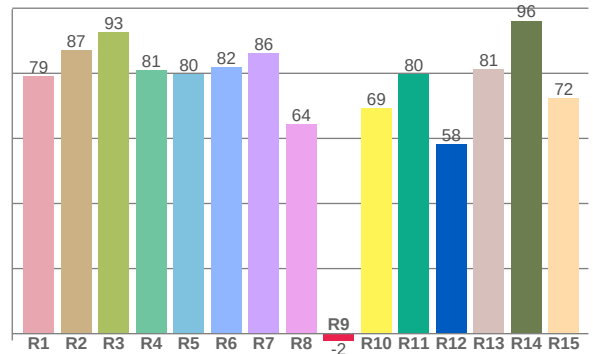
Color Specifications



TM30: 80.3



CRI: 81.4 (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
79.0	87.1	92.6	80.9	79.7	81.9	86.1	64.2	-2.1	69.3	79.8	58.3	81.2	96.2	72.3

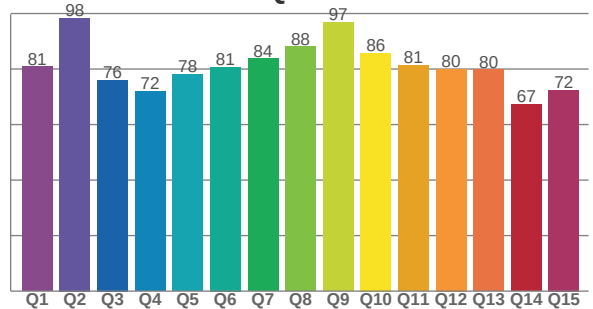
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
70.7	81.4	76.8	85.3	87.5	93.4	88.7	82.7	80.8	69.9	70.7	81.9	84.3	79.9	68.4	76.1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
80.9	98.4	76.0	72.0	78.1	80.8	83.7	88.1	96.8	85.8	81.4	80.0	79.8	67.3	72.4

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
5112 K	81.4	-2.1	80.3	93.3	79.7	0.343	0.358	0.208	0.325	0.0007



