

Light efficiency:

86 Lumen/Watt

Output: 4087 lm

Light quality:

CRI: 82.9

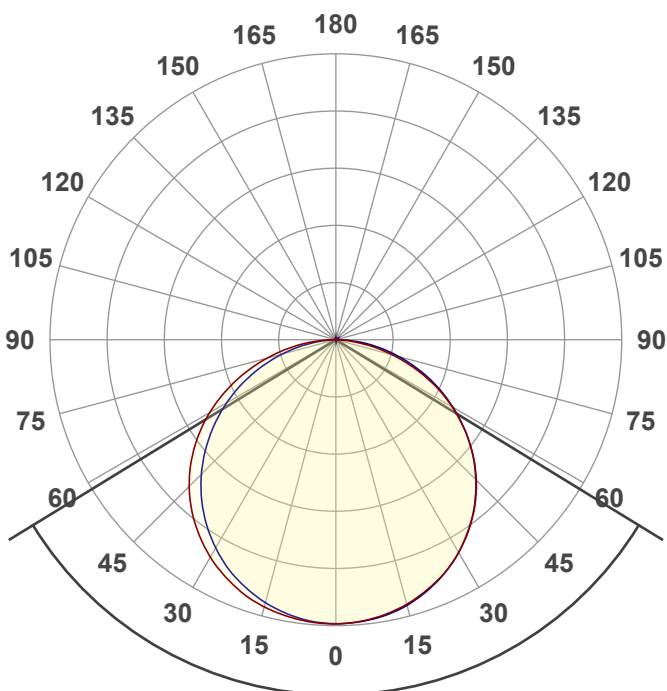
Peak: 1347 cd

Color temperature:

4009 K

Power: 47.3 W

PF: 0.99



Product name:

LPD7-40K24-50

Date and time:

1/31/2023 10:27:02 AM

Beam angle

117°

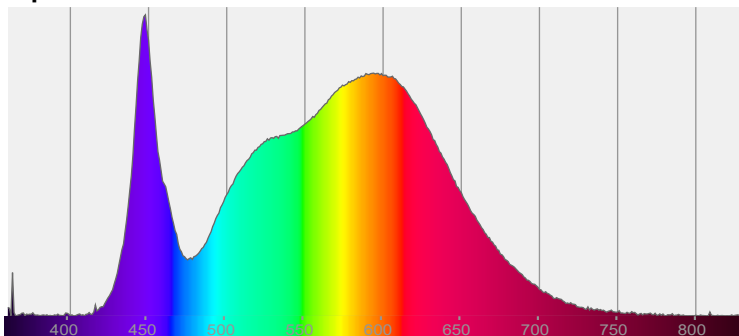


CIE 1931

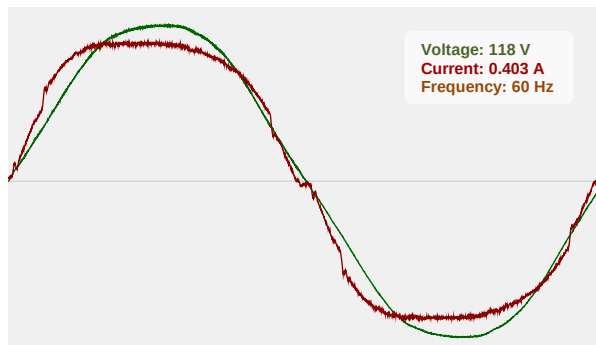
x: 0.380

y: 0.377

Spectra



Power



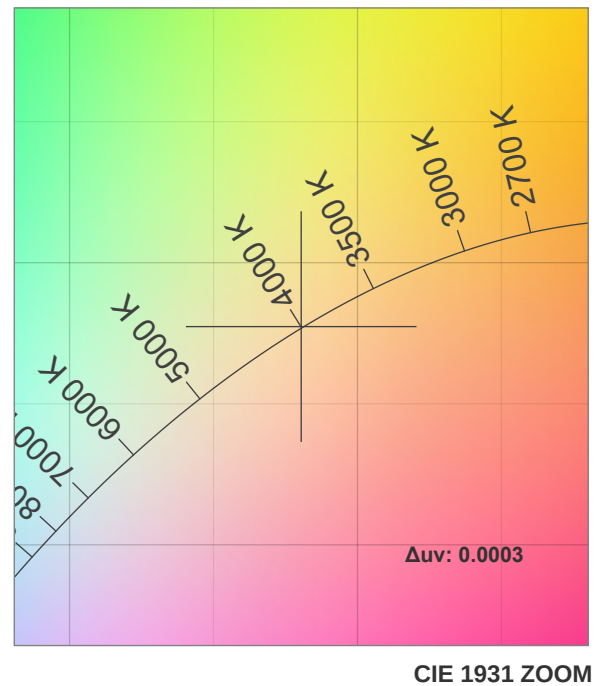
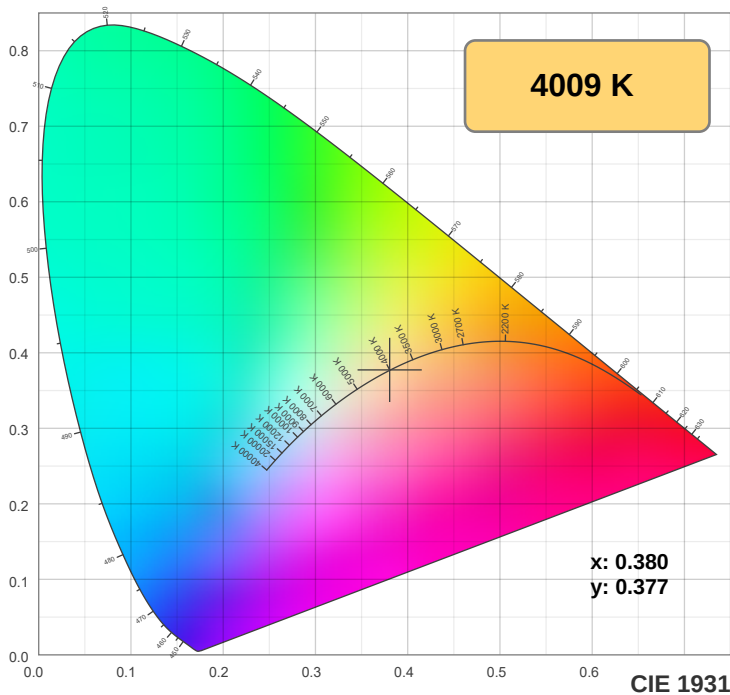
T 314.743.3067

