

Light efficiency:

46 Lumen/Watt

Light quality:

CRI: 82.4

Color temperature:

2613 K

Output: 586 lm

Peak: 4603 cd

Power: 12.6 W

PF: 0.91

No photo

Product name:

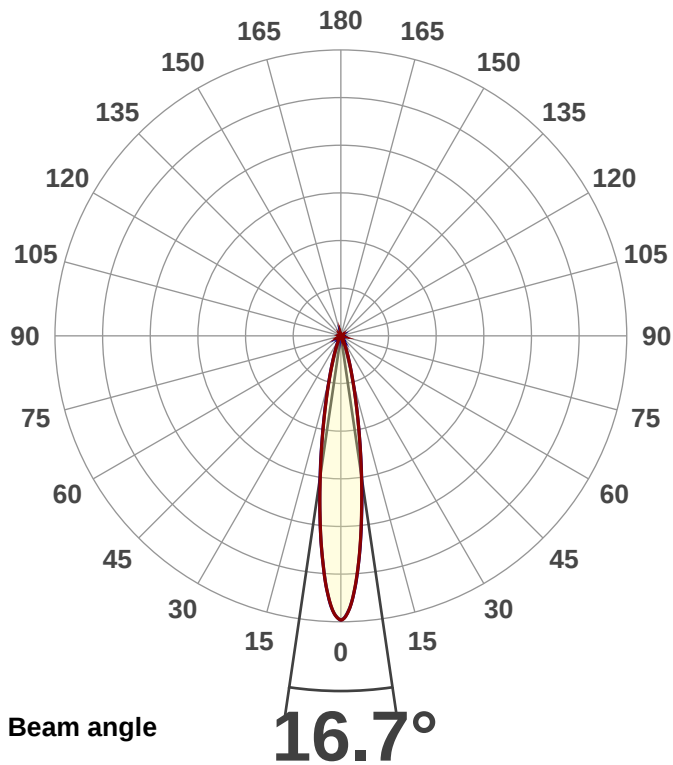
F170-1S-LO-27-8-15-X-X-X HC

Item number:

Date and time:

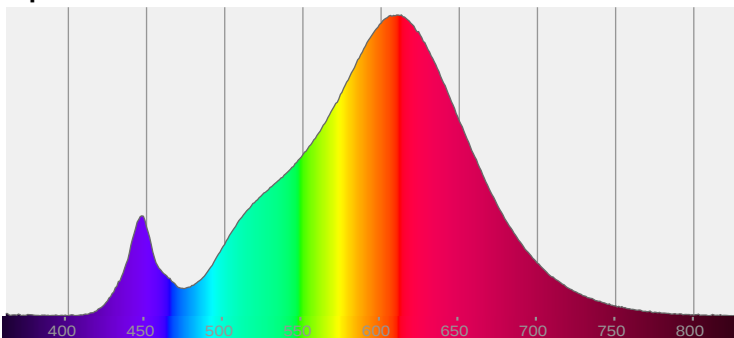
12/5/2018 12:21:43 PM

Description:

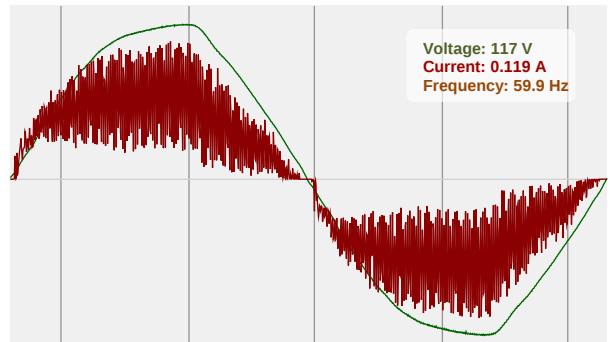


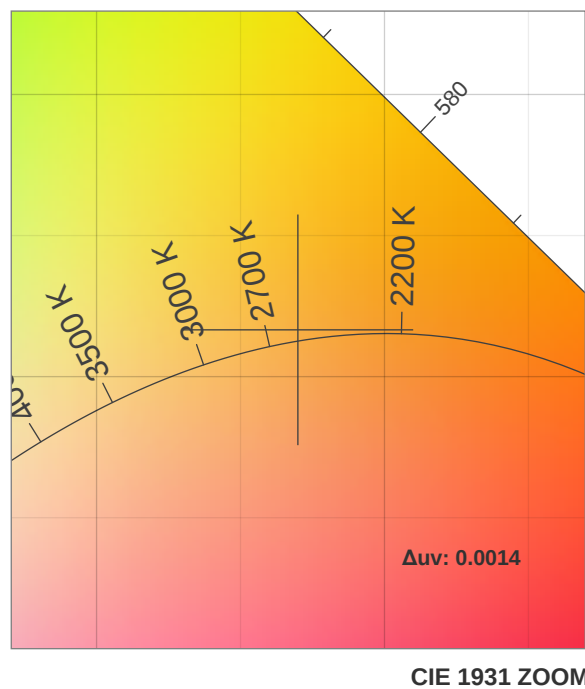
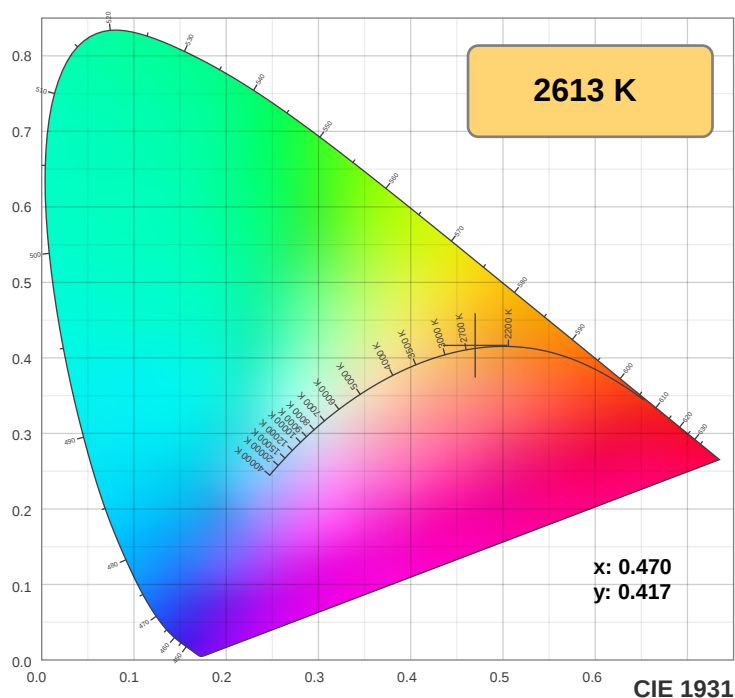
CIE 1931
x: 0.470
y: 0.417

