

Light efficiency:

127 Lumen/Watt

Output: 39530 lm

Light quality:

CRI: 82.0

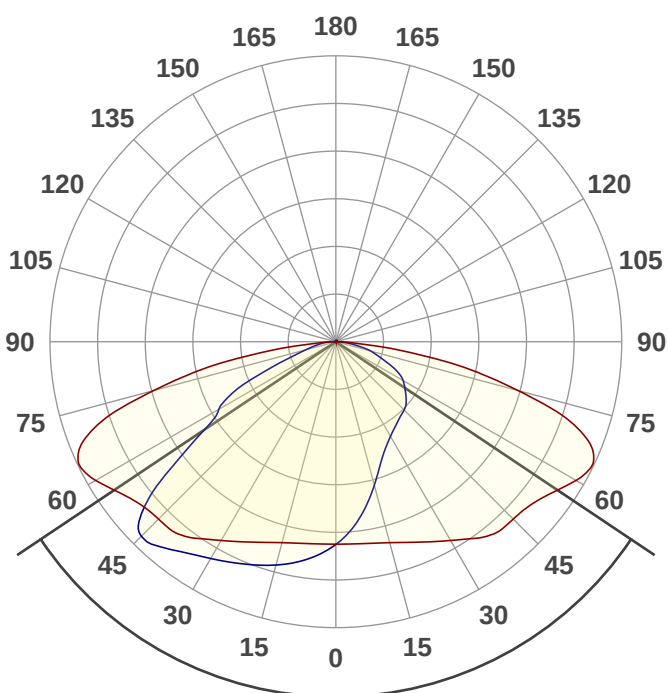
Peak: 12839 cd

Color temperature:

5180 K

Power: 312.4 W

PF: 1.0



Product name:

PLLD-50K300

Date and time:

4/26/2019 2:21:25 PM

Beam angle

112.4°

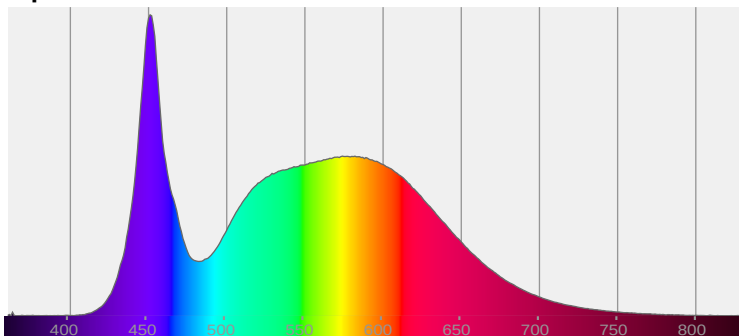


CIE 1931

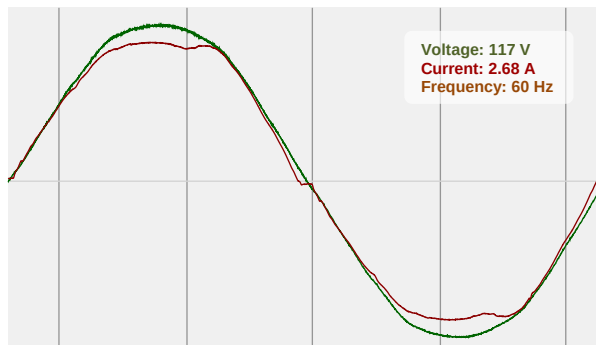
x: 0.340

y: 0.349

Spectra



Power



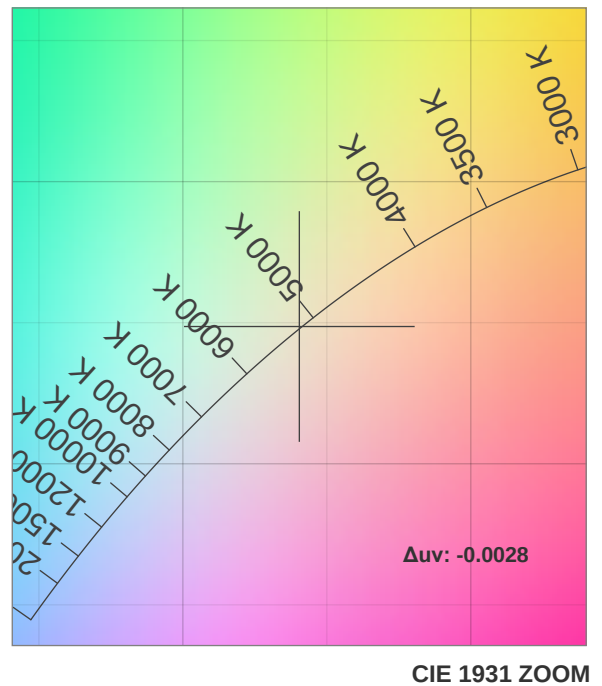
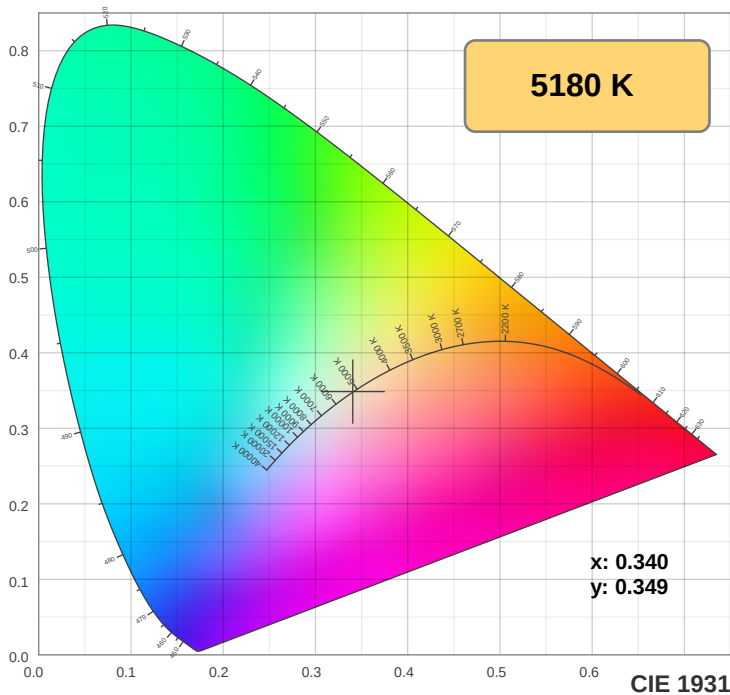
T 314.743.3067

