

Light efficiency:

78 Lumen/Watt

Light quality:

CRI: 92.4

Color temperature:

3205 K

Output: 644 lm

Peak: 1530 cd

Power: 8.2 W

PF: 0.94

No photo

Tracking number: [n/a](#)

Product name:

930 180mA 3205K 644lm

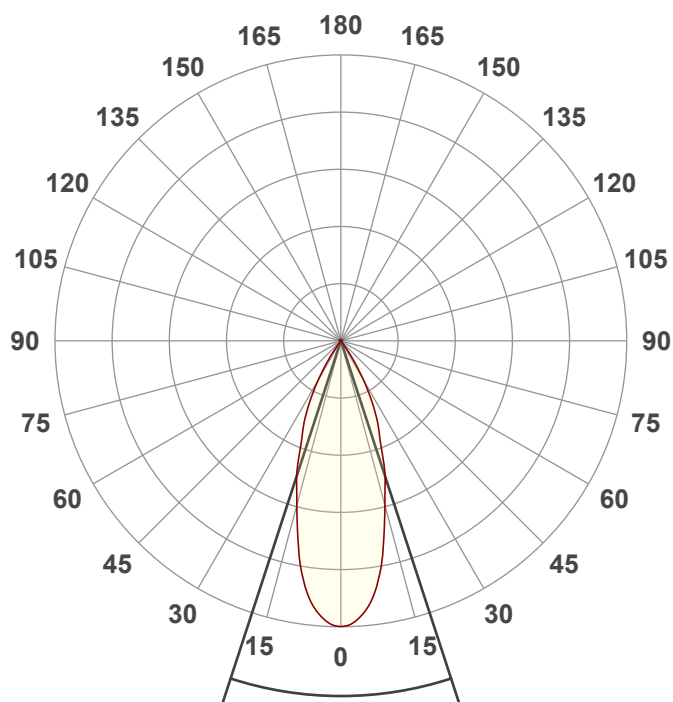
Item number:

Date and time:

17/11/2021 12:08:26

Description:

Tridonic 15W LCA 180mA



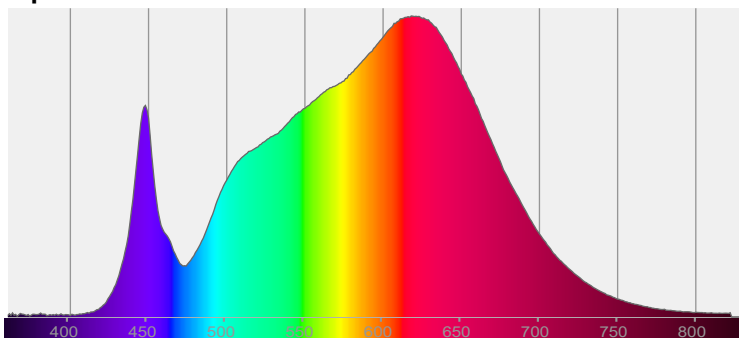
Beam angle

36.2°

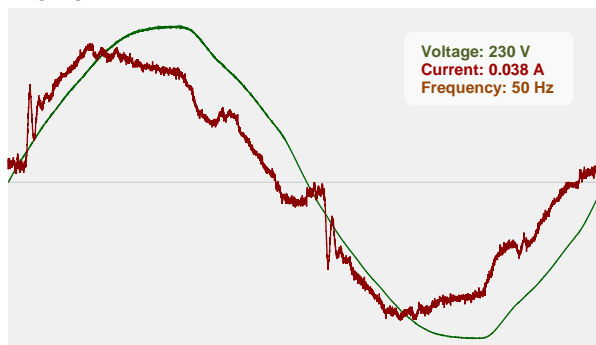


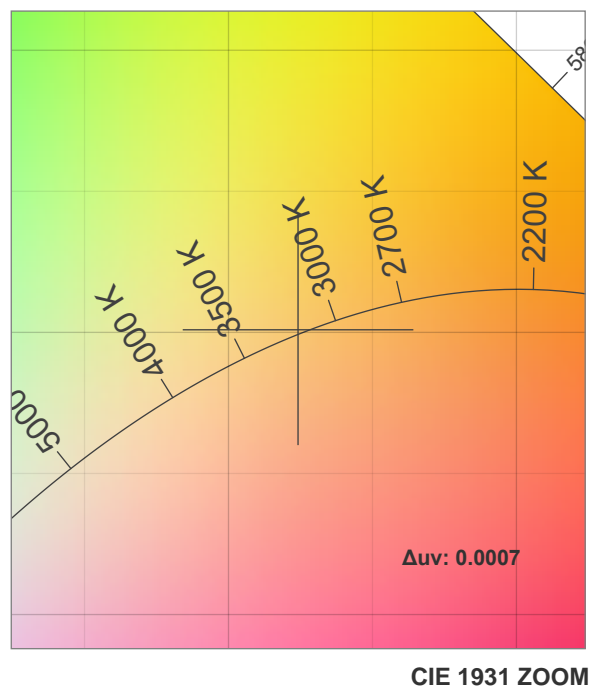
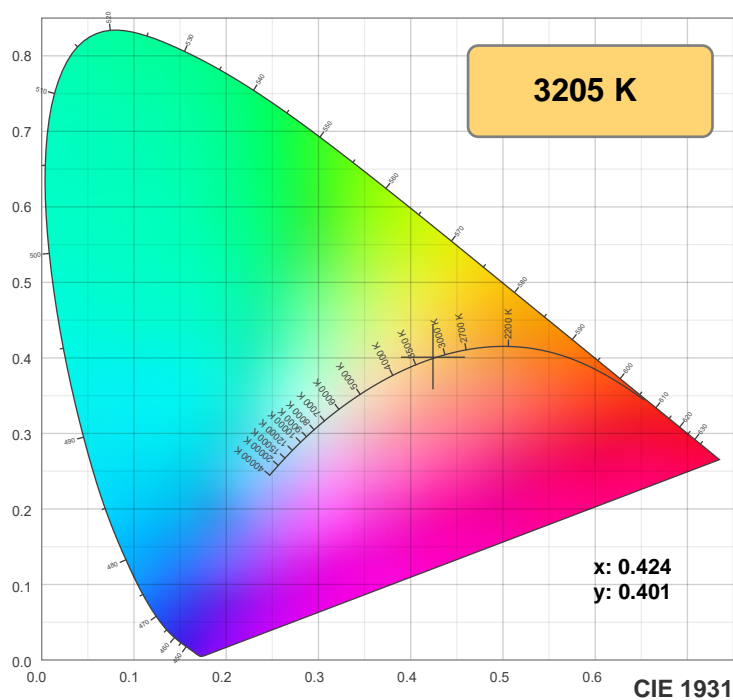
CIE 1931
x: 0.424
y: 0.401

