Light efficiency:

127 Lumen/Watt

Light quality:

CRI: 81,7

Color temperature:

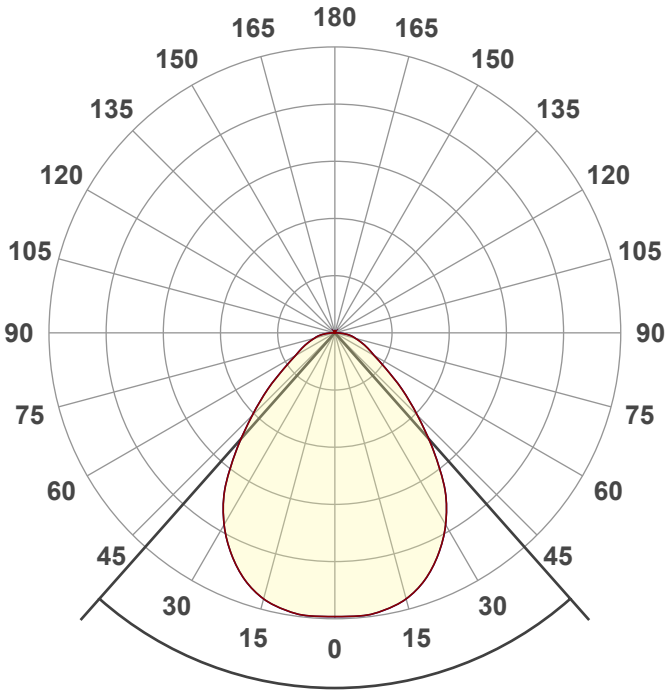
6000 K

Output: 4075 lm

Peak: 2084 cd

Power: 32,1 W

PF: 0,96



Beam angle 83,1°

CIE 1931
x: 0,322
y: 0,332

Tracking number: n/a

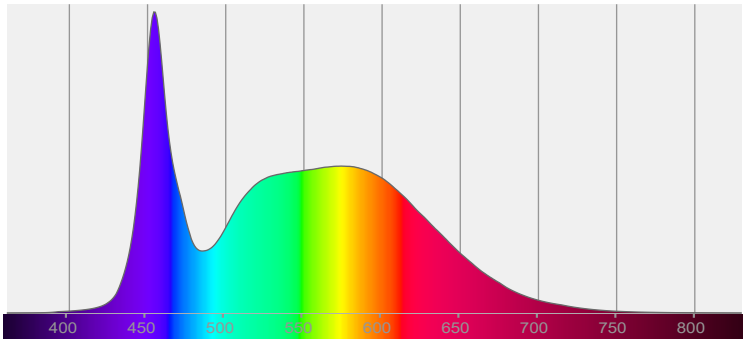
Product name:
273665-6000K

Item number:
273665-6000K

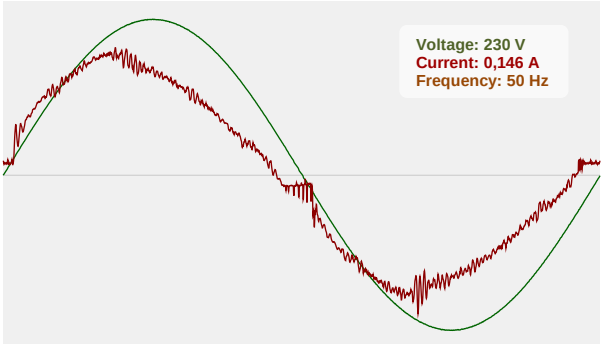
Date and time:
30-8-2024 15:14:35

Description:
SIDE-LIT LED PANEEL | LUNA | 120X30CM | 30W

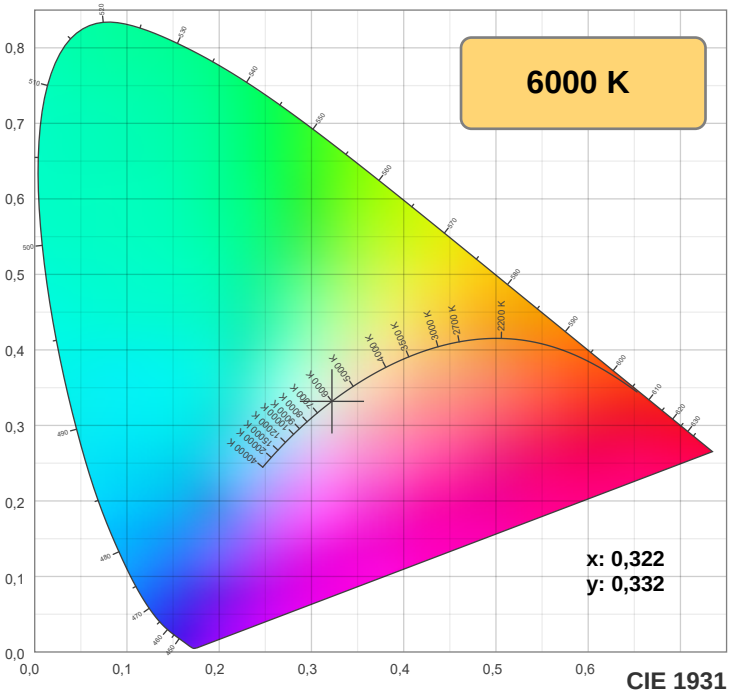
Spectra



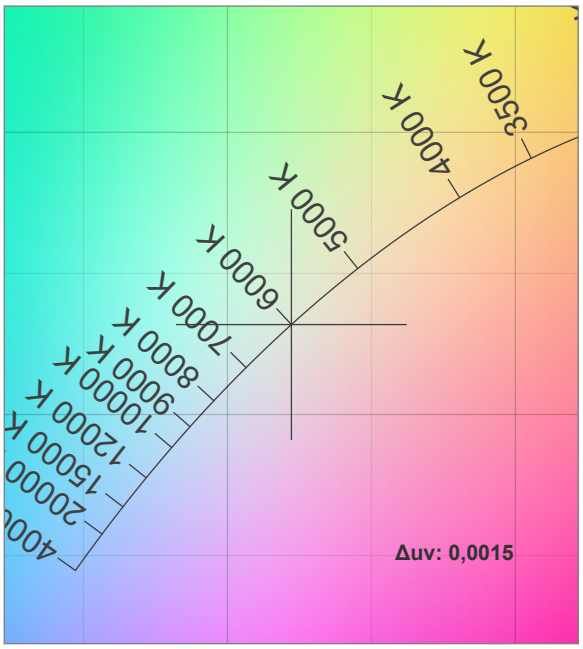
Power



Color details

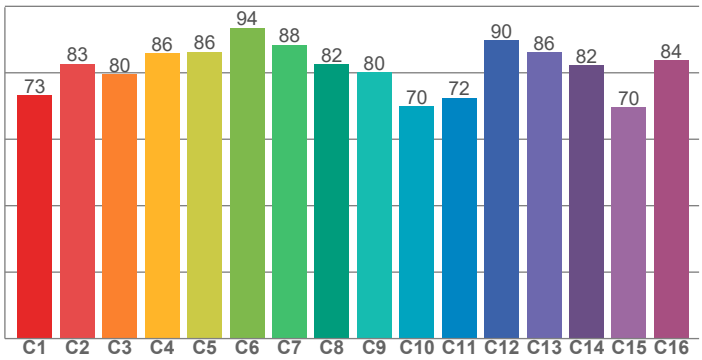


