

Light efficiency:

120 Lumen/Watt

Output: 5550 lm

Light quality:

CRI: 81.7

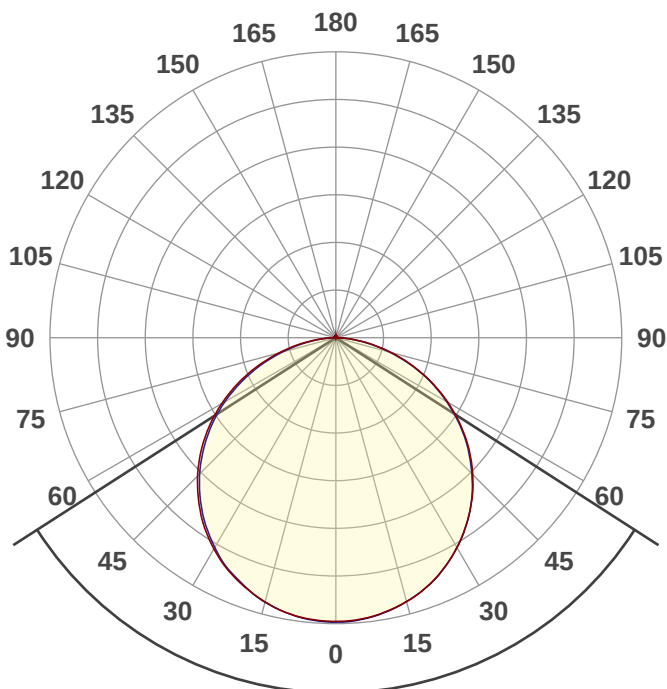
Peak: 1875 cd

Color temperature:

4040 K

Power: 46.4 W

PF: 0.99



Product name:

LPD6-40K24-50-S

Date and time:

10/4/2019 11:48:34 AM

Beam angle

114.5°

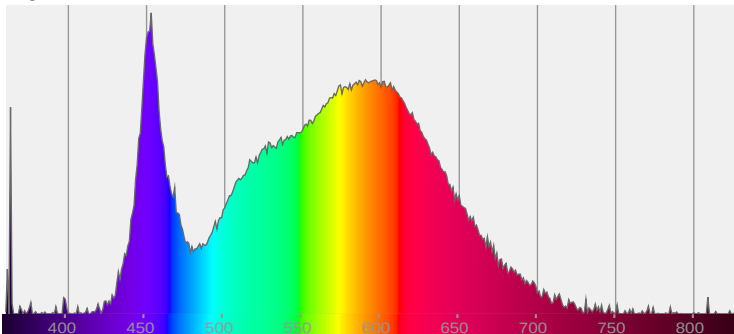


CIE 1931

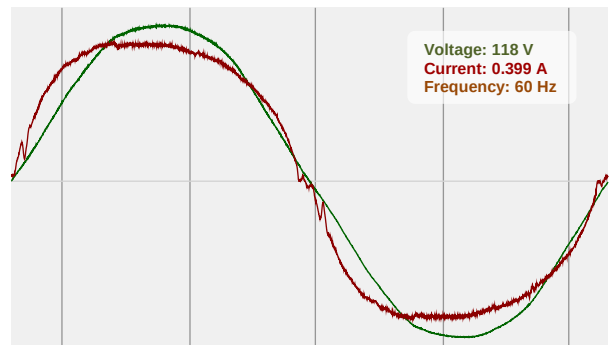
x: 0.380

y: 0.379

Spectra



Power



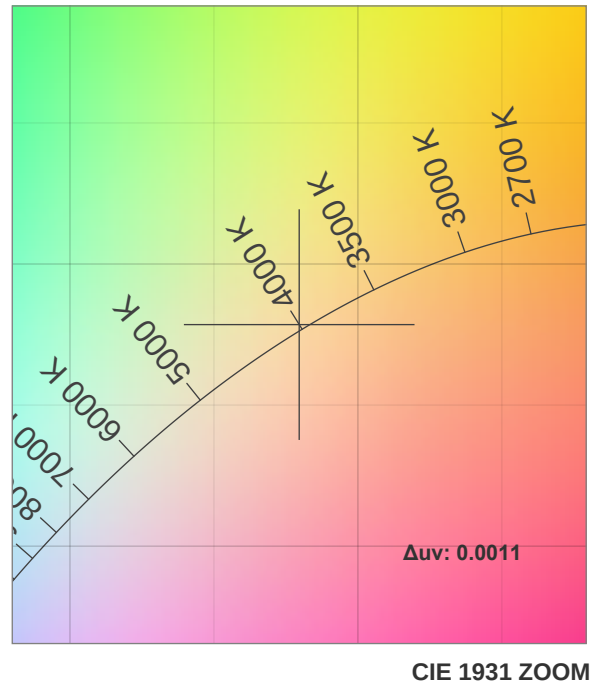
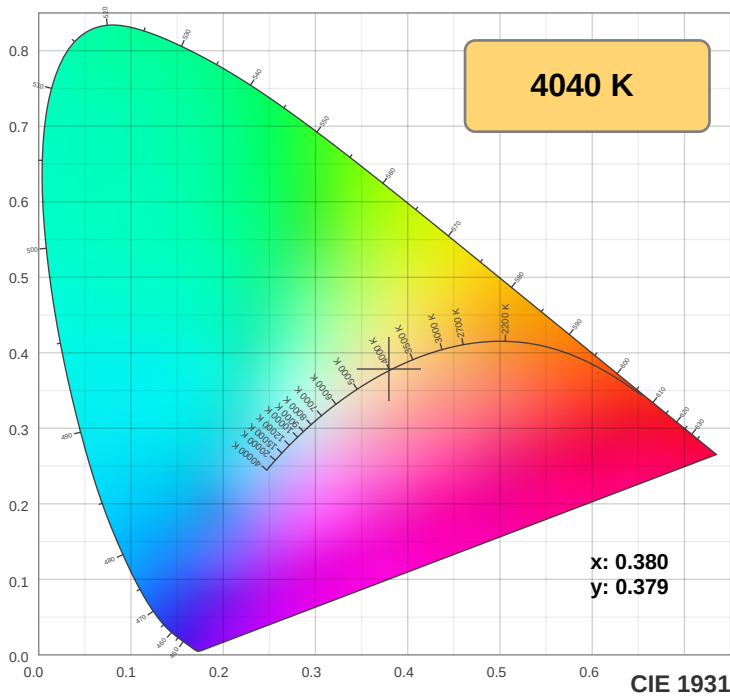
T 314.743.3067