Spectra

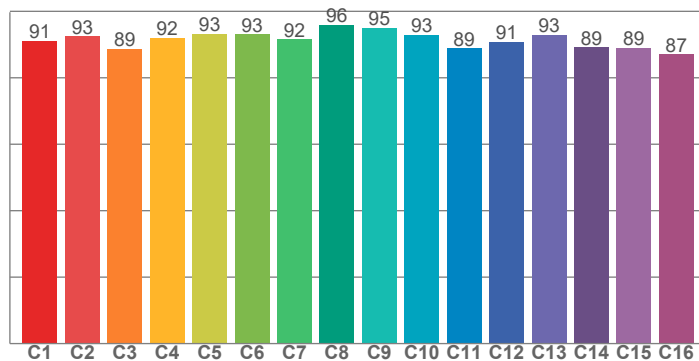


Power

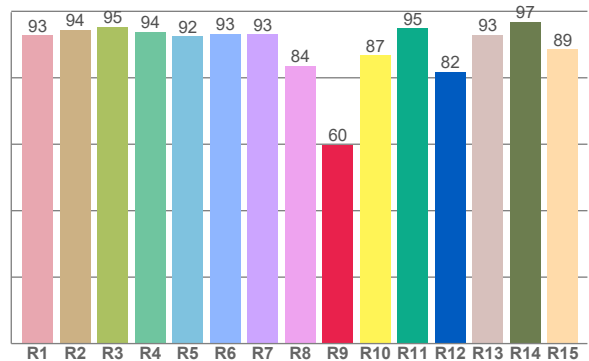




TM-30: 91.6



CRI: 92.4 (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
92.7	94.4	95.4	93.8	92.4	93.2	93.2	83.7	59.9	86.8	95.0	81.9	93.0	96.9	88.6

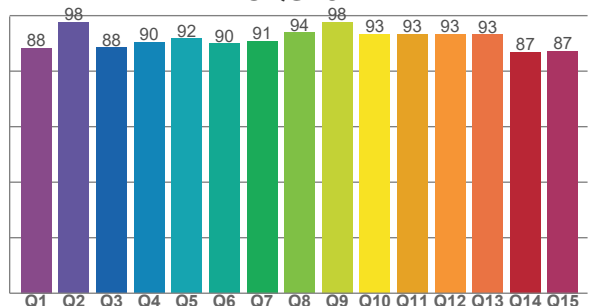
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91.2	92.5	88.7	92.0	93.2	93.1	91.6	95.9	95.1	93.0	88.8	90.8	92.9	89.1	89.1	87.1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
88.4	97.6	88.5	90.4	91.7	90.0	90.9	93.9	97.7	93.3	93.4	93.3	93.1	86.9	87.3

CQS: 91.1



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
3205 K	92.4	59.9	91.6	101.3	91.1	0.424	0.401	0.244	0.345	0.0007

