

Light efficiency:

123 Lumen/Watt

Output: 18639 lm

Light quality:

CRI: 84.1

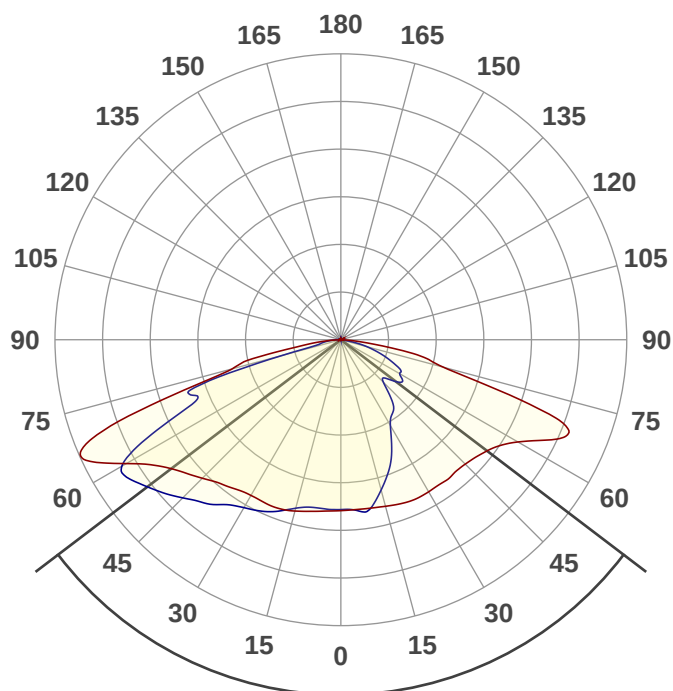
Peak: 7465 cd

Color temperature:

5108 K

Power: 151.2 W

PF: 1.0



Product name:

ALD-50K15W-C-BRC3 Type IV-M

Date and time:

4/11/2019 12:21:28 PM

Beam angle

105.5°

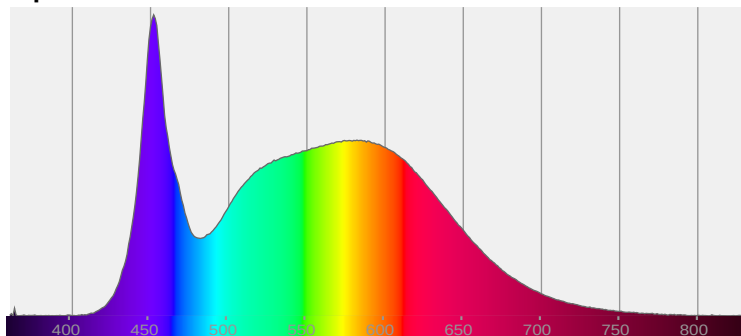


CIE 1931

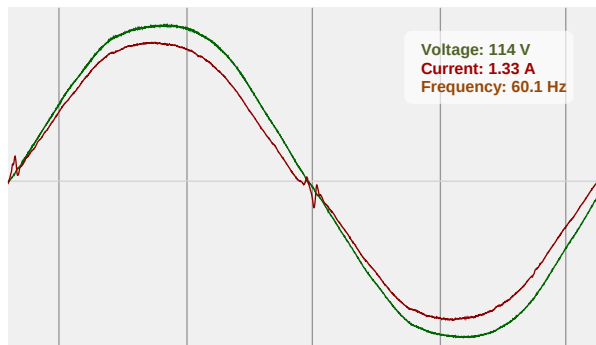
x: 0.343

y: 0.355

Spectra



Power



Voltage: 114 V
Current: 1.33 A
Frequency: 60.1 Hz



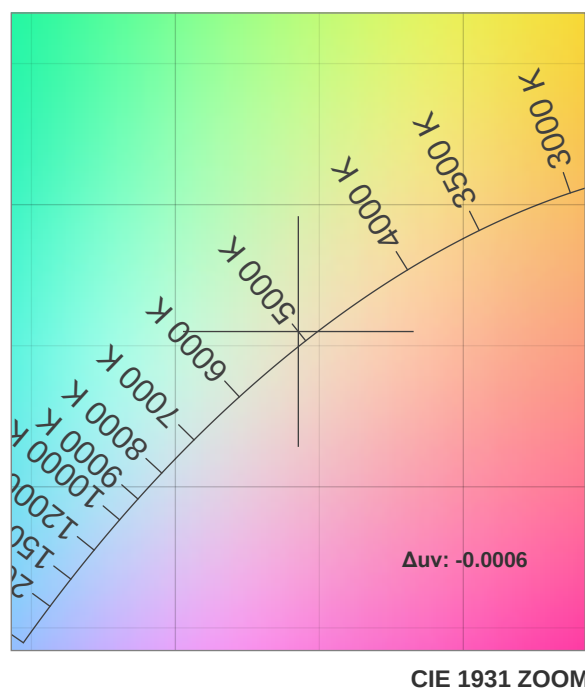
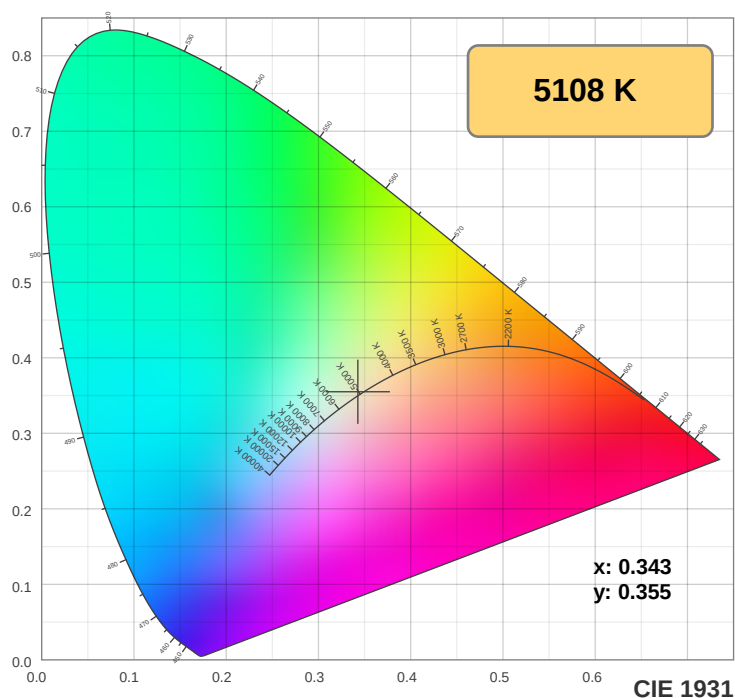
T 314.743.3067

