

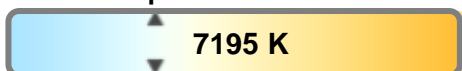
Light efficiency:



Light quality:



Color temperature:



Output: 13041 lm

Peak: 491575 cd

Power: 573 W

PF: n/a



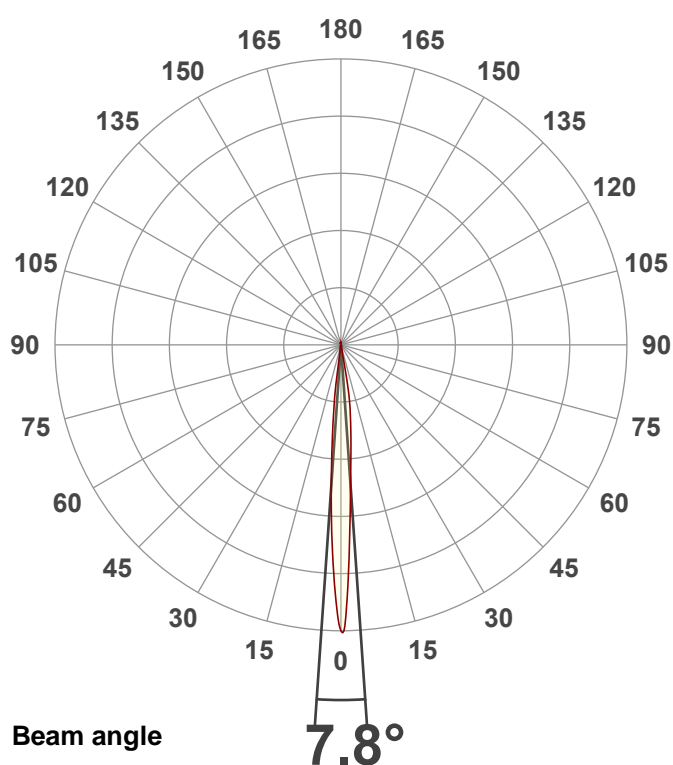
Tracking number: [n/a](#)

Product name:
Hydro Hybrid

Item number:
Zoom Out

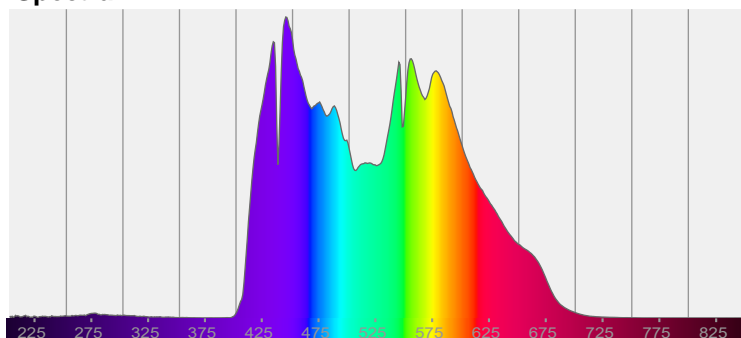
Date and time:
8/1/2024 12:13:51 PM

Description:

