PLLD4-50K100-ALT3BR1

Light efficiency:

149 Lumen/Watt

Light quality:

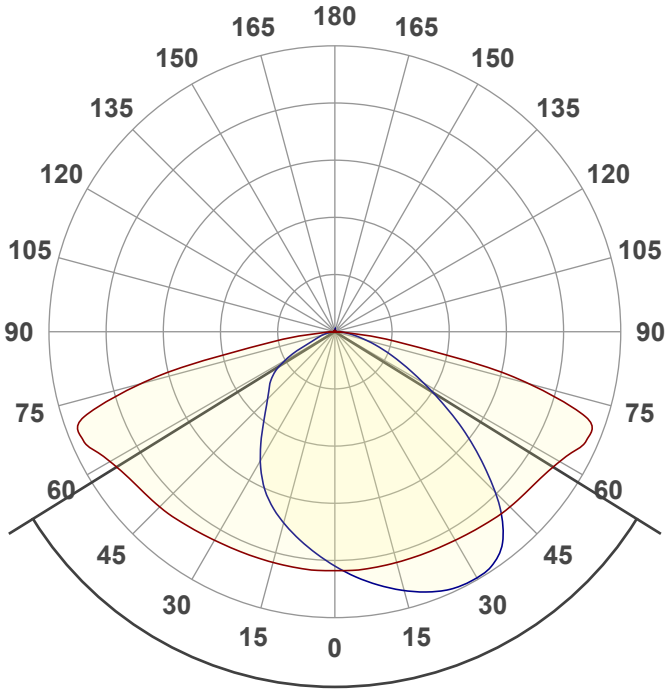
CRI: 82.2

Color temperature:

5144 K

Output: 14737 lm
Peak: 5352 cd

Power: 99.1 W
PF: 0.99



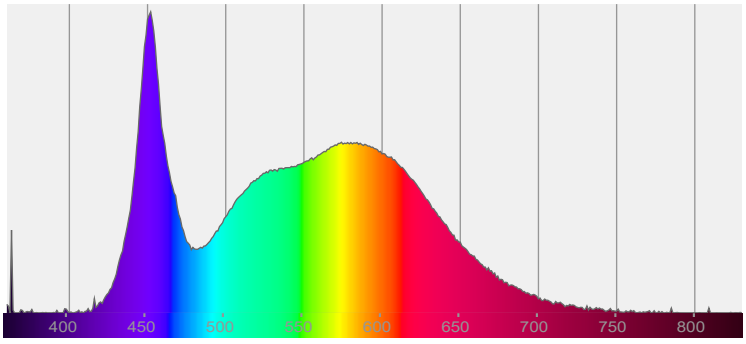
Beam angle 116.4°

CIE 1931
x: 0.341
y: 0.348

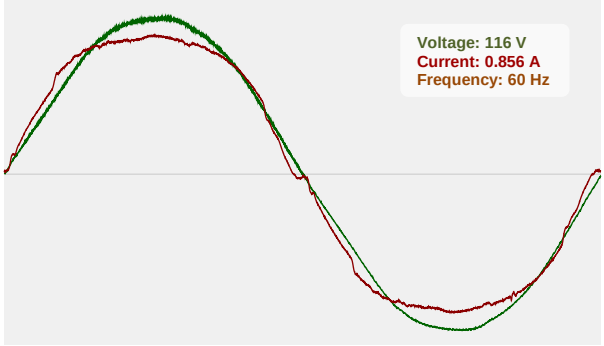
Product name:
PLLD4-50K100-ALT3BR1

Date and time:
6/30/2022 3:29:06 PM

Spectra



Power



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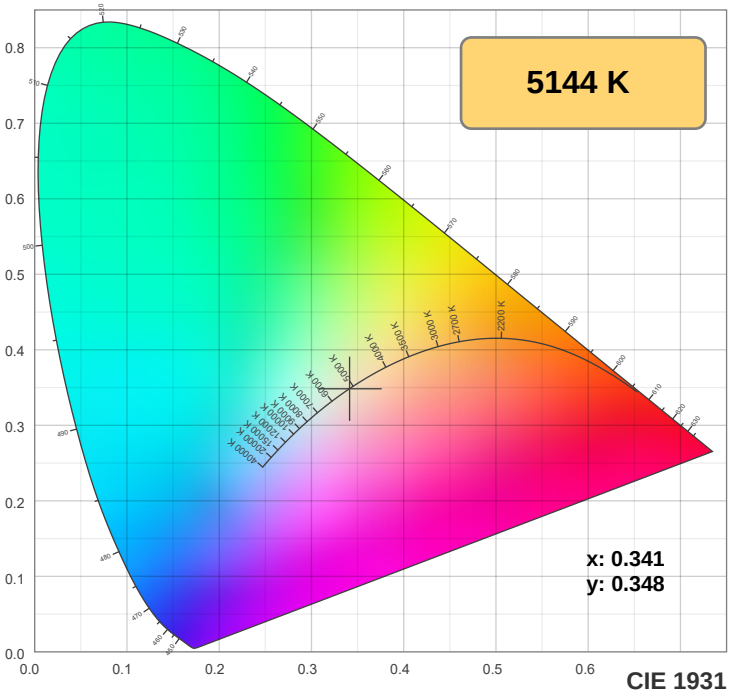
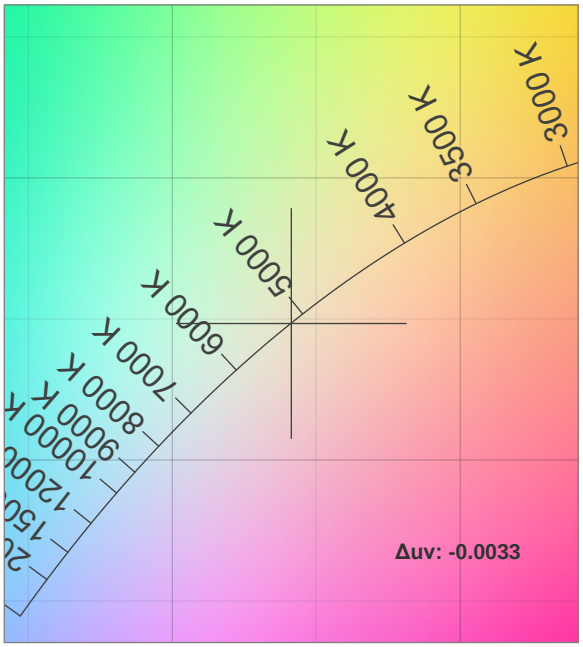
Color Specifications