CIE 1931

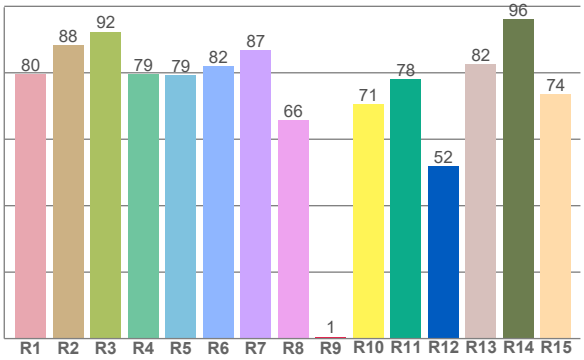


CIE 1931 ZOOM

TM-30: 81,4



CRI: 81,7 (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
79,7	88,2	92,4	79,5	79,3	82,1	86,8	65,8	0,6	70,6	78,1	51,9	82,5	96,1	73,5

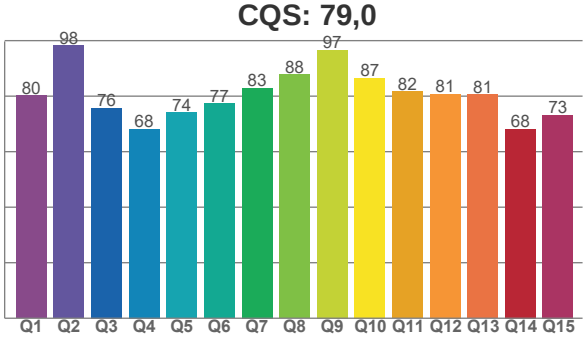
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
73,3	82,8	79,6	85,9	86,3	93,6	88,4	82,5	80,1	70,0	72,4	89,8	86,2	82,2	69,5	83,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
80,2	98,2	75,7	68,2	74,2	77,4	82,9	87,9	96,6	86,5	81,8	80,8	80,6	68,2	73,3

CQS: 79,0



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
6000 K	81,7	0,6	81,4	92,6	79,0	0,322	0,332	0,203	0,314	0,0015

