Light efficiency:

131 Lumen/Watt

Light quality:

CRI: 87.5

Color temperature:

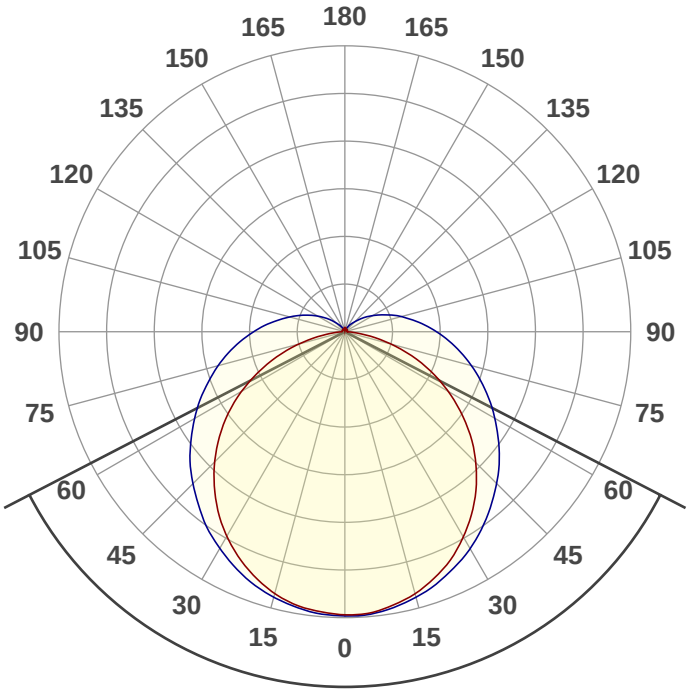
5545 K

Output: 4588 lm

Peak: 1192 cd

Power: 35.1 W

PF: 0.99



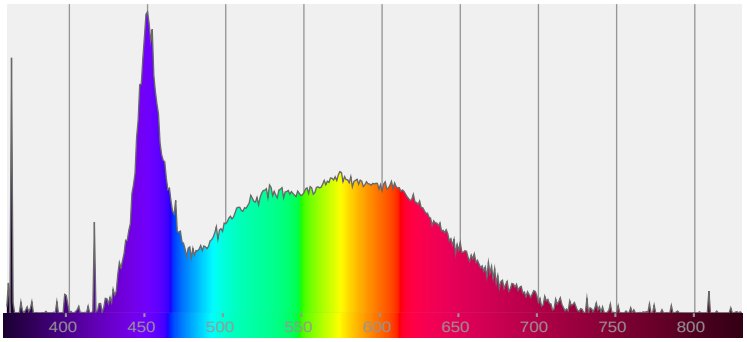
Product name:
SL-P69F4-36-x

Date and time:
9/10/2020 11:02:12 AM

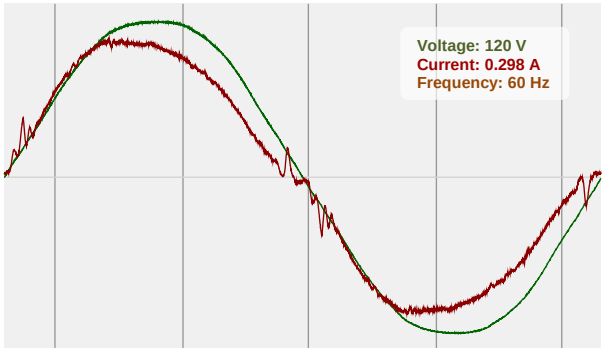
Beam angle **125.3°**

CIE 1931
x: 0.332
y: 0.334

Spectra



Power



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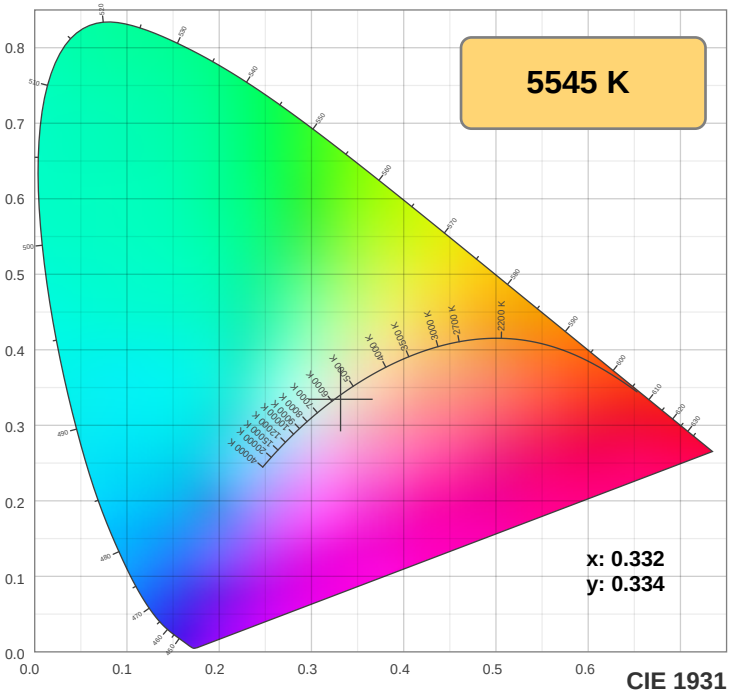
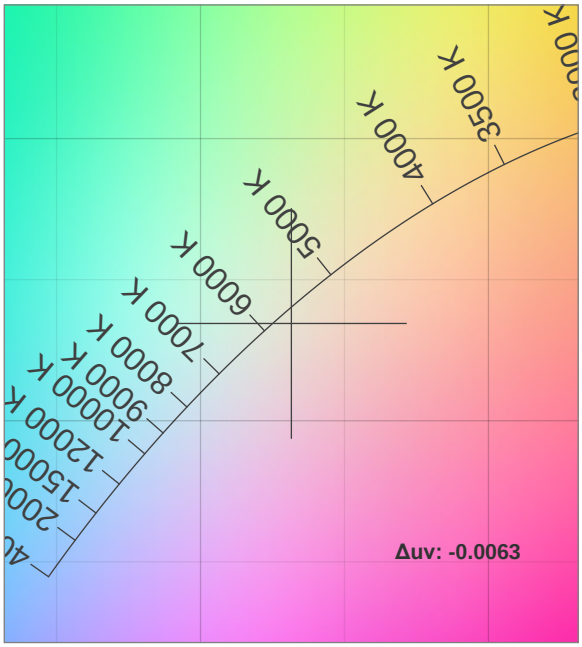
Color Specifications

