

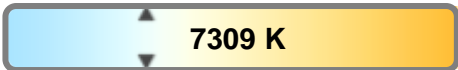
Light efficiency:



Light quality:



Color temperature:



Output: 11784 lm

Peak: 50808807

Power: 575 W

PF: n/a



Tracking number: [n/a](#)

Product name:

Hydro Hybrid

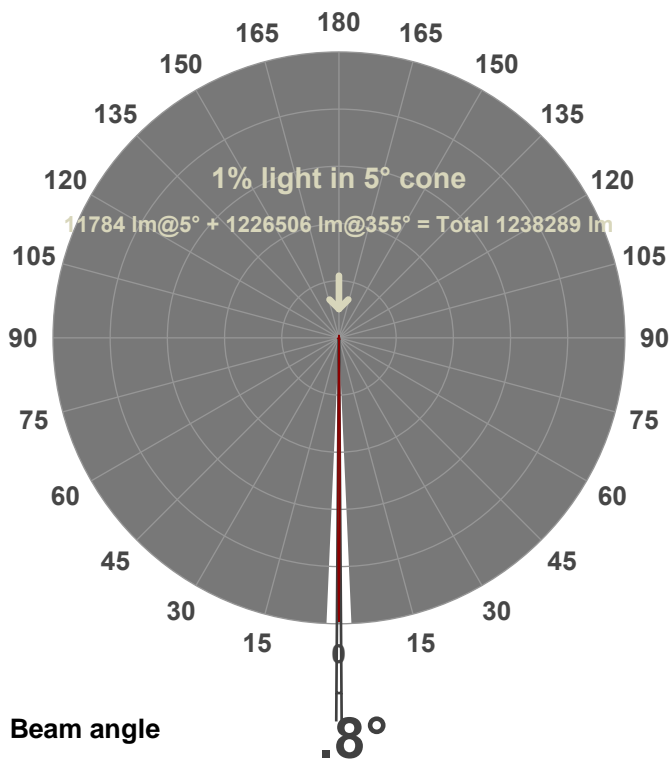
Item number:

Zoom In

Date and time:

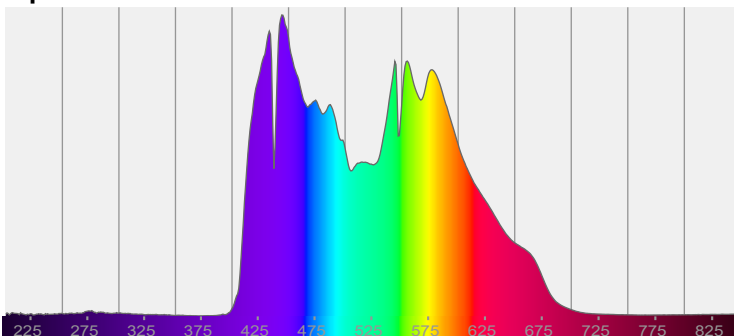
8/1/2024 1:01:26 PM

Description:

