Light efficiency:

128 Lumen/Watt

Light quality:

CRI: 84.9

Color temperature:

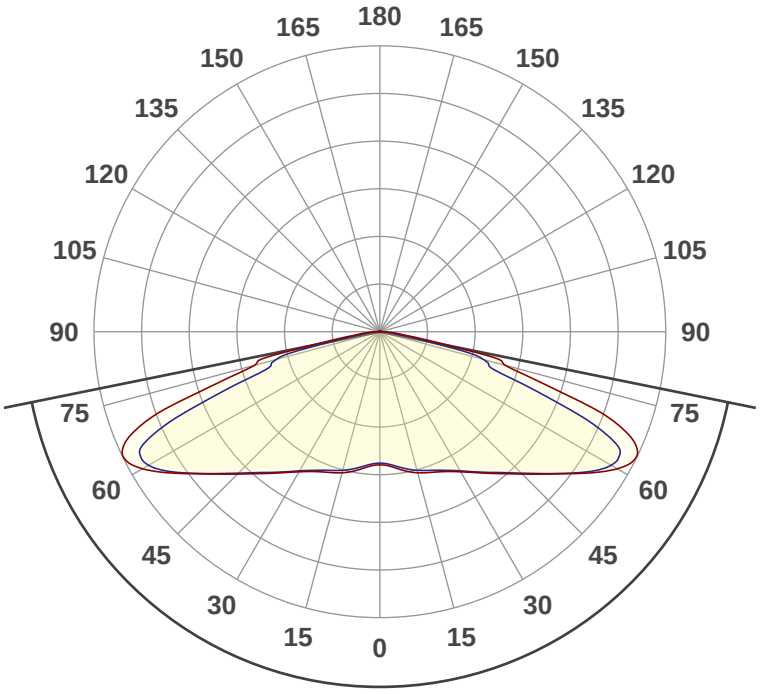
5151 K

Output: 24258 lm

Peak: 7790 cd

Power: 189.5 W

PF: 1.0



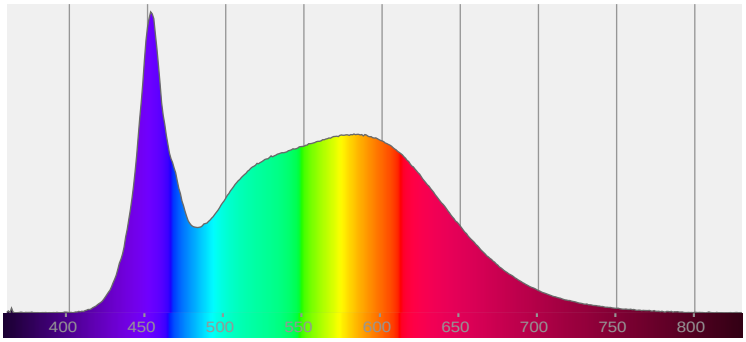
Beam angle **157.1°**

CIE 1931
x: 0.341
y: 0.353

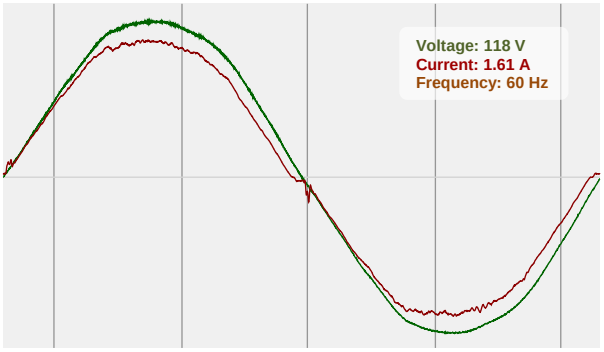
Product name:
ALD-50K19W-C-BRC3 Type V-M

Date and time:
3/22/2019 12:04:41 PM

Spectra



Power



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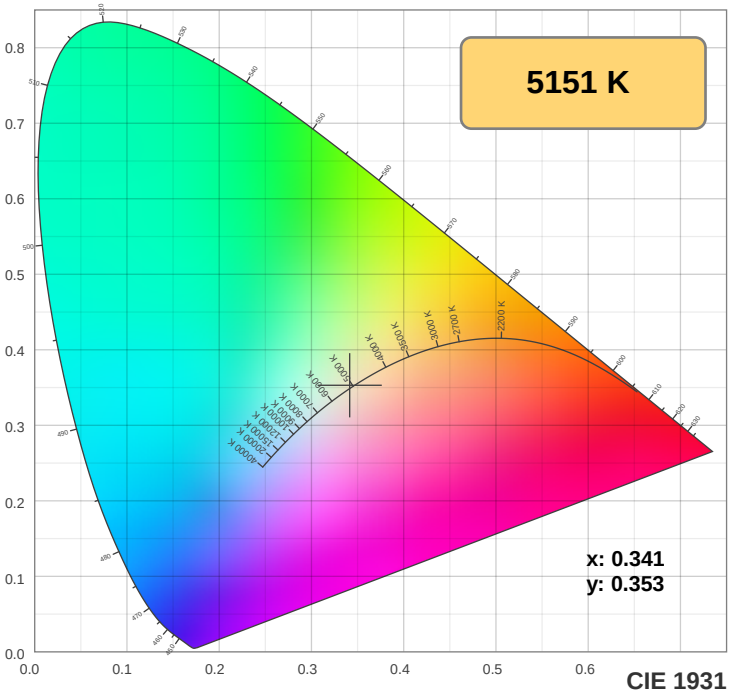
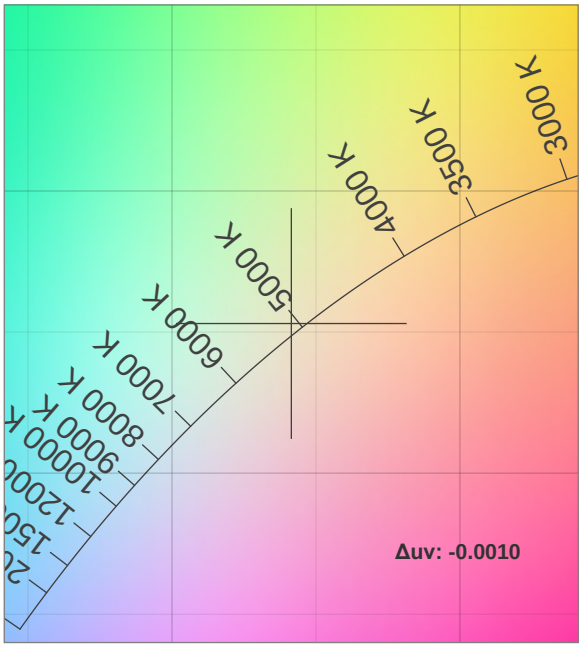
Color Specifications