TM30 Report

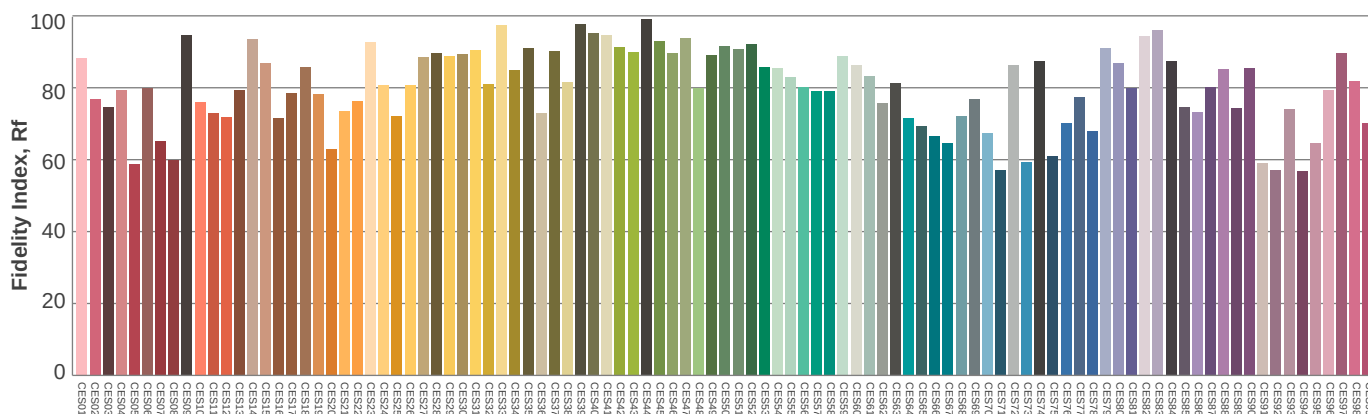
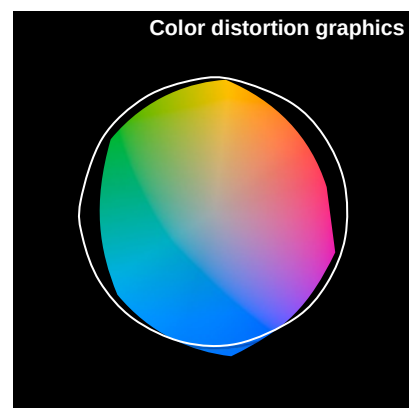
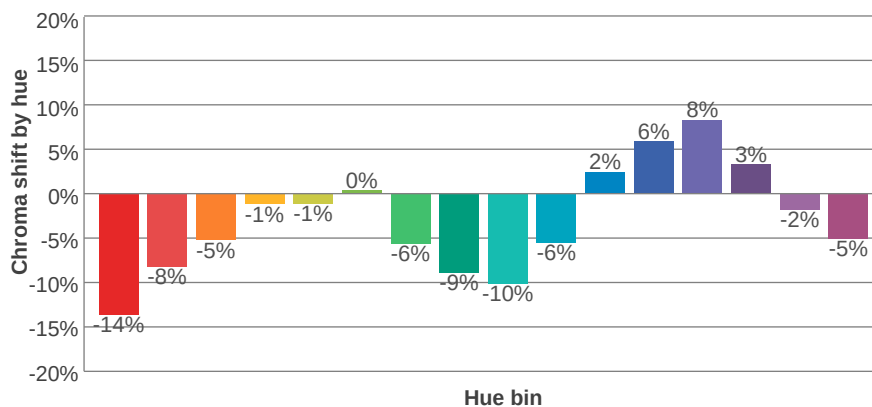
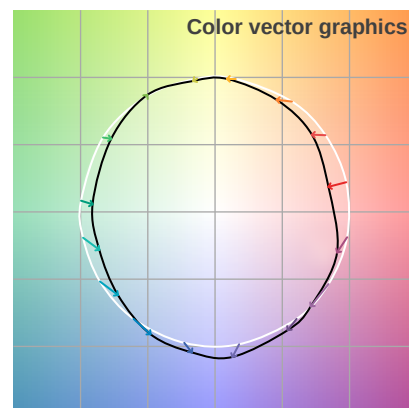
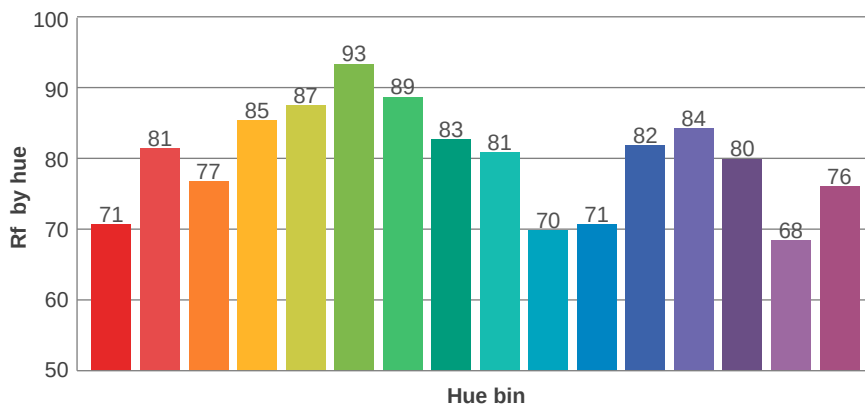
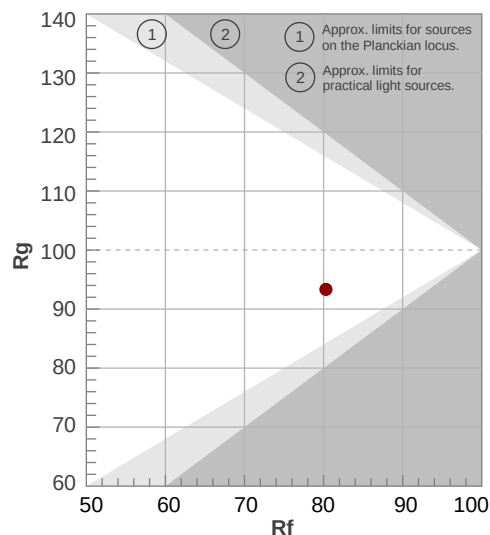
Rf 80.3