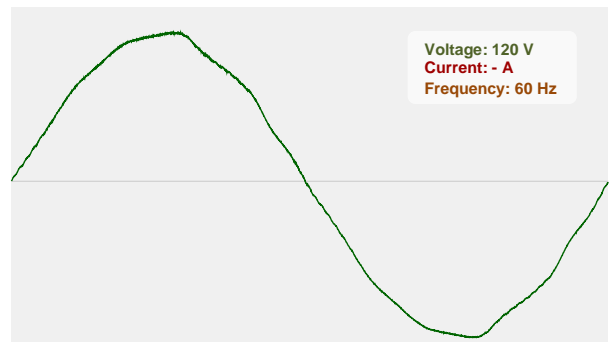


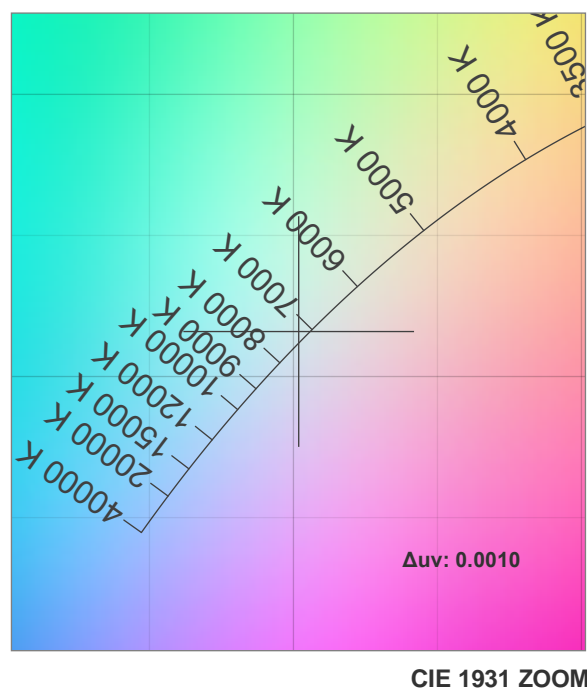
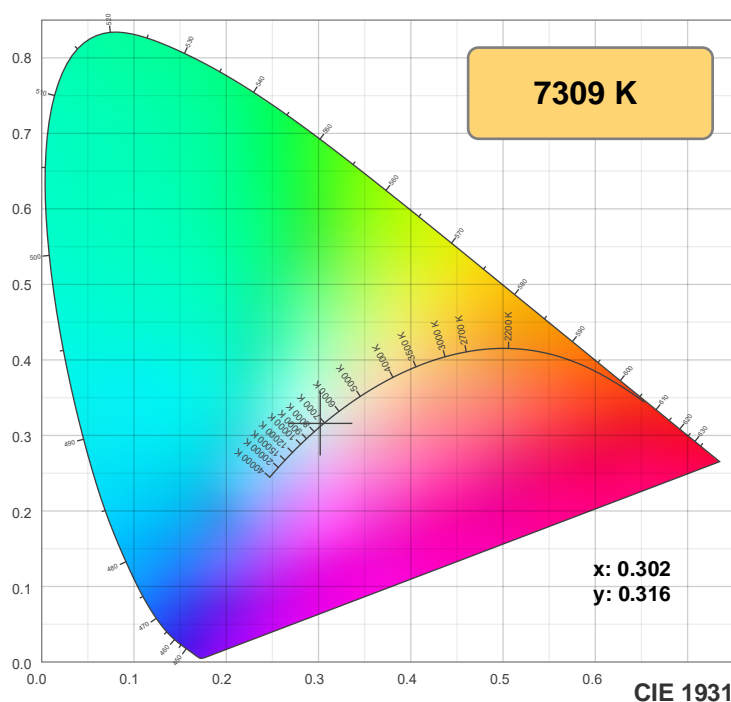
CIE 1931
x: 0.302
y: 0.316

Spectra



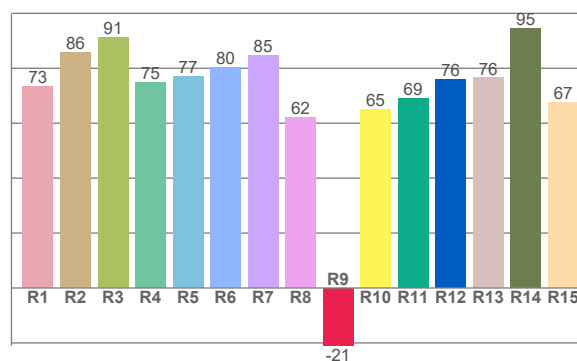
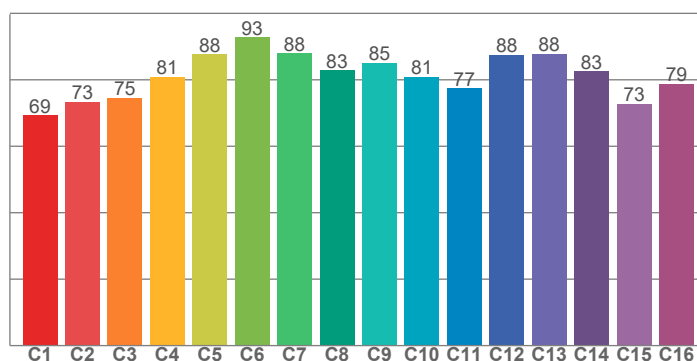
Power