F 314.972.6202

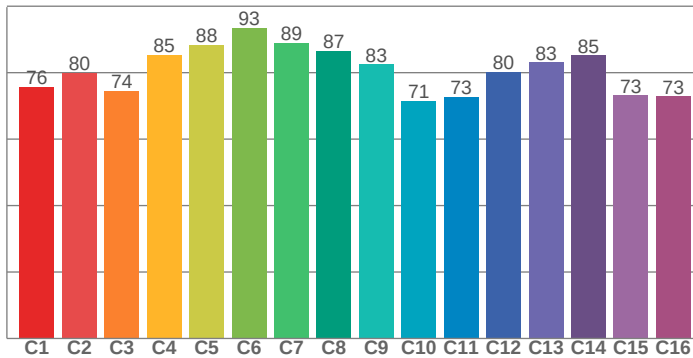
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

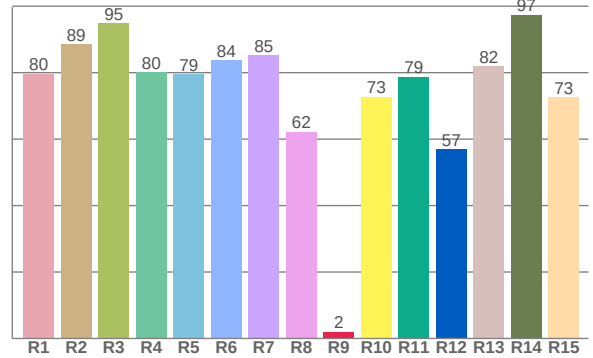
Color Specifications



TM30: 80.6



CRI: 81.7 (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
79.7	88.6	94.8	80.1	79.5	83.8	85.3	62.2	2.1	72.8	78.7	57.0	82.0	97.4	72.6

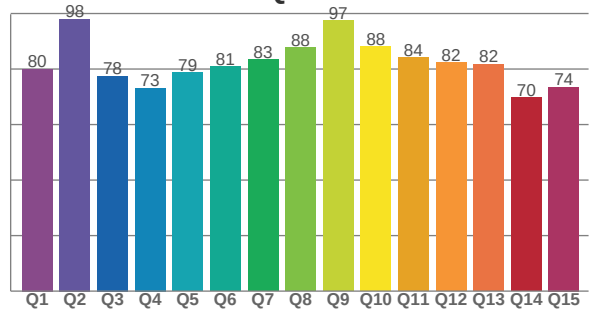
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
75.7	79.9	74.5	85.4	88.4	93.4	89.1	86.5	82.5	71.4	72.8	80.2	83.1	85.2	73.2	72.9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
80.0	98.0	77.5	73.2	78.6	80.9	83.5	87.7	97.4	88.1	84.1	82.3	81.7	69.7	73.6

CQS: 80.8



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
4040 K	81.7	2.1	80.6	94.3	80.8	0.380	0.379	0.224	0.335	0.0011



