

Light efficiency:

127 Lumen/Watt

Output: 19036 lm

Light quality:

CRI: 83.9

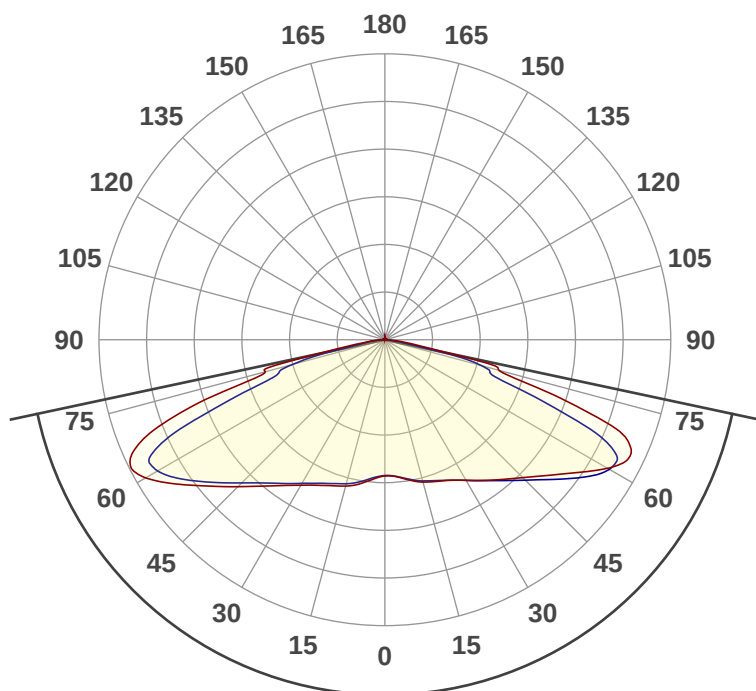
Peak: 6194 cd

Color temperature:

5099 K

Power: 150.3 W

PF: 1.0



Product name:

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

Date and time:

4/11/2019 1:24:56 PM

Beam angle

155.9°

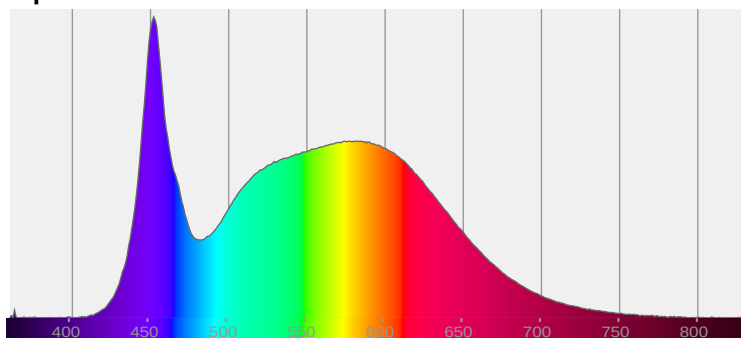


CIE 1931

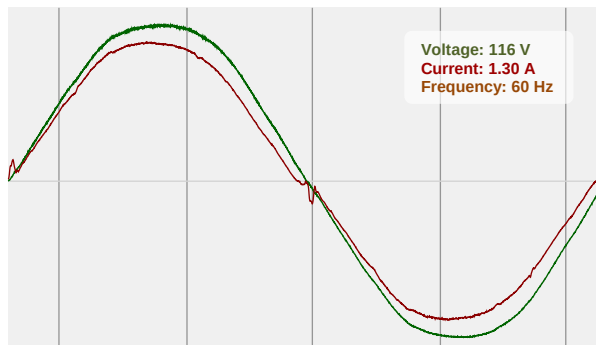
x: 0.343

y: 0.355

Spectra



Power



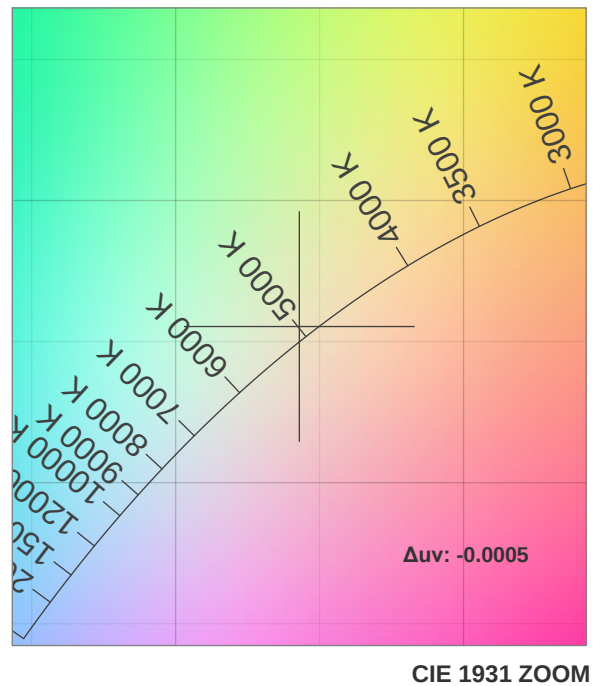
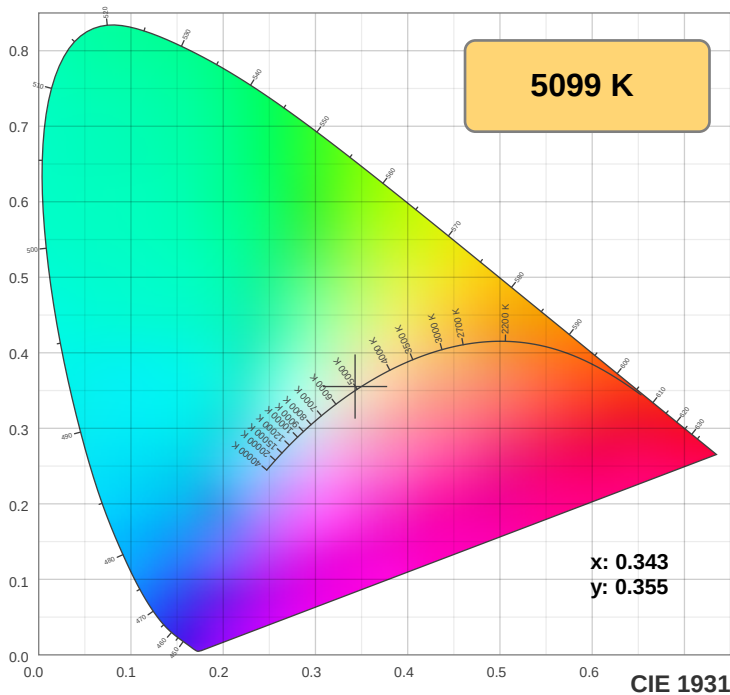
T 314.743.3067