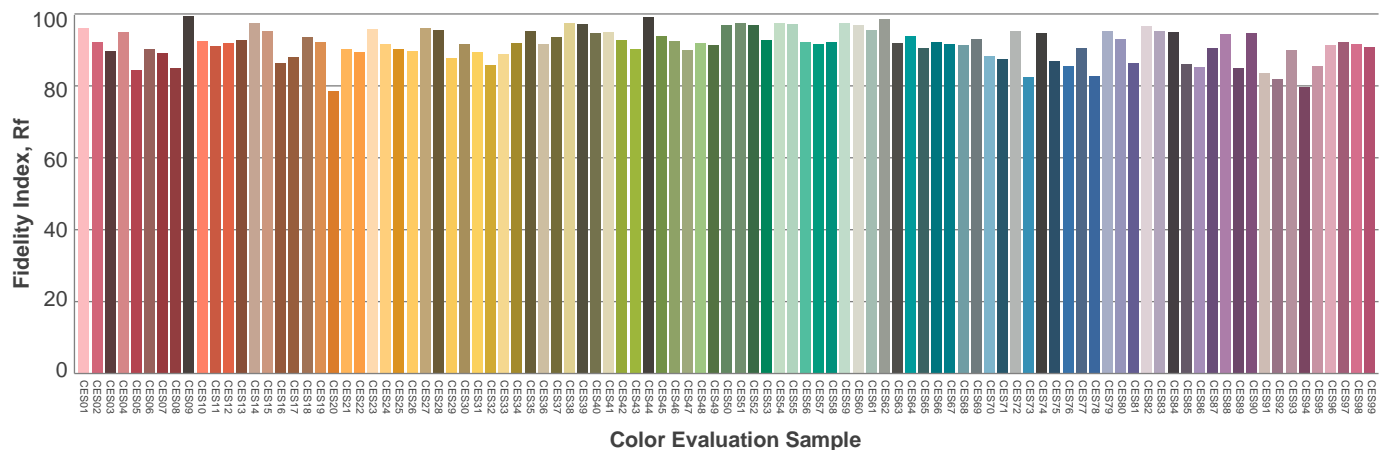
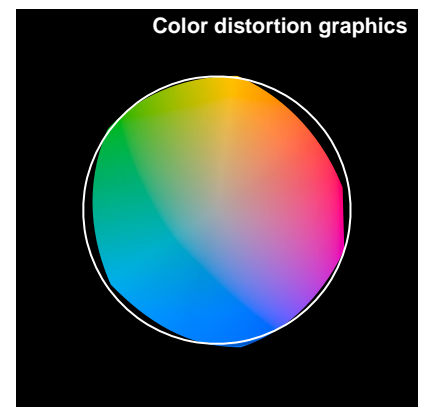
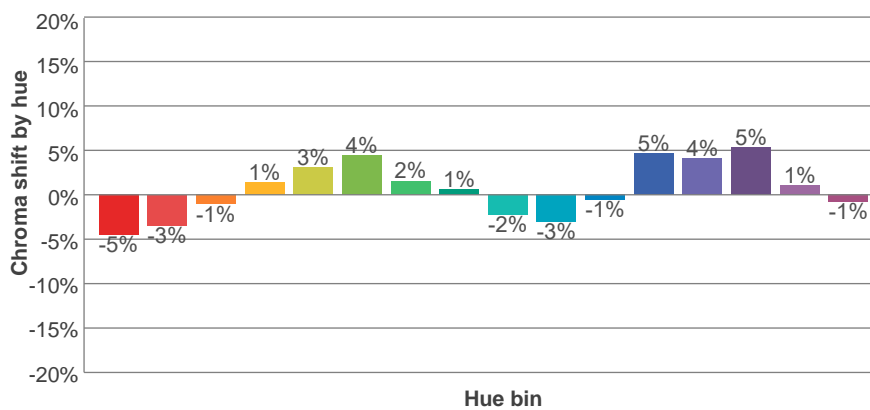
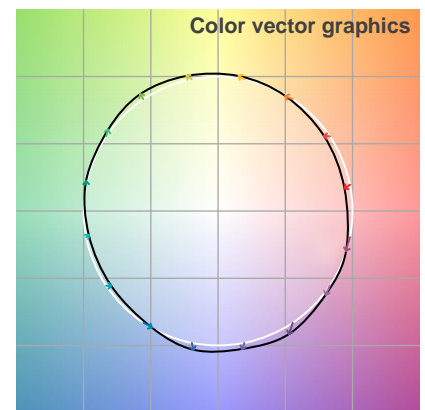
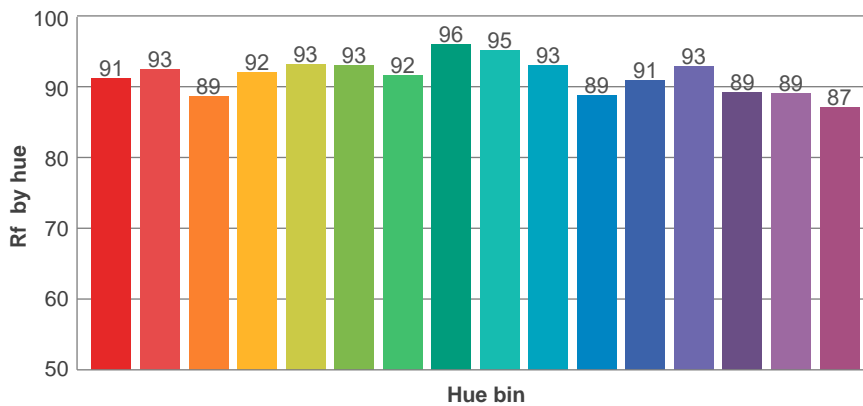
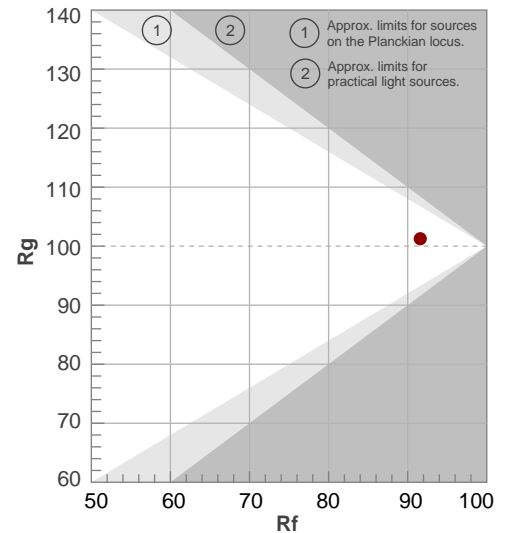
Rf 91.6

