Light efficiency:

139 Lumen/Watt

Light quality:

CRI: 87.0

Color temperature:

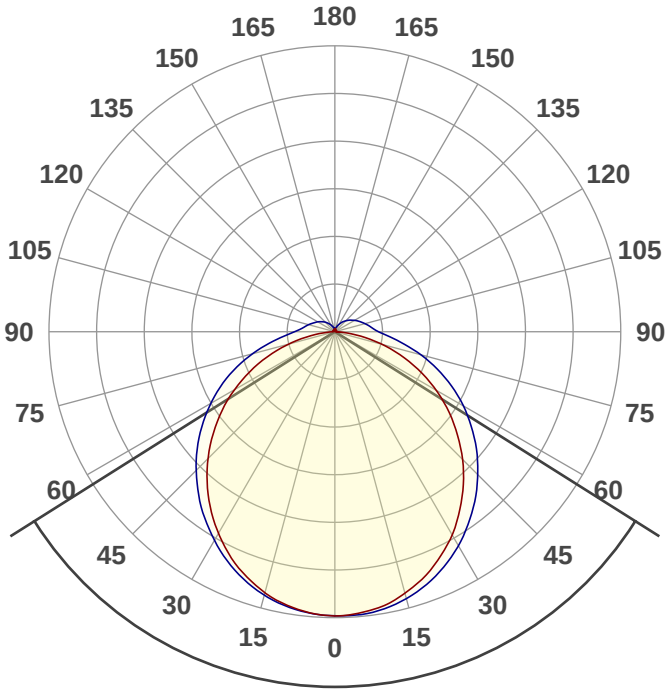
5313 K

Output: **9635 lm**

Peak: **2894 cd**

Power: **69.5 W**

PF: **0.99**



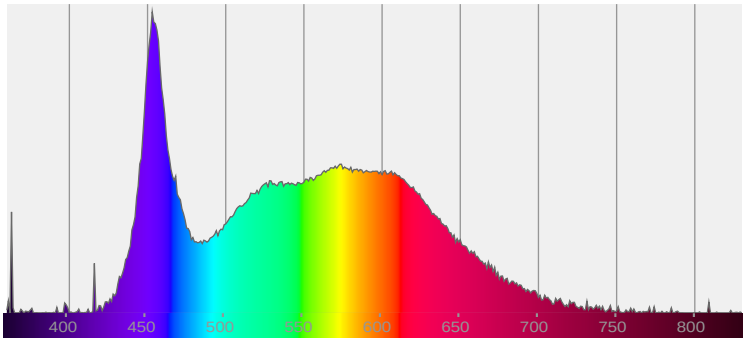
Beam angle **115.5°**

CIE 1931
x: 0.337
y: 0.342

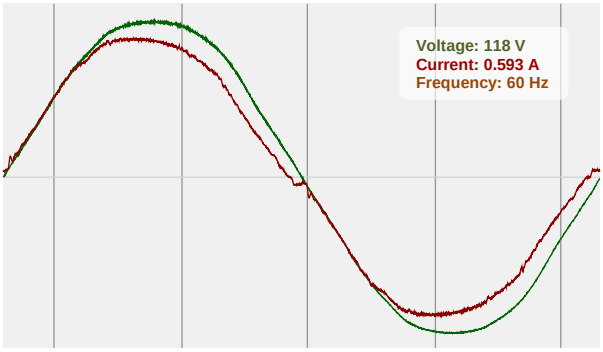
Product name:
TPLF-50K70

Date and time:
8/5/2020 12:05:53 PM

Spectra



Power



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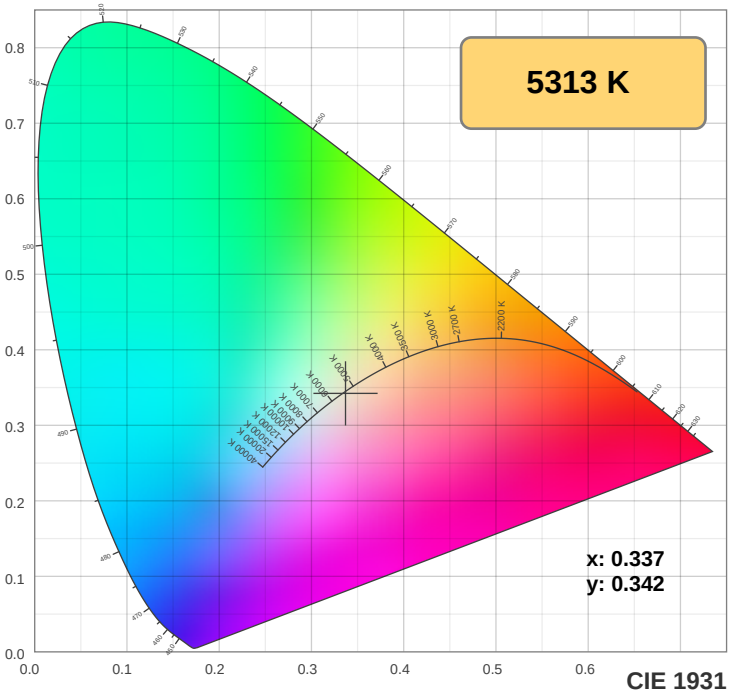
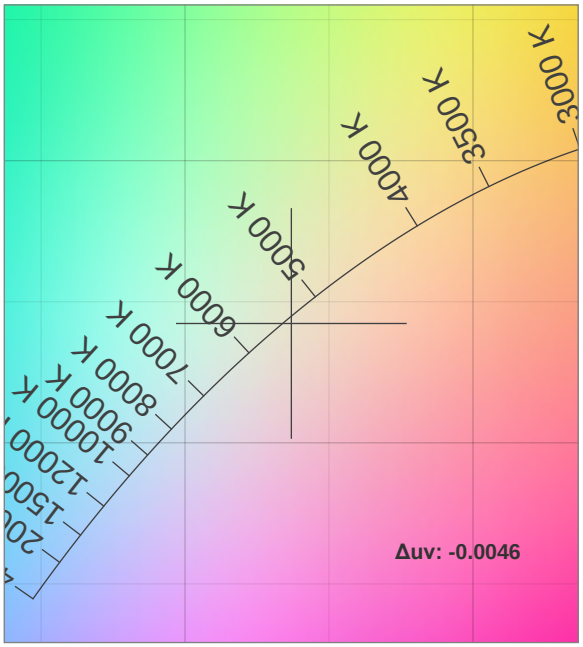
Color Specifications

