

Light efficiency:

139 Lumen/Watt

Output: 33679 lm

Light quality:

CRI: 73.5

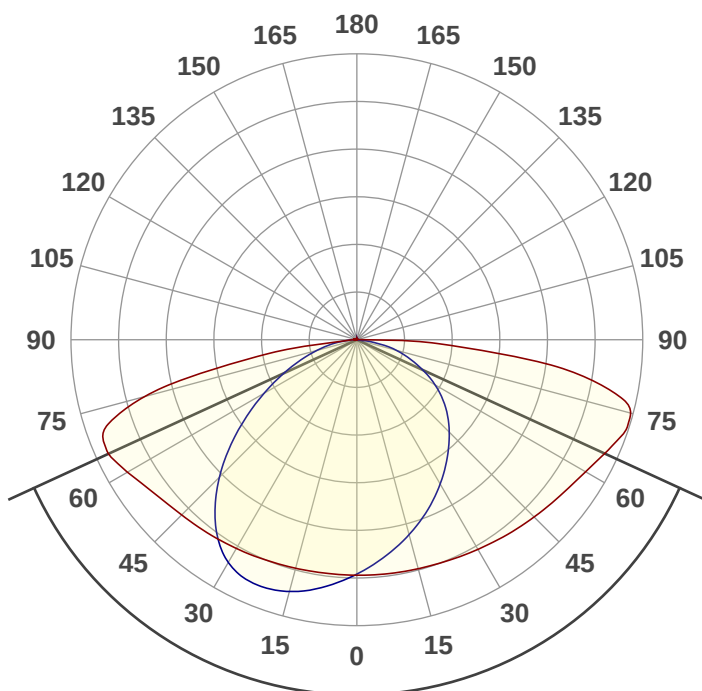
Peak: 9835 cd

Color temperature:

5233 K

Power: 242.6 W

PF: 1.0



Product name:

PLLD3-50K240-S30T3-BRSF

Date and time:

7/27/2020 9:44:12 AM

Beam angle

130.7°

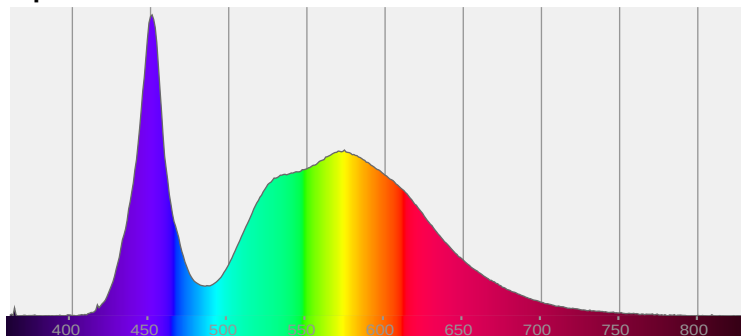


CIE 1931

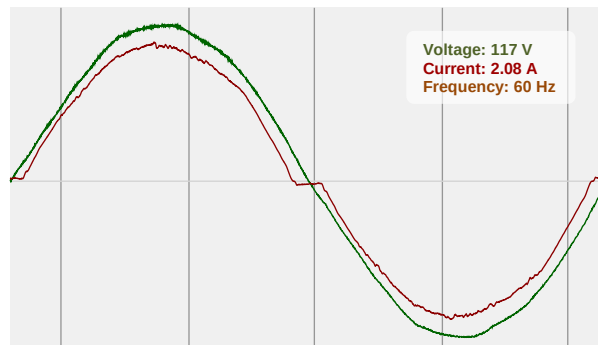
x: 0.339

y: 0.343

Spectra



Power



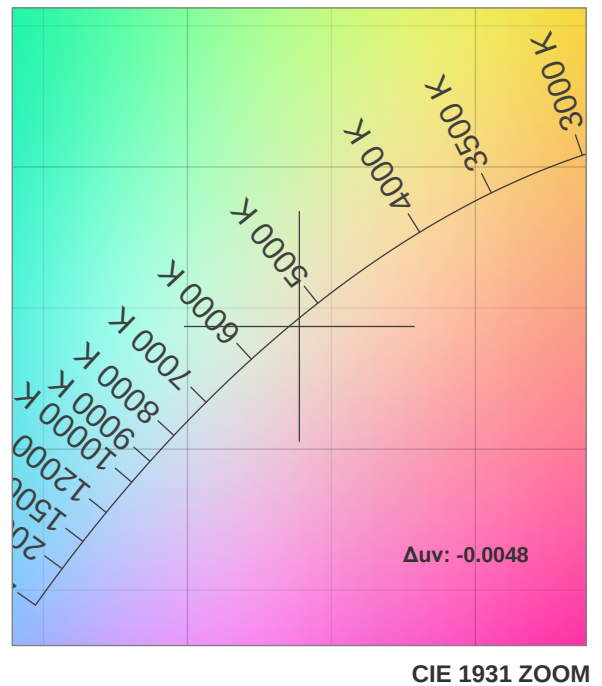
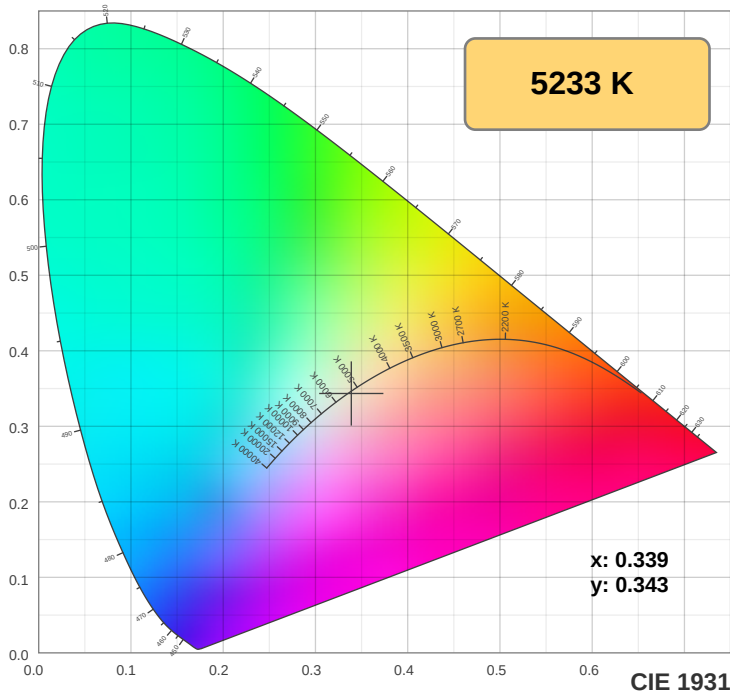
T 314.743.3067