F 314.972.6202

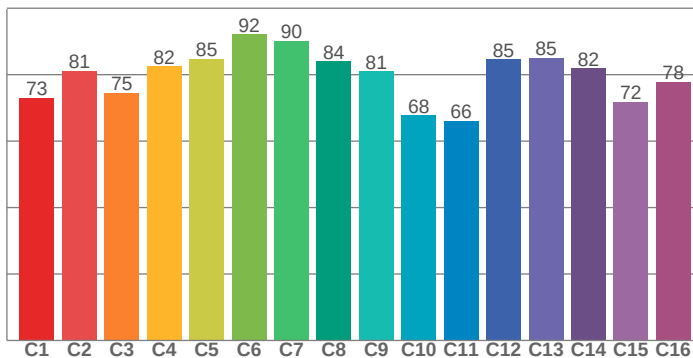
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

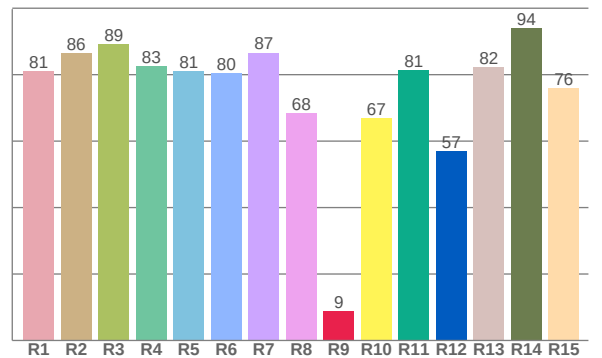
Color Specifications



TM30: 79.6



CRI: 82.0 (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
81.0	86.5	89.2	82.5	81.1	80.4	86.6	68.5	8.8	66.8	81.4	57.0	82.3	94.0	76.0

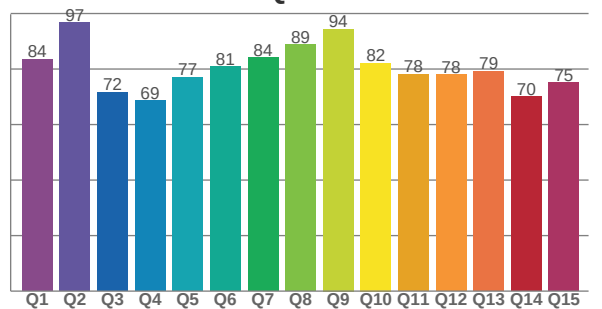
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
73.1	81.2	74.6	82.5	84.8	92.1	90.2	84.0	81.0	67.7	66.0	84.7	85.0	81.9	71.8	77.9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83.6	96.8	71.6	68.5	77.0	81.0	84.0	88.8	94.4	82.2	78.1	77.9	79.2	70.1	75.1

CQS: 79.0



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
5180 K	82.0	8.8	79.6	95.4	79.0	0.340	0.349	0.209	0.322	-0.0028