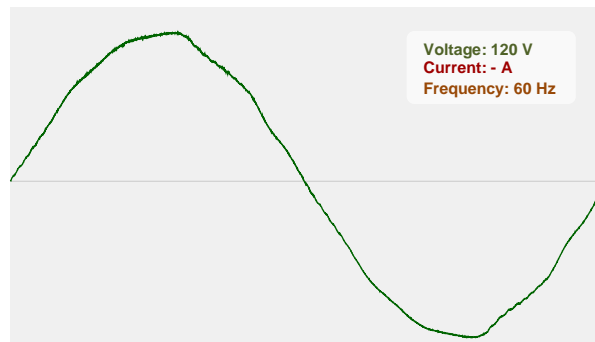


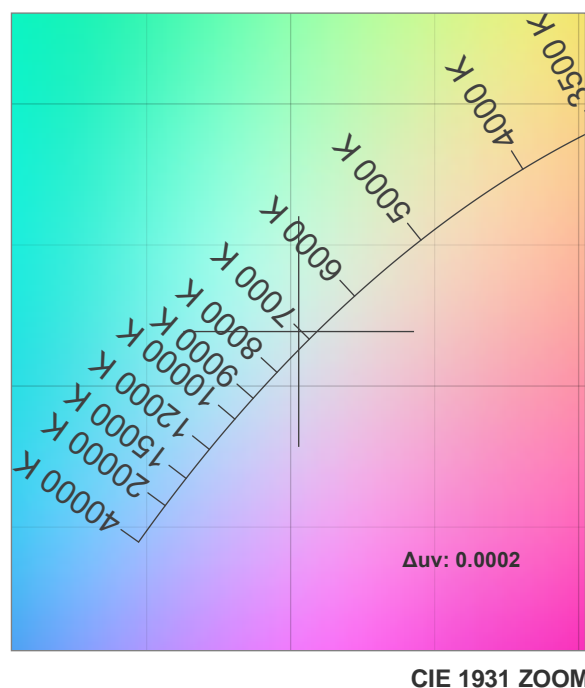
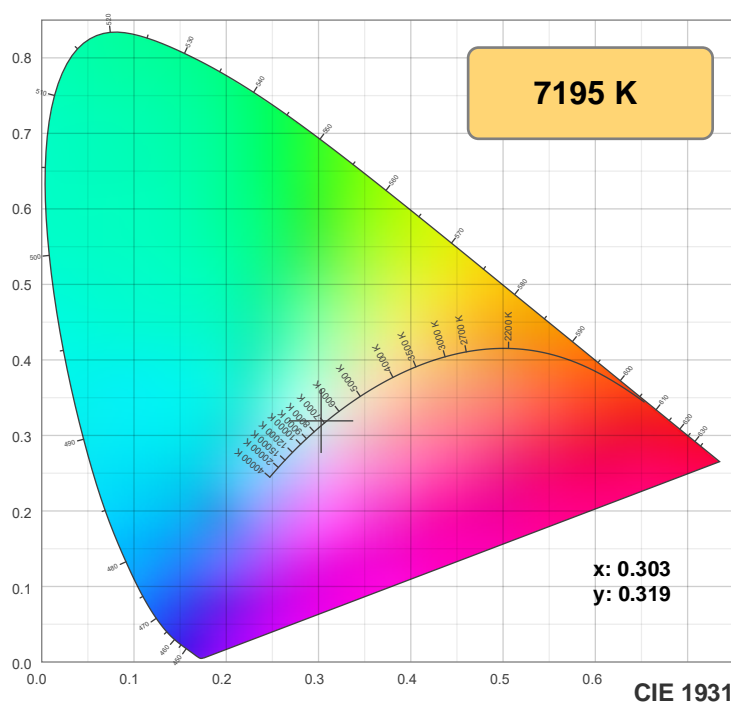
CIE 1931
x: 0.303
y: 0.319

Spectra

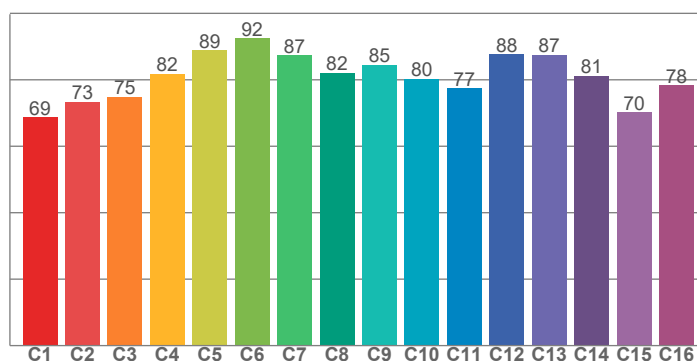


Power

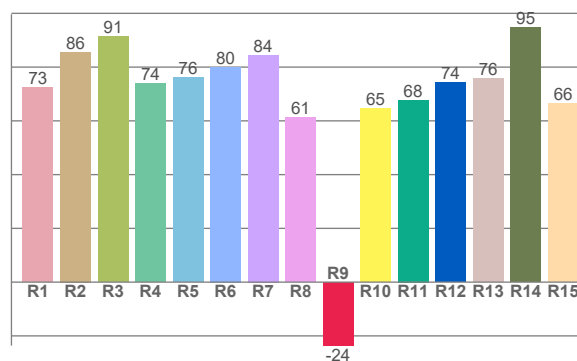




TM-30: 81.4



CRI: 78.1 (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
72.5	85.6	91.4	73.9	76.1	80.0	84.5	61.2	-23.6	64.6	67.7	74.3	75.8	94.6	66.4