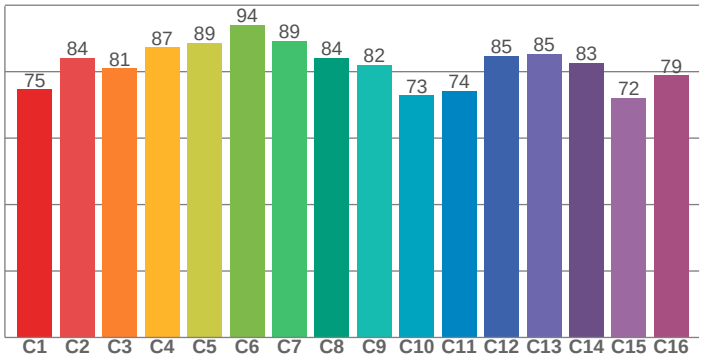


CIE 1931

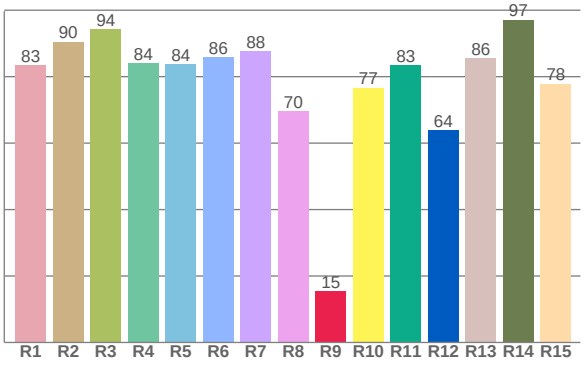


CIE 1931 ZOOM

TM30: 82.6



CRI: 84.9 (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
83.4	90.5	94.2	84.0	83.7	85.8	87.7	69.6	15.4	76.6	83.4	63.9	85.6	97.1	77.9

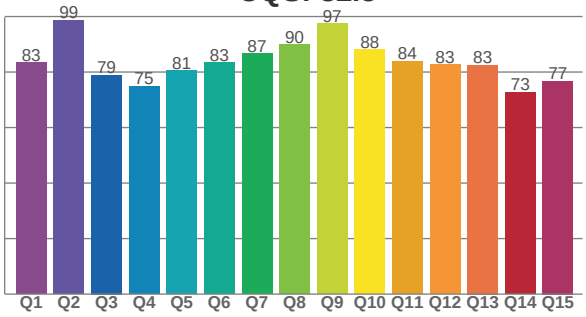
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
74.7	84.2	81.0	87.4	88.6	94.0	89.3	84.1	82.0	72.8	74.3	84.8	85.4	82.7	72.1	78.9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83.4	98.7	79.0	74.9	80.5	83.4	86.5	89.9	97.4	88.1	83.9	82.6	82.5	72.7	76.8

CQS: 82.5



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
5151 K	84.9	15.4	82.6	94.2	82.5	0.341	0.353	0.208	0.323	-0.0010