TM-30: 81.6

CRI: 78.7 (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
73.4	85.9	91.3	75.0	77.0	80.4	84.6	62.1	-21.0	65.1	69.0	75.8	76.5	94.6	67.4

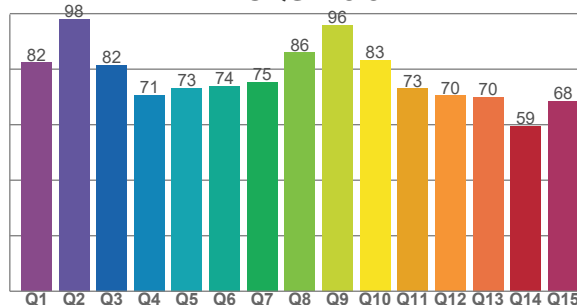
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
69.3	73.4	74.6	80.9	87.7	92.7	88.0	82.9	85.1	80.8	77.4	87.5	87.9	82.6	72.7	78.8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
82.3	98.1	81.6	70.8	73.2	73.9	75.4	86.0	96.0	83.2	73.0	70.5	70.0	59.4	68.4

CQS: 75.3



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 deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
7309 K	78.7	-21.0	81.6	91.4	75.3	0.302	0.316	0.195	0.306	0.0010

TM-30 details

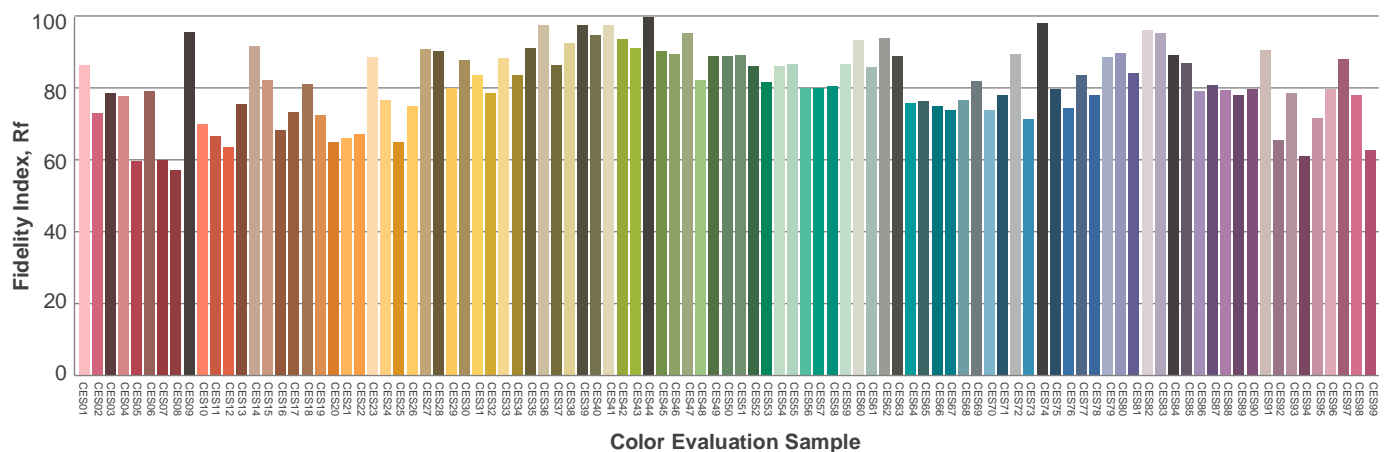
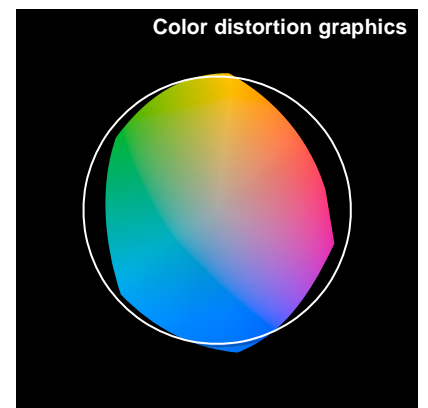
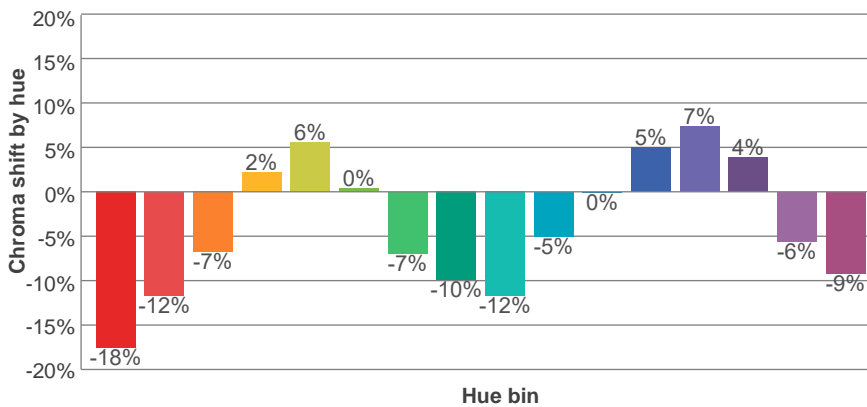
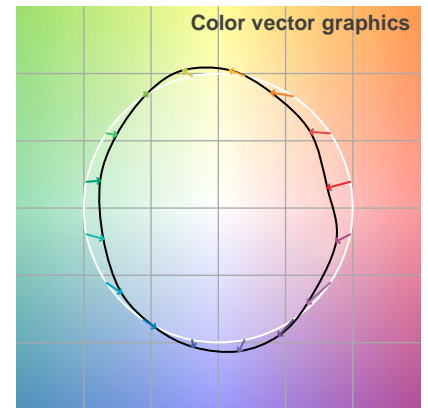
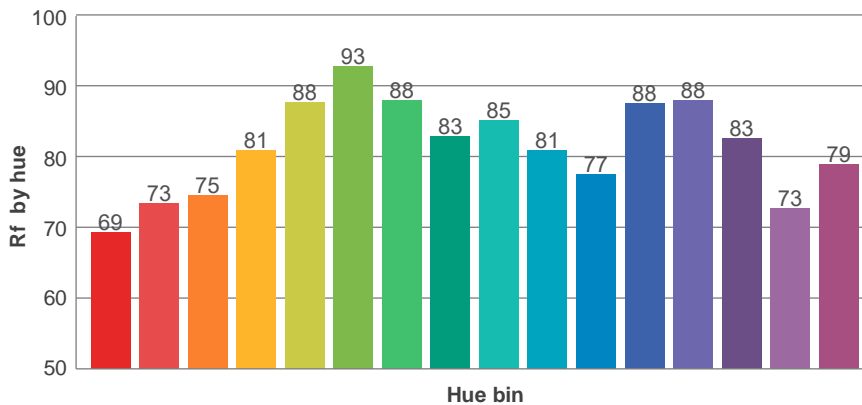
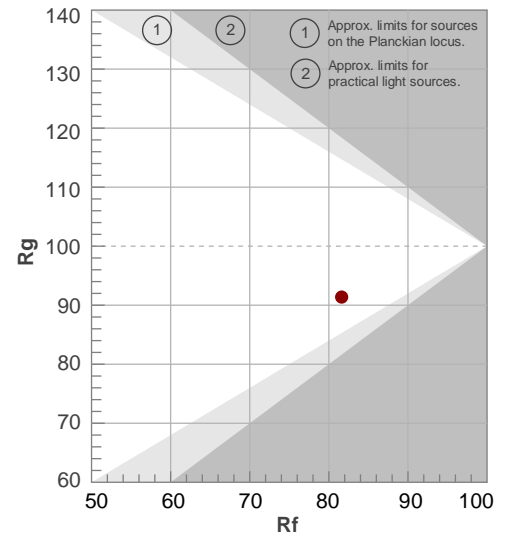
Rf 81.6

