

Light efficiency:

117 Lumen/Watt

Output: 17129 lm

Light quality:

CRI: 83.5

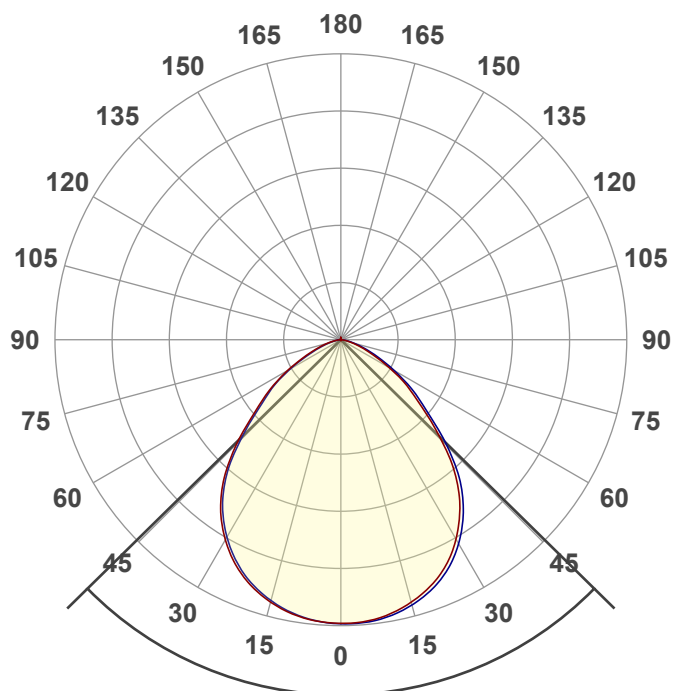
Peak: 8224 cd

Color temperature:

5475 K

Power: 146.7 W

PF: 0.97



Product name:

UHBC-50K150-BLDOB

Date and time:

1/18/2023 11:36:17 AM

Beam angle

91°

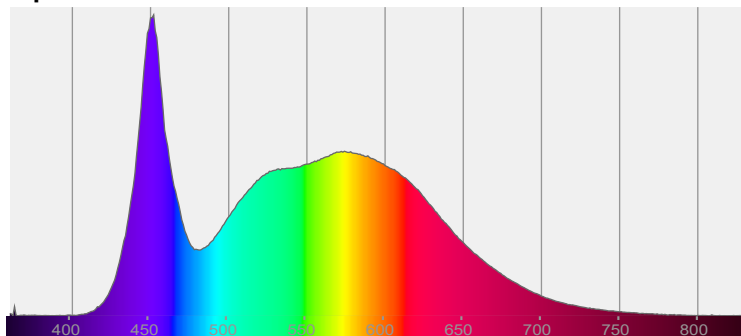


CIE 1931

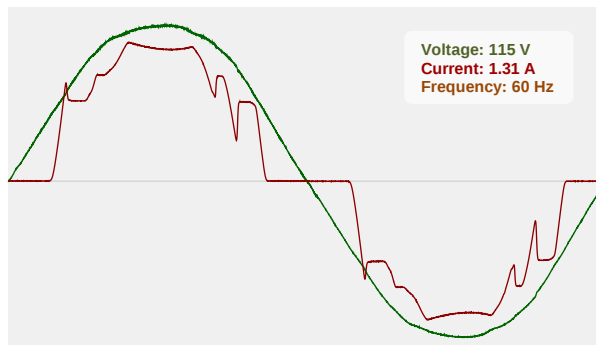
x: 0.333

y: 0.341

Spectra



Power



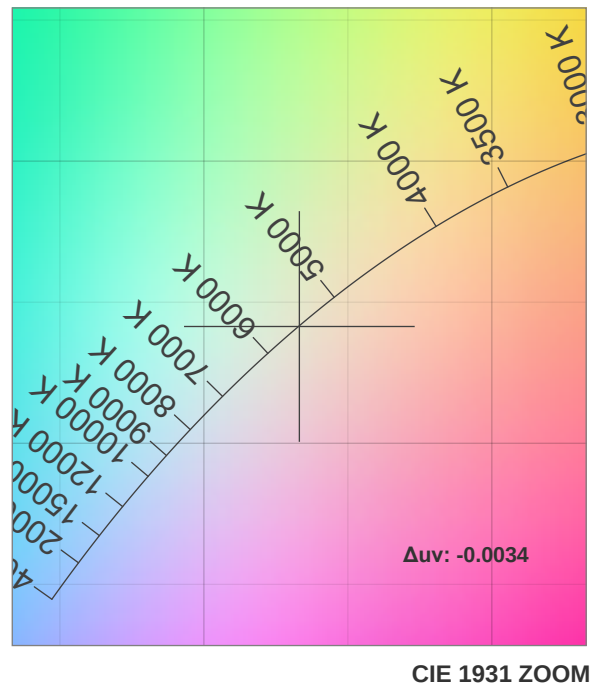
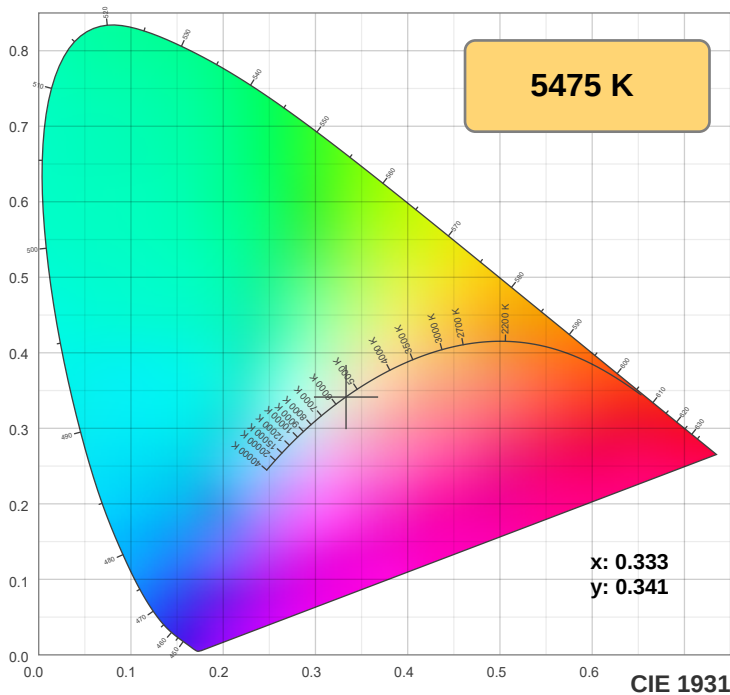
T 314.743.3067