F 314.972.6202

email: commercial-sales@superbrightleds.com

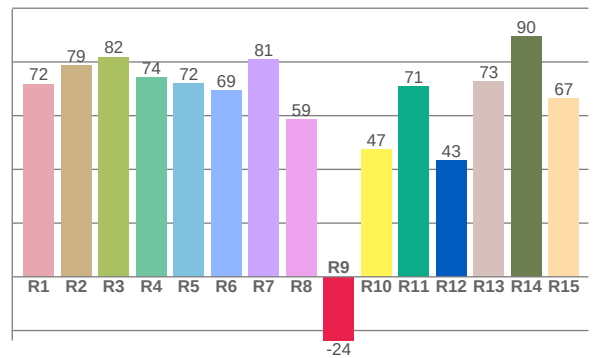
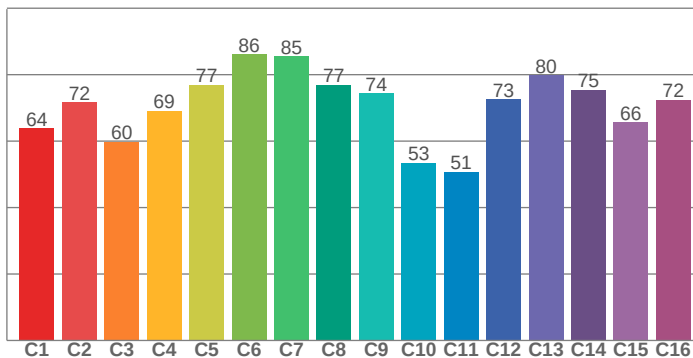
www.superbrightleds.com/

Color Specifications



TM30: 70.4

CRI: 73.5 (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
71.8	78.6	81.9	74.1	72.1	69.4	81.1	58.7	-23.7	47.5	71.0	43.5	72.8	89.6	66.6

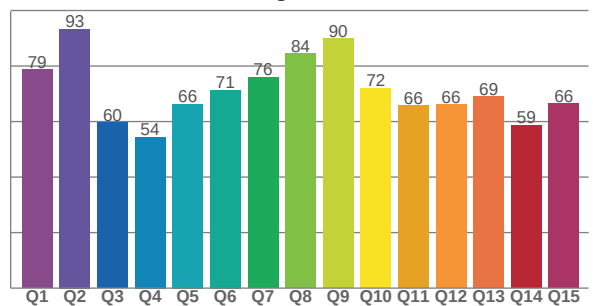
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
63.8	71.6	59.7	69.2	77.0	86.1	85.5	77.0	74.4	53.5	50.7	72.5	79.8	75.5	65.7	72.5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
78.7	93.3	59.7	54.4	66.3	71.3	76.0	84.4	89.8	72.0	65.7	66.0	68.9	58.6	66.5

CQS: 69.4



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
5233 K	73.5	-23.7	70.4	93.7	69.4	0.339	0.343	0.210	0.320	-0.0048