F 314.972.6202

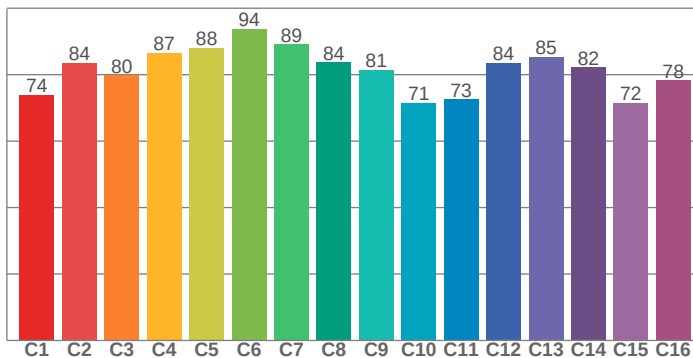
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

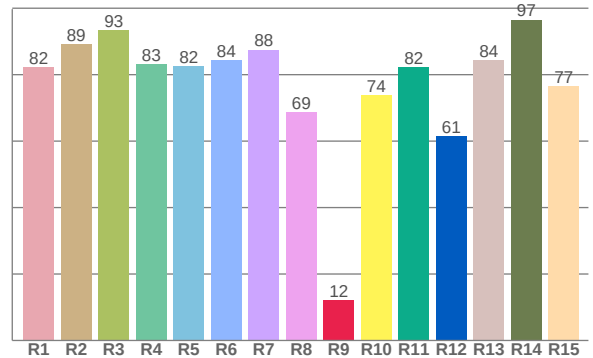
Color Specifications



TM30: 81.9



CRI: 83.9 (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
82.2	89.3	93.3	83.2	82.5	84.3	87.5	68.7	12.0	73.8	82.3	61.5	84.3	96.5	76.6

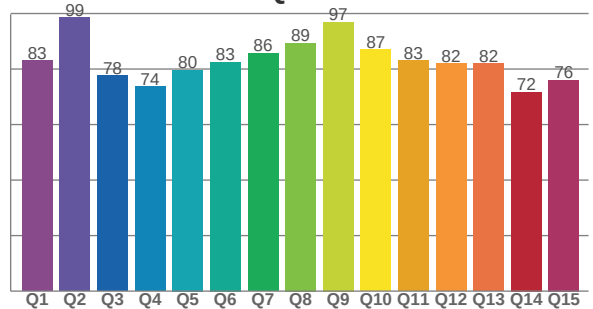
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
74.0	83.6	79.8	86.5	88.0	93.8	89.2	83.7	81.4	71.4	72.6	83.6	85.4	82.2	71.5	78.3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83.1	98.6	77.5	73.6	79.6	82.5	85.6	89.4	97.0	87.0	83.0	81.9	82.0	71.7	76.0

CQS: 81.7



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
5099 K	83.9	12.0	81.9	94.1	81.7	0.343	0.355	0.209	0.324	-0.0005