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TM30 Report

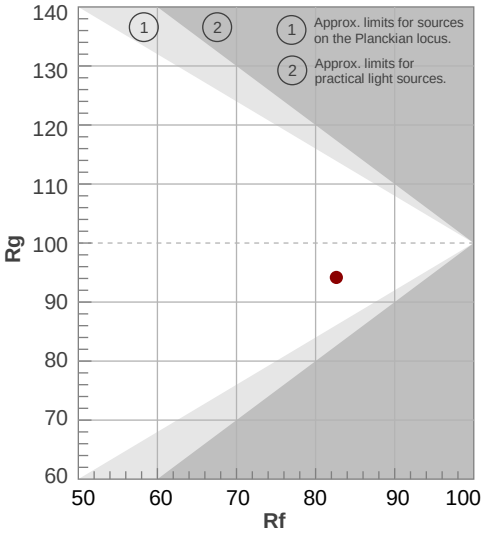
Rf 82.6

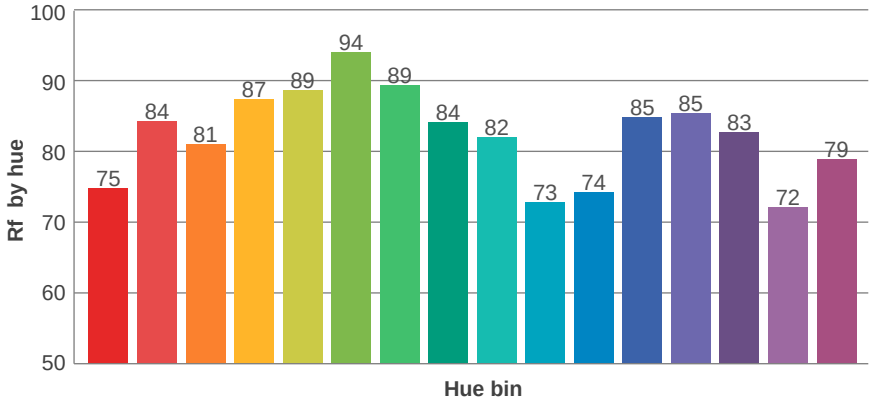
Fidelity index Rf

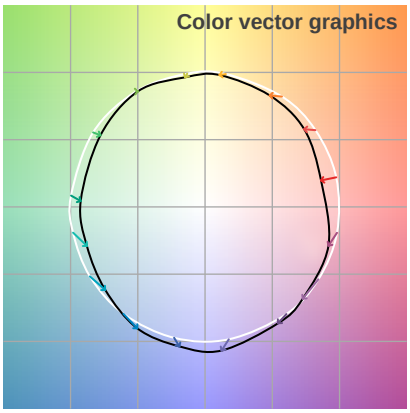
Rg 94.2

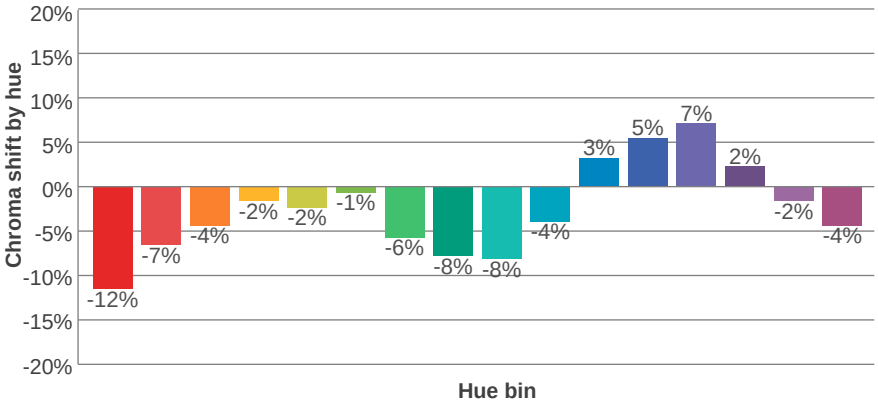
Gammut index Rg

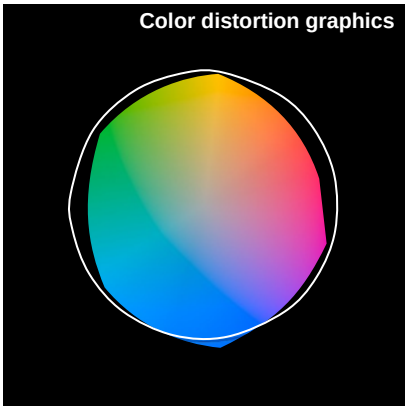
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	75	-12%	0%
2	84	-7%	5%
3	81	-4%	8%
4	87	-2%	5%
5	89	-2%	2%
6	94	-1%	-1%
7	89	-6%	-1%
8	84	-8%	3%
9	82	-8%	12%
10	73	-4%	15%
11	74	3%	15%
12	85	5%	5%
13	85	7%	-7%
14	83	2%	-9%
15	72	-2%	-18%
16	79	-4%	-11%

