

Effizienz:



Leuchtenlichtstrom:

662 lm

Farbwiedergabe:



Peak:

171 cd

Farbtemperatur:

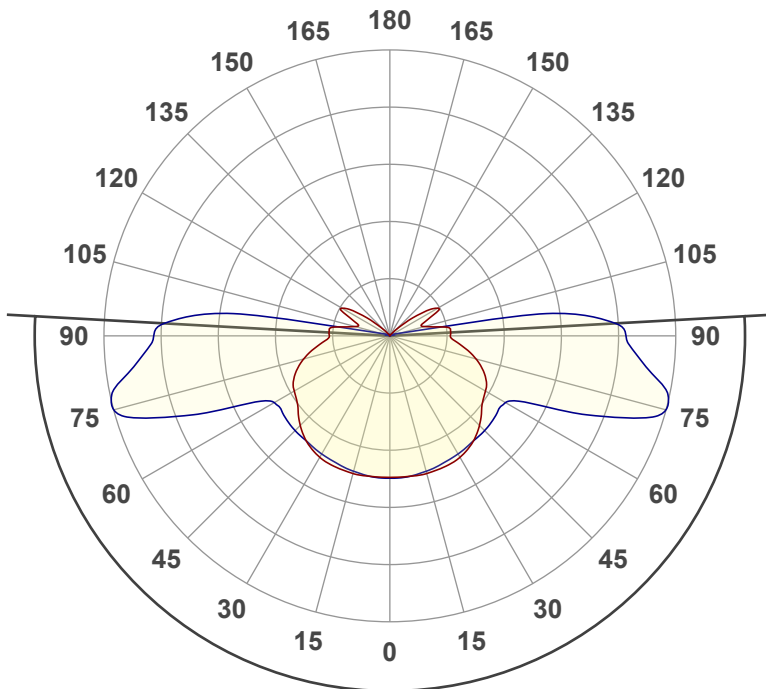
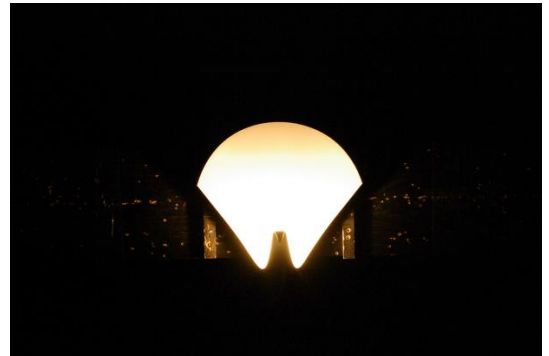


Systemleistung:

9.6 W

Leistungsfaktor:

0.93



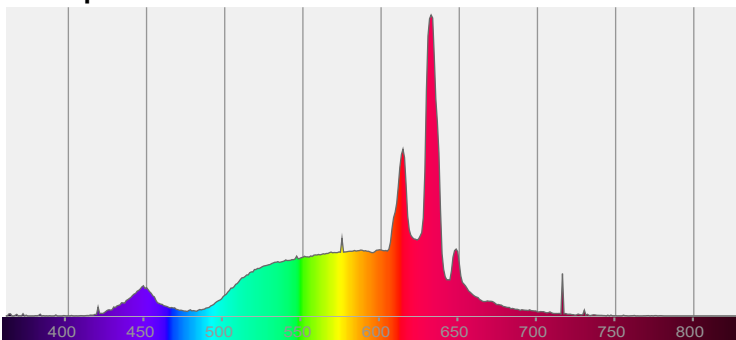
Ausstrahlungswinkel:

186.3°

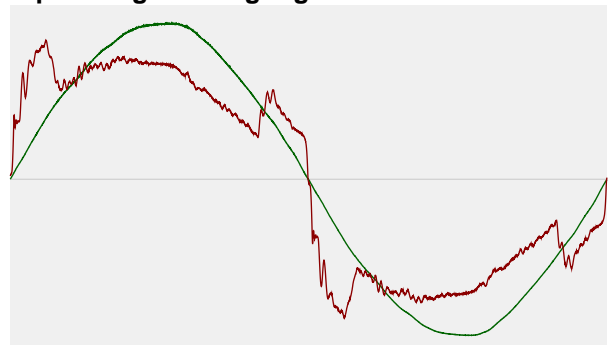


CIE 1931
x: 0.480
y: 0.424

Farbspektrum:

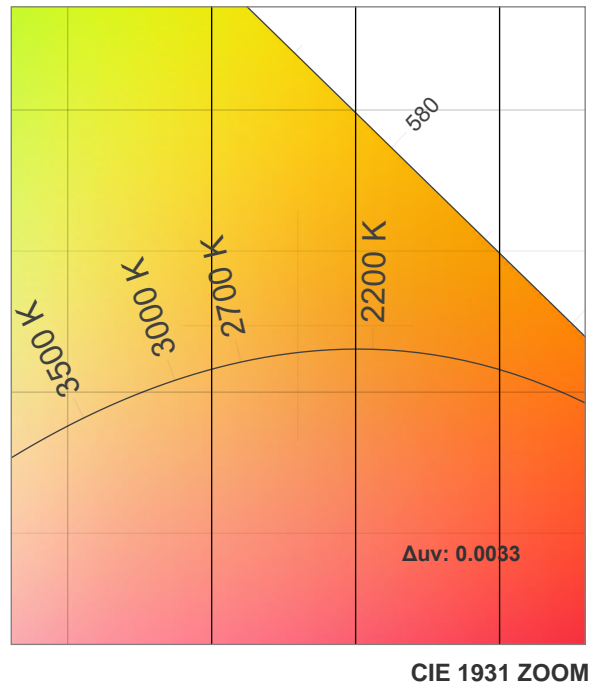
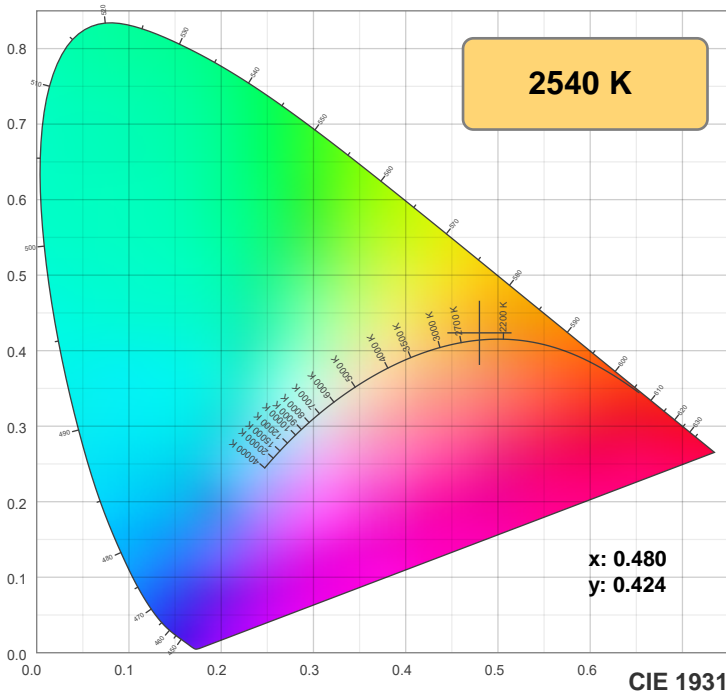


Spannungsversorgung:

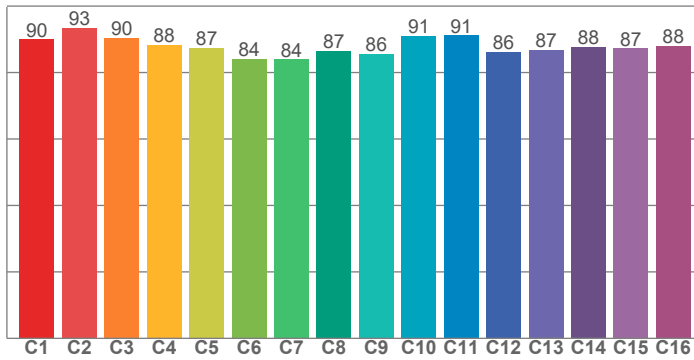


Voltage: 232 V
Current: 0.044 A
Frequency: 50 Hz

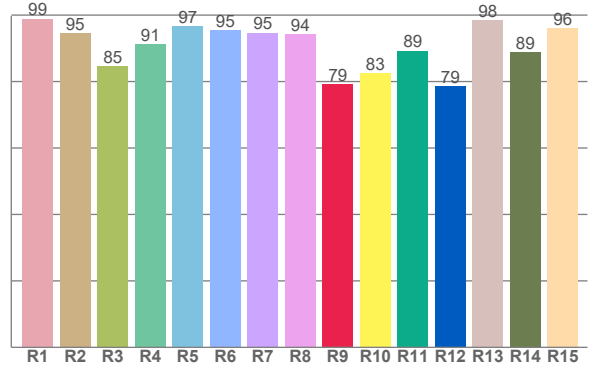
Color details



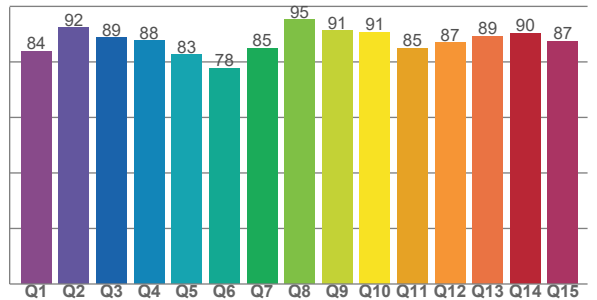
TM30: 88.5



CRI: 93.8 (R1-R8)



CQS: 86.7



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
98.9	94.5	84.5	91.3	96.6	95.4	94.7	94.2	79.1	82.5	89.2	78.5	98.5	88.7	95.9