TM30 Report

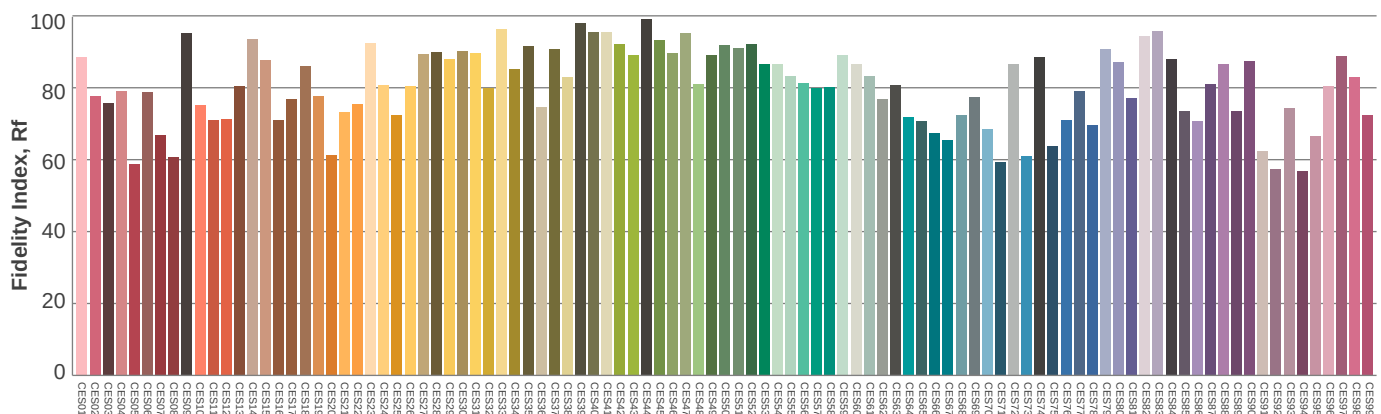
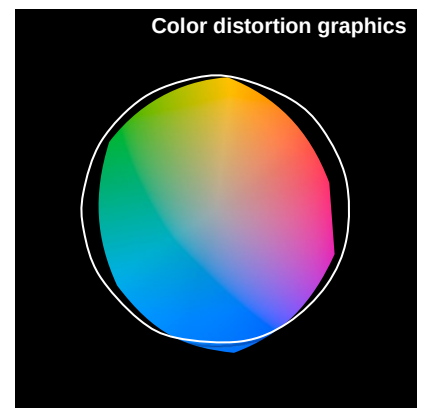
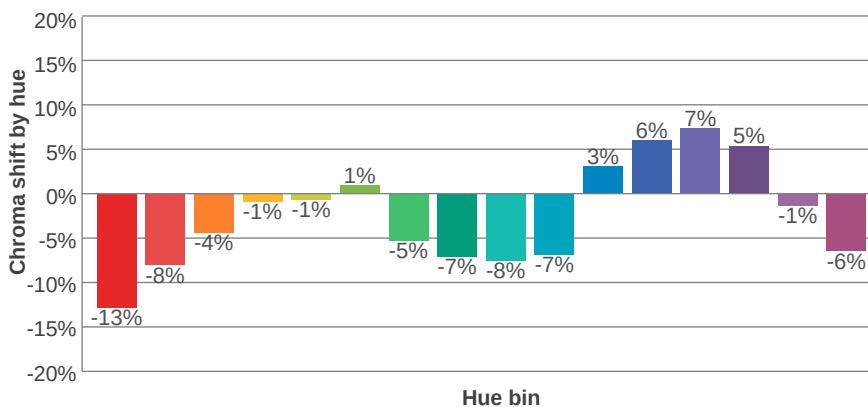
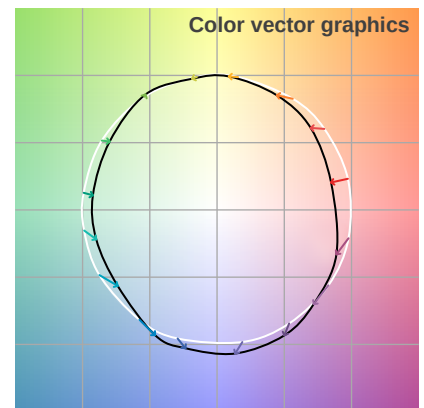
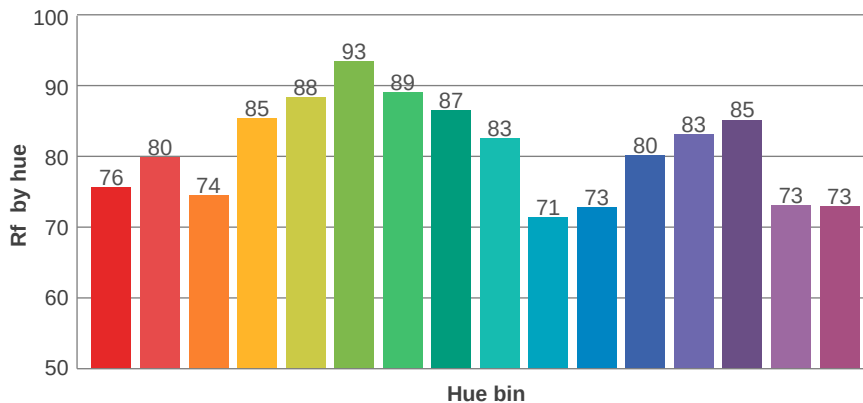
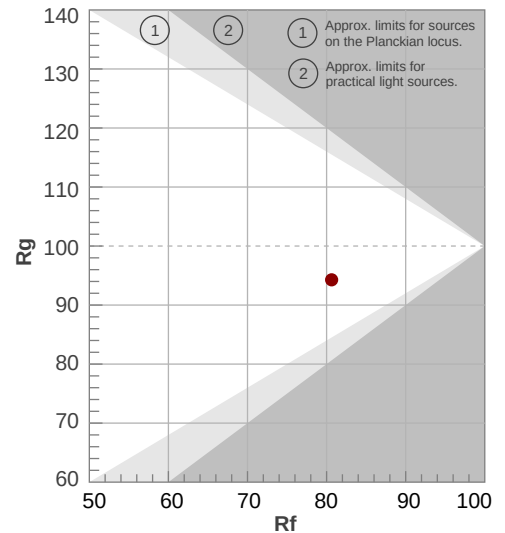
Rf 80.6

