Light efficiency:

140 Lumen/Watt

Light quality:

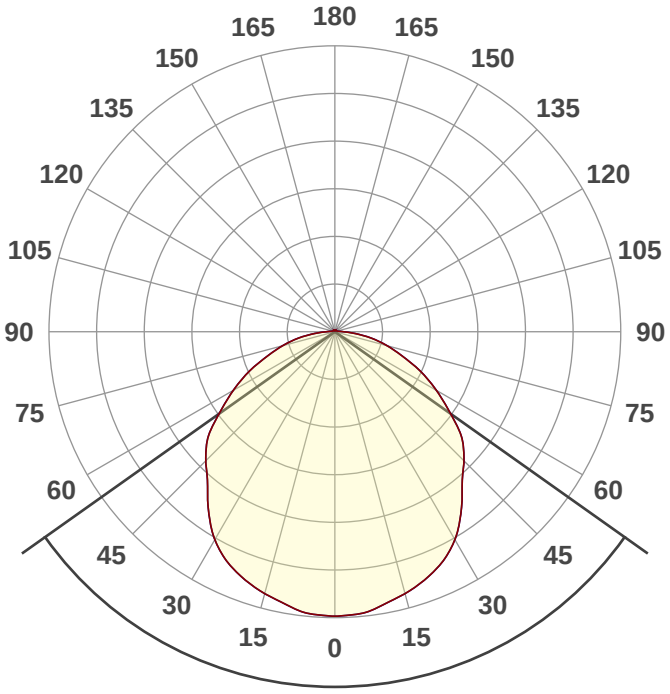
CRI: 86.2

Color temperature:

5510 K

Output: 14131 lm
Peak: 4939 cd

Power: 101.2 W
PF: 1.0



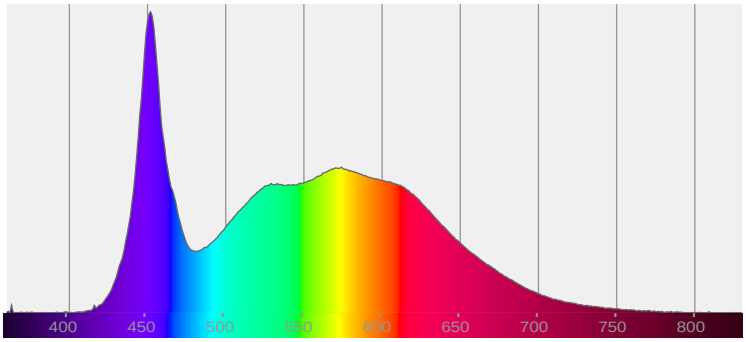
Beam angle **109.3°**

Product name:
WUDC-50K100RH-110

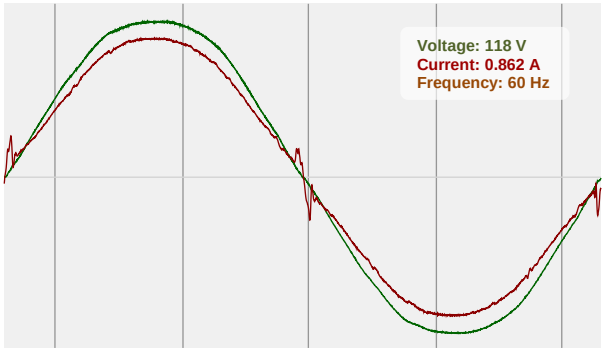
Date and time:
12/10/2020 12:22:14 PM

CIE 1931
x: 0.332
y: 0.335

Spectra



Power



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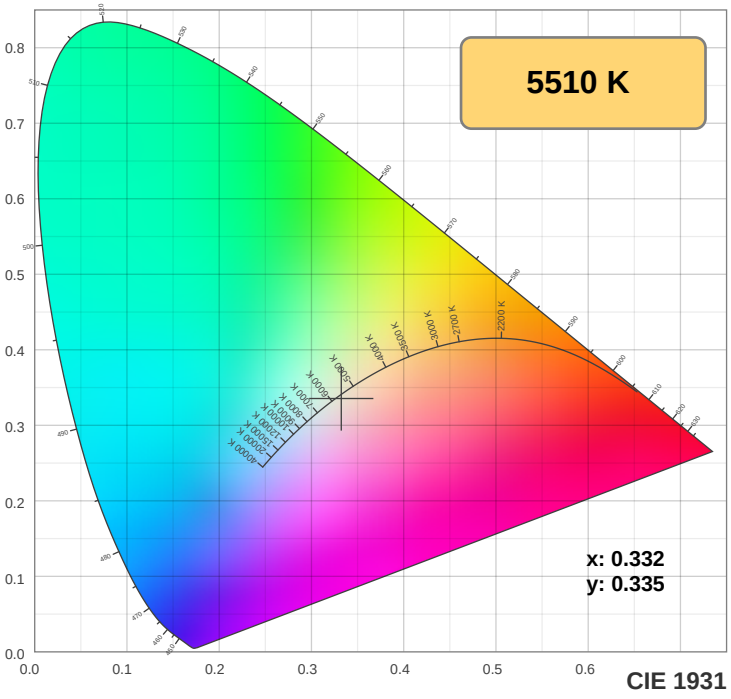
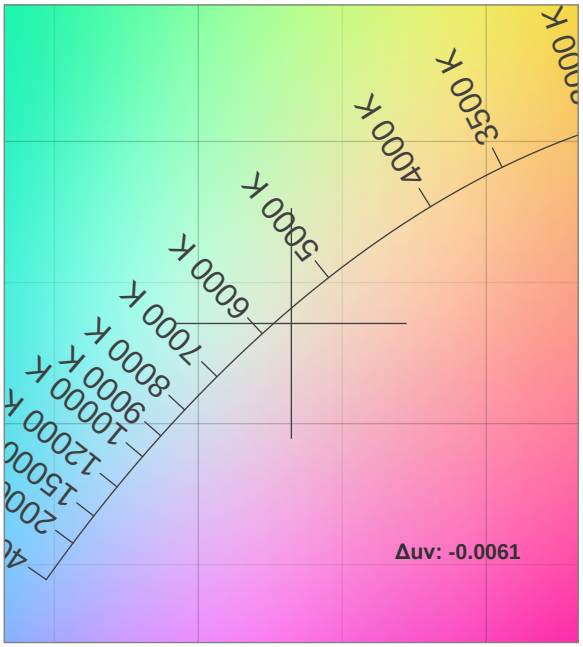
Color Specifications