Fidelity index Rf

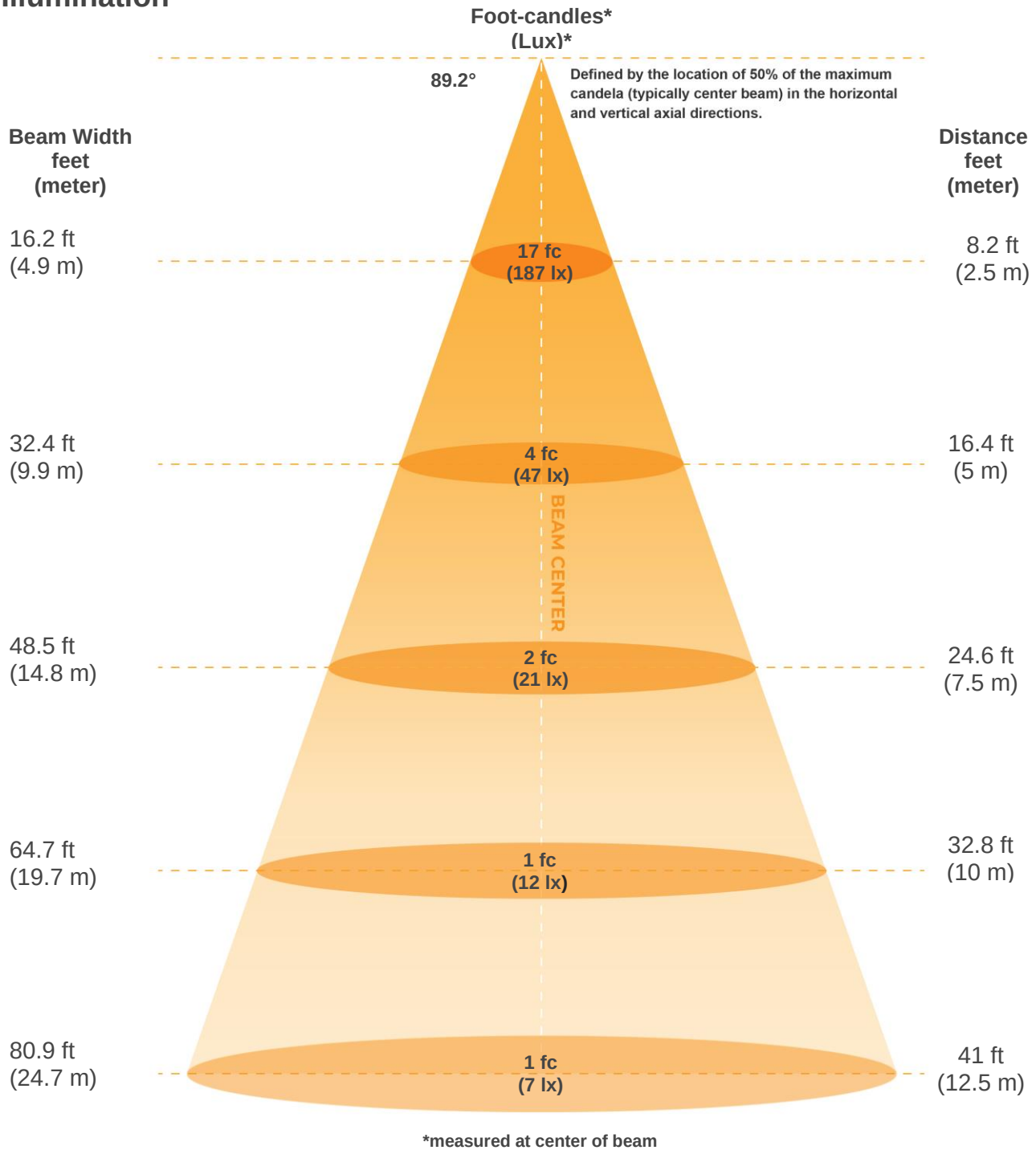
Rg 93.3

Gamut 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%



Illumination



Beam intensities from 1-20m

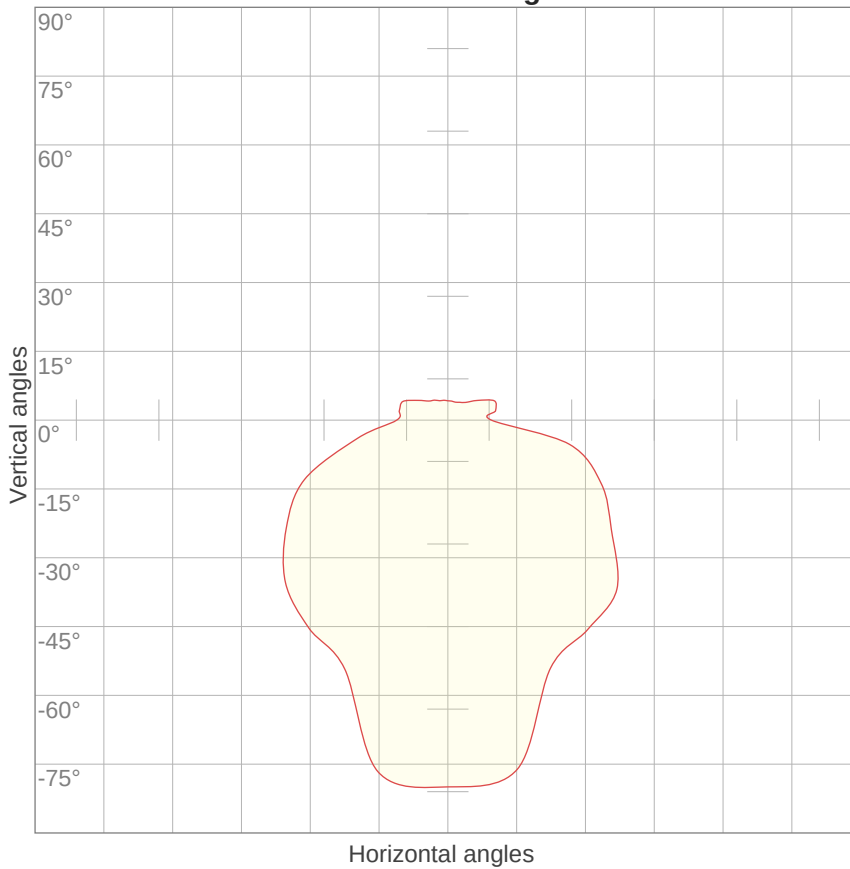
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
1172lx	293lx	130lx	73lx	47lx	33lx	24lx	18lx	14lx	12lx	10lx	8lx	7lx	6lx	5lx	5lx	4lx	4lx	3lx	3lx
108.8fc	27.2fcd	12.1fcd	6.8fcd	4.4fcd	3fcd	2.2fcd	1.7fcd	1.3fcd	1.1fcd	0.9fcd	