F 314.972.6202

email: commercial-sales@superbrightleds.com

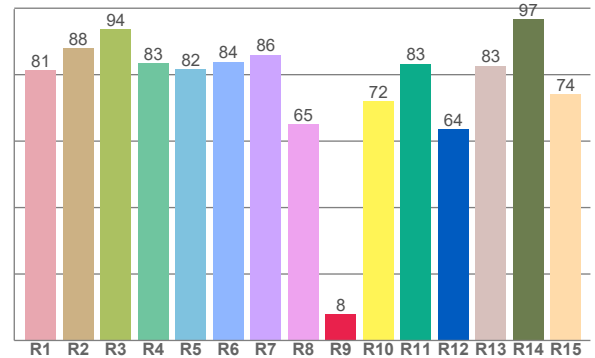
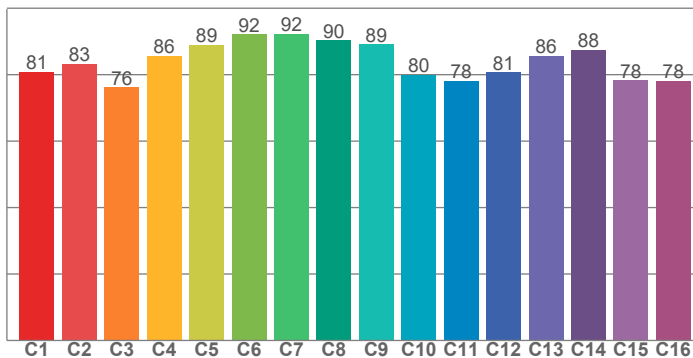
www.superbrightleds.com/

Color Specifications



TM30: 84.0

CRI: 82.9 (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
81.2	87.9	93.7	83.4	81.6	83.9	86.1	65.1	7.9	72.1	83.3	63.5	82.7	96.6	74.1

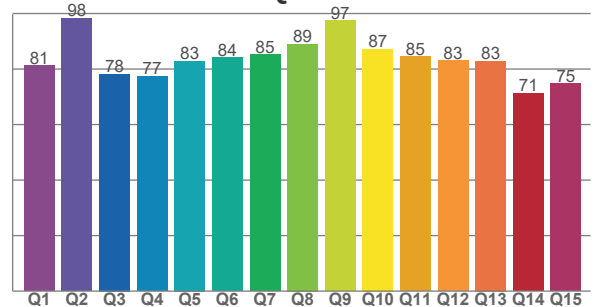
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
80.8	83.2	76.2	85.7	88.9	92.1	92.3	90.3	89.1	80.0	78.1	80.7	85.7	87.6	78.3	78.1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
81.2	98.3	78.2	77.4	82.9	84.0	85.2	89.0	97.5	87.3	84.5	83.1	82.9	71.2	74.8

CQS: 82.3



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
4009 K	82.9	7.9	84.0	97.2	82.3	0.380	0.377	0.225	0.335	0.0003