F 314.972.6202

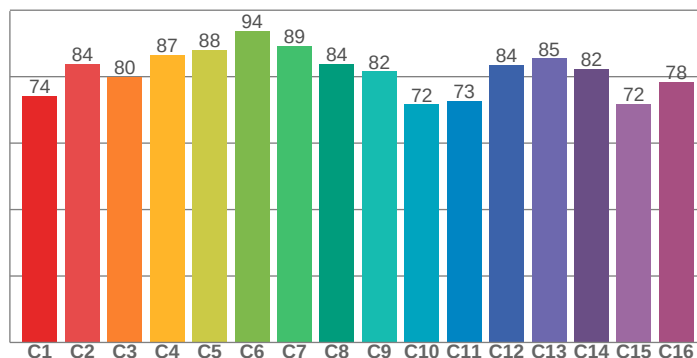
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

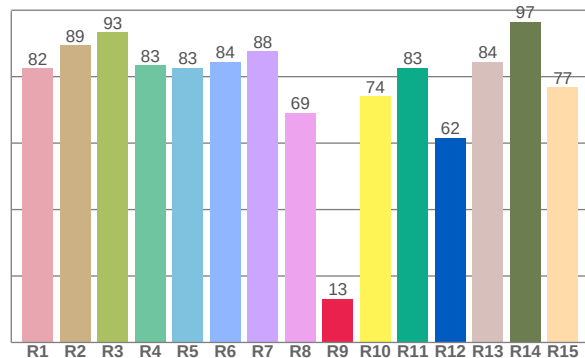
Color Specifications



TM30: 82.1



CRI: 84.1 (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
82.5	89.4	93.4	83.5	82.7	84.5	87.7	69.1	13.2	74.1	82.7	61.7	84.5	96.6	76.9

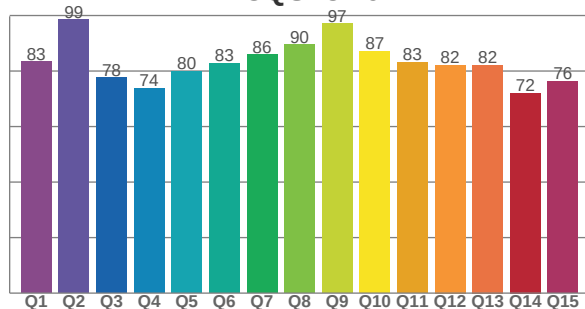
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
74.3	83.8	80.0	86.6	88.1	93.8	89.3	83.9	81.6	71.7	72.8	83.6	85.5	82.4	71.8	78.5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83.3	98.6	77.7	73.8	79.9	82.8	85.9	89.5	97.0	87.1	83.2	82.1	82.2	72.1	76.3

CQS: 81.9



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
5108 K	84.1	13.2	82.1	94.2	81.9	0.343	0.355	0.208	0.324	-0.0006