TM30 Report

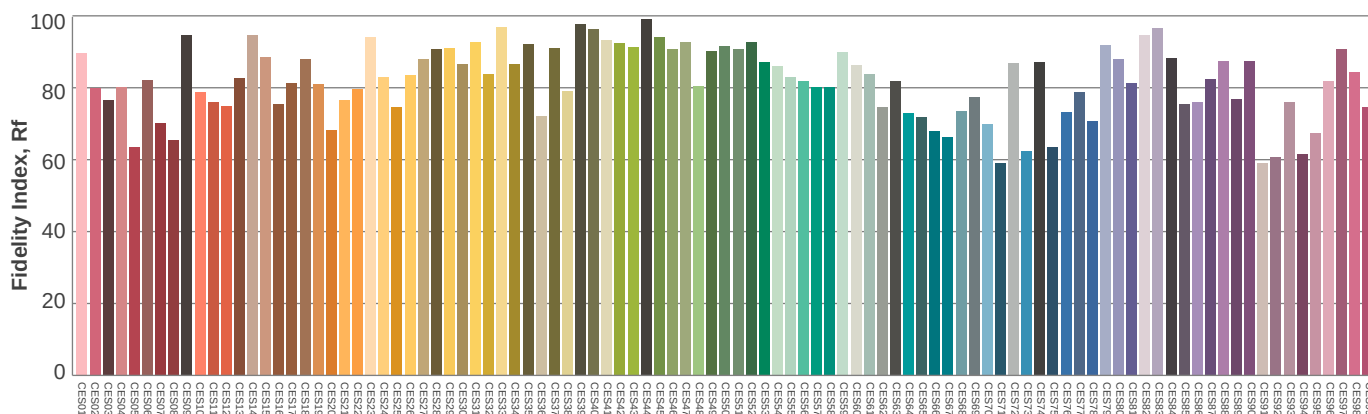
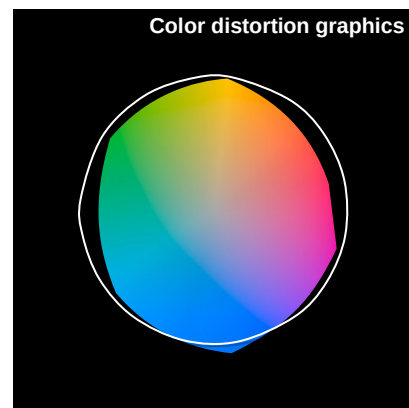
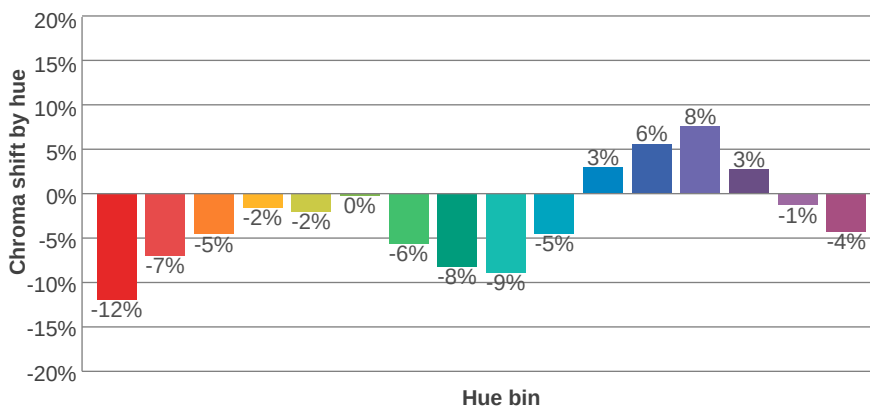
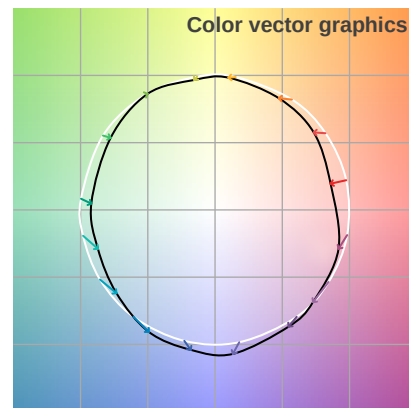
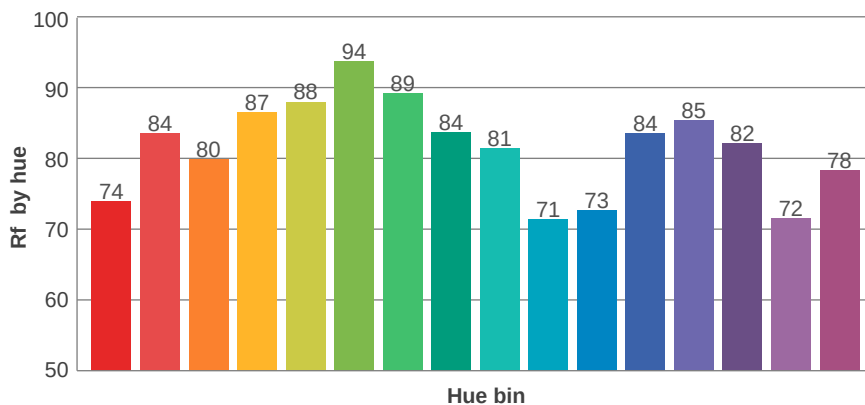
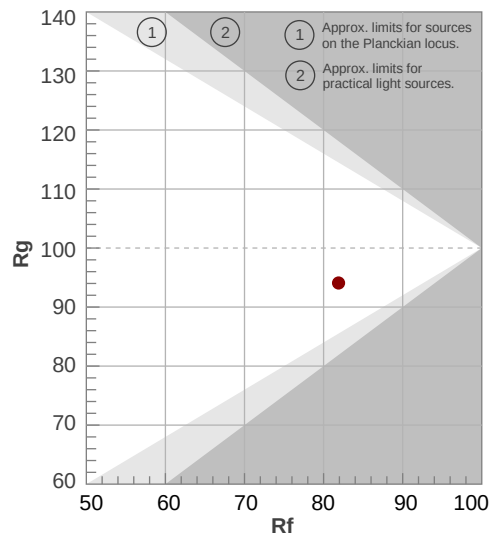
Rf 81.9