TM30 Report

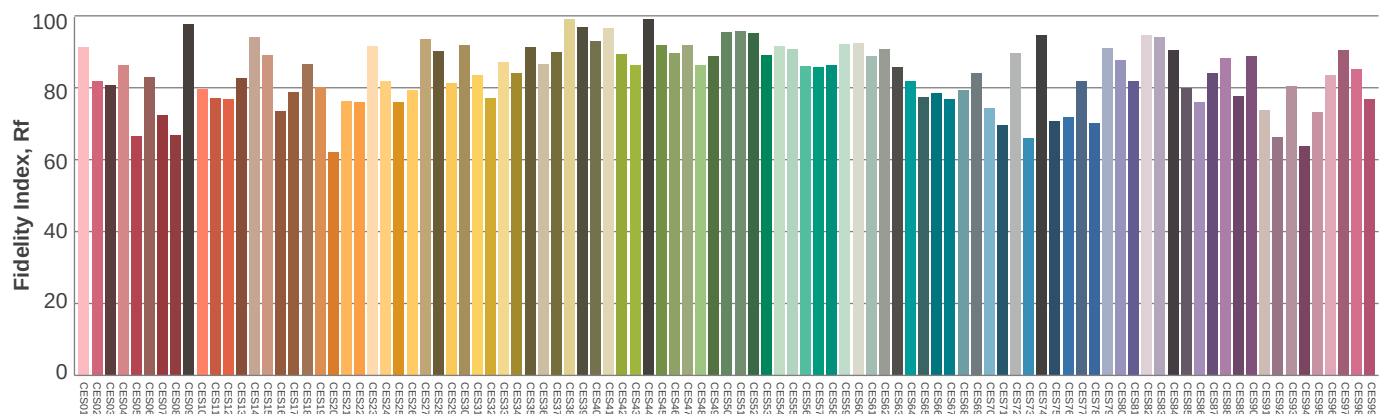
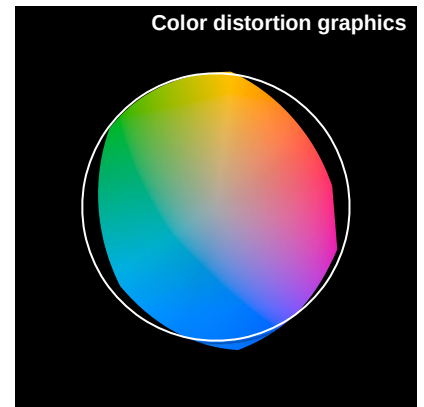
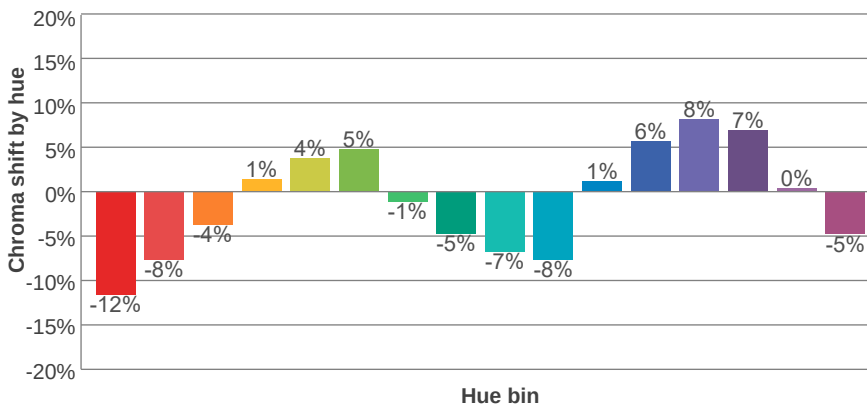
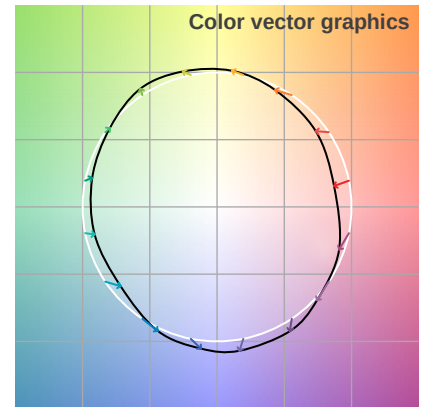
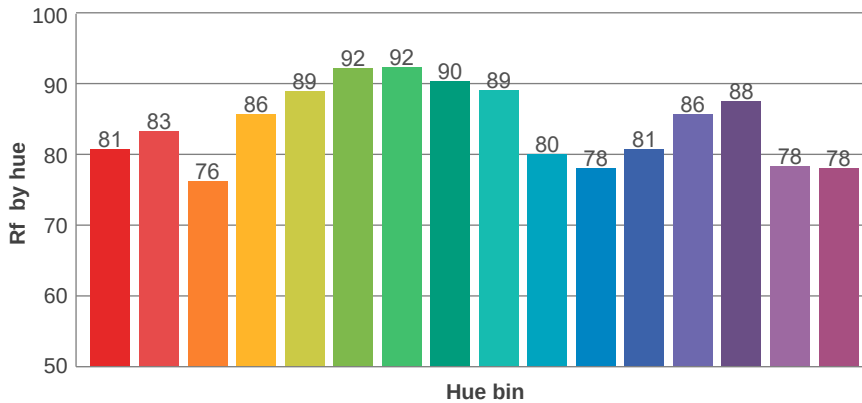
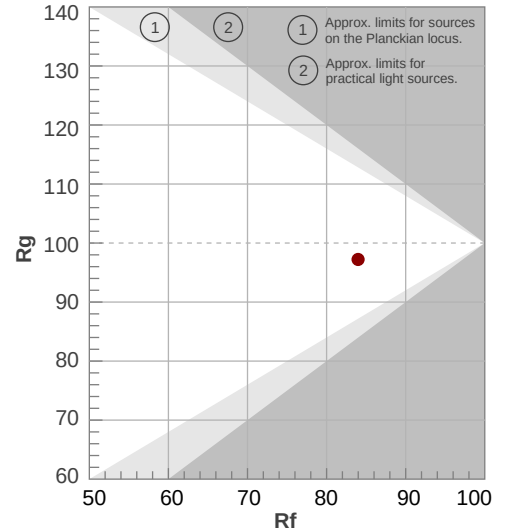
Rf 84.0