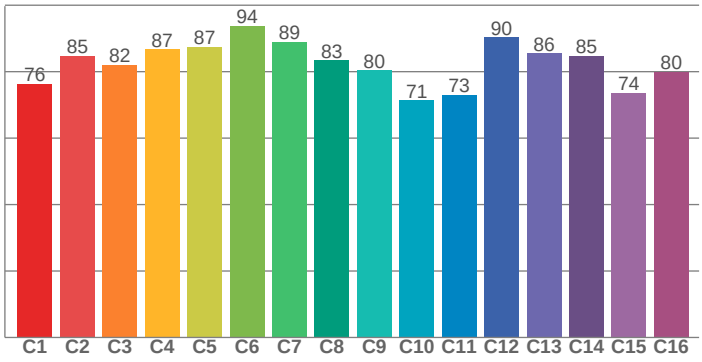


CIE 1931

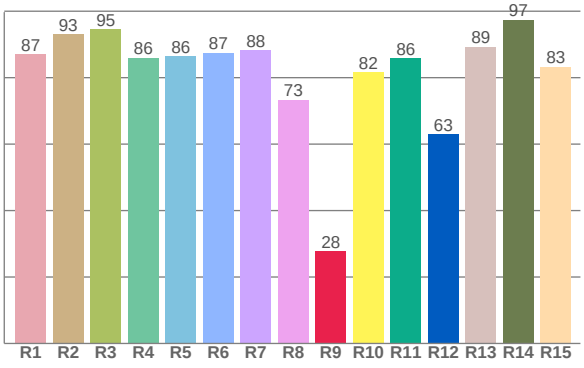


CIE 1931 ZOOM

TM30: 82.5



CRI: 87.0 (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
87.1	93.0	94.5	86.0	86.5	87.5	88.2	73.4	27.8	81.7	85.8	63.0	89.3	97.5	83.3

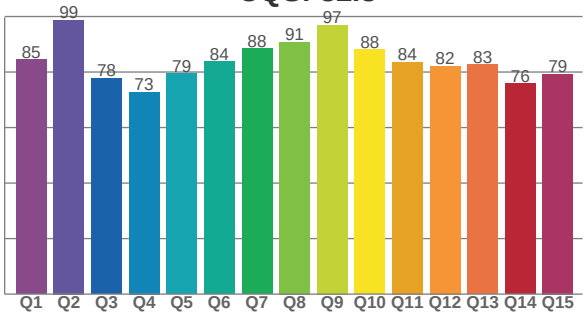
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
76.2	84.8	82.1	86.8	87.4	93.8	88.9	83.4	80.4	71.3	73.1	90.3	85.5	84.8	73.6	79.9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
84.5	98.8	77.8	72.8	79.5	83.8	88.4	90.8	97.0	88.1	83.6	82.2	82.7	75.9	79.3

CQS: 82.8



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 diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
5313 K	87.0	27.8	82.5	94.8	82.8	0.337	0.342	0.209	0.319	-0.0046