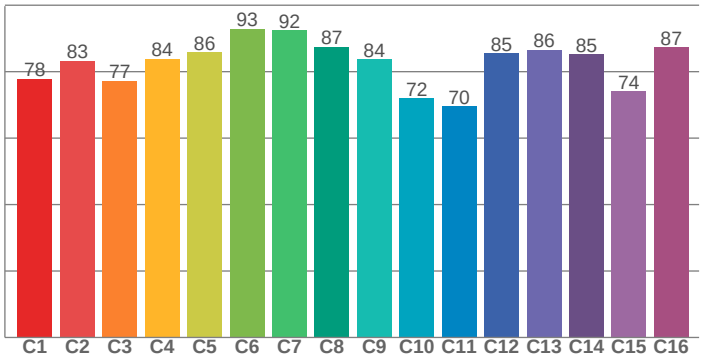


CIE 1931

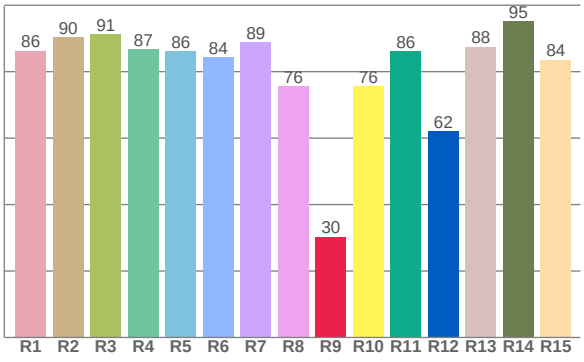


CIE 1931 ZOOM

TM30: 82.3



CRI: 86.2 (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
86.3	90.4	91.3	86.7	86.1	84.4	88.9	75.6	30.4	75.6	86.2	62.1	87.5	95.3	83.6

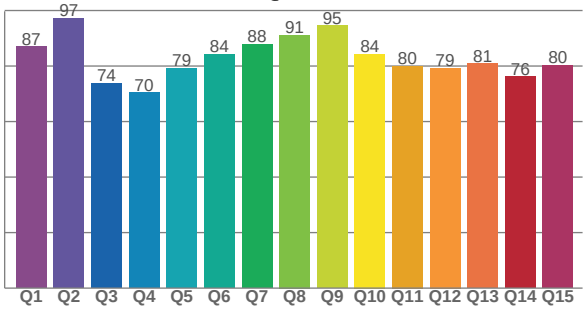
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77.9	83.2	77.2	83.9	85.8	92.8	92.5	87.5	83.7	72.0	69.5	85.5	86.5	85.3	74.1	87.3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87.1	97.2	73.8	70.4	79.2	84.2	87.9	91.2	94.6	84.3	80.0	79.3	80.9	76.2	80.3

CQS: 81.6



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 diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
5510 K	86.2	30.4	82.3	97.7	81.6	0.332	0.335	0.209	0.316	-0.0061