Fidelity index Rf

Rg 94.1

Gammut index Rg

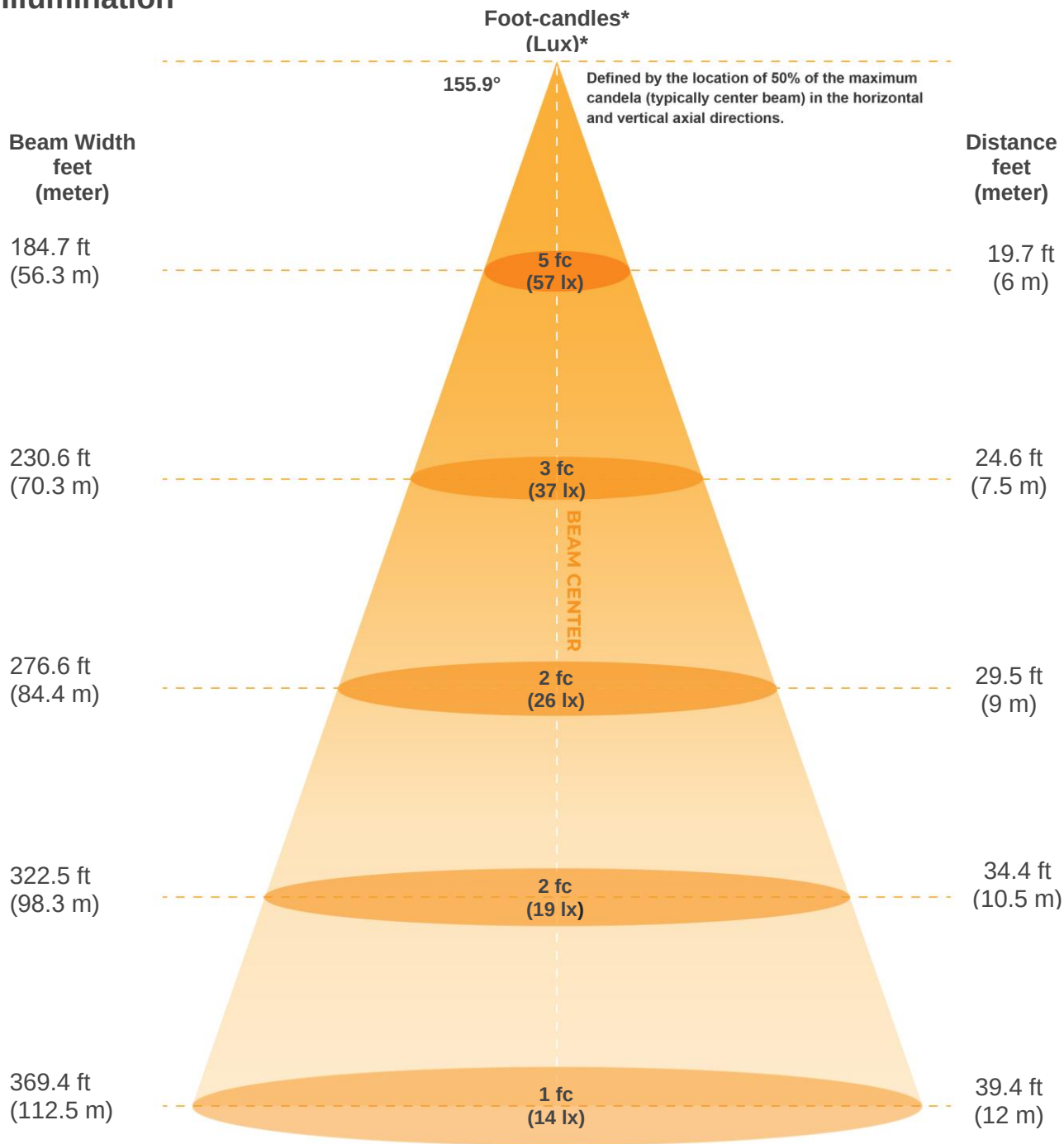
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	74	-12%	0%
2	84	-7%	5%
3	80	-5%	9%
4	87	-2%	5%
5	88	-2%	3%
6	94	0%	-1%
7	89	-6%	-2%
8	84	-8%	2%
9	81	-9%	12%
10	71	-5%	15%
11	73	3%	16%
12	84	6%	6%
13	85	8%	-6%
14	82	3%	-9%
15	72	-1%	-19%
16	78	-4%	-11%