TM-30 details

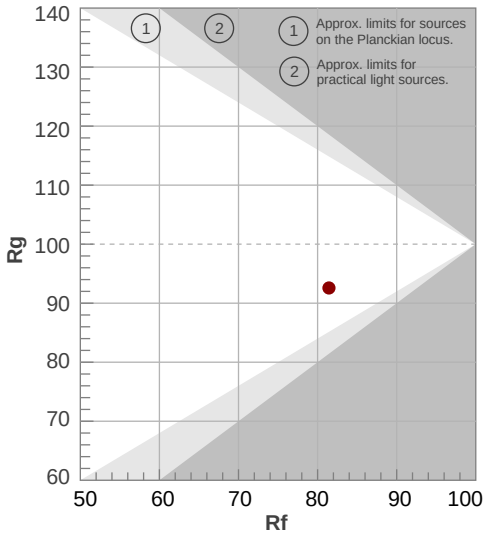
Rf 81,4

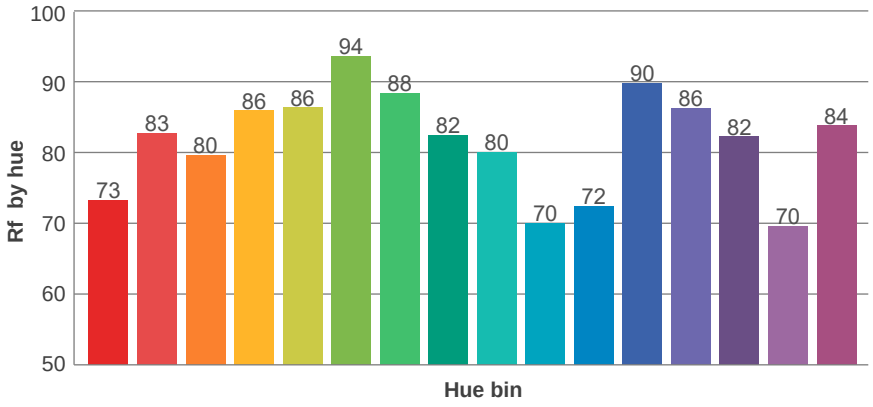
Fidelity index Rf

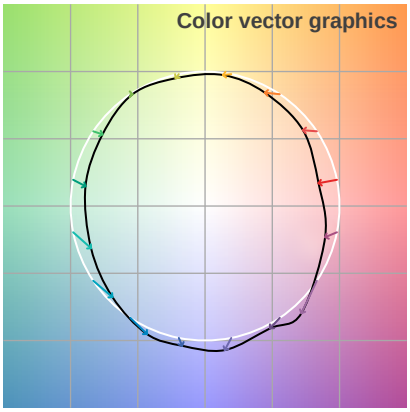
Rg 92,6

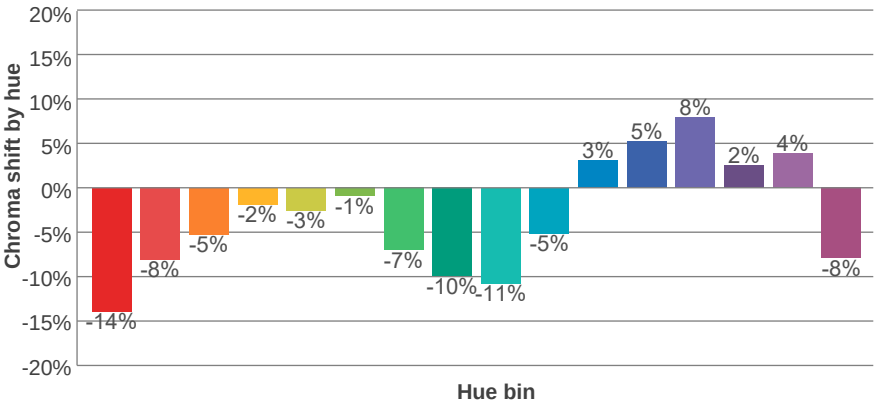
Gamut index Rg

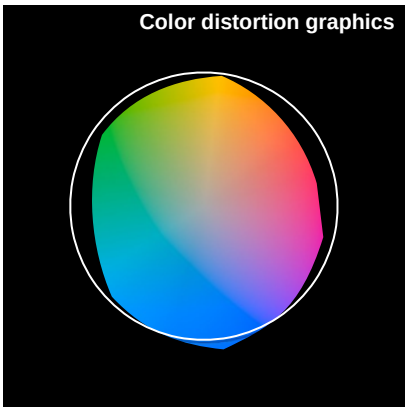
		Shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	73	-14%	0%
2	83	-8%	6%
3	80	-5%	10%
4	86	-2%	6%
5	86	-3%	3%
6	94	-1%	-1%
7	88	-7%	-2%
8	82	-10%	3%
9	80	-11%	14%
10	70	-5%	18%
11	72	3%	17%
12	90	5%	4%
13	86	8%	-6%
14	82	2%	-10%
15	70	4%	-26%
16	84	-8%	-5%