F 314.972.6202

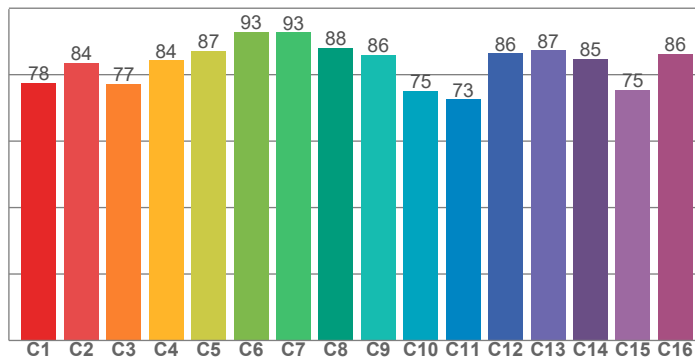
email: commercial-sales@superbrightleds.com

www.superbrightleds.com/

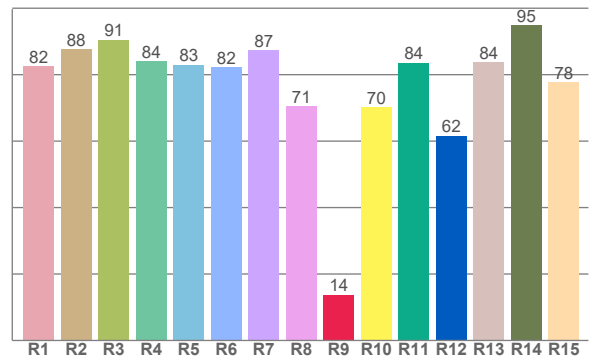
Color Specifications



TM30: 83.2



CRI: 83.5 (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
82.5	87.7	90.5	84.1	83.0	82.2	87.3	70.5	13.8	70.1	83.6	61.6	83.8	94.9	77.8

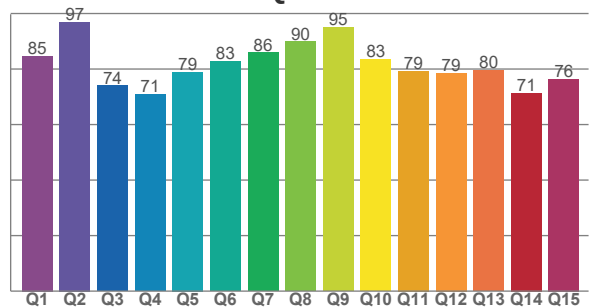
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77.5	83.6	77.2	84.4	87.1	92.8	92.7	88.0	86.0	75.2	72.6	86.4	87.4	84.8	75.4	86.3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84.7	97.0	74.0	70.9	78.9	82.8	85.9	89.9	95.0	83.5	79.3	78.5	79.6	71.4	76.4

CQS: 80.4



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
5475 K	83.5	13.8	83.2	96.9	80.4	0.333	0.341	0.207	0.319	-0.0034