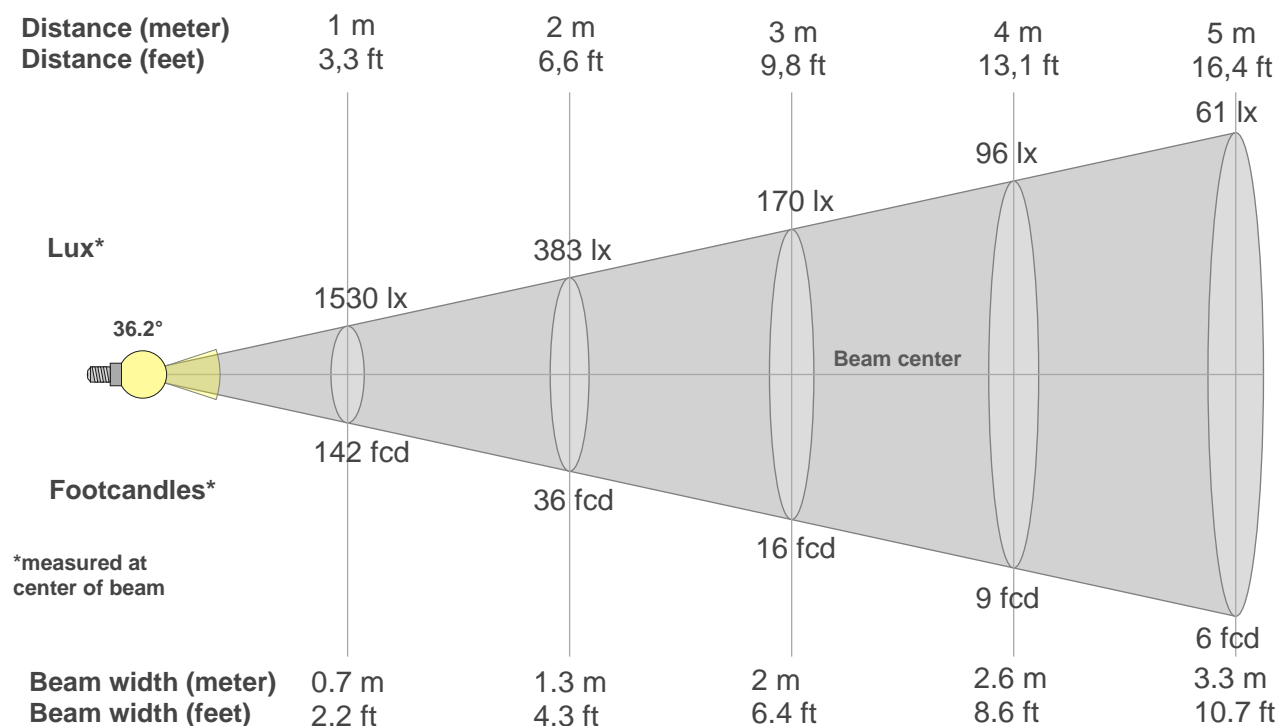
Fidelity index Rf

Rg 101.3

Gamut index Rg

Hue Bin	R _f	Shifts (%)	
		Chroma	Hue
1	91	-5%	-2%
2	93	-3%	3%
3	89	-1%	6%
4	92	1%	5%
5	93	3%	3%
6	93	4%	0%
7	92	2%	-5%
8	96	1%	-3%
9	95	-2%	-1%
10	93	-3%	2%
11	89	-1%	7%
12	91	5%	2%
13	93	4%	-2%
14	89	5%	-7%
15	89	1%	-7%
16	87	-1%	-10%





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
1530lx	383lx	170lx	96lx	61lx	43lx	31lx	24lx	19lx	15lx	13lx	11lx	9lx	8lx	7lx	6lx	5lx	5lx	4lx	4lx
142.2fcd	35.5fcd	15.8fcd	8.9fcd	5.7fcd	3.9fcd	2.9fcd	2.2fcd	1.8fcd	1.4fcd	1.2fcd	1fcd	0.8fcd	0.7fcd	0.6fcd	0.6fcd	0.5fcd	0.4fcd	0.4fcd	0.4fcd

Intensities in 0° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1530	1525	1485	1428	1348	1240	1108	979	862	769	663	560	491	411	329	246	167	96	43	15
100%	100%	97%	93%	88%	81%	72%	64%	56%	50%	43%	37%	32%	27%	21%	16%	11%	6%	3%	1%

Intensities in 90° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1530	1525	1485	1428	1348	1240	1108	979	862	769	663	560	491	411	329	246	167	96	43	15
100%	100%	97%	93%	88%	81%	72%	64%	56%	50%	43%	37%	32%	27%	21%	16%	11%	6%	3%	1%

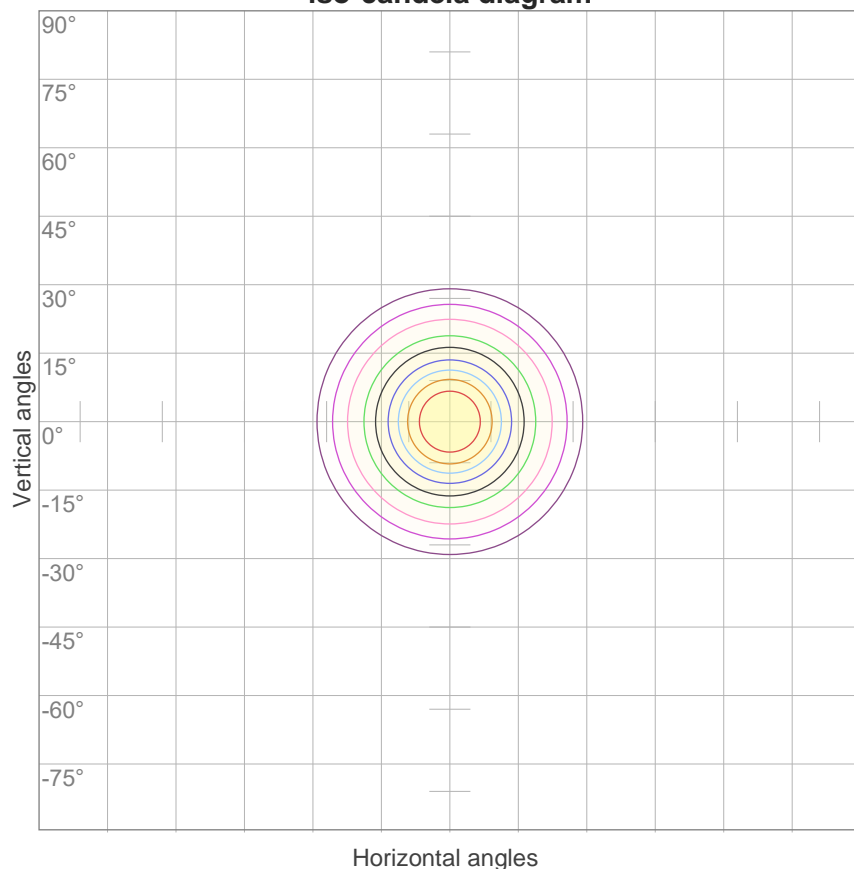
Intensities in 180° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1530	1525	1485	1428	1348	1240	1108	979	862	769	663	560	491	411	329	246	167	96	43	15
100%	100%	97%	93%	88%	81%	72%	64%	56%	50%	43%	37%	32%	27%	21%	16%	11%	6%	3%	1%

Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1530	1525	1485	1428	1348	1240	1108	979	862	769	663	560	491	411	329	246	167	96	43	15
100%	100%	97%	93%	88%	81%	72%	64%	56%	50%	43%	37%	32%	27%	21%	16%	11%	6%	3%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
36.2°	64.7°	72.7°	99.8%	99.6%

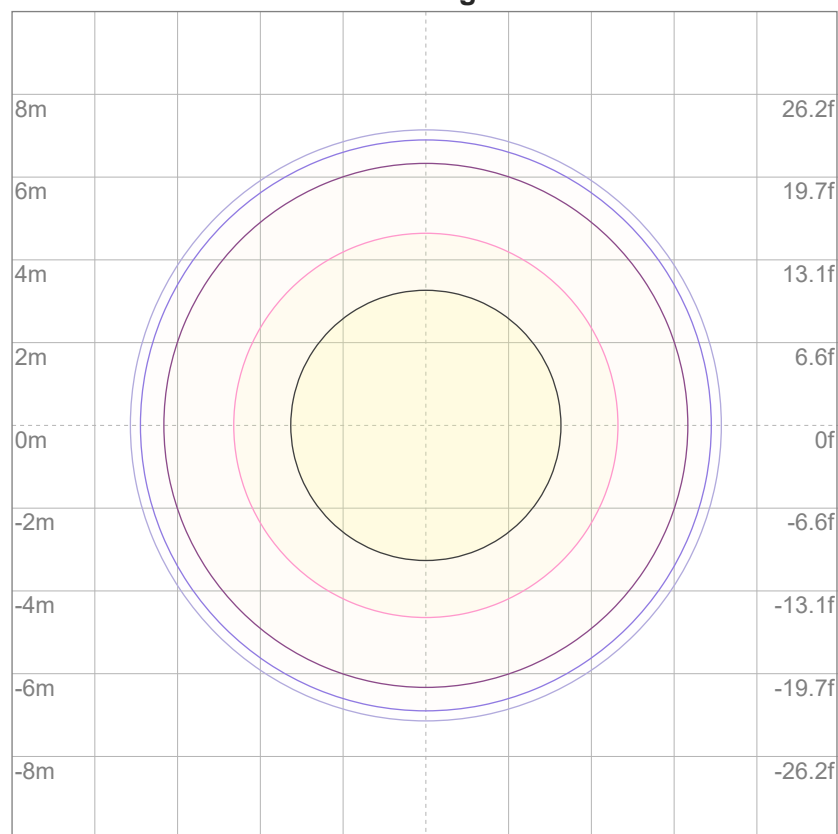
iso-candela diagram


10%	153 cd
20%	306 cd
30%	459 cd
40%	612 cd
50%	765 cd
60%	918 cd
70%	1071 cd
80%	1224 cd
90%	1377 cd

Conditions:

Number of c-planes: 2

Candela at center: 1530 cd

iso-lux diagram


3%	0.459 lx
5%	0.765 lx
10%	1.53 lx
30%	4.59 lx
50%	7.65 lx

Conditions:

Number of c-planes: 2

Lux at center: 15.3 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	25.2	25.7	25.2	25.9	26.1	25.2	25.7	25.2	25.9	26.1
	3H	24.9	25.5	25.2	25.7	25.9	24.9	25.5	25.2	25.7	25.9
	4H	24.8	25.4	25.2	25.6	25.9	24.8	25.4	25.2	25.6	25.9
	6H	24.8	25.3	25.1	25.6	25.9	24.8	25.3	25.1	25.6	25.9
	8H	24.7	25.2	25.1	25.6	25.9	24.7	25.2	25.1	25.6	25.9
	12H	24.7	25.2	25.0	25.5	25.9	24.7	25.2	25.0	25.5	25.9
4H	2H	24.8	25.4	25.2	25.6	25.9	24.8	25.4	25.2	25.6	25.9
	3H	24.7	25.1	25.0	25.5	25.9	24.7	25.1	25.0	25.5	25.9
	4H	24.5	25.0	24.9	25.4	25.9	24.5	25.0	24.9	25.4	25.9
	6H	24.4	24.9	24.9	25.3	25.6	24.4	24.9	24.9	25.3	25.6
	8H	24.4	24.9	24.9	25.2	25.5	24.4	24.9	24.9	25.2	25.5
	12H	24.3	24.7	24.8	25.1	25.6	24.3	24.7	24.8	25.1	25.6
8H	4H	24.4	24.8	24.9	25.2	25.5	24.4	24.8	24.9	25.2	25.5
	6H	24.3	24.6	24.8	25.1	25.6	24.3	24.6	24.8	25.1	25.6
	8H	24.3	24.6	24.8	25.1	25.7	24.3	24.6	24.8	25.1	25.7
	12H	24.3	24.5	24.9	25.0	25.6	24.3	24.5	24.9	25.0	25.6
12H	4H	24.3	24.7	24.8	25.1	25.5	24.3	24.7	24.8	25.1	25.5
	6H	24.3	24.5	24.8	25.1	25.7	24.3	24.5	24.8	25.1	25.7
	8H	24.3	24.5	24.9	25.0	25.6	24.3	24.5	24.9	25.0	25.6
Variation of the observer position for the luminaire distance S											
S = 1.0H		6.8 / -13.3					6.8 / -13.3				
S = 1.5H		9.6 / -13.5					9.6 / -13.5				
S = 2.0H		11.6 / -13.8					11.6 / -13.8				
CIE 117-1995. Corrected glare indices referring to 644 lm total luminous flux											