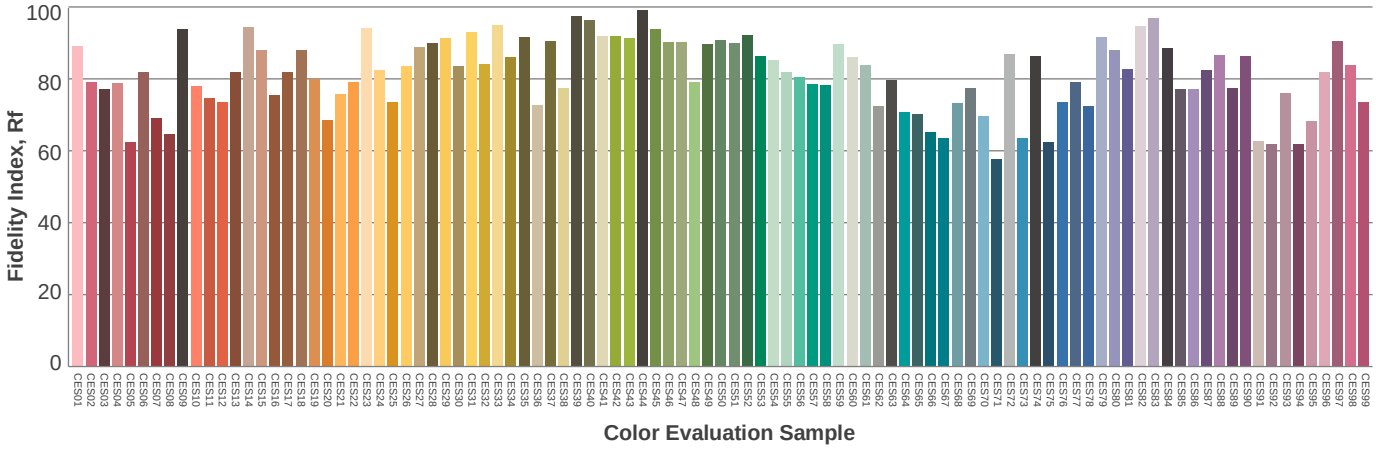




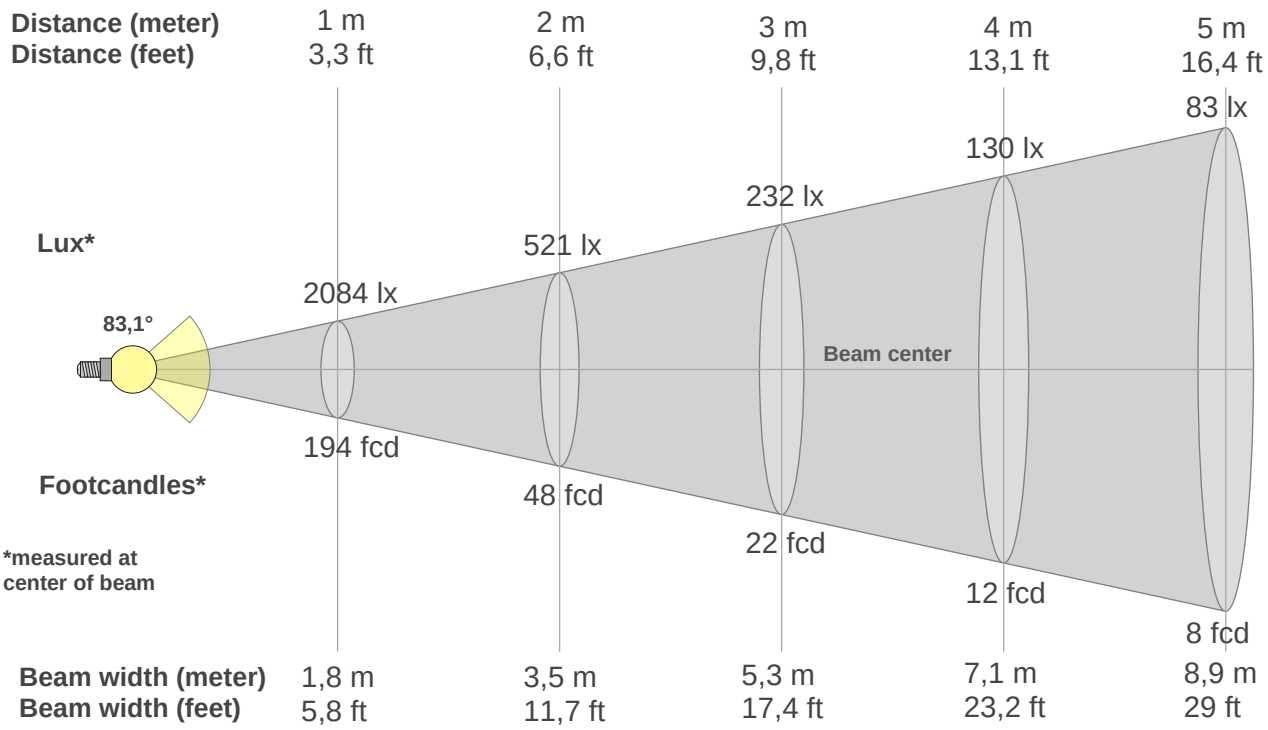








Beam details



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
2084lx	521lx	232lx	130lx	83lx	58lx	43lx	33lx	26lx	21lx	17lx	14lx	12lx	11lx	9lx	8lx	7lx	6lx	6lx	5lx
193,6fcd	48,4fcd	21,5fcd	12,1fcd	7,7fcd	5,4fcd	4fcd	3fcd	2,4fcd	1,9fcd	1,6fcd	1,3fcd	1,1fcd	1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,5fcd

Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
2084	2084	2066	2020	1929	1793	1624	1409	1123	857	641	455	333	266	207	157	118	64	15	3
100%	100%	99%	97%	93%	86%	78%	68%	54%	41%	31%	22%	16%	13%	10%	8%	6%	3%	1%	0%

Intensities in 90° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
2084	2084	2066	2020	1929	1793	1624	1409	1123	857	641	455	333	266	207	157	118	64	15	3
100%	100%	99%	97%	93%	86%	78%	68%	54%	41%	31%	22%	16%	13%	10%	8%	6%	3%	1%	0%

Intensities in 180° c-plane

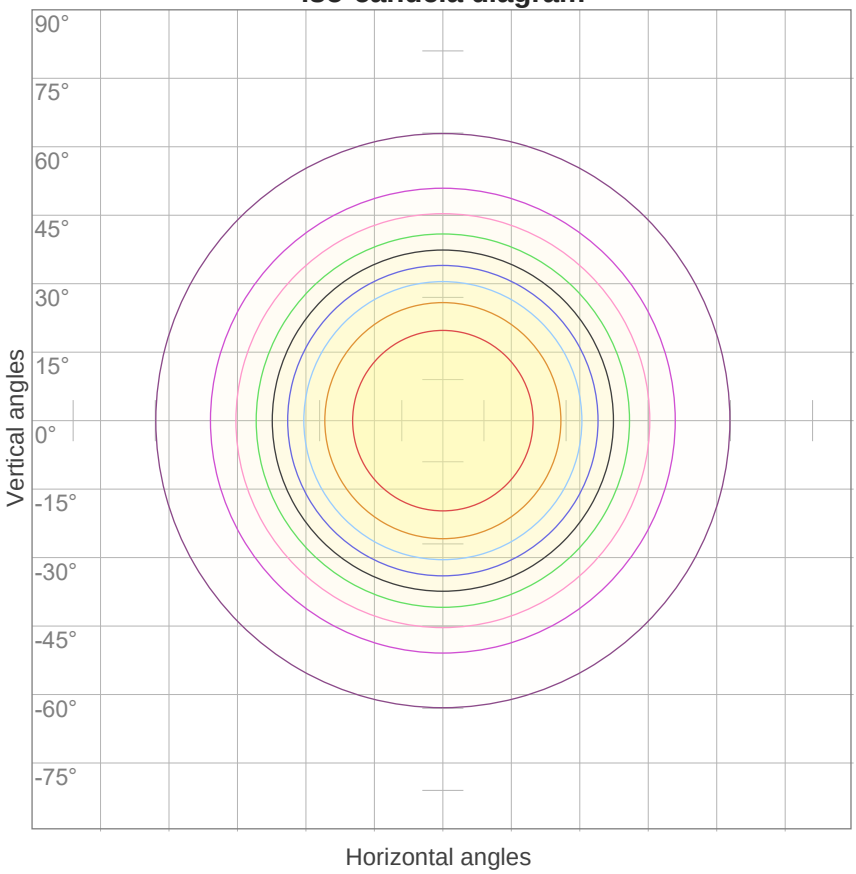
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
2084	2084	2066	2020	1929	1793	1624	1409	1123	857	641	455	333	266	207	157	118	64	15	3
100%	100%	99%	97%	93%	86%	78%	68%	54%	41%	31%	22%	16%	13%	10%	8%	6%	3%	1%	0%