Fidelity index Rf

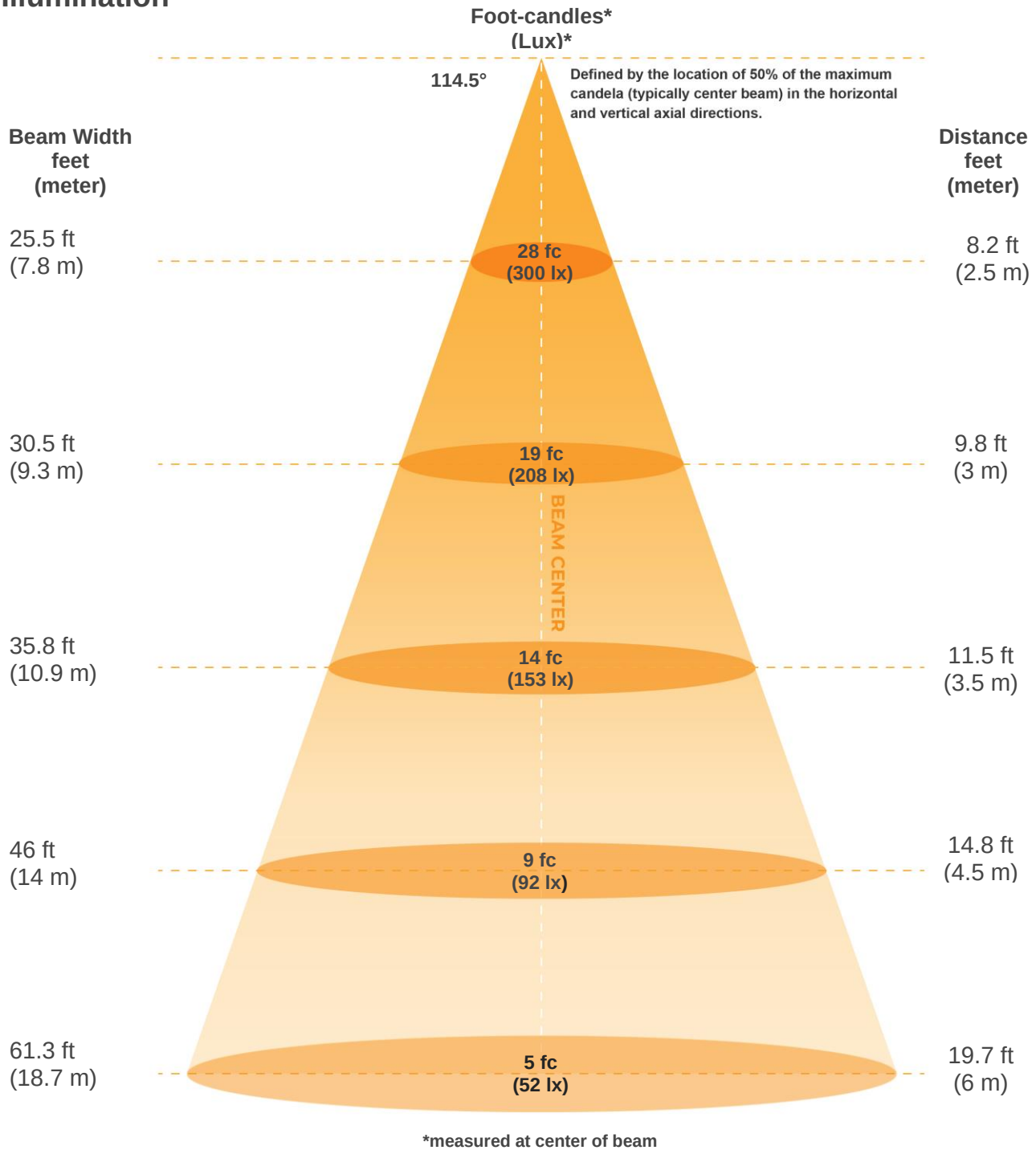
Rg 94.3

Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	76	-13%	0%
2	80	-8%	6%
3	74	-4%	11%
4	85	-1%	7%
5	88	-1%	4%
6	93	1%	-2%
7	89	-5%	-3%
8	87	-7%	0%
9	83	-8%	8%
10	71	-7%	14%
11	73	3%	16%
12	80	6%	7%
13	83	7%	-7%
14	85	5%	-8%
15	73	-1%	-18%
16	73	-6%	-13%