TM30 Report

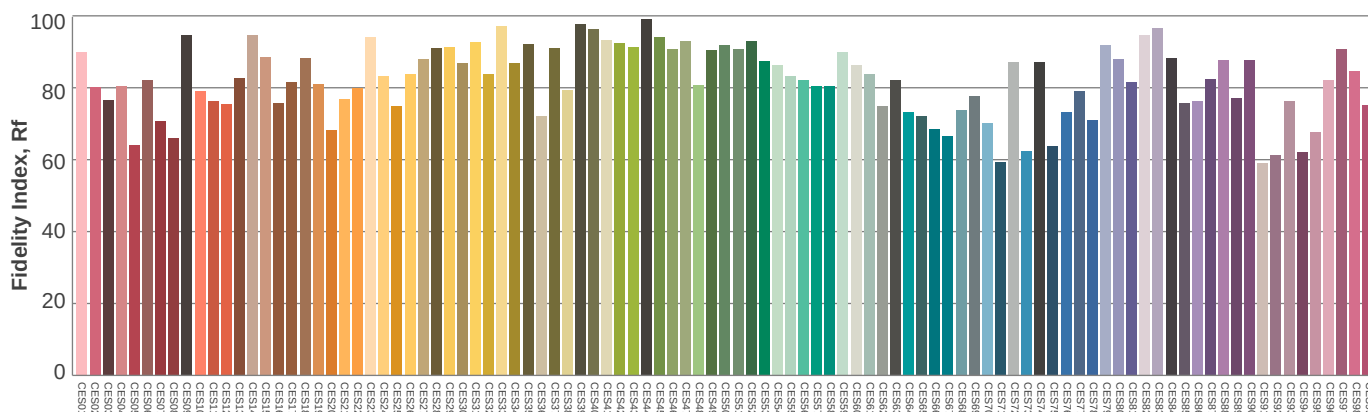
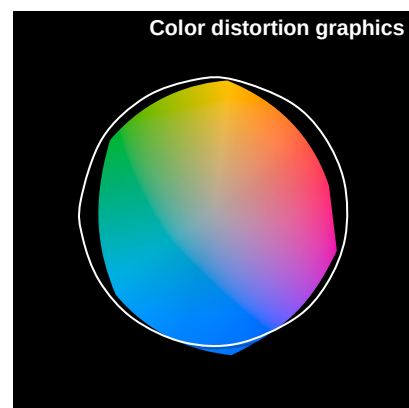
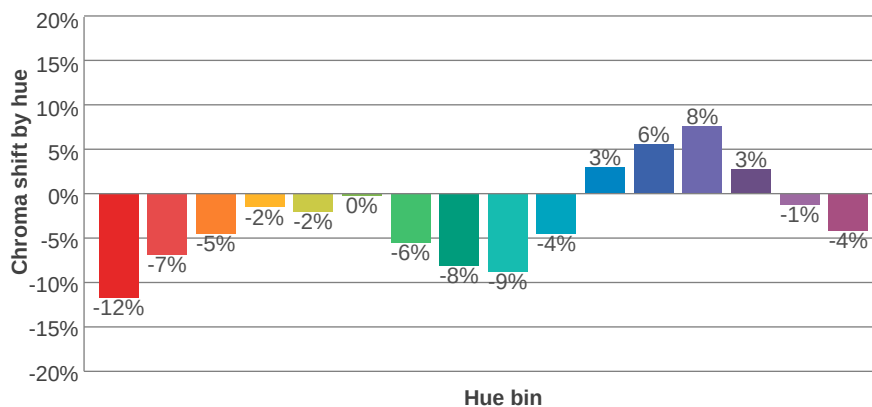
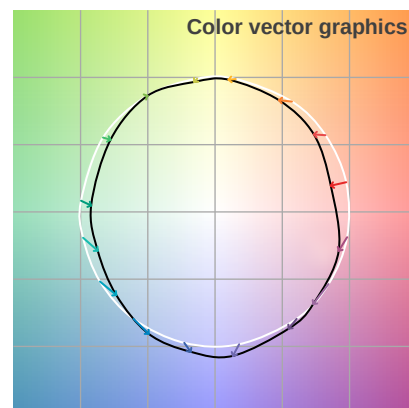
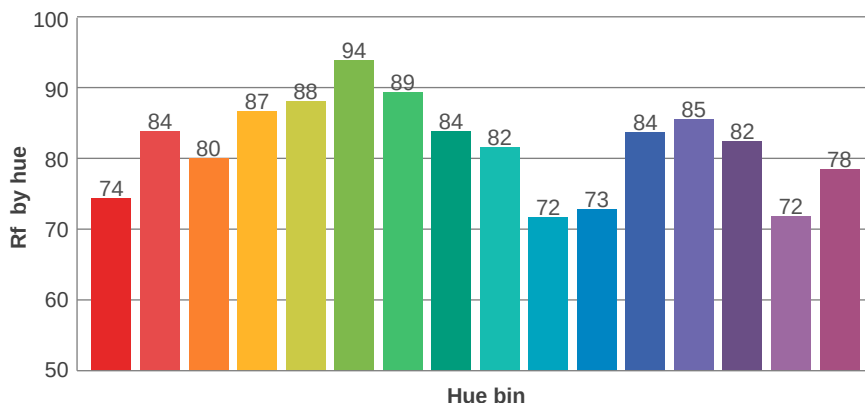
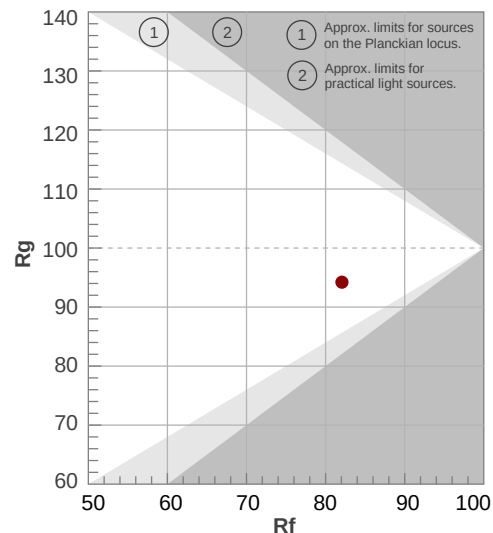
Rf 82.1