Intensities in 270° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
2084	2084	2066	2020	1929	1793	1624	1409	1123	857	641	455	333	266	207	157	118	64	15	3
100%	100%	99%	97%	93%	86%	78%	68%	54%	41%	31%	22%	16%	13%	10%	8%	6%	3%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
83,1°	139,8°	172,4°	86,9%	69,2%

iso-candela diagram



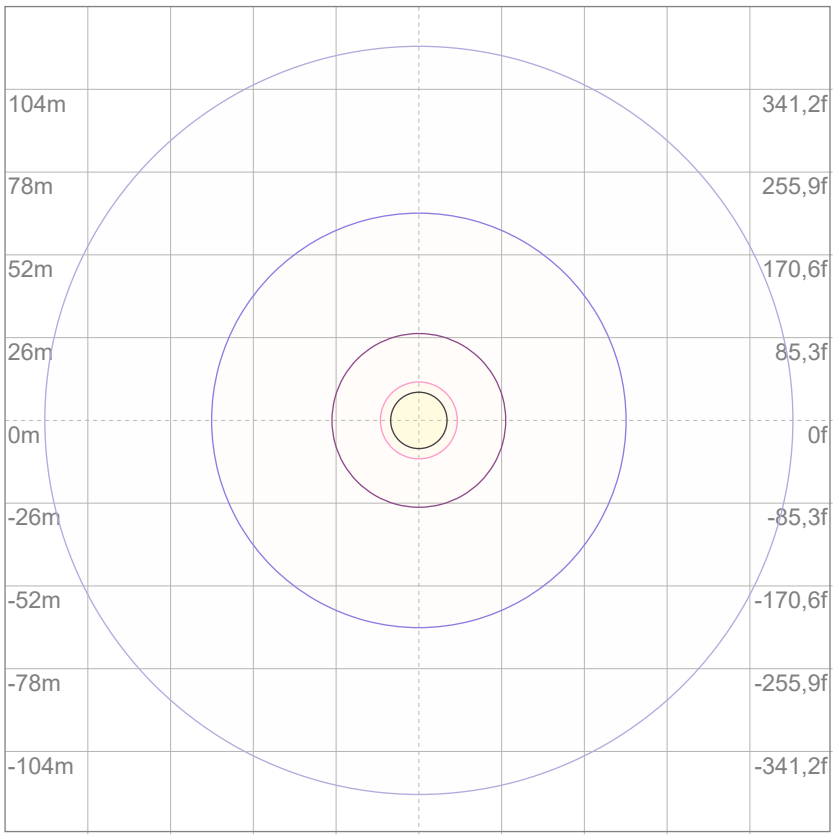
10%	208 cd
20%	417 cd
30%	625 cd
40%	834 cd
50%	1042 cd
60%	1250 cd
70%	1459 cd
80%	1667 cd
90%	1876 cd

Conditions:

Number of c-planes: 12

Candela at center: 2084 cd

iso-lux diagram



Mounting height: 10 meters (33 feet)

3%	0,625 lx
5%	1,04 lx
10%	2,08 lx
30%	6,25 lx
50%	10,4 lx

Conditions:

Number of c-planes: 12

Lux at center: 20,8 lx

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

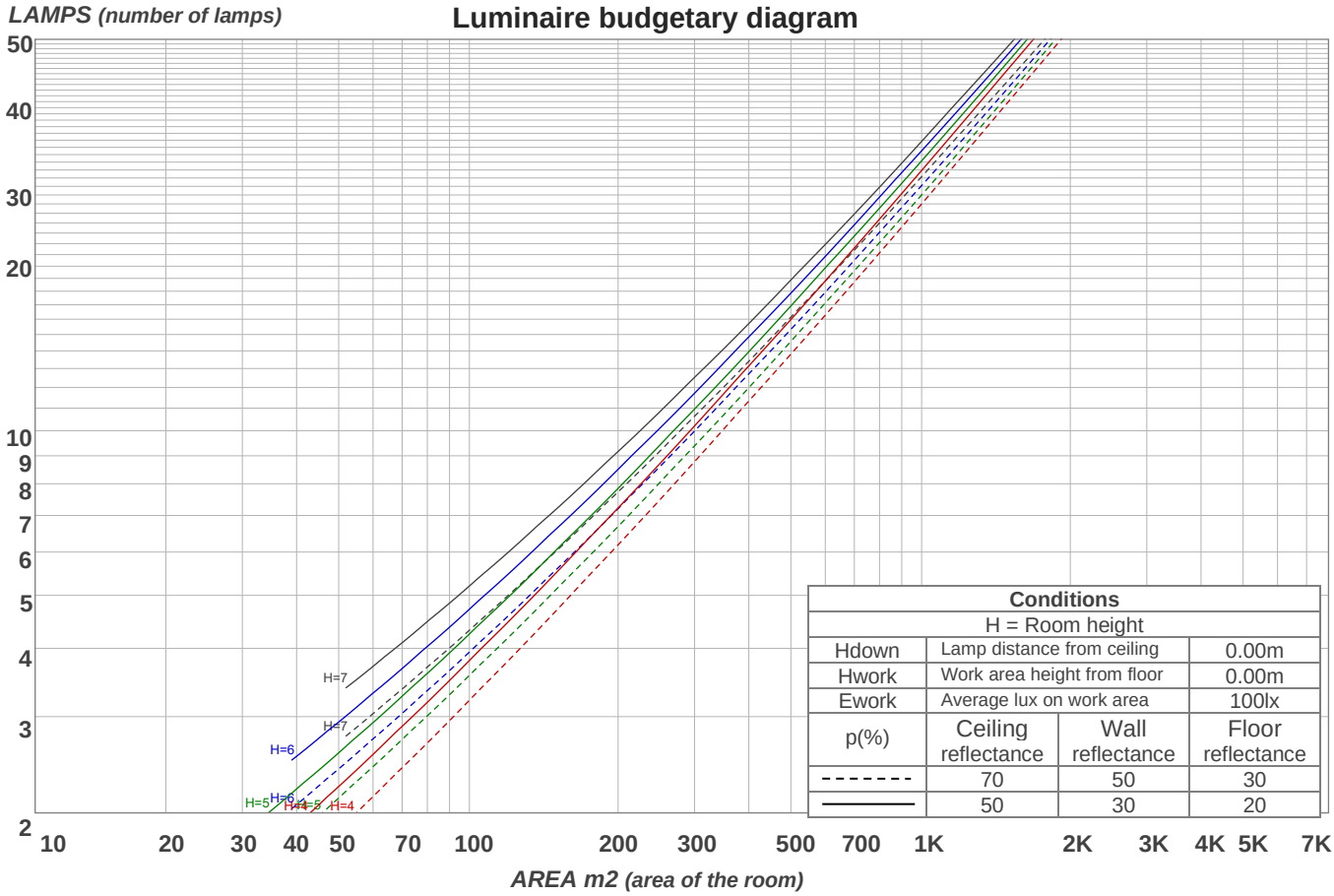
Glare evaluation according to UGR

p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X	Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	14,6	15,6	14,8	15,9	16,1	14,5	15,5	14,7	15,8	16,0
	3H	15,4	16,5	15,8	16,7	17,0	15,3	16,4	15,7	16,7	16,9
	4H	15,9	16,9	16,3	17,2	17,5	15,8	16,8	16,2	17,1	17,3
	6H	16,5	17,4	16,8	17,6	18,0	16,3	17,2	16,6	17,5	17,9
	8H	16,7	17,5	17,0	17,9	18,3	16,5	17,4	16,8	17,7	18,1
	12H	16,8	17,7	17,2	18,0	18,5	16,6	17,5	17,0	17,8	18,3
4H	2H	14,8	15,8	15,2	16,1	16,4	14,7	15,8	15,2	16,1	16,3
	3H	16,0	16,9	16,4	17,2	17,7	15,9	16,8	16,3	17,1	17,6
	4H	16,6	17,4	17,0	17,8	18,3	16,5	17,3	16,9	17,7	18,2
	6H	17,3	18,0	17,8	18,4	18,8	17,1	17,9	17,6	18,2	18,6
	8H	17,6	18,3	18,1	18,6	19,0	17,4	18,1	17,9	18,5	18,9
	12H	17,8	18,4	18,3	18,8	19,3	17,6	18,2	18,1	18,6	19,1
8H	4H	16,8	17,5	17,4	17,9	18,3	16,7	17,4	17,3	17,8	18,2
	6H	17,7	18,2	18,2	18,7	19,3	17,6	18,1	18,1	18,6	19,1
	8H	18,2	18,6	18,7	19,1	19,8	18,0	18,4	18,5	19,0	19,6
	12H	18,5	18,9	19,1	19,4	20,0	18,3	18,7	18,9	19,2	19,8
12H	4H	16,9	17,4	17,4	17,9	18,3	16,8	17,3	17,3	17,8	18,2
	6H	17,8	18,3	18,4	18,8	19,4	17,7	18,1	18,2	18,7	19,3
	8H	18,3	18,7	18,9	19,2	19,8	18,1	18,5	18,7	19,0	19,6
Variation of the observer position for the luminaire distance S											
S = 1.0H		0,2 / -0,3					0,2 / -0,3				
S = 1.5H		0,5 / -0,5					0,5 / -0,5				
S = 2.0H		1,0 / -0,7					1,1 / -0,8				
CIE 117-1995. Corrected glare indices referring to 4075 lm total luminous flux											

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	101	101	101	99
1	110	106	102	99	107	104	100	97	99	97	94	95	93	91	92	90	88	86
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66
4	87	77	69	63	85	75	68	63	73	67	62	71	65	61	68	64	60	58
5	81	70	62	56	79	68	61	55	66	60	55	64	59	54	63	58	54	52
6	75	64	56	50	74	63	55	50	61	54	49	59	53	49	58	52	48	46
7	71	58	50	45	69	57	50	45	56	49	44	55	48	44	53	48	44	42
8	66	54	46	41	65	53	46	40	52	45	40	50	44	40	49	44	40	38
9	62	50	42	37	61	49	42	37	48	41	37	47	41	37	46	40	36	35
10	58	46	39	34	57	46	39	34	45	38	34	44	38	34	43	37	33	32