Fidelity index Rf

Rg 97.2

Gammut index Rg

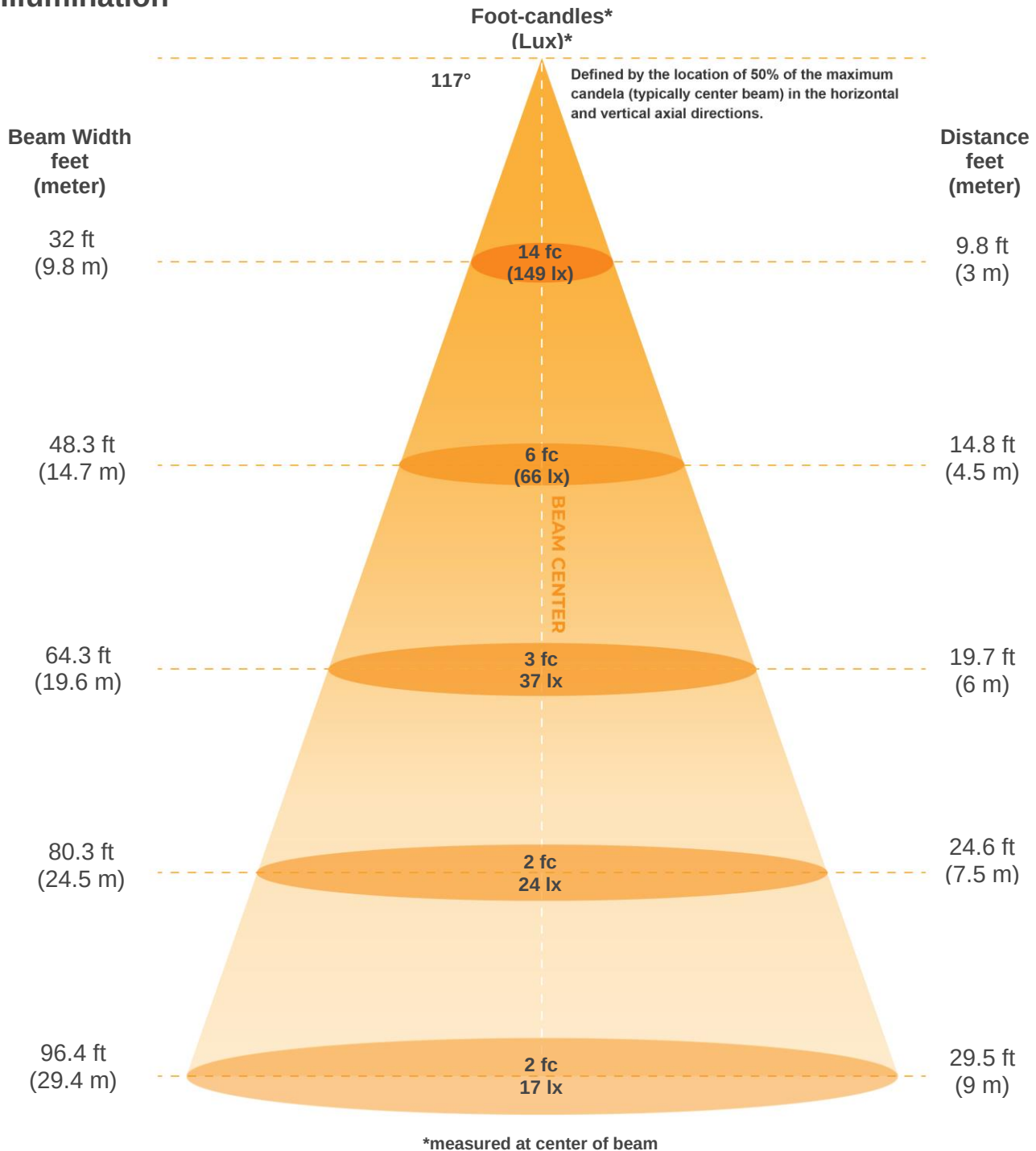
Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	81	-12%	-2%
2	83	-8%	6%
3	76	-4%	12%
4	86	1%	9%
5	89	4%	5%
6	92	5%	-1%
7	92	-1%	-5%
8	90	-5%	-3%
9	89	-7%	2%
10	80	-8%	9%
11	78	1%	15%
12	81	6%	9%
13	86	8%	-5%
14	88	7%	-6%
15	78	0%	-16%
16	78	-5%	-13%