Spectra

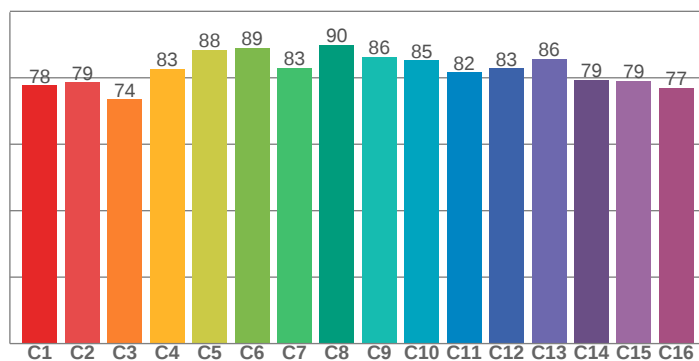


Power

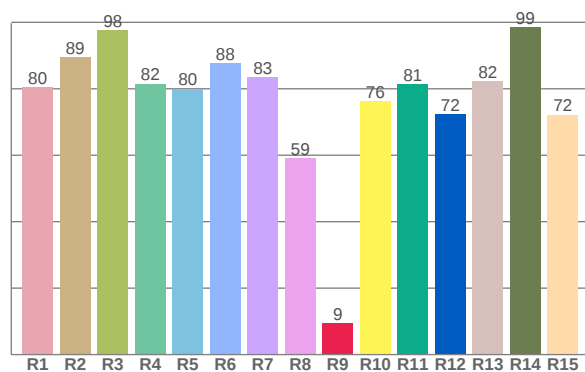




TM30: 82.2



CRI: 82.4 (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
80.5	89.4	97.6	81.6	80.1	87.8	83.4	59.0	9.4	76.2	81.3	72.4	82.3	98.5	72.2

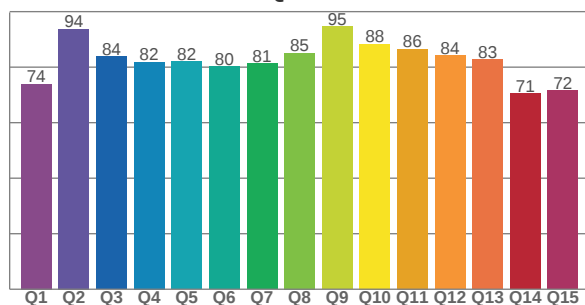
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
77.7	78.6	73.6	82.6	88.4	89.0	82.9	89.9	86.3	85.3	81.7	82.8	85.6	79.3	79.1	76.9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
73.9	93.8	83.9	81.8	82.0	80.2	81.3	85.1	94.6	88.4	86.5	84.2	82.8	70.5	71.6

CQS: 81.2



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
2613 K	82.4	9.4	82.2	97.8	81.2	0.470	0.417	0.266	0.354	0.0014