Fidelity index Rf

Rg 94.2

Gammut index Rg

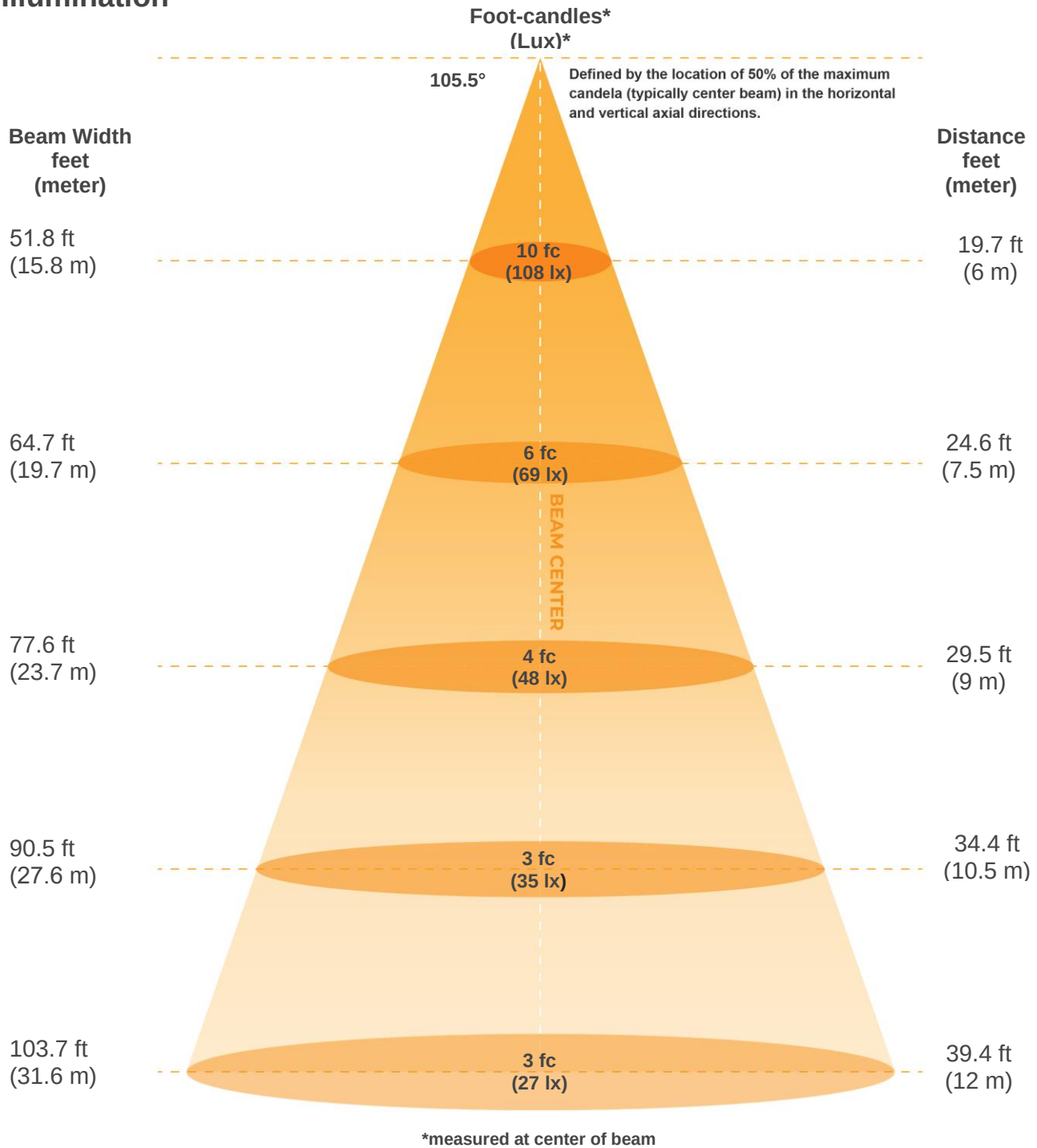
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	74	-12%	0%
2	84	-7%	5%
3	80	-5%	9%
4	87	-2%	5%
5	88	-2%	3%
6	94	0%	-1%
7	89	-6%	-2%
8	84	-8%	2%
9	82	-9%	12%
10	72	-4%	15%
11	73	3%	16%
12	84	6%	6%
13	85	8%	-6%
14	82	3%	-9%
15	72	-1%	-19%
16	78	-4%	-11%



Color Evaluation Sample



Illumination



Beam intensities from 1-20m

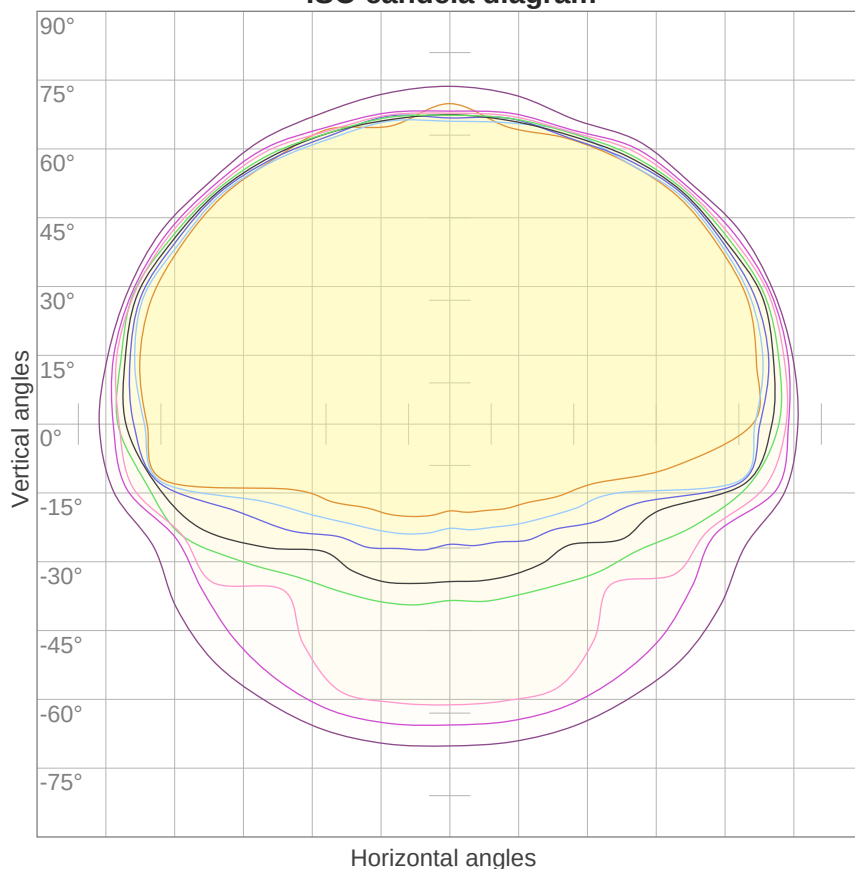
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
3877lx	969lx	431lx	242lx	155lx	108lx	79lx	61lx	48lx	39lx	32lx	27lx	23lx	20lx	17lx	15lx	13lx	12lx	11lx	10lx
360.2fc	90fcd	40fcd	22.5fcd	14.4fcd	10fcd	7.4fcd	5.6fcd	4.4fcd	3.6fcd	3fcd	2.5fcd	2.1fcd	1.8fcd	1.6fcd	1.4fcd	1.2fcd	1.1fcd	1fcd	0.9fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
105.5°	156.5°	169.6°	65.0%	37.2%



