

Light efficiency:

118 Lumen/Watt

Output: 23721 lm

Light quality:

CRI: 82.0

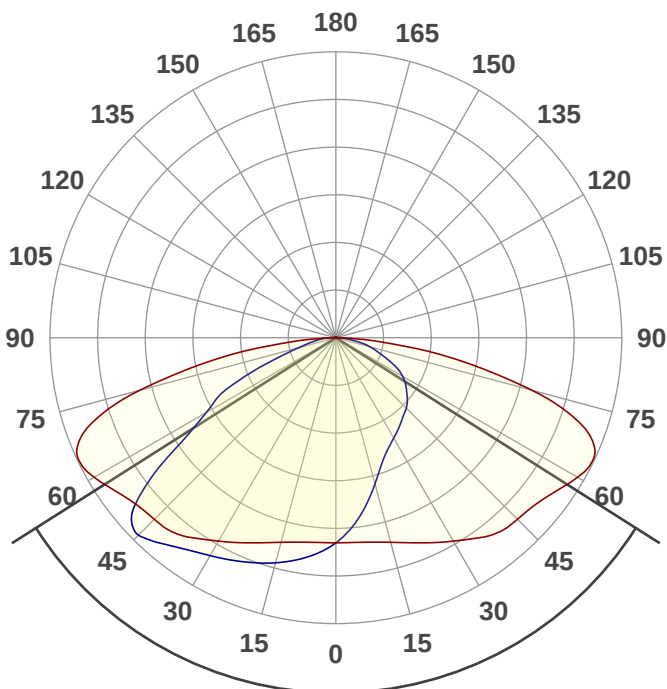
Peak: 7452 cd

Color temperature:

5202 K

Power: 201.2 W

PF: 1.0



Product name:

PLLD-50K200

Date and time:

4/26/2019 12:10:44 PM

Beam angle

115.2°

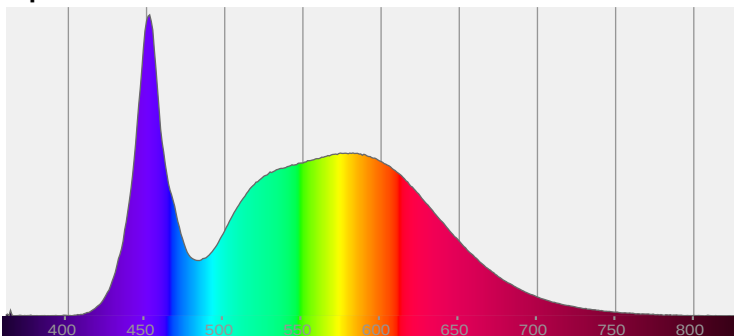


CIE 1931

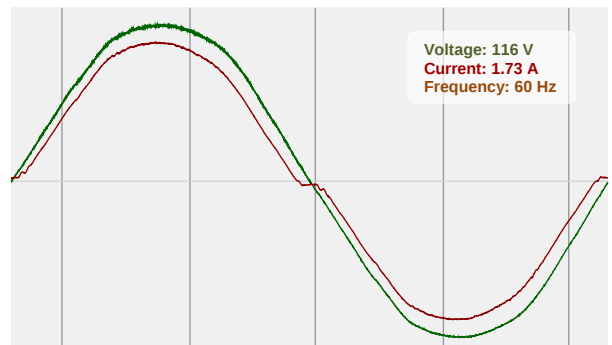
x: 0.340

y: 0.346

Spectra



Power



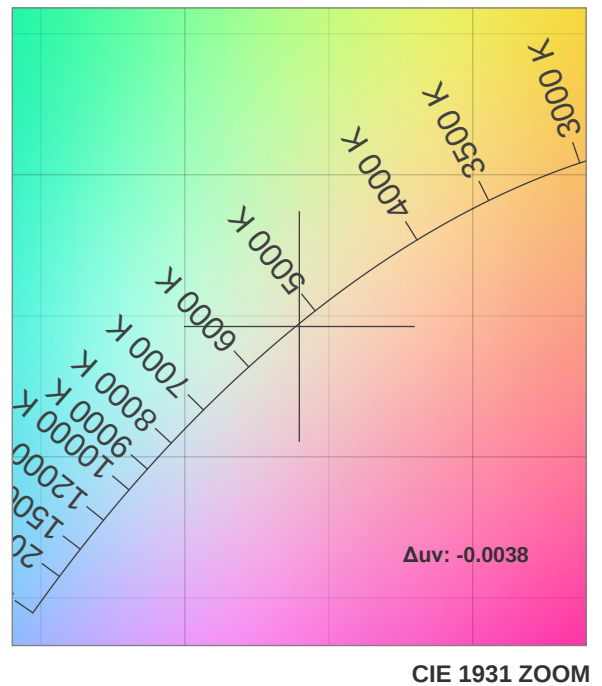
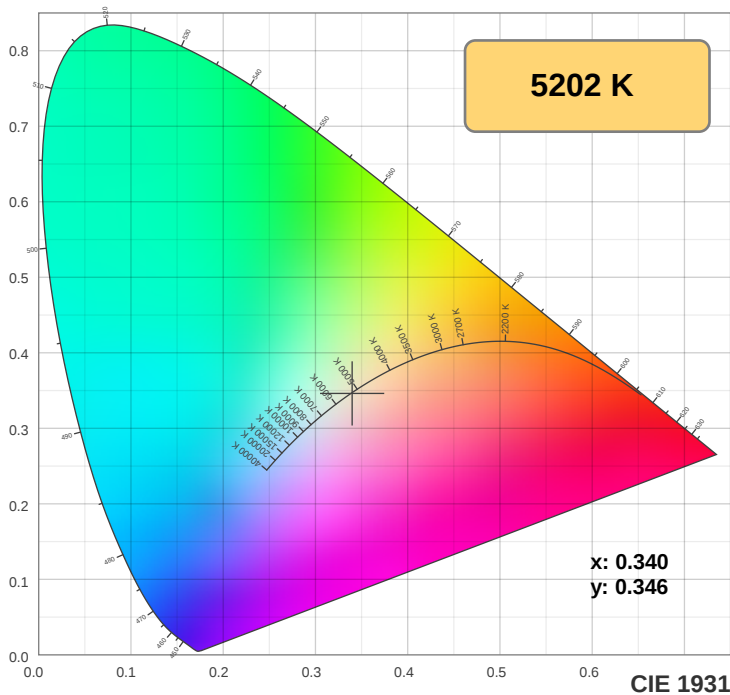
T 314.743.3067