Color Evaluation Sample



Illumination



Beam intensities from 1-20m

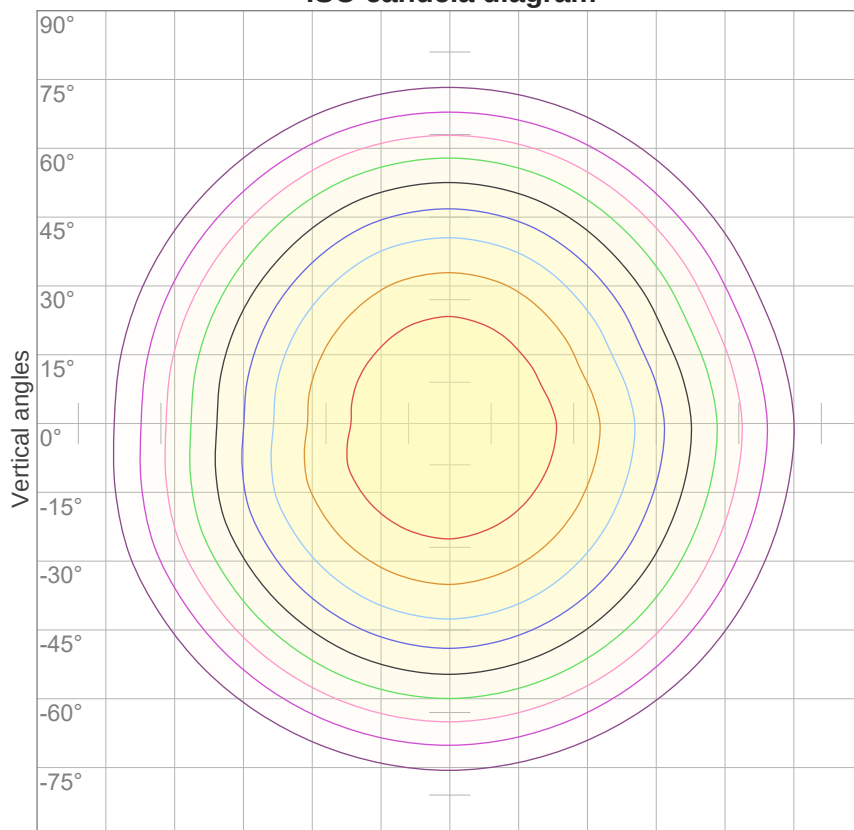
1m	2m	3m	4m	5m	6m	7m	8m	9m	10m	11m	12m	13m	14m	15m	16m	17m	18m	19m	20m
3.3ft	6.6ft	9.8ft	13.1ft	16.4ft	19.7ft	23ft	26.2ft	29.5ft	32.8ft	36.1ft	39.4ft	42.7ft	45.9ft	49.2ft	52.5ft	55.8ft	59.1ft	62.3ft	65.6ft
1344lx	336lx	149lx	84lx	54lx	37lx	27lx	21lx	17lx	13lx	11lx	9lx	8lx	7lx	6lx	5lx	5lx	4lx	4lx	3lx
124.9fc	31.2fcd	13.9fcd	7.8fcd	5fcd	3.5fcd	2.5fcd	2fcd	1.5fcd	1.2fcd	1fcd	0.9fcd	0.7fcd	0.6fcd	0.6fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
117°	165.1°	176.4°	76.7%	51.5%



ISO Diagrams

ISO candela diagram



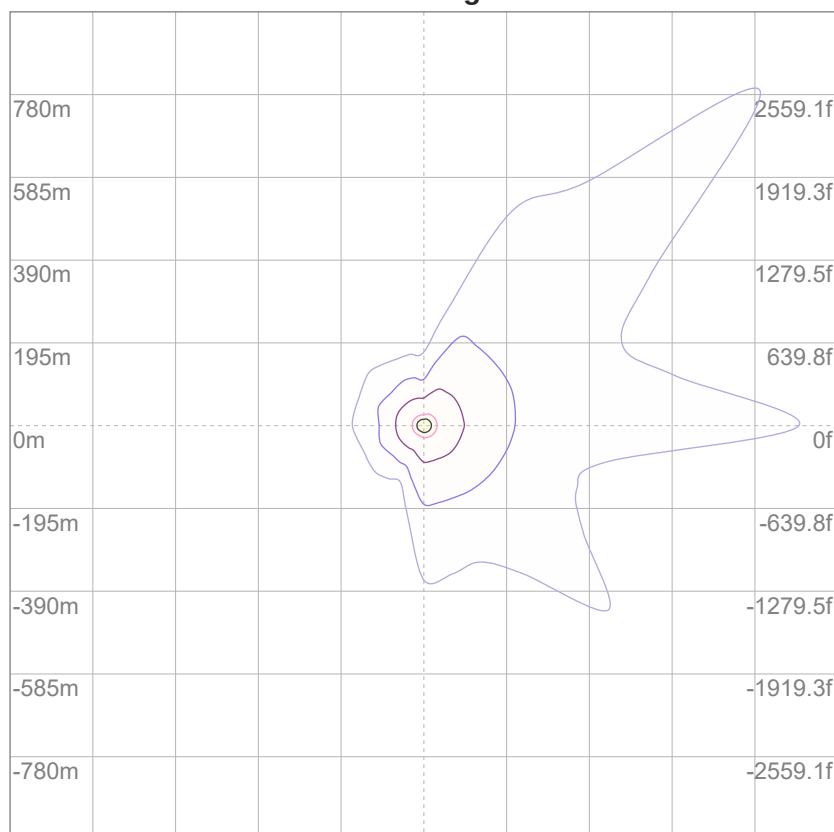
10%	134 cd
20%	269 cd
30%	403 cd
40%	538 cd
50%	672 cd
60%	807 cd
70%	941 cd
80%	1076 cd
90%	1210 cd

Conditions:

Number of c-planes: 16

Candela at center: 1344 cd

ISO lux diagram



3%	0.403 lx
5%	0.672 lx
10%	1.34 lx
30%	4.03 lx
50%	6.72 lx

Conditions:

Number of c-planes: 16

Lux at center: 13.4 lx

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



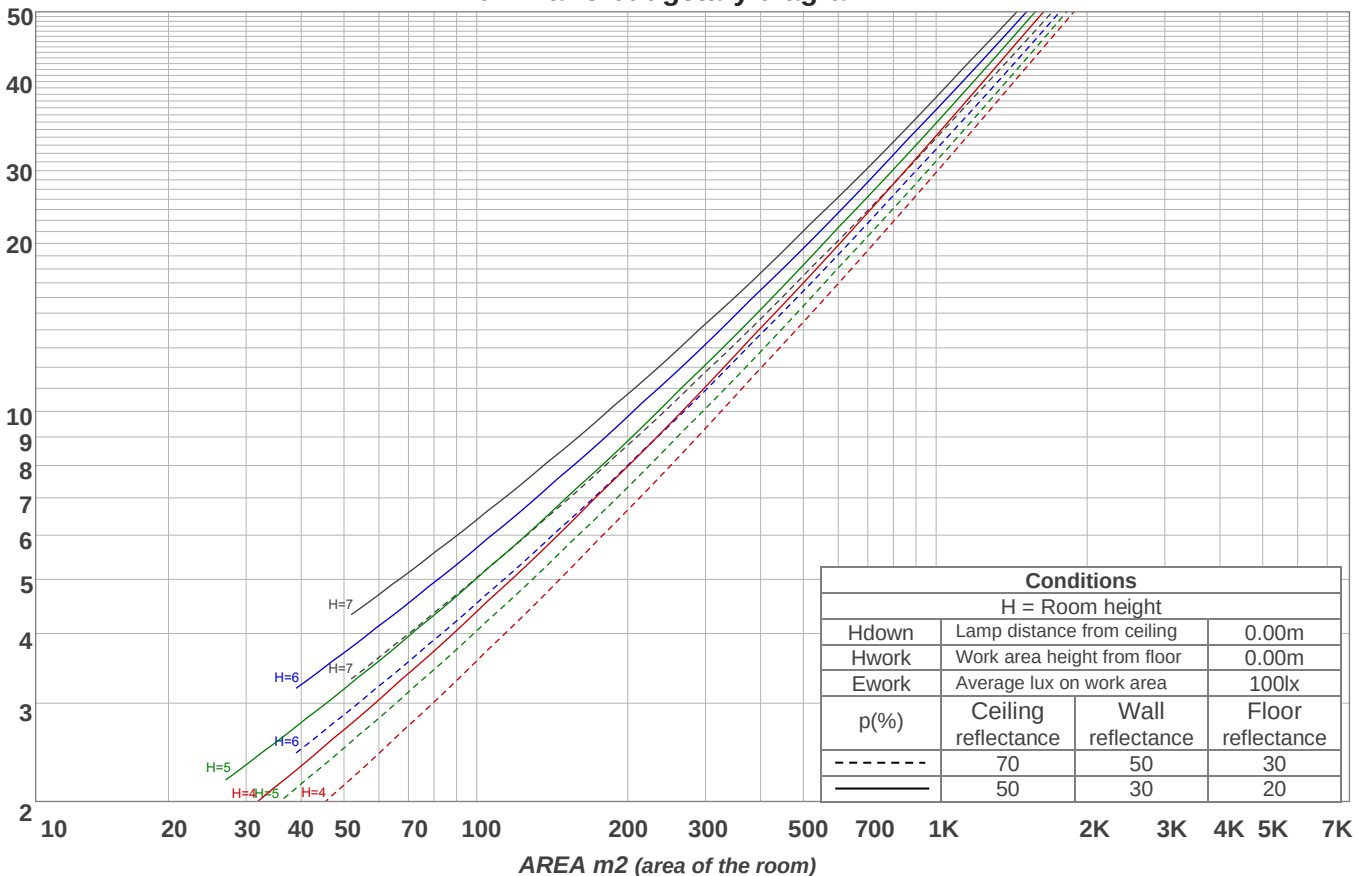
Light Planning

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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	82
2	98	90	82	77	95	88	81	76	84	78	74	81	76	72	77	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	56	51	61	55	51	48
5	75	62	52	46	73	61	52	45	58	51	45	56	50	44	54	49	44	42
6	69	55	46	40	67	54	46	40	53	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	35	46	39	34	45	39	34	32
8	59	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	30	28
9	56	42	34	28	54	41	33	28	40	33	28	39	32	28	38	32	27	25
10	52	39	31	25	51	38	30	25	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°
127 lm	367 lm	561 lm	687 lm	725 lm	668 lm	523 lm	315 lm	97.7 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
3.65 lm	2.00 lm	2.06 lm	2.04 lm	1.96 lm	1.72 lm	1.38 lm	0.877 lm	0.300 lm