Color Evaluation Sample



Illumination



*measured at center of beam

Beam intensities from 1-20m

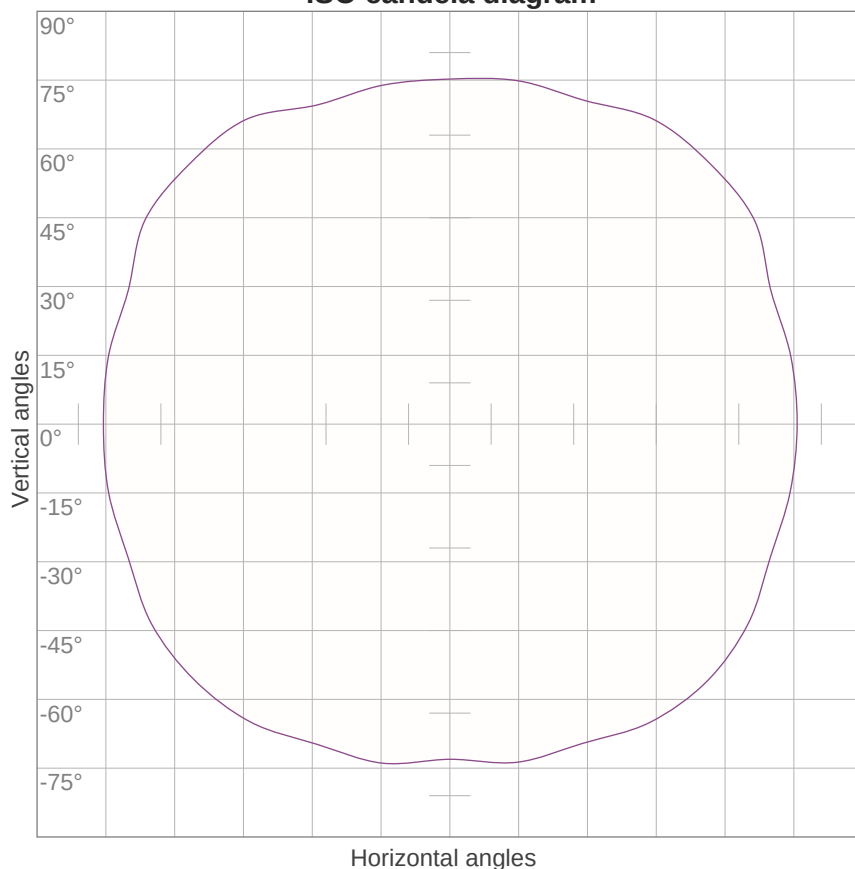
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
2068lx	517lx	230lx	129lx	83lx	57lx	42lx	32lx	26lx	21lx	17lx	14lx	12lx	11lx	9lx	8lx	7lx	6lx	6lx	5lx
192.1fc	48fcd	21.3fcd	12fcd	7.7fcd	5.3fcd	3.9fcd	3fcd	2.4fcd	1.9fcd	1.6fcd	1.3fcd	1.1fcd	1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd	0.5fcd	0.5fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
155.9°	167.7°	173.5°	52.2%	25.5%



ISO Diagrams

ISO candela diagram



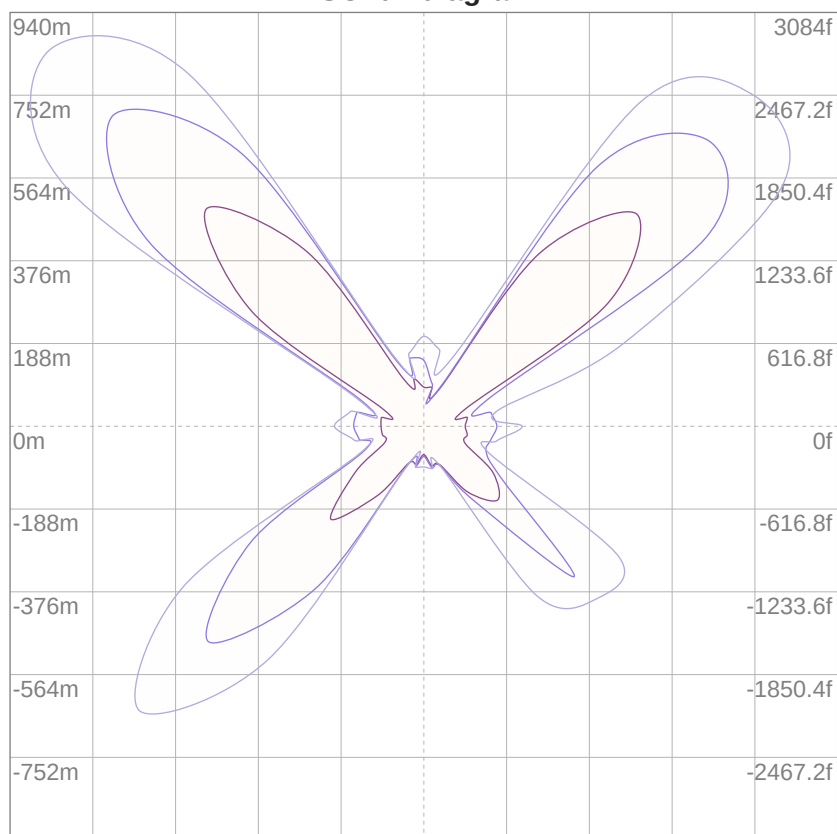
10%	207 cd
20%	414 cd
30%	620 cd
40%	827 cd
50%	1034 cd
60%	1241 cd
70%	1448 cd
80%	1654 cd
90%	1861 cd

Conditions:

Number of c-planes: 16

Candela at center: 2068 cd

ISO lux diagram



3%	0.620 lx
5%	1.03 lx
10%	2.07 lx
30%	6.20 lx
50%	10.3 lx

Conditions:

Number of c-planes: 16

Lux at center: 20.7 lx

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



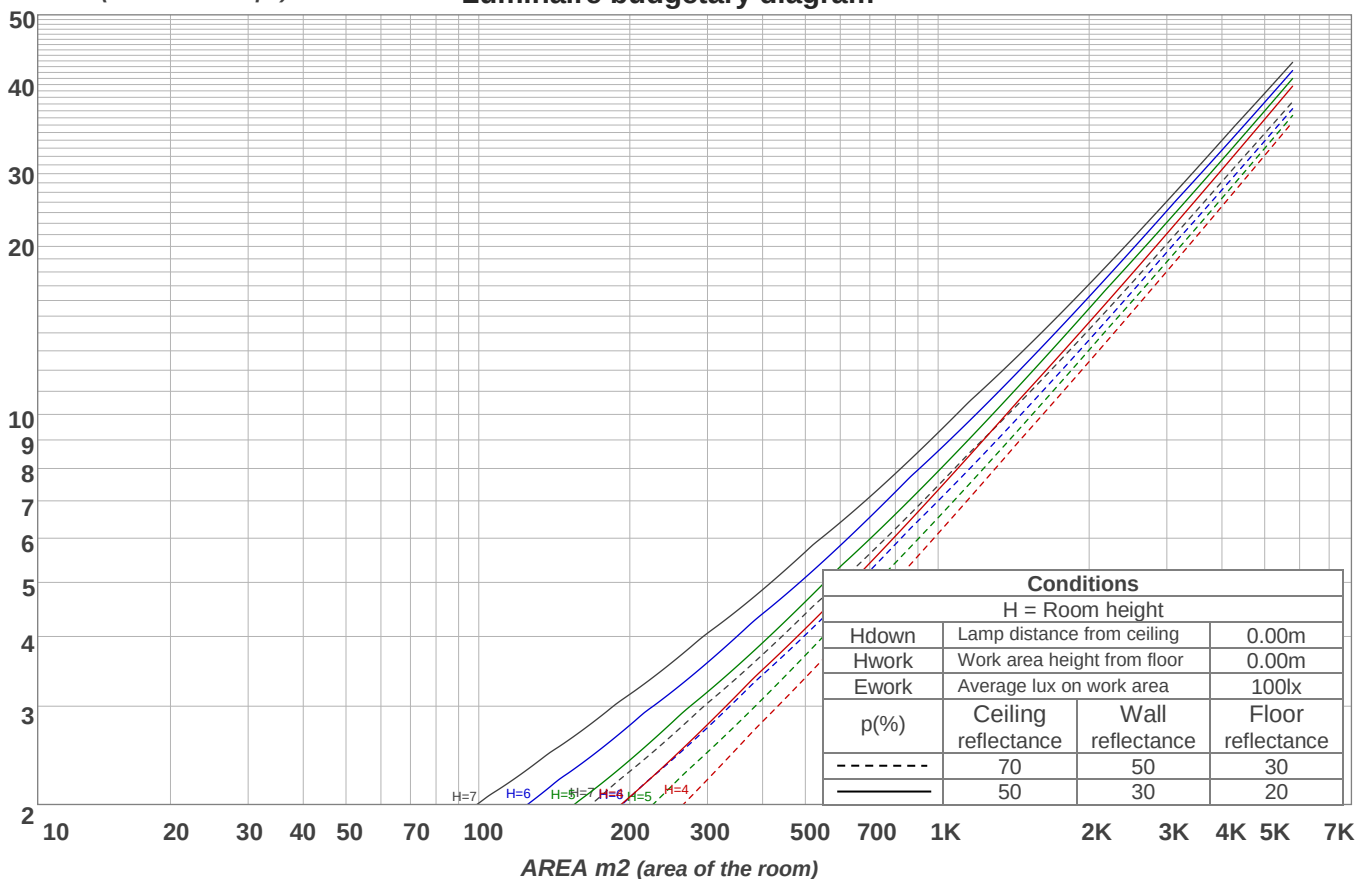
Light Planning

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	104	97	91	86	101	95	90	85	91	86	82	86	83	79	83	79	77	74
2	91	80	71	63	88	78	69	62	74	67	60	70	64	59	67	62	57	55
3	80	67	56	47	78	65	55	47	62	53	46	58	51	45	56	49	44	41
4	72	57	46	37	69	55	45	37	52	43	36	50	42	35	47	40	35	32
5	65	49	38	30	63	48	37	30	45	36	29	43	35	29	41	34	28	26
6	59	43	32	25	57	42	32	24	40	31	24	38	30	24	36	29	23	21
7	54	38	28	21	52	37	28	21	36	27	20	34	26	20	33	25	20	17
8	50	34	24	18	48	34	24	18	32	24	17	31	23	17	29	22	17	15
9	47	31	22	15	45	31	21	15	29	21	15	28	20	15	27	20	15	13
10	44	29	20	14	42	28	19	13	27	19	13	26	18	13	25	18	13	11

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°
204 lm	649 lm	1135 lm	1721 lm	2538 lm	3698 lm	4679 lm	3593 lm	763 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
8.09 lm	8.21 lm	9.04 lm	8.92 lm	8.11 lm	6.68 lm	4.87 lm	2.92 lm	0.985 lm