F 314.972.6202

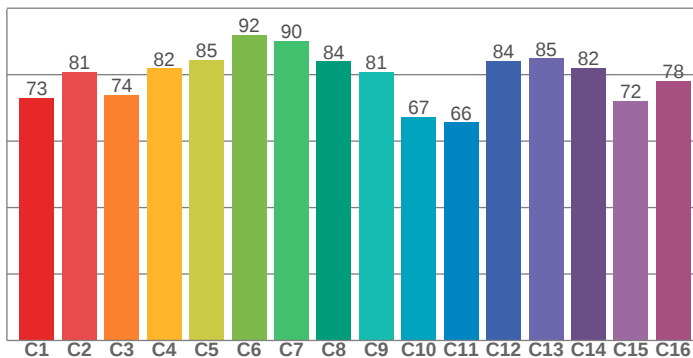
email: commercial-sales@superbrightleds.com

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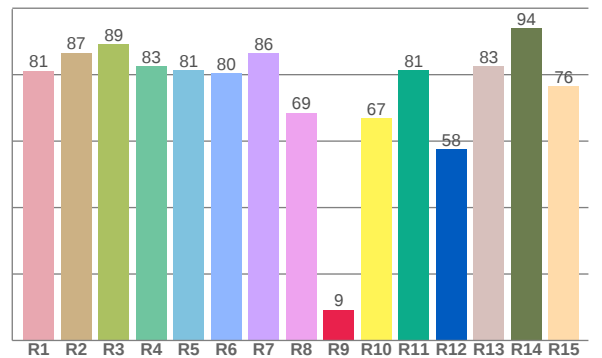
Color Specifications



TM30: 79.4



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
81.2	86.7	89.1	82.5	81.3	80.4	86.4	68.6	9.3	66.9	81.3	57.5	82.6	93.9	76.5

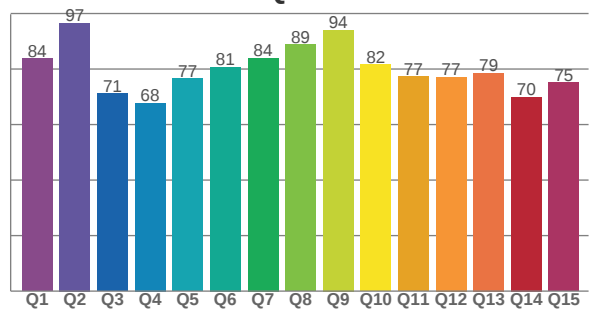
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
73.0	80.8	74.0	82.0	84.5	92.0	90.2	84.0	80.8	67.2	65.6	84.1	84.9	82.1	72.0	78.1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83.7	96.6	71.1	67.8	76.5	80.7	84.0	88.8	94.0	81.7	77.3	77.1	78.6	70.0	75.1

CQS: 78.6



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
5202 K	82.0	9.3	79.4	95.5	78.6	0.340	0.346	0.210	0.321	-0.0038