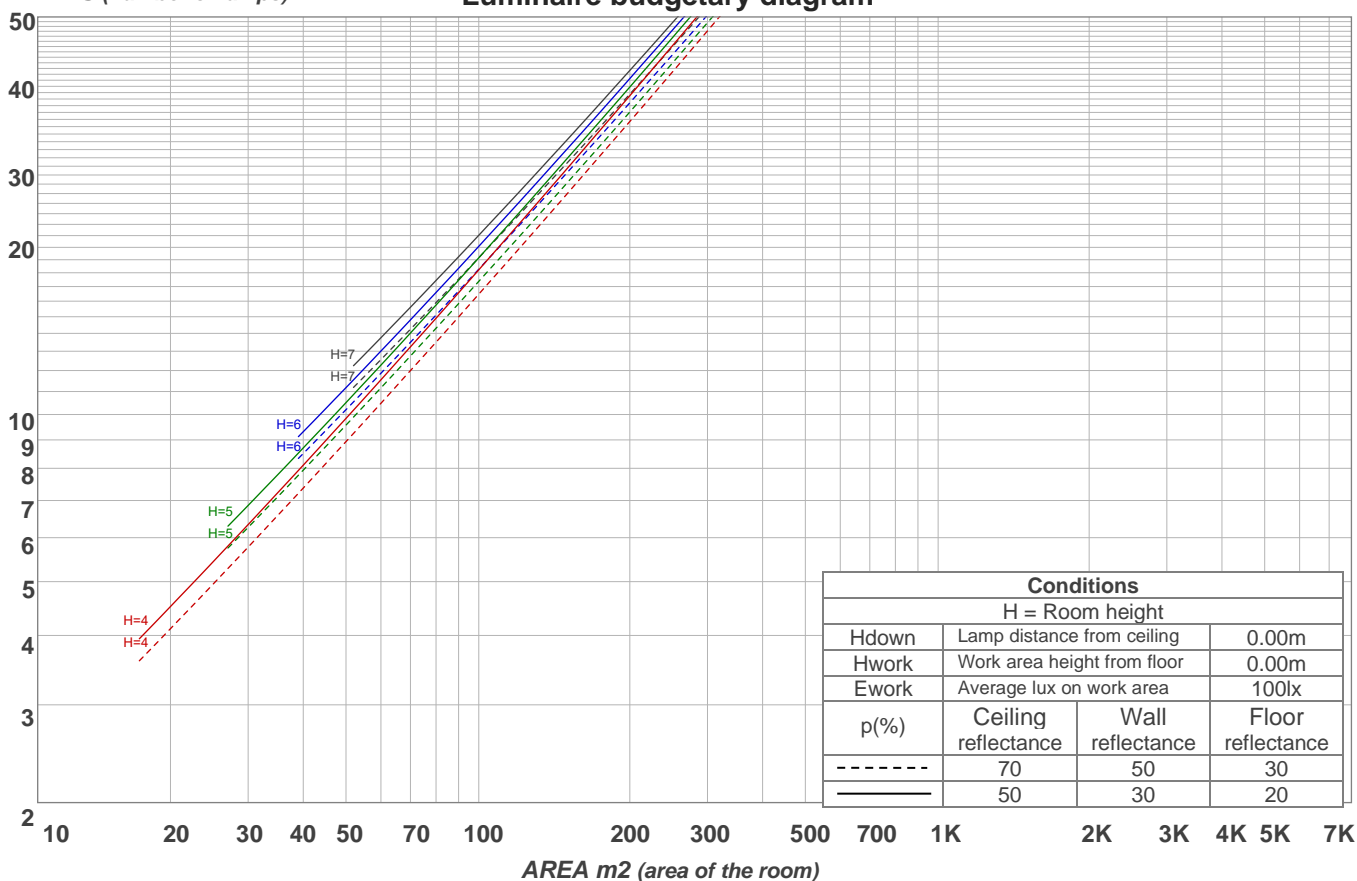
UGR data could not be calculated due to missing/wrong symmetry. Goto Edit->Photometric->Corrections and select Correct asymmetry.

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	102	102	102	100
1	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95
2	110	106	103	100	108	104	101	99	101	99	96	98	96	94	95	94	92	91
3	106	100	96	93	104	99	95	92	97	93	91	94	92	89	92	90	88	87
4	102	95	91	87	100	94	90	87	92	89	86	90	87	85	89	86	84	83
5	98	91	86	83	96	90	86	82	88	85	82	87	84	81	85	83	80	79
6	94	87	82	79	93	86	82	78	85	81	78	83	80	77	82	79	77	76
7	91	83	78	75	89	83	78	75	81	77	74	80	77	74	79	76	73	72
8	87	80	75	71	86	79	74	71	78	74	71	77	73	71	76	73	70	69
9	84	76	72	68	83	76	71	68	75	71	68	74	71	68	74	70	68	66
10	81	73	69	66	80	73	68	65	72	68	65	72	68	65	71	67	65	64

LAMPS (number of lamps)