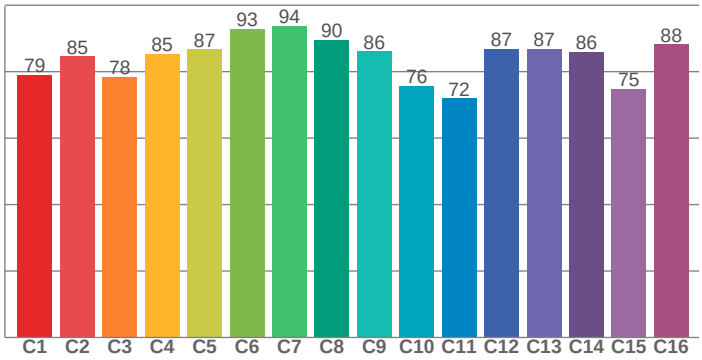


CIE 1931

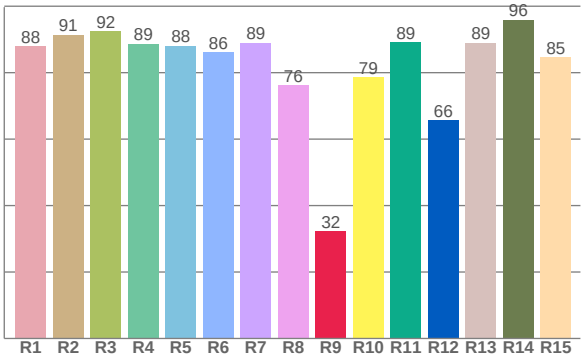


CIE 1931 ZOOM

TM30: 83.7



CRI: 87.5 (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
87.9	91.4	92.4	88.7	88.1	86.1	89.0	76.3	32.2	78.6	89.1	65.6	89.0	96.0	84.7

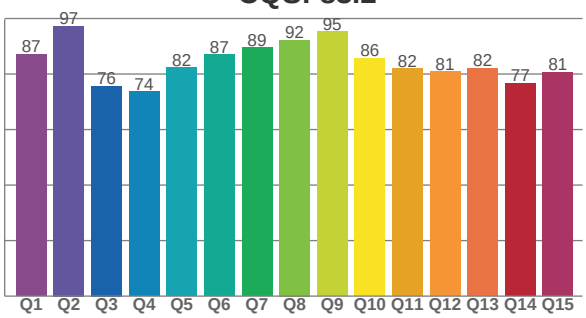
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
79.0	84.6	78.5	85.4	86.7	92.9	93.8	89.6	86.1	75.7	72.0	86.8	86.8	85.9	74.8	88.2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87.1	97.3	75.7	73.7	82.4	87.0	89.5	92.3	95.3	85.7	82.0	80.9	82.1	76.7	80.6

CQS: 83.2



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
5545 K	87.5	32.2	83.7	98.5	83.2	0.332	0.334	0.209	0.316	-0.0063