0.8fcd	0.6fcd	0.6fcd	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
89.2°	145.9°	185.8°	54.6%	37.0%



ISO Diagrams

ISO candela diagram



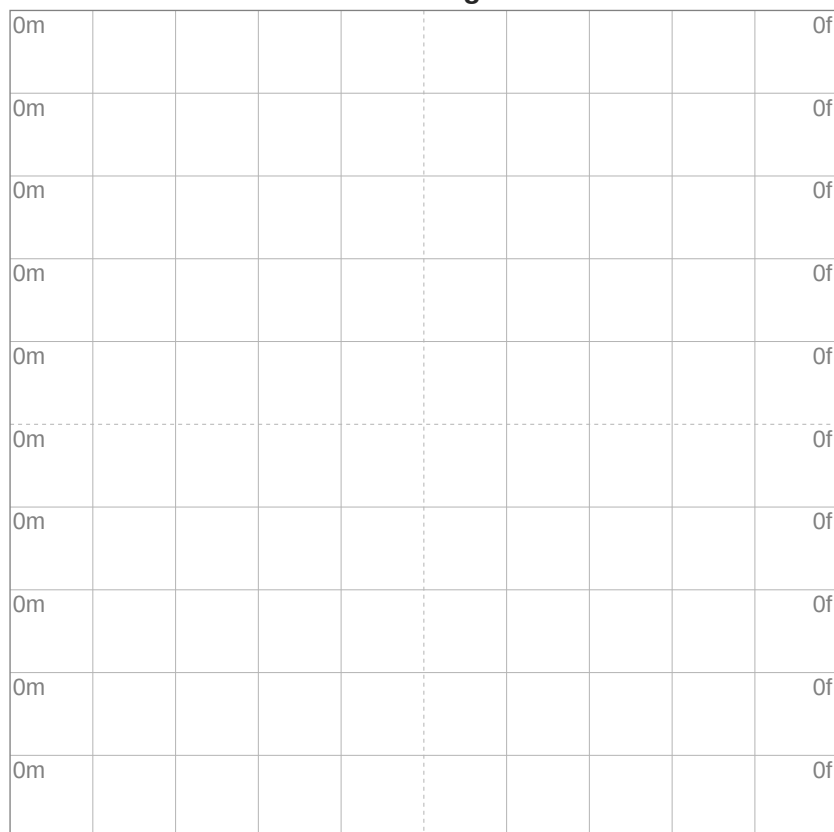
10%	117 cd
20%	234 cd
30%	351 cd
40%	469 cd
50%	586 cd
60%	703 cd
70%	820 cd
80%	937 cd
90%	1054 cd

Conditions:

Number of c-planes: 16

Candela at center: 1172 cd

ISO lux diagram



3%	0.351 lx
5%	0.586 lx
10%	1.17 lx
30%	3.51 lx
50%	5.86 lx

Conditions:

Number of c-planes: 16

Lux at center: 11.7 lx

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

Mounting height: 10 meters (33 feet)



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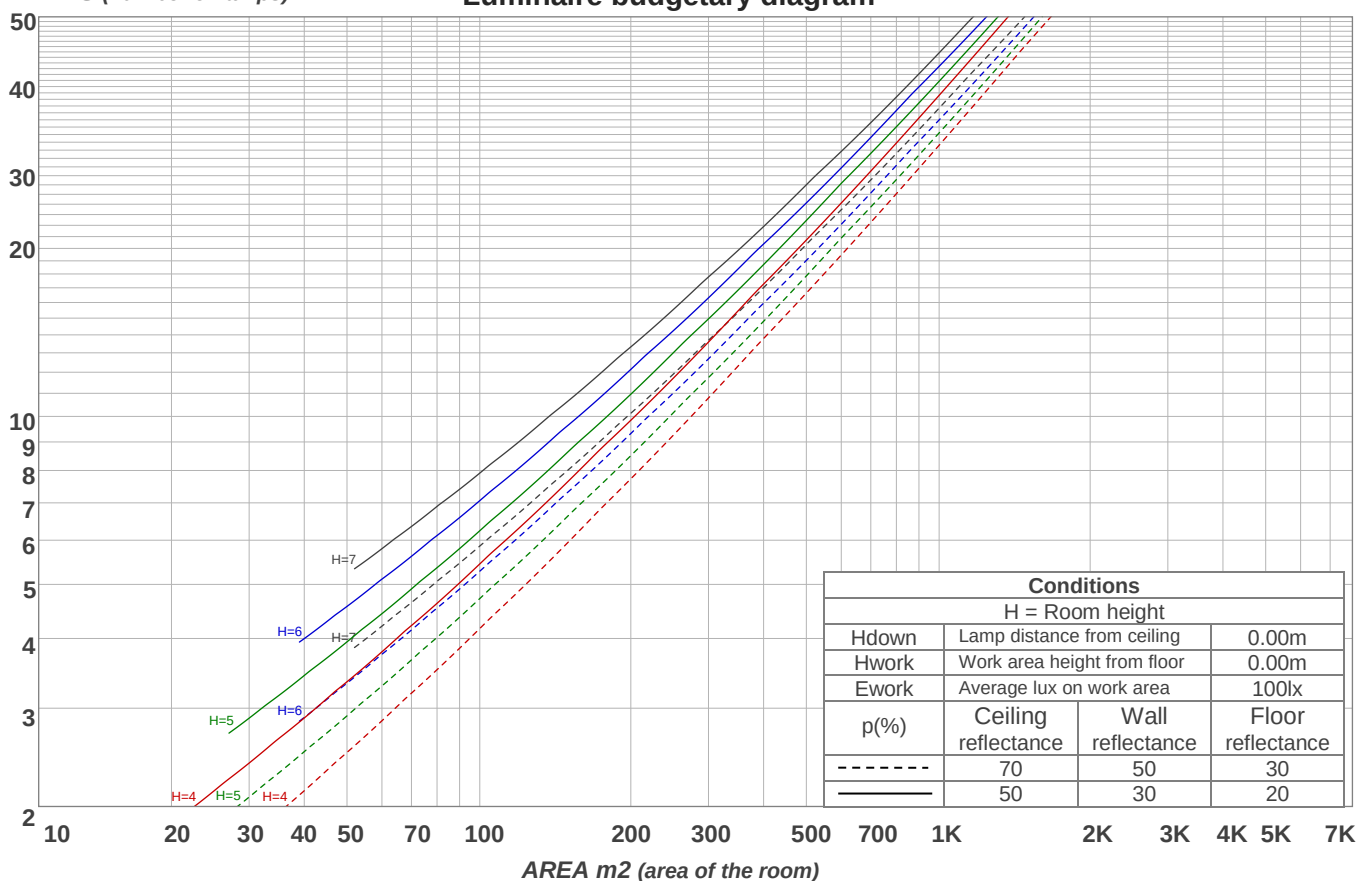
Light planning