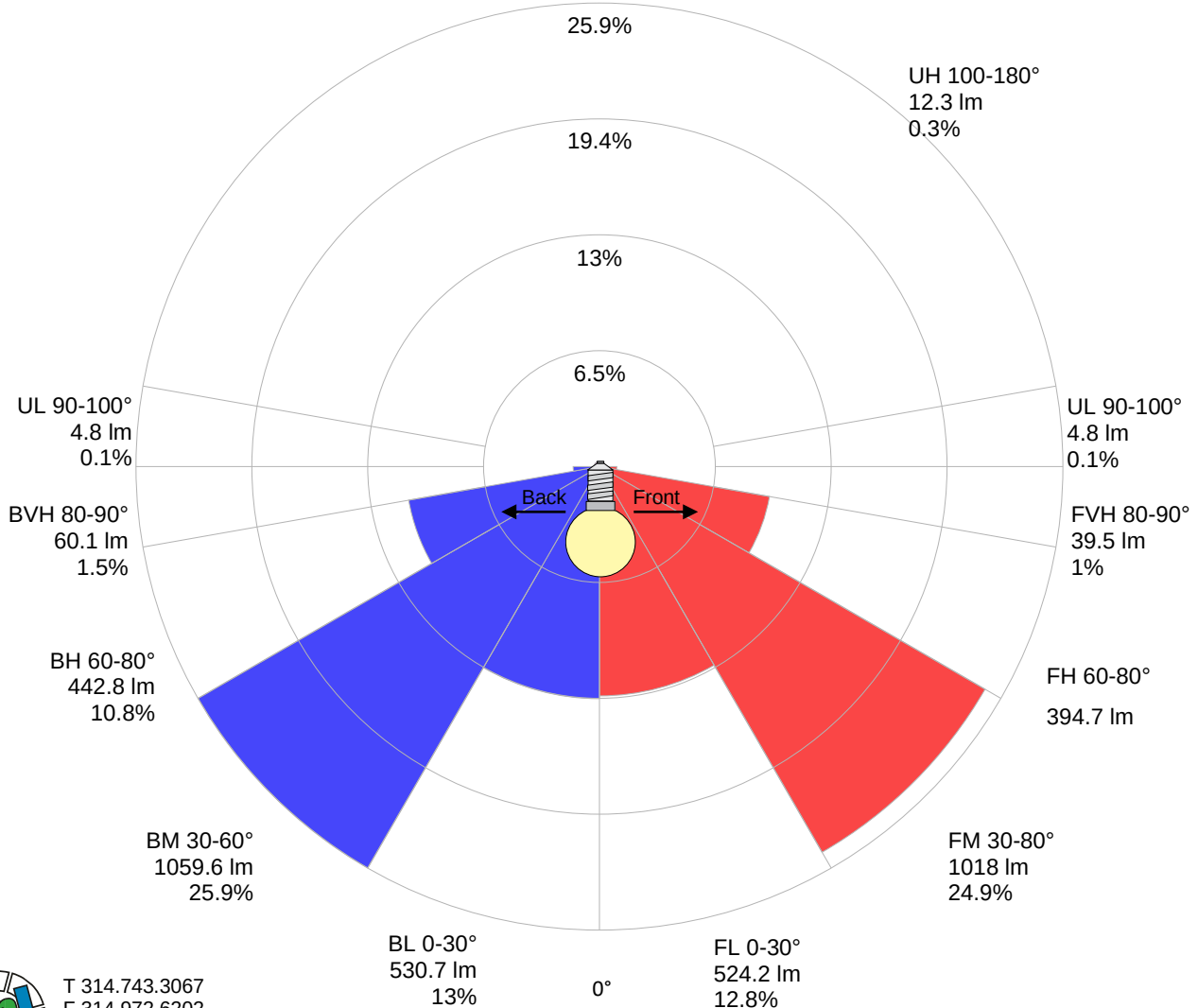


Road Report

LCS table

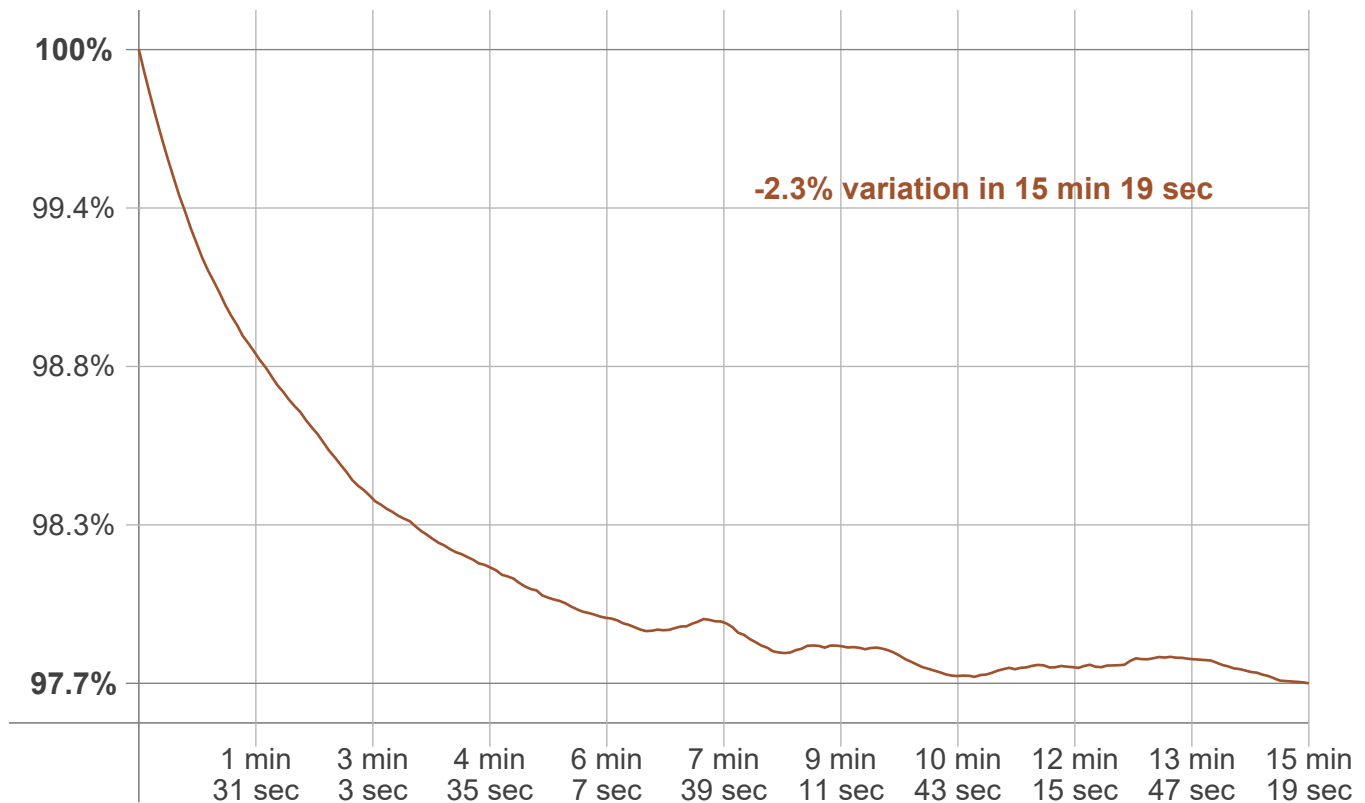
BUG rating:	B2 U2 G1	
Forward light	Lumens	Lumens %
Low(0-30):	524.2	12.8%
Medium(30-60):	1018	24.9%
High(60-80):	394.7	9.7%
Very high(80-90):	39.5	1%
Back light		
Low(0-30):	530.7	13%
Medium(30-60):	1059.6	25.9%
High(60-80):	442.8	10.8%
Very high(80-90):	60.1	1.5%
Uplight		
Low(90-100):	4.8	0.1%
High(100-180):	12.3	0.3%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	Lamp stabilized in 15 min 19 sec
Warmup variation	-2.3%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
3989 K	+20 K	4009 K