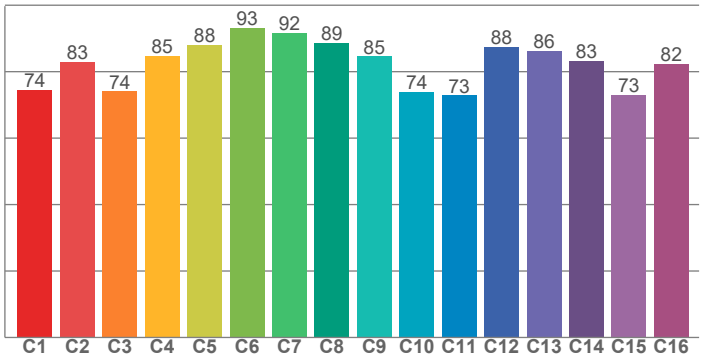


CIE 1931

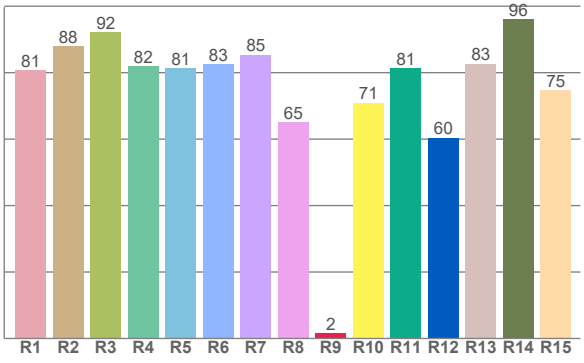


CIE 1931 ZOOM

TM30: 82.3



CRI: 82.2 (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
80.7	88.0	92.3	82.0	81.3	82.6	85.4	65.1	1.6	71.0	81.3	60.4	82.7	96.0	74.7

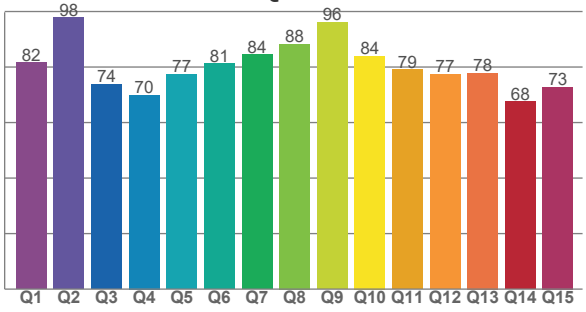
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
74.5	83.0	74.1	84.7	88.1	93.2	91.7	88.7	84.7	74.0	72.8	87.5	86.2	83.3	73.0	82.4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
81.7	97.8	73.8	70.0	77.4	81.2	84.4	88.3	96.1	83.9	79.0	77.4	77.8	67.6	72.8

CQS: 78.9



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
5144 K	82.2	1.6	82.3	95.6	78.9	0.341	0.348	0.210	0.322	-0.0033