Illumination



Beam intensities from 1-20m

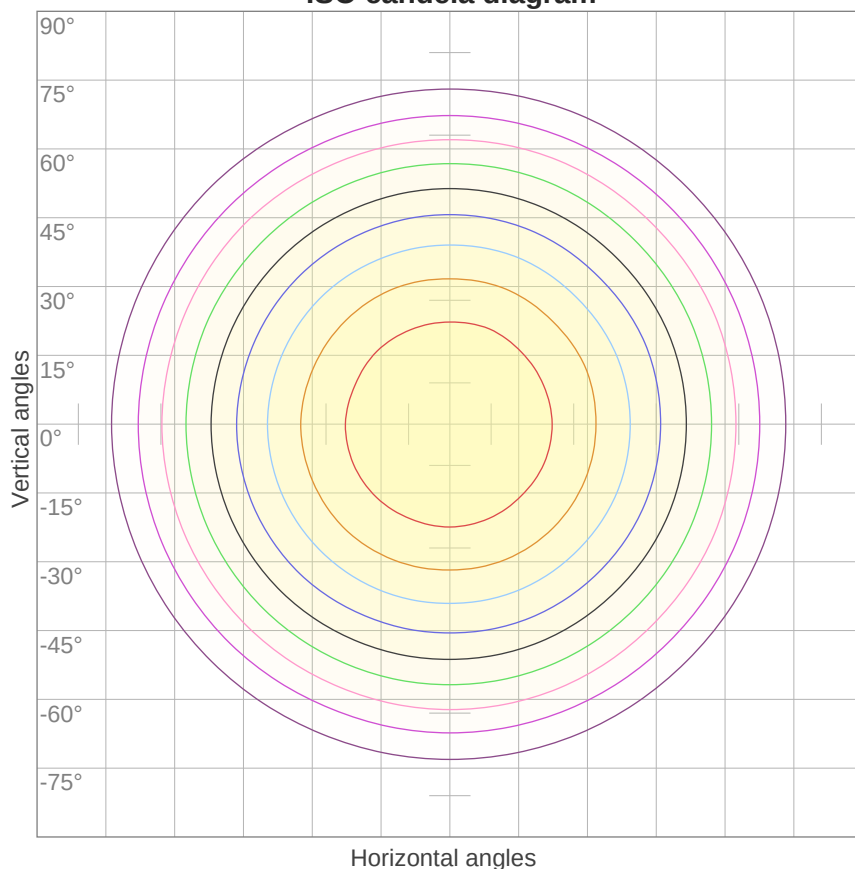
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
1872lx	468lx	208lx	117lx	75lx	52lx	38lx	29lx	23lx	19lx	15lx	13lx	11lx	10lx	8lx	7lx	6lx	6lx	5lx	5lx
173.9fc	43.5fcd	19.3fcd	10.9fcd	7fcd	4.8fcd	3.5fcd	2.7fcd	2.1fcd	1.7fcd	1.4fcd	1.2fcd	1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd	0.5fcd	0.5fcd	0.4fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
114.5°	163°	175.8°	77.1%	52.2%



ISO Diagrams

ISO candela diagram



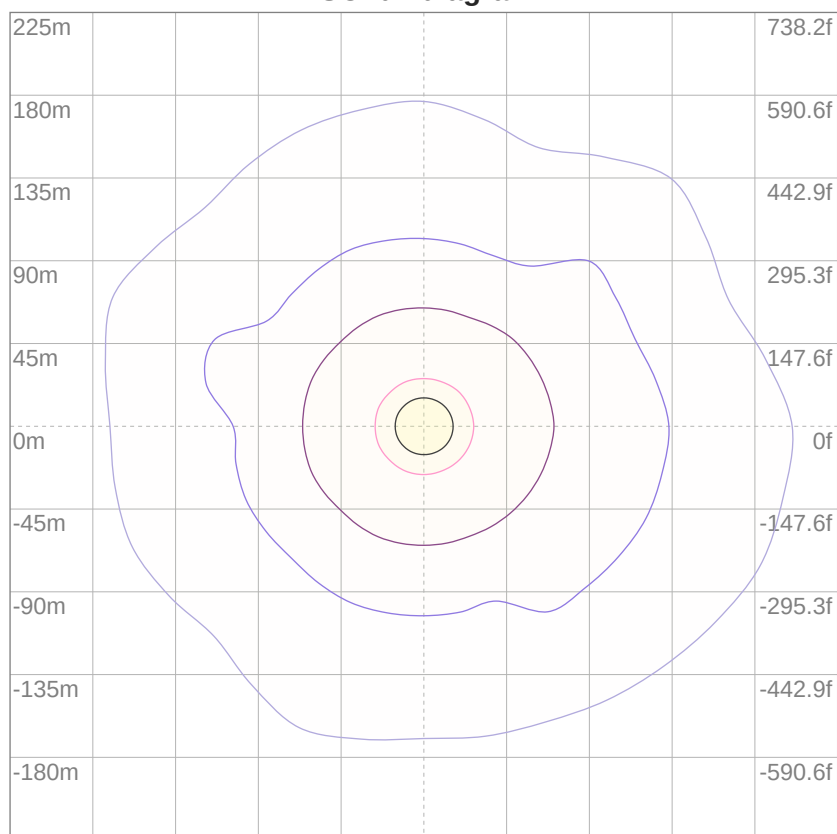
10%	187 cd
20%	374 cd
30%	562 cd
40%	749 cd
50%	936 cd
60%	1123 cd
70%	1310 cd
80%	1498 cd
90%	1685 cd

Conditions:

Number of c-planes: 16

Candela at center: 1872 cd

ISO lux diagram



3%	0.562 lx
5%	0.936 lx
10%	1.87 lx
30%	5.62 lx
50%	9.36 lx

Conditions:

Number of c-planes: 16

Lux at center: 18.7 lx

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



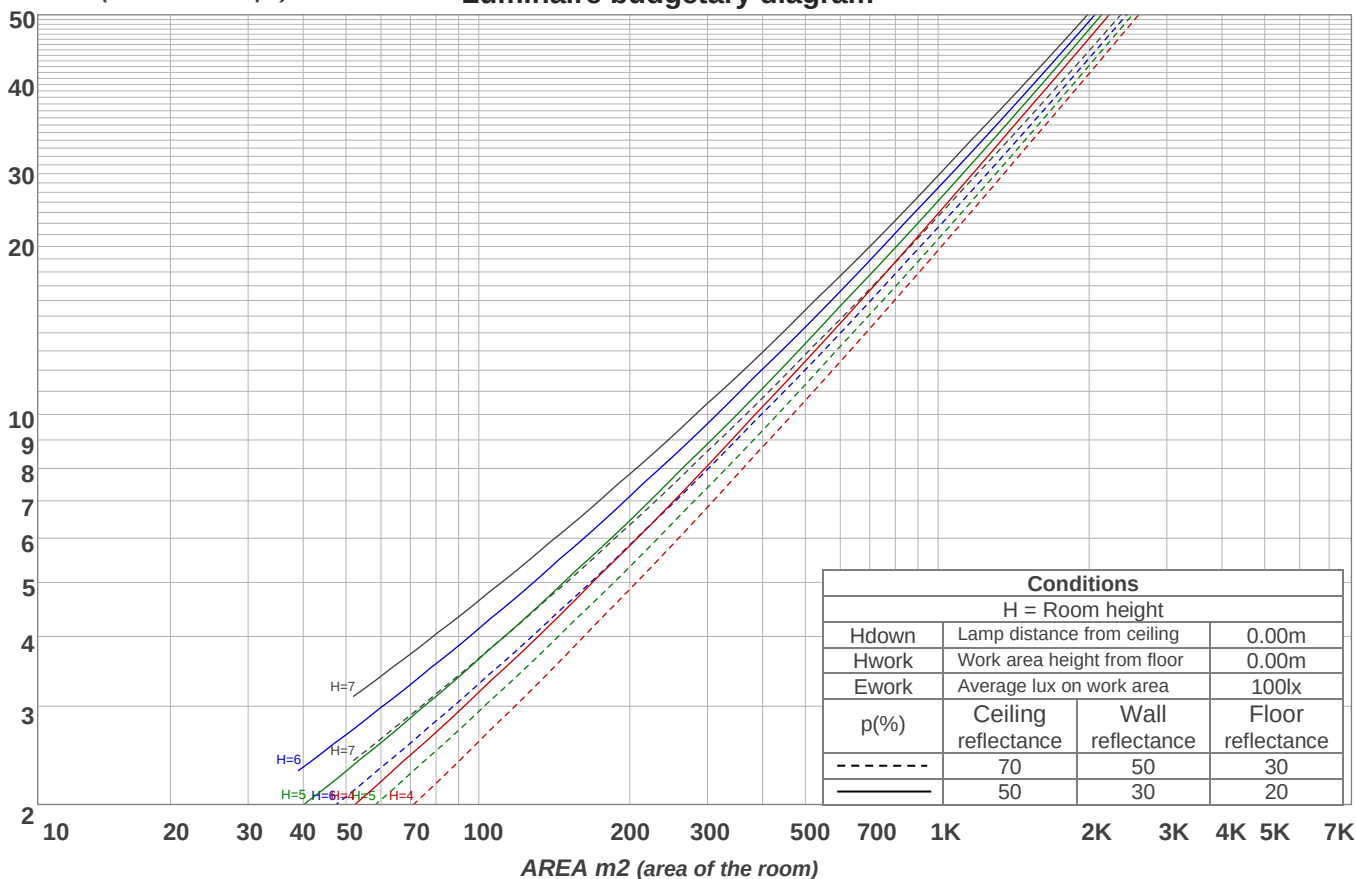
Light Planning

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	110	110	110	106	106	106	101	101	101	99
1	108	103	99	95	105	101	97	93	96	93	90	92	90	87	89	86	84	82
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	77	74	70	68
3	89	79	70	64	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	70	61	54	79	68	60	54	66	58	53	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	49	43	39	37
7	64	51	42	36	62	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	35	29	25	23

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°
177 lm	509 lm	775 lm	941 lm	983 lm	896 lm	688 lm	398 lm	117 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
11.8 lm	9.92 lm	9.82 lm	9.18 lm	8.29 lm	6.83 lm	5.24 lm	3.36 lm	1.19 lm