TM30 Report

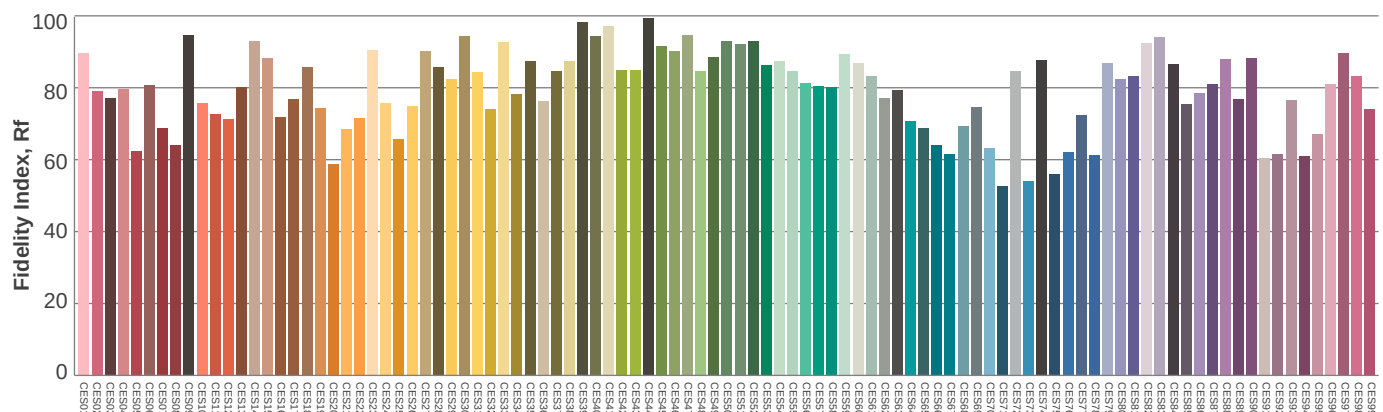
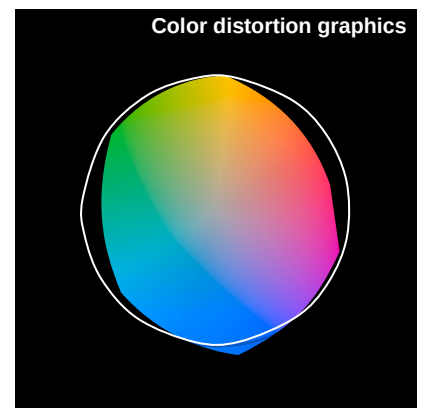
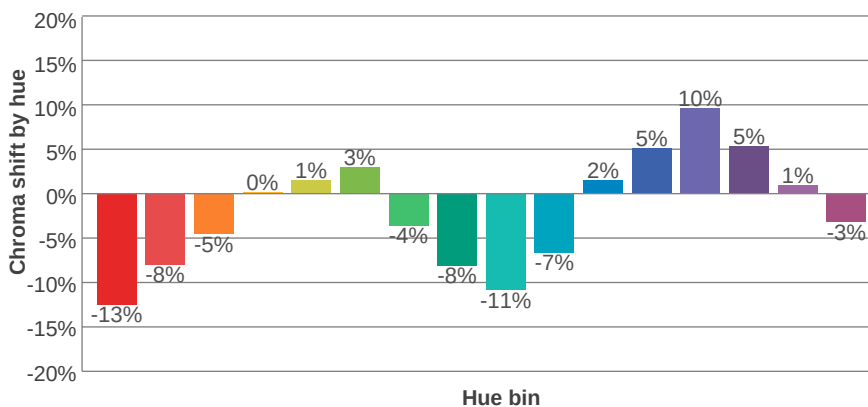
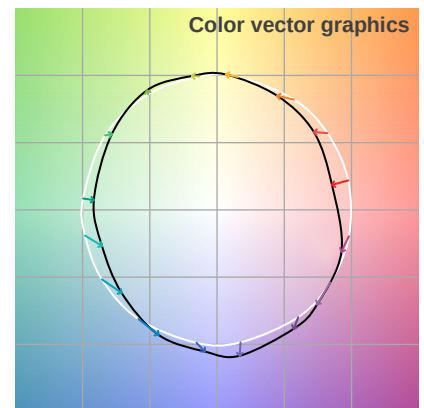
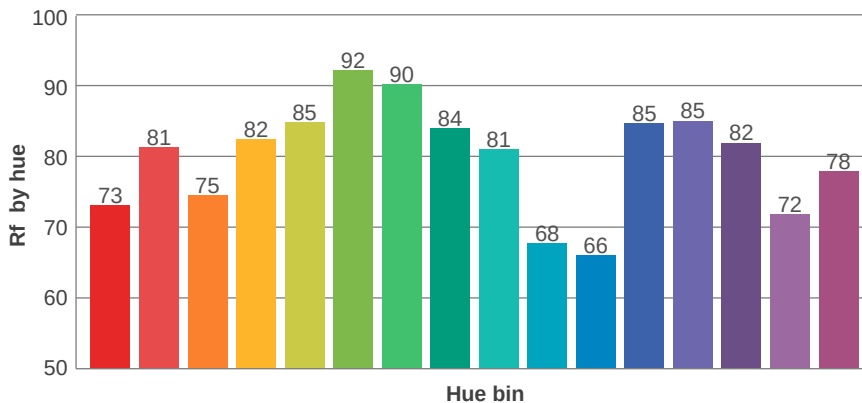
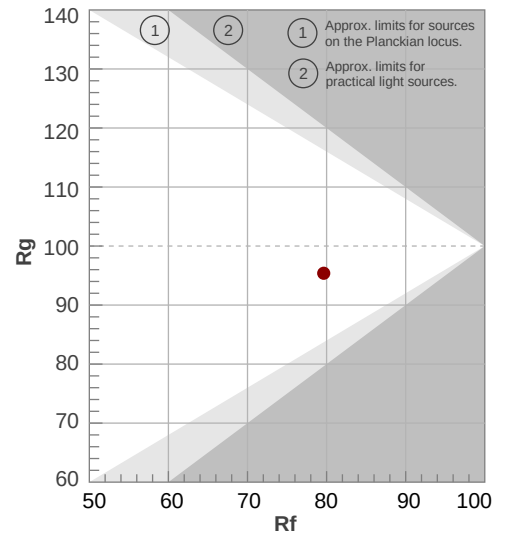
Rf 79.6