ISO Diagrams

ISO candela diagram



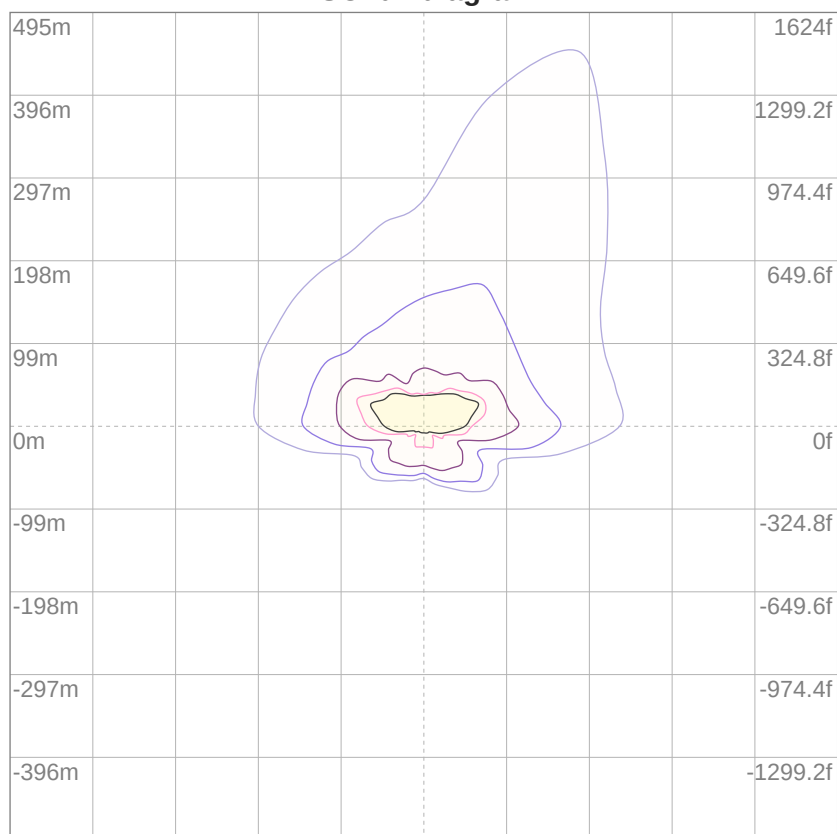
10%	388 cd
20%	775 cd
30%	1163 cd
40%	1551 cd
50%	1938 cd
60%	2326 cd
70%	2714 cd
80%	3101 cd
90%	3489 cd

Conditions:

Number of c-planes: 16

Candela at center: 3877 cd

ISO lux diagram



3%	1.16 lx
5%	1.94 lx
10%	3.88 lx
30%	11.6 lx
50%	19.4 lx

Conditions:

Number of c-planes: 16

Lux at center: 38.8 lx

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



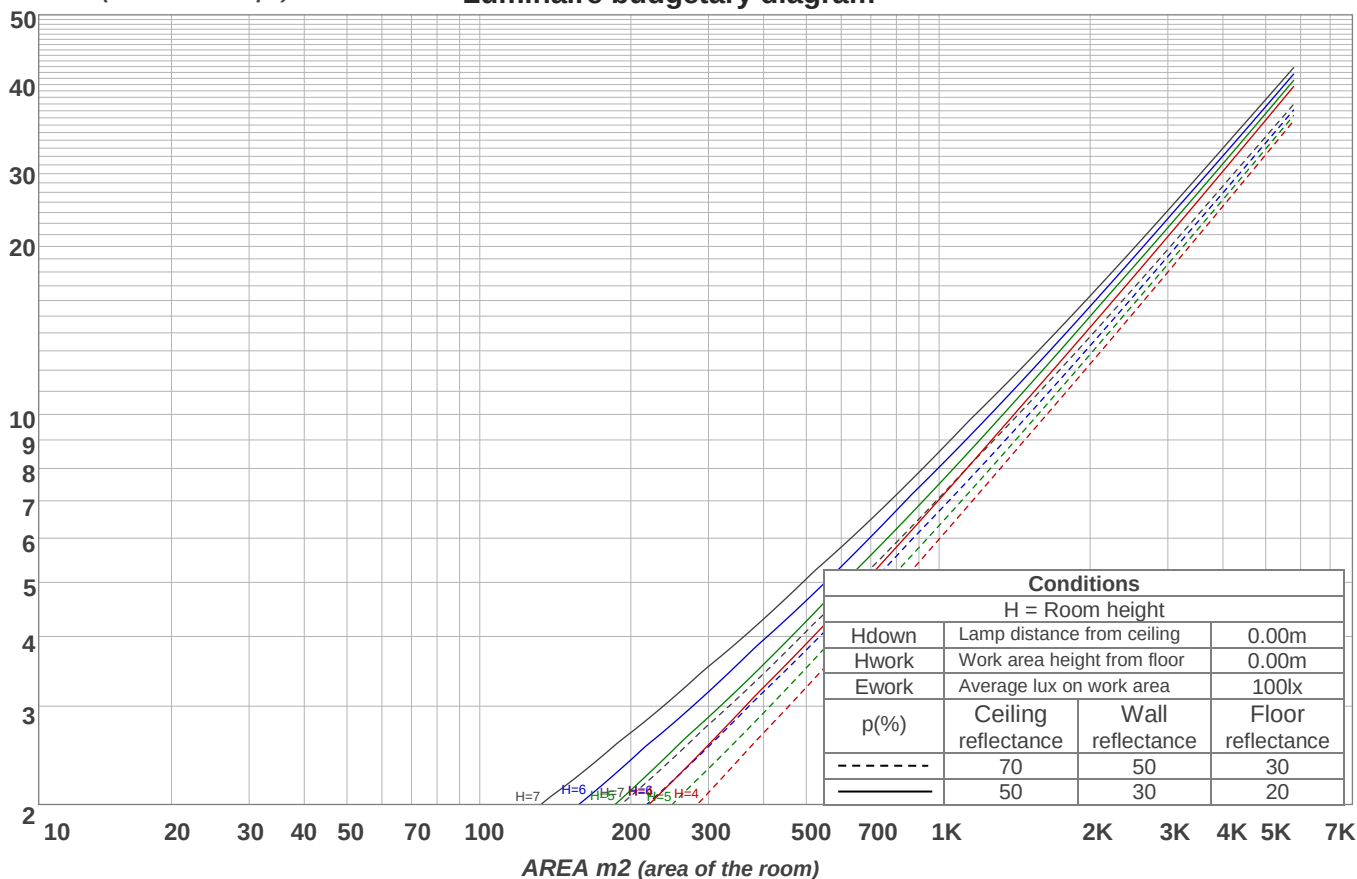
Light Planning

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	101	96	91	104	99	94	90	94	90	87	90	87	84	87	84	82	79
2	95	85	77	70	92	83	76	70	80	73	68	76	71	66	73	68	65	62
3	85	73	63	56	82	71	62	55	68	60	54	65	58	53	62	57	52	49
4	77	63	53	45	74	62	52	45	59	51	44	56	49	43	54	48	43	40
5	70	55	45	37	67	54	44	37	52	43	37	50	42	36	48	41	36	33
6	64	49	39	32	62	48	38	32	46	38	31	44	37	31	42	36	31	28
7	59	44	34	27	57	43	34	27	41	33	27	40	32	27	38	32	26	24
8	54	40	30	24	53	39	30	24	37	29	24	36	29	23	35	28	23	21
9	51	36	27	21	49	35	27	21	34	26	21	33	26	21	32	25	21	19
10	47	33	25	19	46	33	24	19	31	24	19	30	24	19	30	23	18	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°
372 lm	1101 lm	1749 lm	2328 lm	2942 lm	3622 lm	3872 lm	2289 lm	314 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
7.80 lm	6.25 lm	7.14 lm	7.52 lm	7.26 lm	6.27 lm	4.61 lm	2.92 lm	1.01 lm