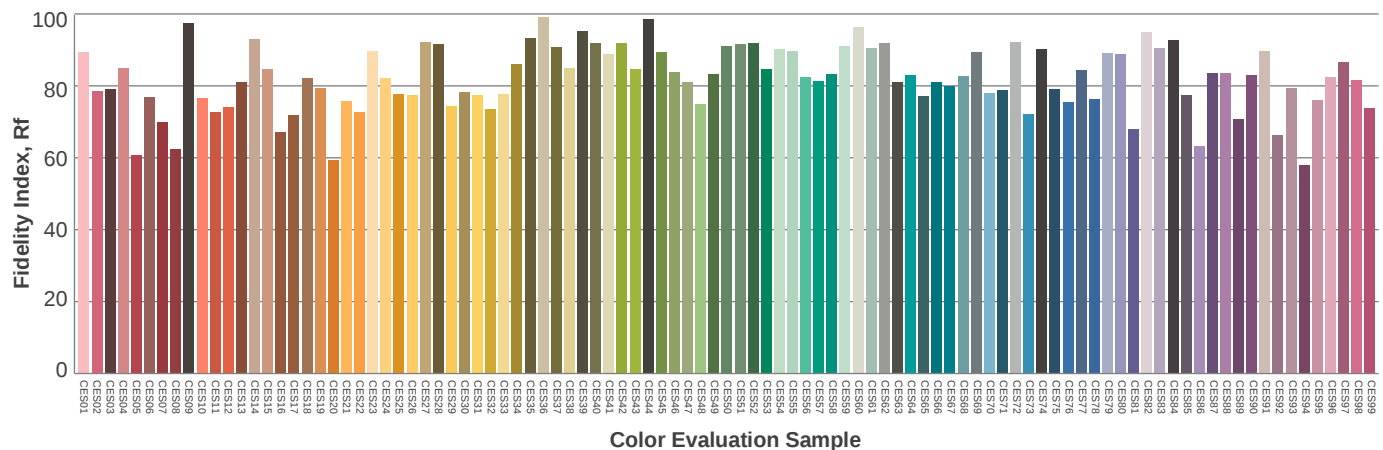
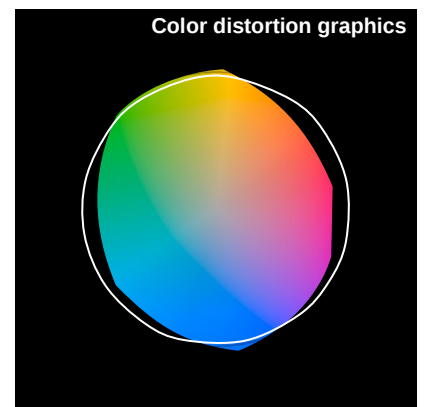
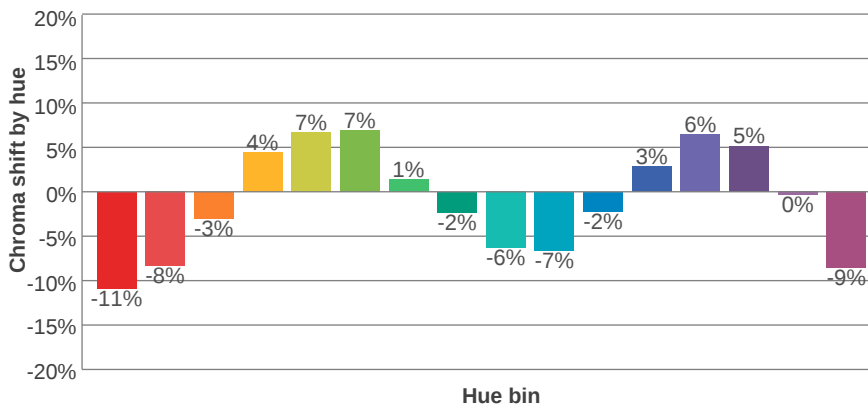
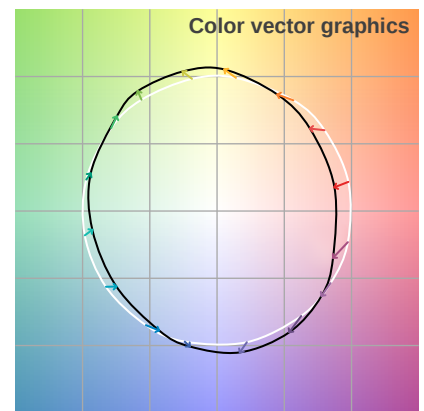
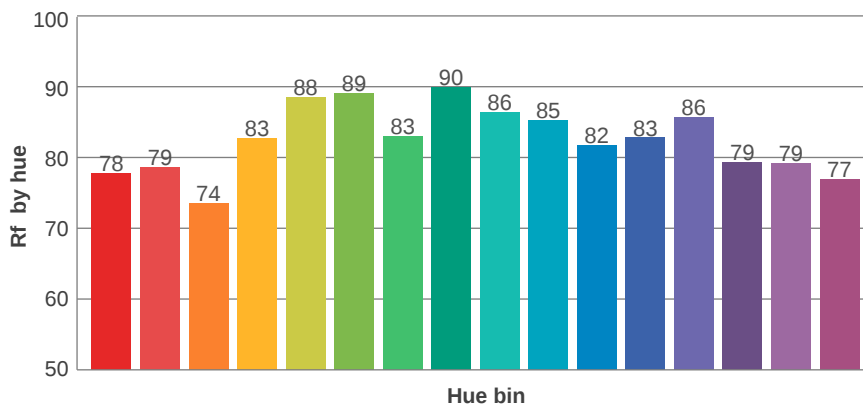
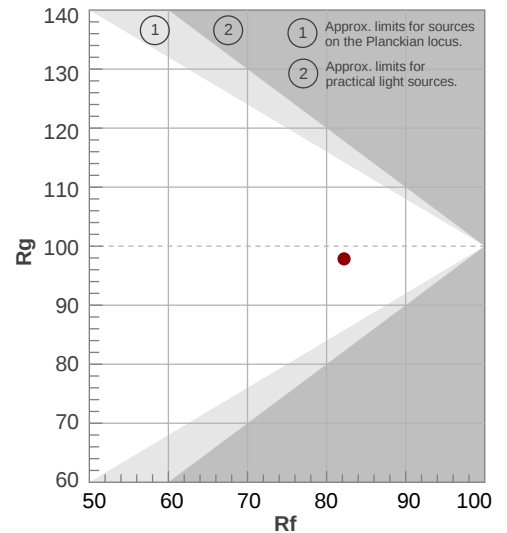
Rf 82.2