TM30 Report

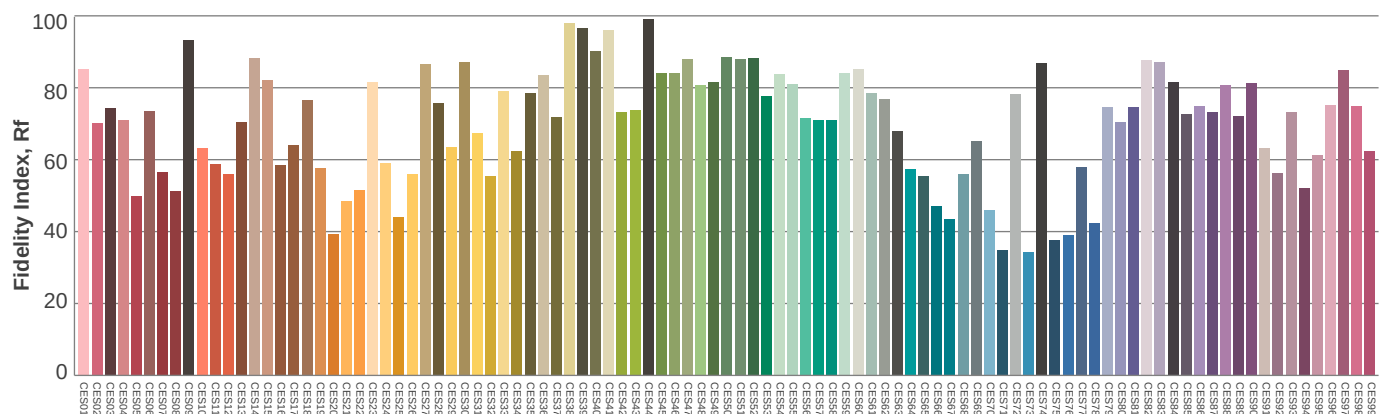
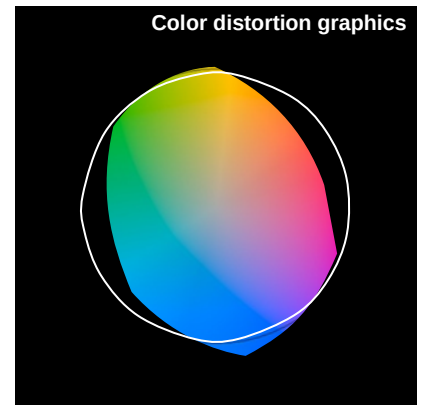
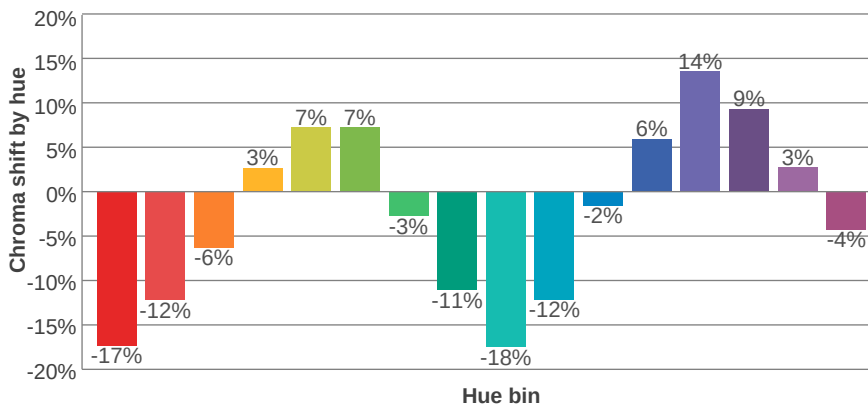
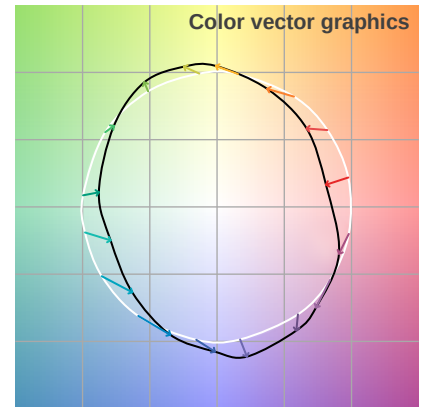
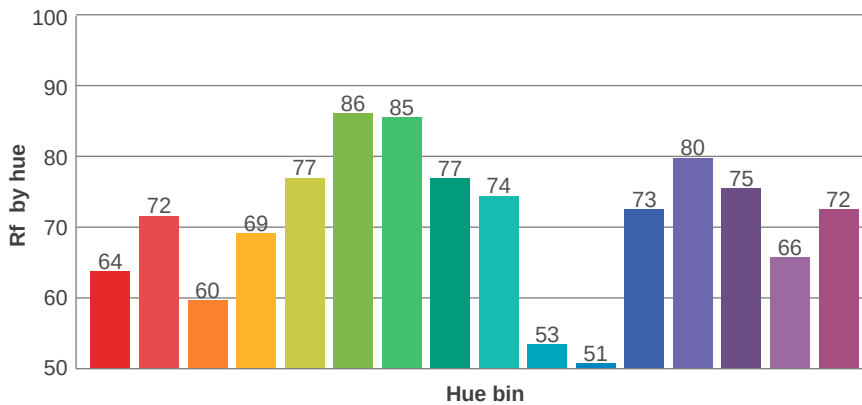
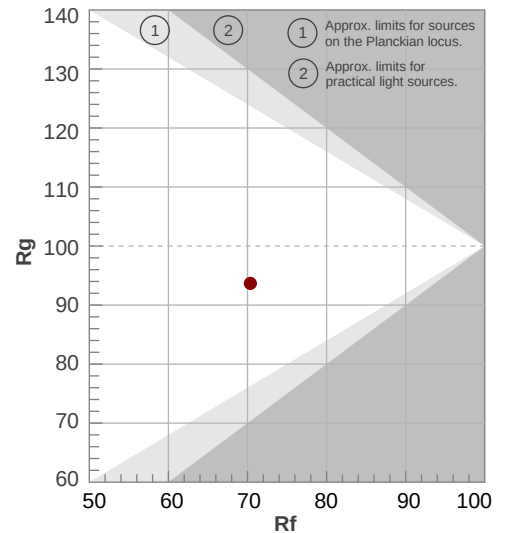
Rf 70.4

Fidelity index Rf

Rg 93.7

Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	64	-17%	-2%
2	72	-12%	10%
3	60	-6%	20%
4	69	3%	17%
5	77	7%	10%
6	86	7%	-1%
7	85	-3%	-7%
8	77	-11%	-4%
9	74	-18%	9%
10	53	-12%	23%
11	51	-2%	28%
12	73	6%	15%
13	80	14%	2%
14	75	9%	-8%
15	66	3%	-23%
16	72	-4%	-16%