TM30 Report

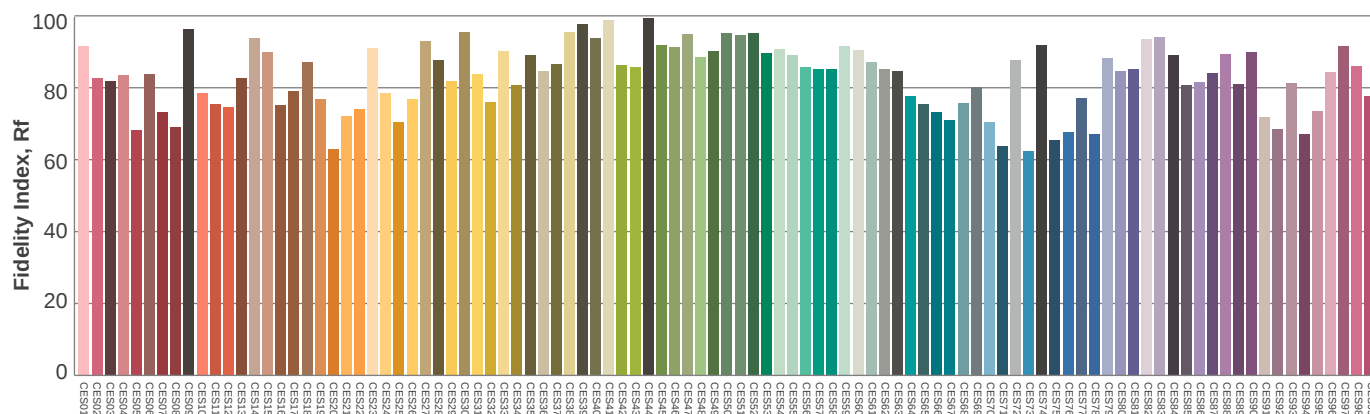
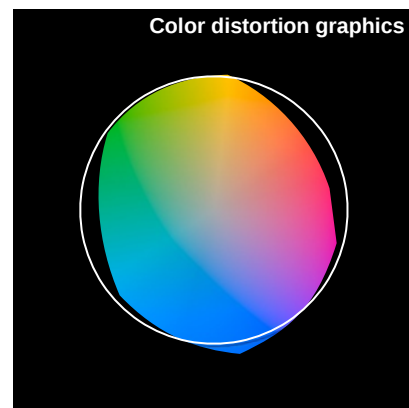
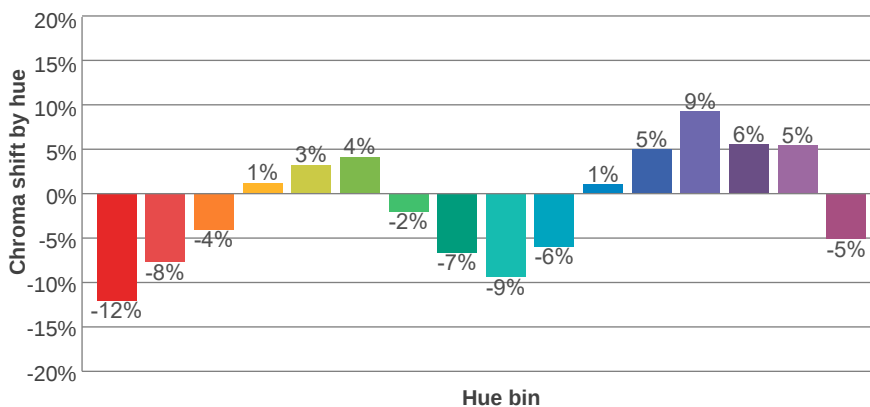
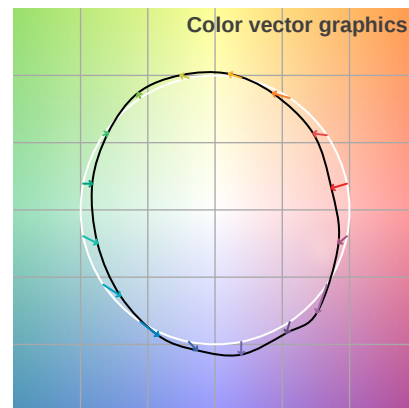
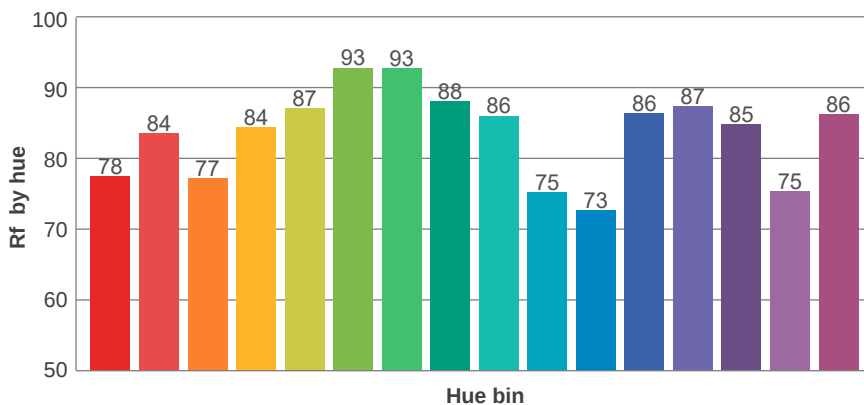
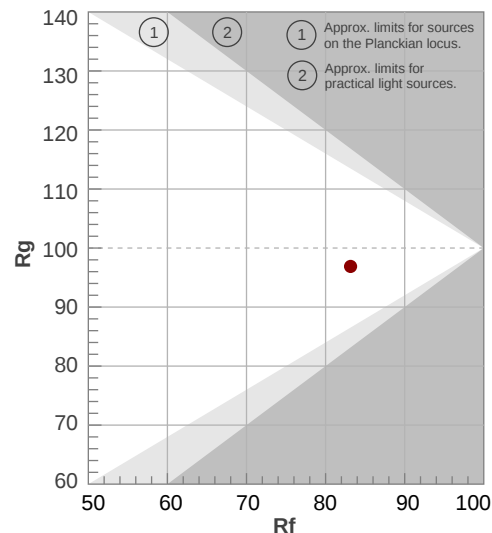
Rf 83.2