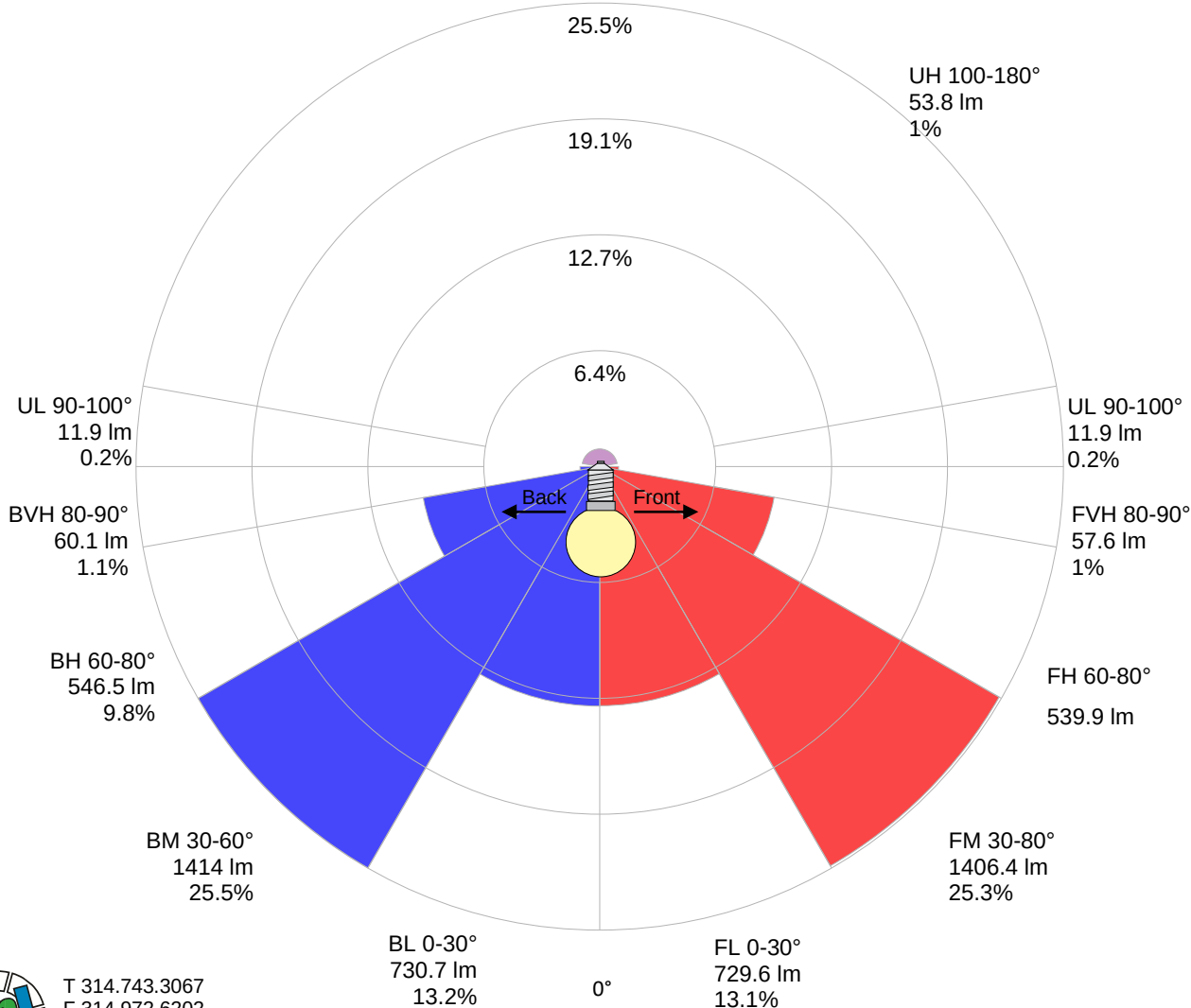


Road Report

LCS table

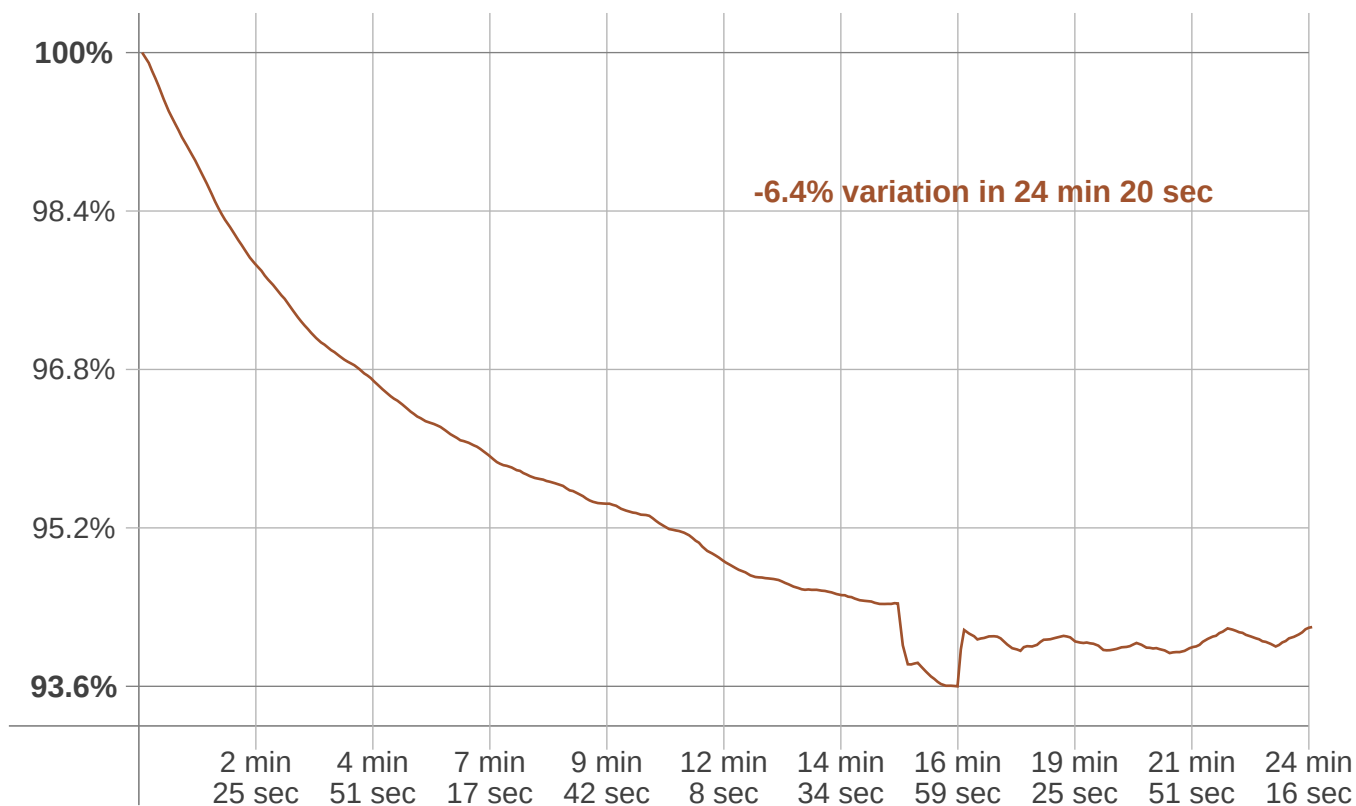
BUG rating:	B2 U3 G2	
Forward light	Lumens	Lumens %
Low(0-30):	729.6	13.1%
Medium(30-60):	1406.4	25.3%
High(60-80):	539.9	9.7%
Very high(80-90):	57.6	1%
Back light		
Low(0-30):	730.7	13.2%
Medium(30-60):	1414	25.5%
High(60-80):	546.5	9.8%
Very high(80-90):	60.1	1.1%
Uplight		
Low(90-100):	11.9	0.2%
High(100-180):	53.8	1%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	24 min 20 sec
Warmup variation	-6.5%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
4012 K	+28 K	4040 K