Luminaire budgetary diagram



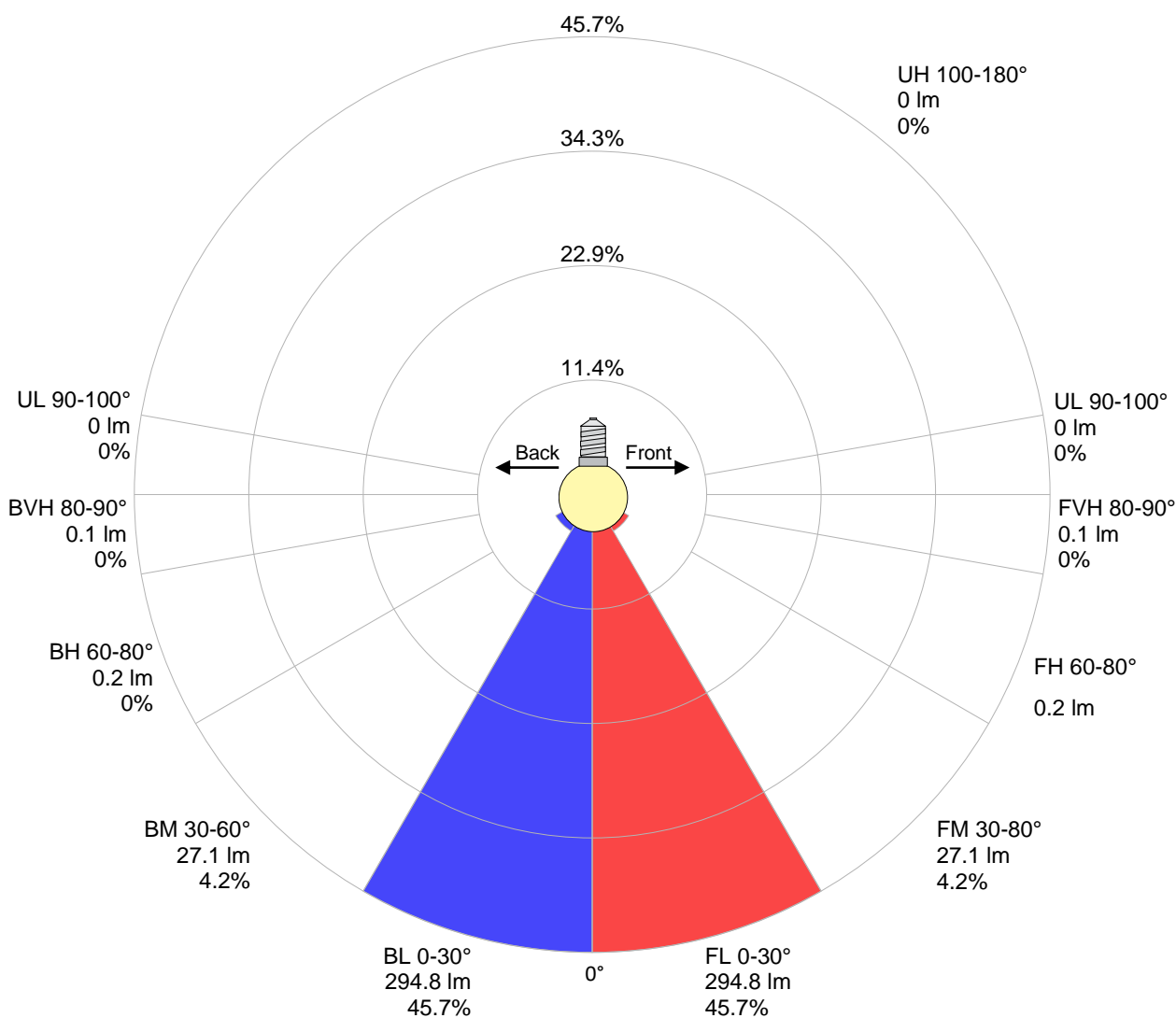
Zonal Lumen Summary

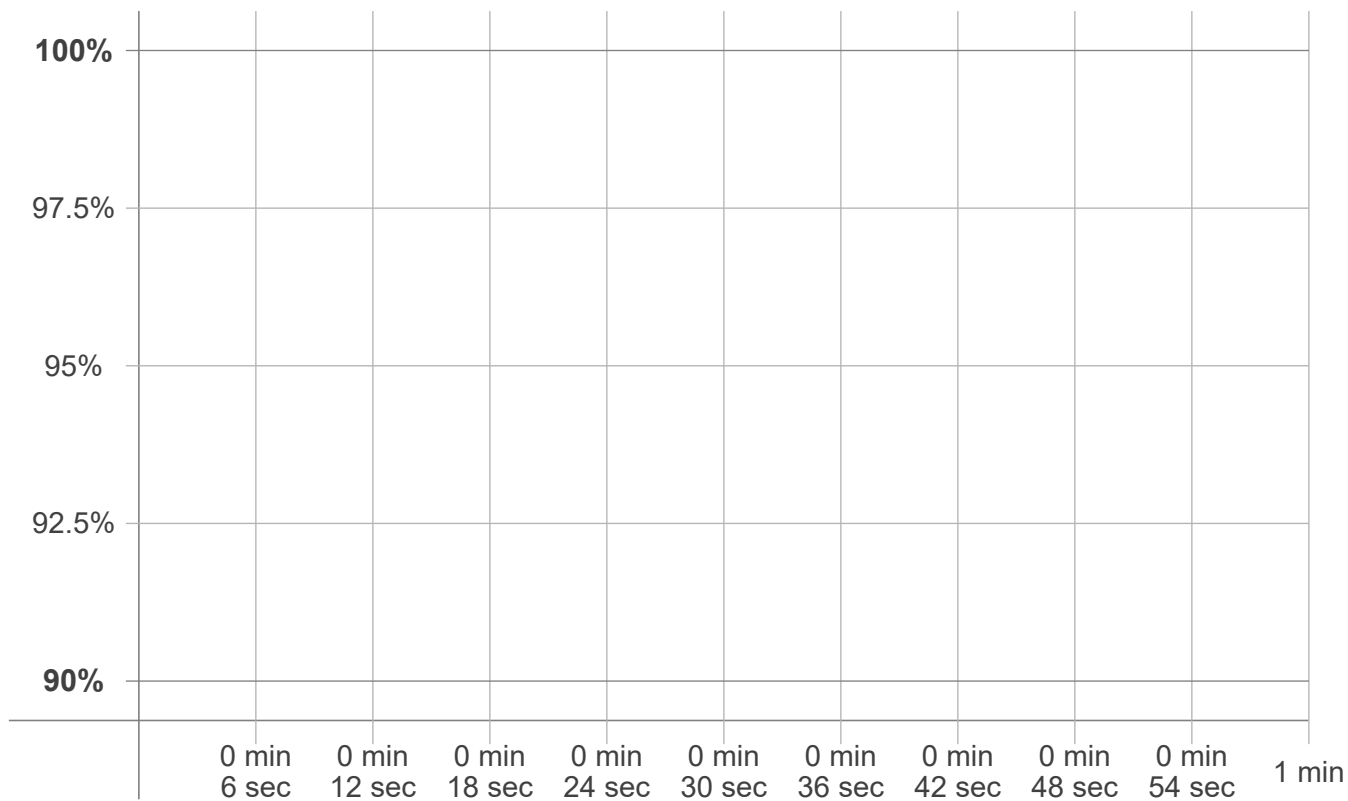
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
{LUM0-10}	258 lm	200 lm	51.6 lm	1.57 lm	0.518 lm	0.200 lm	0.217 lm	0.200 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.122 lm	0.119 lm	0.111 lm	0.101 lm	0.035 lm	0.000 lm	0.000 lm	0.000 lm	0.000 lm