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TM30 Report

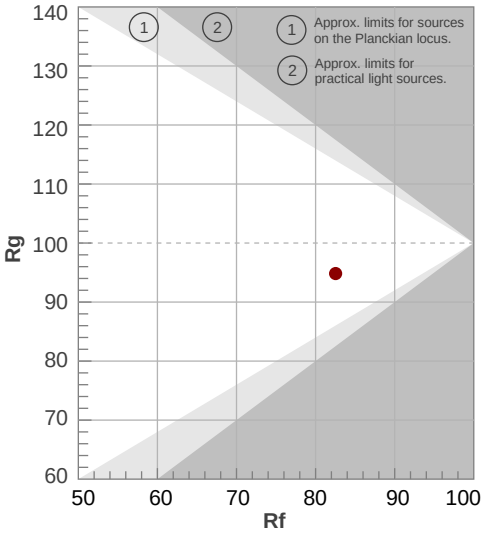
Rf 82.5

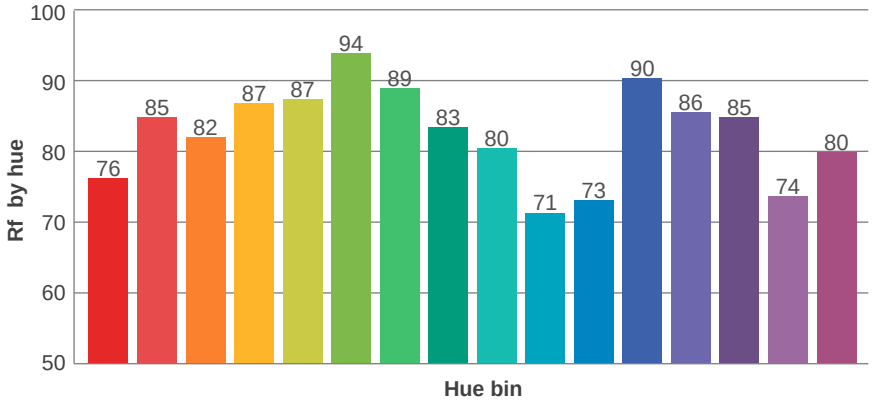
Fidelity index Rf

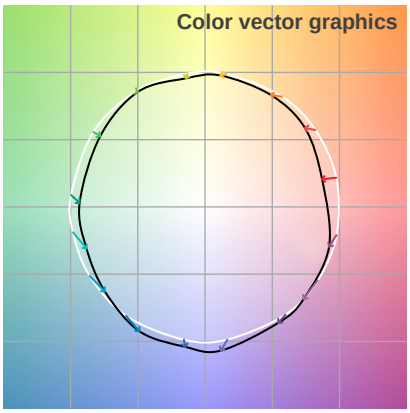
Rg 94.8

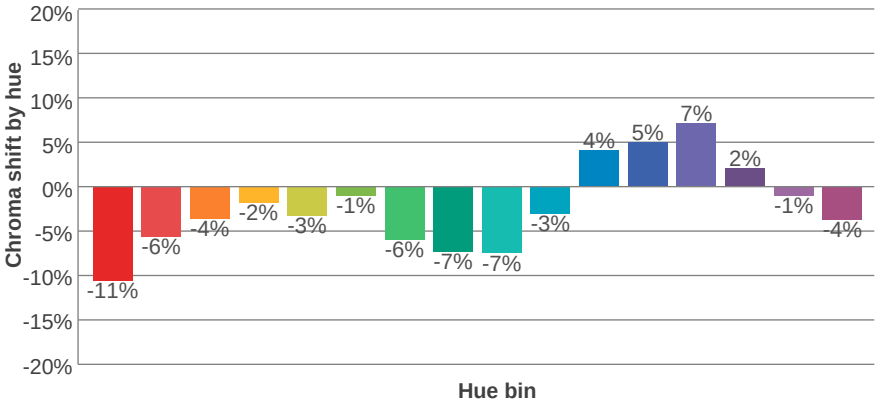
Gammut index Rg

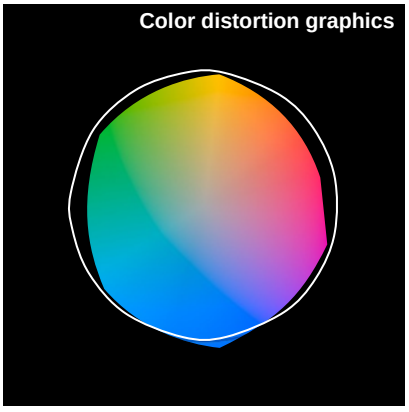
Hue Bin	R_f	Graphic shifts (%) Chroma	Hue
1	76	-11%	1%
2	85	-6%	6%
3	82	-4%	8%
4	87	-2%	4%
5	87	-3%	2%
6	94	-1%	-1%
7	89	-6%	0%
8	83	-7%	4%
9	80	-7%	14%
10	71	-3%	16%
11	73	4%	14%
12	90	5%	2%
13	86	7%	-6%
14	85	2%	-8%
15	74	-1%	-17%
16	80	-4%	-9%