Fidelity index Rf

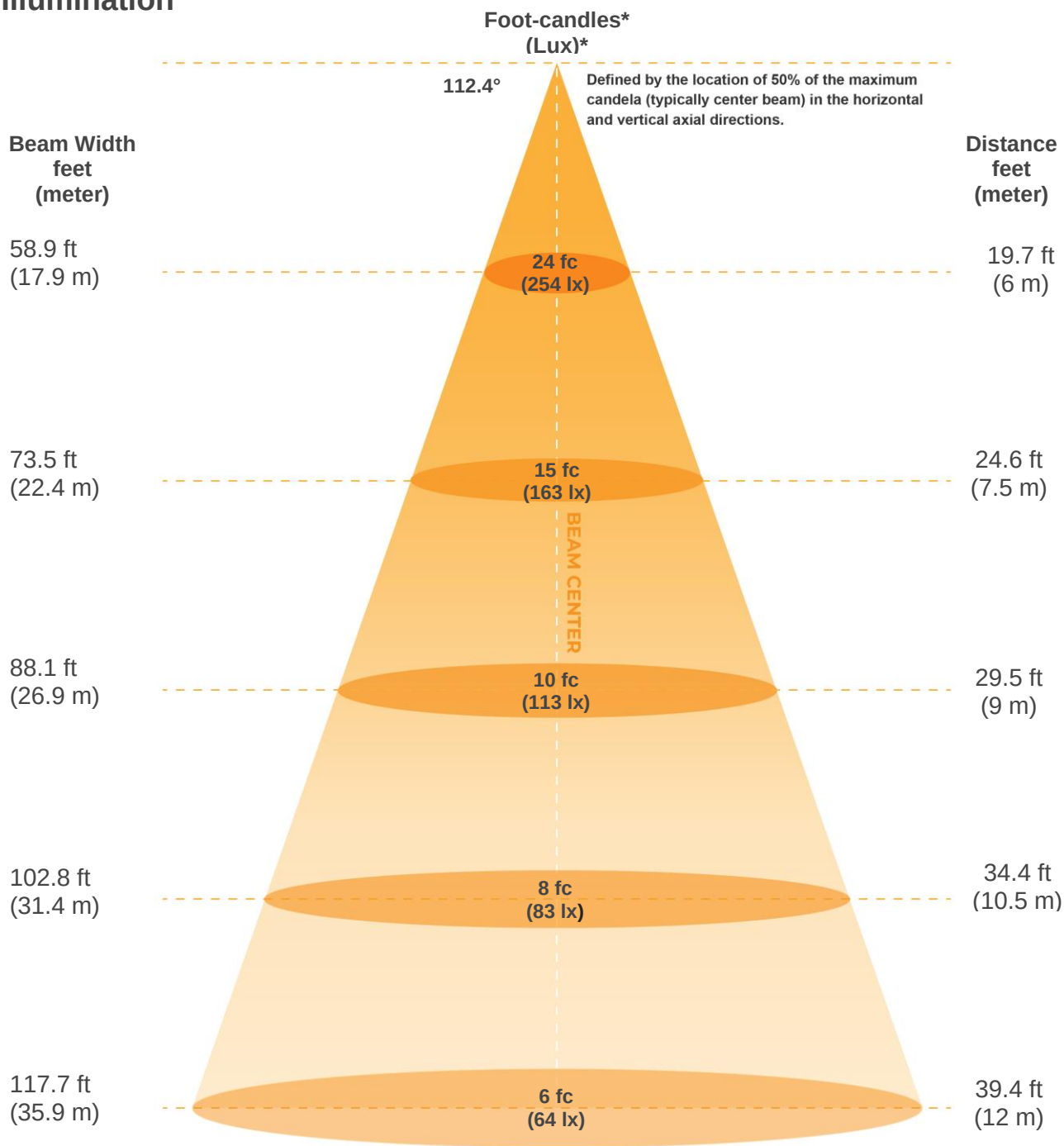
Rg 95.4

Gamut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	73	-13%	-1%
2	81	-8%	6%
3	75	-5%	12%
4	82	0%	9%
5	85	1%	5%
6	92	3%	-1%
7	90	-4%	-4%
8	84	-8%	0%
9	81	-11%	10%
10	68	-7%	17%
11	66	2%	19%
12	85	5%	7%
13	85	10%	-3%
14	82	5%	-8%
15	72	1%	-19%
16	78	-3%	-12%



Illumination



*measured at center of beam

Beam intensities from 1-20m

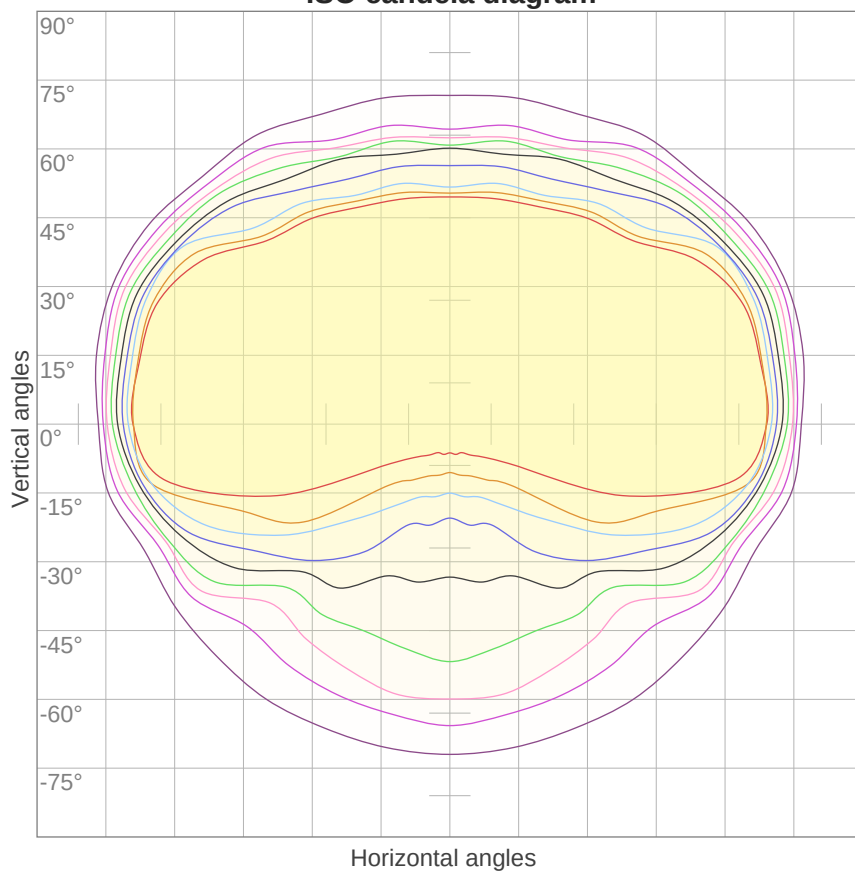
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
9149lx	2287lx	1017lx	572lx	366lx	254lx	187lx	143lx	113lx	91lx	76lx	64lx	54lx	47lx	41lx	36lx	32lx	28lx	25lx	23lx
850fcd	212.5fcd	94.4fcd	53.1fcd	34fcd	23.6fcd	17.3fcd	13.3fcd	10.5fcd	8.5fcd	7fcd	5.9fcd	5fcd	4.3fcd	3.8fcd	3.3fcd	2.9fcd	2.6fcd	2.4fcd	2.1fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
112.4°	161.2°	174.7°	70.2%	42.2%