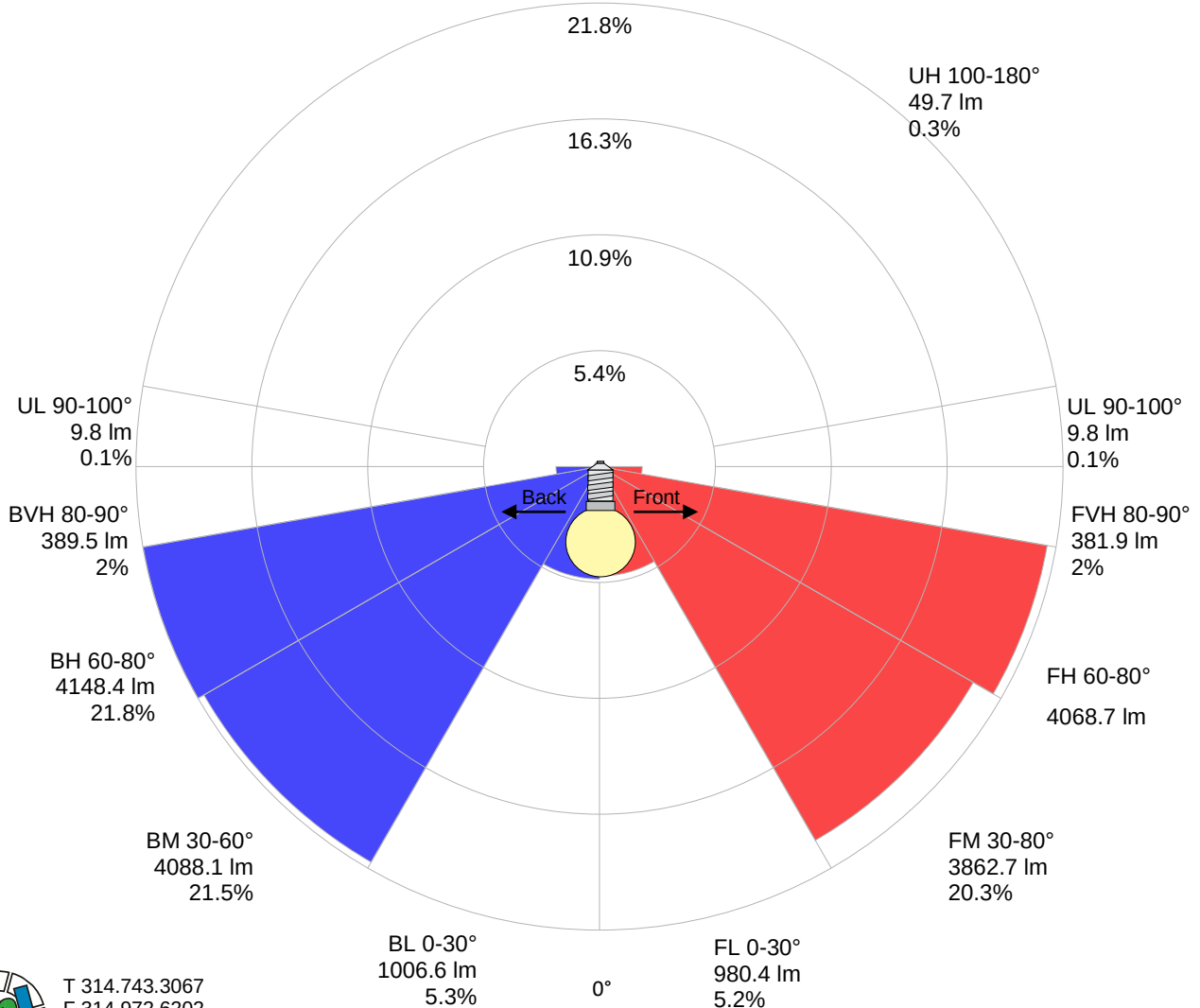


Road Report

LCS table

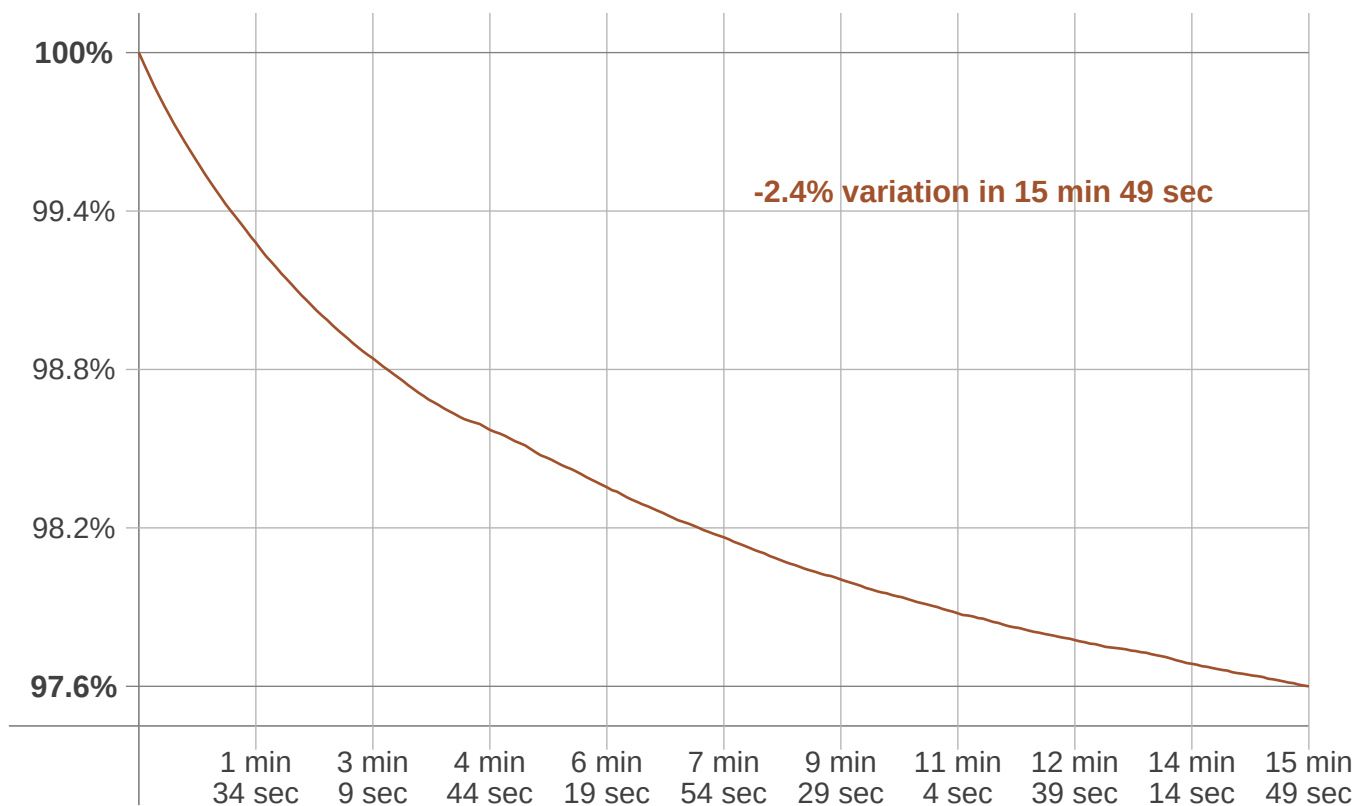
BUG rating:	B4 U2 G4	
Forward light	Lumens	Lumens %
Low(0-30):	980.4	5.2%
Medium(30-60):	3862.7	20.3%
High(60-80):	4068.7	21.4%
Very high(80-90):	381.9	2%
Back light		
Low(0-30):	1006.6	5.3%
Medium(30-60):	4088.1	21.5%
High(60-80):	4148.4	21.8%
Very high(80-90):	389.5	2%
Uplight		
Low(90-100):	9.8	0.1%
High(100-180):	49.7	0.3%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	15 min 49 sec
Warmup variation	-2.4%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5051 K	+48 K	5099 K