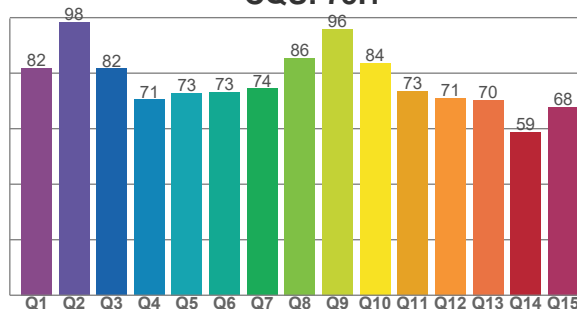
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
68.7	73.4	74.8	81.8	88.8	92.5	87.3	82.1	84.5	80.3	77.4	87.7	87.5	81.2	70.2	78.4

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
81.8	98.3	81.6	70.5	72.8	73.1	74.4	85.5	95.9	83.7	73.4	71.0	70.3	58.9	67.8

CQS: 75.1



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
7195 K	78.1	-23.6	81.4	90.7	75.1	0.303	0.319	0.195	0.308	0.0002

TM-30 details

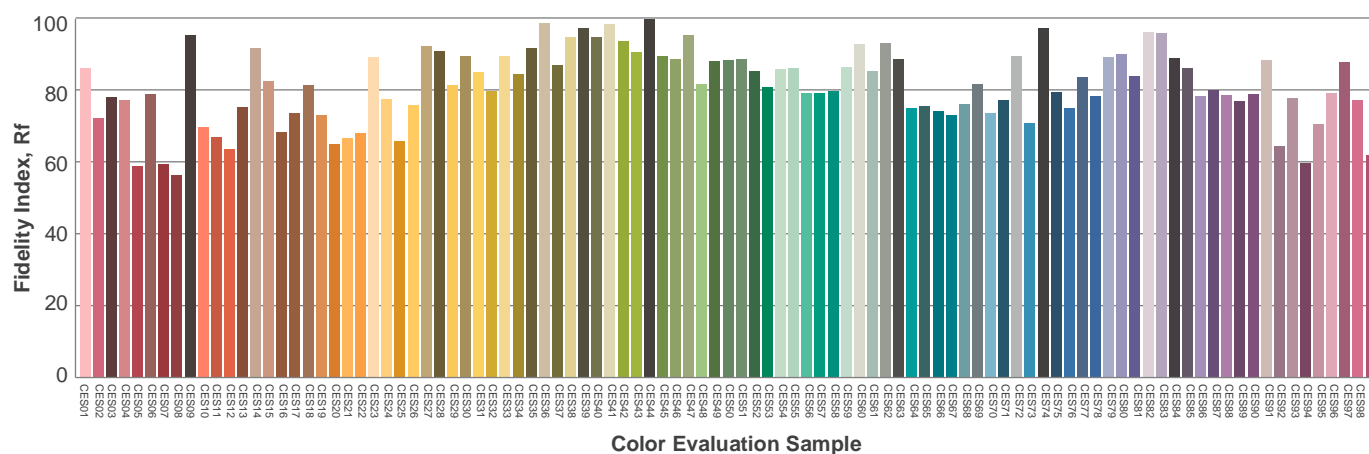
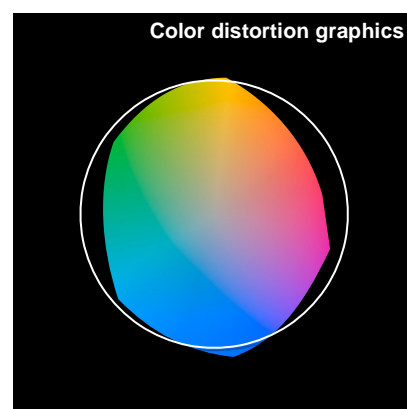
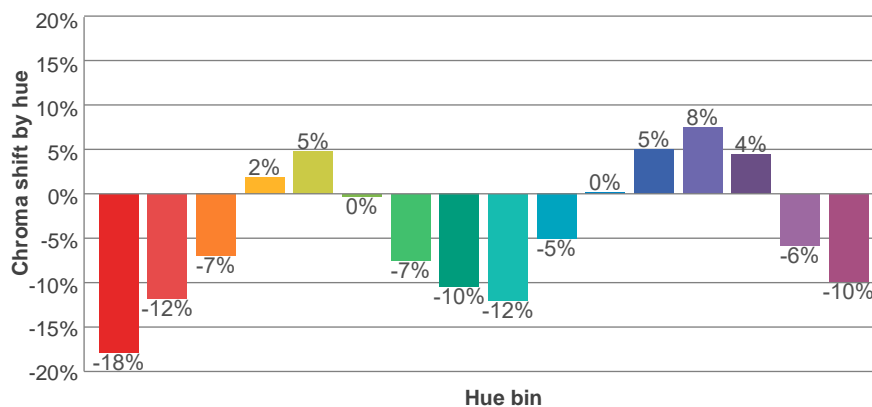
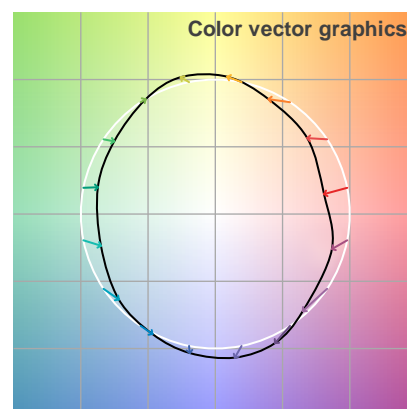
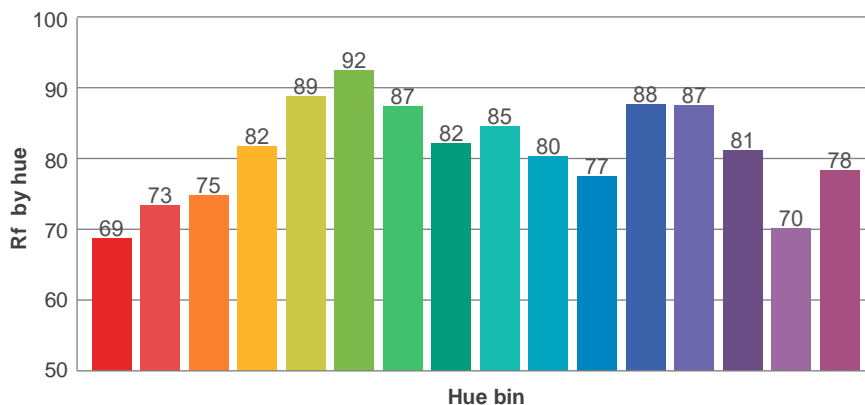
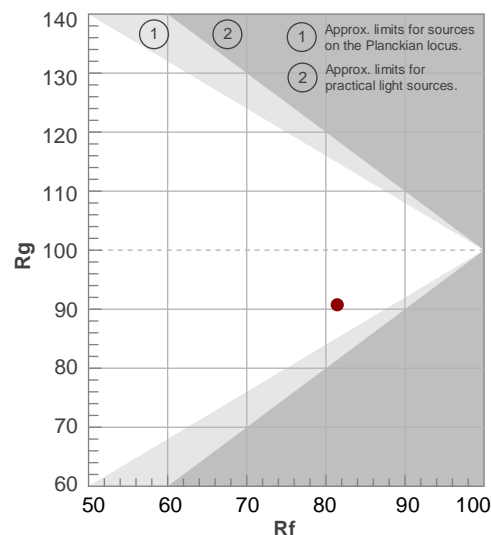
Rf 81.4