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TM30 Report

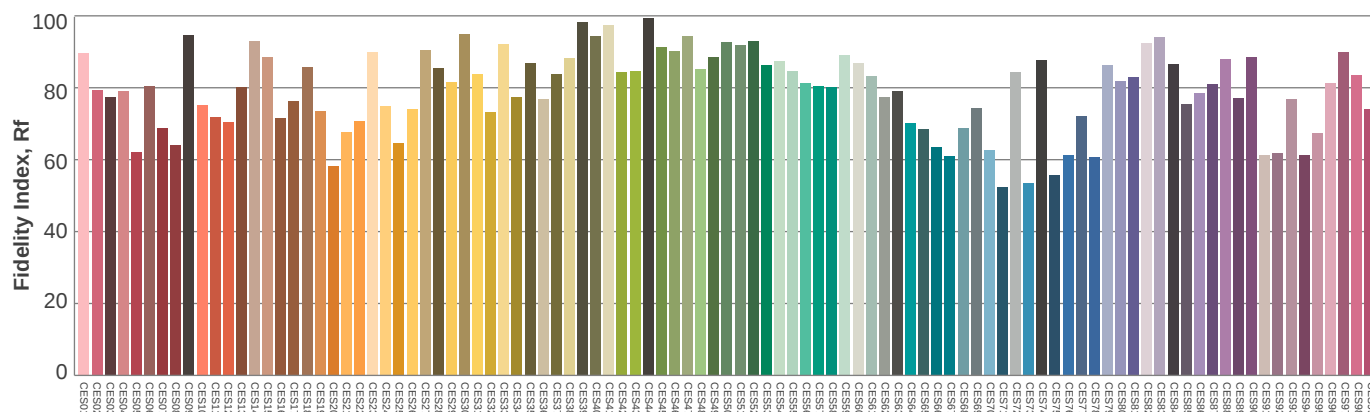
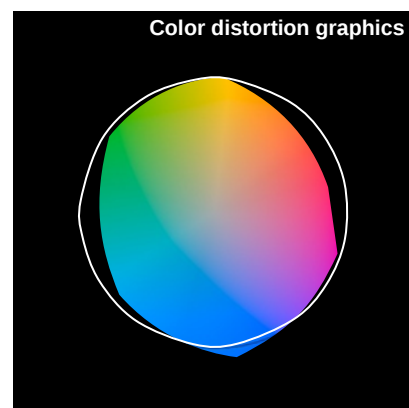
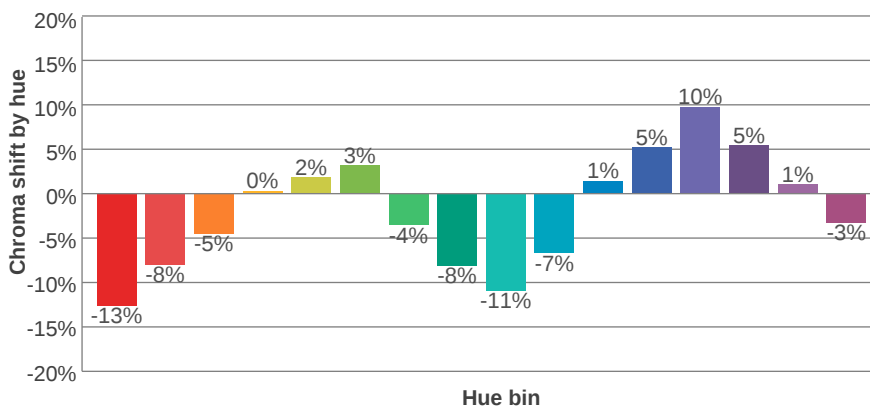
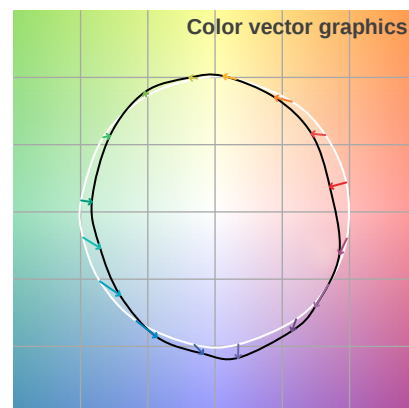
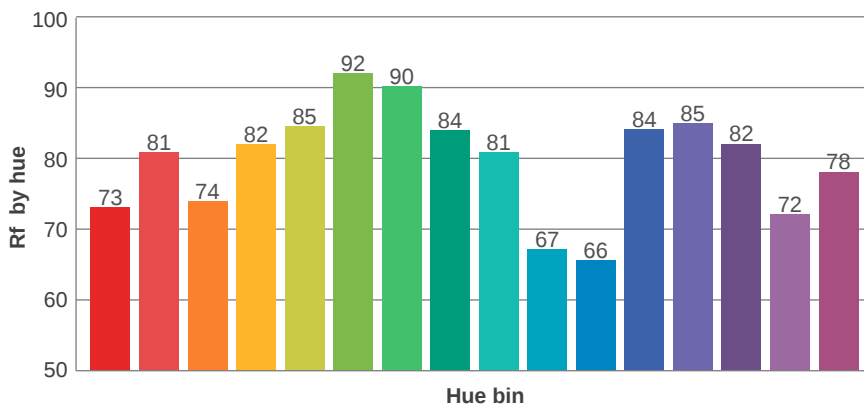
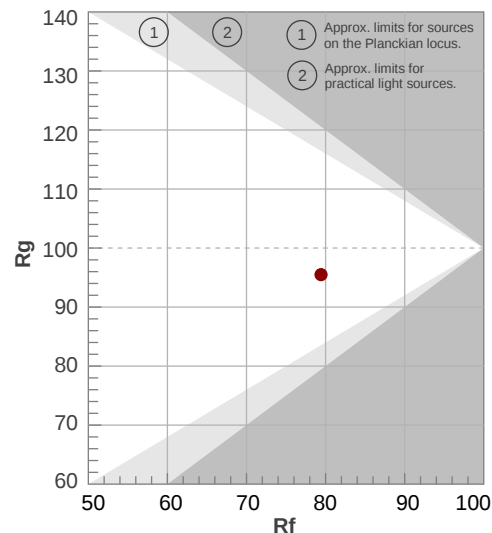
Rf 79.4