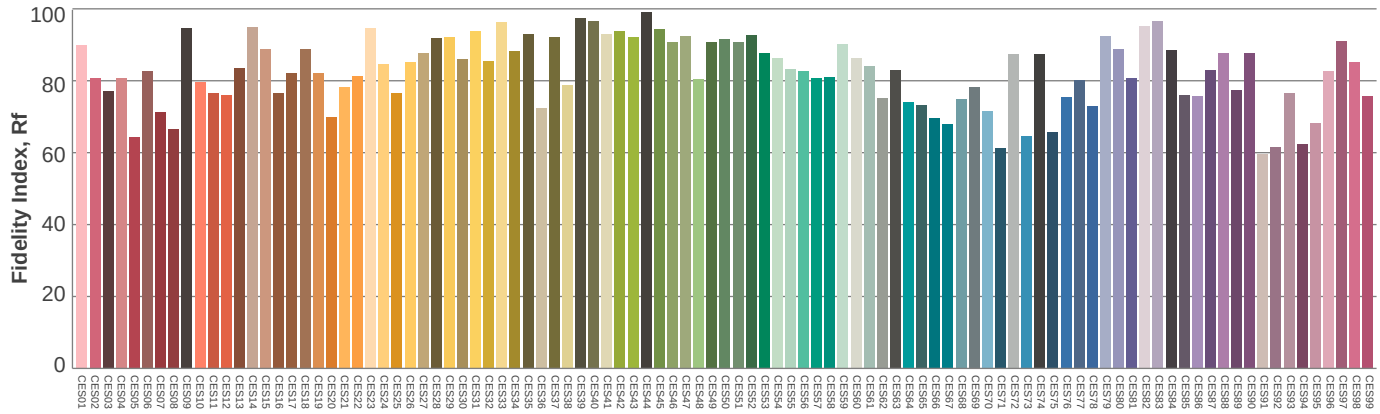












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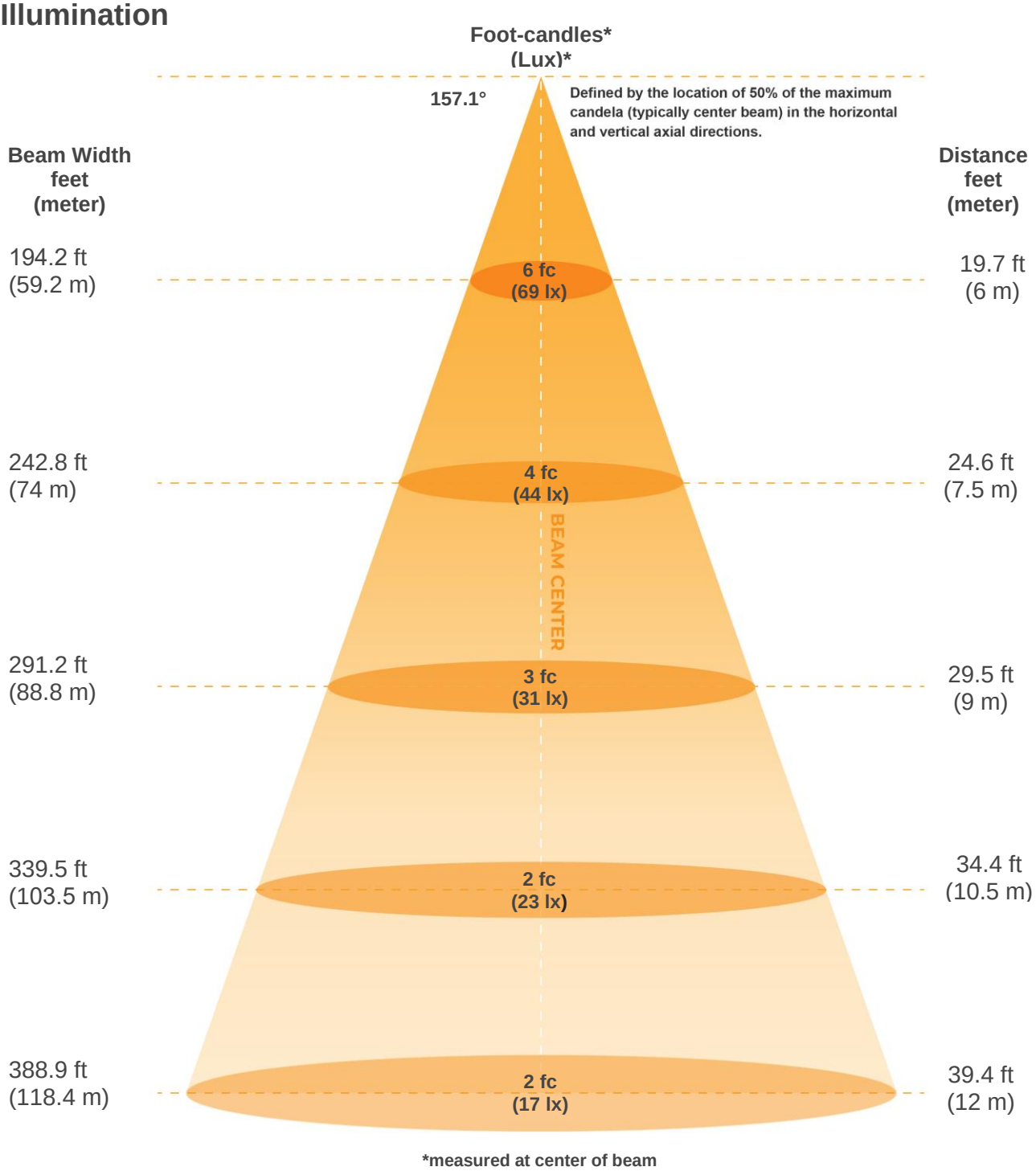
Illumination



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
2494lx	624lx	277lx	156lx	100lx	69lx	51lx	39lx	31lx	25lx	21lx	17lx	15lx	13lx	11lx	10lx	9lx	8lx	7lx	6lx
231.7fc	57.9fcd	25.7fcd	14.5fcd	9.3fcd	6.4fcd	4.7fcd	3.6fcd	2.9fcd	2.3fcd	1.9fcd	1.6fcd	1.4fcd	1.2fcd	1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd	0.6fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
157.1°	**168.6°**	**175.3°**	**50.7%**	**24.3%**