Fidelity index Rf

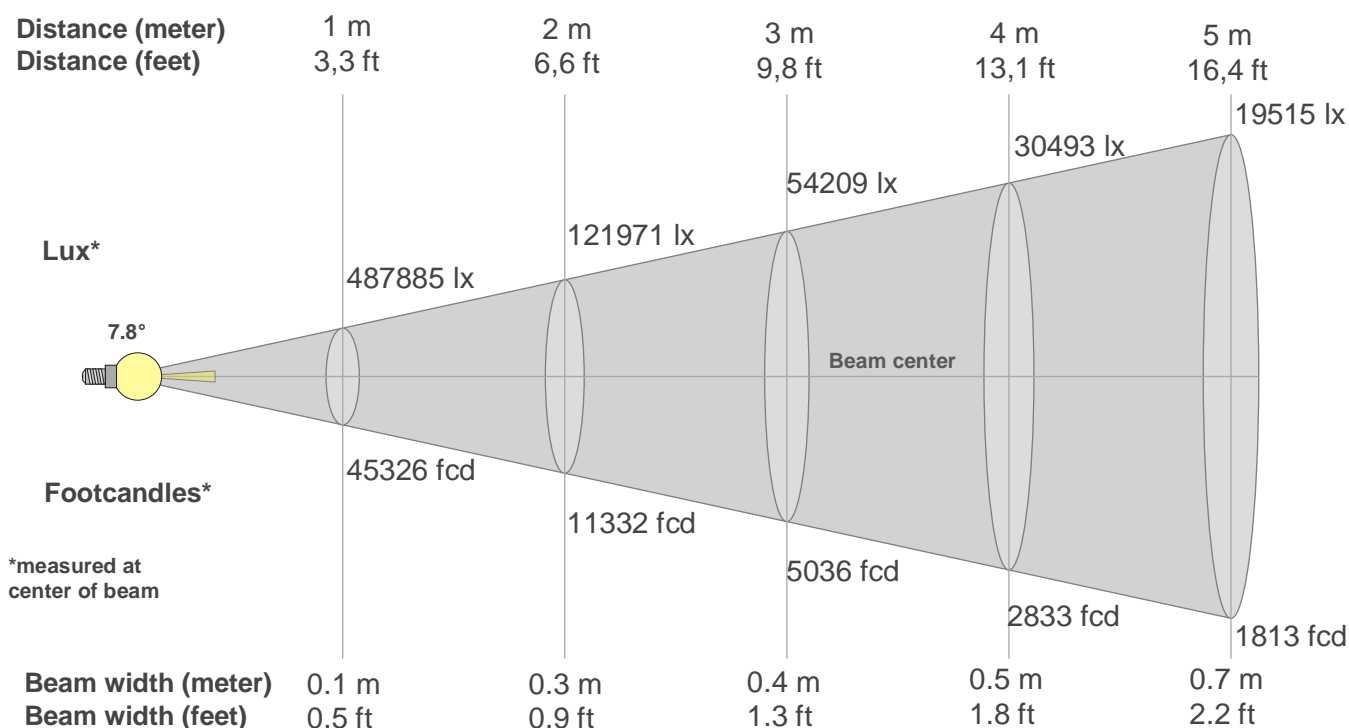
Rg 90.7

Gamut index Rg

Hue Bin	Ri	Shifts (%)	
		Chroma	Hue
1	69	-18%	-1%
2	73	-12%	9%
3	75	-7%	15%
4	82	2%	11%
5	89	5%	5%
6	92	0%	-4%
7	87	-7%	-3%
8	82	-10%	-3%
9	85	-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
487885lx	121971lx	54209lx	30493lx	19515lx	13552lx	9957lx	7623lx	6023lx	4879lx	4032lx	3388lx	2887lx	2489lx	2168lx	1906lx	1688lx	1506lx	1351lx	1220lx
45326fcd	11331.5fcd	5036.2fcd	2832.9fcd	1813fcd	1259.1fcd	925fcd	708.2fcd	559.6fcd	453.3fcd	374.6fcd	314.8fcd	268.2fcd	231.3fcd	201.4fcd	177.1fcd	156.8fcd	139.9fcd	125.6fcd	113.3fcd

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°
488K	467K	386K	303K	242K	198K	166K	138K	114K	86K	40K	0K	0K	0K	0K	0K	0K	0K	0K	0K
100%	96%	79%	62%	50%	41%	34%	28%	23%	18%	8%	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°
488K	467K	386K	303K	242K	198K	166K	138K	114K	86K	40K	0K	0K	0K	0K	0K	0K	0K	0K	0K
100%	96%	79%	62%	50%	41%	34%	28%	23%	18%	8%	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°
488K	447K	382K	311K	240K	178K	126K	81K	21K	0K	0K	0K	0K	0K	0K	0K	0K	0K	0K	0K
100%	92%	78%	64%	49%	36%	26%	17%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Intensities in 270° c-plane

