

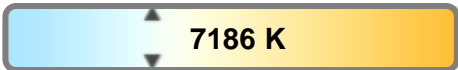
Light efficiency:



Light quality:



Color temperature:



Output: 12788 lm

Peak: 3424552 cd

Power: 574 W

PF: n/a



Tracking number: [n/a](#)

Product name:

Hydro Hybrid

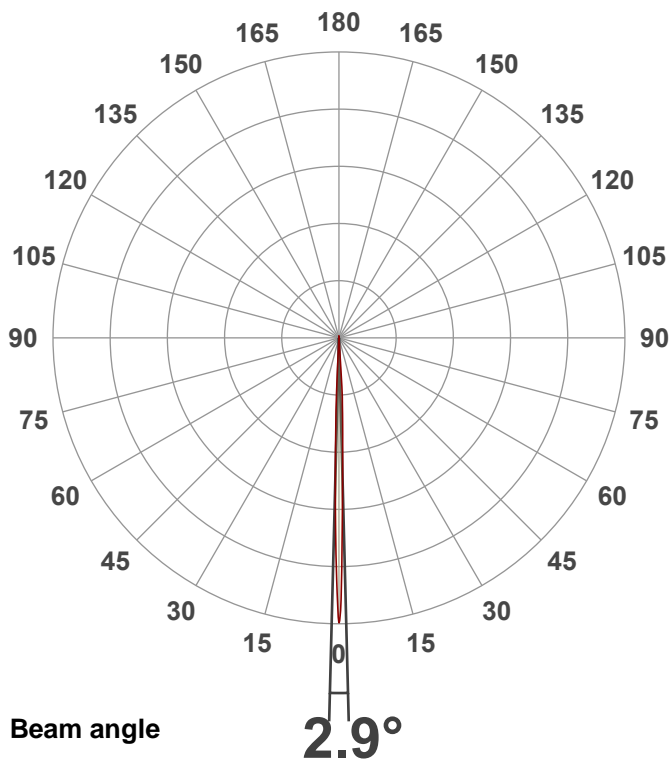
Item number:

Zoom 50

Date and time:

8/1/2024 12:36:12 PM

Description:

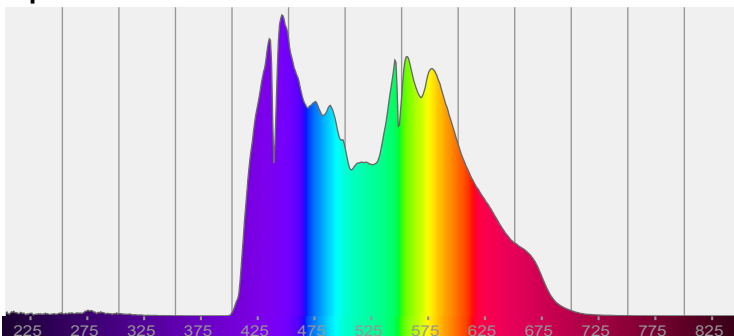


CIE 1931

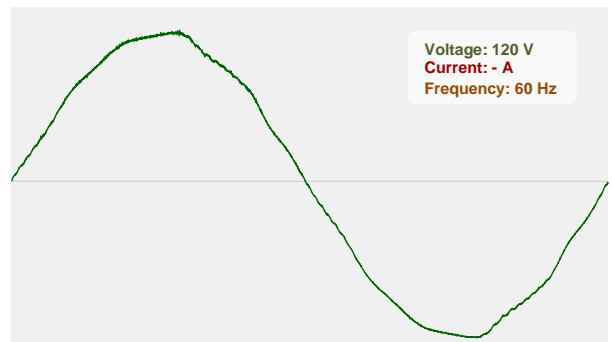
x: 0.303

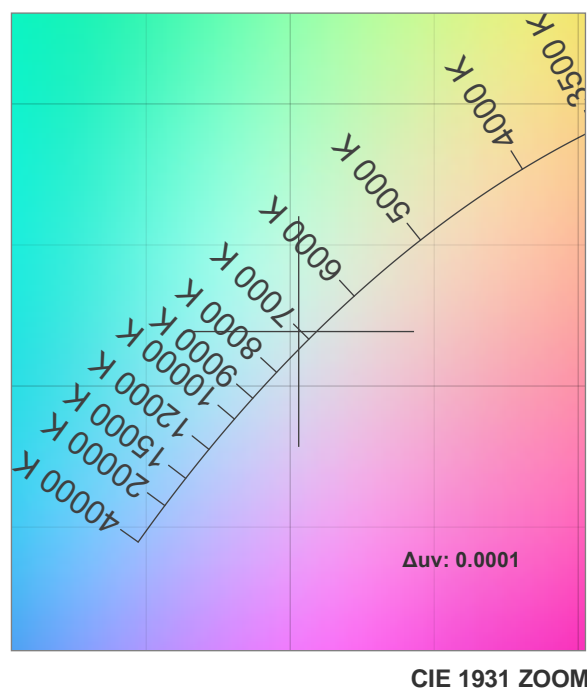
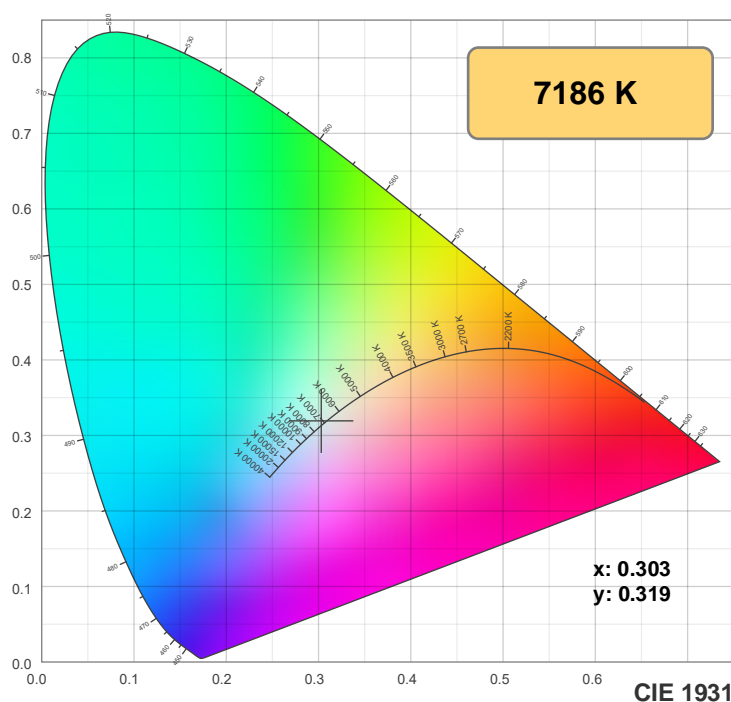
y: 0.319

Spectra

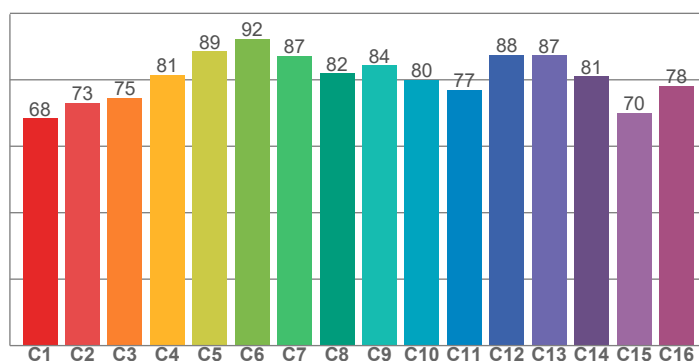


Power

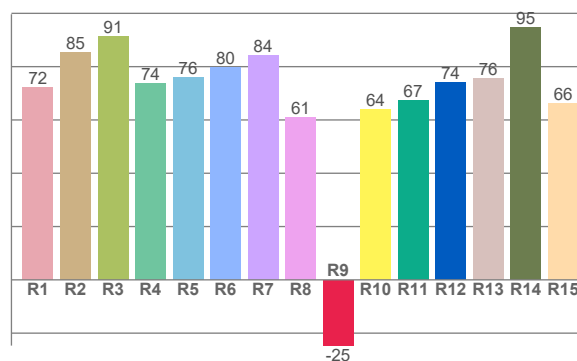




TM-30: 81.2



CRI: 77.9 (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
72.2	85.5	91.2	73.7	75.9	79.8	84.3	60.8	-24.7	64.1	67.4	74.0	75.5	94.6	66.1