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TM30 Report

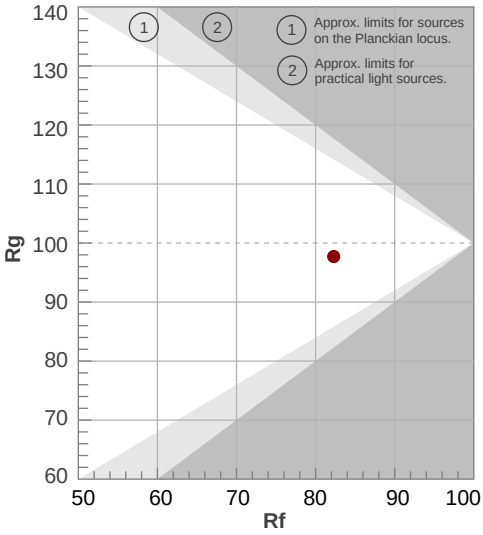
Rf 82.3

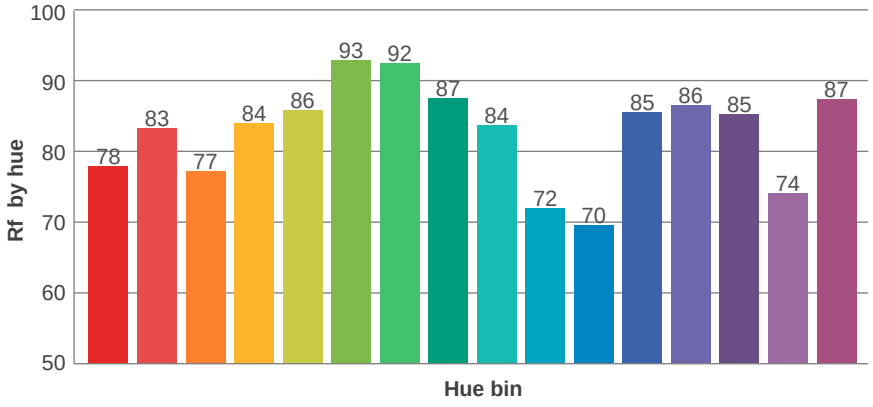
Fidelity index Rf

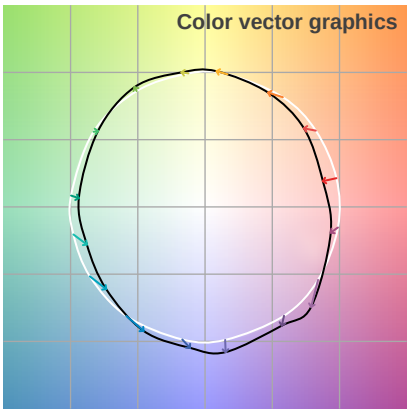
Rg 97.7

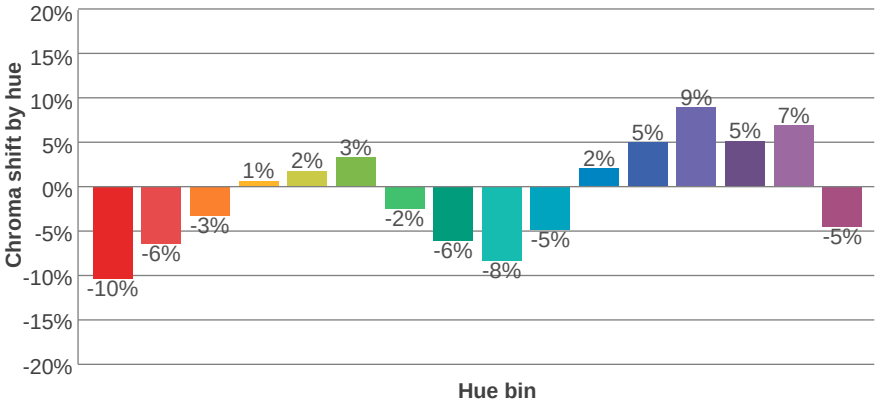
Gammut index Rg

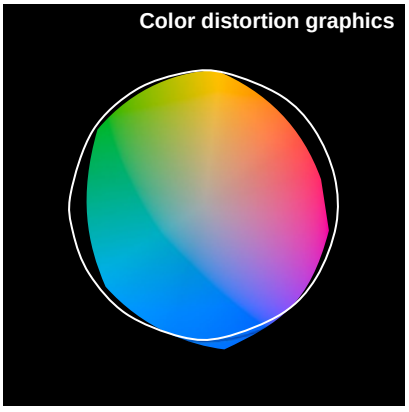
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	78	-10%	0%
2	83	-6%	6%
3	77	-3%	11%
4	84	1%	8%
5	86	2%	5%
6	93	3%	0%
7	92	-2%	-2%
8	87	-6%	1%
9	84	-8%	9%
10	72	-5%	15%
11	70	2%	17%
12	85	5%	7%
13	86	9%	-1%
14	85	5%	-5%
15	74	7%	-20%
16	87	-5%	-5%