ISO Diagrams

ISO candela diagram



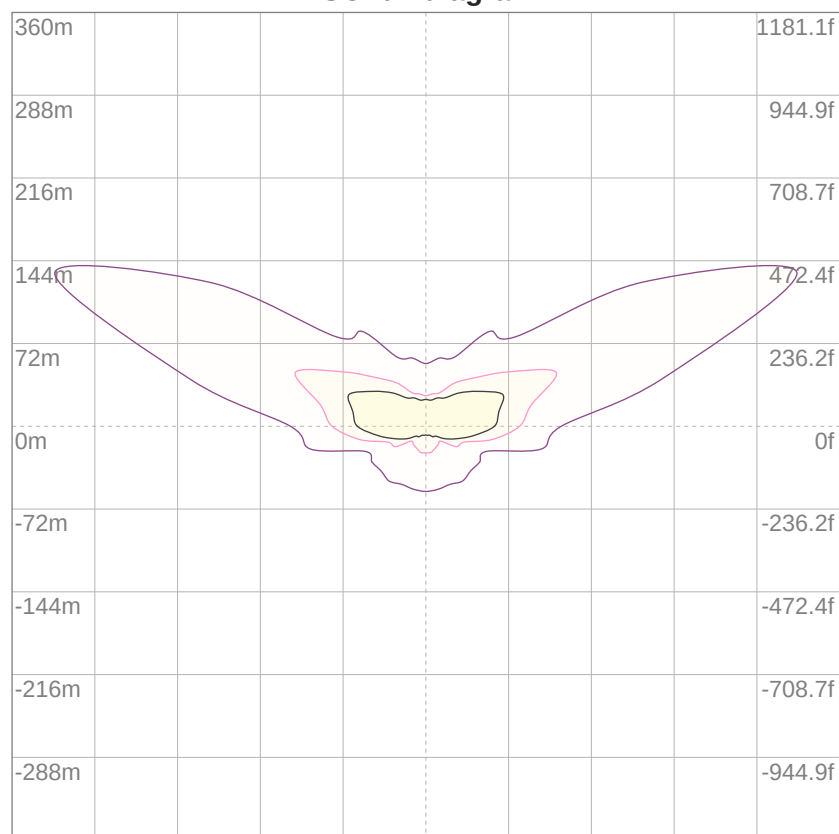
10%	915 cd
20%	1830 cd
30%	2745 cd
40%	3660 cd
50%	4575 cd
60%	5490 cd
70%	6405 cd
80%	7319 cd
90%	8234 cd

Conditions:

Number of c-planes: 16

Candela at center: 9149 cd

ISO lux diagram



3%	2.74 lx
5%	4.57 lx
10%	9.15 lx
30%	27.4 lx
50%	45.7 lx

Conditions:

Number of c-planes: 16

Lux at center: 91.5 lx

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



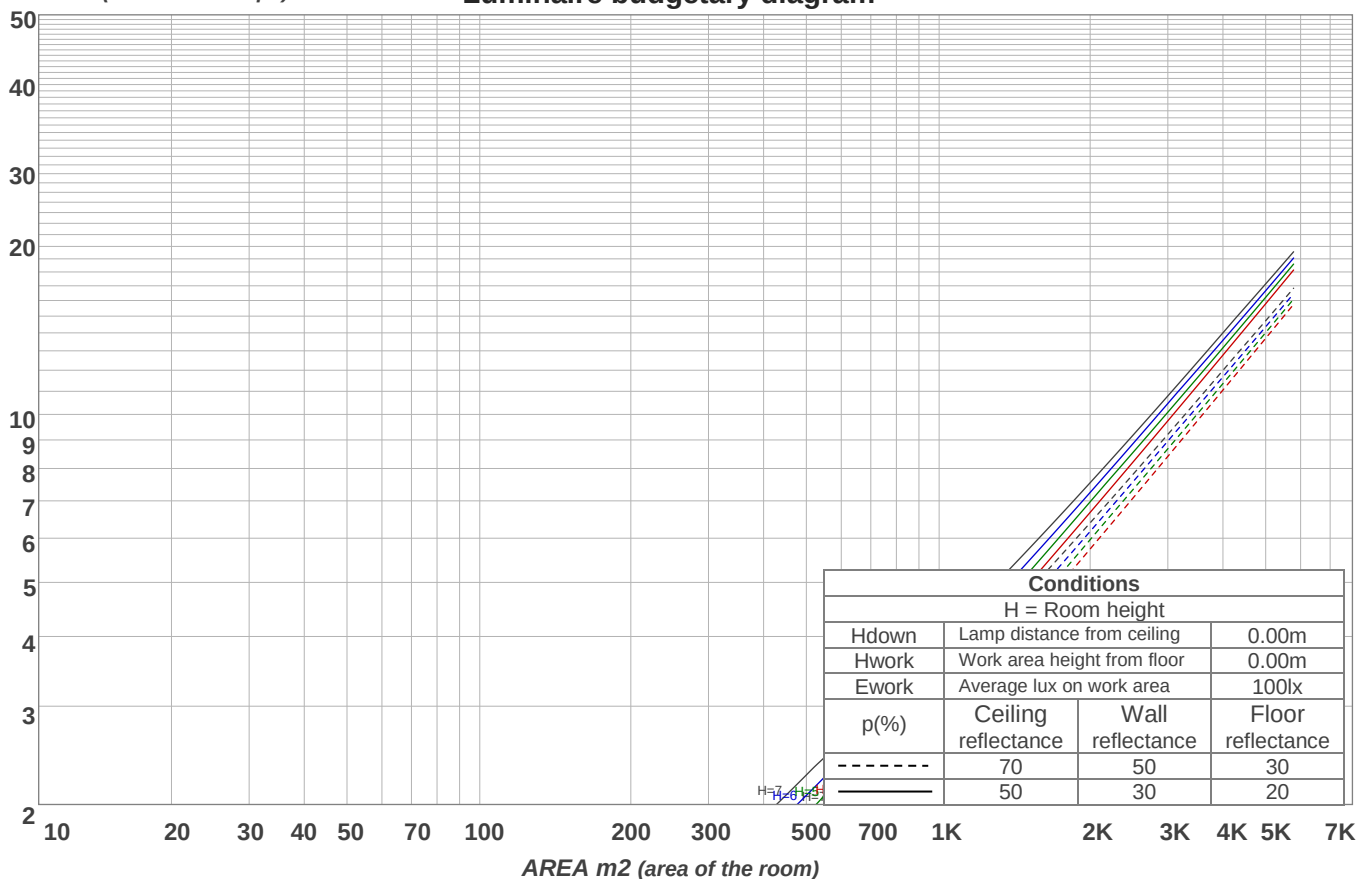
Light Planning

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	107	102	97	92	104	99	95	91	95	91	88	91	88	85	87	85	82	80
2	96	87	79	72	93	85	78	71	81	75	70	77	72	68	74	70	66	64
3	86	75	65	58	84	73	64	58	70	63	57	67	61	55	64	59	54	52
4	78	65	55	48	76	64	55	48	61	53	47	59	52	46	56	50	45	43
5	71	57	48	40	69	56	47	40	54	46	39	52	45	39	50	44	38	36
6	66	51	41	34	64	50	41	34	48	40	34	46	39	33	45	38	33	31
7	60	46	36	30	59	45	36	30	43	35	29	42	35	29	40	34	29	27
8	56	42	32	26	54	41	32	26	39	31	26	38	31	26	37	30	25	23
9	52	38	29	23	51	37	29	23	36	28	23	35	28	23	34	27	23	21
10	49	35	26	21	47	34	26	21	33	26	21	32	25	20	31	25	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°
870 lm	2547 lm	4134 lm	5729 lm	7099 lm	7376 lm	6460 lm	4084 lm	1099 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
22.3 lm	14.6 lm	17.7 lm	20.4 lm	19.0 lm	15.7 lm	11.8 lm	7.21 lm	2.45 lm