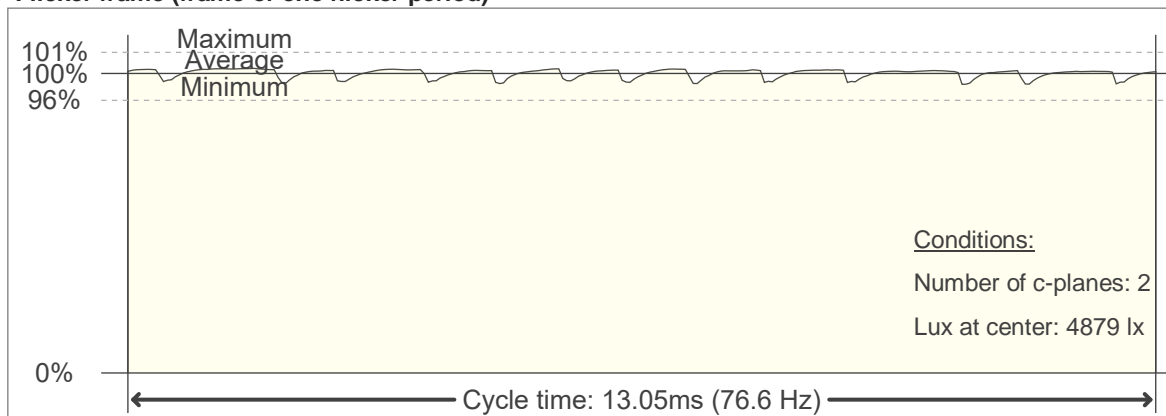
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
488K	447K	382K	311K	240K	178K	126K	81K	21K	0K	0K	0K	0K	0K	0K	0K	0K	0K	0K	0K
100%	92%	78%	64%	49%	36%	26%	17%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
7.8°	17.4°	18.6°	100.0%	100.0%

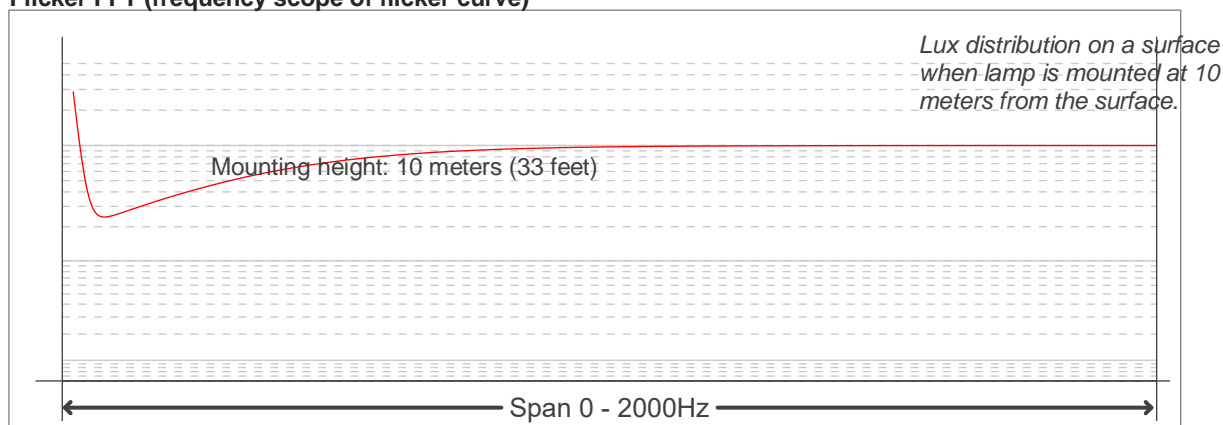
Flicker

Flicker curve (complete sampled flicker signal)

Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:		76.63 Hz	
Flicker index:	0.01	JA8/10 40Hz	1.77 %
Flicker percentage:	5.37 %	JA8/10 90Hz	1.97 %
SVM: (Visual flicker)	0.01	JA8/10 200Hz	2.47 %
PstLM	1.94	JA8/10 400Hz	2.65 %
Mp	1.37	JA8/10 1000Hz	4.06 %

Flicker conditions:

Sample rate:	20000 samples/second
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