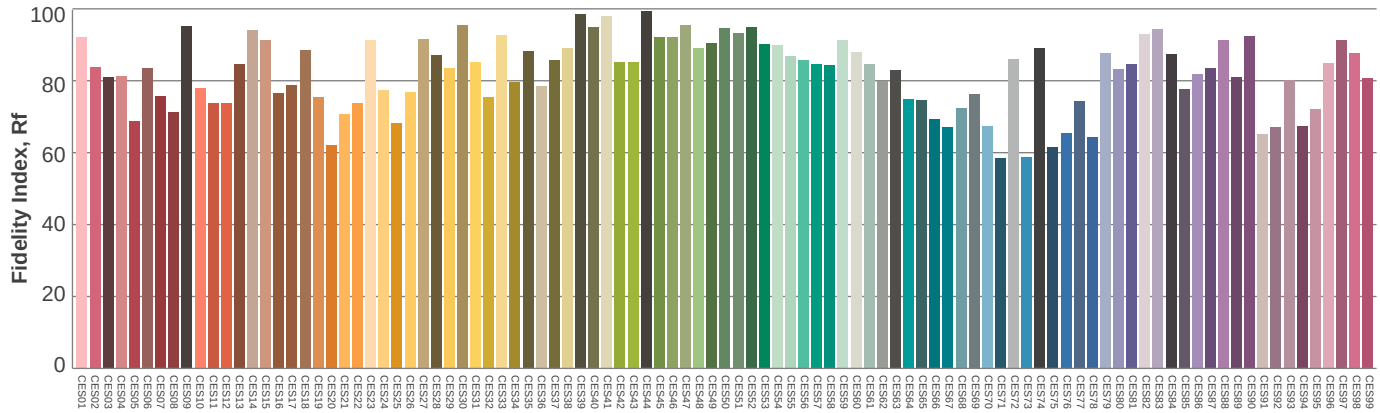












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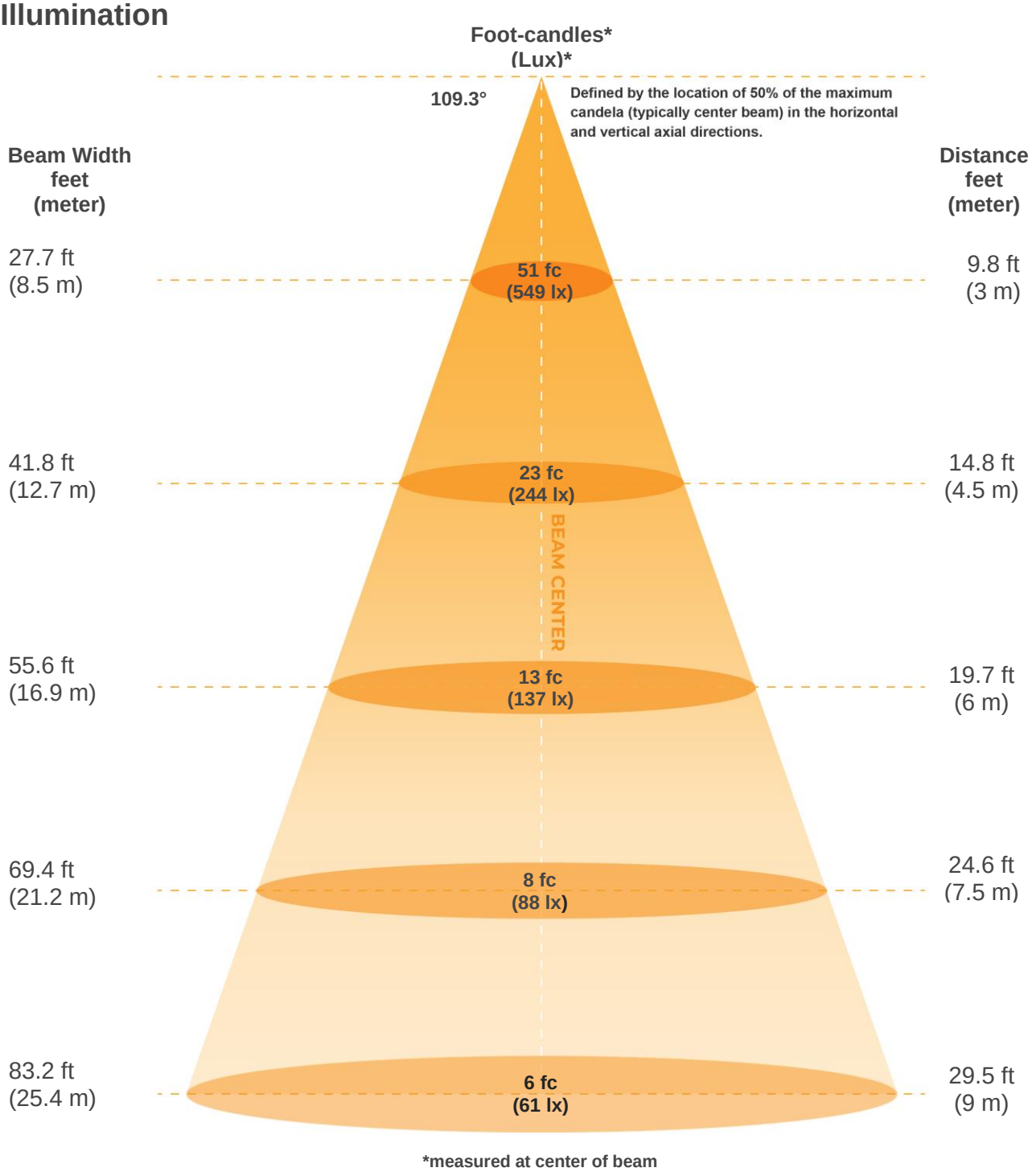
Illumination



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
4939lx	1235lx	549lx	309lx	198lx	137lx	101lx	77lx	61lx	49lx	41lx	34lx	29lx	25lx	22lx	19lx	17lx	15lx	14lx	12lx
458.8fc	114.7fc	51fcd	28.7fcd	18.4fcd	12.7fcd	9.4fcd	7.2fcd	5.7fcd	4.6fcd	3.8fcd	3.2fcd	2.7fcd	2.3fcd	2fcd	1.8fcd	1.6fcd	1.4fcd	1.3fcd	1.1fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
109.3°	**165.2°**	**182.9°**	**76.8%**	**52.6%**