Fidelity index Rf

Rg 95.5

Gammut index Rg

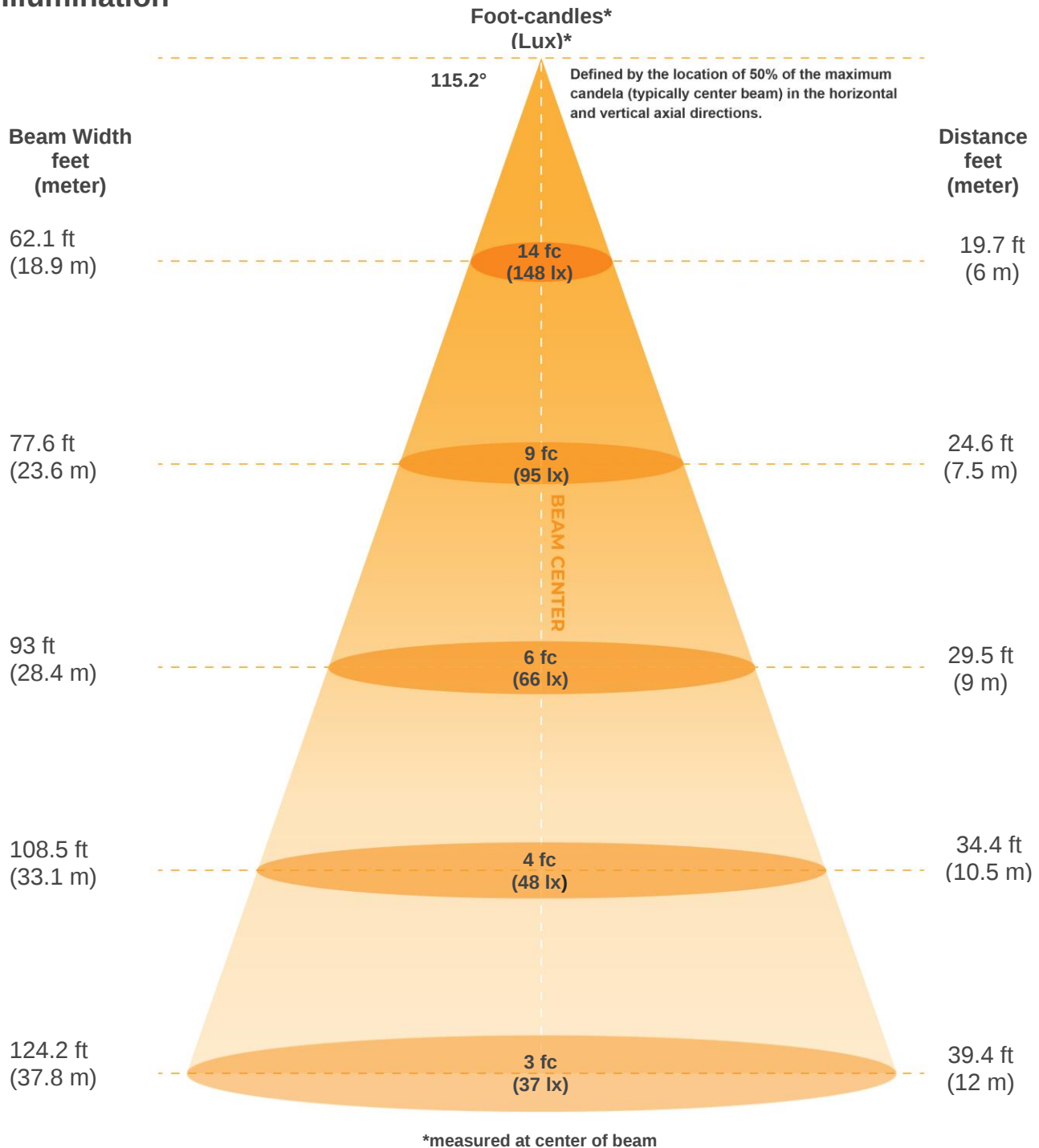
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	73	-13%	-1%
2	81	-8%	7%
3	74	-5%	12%
4	82	0%	9%
5	85	2%	5%
6	92	3%	-1%
7	90	-4%	-4%
8	84	-8%	0%
9	81	-11%	10%
10	67	-7%	17%
11	66	1%	19%
12	84	5%	8%
13	85	10%	-2%
14	82	5%	-7%
15	72	1%	-19%
16	78	-3%	-12%