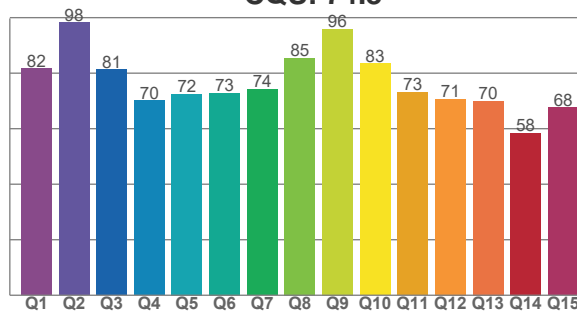
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
68.4	73.1	74.5	81.5	88.6	92.4	87.2	81.9	84.3	80.0	77.0	87.5	87.4	81.1	70.0	78.2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
81.7	98.3	81.4	70.2	72.5	72.8	74.2	85.4	95.9	83.4	73.1	70.7	69.9	58.5	67.5

CQS: 74.8



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 deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
7186 K	77.9	-24.7	81.2	90.7	74.8	0.303	0.319	0.195	0.308	0.0001

TM-30 details

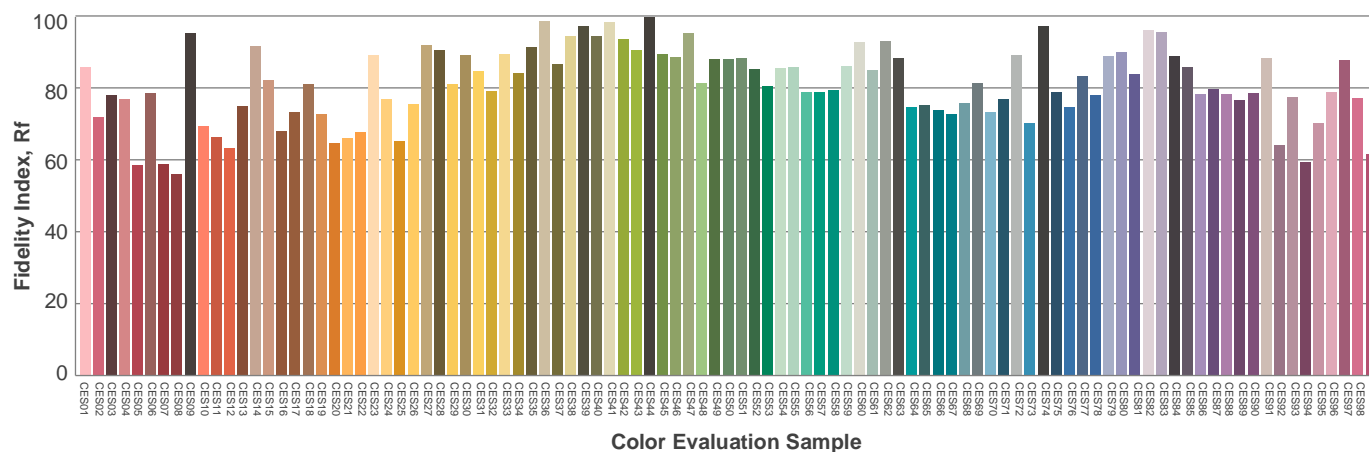
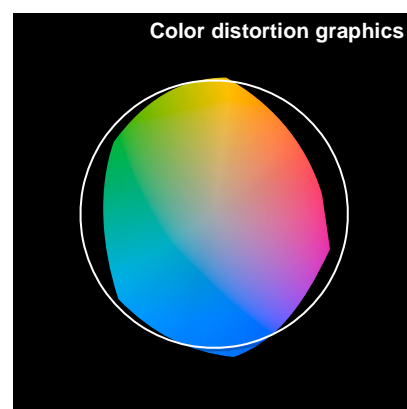
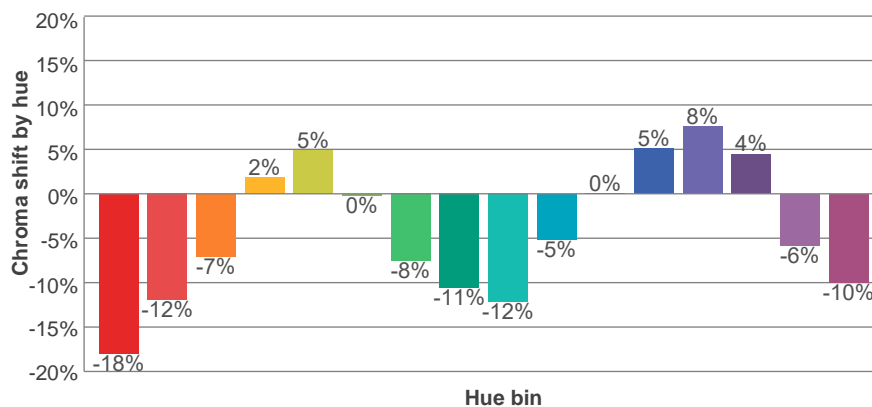
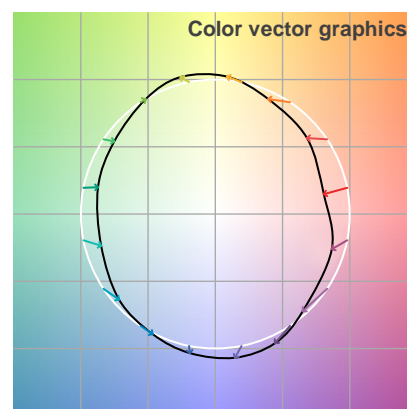
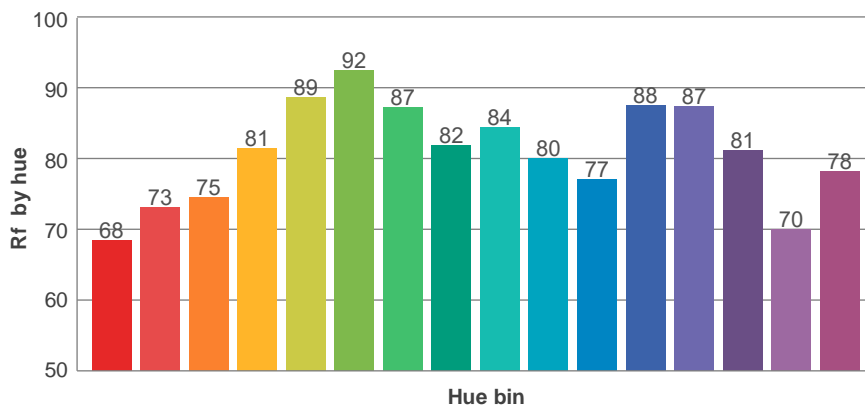
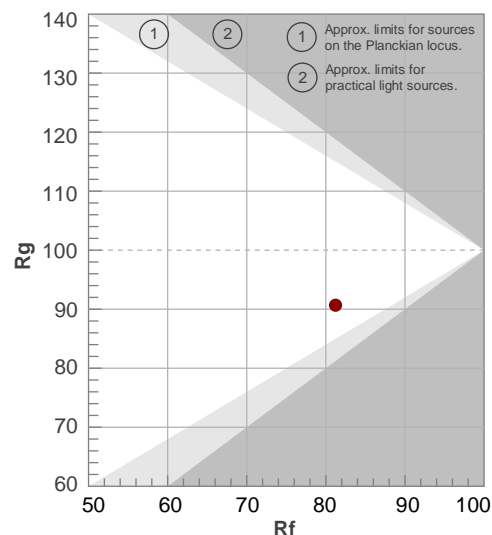
Rf 81.2