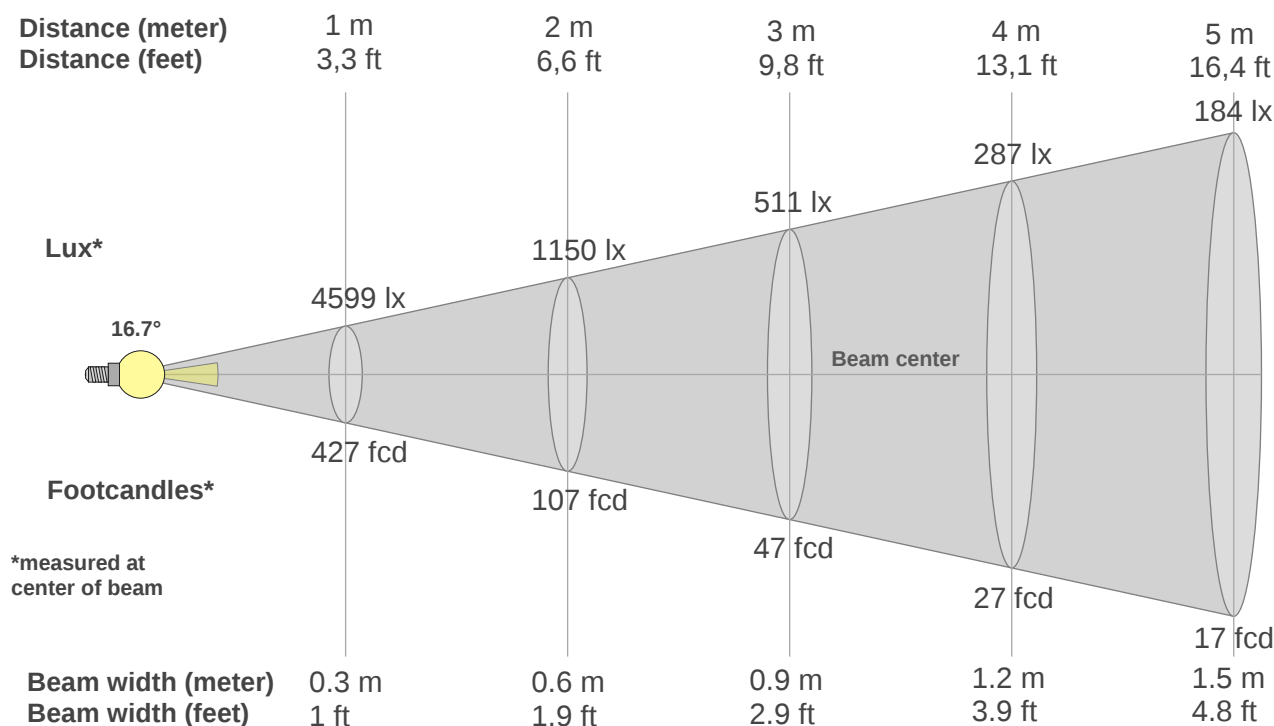
Fidelity index Rf

Rg 97.8

Gammut index Rg

Hue Bin	R_f	Graphic shifts (%)	
		Chroma	Hue
1	78	-11%	-2%
2	79	-8%	7%
3	74	-3%	12%
4	83	4%	10%
5	88	7%	6%
6	89	7%	-1%
7	83	1%	-10%
8	90	-2%	-5%
9	86	-6%	-3%
10	85	-7%	4%
11	82	-2%	10%
12	83	3%	4%
13	86	6%	-7%
14	79	5%	-14%
15	79	0%	-12%
16	77	-9%	-14%




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
4599lx	1150lx	511lx	287lx	184lx	128lx	94lx	72lx	57lx	46lx	38lx	32lx	27lx	23lx	20lx	18lx	16lx	14lx	13lx	11lx
427.3fc	106.8fc	47.5fcd	26.7fcd	17.1fcd	11.9fcd	8.7fcd	6.7fcd	5.3fcd	4.3fcd	3.5fcd	3fcd	2.5fcd	2.2fcd	1.9fcd	1.7fcd	1.5fcd	1.3fcd	1.2fcd	1.1fcd

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°
4599	4540	4381	4139	3835	3497	3135	2767	2418	2085	1784	1513	1278	1069	895	746	624	521	434	366
100%	99%	95%	90%	83%	76%	68%	60%	53%	45%	39%	33%	28%	23%	19%	16%	14%	11%	9%	8%

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°
4599	4531	4380	4142	3843	3510	3149	2789	2435	2103	1791	1515	1273	1067	889	733	612	511	426	357
100%	99%	95%	90%	84%	76%	68%	61%	53%	46%	39%	33%	28%	23%	19%	16%	13%	11%	9%	8%