Color Evaluation Sample



Illumination



Beam intensities from 1-20m

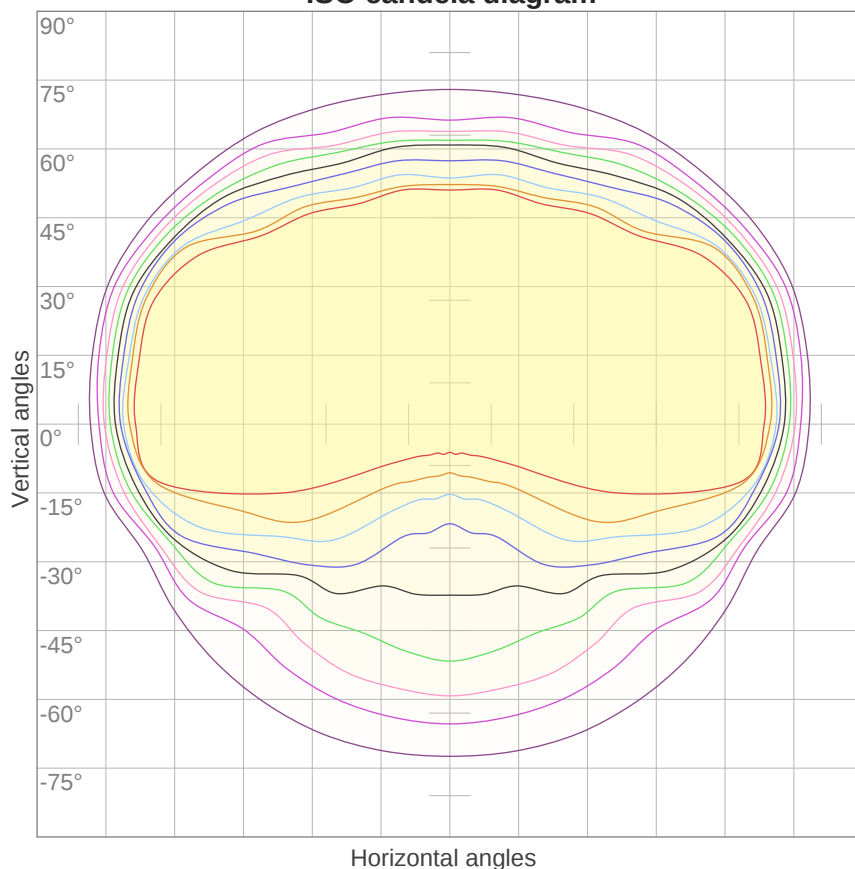
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
5340lx	1335lx	593lx	334lx	214lx	148lx	109lx	83lx	66lx	53lx	44lx	37lx	32lx	27lx	24lx	21lx	18lx	16lx	15lx	13lx
496.1fc	124fcd	55.1fcd	31fcd	19.8fcd	13.8fcd	10.1fcd	7.8fcd	6.1fcd	5fcd	4.1fcd	3.4fcd	2.9fcd	2.5fcd	2.2fcd	1.9fcd	1.7fcd	1.5fcd	1.4fcd	1.2fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
115.2°	163.4°	176.8°	69.0%	41.3%



ISO Diagrams

ISO candela diagram



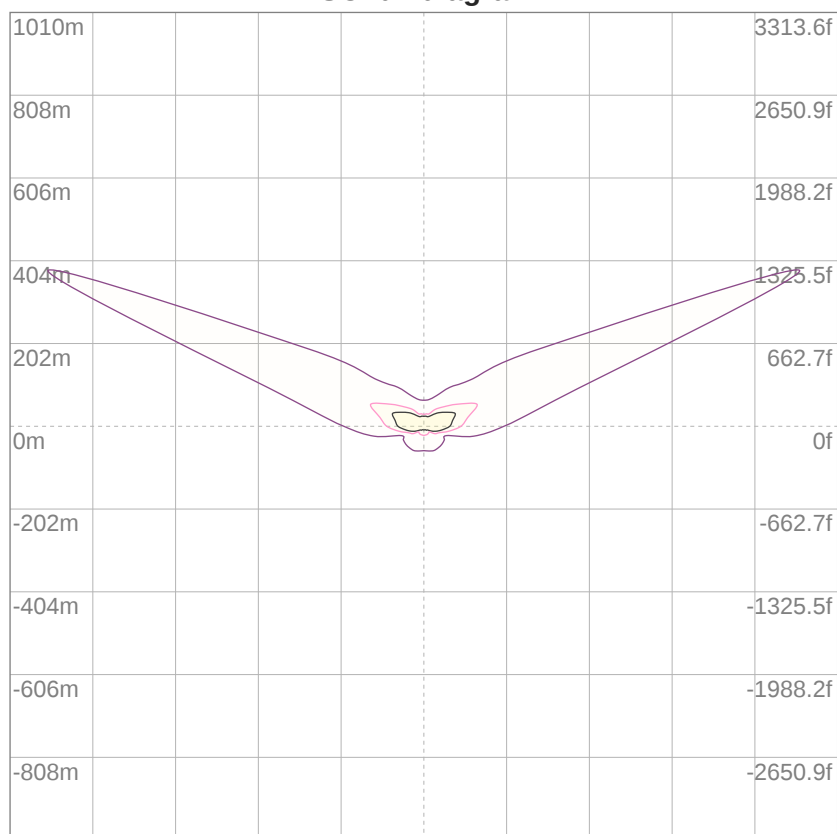
10%	534 cd
20%	1068 cd
30%	1602 cd
40%	2136 cd
50%	2670 cd
60%	3204 cd
70%	3738 cd
80%	4272 cd
90%	4806 cd

Conditions:

Number of c-planes: 16

Candela at center: 5340 cd

ISO lux diagram



3%	1.60 lx
5%	2.67 lx
10%	5.34 lx
30%	16.0 lx
50%	26.7 lx

Conditions:

Number of c-planes: 16

Lux at center: 53.4 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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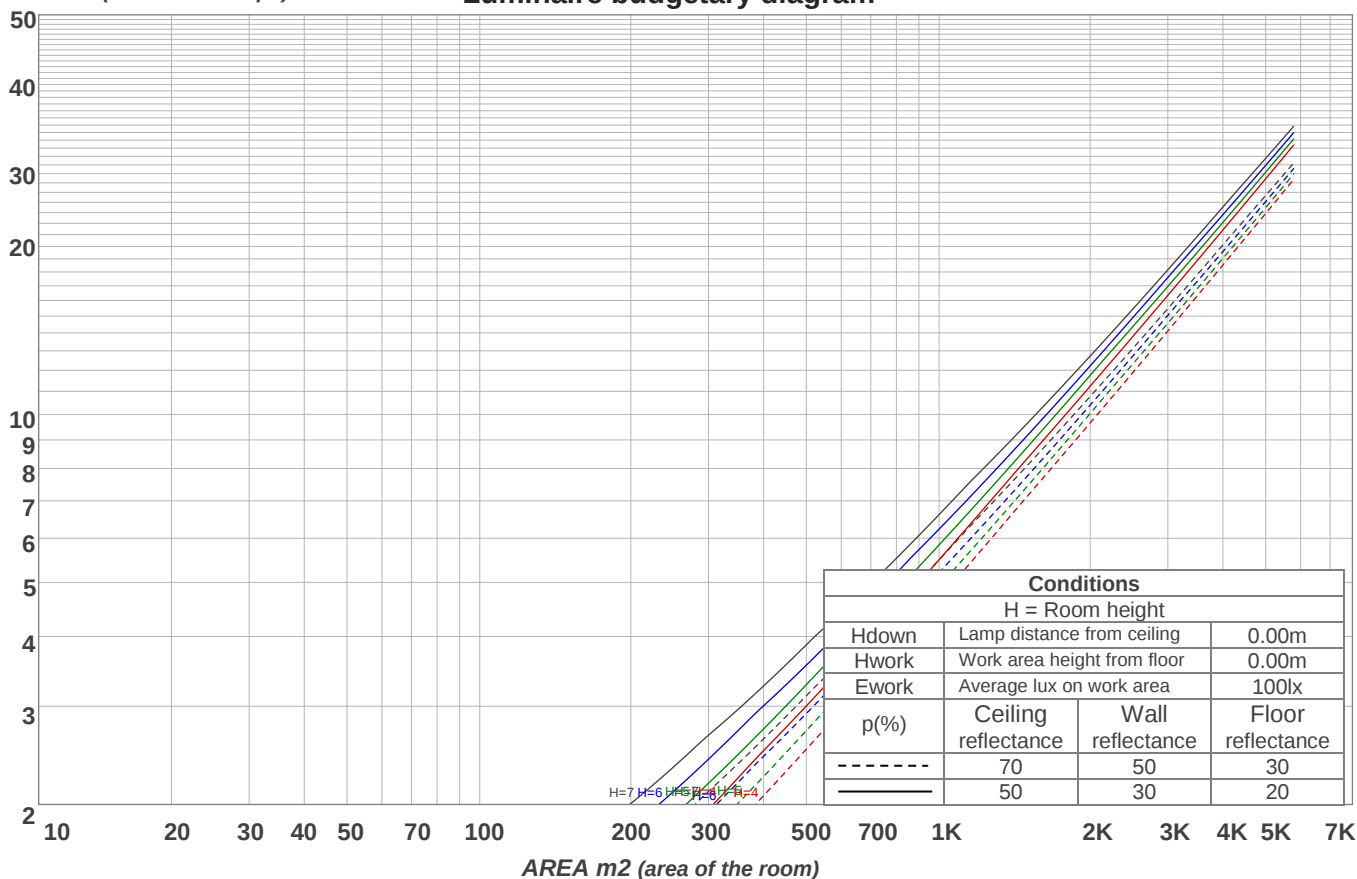
Light Planning

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	107	101	96	92	104	99	94	90	94	91	87	90	87	84	87	84	82	79
2	96	86	78	72	93	84	77	71	80	74	69	77	72	67	74	69	66	63
3	86	74	65	57	83	72	64	57	69	62	56	66	60	55	64	58	54	51
4	78	64	55	47	75	63	54	47	60	52	46	58	51	45	56	50	45	42
5	71	57	47	40	69	56	46	39	53	45	39	51	44	38	49	43	38	35
6	65	51	41	34	63	50	40	34	48	39	33	46	38	33	44	38	32	30
7	60	45	36	29	58	45	36	29	43	35	29	41	34	29	40	33	28	26
8	56	41	32	26	54	40	32	26	39	31	25	38	30	25	36	30	25	23
9	52	37	29	23	50	37	28	23	36	28	22	34	27	22	33	27	22	20
10	48	34	26	20	47	34	26	20	33	25	20	32	25	20	31	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°
507 lm	1488 lm	2427 lm	3363 lm	4177 lm	4401 lm	3912 lm	2599 lm	768 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
23.0 lm	7.99 lm	9.54 lm	9.95 lm	9.33 lm	8.29 lm	6.32 lm	3.80 lm	1.31 lm