Fidelity index Rf

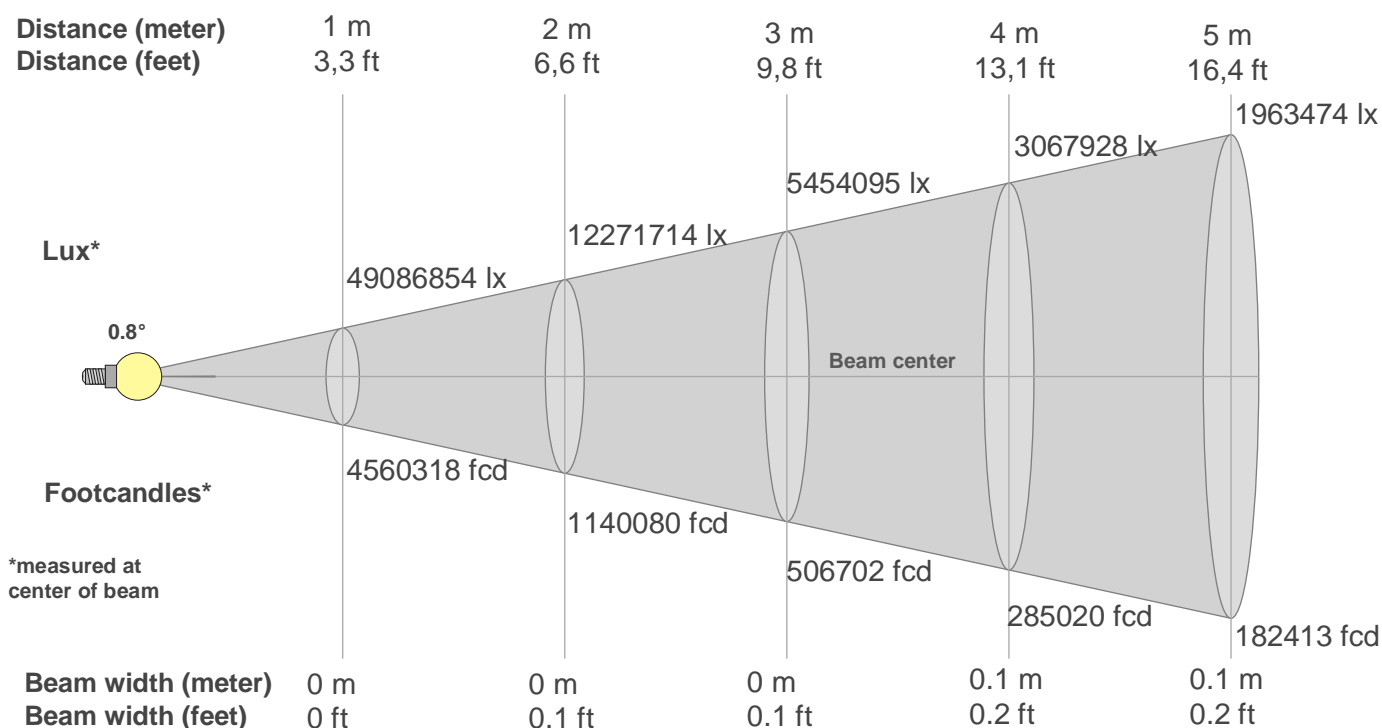
Rg 91.4

Gamut index Rg

Hue Bin	R _f	Shifts (%)	
		Chroma	Hue
1	69	-18%	-1%
2	73	-12%	9%
3	75	-7%	15%
4	81	2%	12%
5	88	6%	6%
6	93	0%	-4%
7	88	-7%	-3%
8	83	-10%	-3%
9	85	-12%	6%
10	81	-5%	12%
11	77	0%	11%
12	88	5%	2%
13	88	7%	-6%
14	83	4%	-15%
15	73	-6%	-22%
16	79	-9%	-7%



Beam details



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
49086854 lx	12271714 lx	5454095 lx	3067928 lx	1963474 lx	1363524 lx	1001773 lx	766982 lx	606011 lx	490869 lx	405676 lx	340881 lx	290455 lx	250443 lx	218164 lx	191746 lx	169851 lx	151503 lx	135975 lx	122717 lx
4560318 fcd	1140079 fcd	506702 fcd	285019 fcd	182412 fcd	126675 fcd	93067 fcd	71255 fcd	56300 fcd	45603 fcd	37688 fcd	31668 fcd	26984 fcd	23266 fcd	20268 fcd	17813 fcd	15779 fcd	14075 fcd	12632 fcd	11400 fcd