Fidelity index Rf

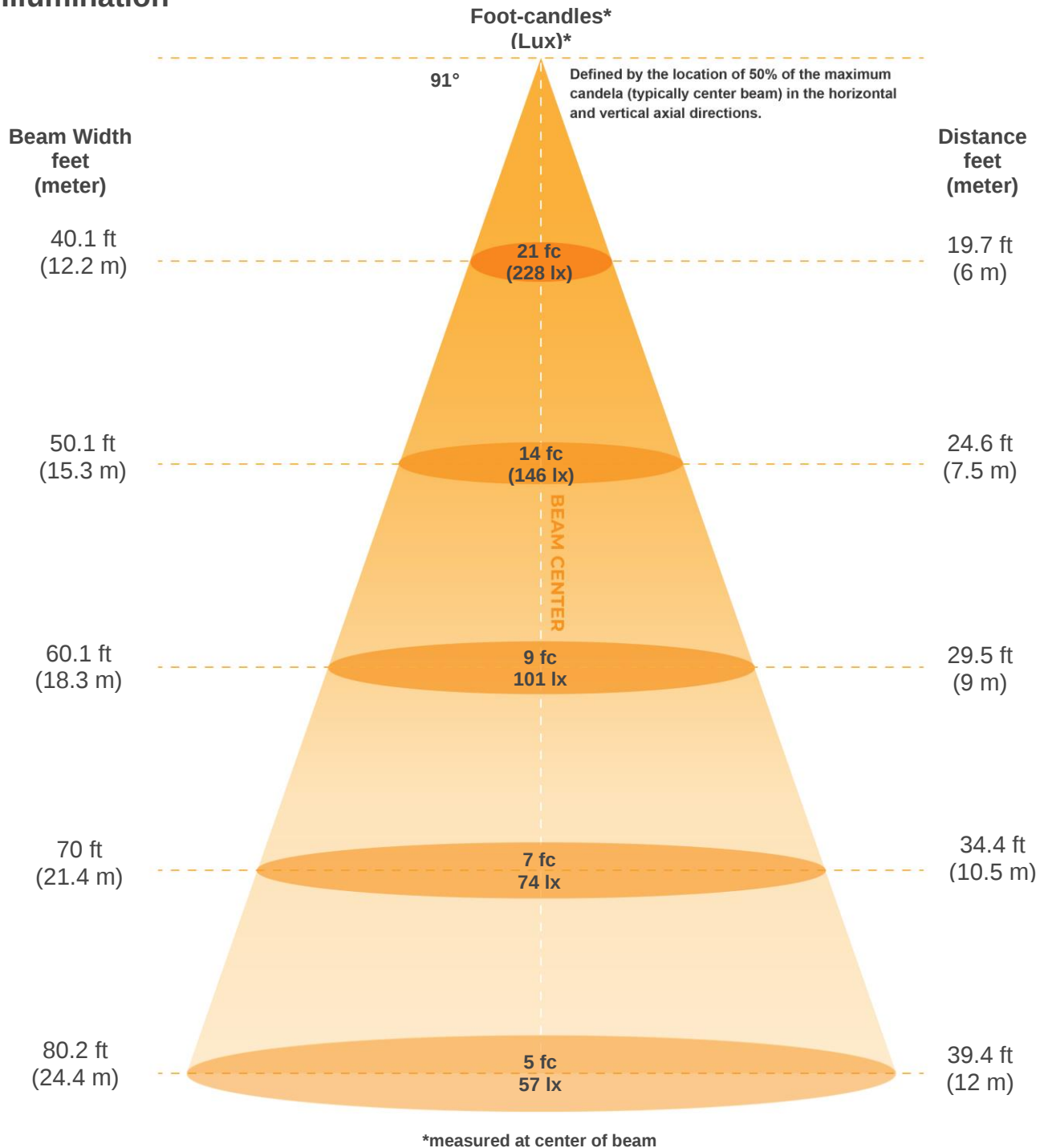
Rg 96.9

Gamut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	78	-12%	-1%
2	84	-8%	7%
3	77	-4%	12%
4	84	1%	10%
5	87	3%	6%
6	93	4%	-1%
7	93	-2%	-4%
8	88	-7%	-1%
9	86	-9%	7%
10	75	-6%	14%
11	73	1%	17%
12	86	5%	7%
13	87	9%	-2%
14	85	6%	-7%
15	75	5%	-21%
16	86	-5%	-6%