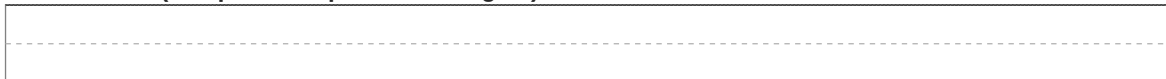
Output change

Output start	Output change	Output end
4173 lm	-86 lm	4087 lm

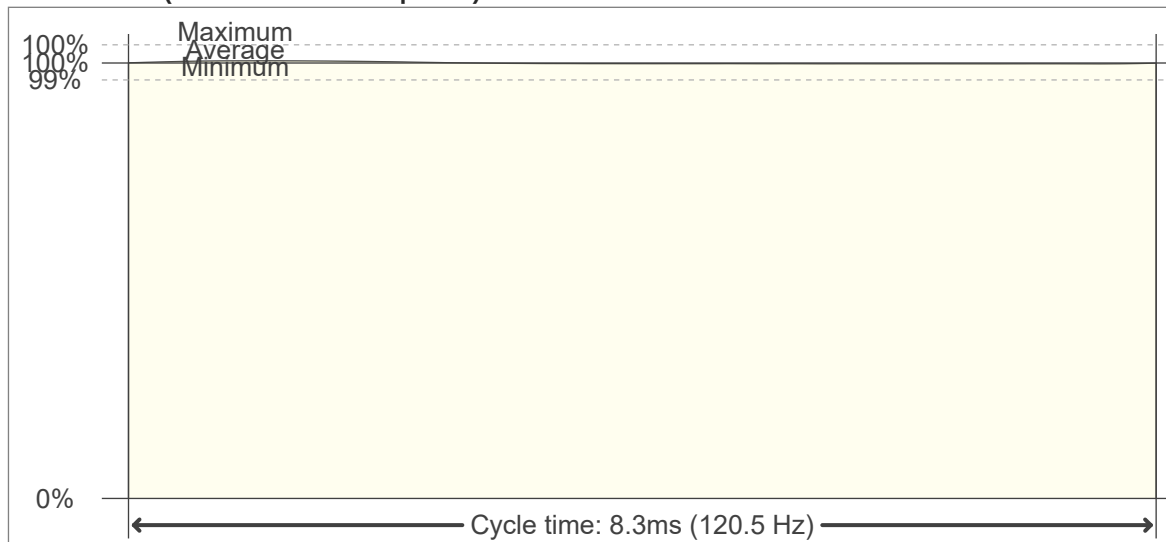


Flicker Specifications

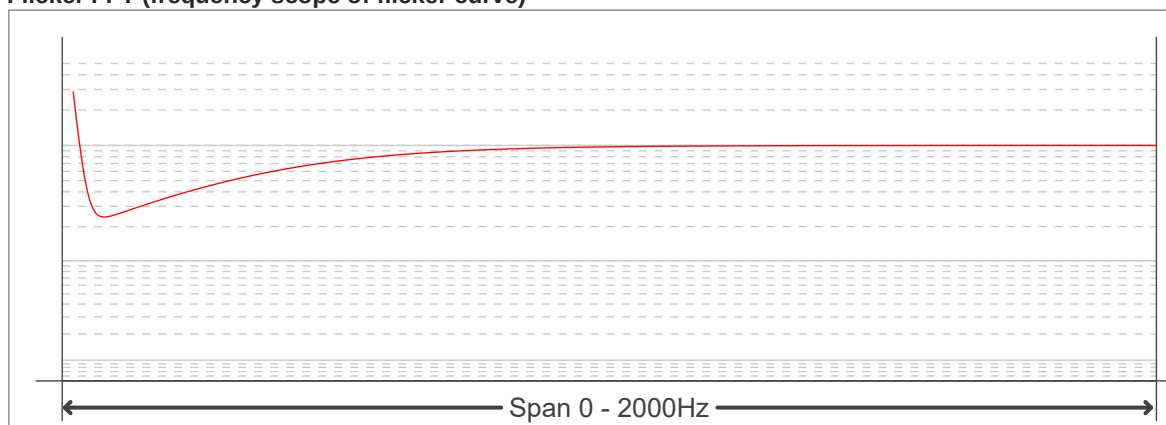
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	120.48 Hz
Flicker index:	0
Flicker percentage:	0.38 %
SVM: (Visual flicker)	0.01

Flicker conditions:

Sample rate:	20000 samples/second
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