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SL-P69F4-36-x

TM30 Report

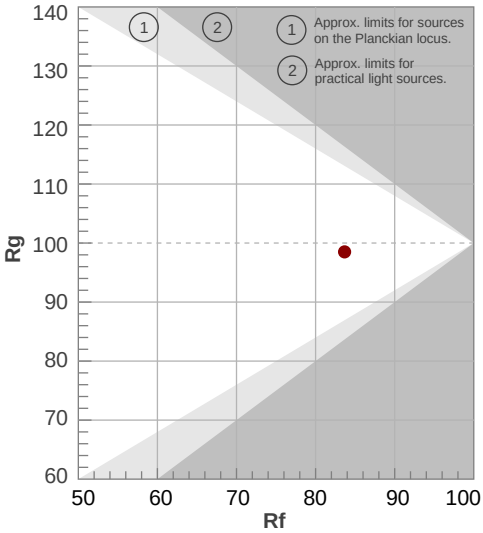
Rf 83.7

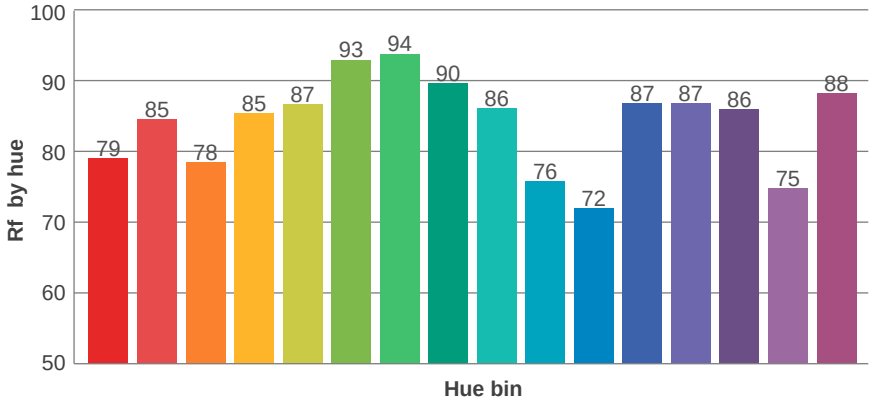
Fidelity index Rf

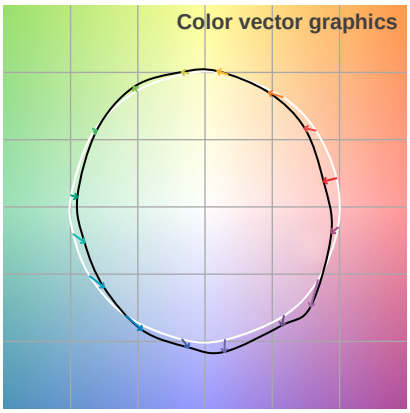
Rg 98.5

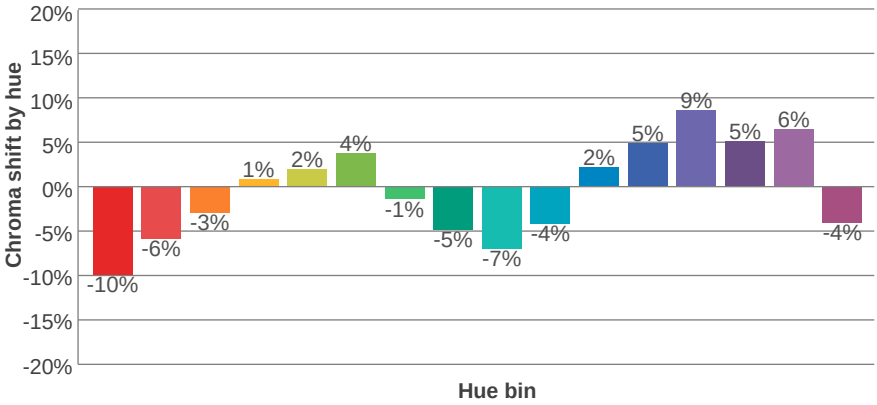
Gammut index Rg

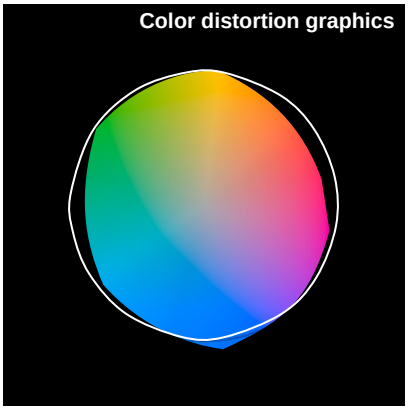
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	79	-10%	0%
2	85	-6%	6%
3	78	-3%	10%
4	85	1%	8%
5	87	2%	5%
6	93	4%	0%
7	94	-1%	-2%
8	90	-5%	0%
9	86	-7%	8%
10	76	-4%	12%
11	72	2%	15%
12	87	5%	6%
13	87	9%	-2%
14	86	5%	-5%
15	75	6%	-19%
16	88	-4%	-5%