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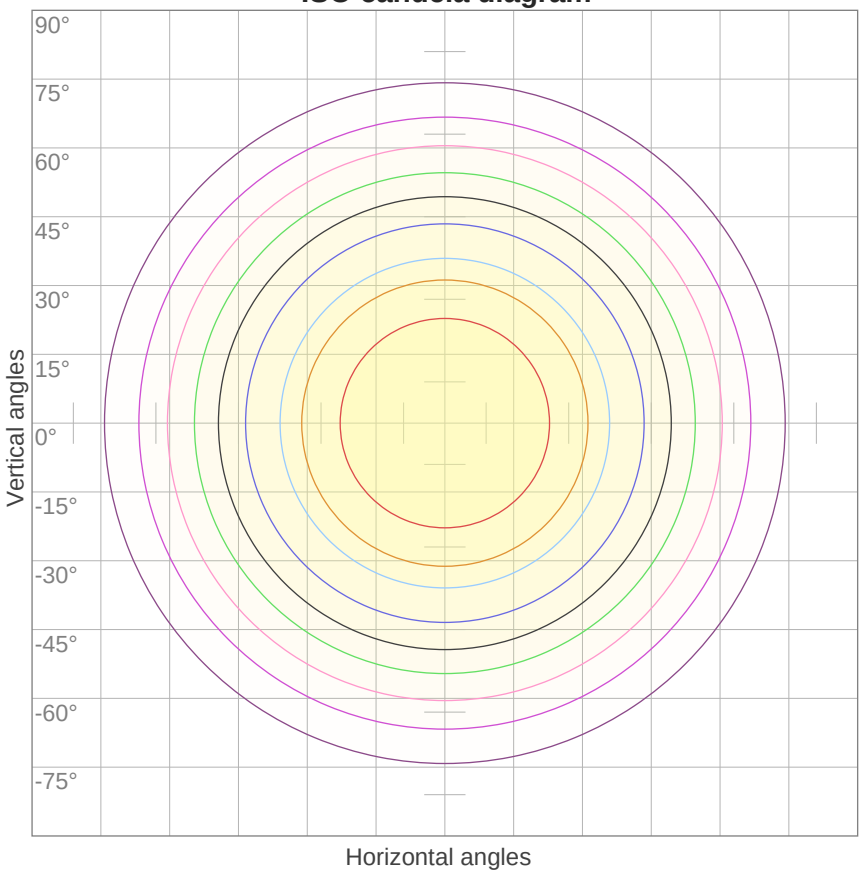
ISO Diagrams

ISO candela diagram



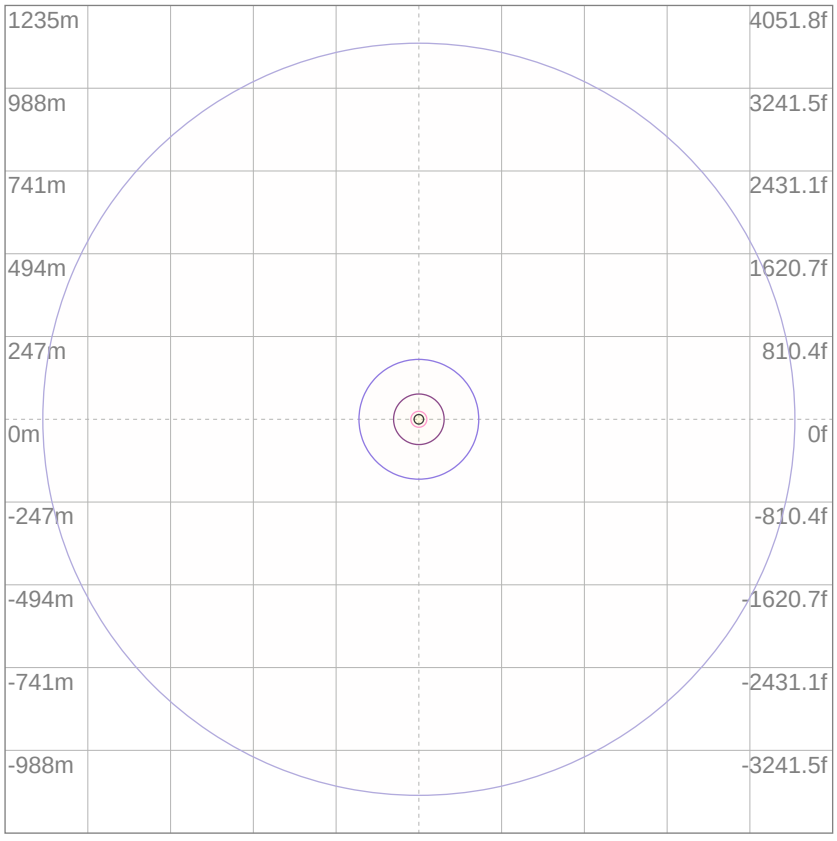
10%	494 cd
20%	988 cd
30%	1482 cd
40%	1975 cd
50%	2469 cd
60%	2963 cd
70%	3457 cd
80%	3951 cd
90%	4445 cd

Conditions:

Number of c-planes: 16

Candela at center: 4939 cd

ISO lux diagram



3%	1.48 lx
5%	2.47 lx
10%	4.94 lx
30%	14.8 lx
50%	24.7 lx

Conditions:

Number of c-planes: 16

Lux at center: 49.4 lx

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

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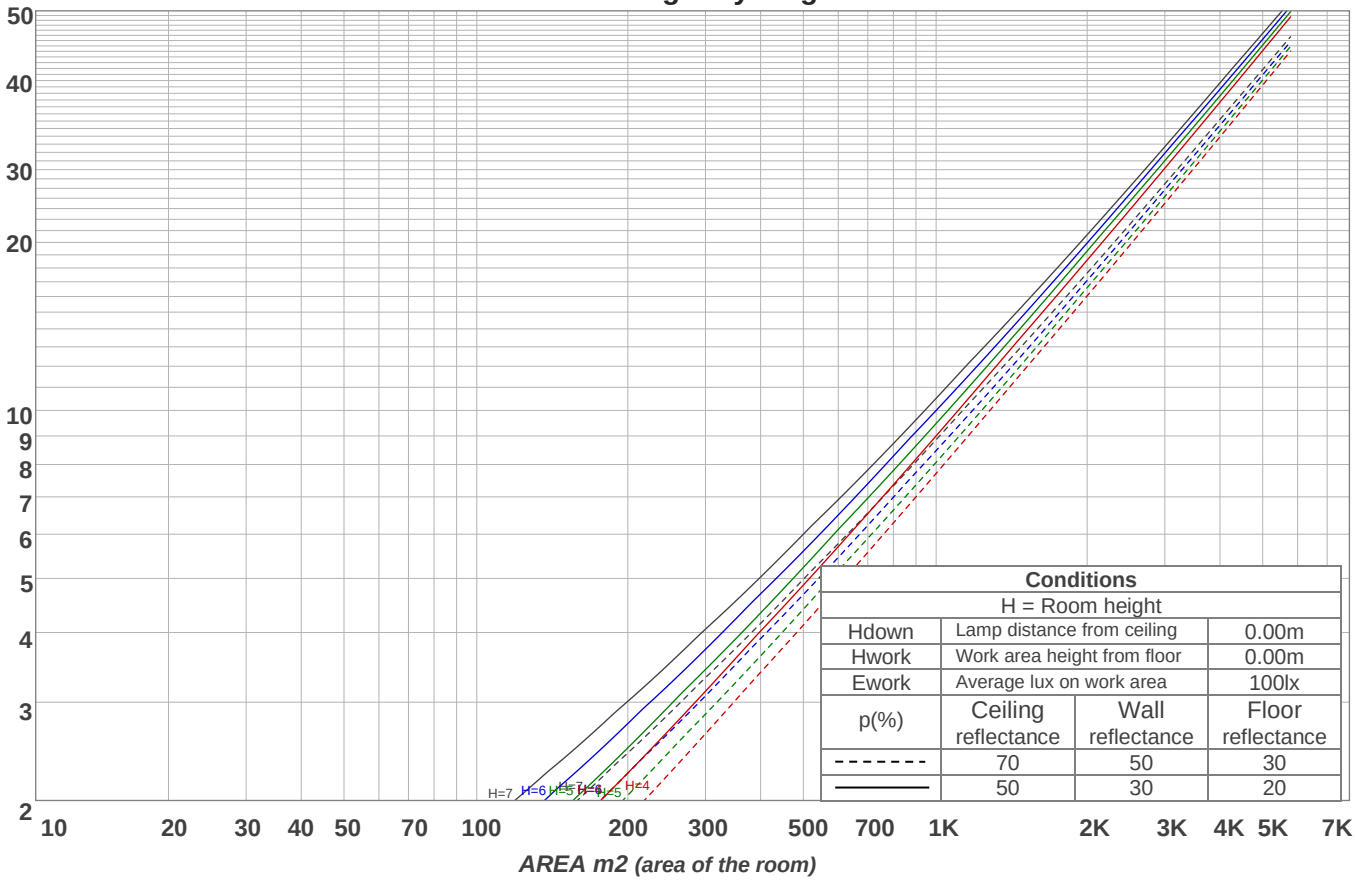
Light Planning

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	105	105	105	100	100	100	98
1	108	103	99	95	105	101	97	93	96	93	90	92	89	87	88	86	84	81
2	98	90	83	77	95	88	81	76	84	78	74	80	76	72	77	73	70	68
3	89	79	70	64	87	77	69	63	74	67	62	71	65	61	68	63	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	47	73	61	53	46	59	51	46	57	50	45	55	49	44	42
6	70	56	47	41	68	55	47	40	53	46	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	29	40	33	28	38	32	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24

Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
466 lm	1330 lm	2029 lm	2388 lm	2443 lm	2190 lm	1633 lm	997 lm	406 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
95.1 lm	48.7 lm	33.2 lm	23.3 lm	16.4 lm	12.7 lm	9.70 lm	6.16 lm	2.13 lm

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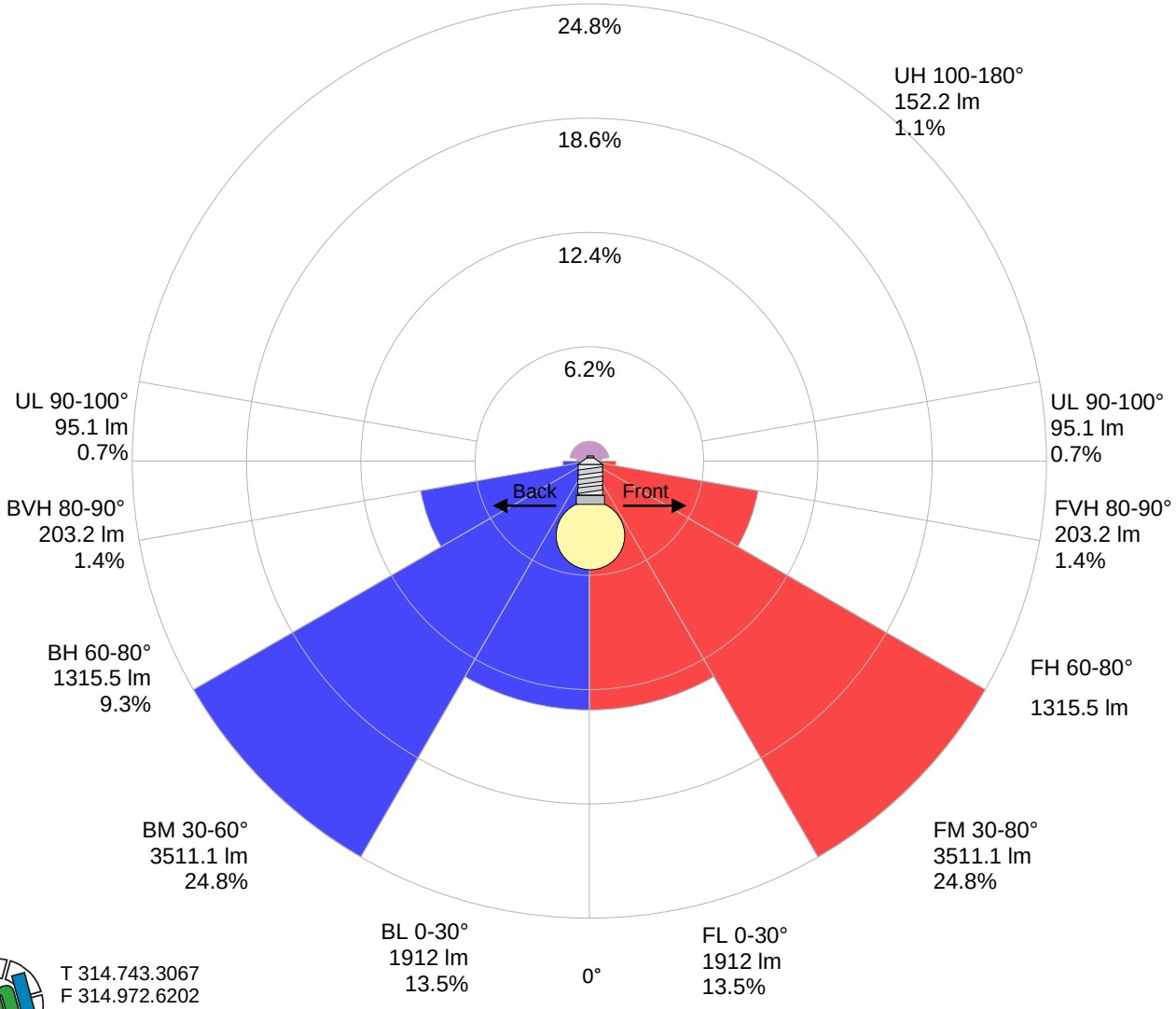
Road Report