Color Evaluation Sample



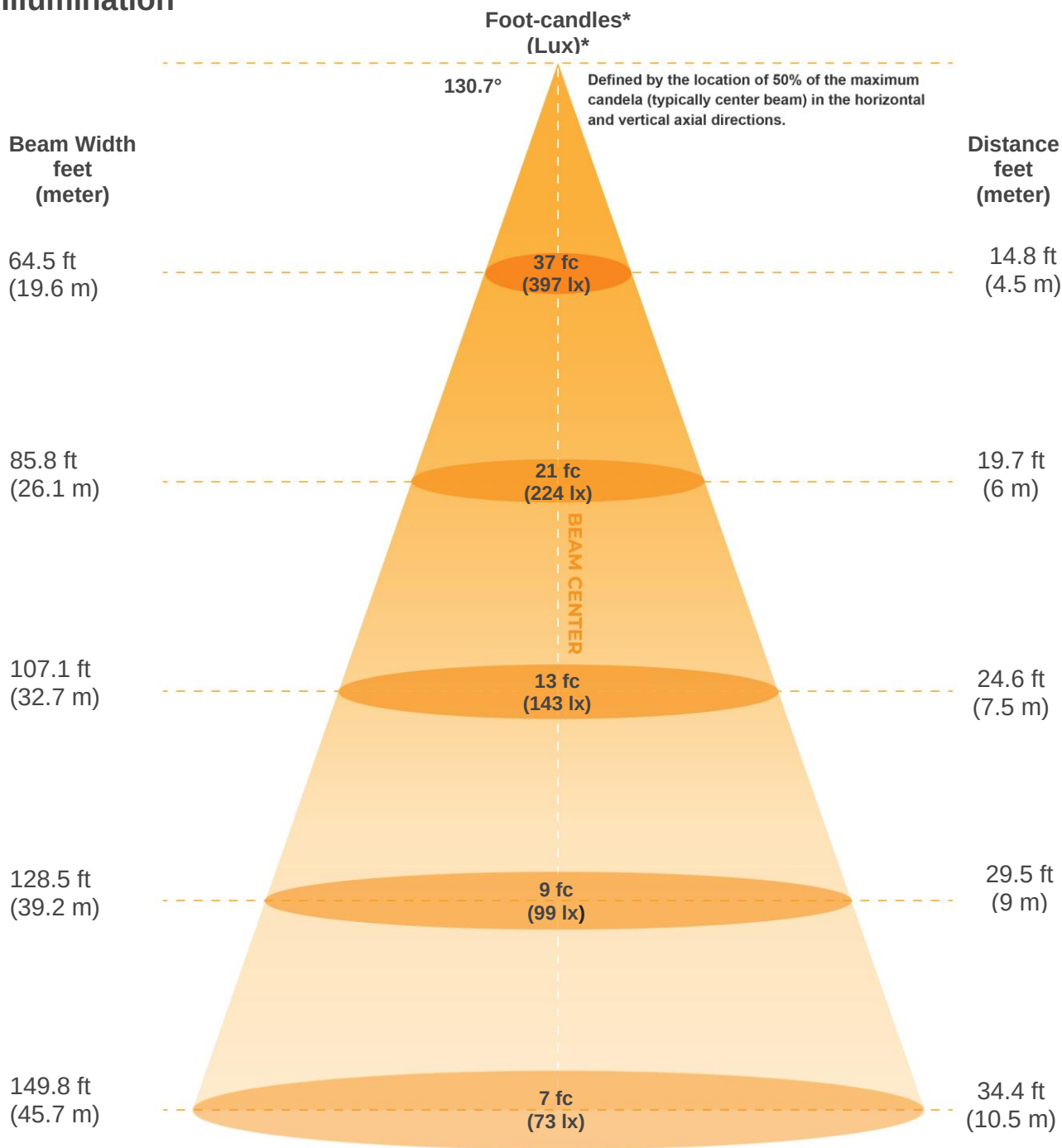
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Illumination