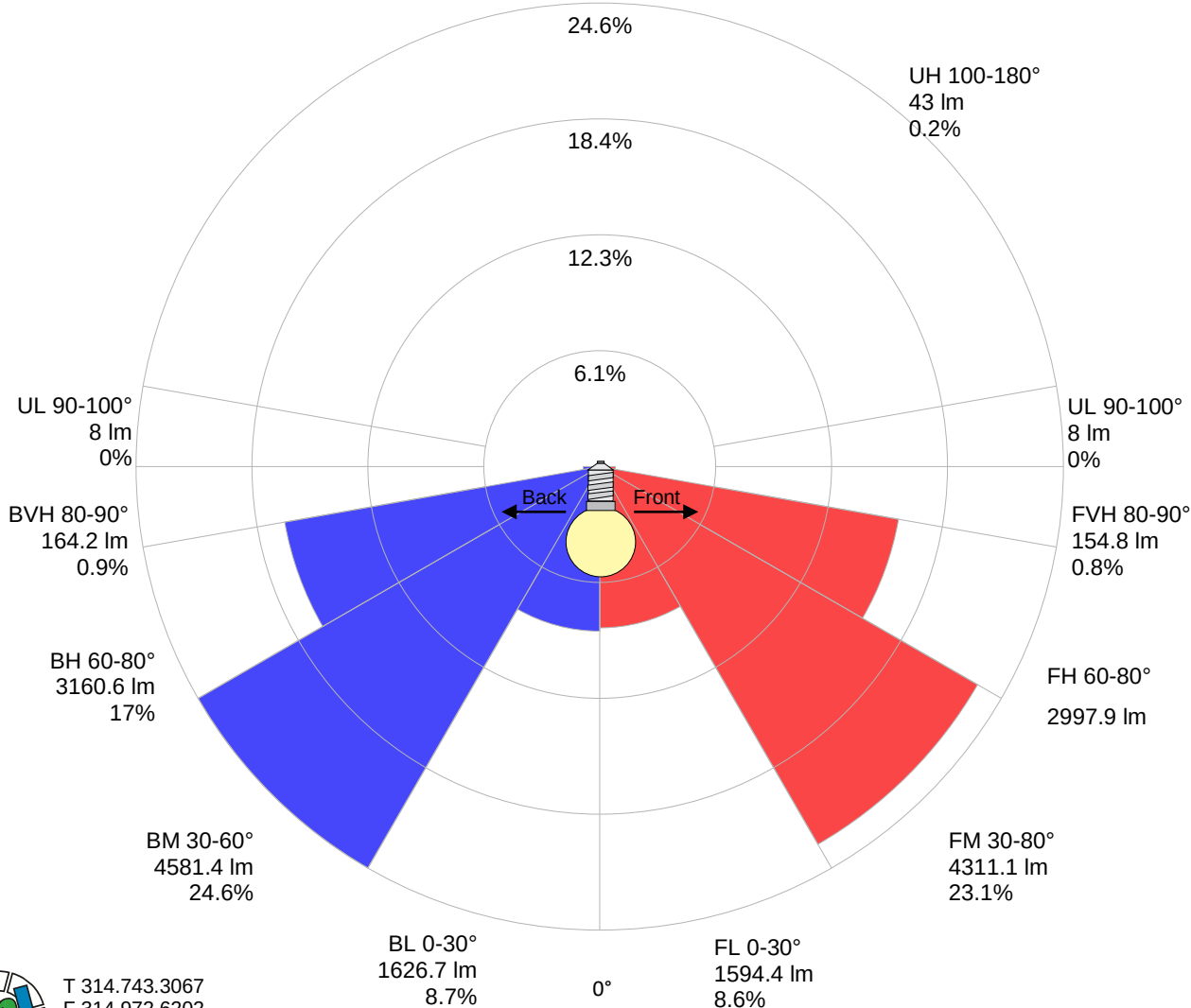


Road Report

LCS table

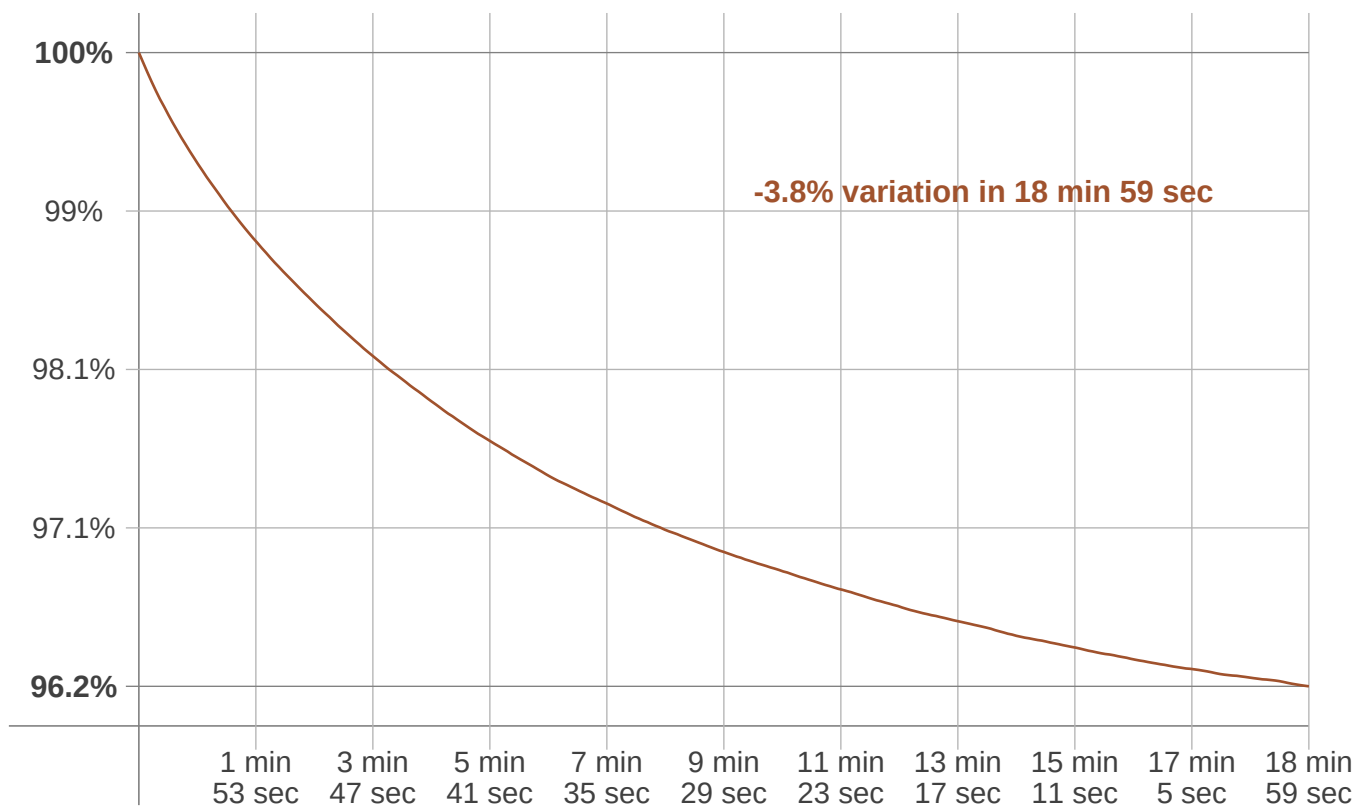
BUG rating:	B4 U2 G4	
Forward light	Lumens	Lumens %
Low(0-30):	1594.4	8.6%
Medium(30-60):	4311.1	23.1%
High(60-80):	2997.9	16.1%
Very high(80-90):	154.8	0.8%
Back light		
Low(0-30):	1626.7	8.7%
Medium(30-60):	4581.4	24.6%
High(60-80):	3160.6	17%
Very high(80-90):	164.2	0.9%
Uplight		
Low(90-100):	8	0%
High(100-180):	43	0.2%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	18 min 59 sec
Warmup variation	-3.8%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5021 K	+87 K	5108 K