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TM30 Report

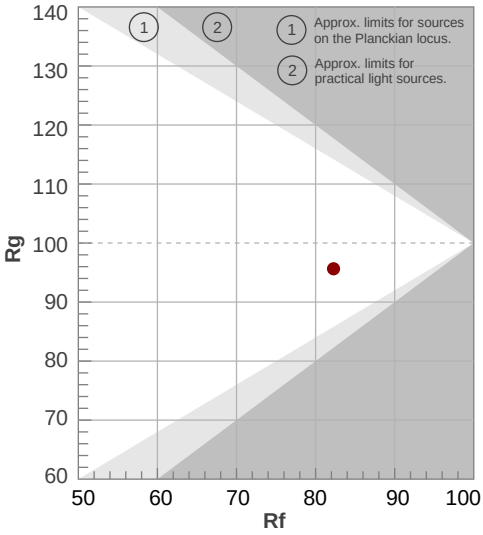
Rf 82.3

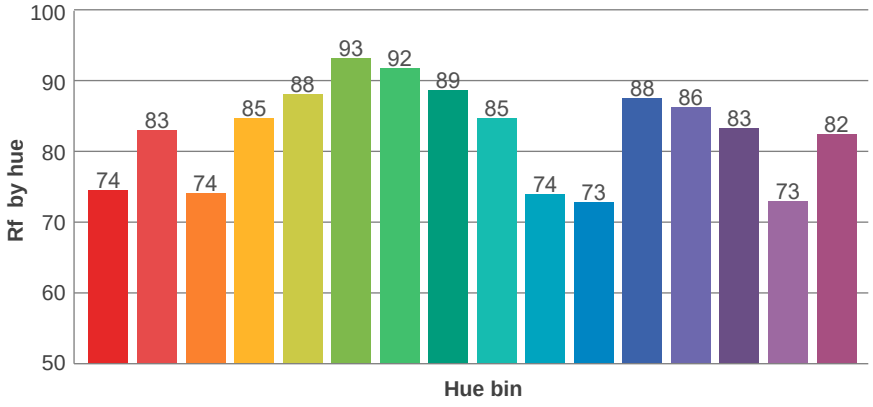
Fidelity index Rf

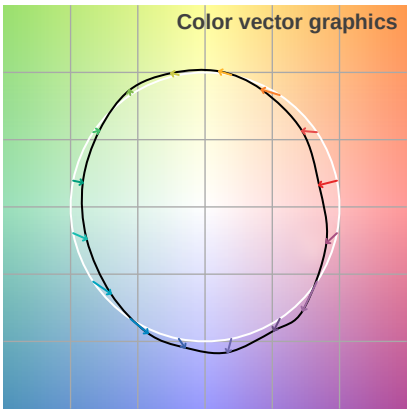
Rg 95.6

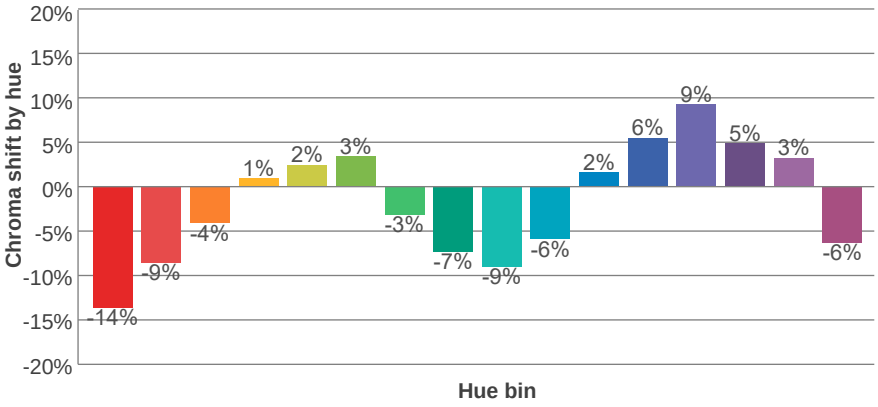
Gammut index Rg

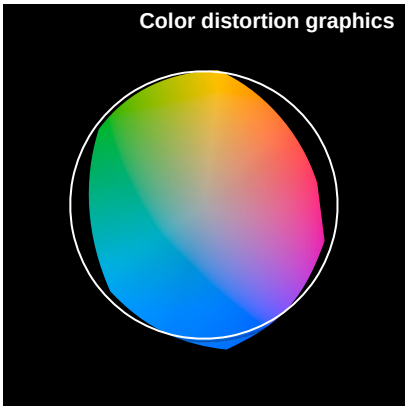
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	74	-14%	-1%
2	83	-9%	7%
3	74	-4%	13%
4	85	1%	9%
5	88	2%	5%
6	93	3%	-1%
7	92	-3%	-4%
8	89	-7%	0%
9	85	-9%	6%
10	74	-6%	15%
11	73	2%	17%
12	88	6%	6%
13	86	9%	-5%
14	83	5%	-9%
15	73	3%	-24%
16	82	-6%	-9%