Illumination



Beam intensities from 1-20m

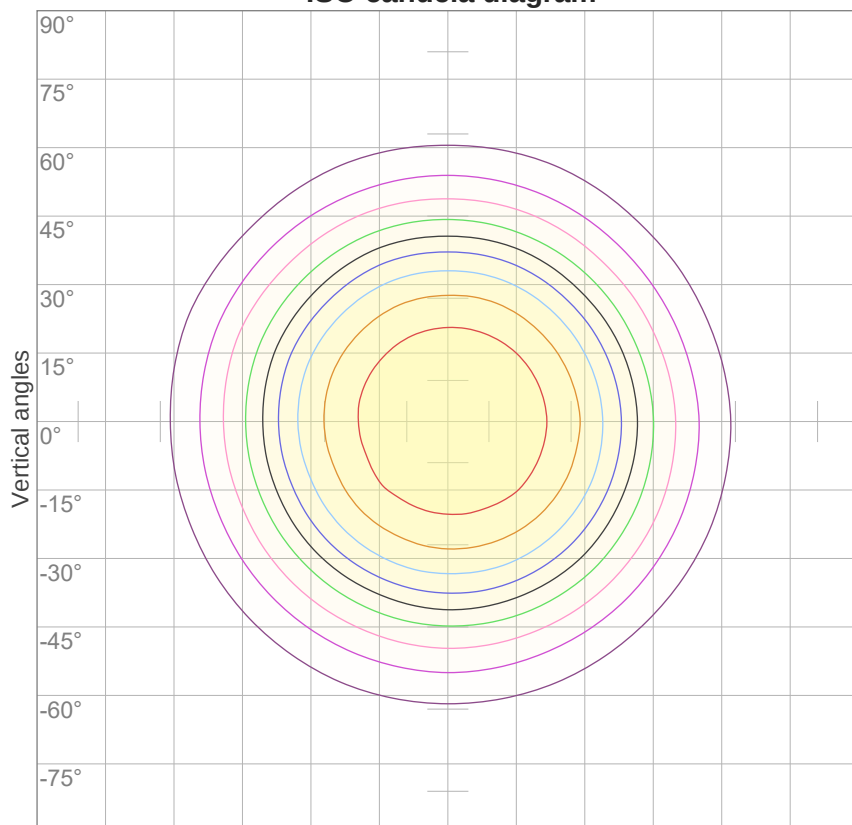
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
8203lx	2051lx	911lx	513lx	328lx	228lx	167lx	128lx	101lx	82lx	68lx	57lx	49lx	42lx	36lx	32lx	28lx	25lx	23lx	21lx
762.1fc	190.5fc	84.7fcd	47.6fcd	30.5fcd	21.2fcd	15.6fcd	11.9fcd	9.4fcd	7.6fcd	6.3fcd	5.3fcd	4.5fcd	3.9fcd	3.4fcd	3fcd	2.6fcd	2.4fcd	2.1fcd	1.9fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
91°	136.1°	158.3°	90.3%	69.0%



ISO Diagrams

ISO candela diagram



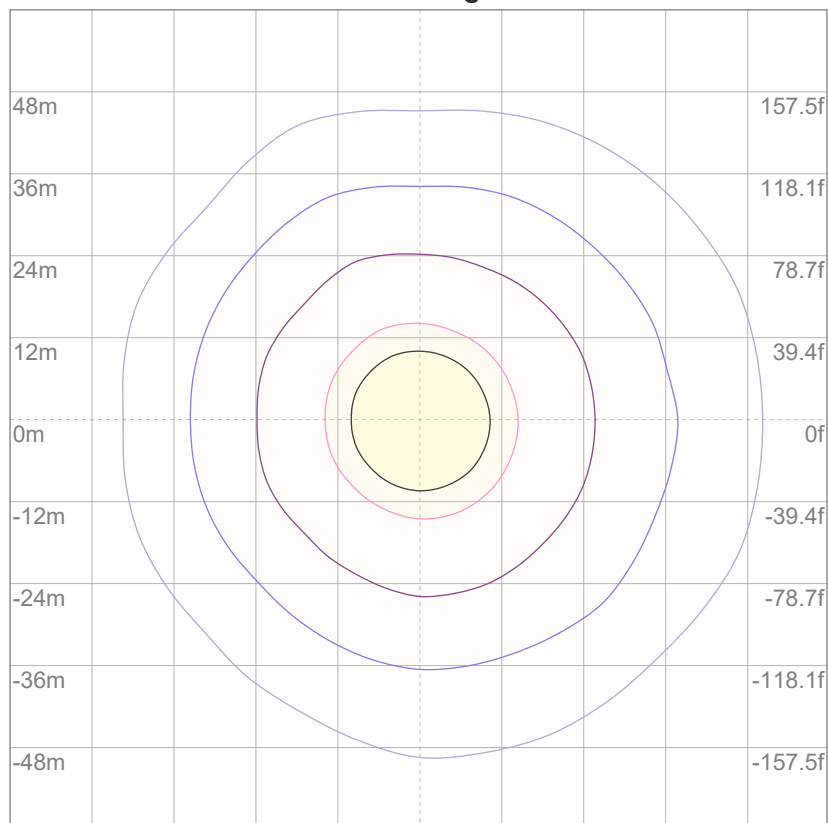
10%	820 cd
20%	1641 cd
30%	2461 cd
40%	3281 cd
50%	4101 cd
60%	4922 cd
70%	5742 cd
80%	6562 cd
90%	7383 cd

Conditions:

Number of c-planes: 16

Candela at center: 8203 cd

ISO lux diagram



3%	2.46 lx
5%	4.10 lx
10%	8.20 lx
30%	24.6 lx
50%	41.0 lx

Conditions:

Number of c-planes: 16

Lux at center: 82.0 lx

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



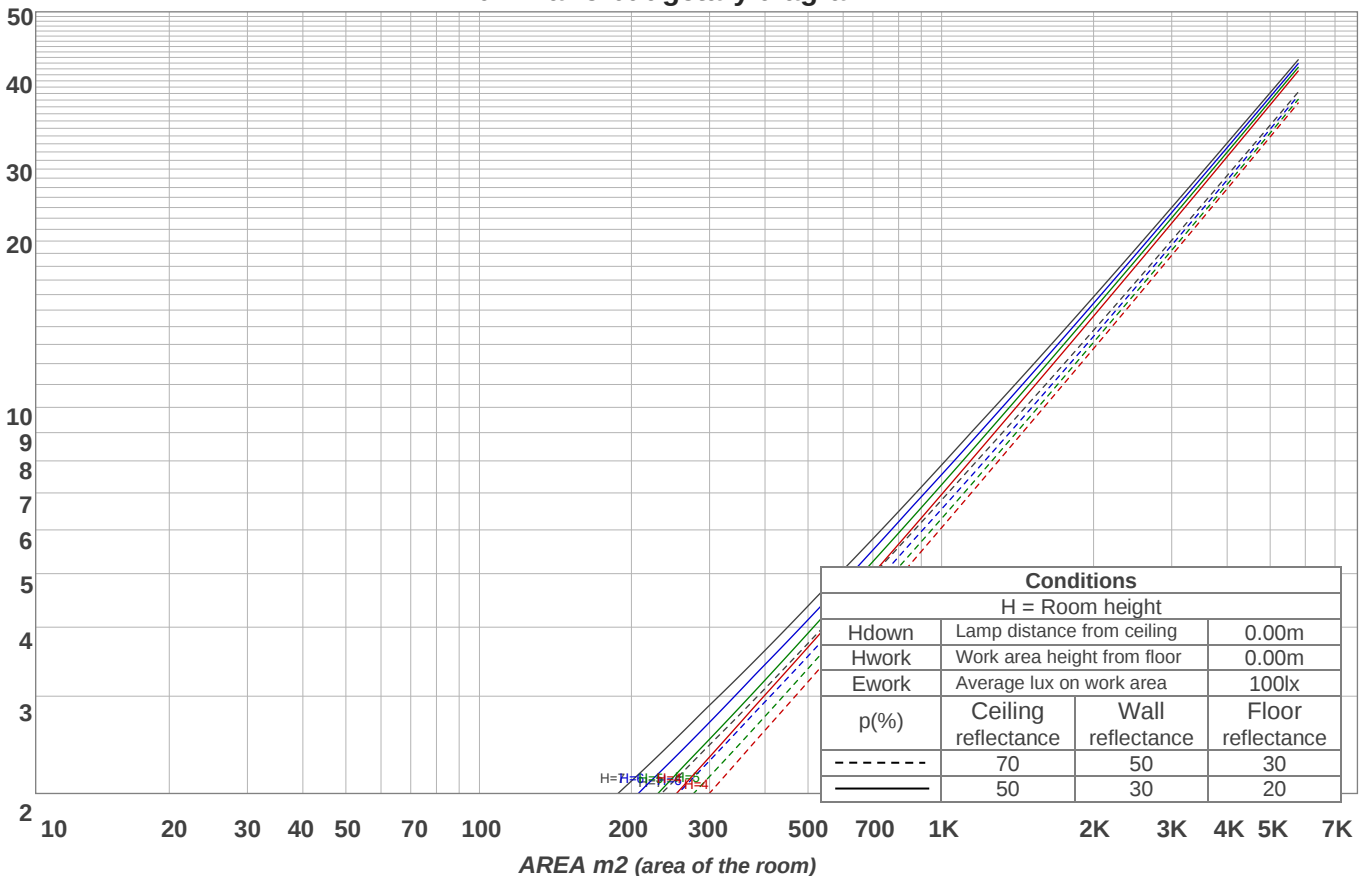
Light Planning

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	111	107	104	100	108	105	102	99	100	98	96	97	95	93	93	91	90	88
2	102	96	90	85	100	94	89	84	90	86	82	87	83	80	84	81	78	76
3	95	86	79	73	92	84	78	72	81	76	71	79	74	70	76	72	69	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	61	69	64	61	59
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54	52
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48	46
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	47	43	41
8	66	53	45	40	64	53	45	40	51	45	40	50	44	39	49	43	39	37
9	62	49	42	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31

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°
777 lm	2221 lm	3310 lm	3757 lm	3237 lm	2168 lm	1114 lm	410 lm	72.8 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
4.77 lm	5.79 lm	7.23 lm	8.76 lm	9.64 lm	9.61 lm	8.14 lm	5.56 lm	2.01 lm