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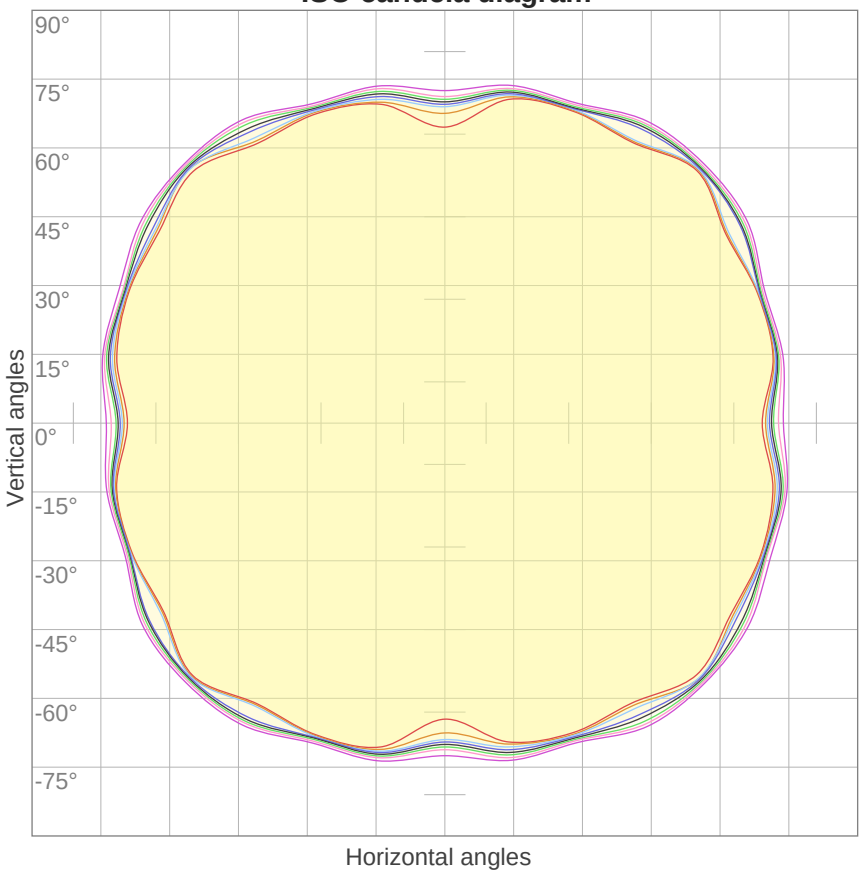
ISO Diagrams

ISO candela diagram



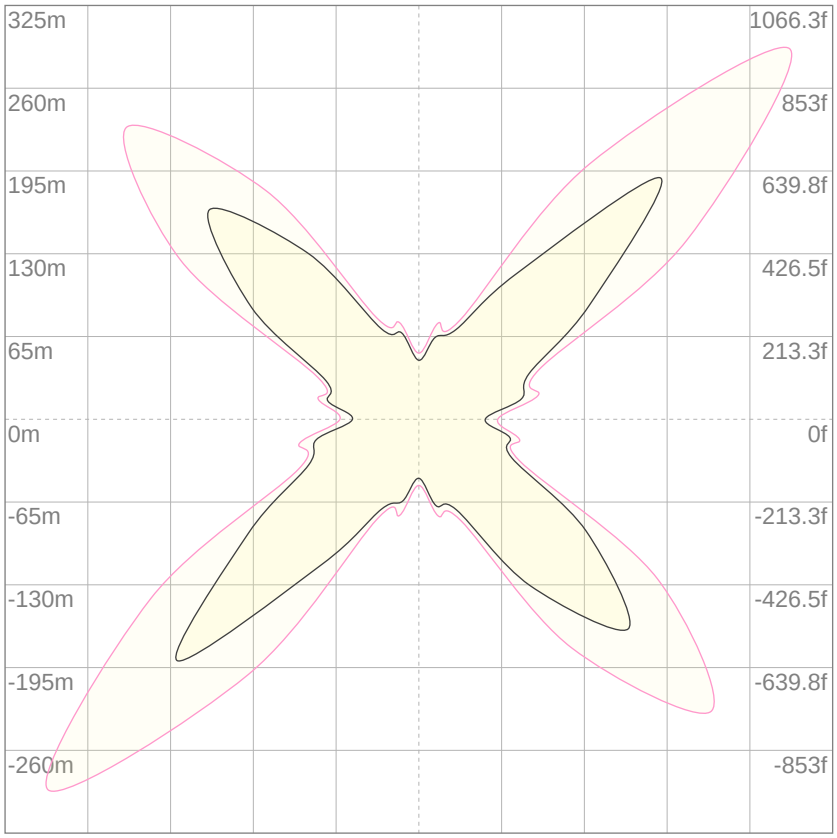
10%	249 cd
20%	499 cd
30%	748 cd
40%	998 cd
50%	1247 cd
60%	1496 cd
70%	1746 cd
80%	1995 cd
90%	2245 cd

Conditions:

Number of c-planes: 16

Candela at center: 2494 cd

ISO lux diagram



3%	0.748 lx
5%	1.25 lx
10%	2.49 lx
30%	7.48 lx
50%	12.5 lx

Conditions:

Number of c-planes: 16

Lux at center: 24.9 lx

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

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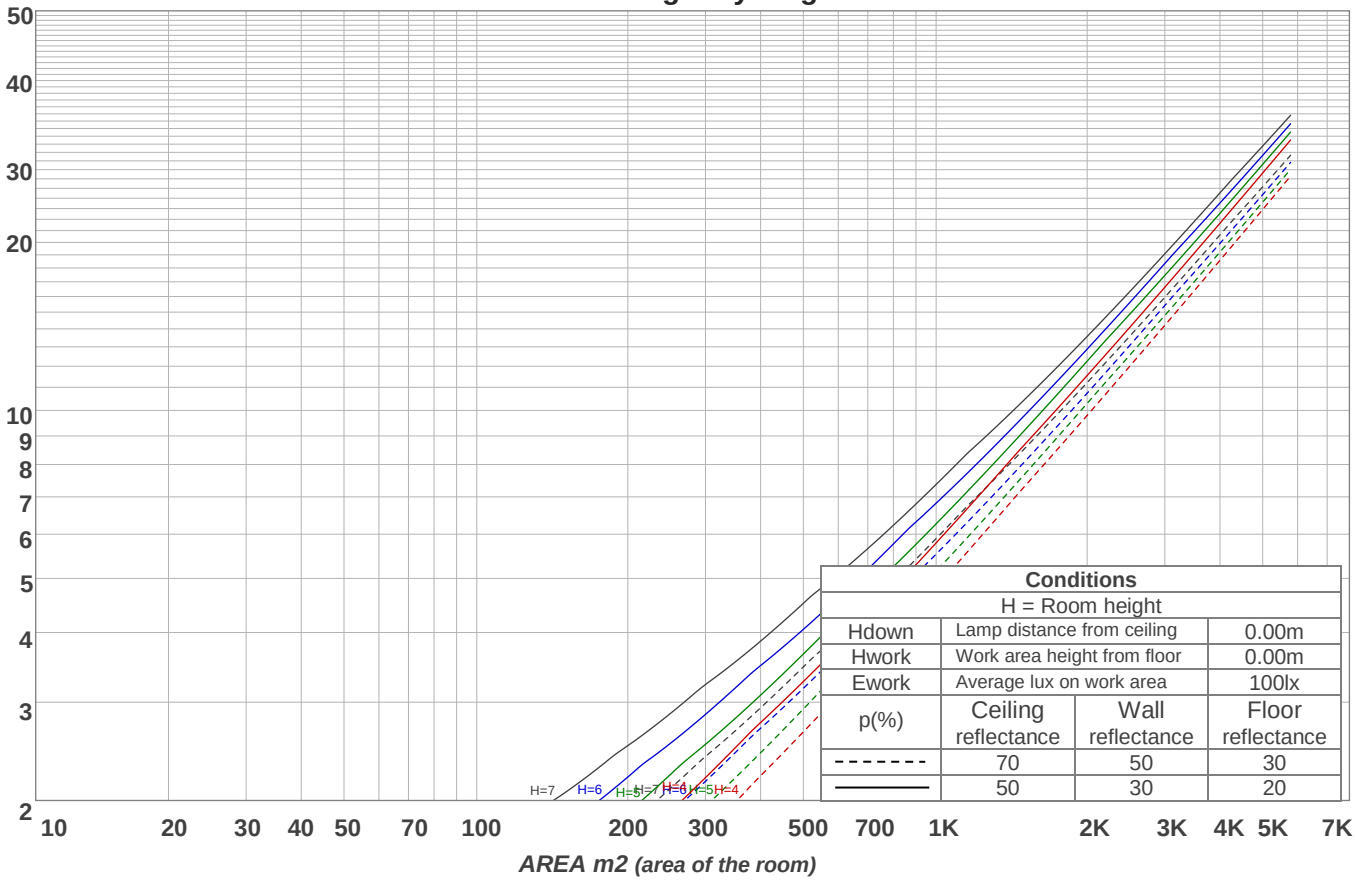
Light Planning

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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	104	97	91	85	101	94	89	84	90	85	81	86	82	78	82	79	76	73
2	91	79	70	62	87	77	68	61	73	66	59	69	63	58	66	61	56	54
3	80	66	55	46	77	64	54	46	61	52	45	58	50	44	55	48	43	40
4	71	56	45	36	69	54	44	36	52	42	35	49	41	34	47	40	34	31
5	64	48	37	29	62	47	37	29	45	35	28	43	34	28	40	33	27	25
6	59	43	32	24	56	41	31	24	39	30	23	37	29	23	36	28	23	20
7	54	38	27	20	52	37	27	20	35	26	20	33	25	19	32	25	19	17
8	50	34	24	17	48	33	24	17	32	23	17	30	22	17	29	22	16	14
9	46	31	21	15	45	30	21	15	29	20	15	28	20	14	26	19	14	12
10	43	28	19	13	42	28	19	13	26	18	13	25	18	13	24	18	13	11

Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
245 lm	781 lm	1371 lm	2098 lm	3135 lm	4669 lm	5981 lm	4692 lm	1187 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
19.8 lm	13.7 lm	14.7 lm	14.3 lm	12.6 lm	10.3 lm	7.41 lm	4.40 lm	1.46 lm