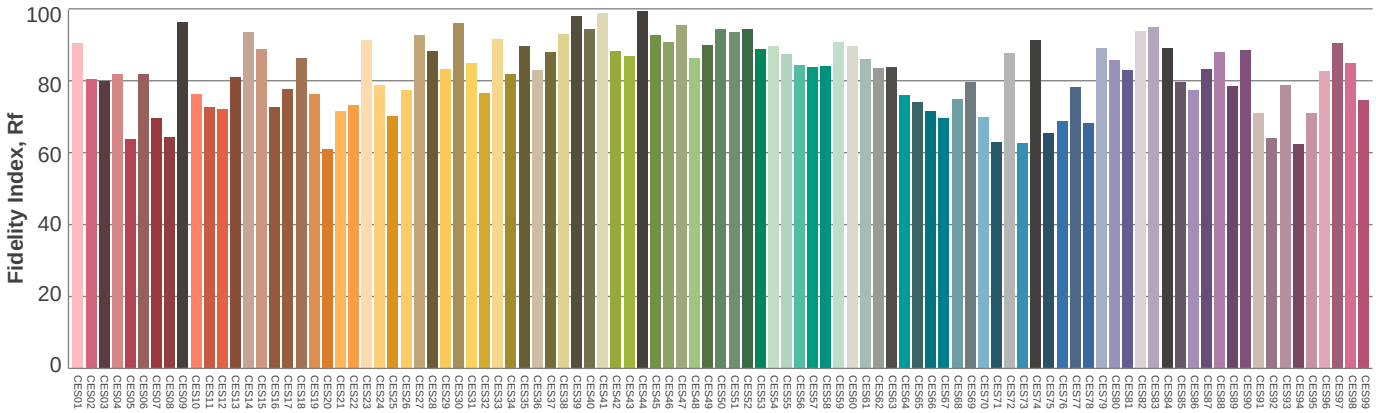












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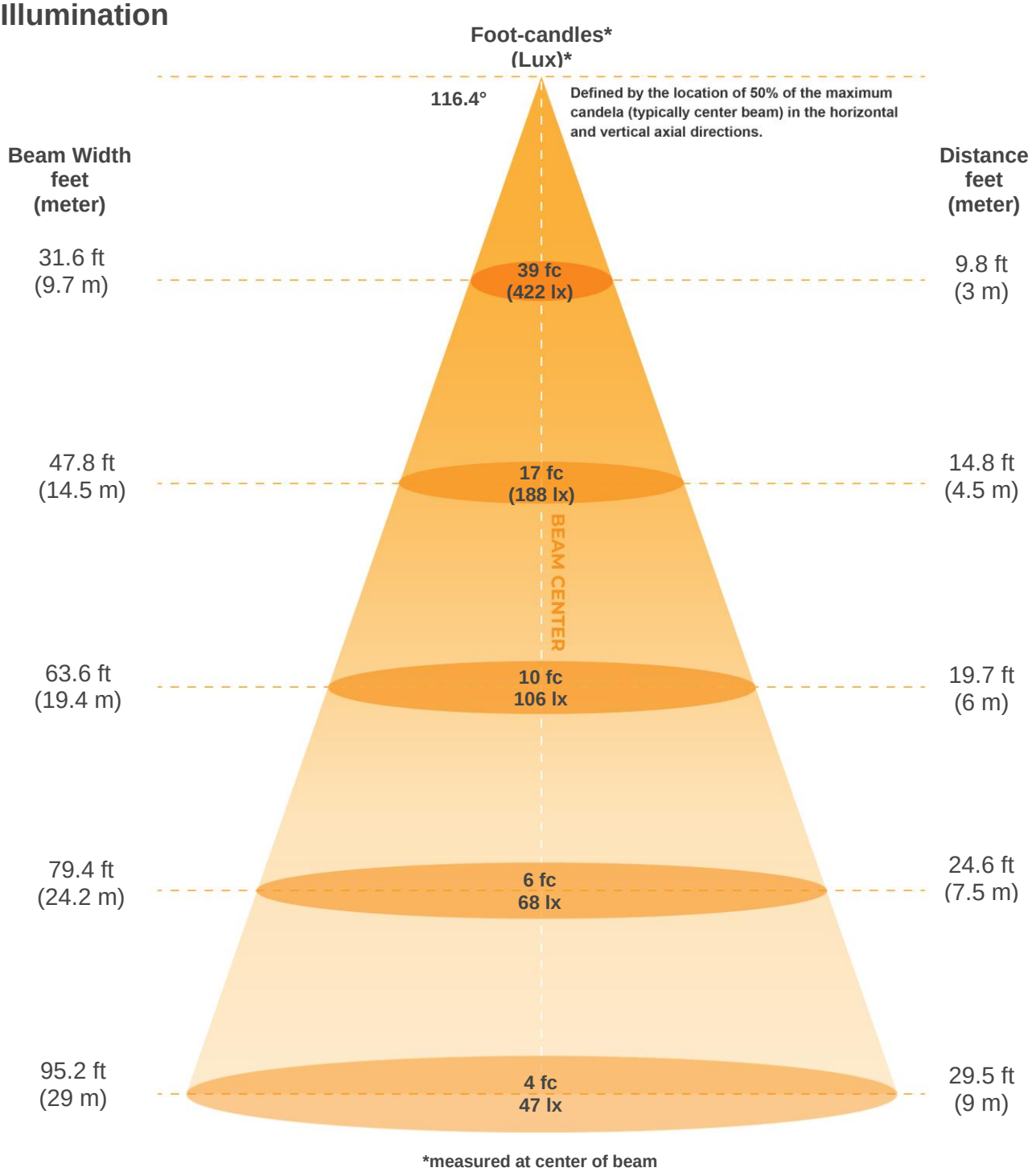
Illumination



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
3801lx	950lx	422lx	238lx	152lx	106lx	78lx	59lx	47lx	38lx	31lx	26lx	22lx	19lx	17lx	15lx	13lx	12lx	11lx	10lx
353.1fc	88.3fcd	39.2fcd	22.1fcd	14.1fcd	9.8fcd	7.2fcd	5.5fcd	4.4fcd	3.5fcd	2.9fcd	2.5fcd	2.1fcd	1.8fcd	1.6fcd	1.4fcd	1.2fcd	1.1fcd	1fcd	0.9fcd

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
116.4°	**155.9°**	**170.3°**	**72.1%**	**45.6%**

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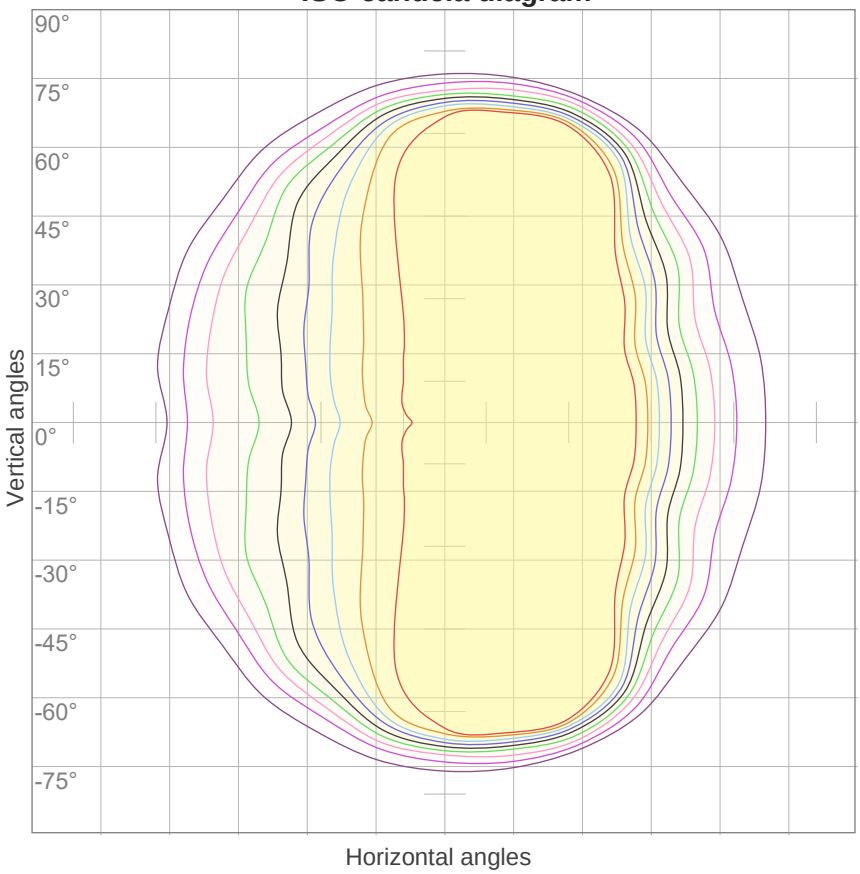
ISO Diagrams