Luminaire budgetary diagram



Zonal Lumen Summary

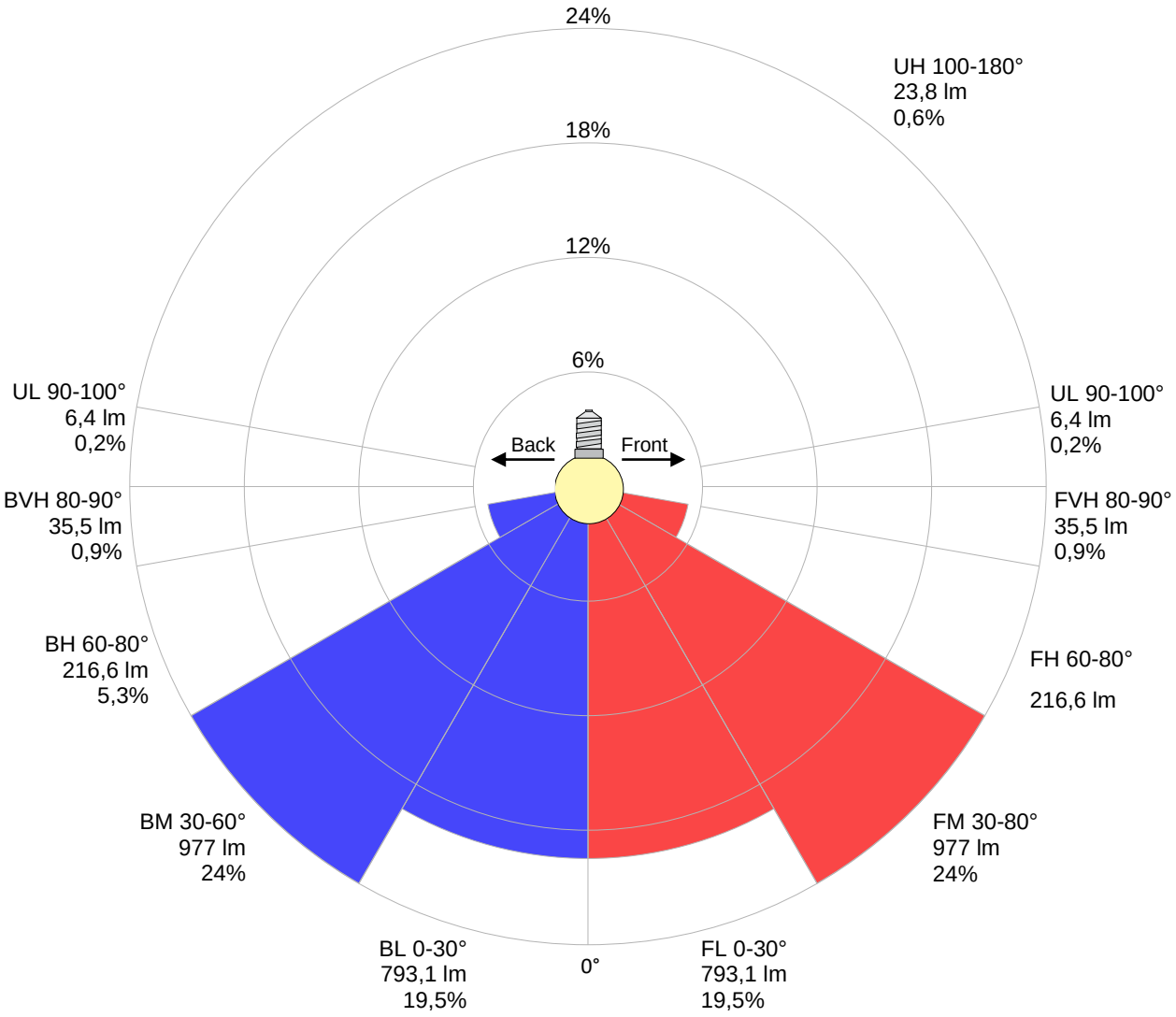
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
{LUM0-10}	567 lm	821 lm	867 lm	667 lm	420 lm	265 lm	168 lm	71,0 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
6,38 lm	2,92 lm	3,58 lm	4,01 lm	3,81 lm	3,77 lm	2,99 lm	2,02 lm	0,675 lm