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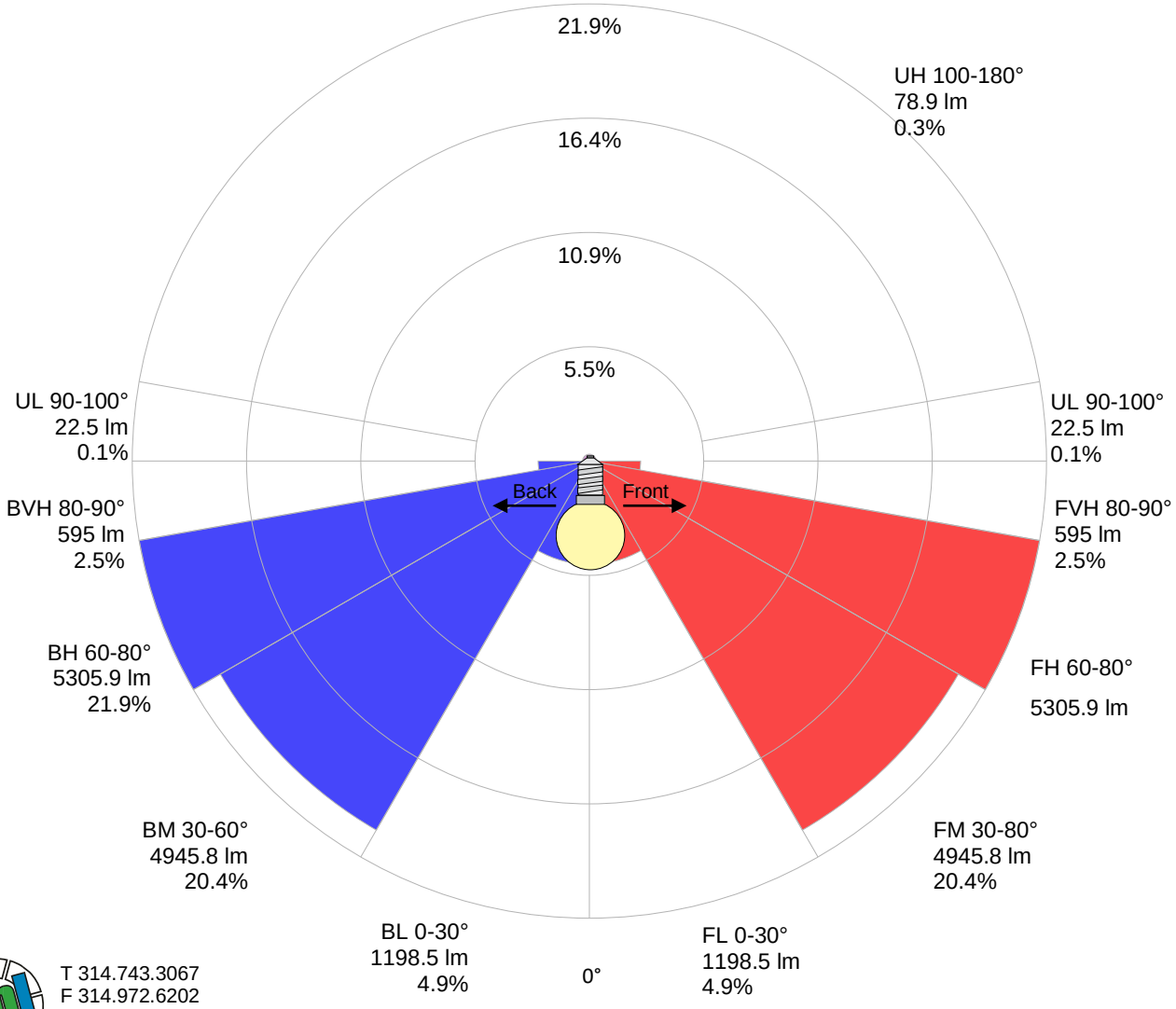
Road Report

LCS table

BUG rating:	B5 U3 G5	
Forward light	Lumens	Lumens %
Low(0-30):	1198.5	4.9%
Medium(30-60):	4945.8	20.4%
High(60-80):	5305.9	21.9%
Very high(80-90):	595	2.5%
Back light		
Low(0-30):	1198.5	4.9%
Medium(30-60):	4945.8	20.4%
High(60-80):	5305.9	21.9%
Very high(80-90):	595	2.5%
Uplight		
Low(90-100):	22.5	0.1%
High(100-180):	78.9	0.3%

LCS graph



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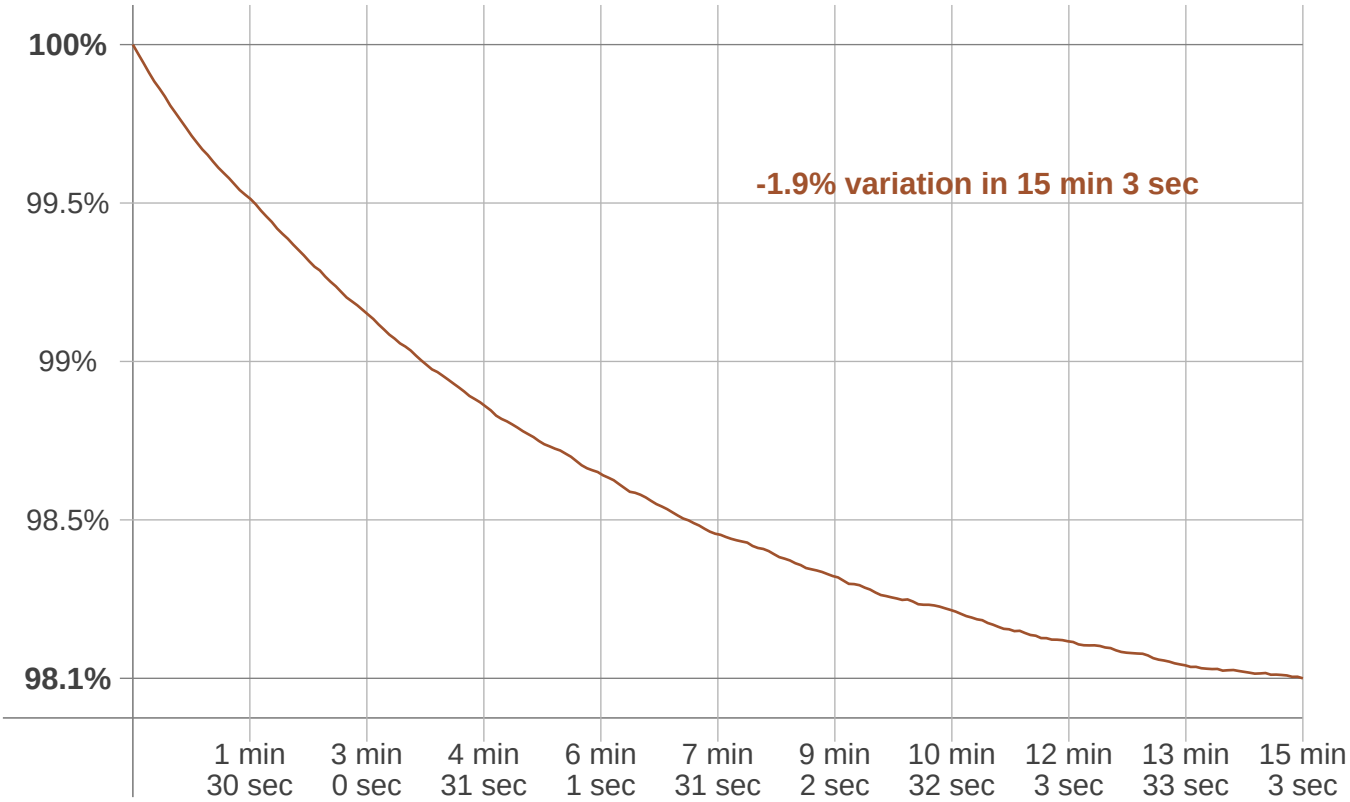
Stabilization