Fidelity index Rf

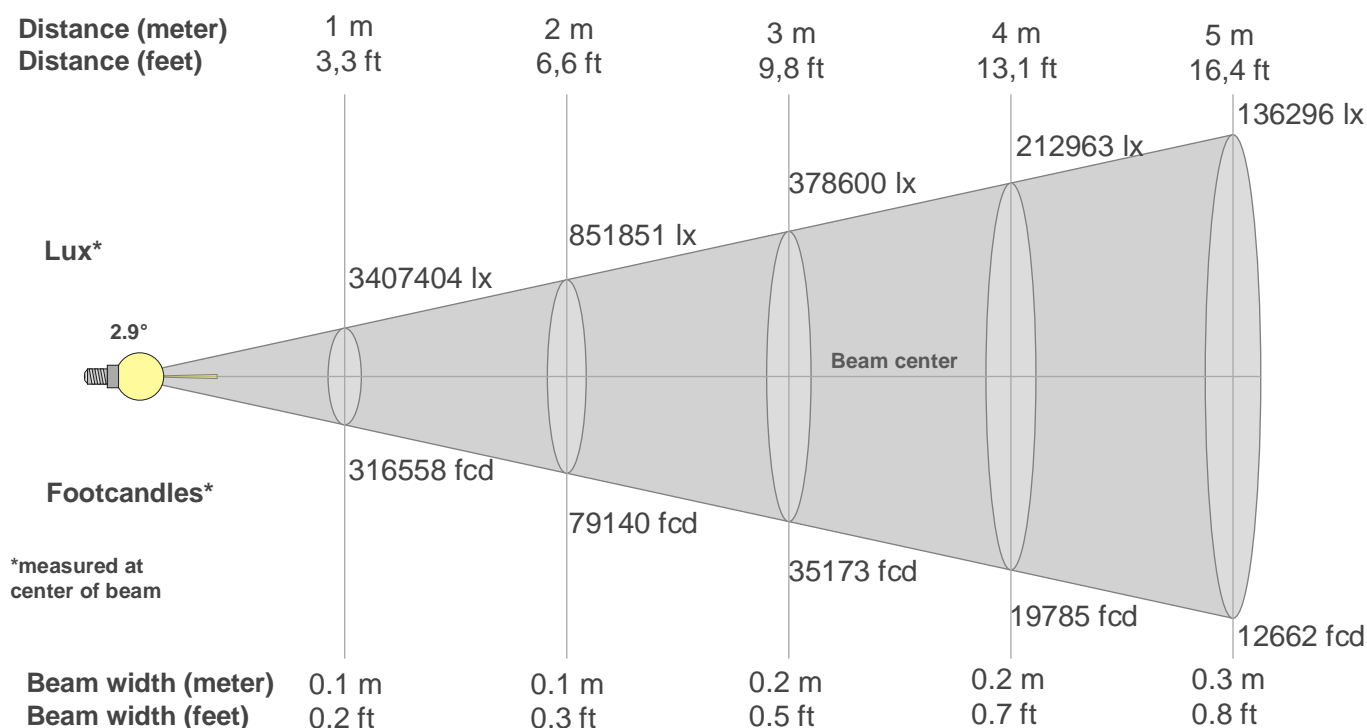
Rg 90.7

Gamut index Rg

Hue Bin	R _f	Shifts (%)	
		Chroma	Hue
1	68	-18%	-1%
2	73	-12%	9%
3	75	-7%	15%
4	81	2%	11%
5	89	5%	5%
6	92	0%	-4%
7	87	-8%	-3%
8	82	-11%	-3%
9	84	-12%	7%
10	80	-5%	13%
11	77	0%	11%
12	88	5%	2%
13	87	8%	-7%
14	81	4%	-16%
15	70	-6%	-24%
16	78	-10%	-9%



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
3407404lx	851851lx	378600lx	212963lx	136296lx	94650lx	69539lx	53241lx	42067lx	34074lx	28160lx	23663lx	20162lx	17385lx	15144lx	13310lx	11790lx	10517lx	9439lx	8519lx
316558.2fcd	79139.5fcd	35173.1fcd	19784.9fcd	12662.3fcd	8793.3fcd	6460.4fcd	4946.2fcd	3908.1fcd	3165.6fcd	2616.2fcd	2198.3fcd	1873.1fcd	1615.1fcd	1406.9fcd	1236.6fcd	1095.4fcd	977fcd	876.9fcd	791.4fcd