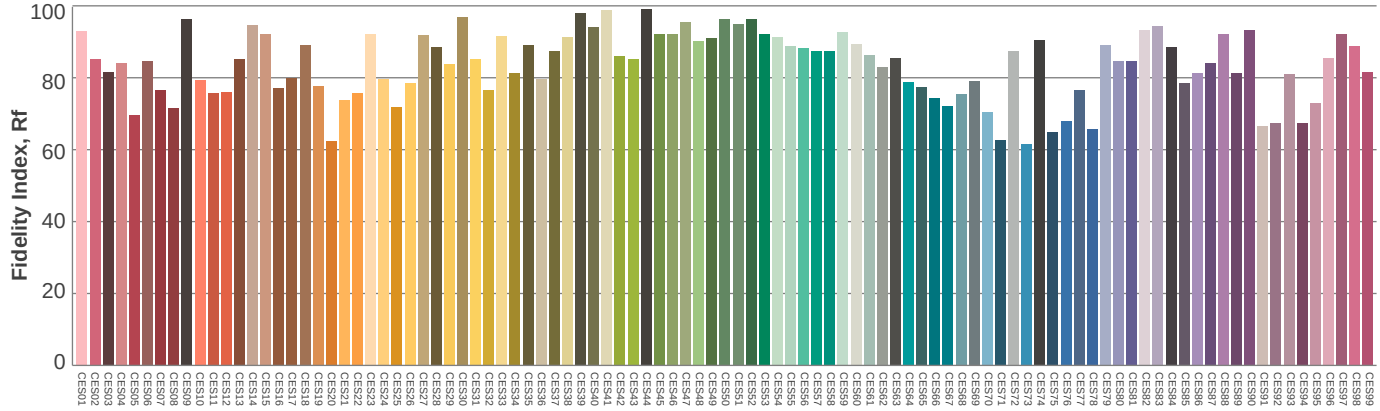












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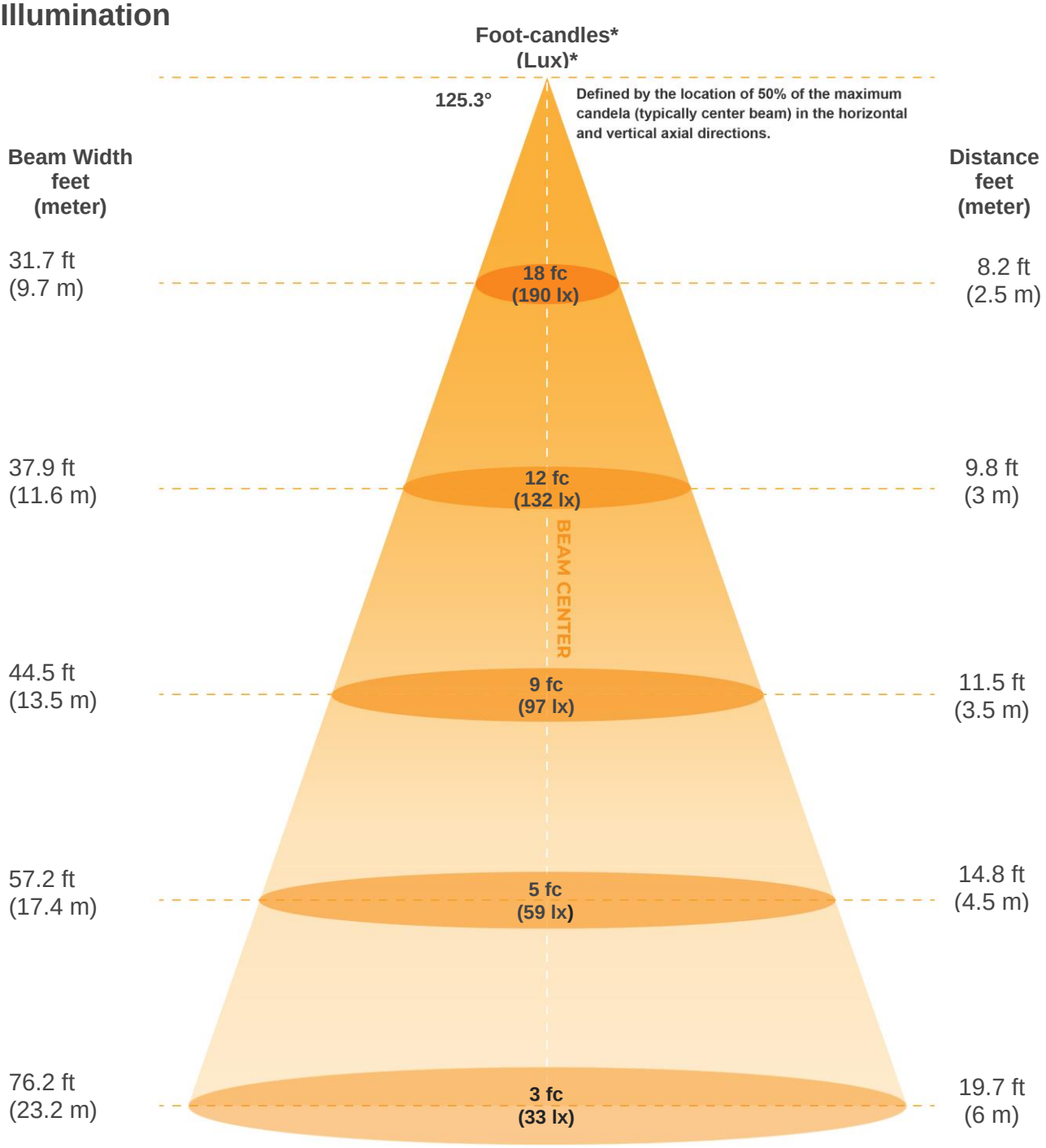
Illumination



*measured at center of beam

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
1189lx	297lx	132lx	74lx	48lx	33lx	24lx	19lx	15lx	12lx	10lx	8lx	7lx	6lx	5lx	5lx	4lx	4lx	3lx	3lx
110.5fc	27.6fcd	12.3fcd	6.9fcd	4.4fcd	3.1fcd	2.3fcd	1.7fcd	1.4fcd	1.1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd	0.5fcd	0.4fcd	0.4fcd	0.3fcd	0.3fcd	0.3fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
125.3°	**208.8°**	**249°**	**60.9%**	**40.4%**

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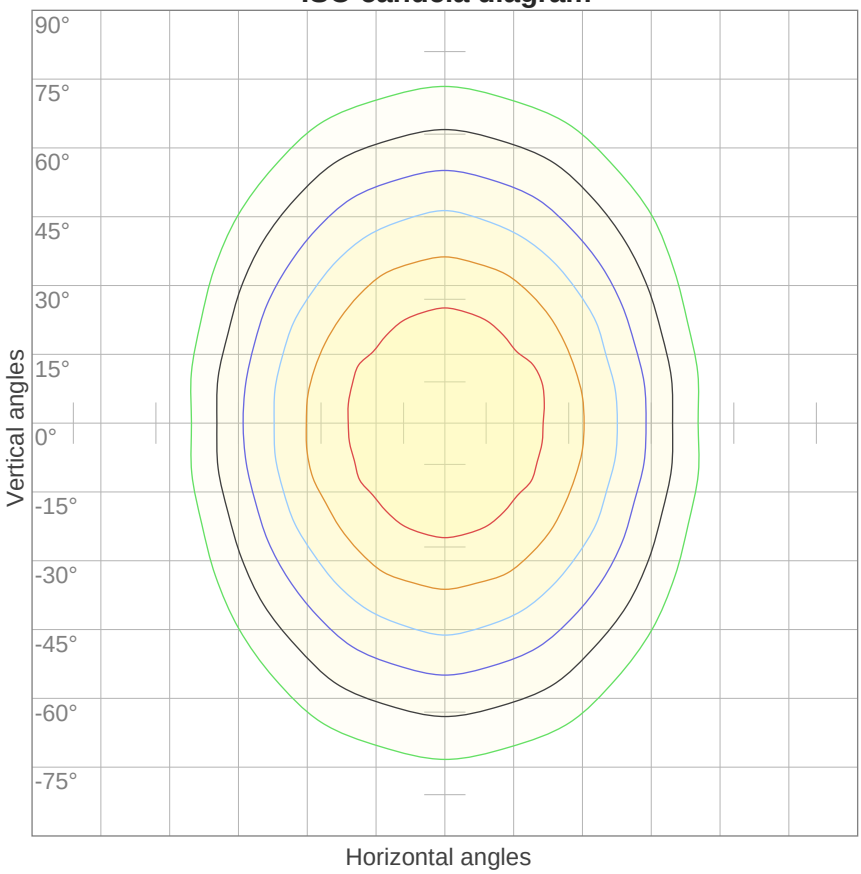
ISO Diagrams