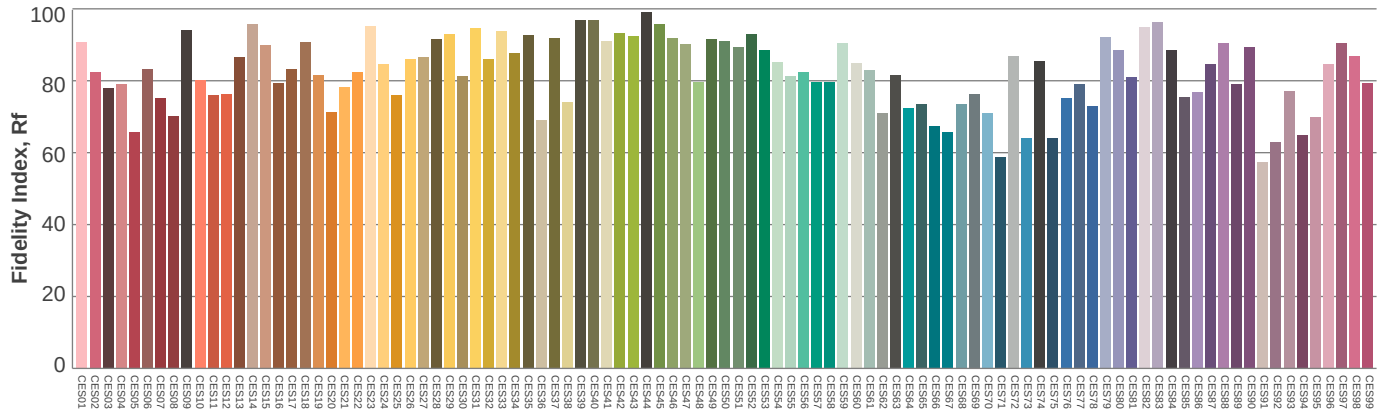












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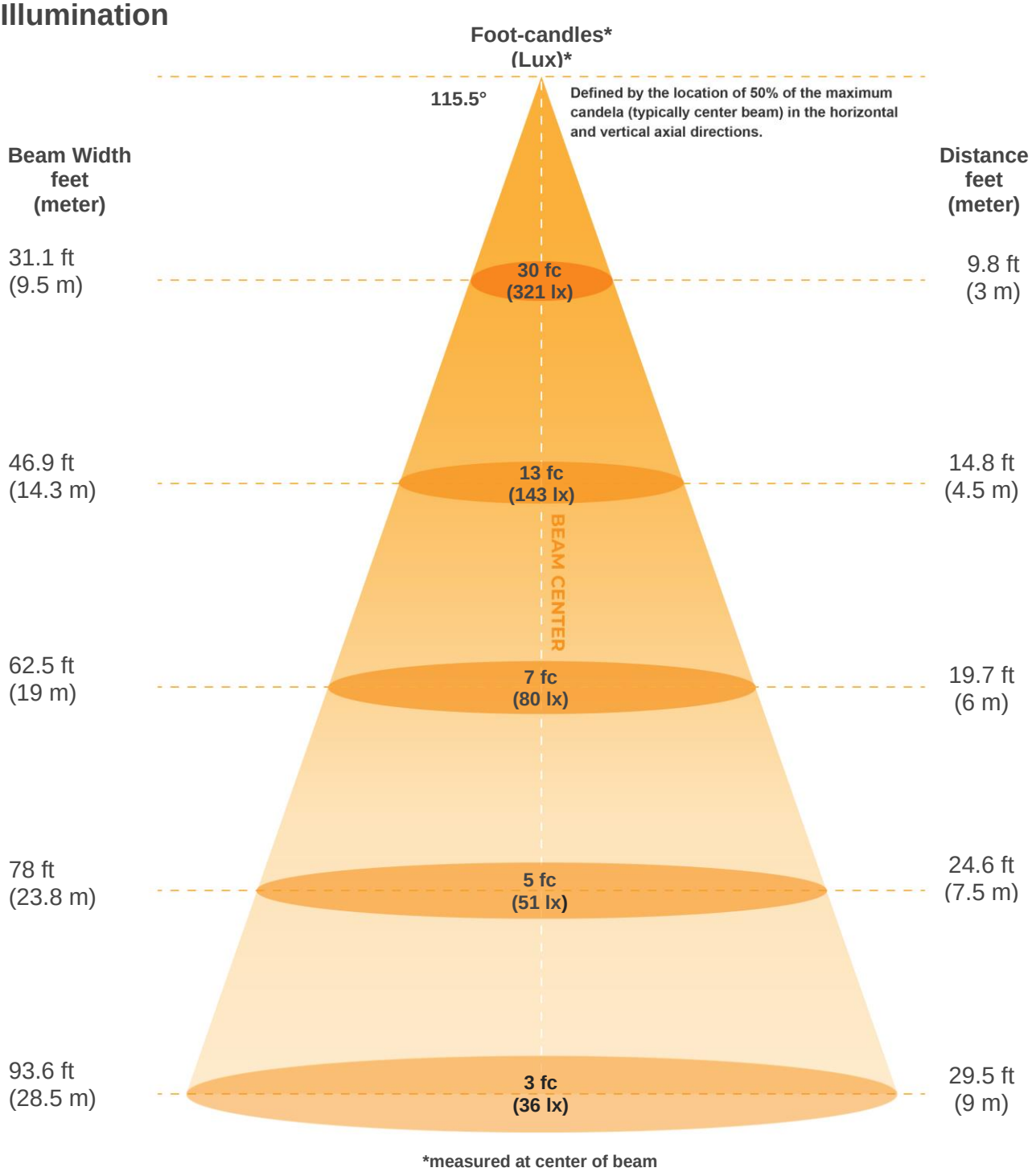
Illumination



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
2889lx	722lx	321lx	181lx	116lx	80lx	59lx	45lx	36lx	29lx	24lx	20lx	17lx	15lx	13lx	11lx	10lx	9lx	8lx	7lx
268.4fc	67.1fcd	29.8fcd	16.8fcd	10.7fcd	7.5fcd	5.5fcd	4.2fcd	3.3fcd	2.7fcd	2.2fcd	1.9fcd	1.6fcd	1.4fcd	1.2fcd	1fcd	0.9fcd	0.8fcd	0.7fcd	0.7fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
115.5°	**183.1°**	**258°**	**68.0%**	**45.9%**

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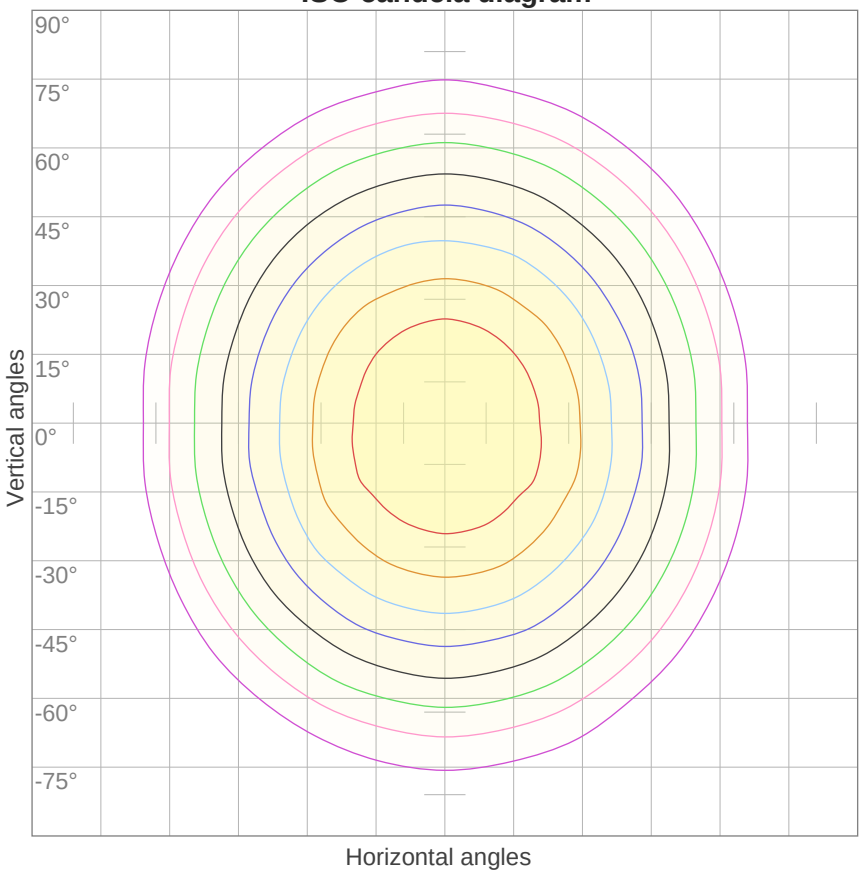
ISO Diagrams