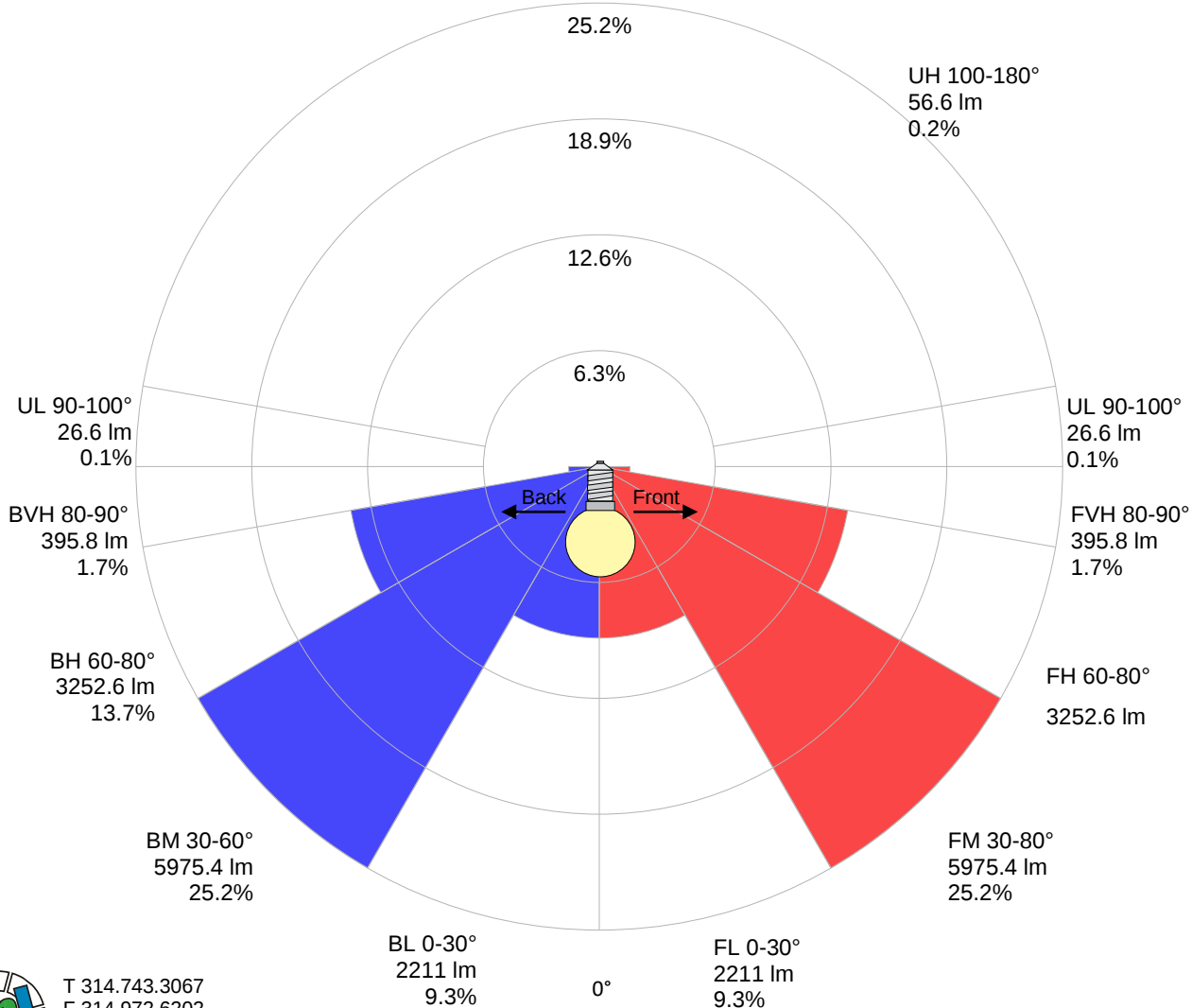


Road Report

LCS table

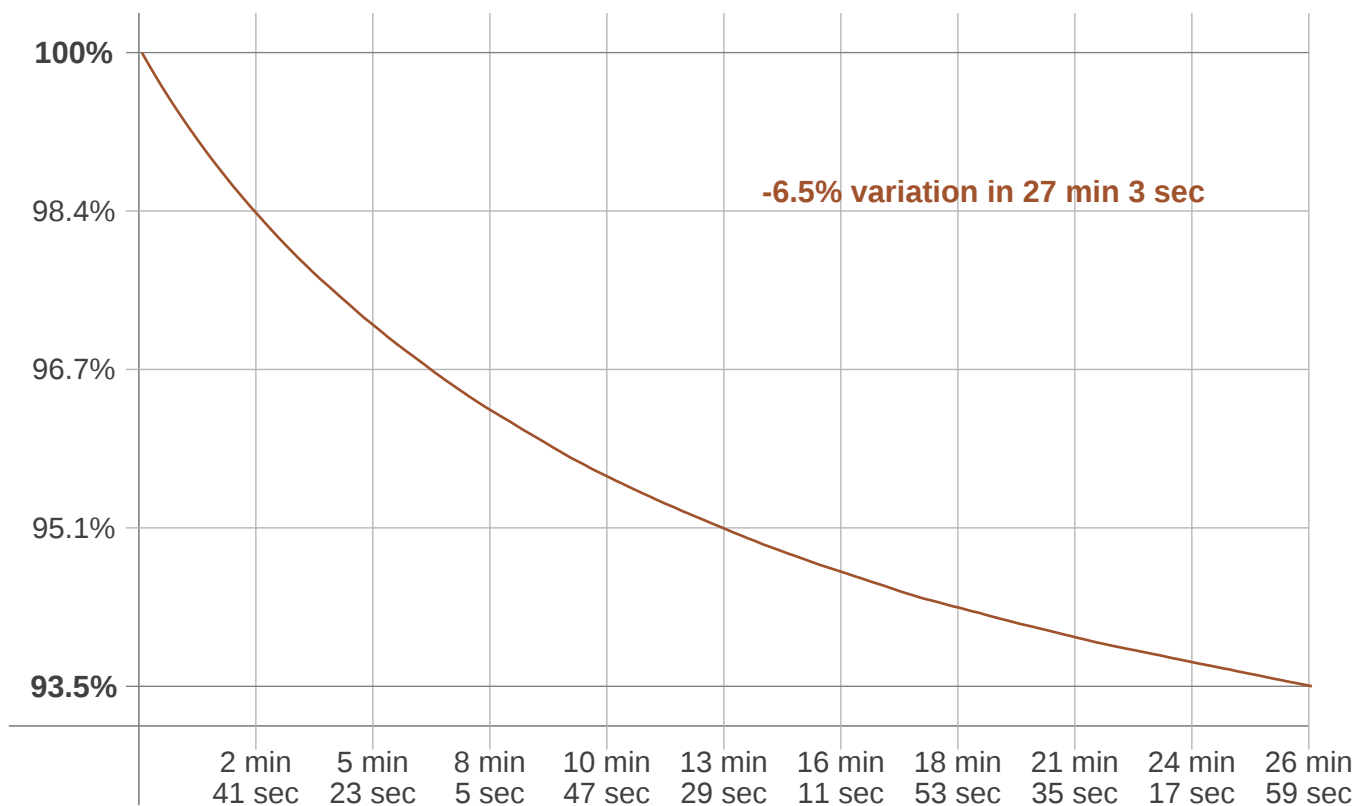
BUG rating:	B4 U3 G4	
Forward light	Lumens	Lumens %
Low(0-30):	2211	9.3%
Medium(30-60):	5975.4	25.2%
High(60-80):	3252.6	13.7%
Very high(80-90):	395.8	1.7%
Back light		
Low(0-30):	2211	9.3%
Medium(30-60):	5975.4	25.2%
High(60-80):	3252.6	13.7%
Very high(80-90):	395.8	1.7%
Uplight		
Low(90-100):	26.6	0.1%
High(100-180):	56.6	0.2%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	27 min 3 sec
Warmup variation	-6.6%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5102 K	+100 K	5202 K