LCS table

BUG rating:	B3 U3 G2	
Forward light	Lumens	Lumens %
Low(0-30):	1912	13.5%
Medium(30-60):	3511.1	24.8%
High(60-80):	1315.5	9.3%
Very high(80-90):	203.2	1.4%
Back light		
Low(0-30):	1912	13.5%
Medium(30-60):	3511.1	24.8%
High(60-80):	1315.5	9.3%
Very high(80-90):	203.2	1.4%
Uplight		
Low(90-100):	95.1	0.7%
High(100-180):	152.2	1.1%

LCS graph



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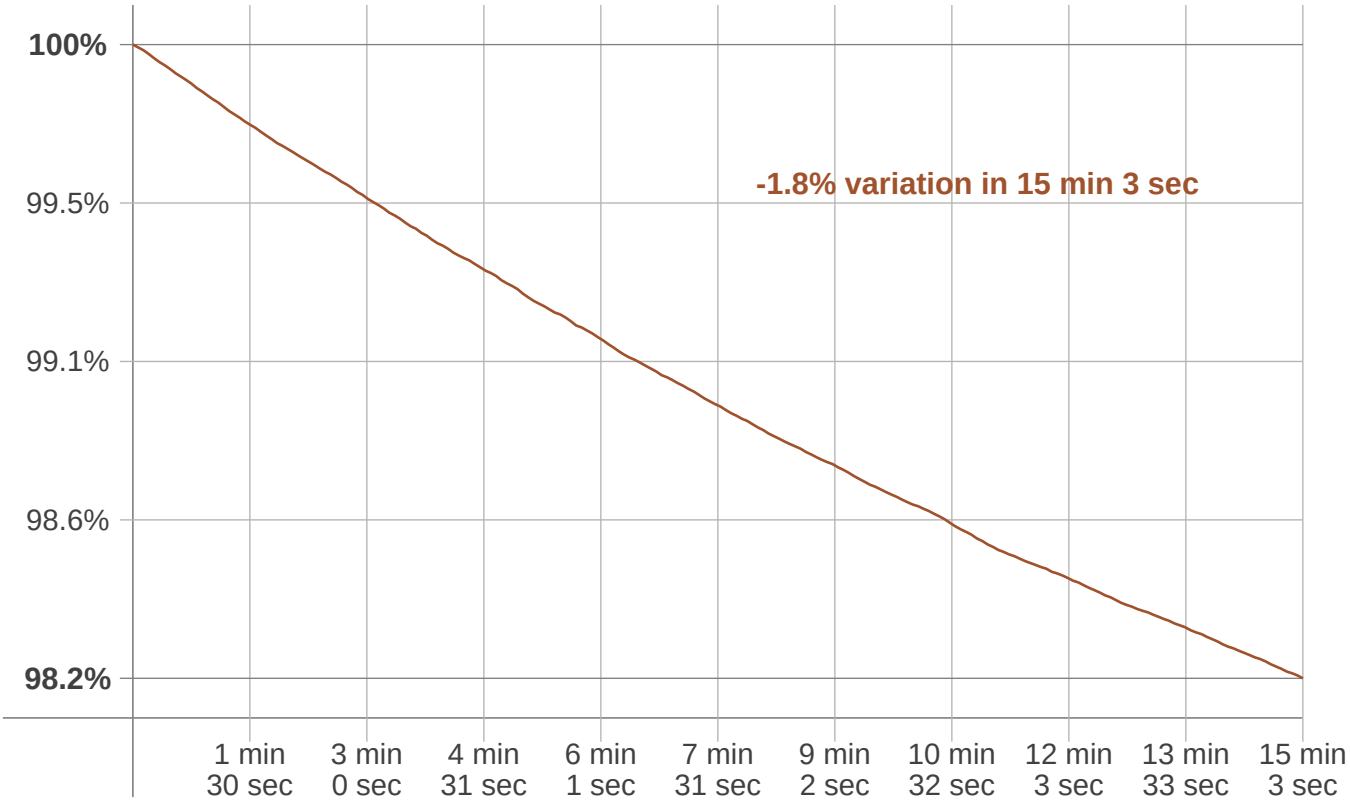
Stabilization