ISO candela diagram



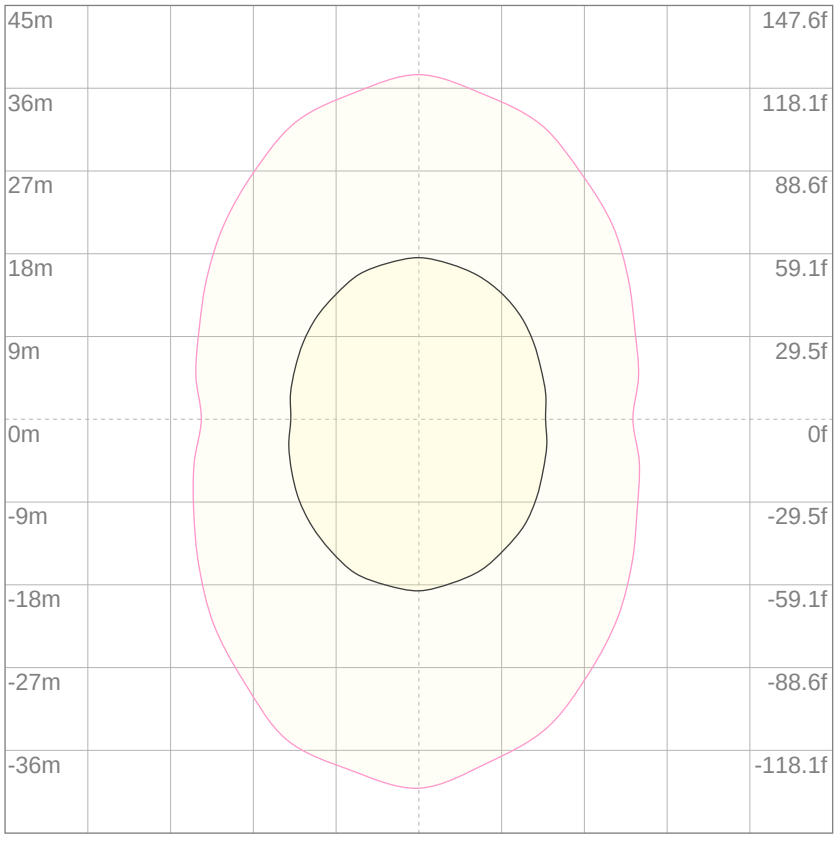
10%	289 cd
20%	578 cd
30%	867 cd
40%	1156 cd
50%	1445 cd
60%	1734 cd
70%	2023 cd
80%	2312 cd
90%	2601 cd

Conditions:

Number of c-planes: 16

Candela at center: 2889 cd

ISO lux diagram



3%	0.867 lx
5%	1.44 lx
10%	2.89 lx
30%	8.67 lx
50%	14.4 lx

Conditions:

Number of c-planes: 16

Lux at center: 28.9 lx

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

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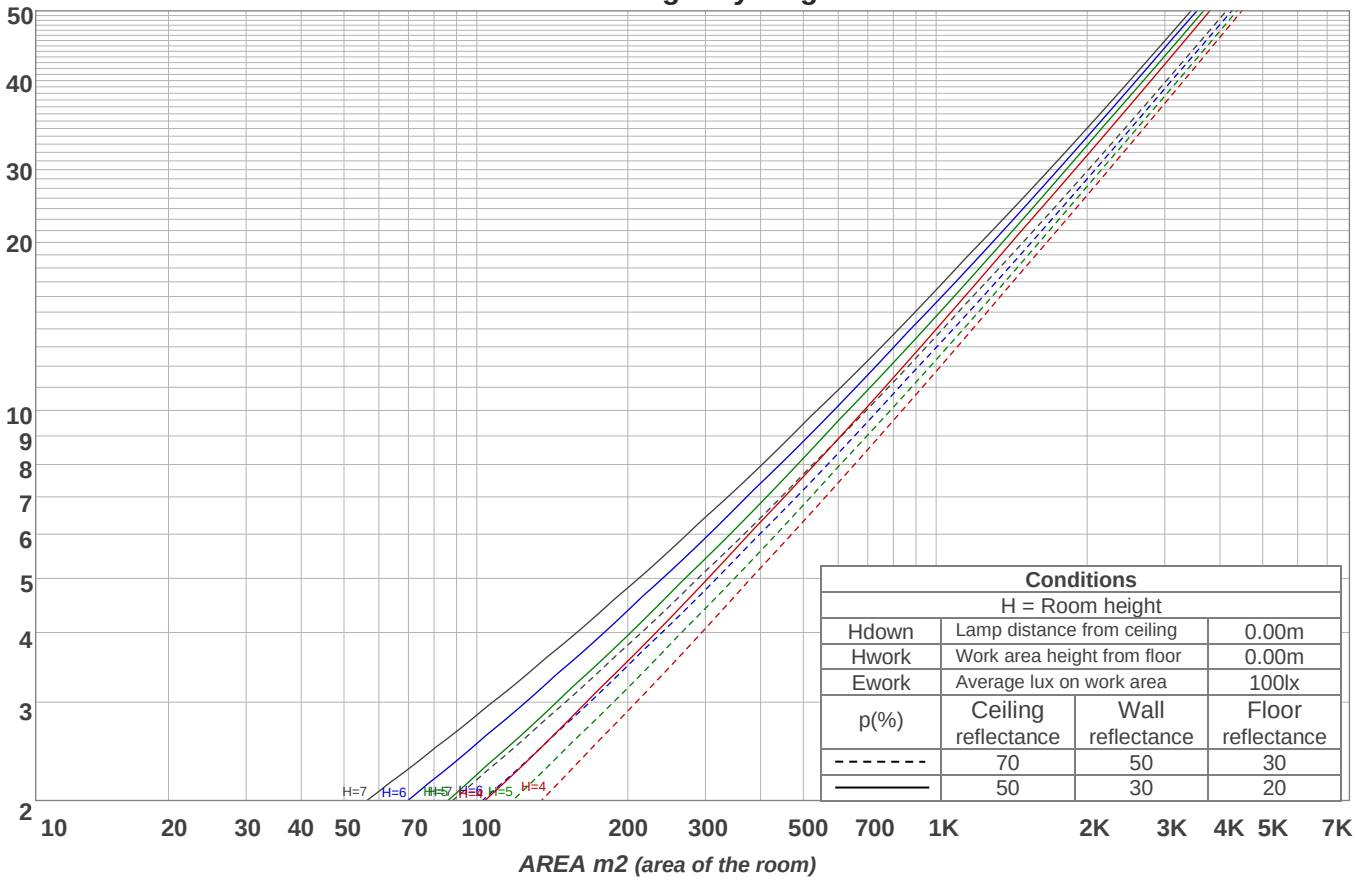
Light Planning

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	117	117	117	117	113	113	113	113	107	107	107	100	100	100	94	94	94	92
1	106	100	96	91	102	97	93	89	91	88	85	86	83	81	81	79	77	74
2	96	87	80	74	92	84	78	72	79	74	69	75	70	66	71	67	64	61
3	87	76	67	61	84	74	66	60	69	63	57	66	60	55	62	57	53	51
4	79	67	58	51	76	65	57	50	62	54	49	58	52	47	55	50	46	43
5	73	60	51	44	70	58	50	43	55	48	42	52	46	41	50	44	39	37
6	67	54	45	38	65	52	44	38	50	42	37	47	41	36	45	39	35	32
7	62	49	40	33	60	47	39	33	45	38	32	43	36	31	41	35	31	29
8	58	44	36	30	56	43	35	29	41	34	29	39	33	28	38	32	27	25
9	54	41	32	27	52	40	32	26	38	31	26	36	30	25	35	29	25	23
10	51	37	29	24	49	37	29	24	35	28	23	34	27	23	32	27	22	21

Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
274 lm	783 lm	1185 lm	1429 lm	1496 lm	1389 lm	1129 lm	758 lm	398 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
237 lm	183 lm	138 lm	99.5 lm	66.0 lm	39.4 lm	21.0 lm	9.36 lm	2.45 lm