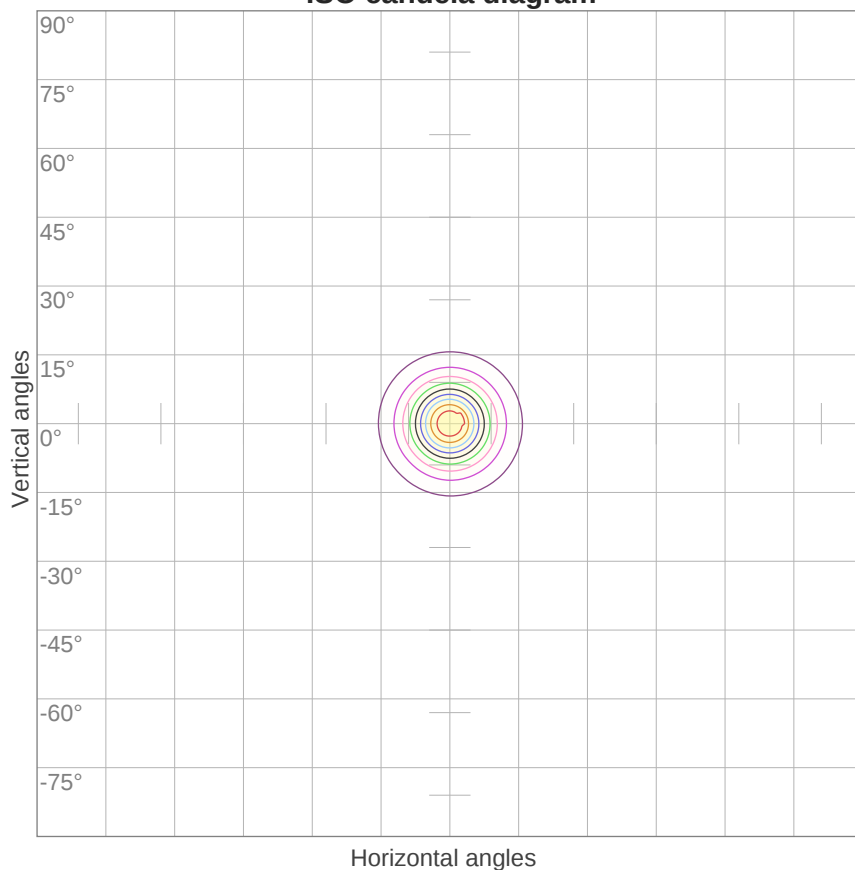
Intensities in 180° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
4599	4538	4391	4159	3864	3521	3164	2793	2423	2079	1769	1491	1244	1034	860	712	587	490	410	342
100%	99%	95%	90%	84%	77%	69%	61%	53%	45%	38%	32%	27%	22%	19%	15%	13%	11%	9%	7%

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°
4599	4535	4394	4160	3857	3523	3165	2794	2436	2105	1788	1502	1263	1055	873	723	601	500	415	346
100%	99%	96%	90%	84%	77%	69%	61%	53%	46%	39%	33%	27%	23%	19%	16%	13%	11%	9%	8%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
16.7°	35°	51.4°	98.9%	98.5%

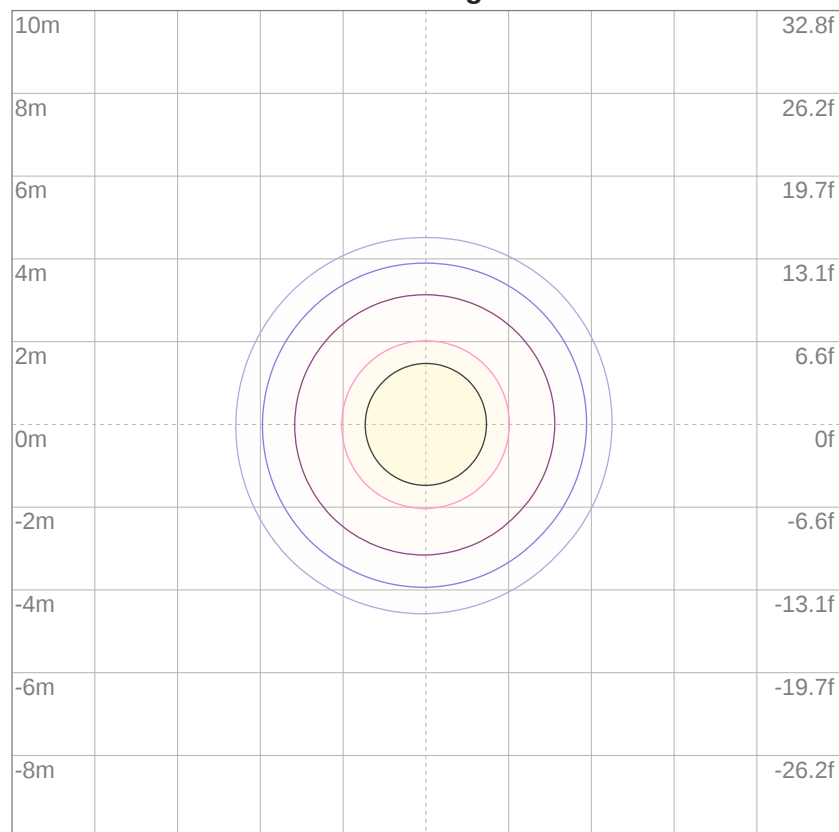
ISO candela diagram


10%	460 cd
20%	920 cd
30%	1380 cd
40%	1840 cd
50%	2300 cd
60%	2760 cd
70%	3220 cd
80%	3680 cd
90%	4140 cd

Conditions:

Number of c-planes: 8

Candela at center: 4599 cd

ISO lux diagram


3%	1.38 lx
5%	2.30 lx
10%	4.60 lx
30%	13.8 lx
50%	23.0 lx

Conditions:

Number of c-planes: 8

Lux at center: 46.0 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	3.6	4.3	3.9	4.5	4.7	3.5	4.2	3.8	4.4	4.6
	3H	3.7	4.3	4.0	4.5	4.8	3.6	4.1	3.8	4.4	4.6
	4H	3.7	4.3	4.0	4.5	4.8	3.6	4.2	3.9	4.4	4.7
	6H	3.9	4.4	4.2	4.7	5.0	3.8	4.3	4.1	4.6	4.9
	8H	4.0	4.4	4.3	4.7	5.1	4.0	4.5	4.4	4.8	5.1
	12H	4.0	4.5	4.4	4.8	5.1	4.5	4.9	4.8	5.2	5.6
4H	2H	3.5	4.0	3.8	4.3	4.6	3.4	4.0	3.7	4.2	4.5
	3H	3.6	4.1	4.0	4.4	4.7	3.5	3.9	3.8	4.3	4.6
	4H	3.8	4.2	4.2	4.5	4.9	3.6	4.0	4.0	4.4	4.7
	6H	4.1	4.5	4.5	4.8	5.2	4.0	4.3	4.4	4.7	5.0
	8H	4.3	4.6	4.7	5.0	5.4	4.4	4.6	4.8	5.0	5.4
	12H	4.5	4.7	4.9	5.1	5.6	5.1	5.3	5.5	5.7	6.2
8H	4H	3.9	4.2	4.4	4.6	5.0	3.6	3.9	4.1	4.3	4.7
	6H	4.5	4.8	5.0	5.2	5.6	4.2	4.4	4.7	4.9	5.3
	8H	4.8	5.0	5.3	5.5	5.9	4.8	5.0	5.3	5.4	5.9
	12H	5.1	5.3	5.6	5.8	6.3	5.8	5.9	6.3	6.4	6.9
12H	4H	4.0	4.2	4.4	4.6	5.1	3.7	3.9	4.1	4.3	4.8
	6H	4.7	4.9	5.2	5.3	5.8	4.3	4.5	4.8	5.0	5.4
	8H	5.1	5.2	5.6	5.7	6.2	5.0	5.1	5.5	5.6	6.1
Variation of the observer position for the luminaire distance S											
S = 1.0H		+3.6 / -2.1					+3.3 / -1.8				
S = 1.5H		+6.2 / -2.6					+5.7 / -2.2				
S = 2.0H		+8.1 / -2.6					+7.7 / -2.6				
Standard table		BK03					---				
Correction summand		-12.9					---				
Corrected glare indices referring to 586 lm total luminous flux											

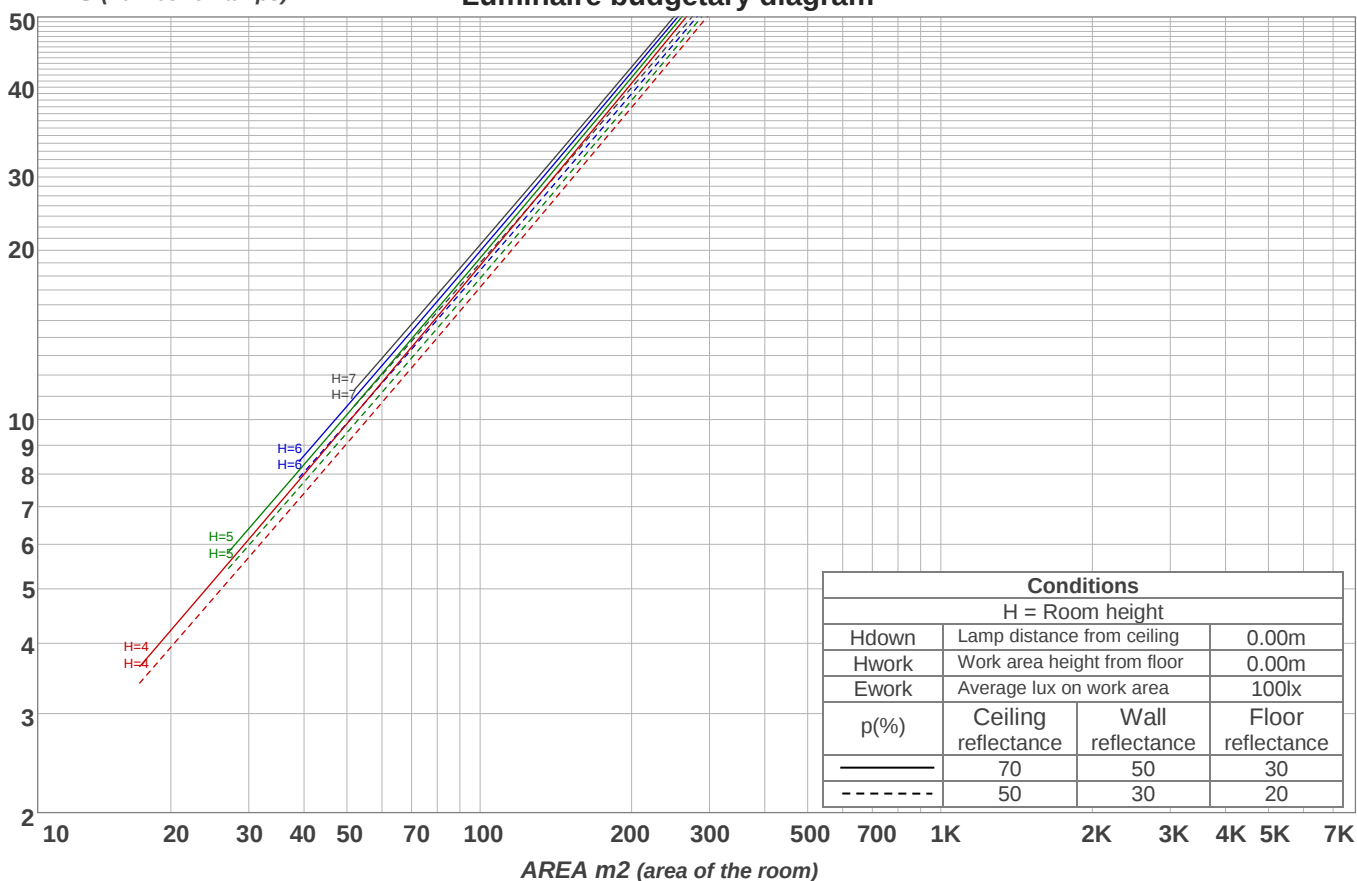
UGR data could be incorrect as lamp output is not symmetrical. Goto Edit->Photometric->Corrections and select Correct asymmetry.