*measured at center of beam

Beam intensities from 1-20m

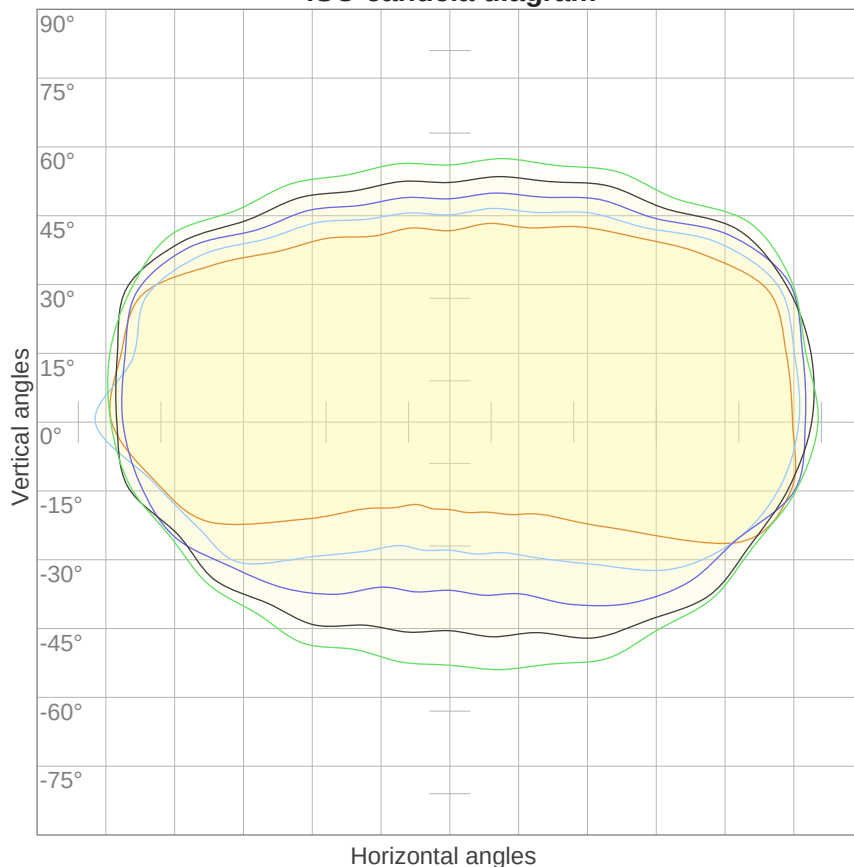
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
8047lx	2012lx	894lx	503lx	322lx	224lx	164lx	126lx	99lx	80lx	67lx	56lx	48lx	41lx	36lx	31lx	28lx	25lx	22lx	20lx
747.6fcd	186.9fcd	83.1fcd	46.7fcd	29.9fcd	20.8fcd	15.3fcd	11.7fcd	9.2fcd	7.5fcd	6.2fcd	5.2fcd	4.4fcd	3.8fcd	3.3fcd	2.9fcd	2.6fcd	2.3fcd	2.1fcd	1.9fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
130.7°	167.7°	176.8°	67.6%	42.1%



ISO Diagrams

ISO candela diagram



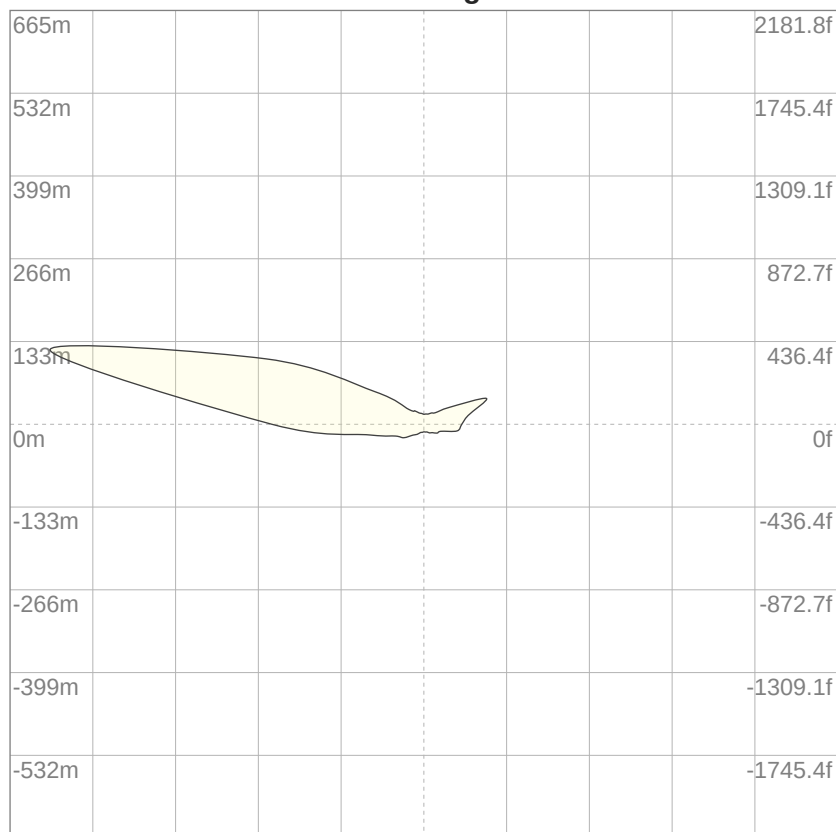
10%	805 cd
20%	1609 cd
30%	2414 cd
40%	3219 cd
50%	4023 cd
60%	4828 cd
70%	5633 cd
80%	6438 cd
90%	7242 cd

Conditions:

Number of c-planes: 16

Candela at center: 8047 cd

ISO lux diagram



3%	2.41 lx
5%	4.02 lx
10%	8.05 lx
30%	24.1 lx
50%	40.2 lx

Conditions:

Number of c-planes: 16

Lux at center: 80.5 lx

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



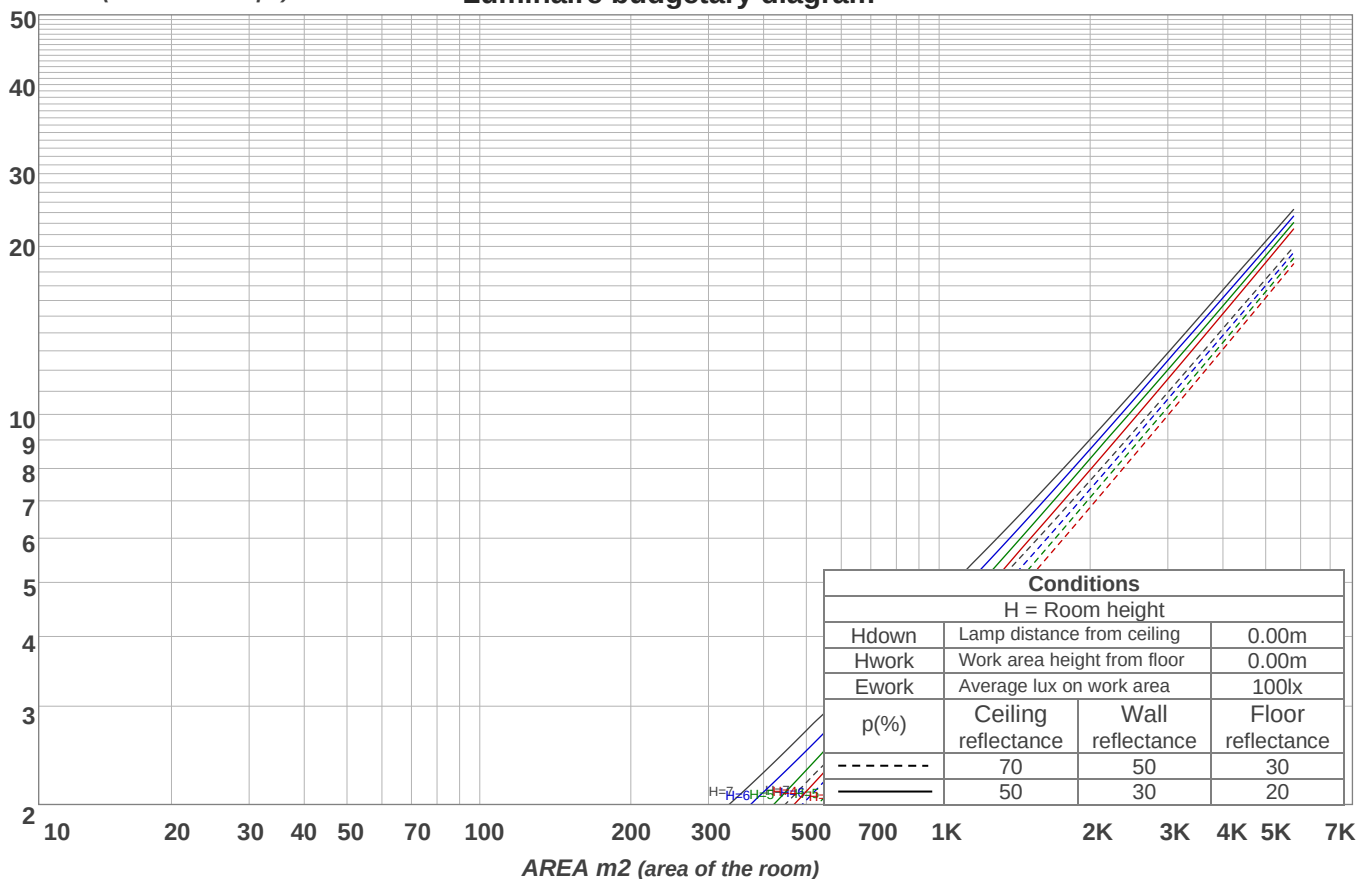
Light Planning

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	101	101	101	99
1	106	100	95	91	103	98	93	89	94	90	86	89	86	83	86	83	81	78
2	95	86	78	71	92	84	76	70	80	74	68	76	71	66	73	69	65	62
3	86	74	64	57	83	72	63	57	69	61	55	66	60	54	63	58	53	51
4	78	64	55	47	75	63	54	47	60	52	46	58	51	45	55	49	44	42
5	71	57	47	40	69	56	46	39	53	45	39	51	44	38	49	43	38	36
6	65	51	41	34	63	50	41	34	48	40	34	46	39	33	44	38	33	30
7	60	46	36	30	58	45	36	30	43	35	29	42	34	29	40	34	29	26
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	21	31	25	20	19

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°
768 lm	2271 lm	3655 lm	4792 lm	5528 lm	5751 lm	5290 lm	3900 lm	1462 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
88.5 lm	27.8 lm	29.3 lm	29.2 lm	27.5 lm	24.1 lm	18.9 lm	12.1 lm	4.15 lm