Warmup curve



Warmup result

Warmup time:	**15 min 3 sec**
Warmup variation	**-1.8%**

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5461 K	+49 K	5510 K

Output change

Output start	Output change	Output end
14390 lm	-259 lm	14131 lm

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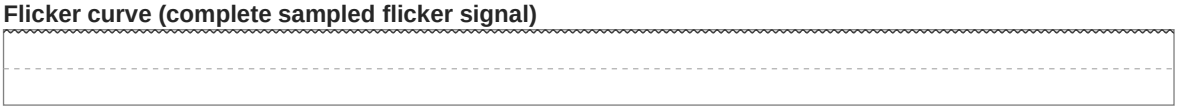
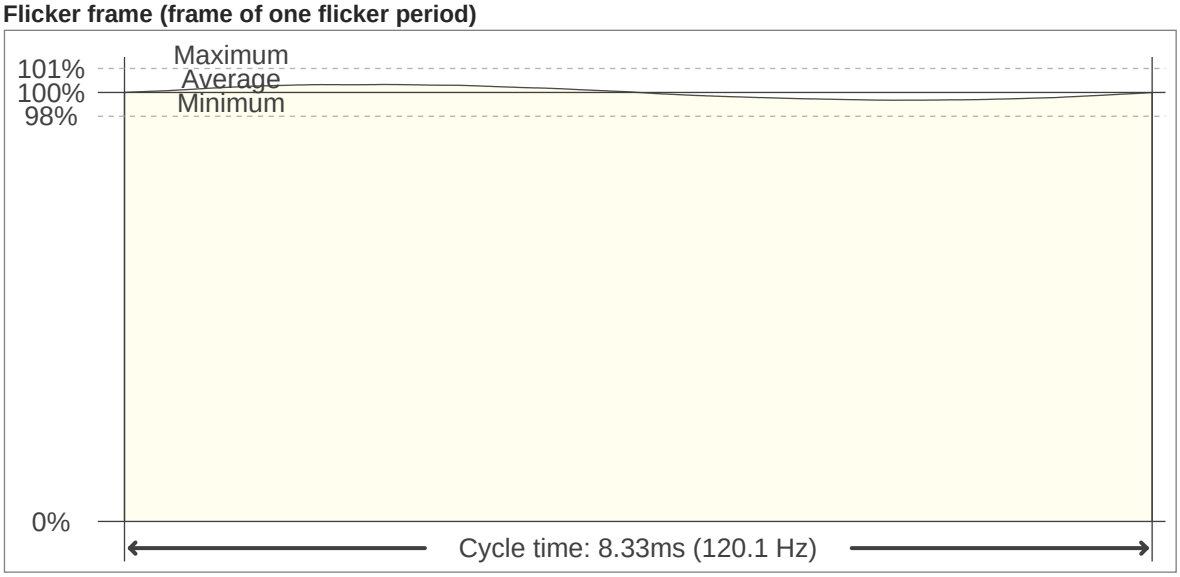
Flicker

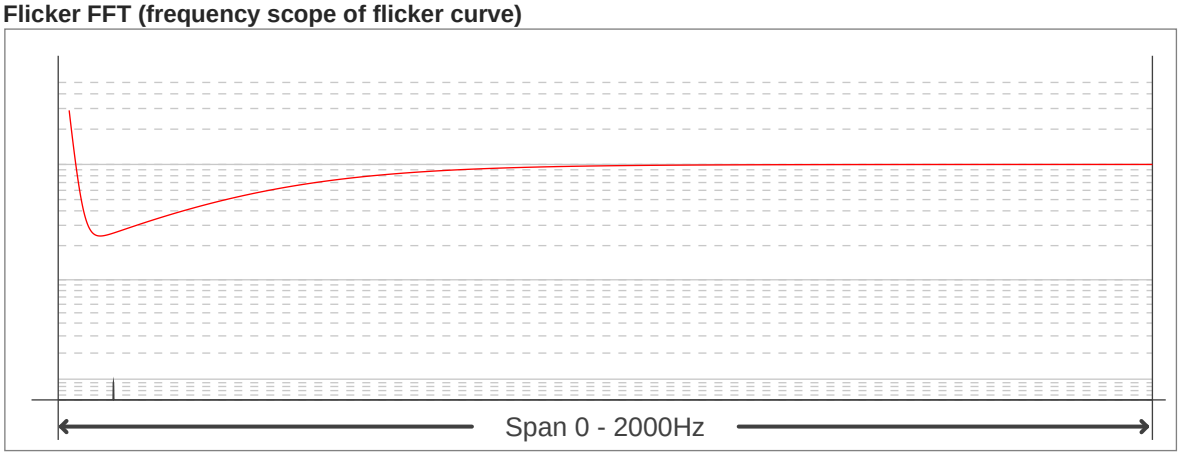
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	**120.12 Hz**
Flicker index:	**0.01**
Flicker percentage:	**1.98 %**
SVM: (Visual flicker)	**0.07**

Flicker conditions:

Sample rate:	**40000 samples/second**

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