Intensities in 0° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
49M	1M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M
100%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Intensities in 90° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
49M	1M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M
100%	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Intensities in 180° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
49M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M
100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Intensities in 270° c-plane

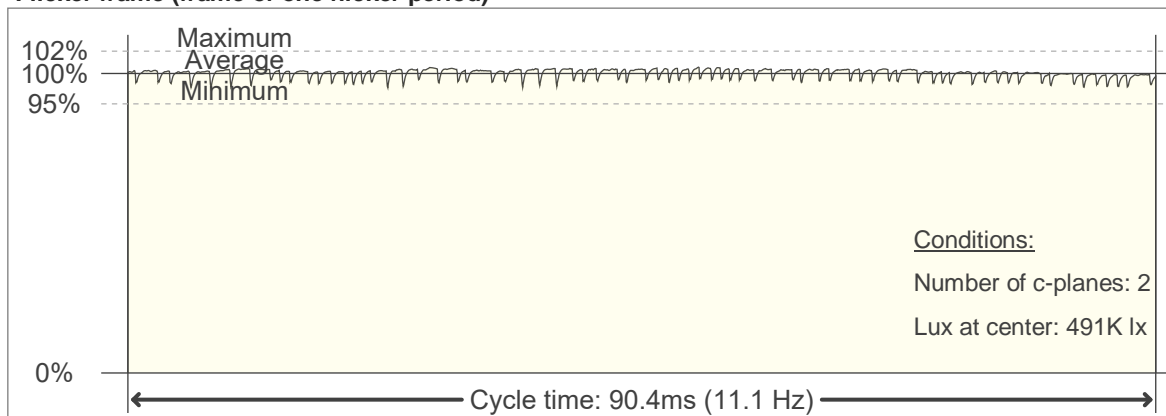
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
49M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M	0M
100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
0.8°	1.5°	1.9°	100.0%	100.0%

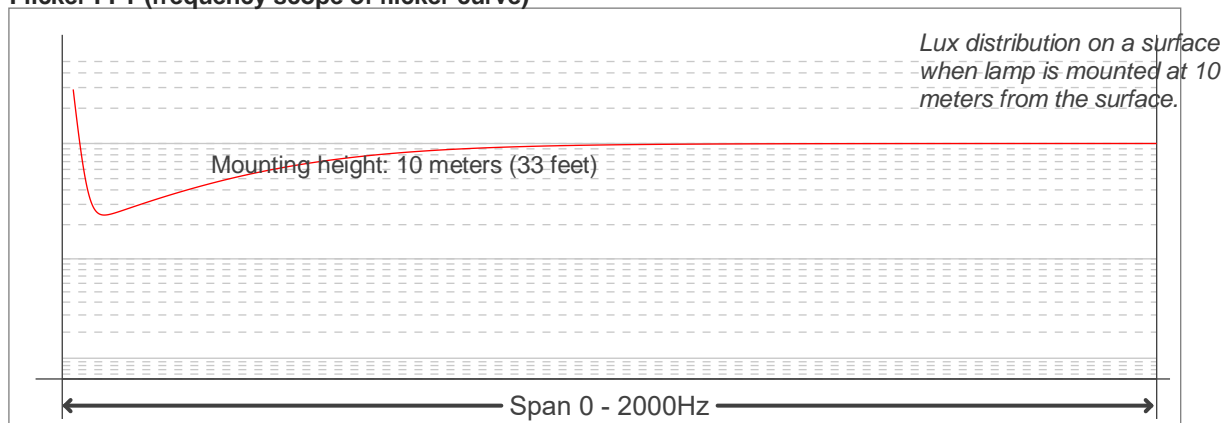
Flicker

Flicker curve (complete sampled flicker signal)

Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:		11.06 Hz	
Flicker index:	0.01	JA8/10 40Hz	2.32 %
Flicker percentage:	5.43 %	JA8/10 90Hz	2.53 %
SVM: (Visual flicker)	0.01	JA8/10 200Hz	2.61 %
PstLM	1.76	JA8/10 400Hz	2.97 %
Mp	1.25	JA8/10 1000Hz	4.34 %

Flicker conditions:

Sample rate:	20000 samples/second
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