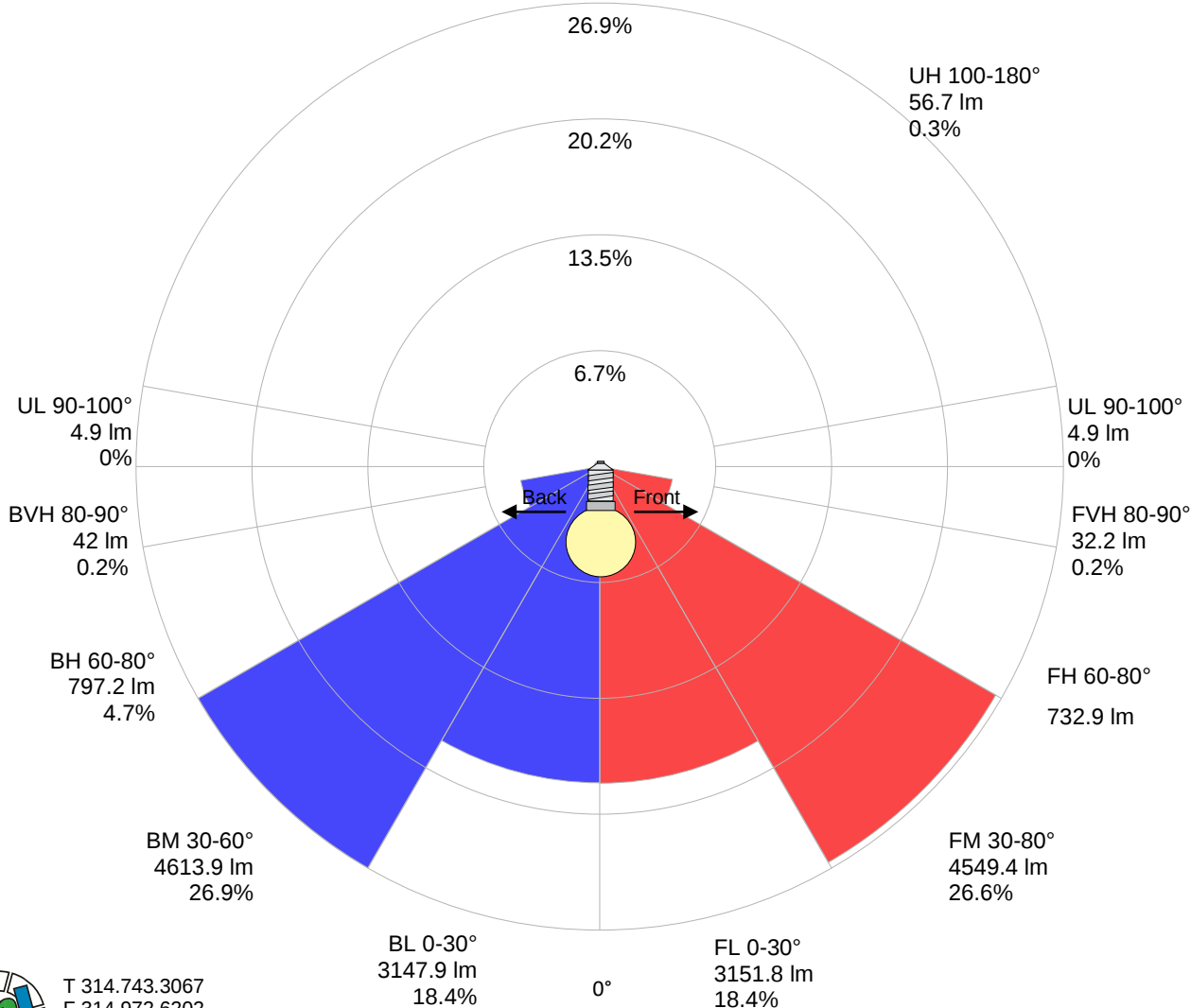


Road Report

LCS table

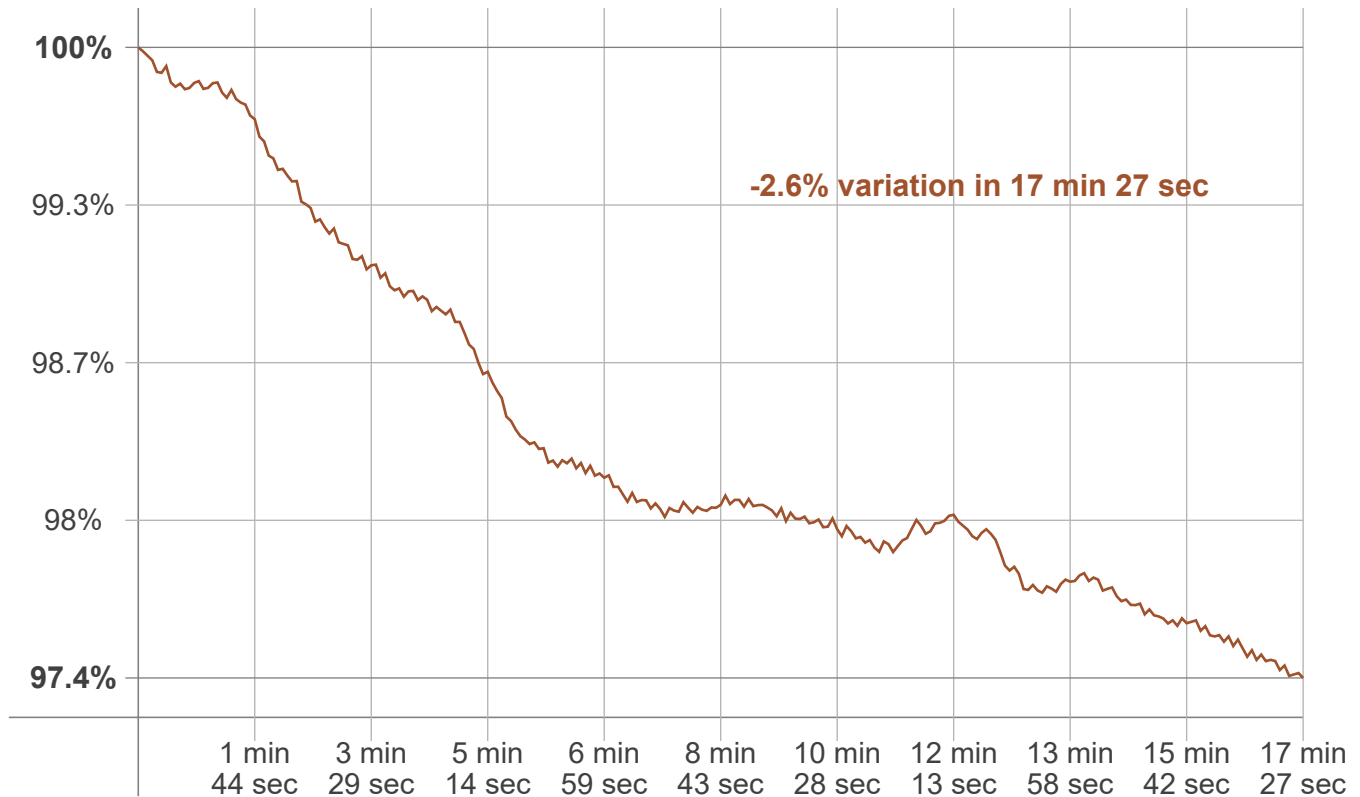
BUG rating:	B4 U3 G2	
Forward light	Lumens	Lumens %
Low(0-30):	3151.8	18.4%
Medium(30-60):	4549.4	26.6%
High(60-80):	732.9	4.3%
Very high(80-90):	32.2	0.2%
Back light		
Low(0-30):	3147.9	18.4%
Medium(30-60):	4613.9	26.9%
High(60-80):	797.2	4.7%
Very high(80-90):	42	0.2%
Uplight		
Low(90-100):	4.9	0%
High(100-180):	56.7	0.3%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	Lamp stabilized in 17 min 27 sec
Warmup variation	-2.6%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5287 K	+188 K	5475 K