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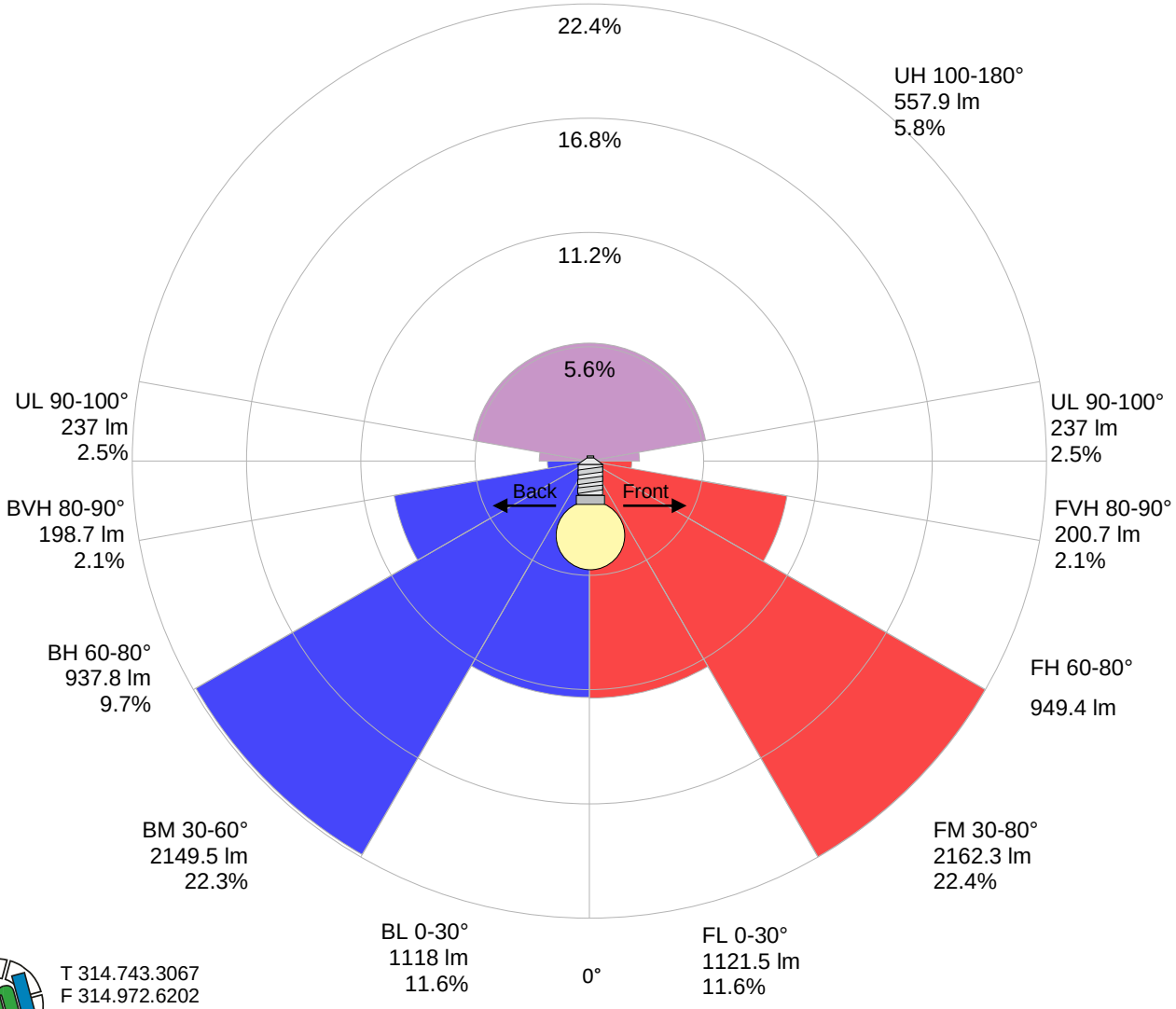
Road Report

LCS table

BUG rating:	B3 U4 G2	
Forward light	Lumens	Lumens %
Low(0-30):	1121.5	11.6%
Medium(30-60):	2162.3	22.4%
High(60-80):	949.4	9.9%
Very high(80-90):	200.7	2.1%
Back light		
Low(0-30):	1118	11.6%
Medium(30-60):	2149.5	22.3%
High(60-80):	937.8	9.7%
Very high(80-90):	198.7	2.1%
Uplight		
Low(90-100):	237	2.5%
High(100-180):	557.9	5.8%

LCS graph



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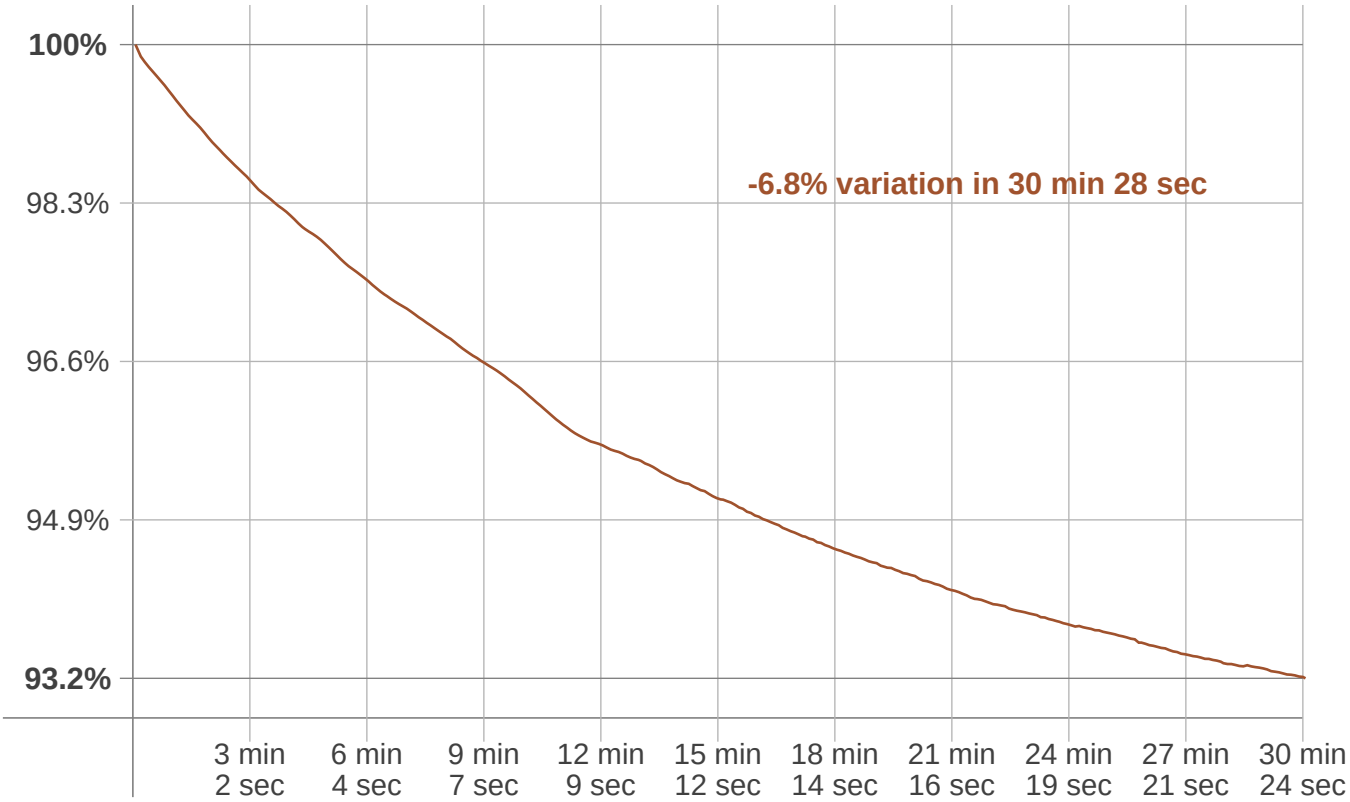
Stabilization