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	115	115	115	115	111	111	111	111	102	102	102	95	95	95	88	88	88	84
1	102	95	90	85	97	92	87	82	84	80	77	78	74	71	71	69	66	63
2	91	82	74	67	87	78	71	65	72	66	61	67	62	57	61	57	54	51
3	83	71	62	55	79	68	60	53	63	56	50	58	52	47	54	49	45	42
4	76	63	53	46	72	60	52	45	56	48	43	52	45	40	48	42	38	35
5	70	56	46	39	66	54	45	38	50	42	37	46	40	35	43	37	33	30
6	64	50	41	34	61	48	40	33	45	38	32	42	35	30	39	33	29	26
7	59	46	36	30	57	44	36	30	41	34	28	38	32	27	36	30	26	23
8	55	42	33	27	53	40	32	26	38	30	25	35	29	24	33	27	23	21
9	52	38	30	24	49	37	29	24	35	28	23	32	26	22	30	25	21	19
10	48	35	27	22	46	34	27	21	32	25	21	30	24	20	28	23	19	17

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°
110 lm	274 lm	381 lm	459 lm	480 lm	454 lm	419 lm	394 lm	357 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
255 lm	160 lm	104 lm	61.4 lm	27.5 lm	11.1 lm	4.03 lm	0.795 lm	0.215 lm