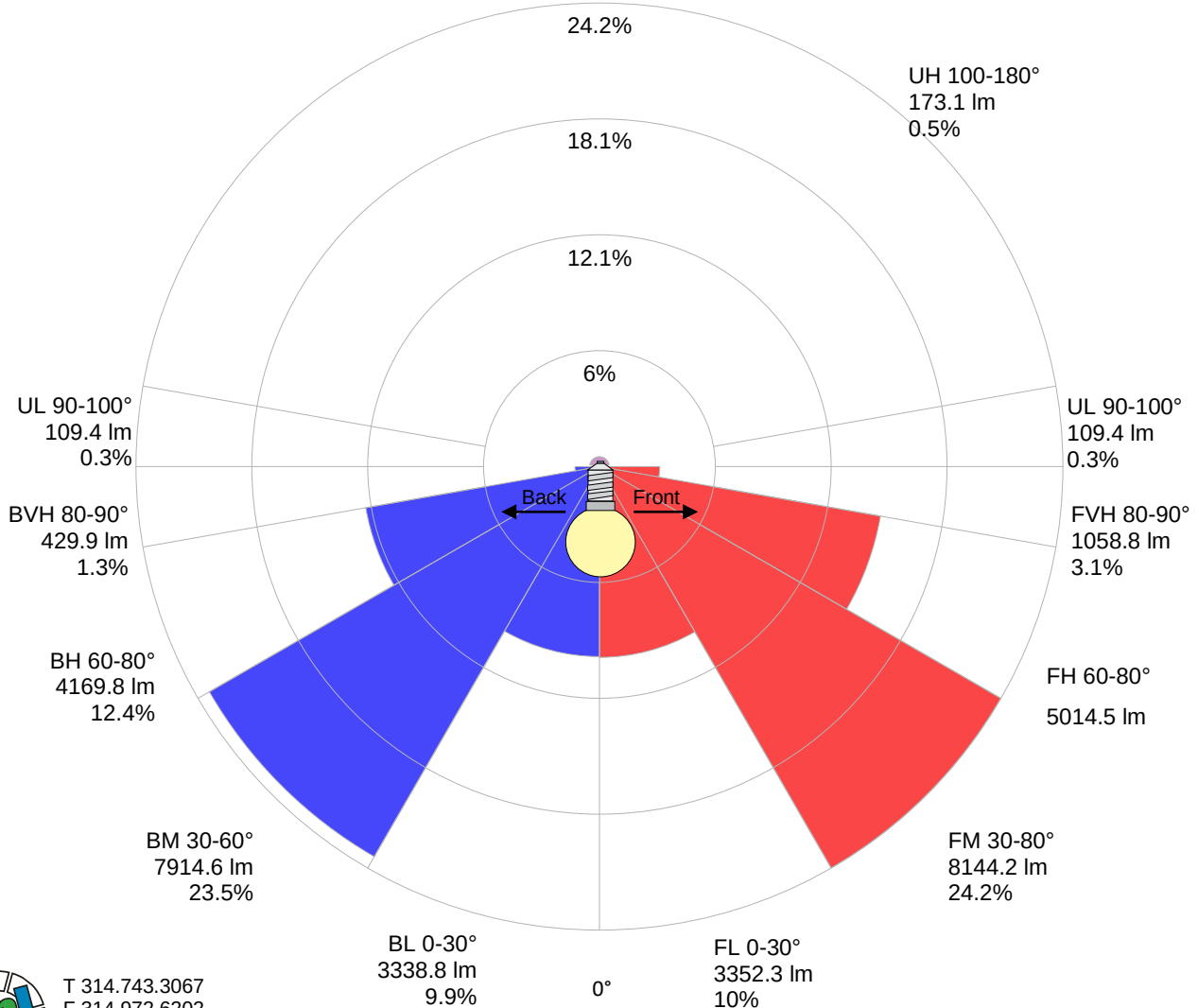


Road Report

LCS table

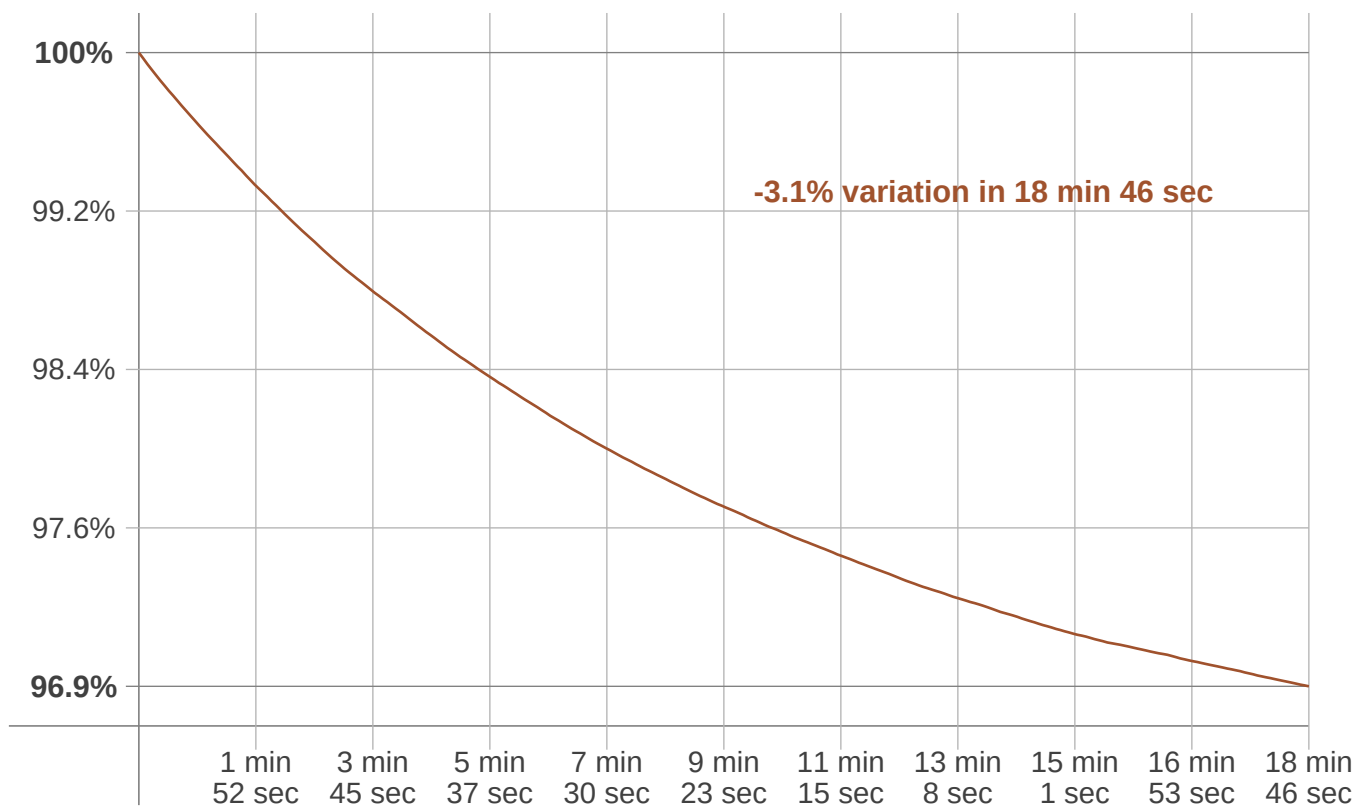
BUG rating:	B4 U3 G5	
Forward light	Lumens	Lumens %
Low(0-30):	3352.3	10%
Medium(30-60):	8144.2	24.2%
High(60-80):	5014.5	14.9%
Very high(80-90):	1058.8	3.1%
Back light		
Low(0-30):	3338.8	9.9%
Medium(30-60):	7914.6	23.5%
High(60-80):	4169.8	12.4%
Very high(80-90):	429.9	1.3%
Uplight		
Low(90-100):	109.4	0.3%
High(100-180):	173.1	0.5%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	18 min 46 sec
Warmup variation	-3.1%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5160 K	+73 K	5233 K