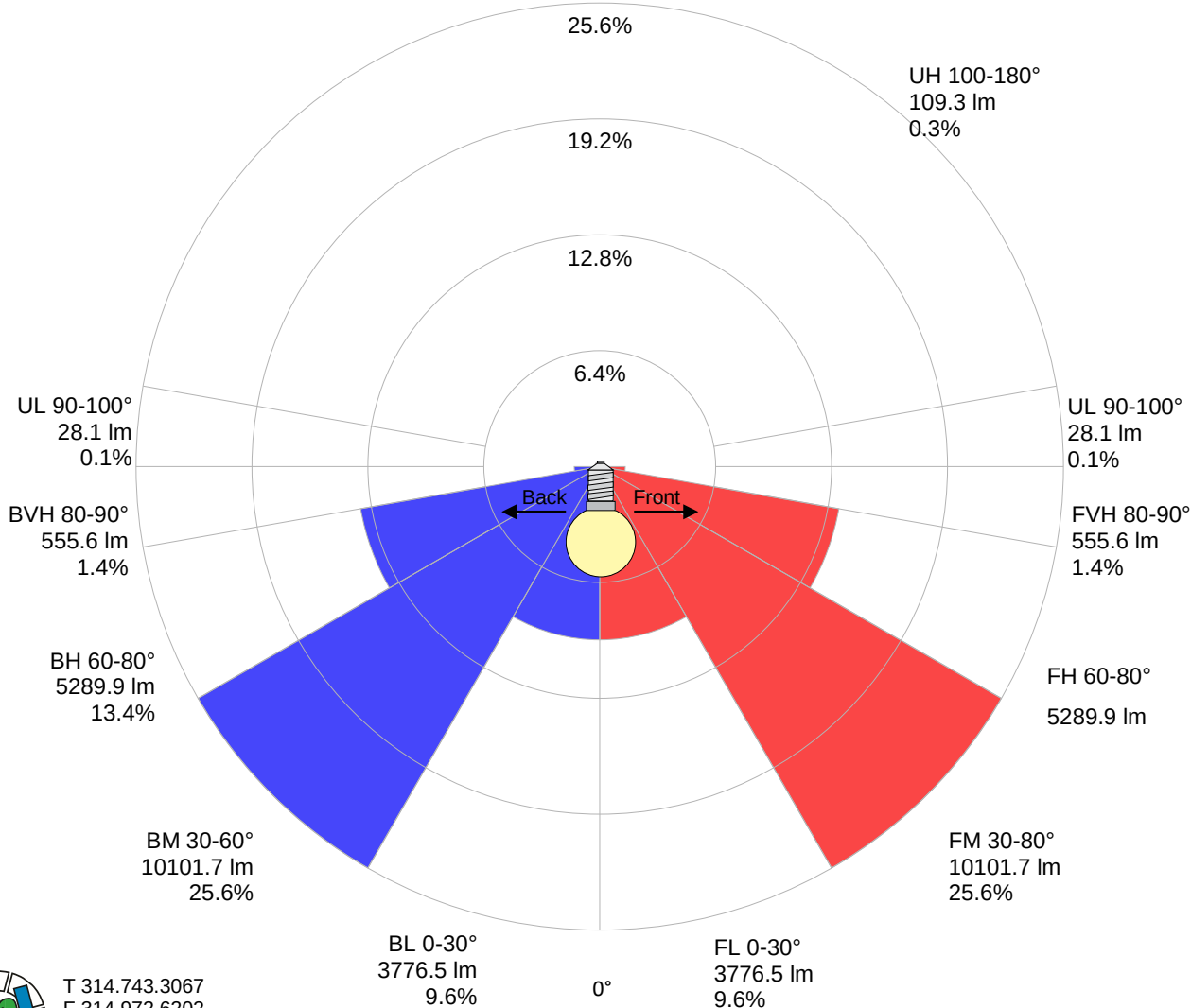


Road Report

LCS table

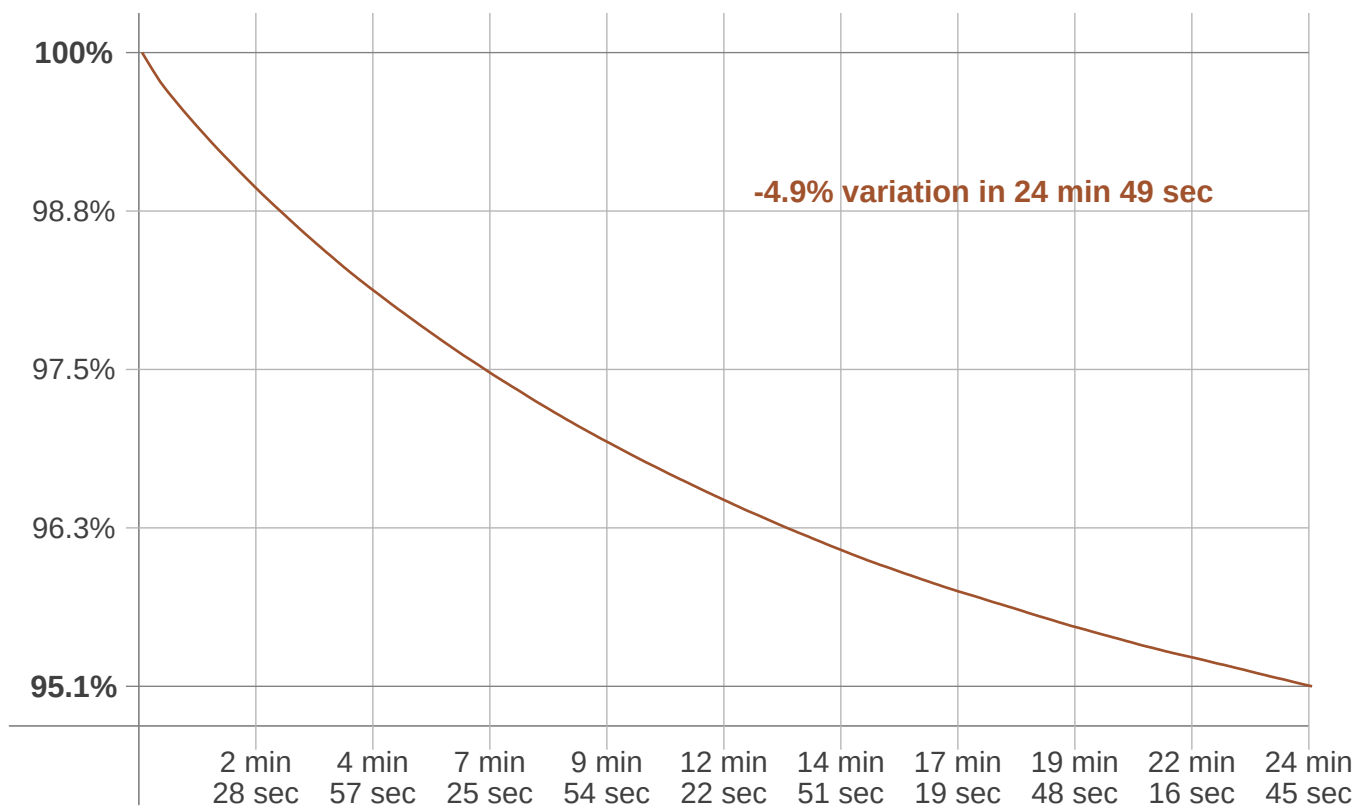
BUG rating:	B5 U3 G5	
Forward light	Lumens	Lumens %
Low(0-30):	3776.5	9.6%
Medium(30-60):	10101.7	25.6%
High(60-80):	5289.9	13.4%
Very high(80-90):	555.6	1.4%
Back light		
Low(0-30):	3776.5	9.6%
Medium(30-60):	10101.7	25.6%
High(60-80):	5289.9	13.4%
Very high(80-90):	555.6	1.4%
Uplight		
Low(90-100):	28.1	0.1%
High(100-180):	109.3	0.3%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	24 min 49 sec
Warmup variation	-5.0%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5094 K	+86 K	5180 K