ISO candela diagram



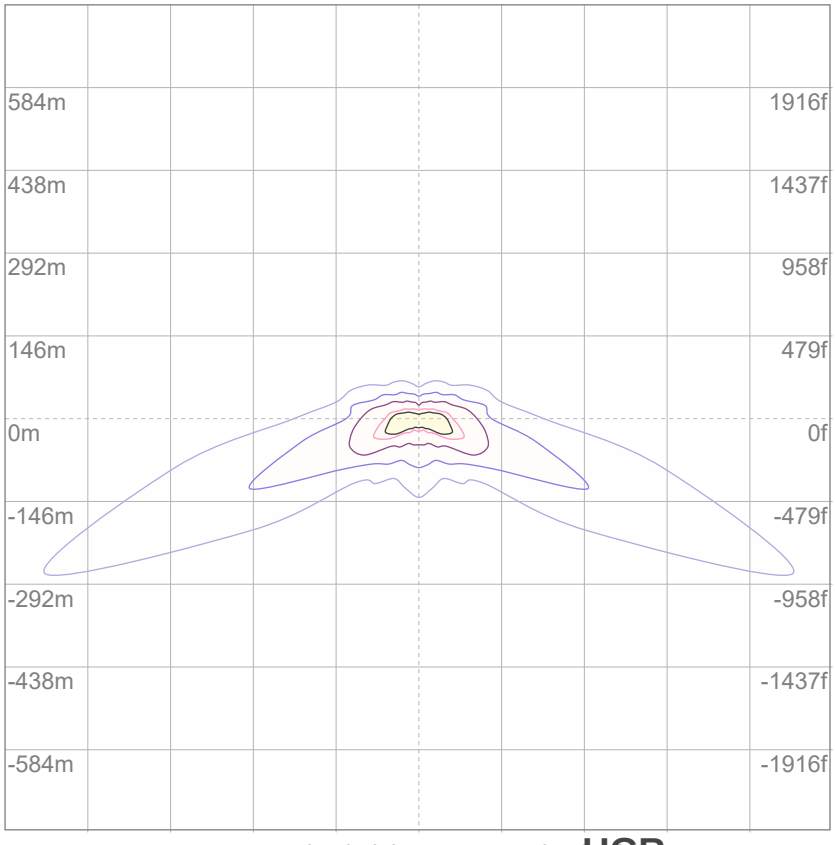
10%	380 cd
20%	760 cd
30%	1140 cd
40%	1520 cd
50%	1901 cd
60%	2281 cd
70%	2661 cd
80%	3041 cd
90%	3421 cd

Conditions:

Number of c-planes: 16

Candela at center: 3801 cd

ISO lux diagram



Mounting height: 10 meters (33 feet)

3%	1.14 lx
5%	1.90 lx
10%	3.80 lx
30%	11.4 lx
50%	19.0 lx

Conditions:

Number of c-planes: 16

Lux at center: 38.0 lx

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

UGR

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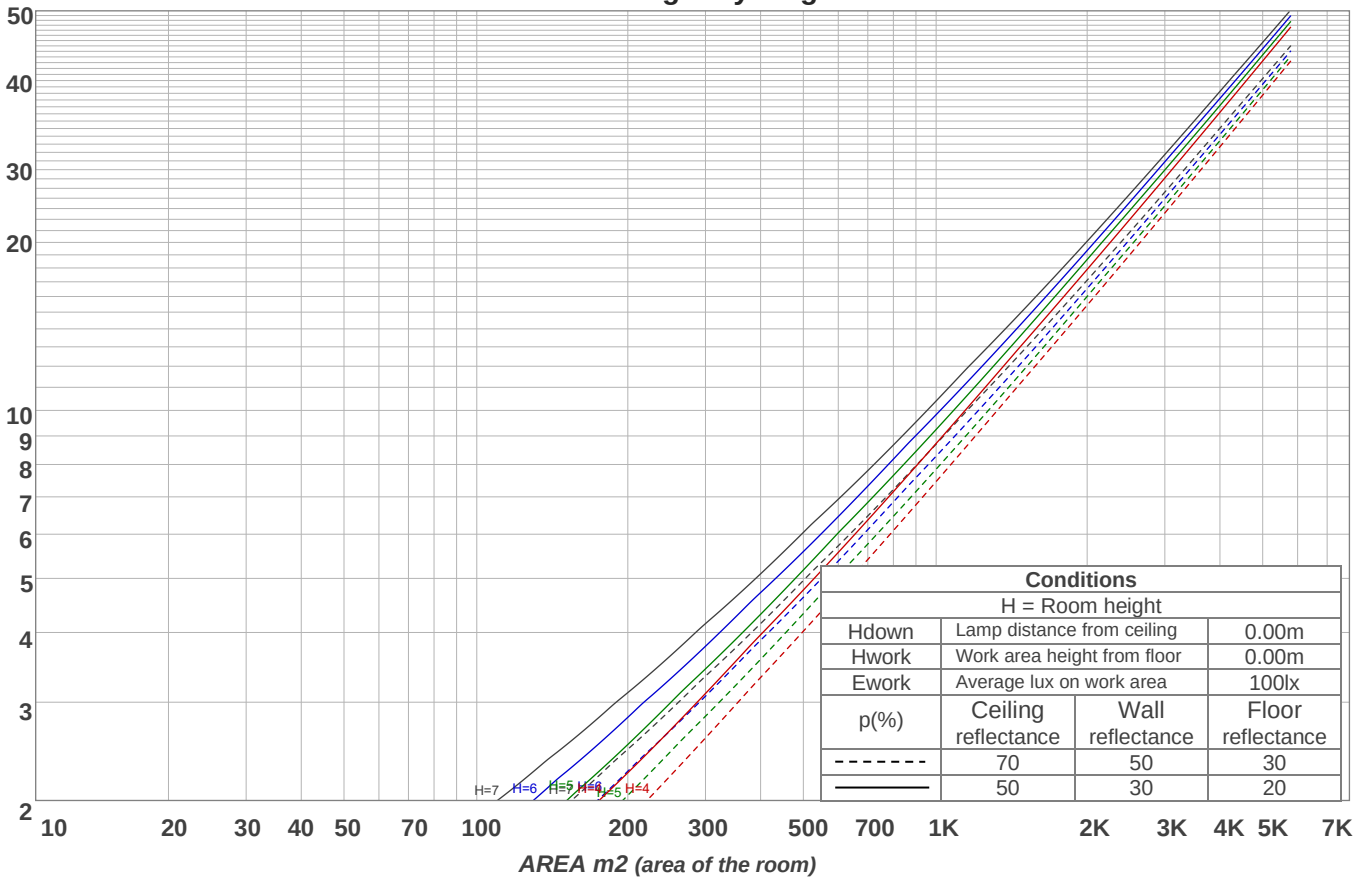
Light Planning

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	108	102	98	93	105	100	96	92	96	92	89	92	89	86	88	86	83	81
2	97	88	80	74	94	86	79	73	82	76	71	79	74	69	75	71	68	66
3	87	76	67	60	85	74	66	59	71	64	58	68	62	57	66	60	56	54
4	79	67	57	50	77	65	56	49	62	55	49	60	53	48	58	52	47	45
5	73	59	49	42	70	58	49	42	55	47	41	53	46	41	51	45	40	38
6	67	53	43	36	65	52	43	36	50	42	36	48	41	35	46	40	35	33
7	62	47	38	32	60	46	38	31	45	37	31	43	36	31	42	35	31	28
8	57	43	34	28	56	42	34	28	41	33	28	39	32	27	38	32	27	25
9	53	39	31	25	52	39	30	25	37	30	25	36	29	24	35	29	24	22
10	50	36	28	22	49	36	28	22	34	27	22	33	27	22	33	26	22	20

Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
362 lm	1073 lm	1733 lm	2277 lm	2590 lm	2585 lm	2297 lm	1485 lm	264 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
10.2 lm	9.34 lm	9.86 lm	10.4 lm	9.81 lm	8.59 lm	6.73 lm	4.18 lm	1.42 lm

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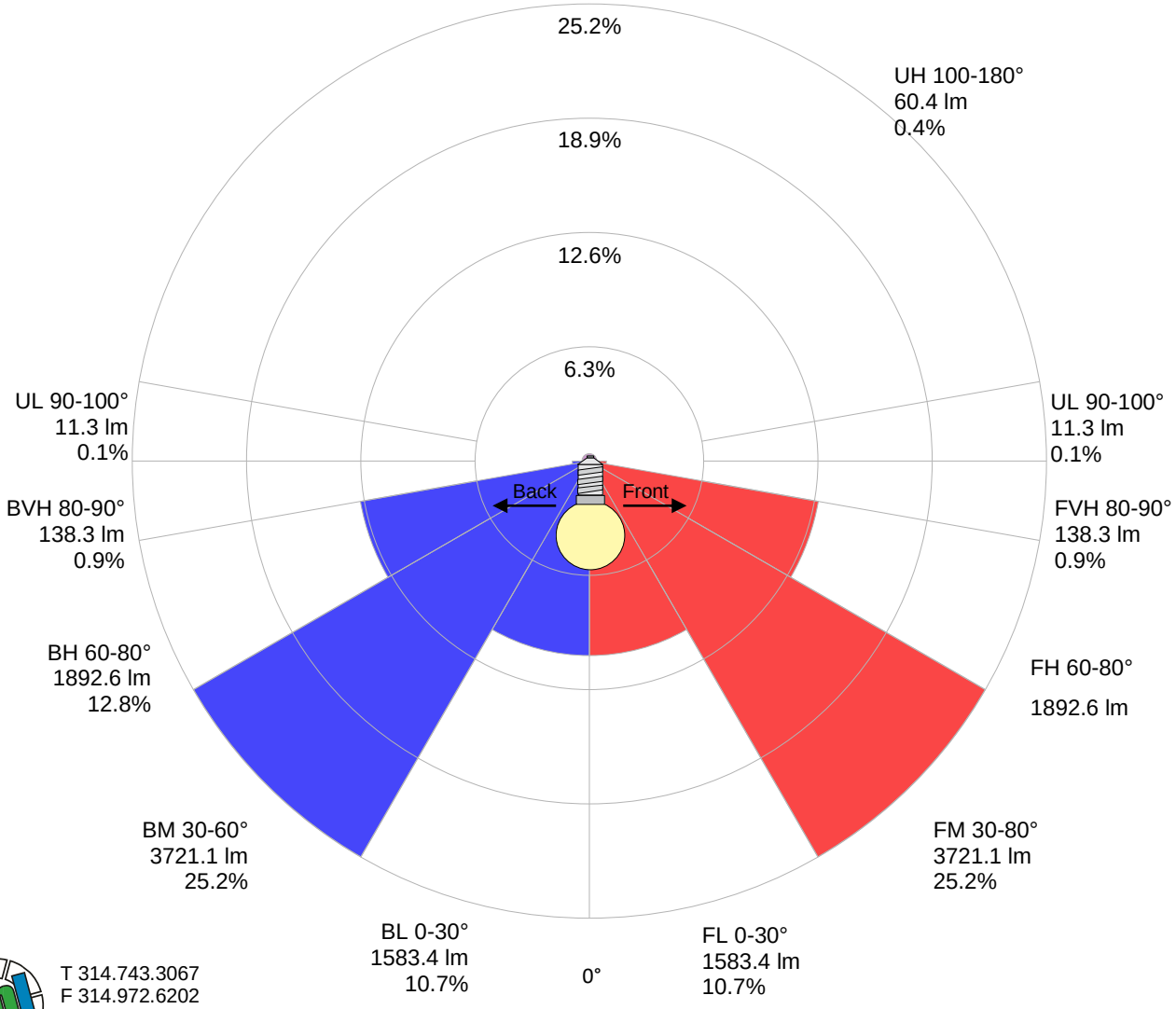
Road Report