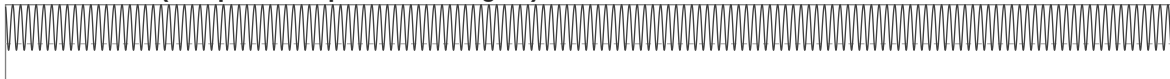
Output change

Output start	Output change	Output end
5706 lm	-155 lm	5550 lm

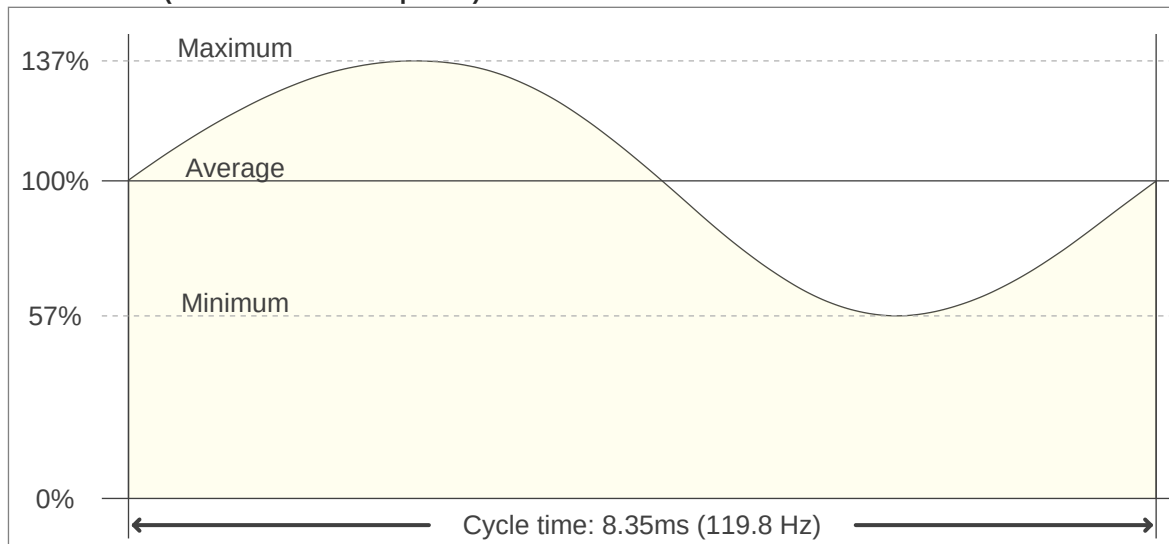


Flicker

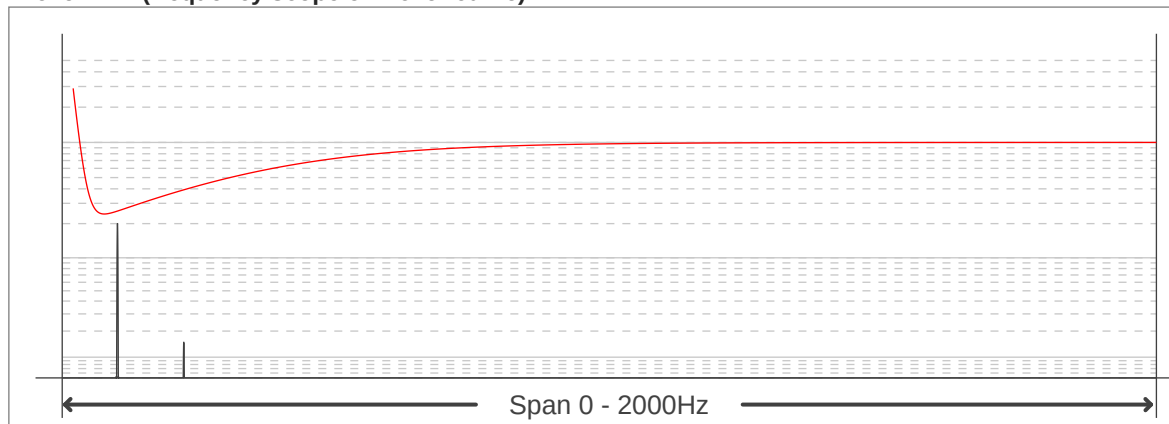
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	119.76 Hz
Flicker index:	0.13
Flicker percentage:	41.15 %
SVM: (Visual flicker)	1.46

Flicker conditions:

Sample rate:	40000 samples/second
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