LCS table

BUG rating:	B1 U1 G0	
Forward light	Lumens	Lumens %
Low(0-30):	294.8	45.7%
Medium(30-60):	27.1	4.2%
High(60-80):	0.2	0%
Very high(80-90):	0.1	0%
Back light		
Low(0-30):	294.8	45.7%
Medium(30-60):	27.1	4.2%
High(60-80):	0.2	0%
Very high(80-90):	0.1	0%
Uplight		
Low(90-100):	0	0%
High(100-180):	0	0%

LCS graph



Warmup curve

Warmup result

Warmup time:	n/a
Warmup variation	n/a%

Warmup conditions

Stable period:	n/a
Stable change max:	n/a%
Minimum time:	n/a

Color temperature change

CCT start	CCT change	CCT end
n/a K	n/a K	3205 K

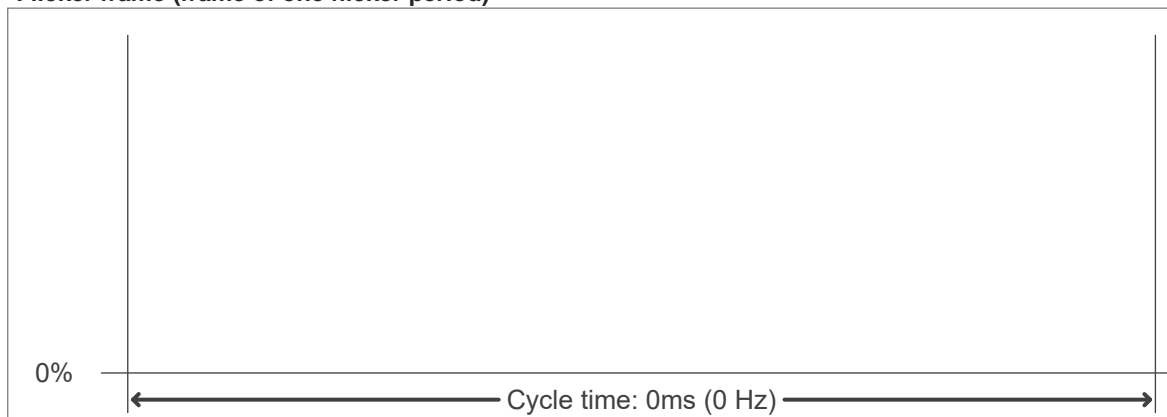
Output change

Output start	Output change	Output end
n/a lm	n/a lm	644 lm

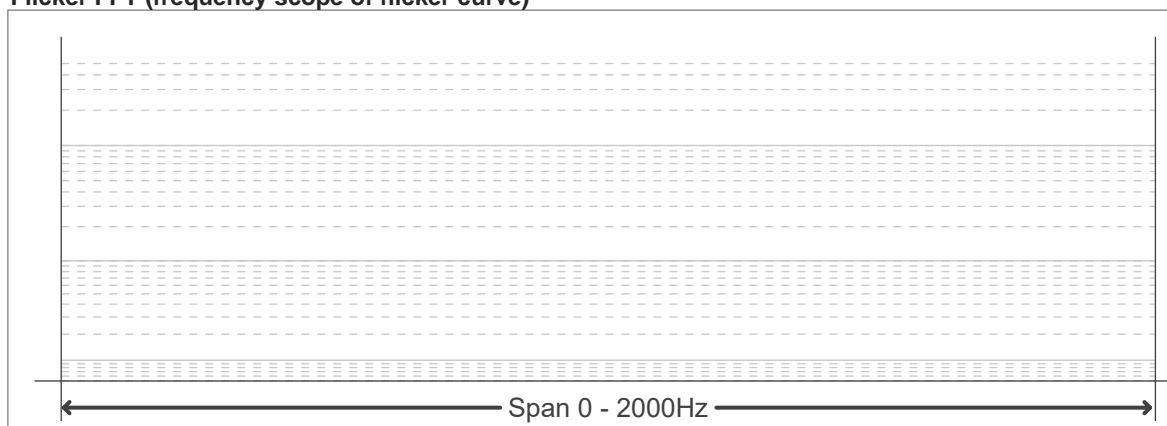
Flicker curve (complete sampled flicker signal)



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	JA8/10 40Hz	n/a %
Flicker percentage:	n/a %	JA8/10 90Hz	n/a %
SVM: (Visual flicker)	n/a	JA8/10 200Hz	n/a %
PstLM	n/a	JA8/10 400Hz	n/a %
Mp	n/a	JA8/10 1000Hz	n/a %

Flicker conditions:

Sample rate:	n/a samples/second
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