LCS table

BUG rating:	B3 U3 G3	
Forward light	Lumens	Lumens %
Low(0-30):	1583.4	10.7%
Medium(30-60):	3721.1	25.2%
High(60-80):	1892.6	12.8%
Very high(80-90):	138.3	0.9%
Back light		
Low(0-30):	1583.4	10.7%
Medium(30-60):	3721.1	25.2%
High(60-80):	1892.6	12.8%
Very high(80-90):	138.3	0.9%
Uplight		
Low(90-100):	11.3	0.1%
High(100-180):	60.4	0.4%

LCS graph



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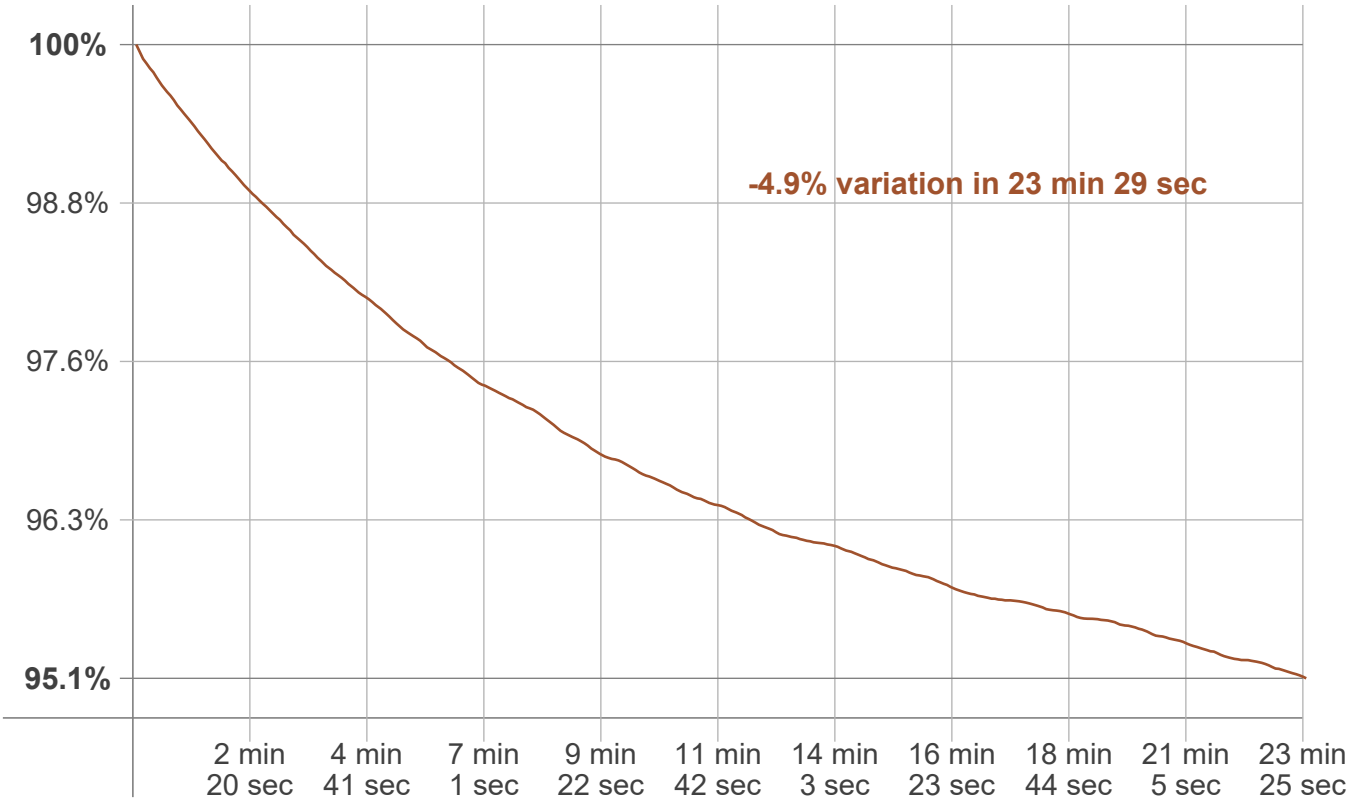
Stabilization