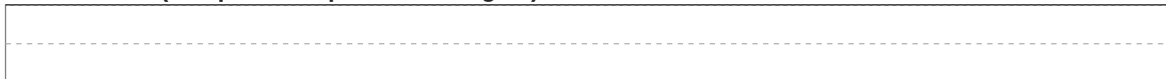
Output change

Output start	Output change	Output end
34750 lm	-1071 lm	33679 lm

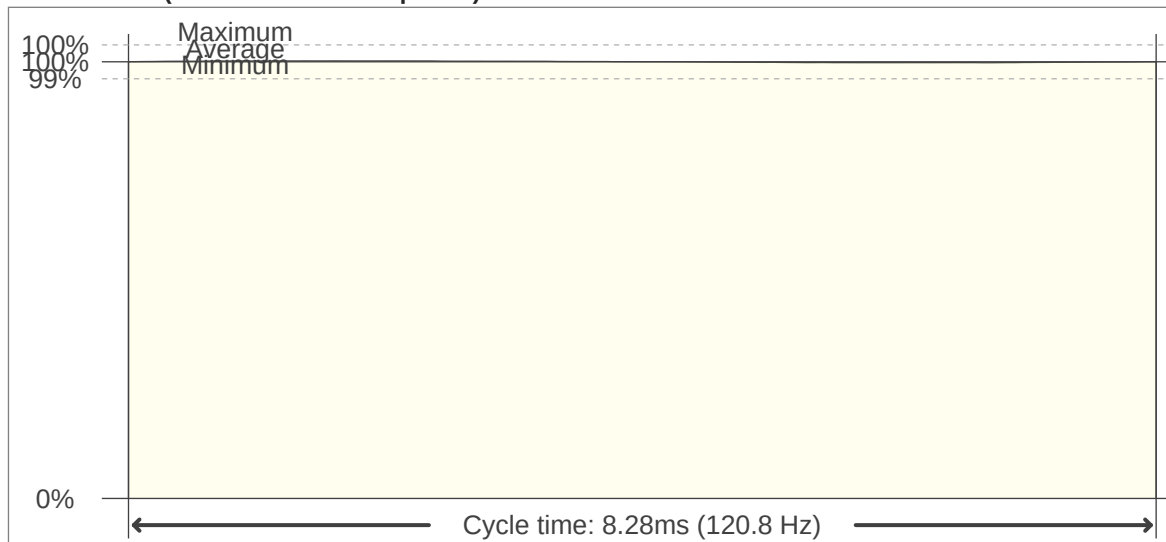


Flicker

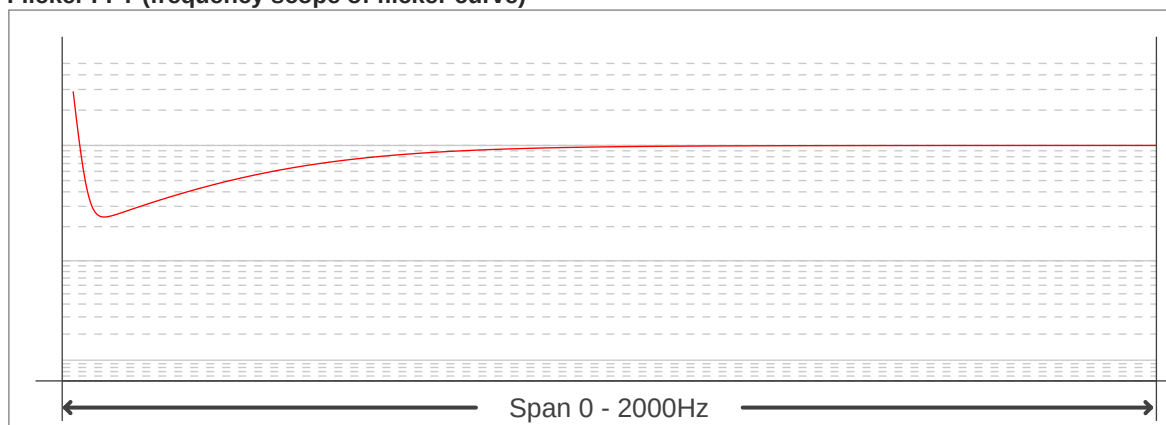
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	120.85 Hz
Flicker index:	0
Flicker percentage:	0.26 %
SVM: (Visual flicker)	0.01

Flicker conditions:

Sample rate:	40000 samples/second
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