ISO candela diagram



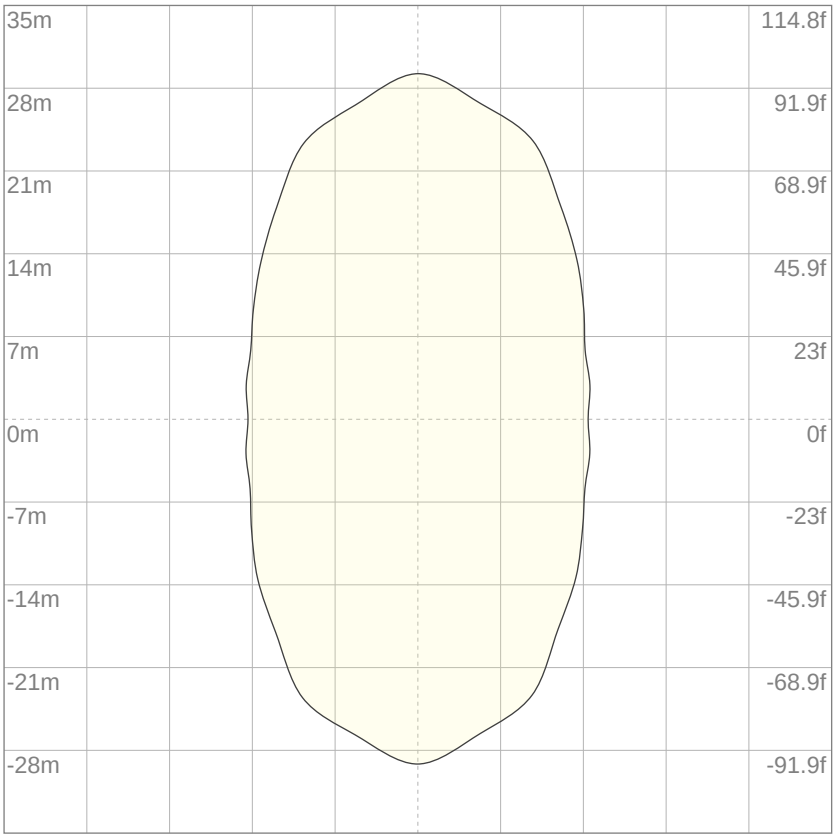
10%	119 cd
20%	238 cd
30%	357 cd
40%	476 cd
50%	594 cd
60%	713 cd
70%	832 cd
80%	951 cd
90%	1070 cd

Conditions:

Number of c-planes: 16

Candela at center: 1189 cd

ISO lux diagram



Mounting height: 10 meters (33 feet)

3%	0.357 lx
5%	0.594 lx
10%	1.19 lx
30%	3.57 lx
50%	5.94 lx

Conditions:

Number of c-planes: 16

Lux at center: 11.9 lx

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

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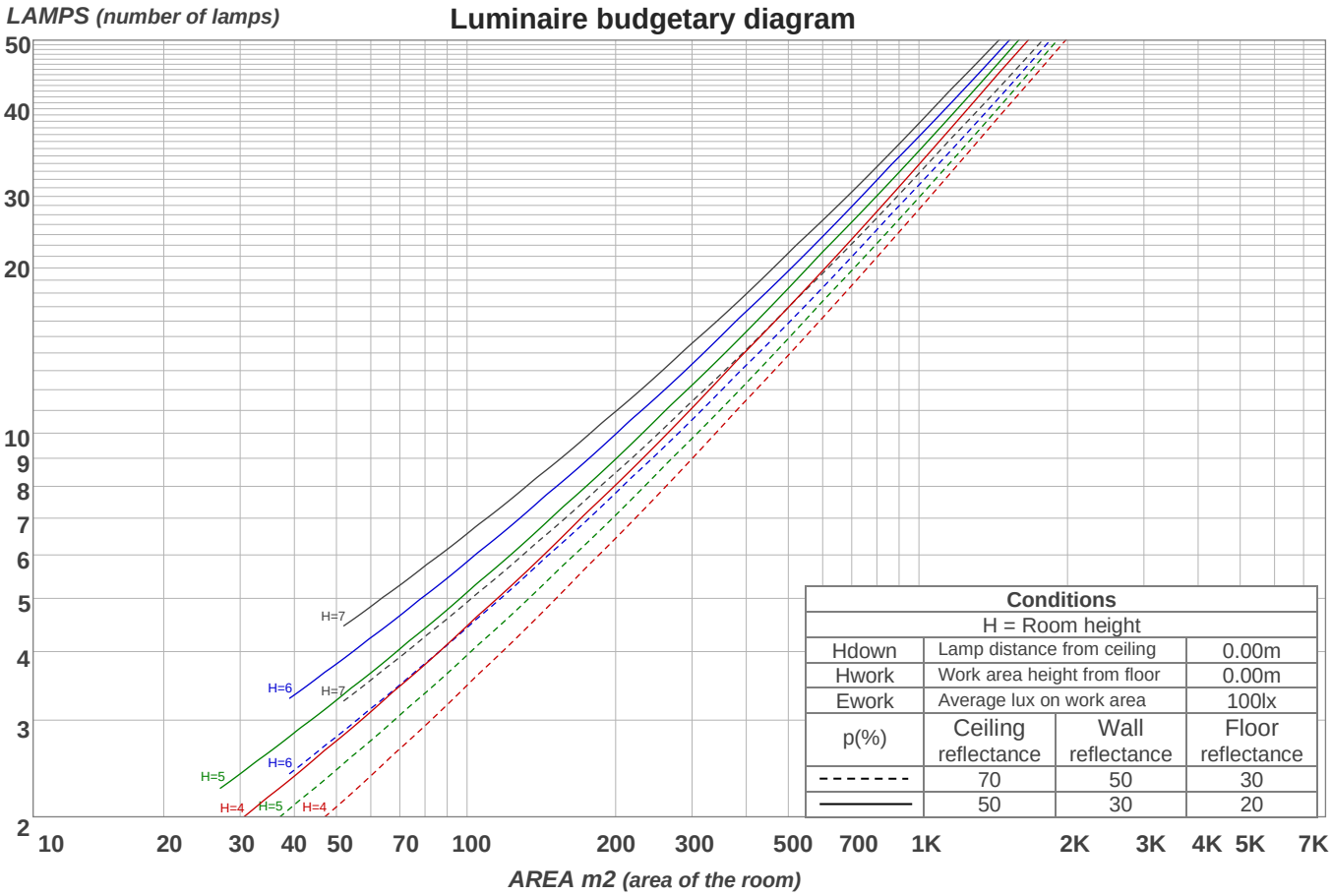
Light Planning

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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	104	98	93	88	100	94	90	85	88	84	81	82	79	76	77	74	72	69
2	93	84	76	70	89	81	74	68	76	70	65	71	66	62	66	62	58	56
3	85	73	64	57	81	71	62	56	66	59	53	62	56	51	58	53	49	46
4	77	64	55	48	74	62	53	47	58	51	45	54	48	43	51	46	41	39
5	71	57	48	41	68	55	47	40	52	44	38	49	42	37	46	40	36	33
6	65	51	42	35	62	50	41	35	47	39	33	44	37	32	41	36	31	29
7	60	46	37	31	58	45	36	30	42	35	29	40	33	28	38	32	27	25
8	56	42	33	27	54	41	33	27	39	31	26	37	30	25	35	29	24	22
9	52	39	30	25	50	38	30	24	36	28	23	34	27	23	32	26	22	20
10	49	36	27	22	47	35	27	22	33	26	21	31	25	21	30	24	20	18

Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
113 lm	323 lm	493 lm	603 lm	645 lm	620 lm	541 lm	425 lm	304 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
209 lm	137 lm	83.5 lm	46.9 lm	23.2 lm	11.4 lm	5.93 lm	3.40 lm	1.17 lm

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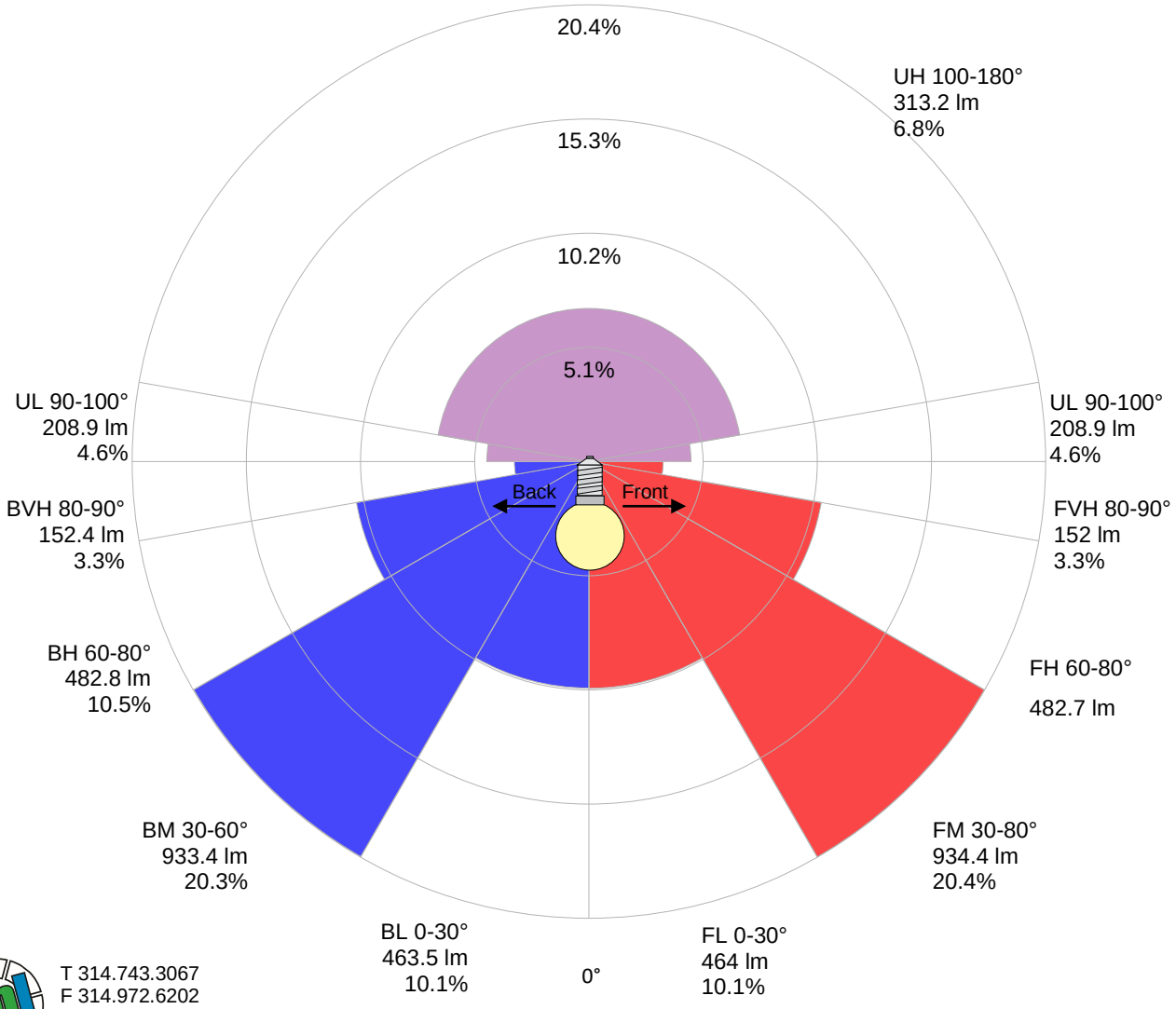
Road Report