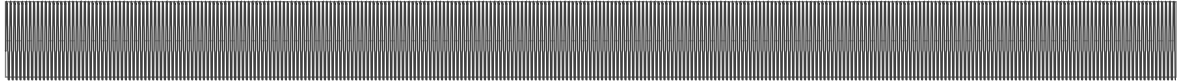
Output change

Output start	Output change	Output end
17499 lm	-370 lm	17129 lm

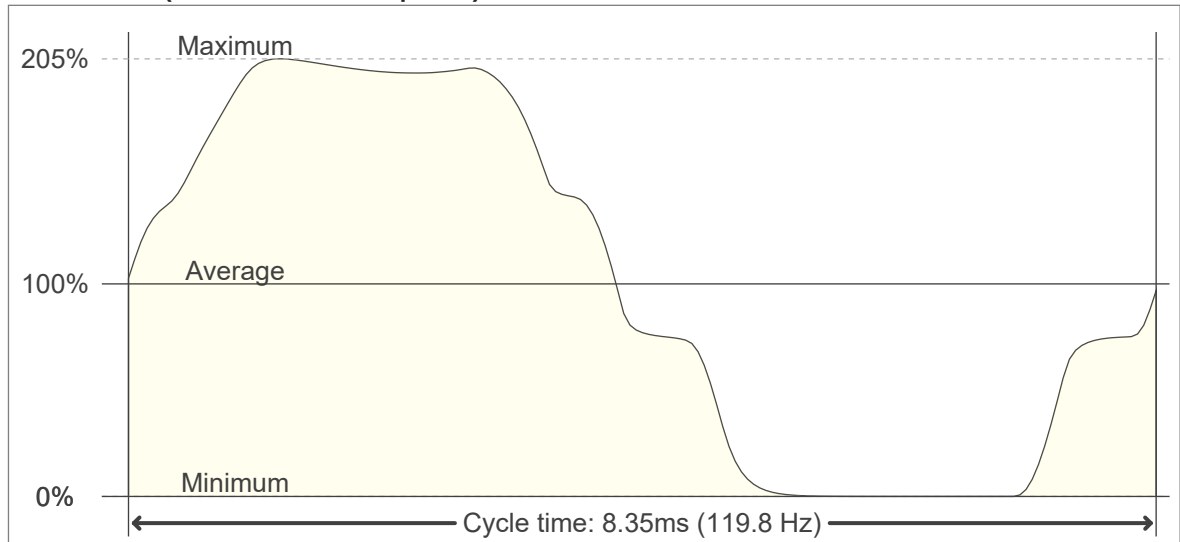


Flicker Specifications

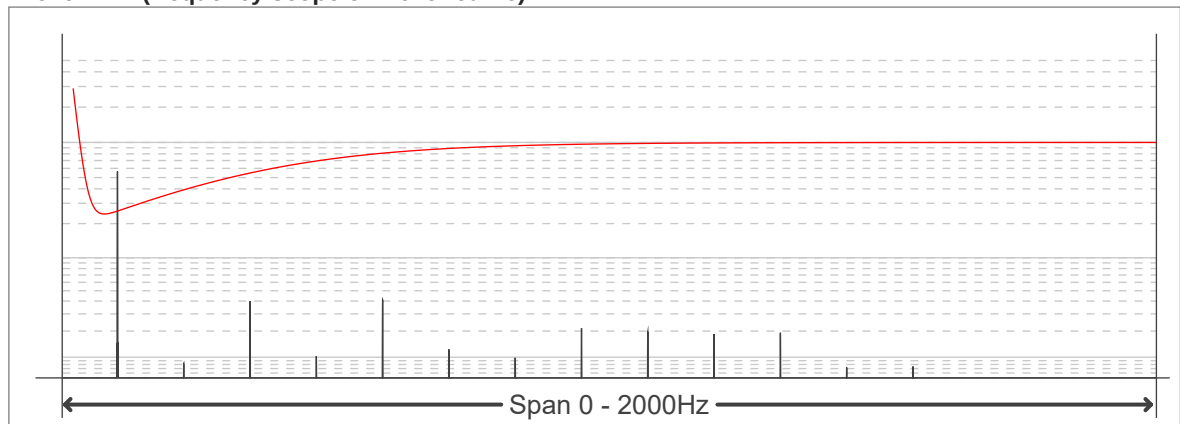
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	119.76 Hz
Flicker index:	0.37
Flicker percentage:	100 %
SVM: (Visual flicker)	4.09

Flicker conditions:

Sample rate:	20000 samples/second
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