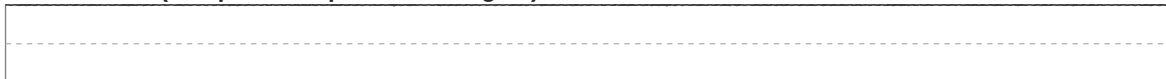
Output change

Output start	Output change	Output end
19355 lm	-716 lm	18639 lm

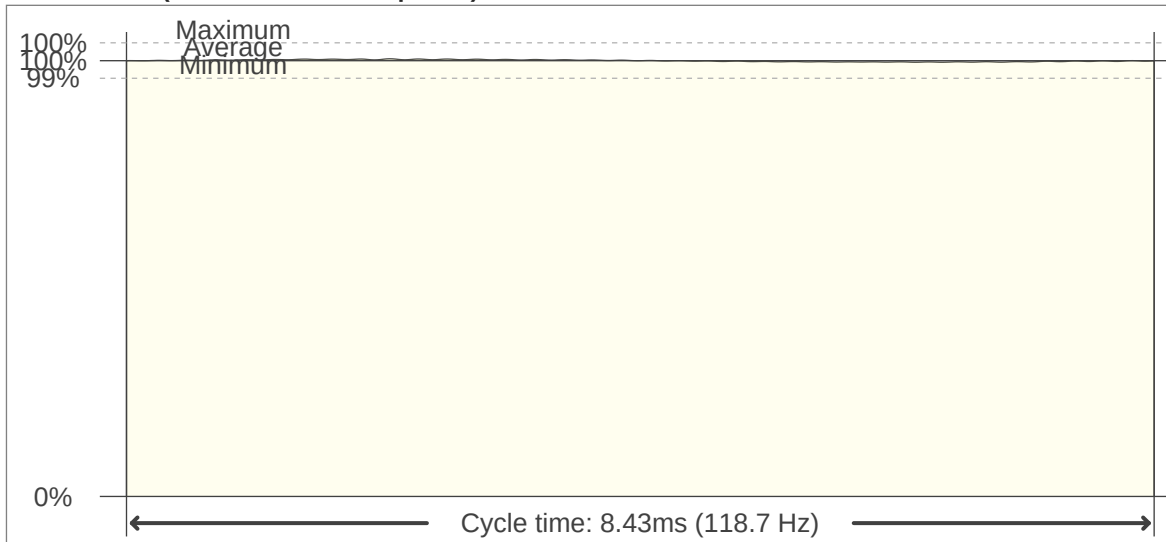


Flicker

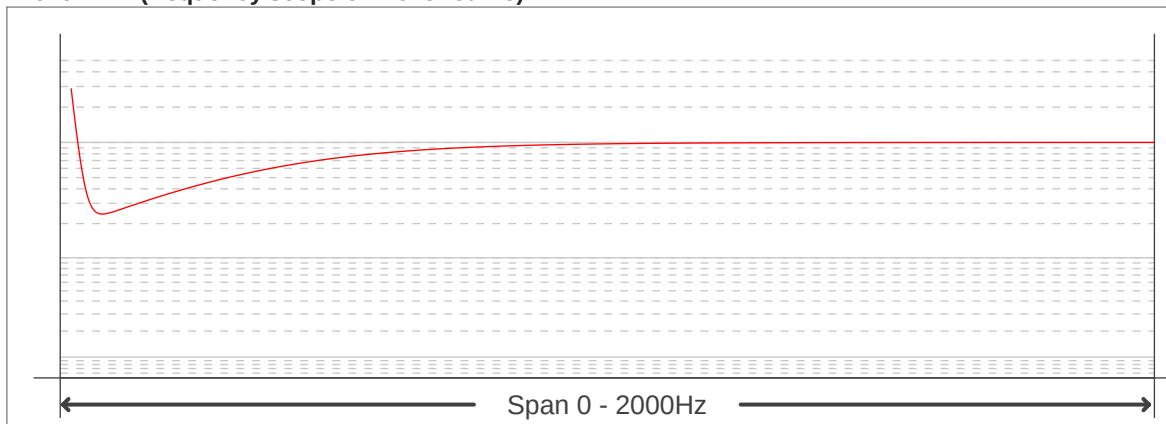
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	118.69 Hz
Flicker index:	0
Flicker percentage:	0.48 %
SVM: (Visual flicker)	0.01

Flicker conditions:

Sample rate:	40000 samples/second
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