LCS table

BUG rating:	B1 U3 G2	
Forward light	Lumens	Lumens %
Low(0-30):	464	10.1%
Medium(30-60):	934.4	20.4%
High(60-80):	482.7	10.5%
Very high(80-90):	152	3.3%
Back light		
Low(0-30):	463.5	10.1%
Medium(30-60):	933.4	20.3%
High(60-80):	482.8	10.5%
Very high(80-90):	152.4	3.3%
Uplight		
Low(90-100):	208.9	4.6%
High(100-180):	313.2	6.8%

LCS graph



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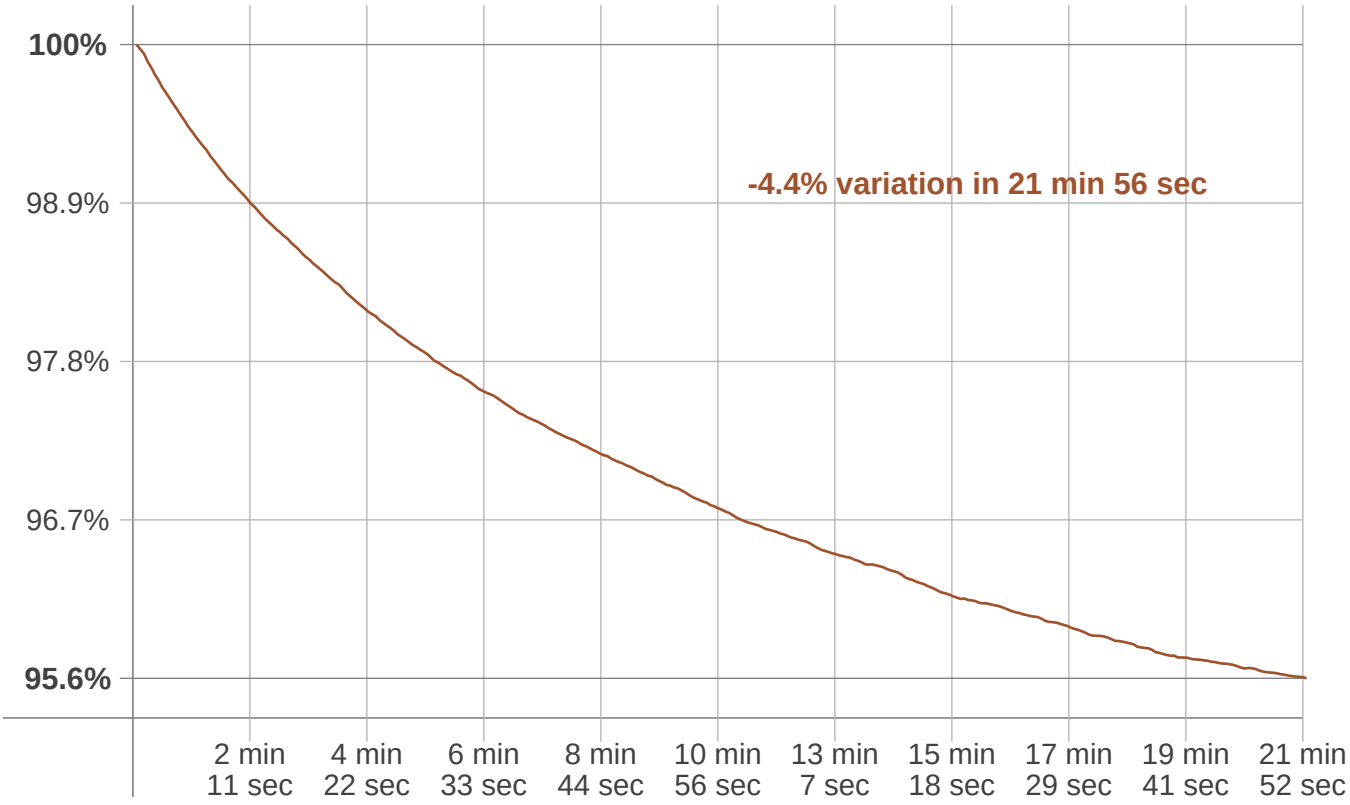
Stabilization