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°
3.4M	2.3M	1.3M	0.8M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M
100%	67%	38%	23%	1%	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°
3.4M	2.3M	1.3M	0.8M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M
100%	67%	38%	23%	1%	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°
3.4M	2.3M	1.1M	0.1M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M
100%	68%	32%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Intensities in 270° c-plane

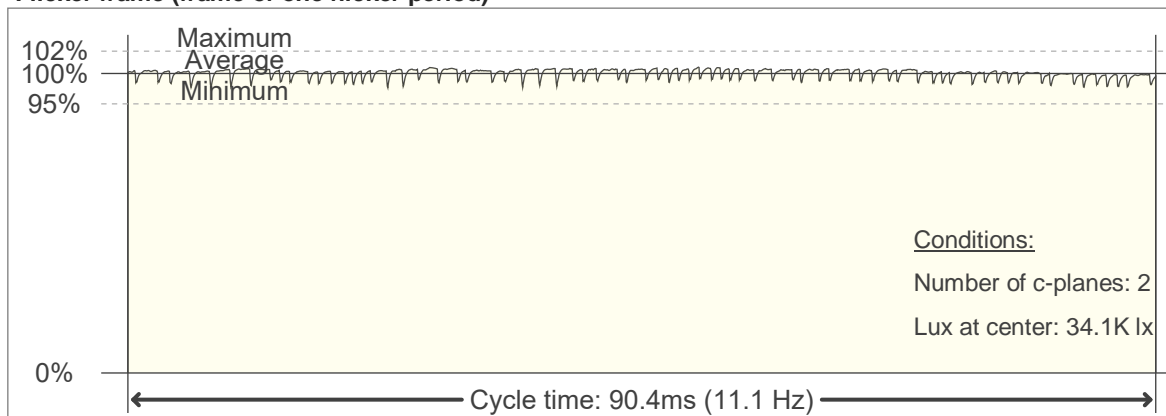
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
3.4M	2.3M	1.1M	0.1M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M	0.0M
100%	68%	32%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
2.9°	6.5°	7°	100.0%	100.0%

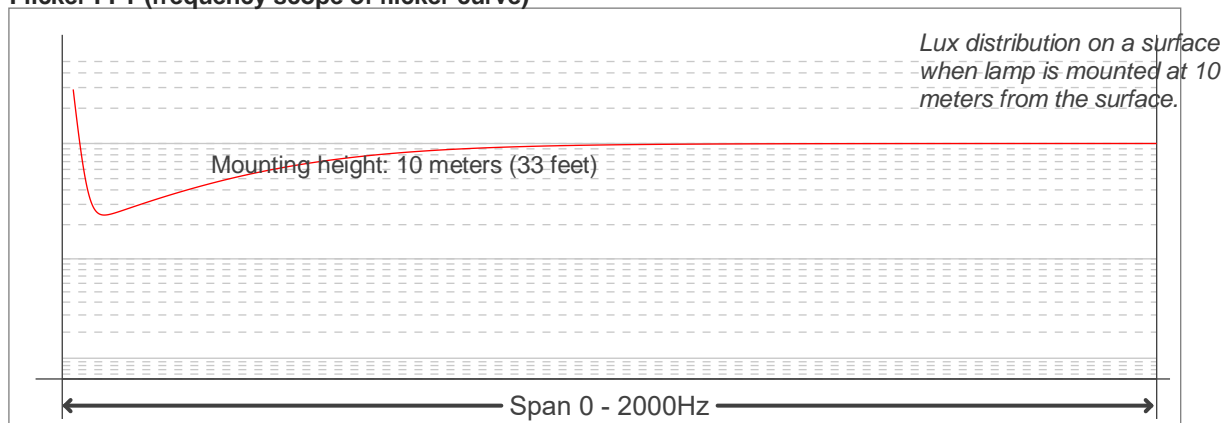
Flicker

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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