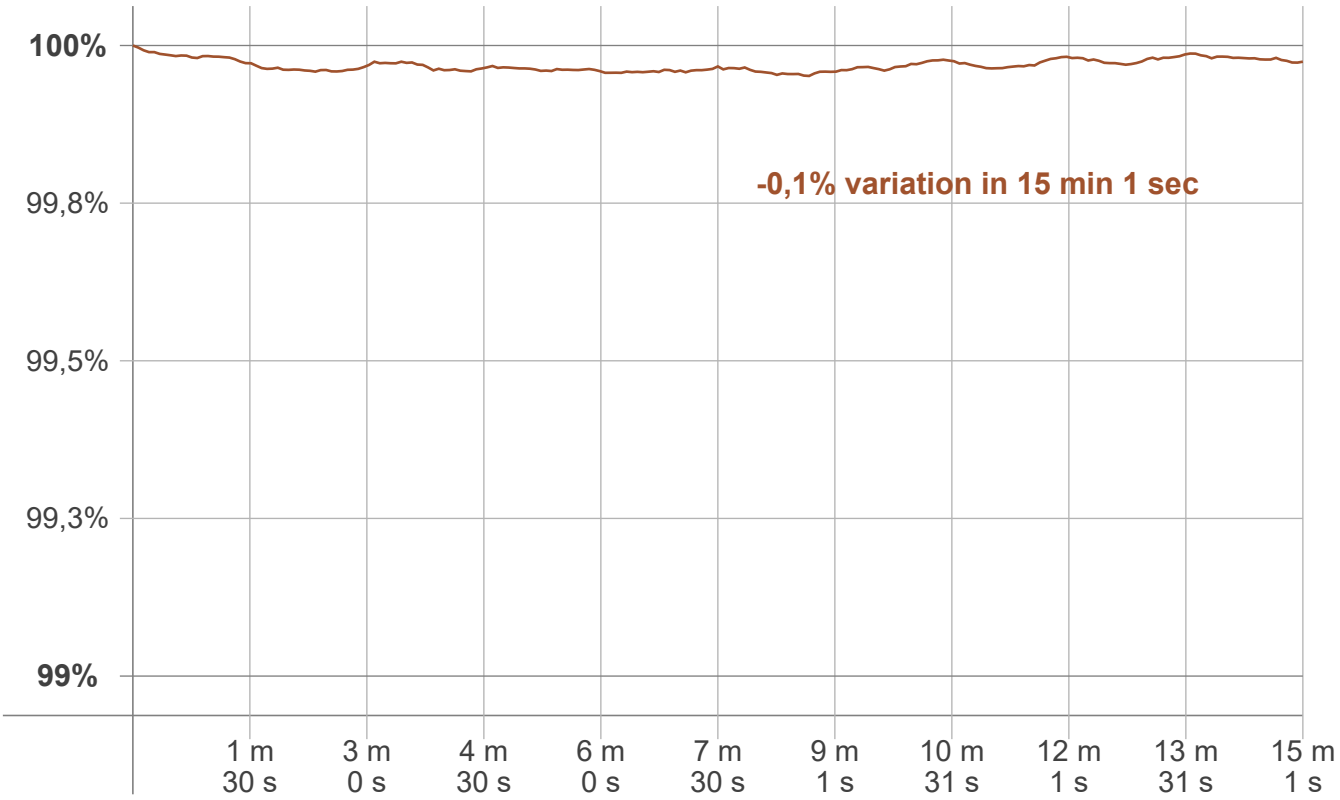
LCS table

BUG rating:	B2 U2 G1	
Forward light	Lumens	Lumens %
Low(0-30):	793,1	19,5%
Medium(30-60):	977	24%
High(60-80):	216,6	5,3%
Very high(80-90):	35,5	0,9%
Back light		
Low(0-30):	793,1	19,5%
Medium(30-60):	977	24%
High(60-80):	216,6	5,3%
Very high(80-90):	35,5	0,9%
Uplight		
Low(90-100):	6,4	0,2%
High(100-180):	23,8	0,6%

LCS graph



Warmup curve



Warmup result

Warmup time:	**Lamp stabilized in 15 min 1 sec**
Warmup variation	**-0,1%**

Warmup conditions

Stable period:	**15 min**
Stable change max:	**2,0%**
Minimum time:	**15 min**

Color temperature change

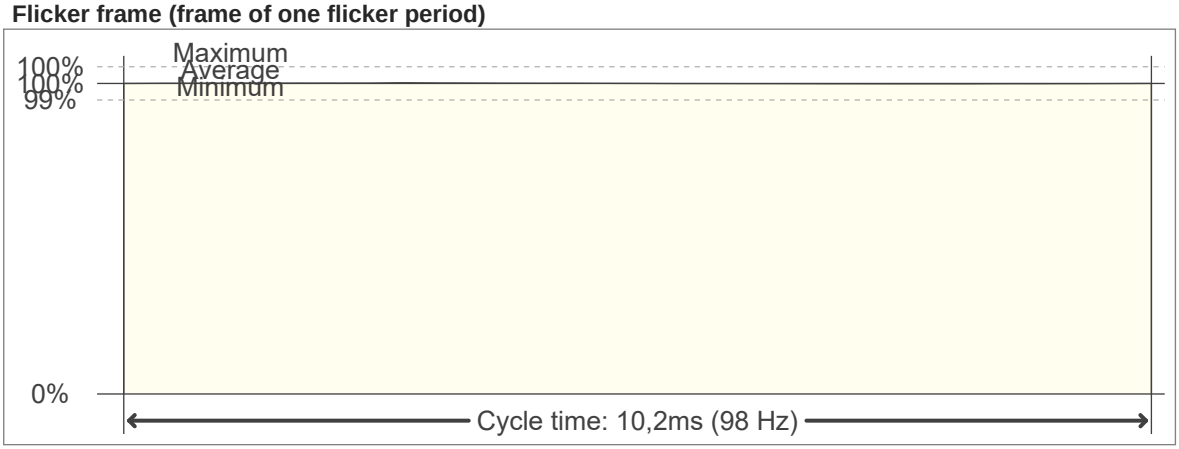
CCT start	CCT change	CCT end
5988 K	+12 K	6000 K

Output change

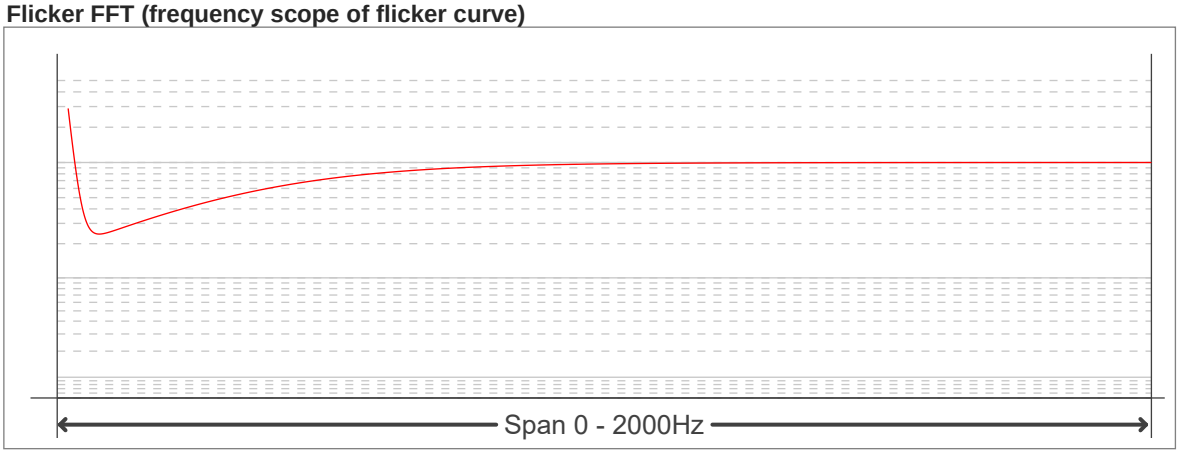
Output start	Output change	Output end
4076 lm	-1 lm	4075 lm

Flicker curve (complete sampled flicker signal)

Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:		98,04 Hz	
Flicker index:	0	JA8/10 40Hz	0,02 %
Flicker percentage:	0,24 %	JA8/10 90Hz	0,03 %
SVM: (Visual flicker)	0,01	JA8/10 200Hz	0,18 %
PstLM	0,02	JA8/10 400Hz	0,19 %
Mp	0,01	JA8/10 1000Hz	0,22 %

Flicker conditions:

Sample rate:	20000 samples/second