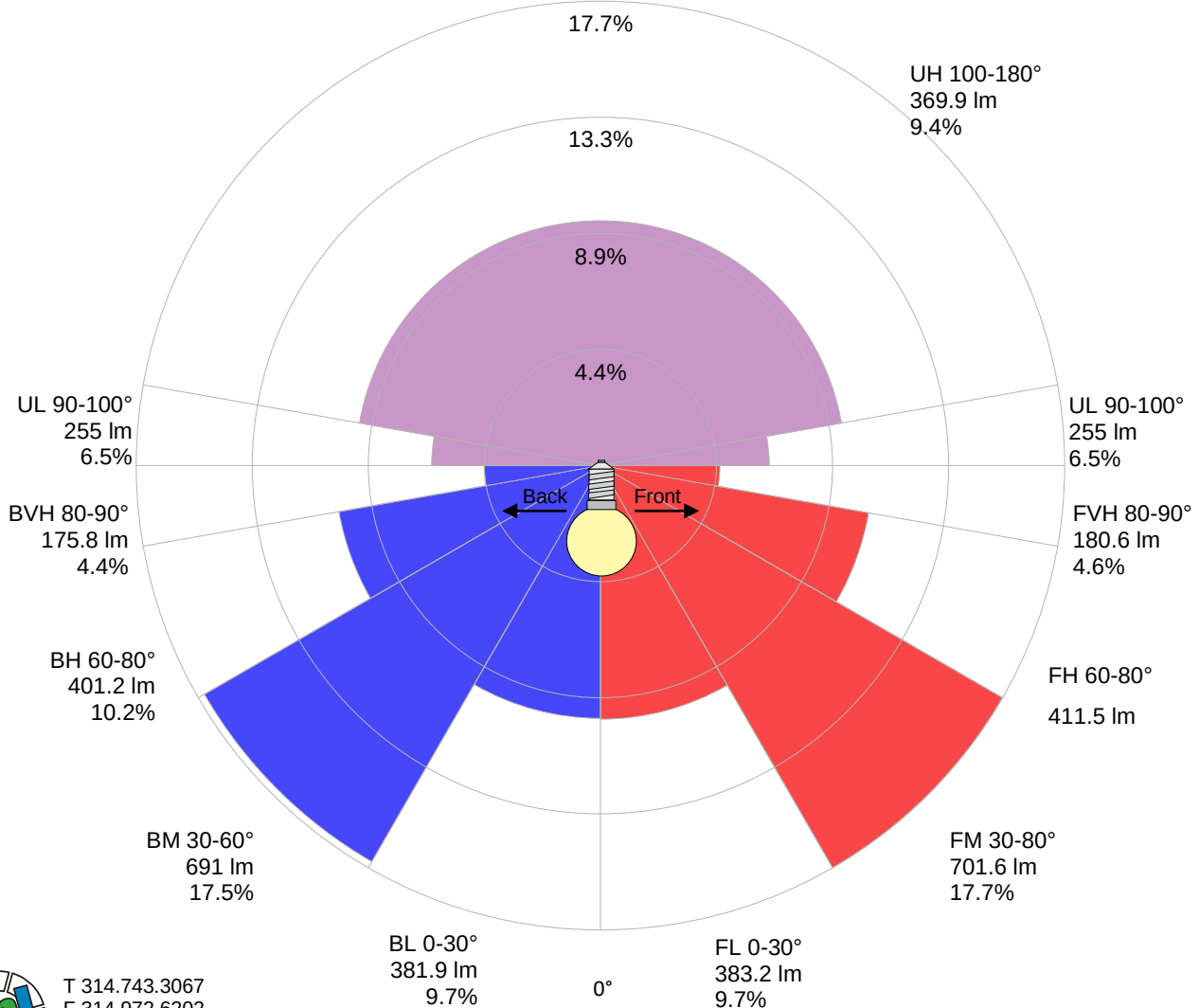


Road report

LCS table

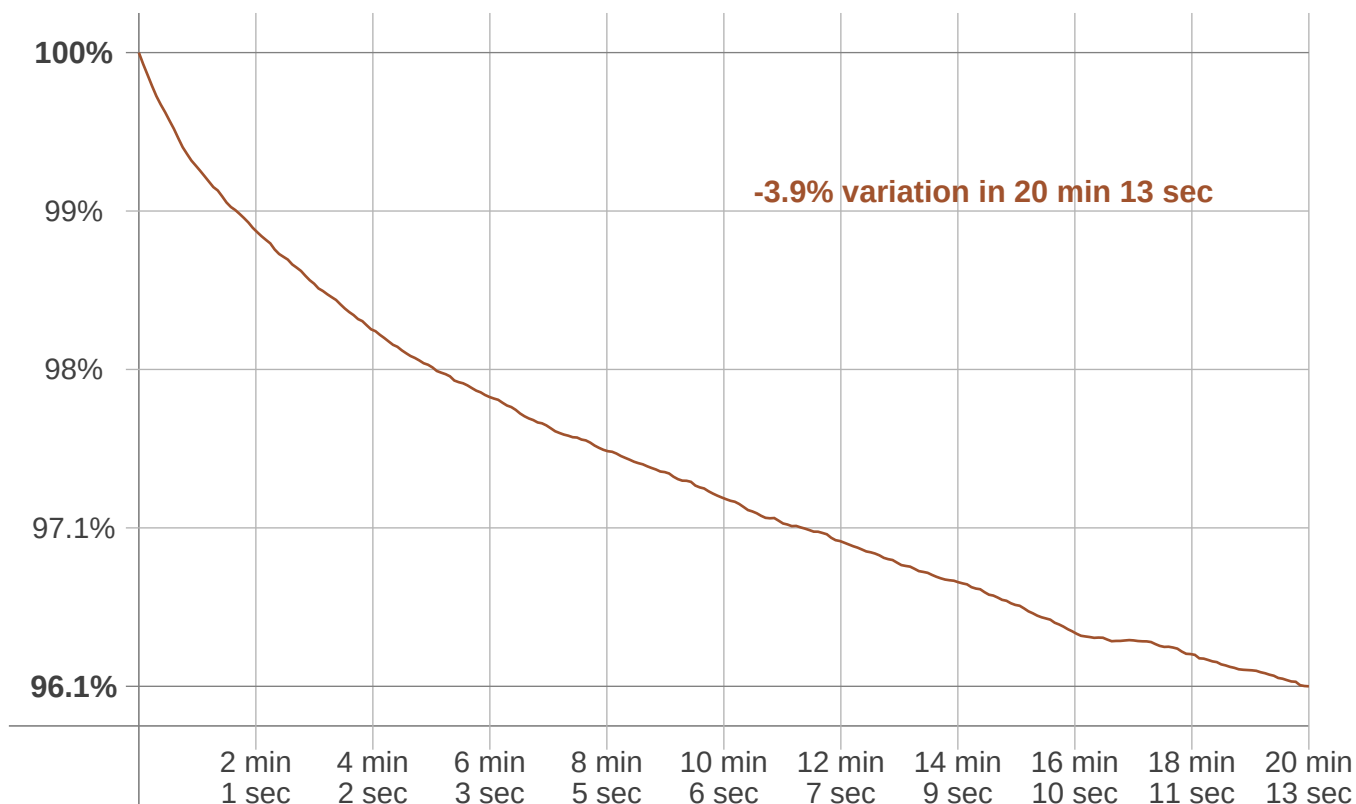
BUG rating:	B1 U3 G2	
Forward light	Lumens	Lumens %
Low(0-30):	383.2	9.7%
Medium(30-60):	701.6	17.7%
High(60-80):	411.5	10.4%
Very high(80-90):	180.6	4.6%
Back light		
Low(0-30):	381.9	9.7%
Medium(30-60):	691	17.5%
High(60-80):	401.2	10.2%
Very high(80-90):	175.8	4.4%
Uplight		
Low(90-100):	255	6.5%
High(100-180):	369.9	9.4%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	20 min 13 sec
Warmup variation	-3.9%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5078 K	+34 K	5112 K