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	115	113	111	110	113	111	109	108	107	106	104	103	102	101	100	99	98	96
2	112	108	105	103	110	106	104	102	103	101	99	100	99	97	98	96	95	94
3	108	104	101	98	107	103	100	97	100	98	96	98	96	94	96	94	93	91
4	105	100	97	94	104	99	96	93	97	94	92	95	93	91	94	92	90	89
5	103	97	93	91	101	96	93	90	95	92	89	93	91	89	92	90	88	87
6	100	94	91	88	99	94	90	87	92	89	87	91	88	86	90	88	86	85
7	98	92	88	85	97	91	88	85	90	87	85	89	86	84	88	86	84	83
8	95	89	86	83	95	89	85	83	88	85	83	87	84	82	86	84	82	81
9	93	87	84	81	93	87	83	81	86	83	81	85	83	80	85	82	80	79
10	91	85	82	79	91	85	82	79	84	81	79	84	81	79	83	80	79	78

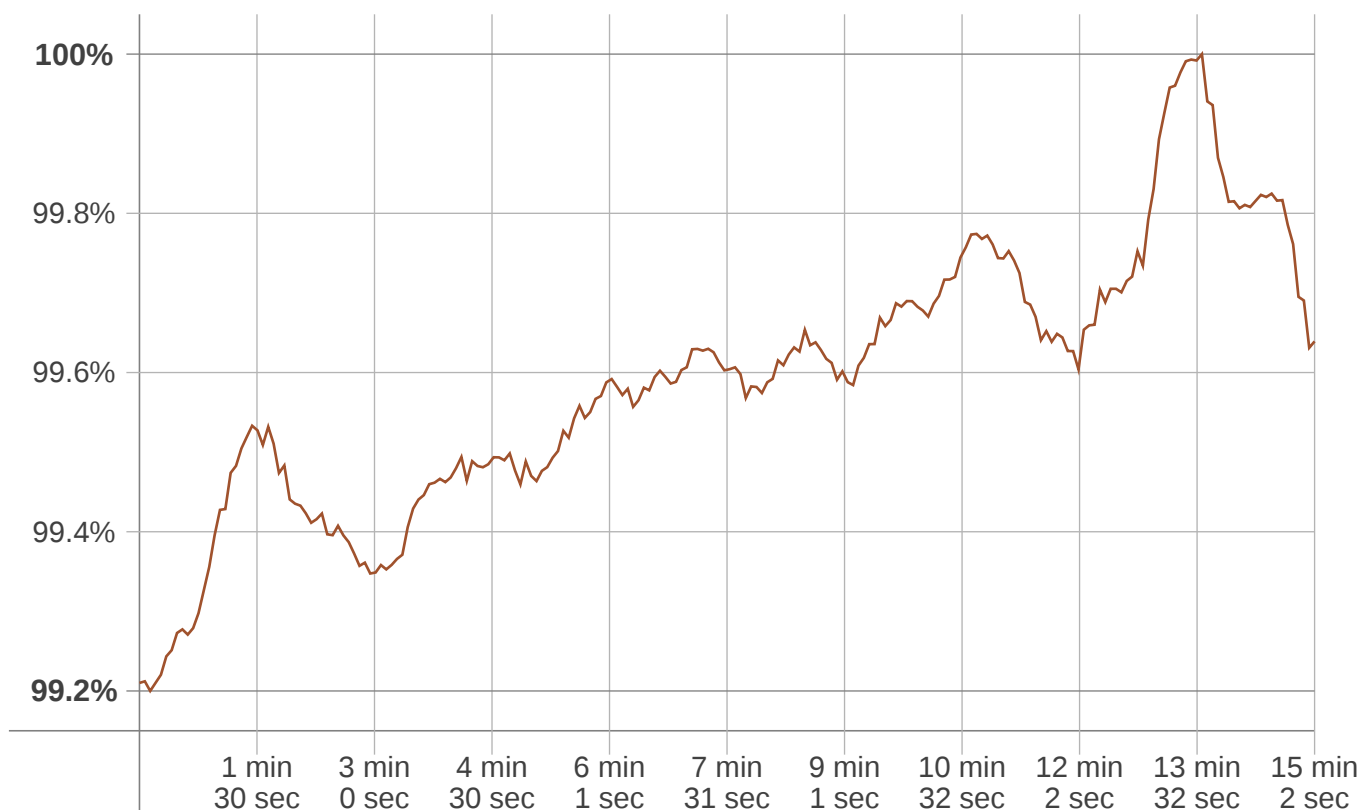
LAMPS (number of lamps)

Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
276 lm	214 lm	64.1 lm	19.9 lm	4.28 lm	1.40 lm	0.984 lm	0.835 lm	0.676 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.605 lm	0.530 lm	0.600 lm	0.526 lm	0.503 lm	0.453 lm	0.297 lm	0.183 lm	0.057 lm

Warmup curve

Warmup result

Warmup time:	15 min 2 sec
Warmup variation	+0.8%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
2613 K	+0 K	2613 K

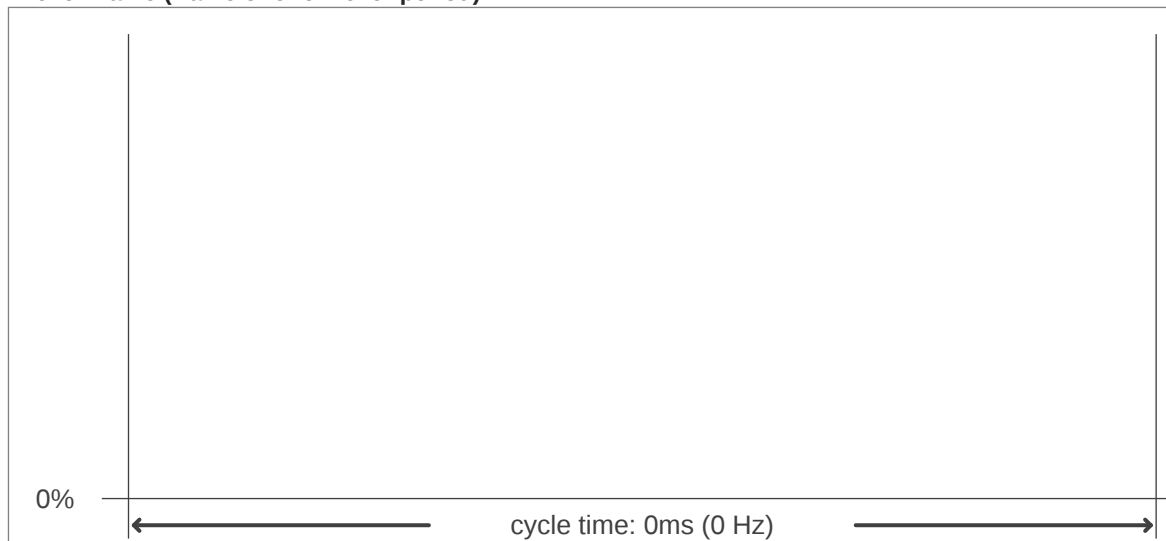
Output change

Output start	Output change	Output end
584 lm	+2 lm	586 lm

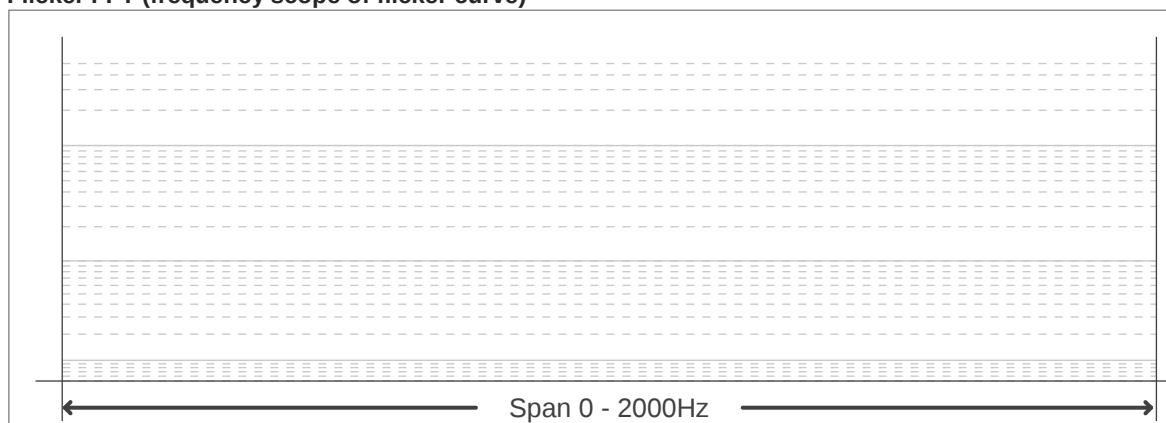
Flicker curve (complete sampled flicker signal)



Flicker frame (frame of one flicker period)



Flicker FFT (frequency scope of flicker curve)



Flicker results:

Flicker frequency:	n/a Hz
Flicker index:	n/a
Flicker percentage:	n/a %
SVM: (Visual flicker)	n/a

Flicker conditions:

Sample rate:	60.000 samples/second
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