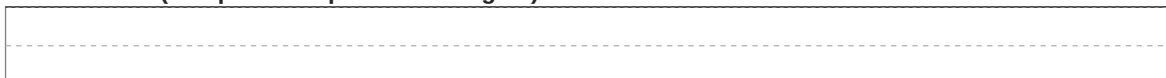
Output change

Output start	Output change	Output end
41571 lm	-2040 lm	39530 lm

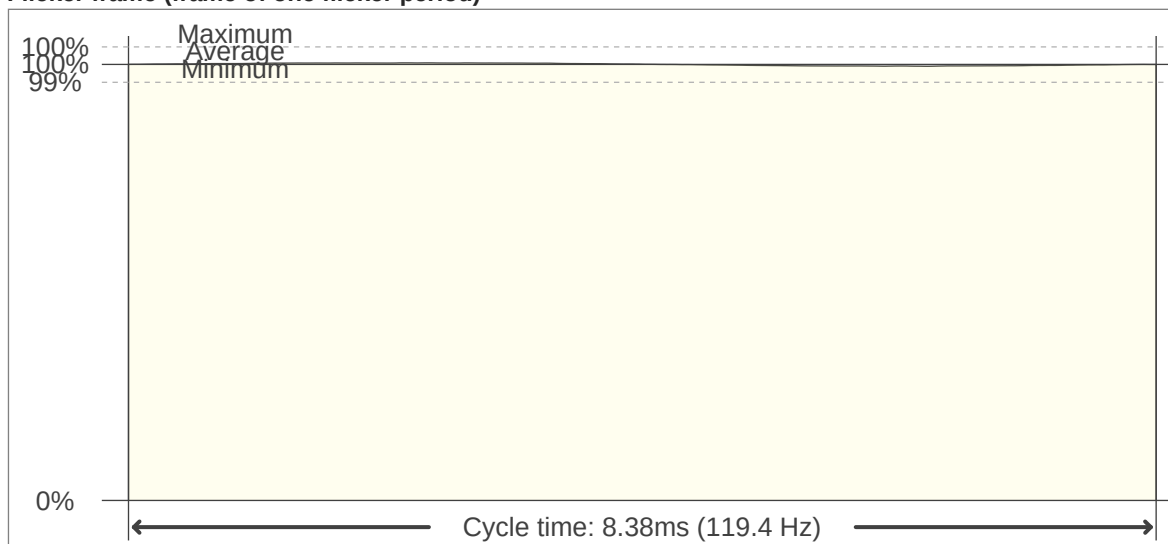


Flicker

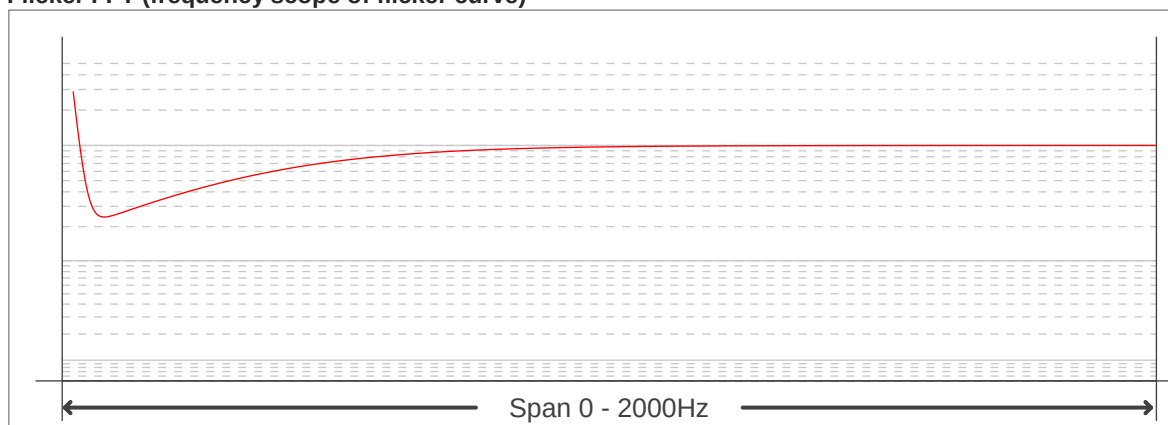
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	119.4 Hz
Flicker index:	0
Flicker percentage:	0.42 %
SVM: (Visual flicker)	0.01

Flicker conditions:

Sample rate:	40000 samples/second
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