Warmup curve



Warmup result

Warmup time:	**30 min 28 sec**
Warmup variation	**-6.9%**

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5179 K	+134 K	5313 K

Output change

Output start	Output change	Output end
10171 lm	-536 lm	9635 lm

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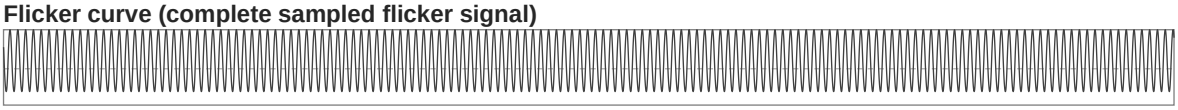
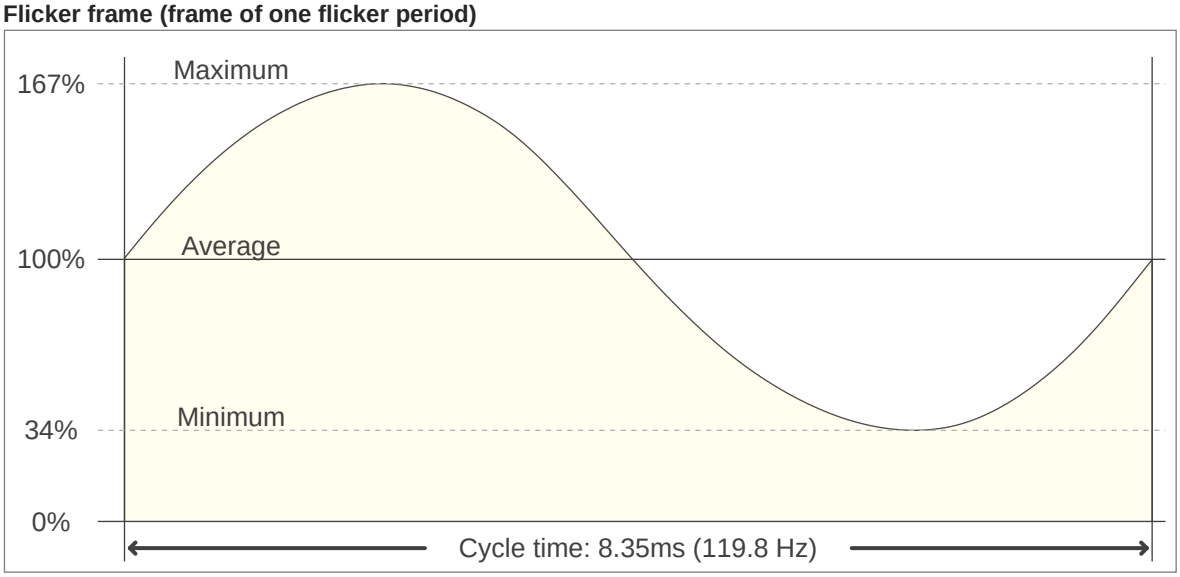
Flicker

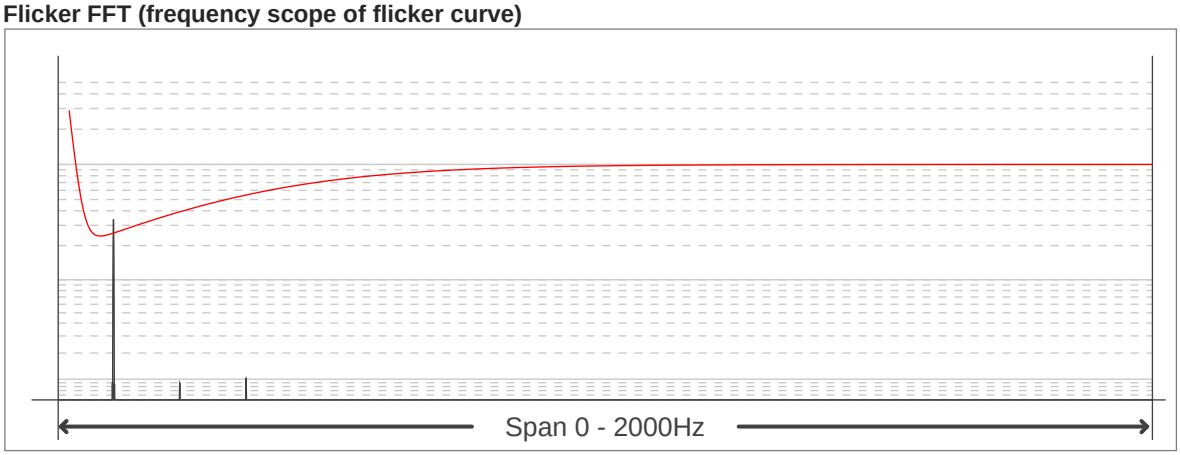
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	**119.76 Hz**
Flicker index:	**0.22**
Flicker percentage:	**65.57 %**
SVM: (Visual flicker)	**2.45**

Flicker conditions:

Sample rate:	**40000 samples/second**

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