Warmup curve



Warmup result

Warmup time:	**Lamp stabilized in 23 min 29 sec**
Warmup variation	**-5.0%**

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
5084 K	+60 K	5144 K

Output change

Output start	Output change	Output end
15374 lm	-637 lm	14737 lm

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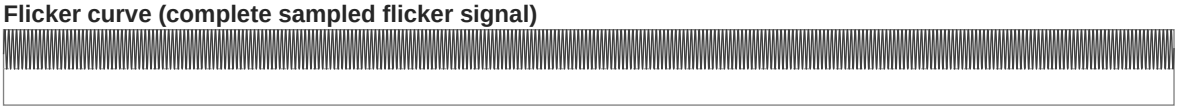
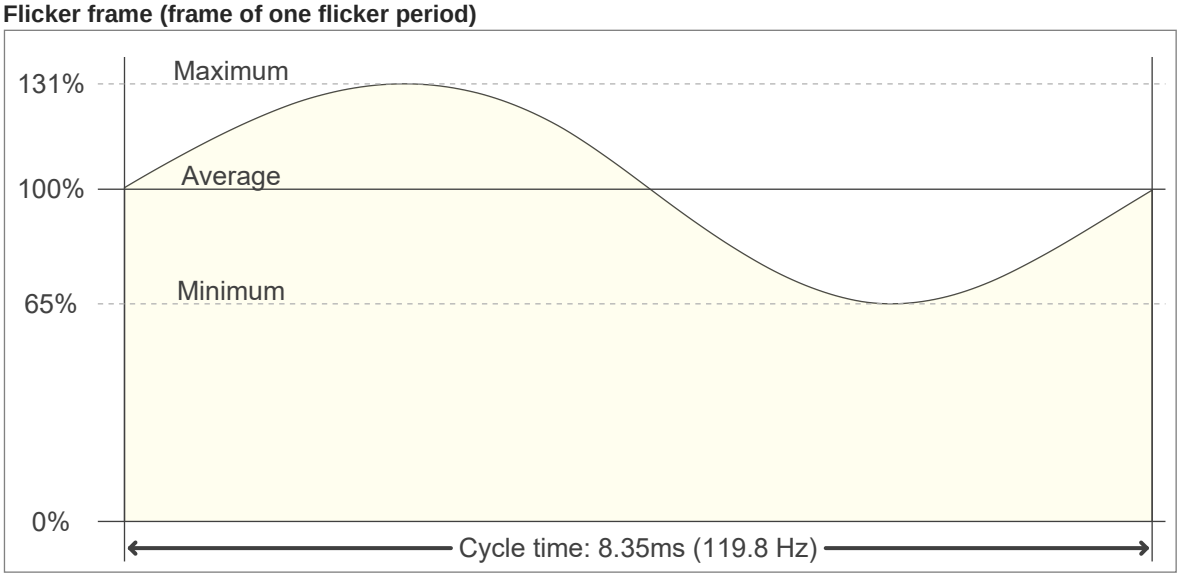
Flicker Specifications

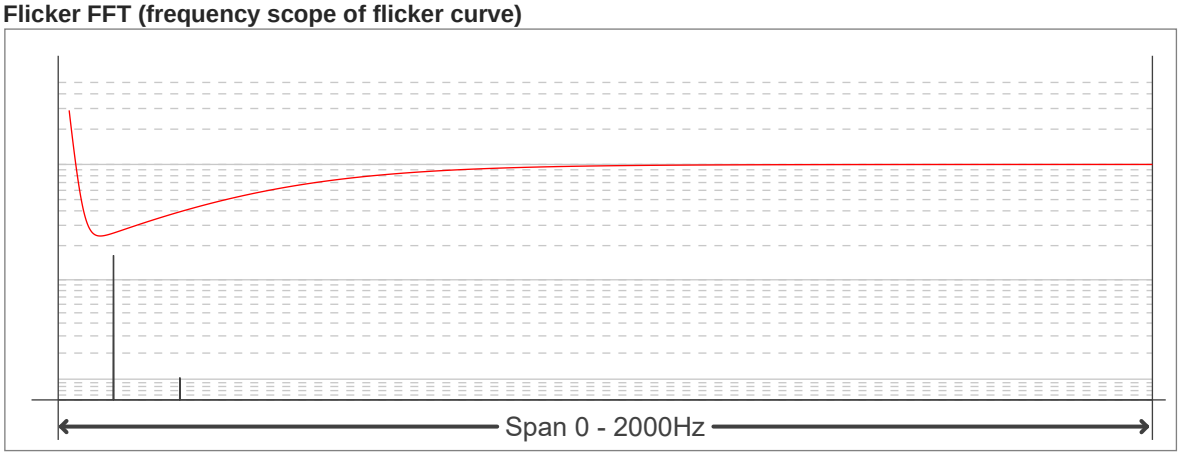
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	**119.76 Hz**
Flicker index:	**0.1**
Flicker percentage:	**33.64 %**
SVM: (Visual flicker)	**1.19**

Flicker conditions:

Sample rate:	**20000 samples/second**

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