Output change

Output start	Output change	Output end
25353 lm	-1631 lm	23721 lm

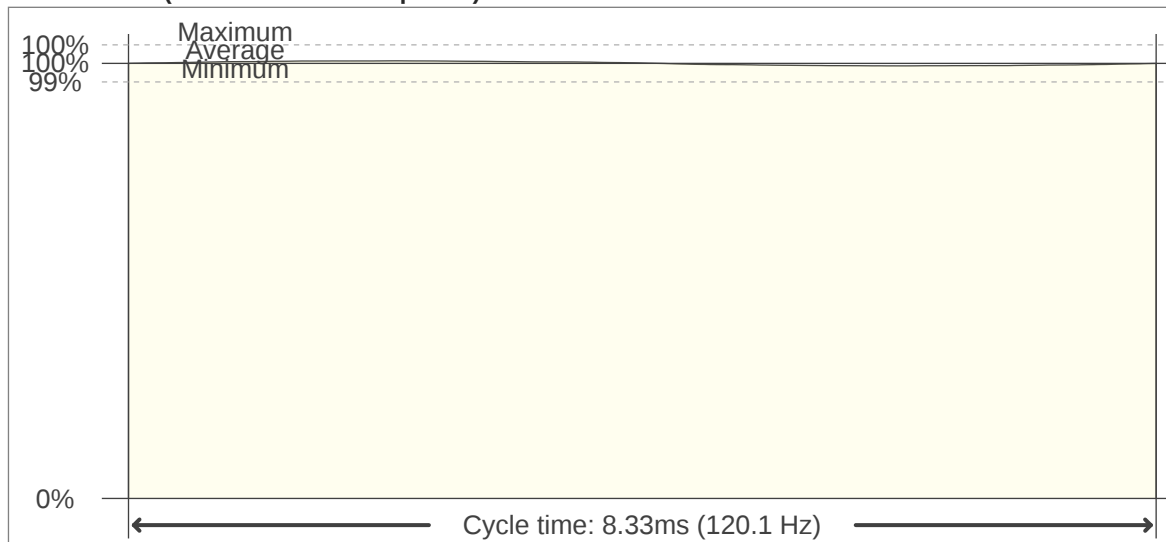


Flicker

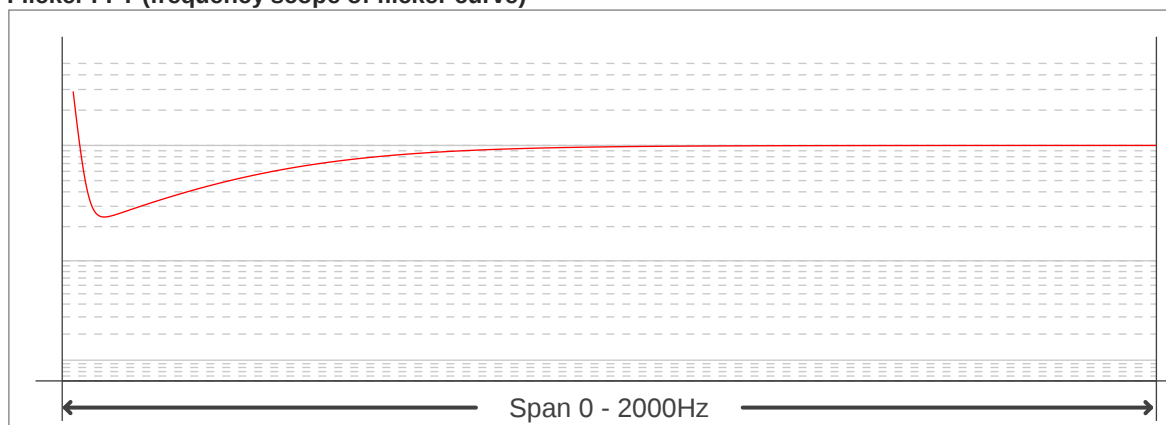
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	120.12 Hz
Flicker index:	0
Flicker percentage:	0.64 %
SVM: (Visual flicker)	0.02

Flicker conditions:

Sample rate:	40000 samples/second
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