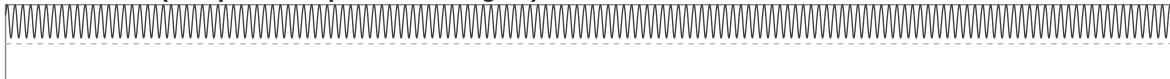
Output change

Output start	Output change	Output end
4105 lm	-152 lm	3953 lm

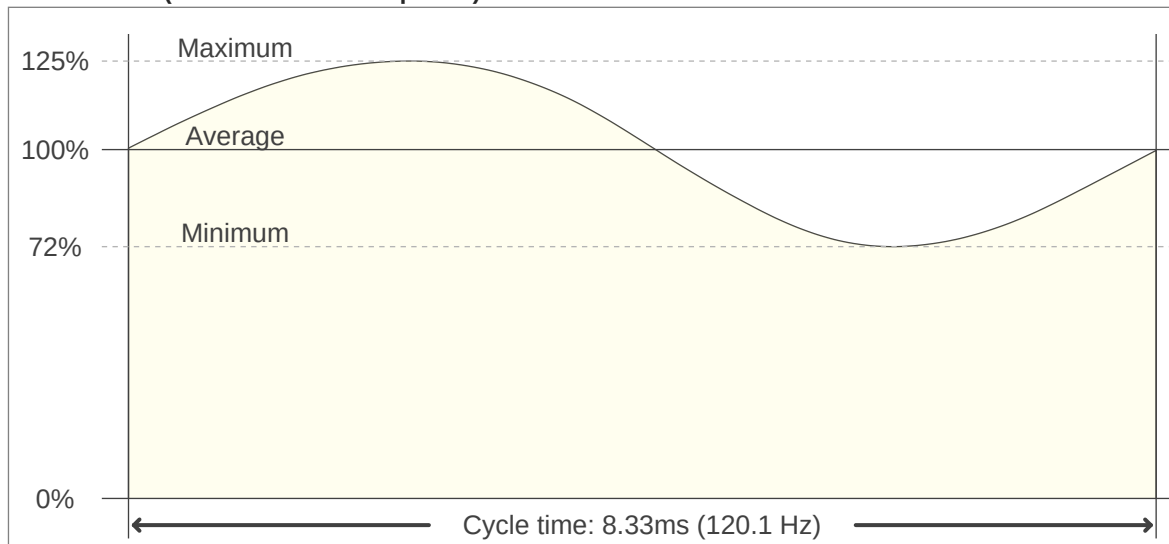


Flicker

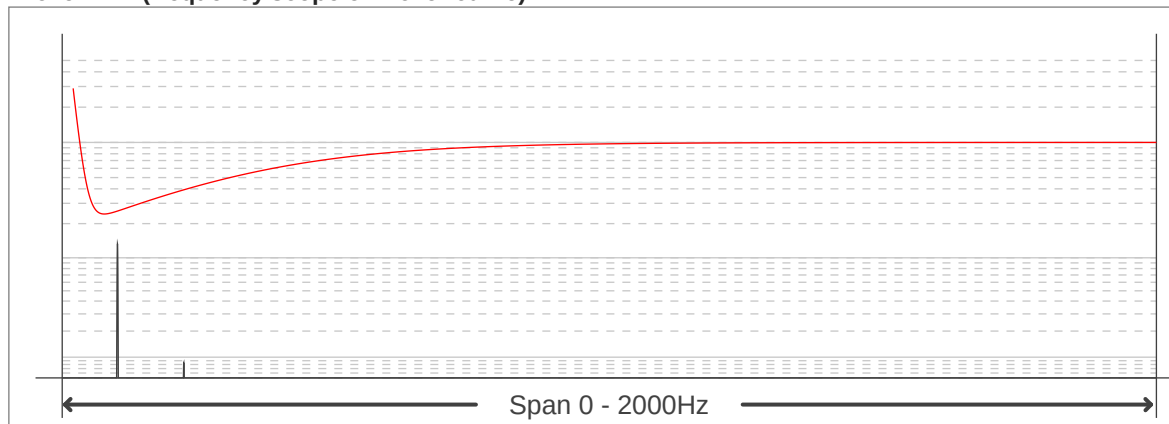
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	120.12 Hz
Flicker index:	0.09
Flicker percentage:	27.05 %
SVM: (Visual flicker)	0.96

Flicker conditions:

Sample rate:	40000 samples/second
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