Warmup curve



Warmup result

Warmup time:	**15 min 3 sec**
Warmup variation	**-1.9%**

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5110 K	+41 K	5151 K

Output change

Output start	Output change	Output end
24723 lm	-466 lm	24258 lm

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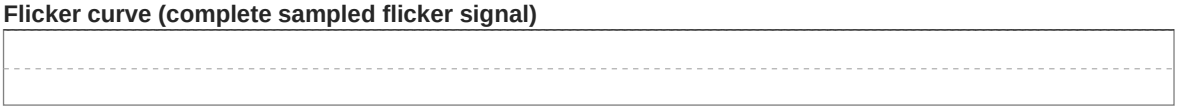
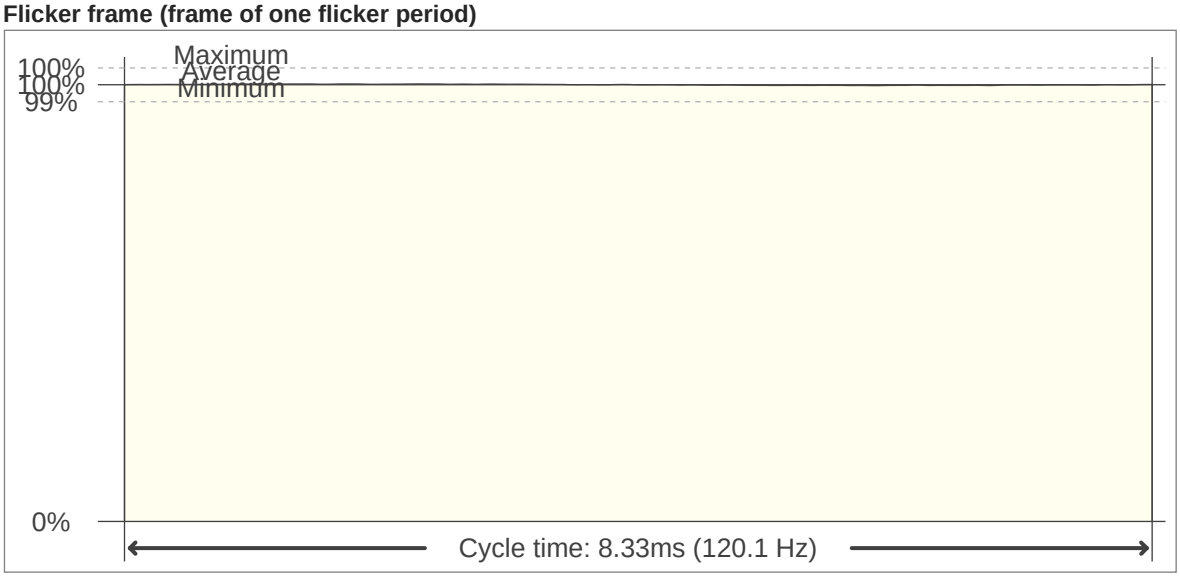
Flicker

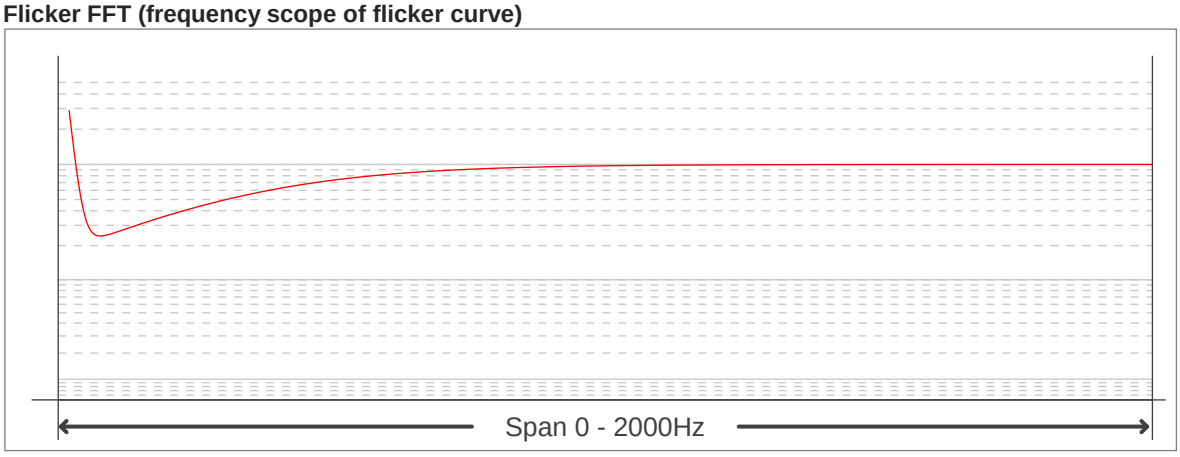
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	**120.12 Hz**
Flicker index:	**0**
Flicker percentage:	**0.24 %**
SVM: (Visual flicker)	**0.01**

Flicker conditions:

Sample rate:	**40000 samples/second**

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