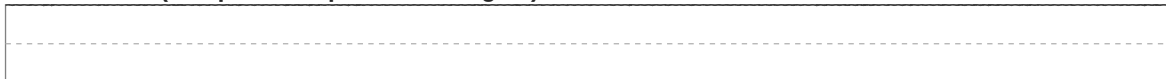
Output change

Output start	Output change	Output end
19476 lm	-439 lm	19036 lm

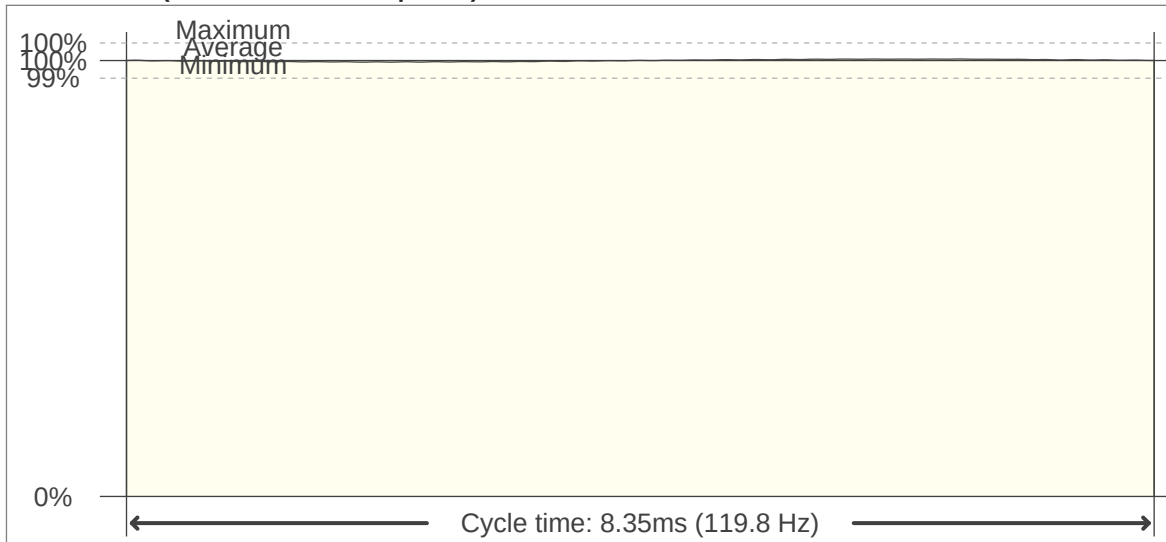


Flicker

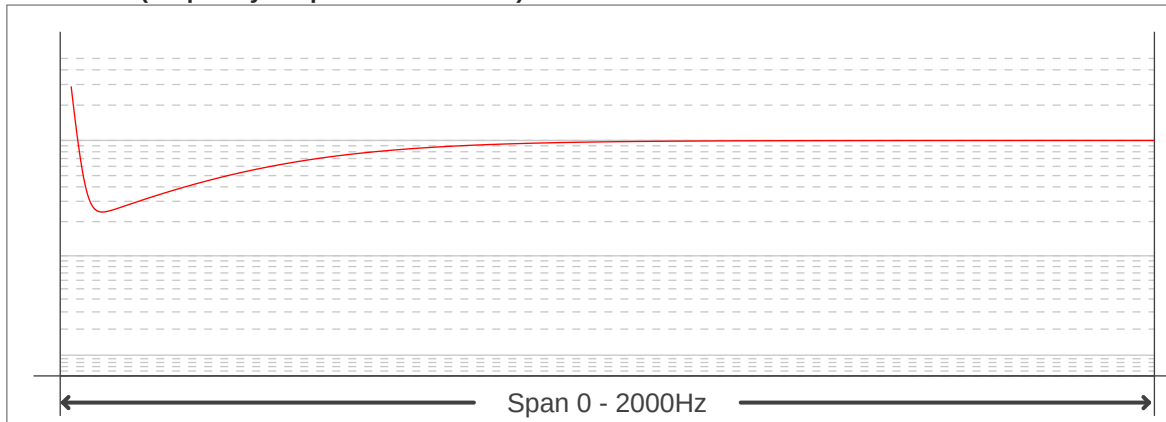
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	119.76 Hz
Flicker index:	0
Flicker percentage:	0.52 %
SVM: (Visual flicker)	0.01

Flicker conditions:

Sample rate:	40000 samples/second
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