Warmup curve



Warmup result

Warmup time:	**21 min 56 sec**
Warmup variation	**-4.5%**

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5453 K	+92 K	5545 K

Output change

Output start	Output change	Output end
4770 lm	-182 lm	4588 lm

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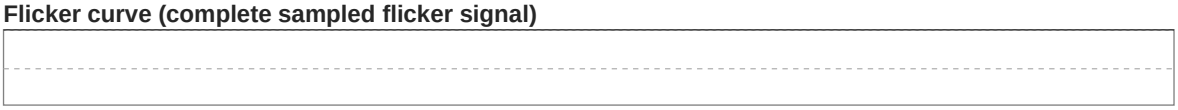
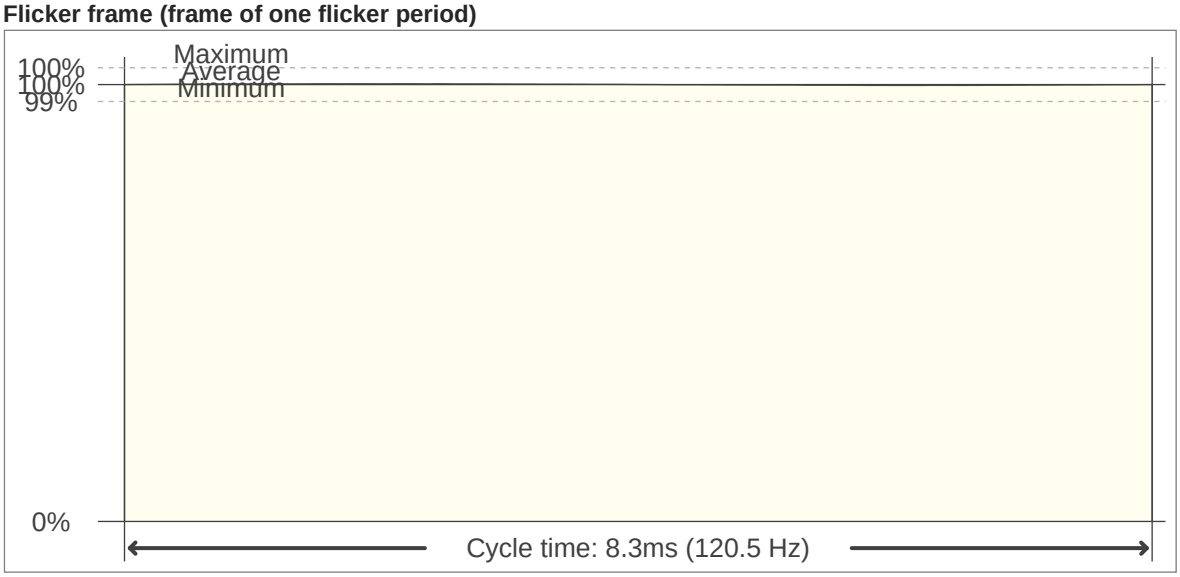
Flicker

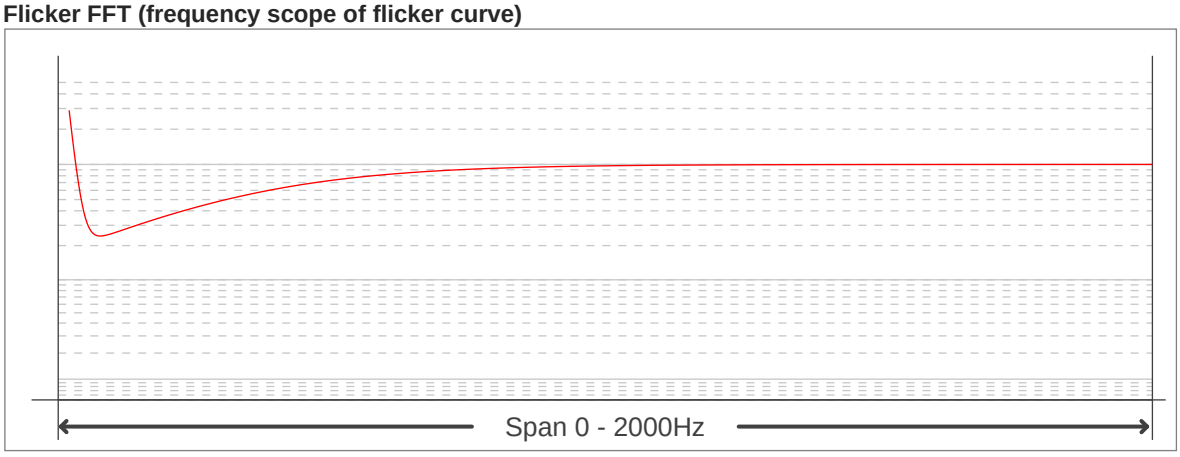
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	**120.48 Hz**
Flicker index:	**0**
Flicker percentage:	**0.21 %**
SVM: (Visual flicker)	**0.01**

Flicker conditions:

Sample rate:	**40000 samples/second**

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