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
90.0	93.4	90.4	88.3	87.5	84.1	83.9	86.5	85.6	91.0	91.1	86.2	86.9	87.8	87.3	88.1

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
83.9	92.3	88.6	87.7	82.6	77.8	85.0	95.2	91.1	90.7	84.9	87.0	89.3	90.4	87.4

Color parameters

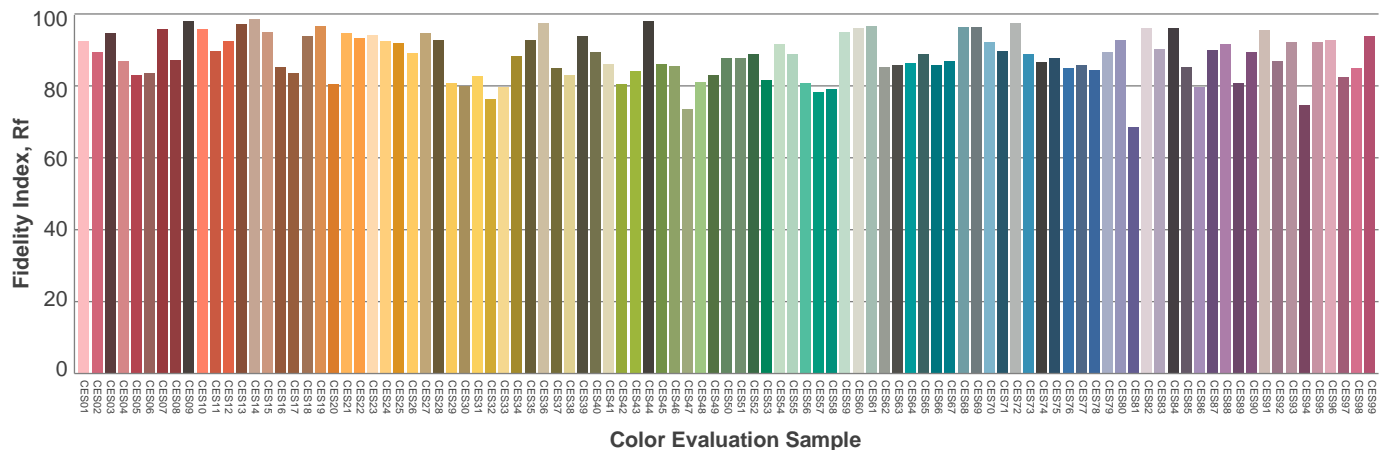
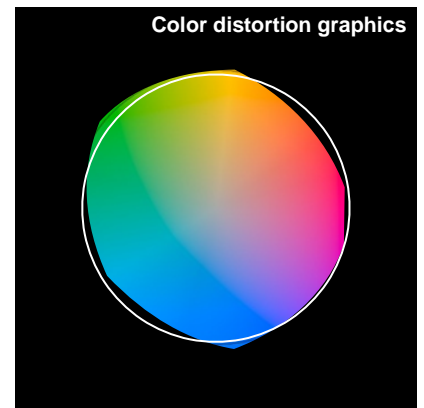
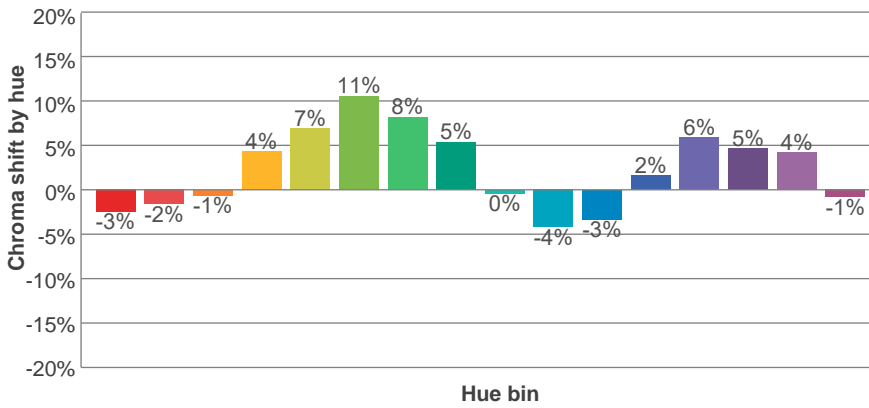
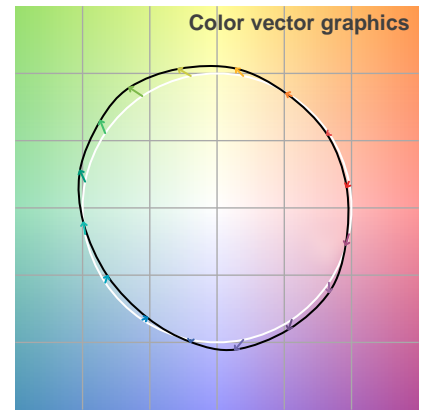
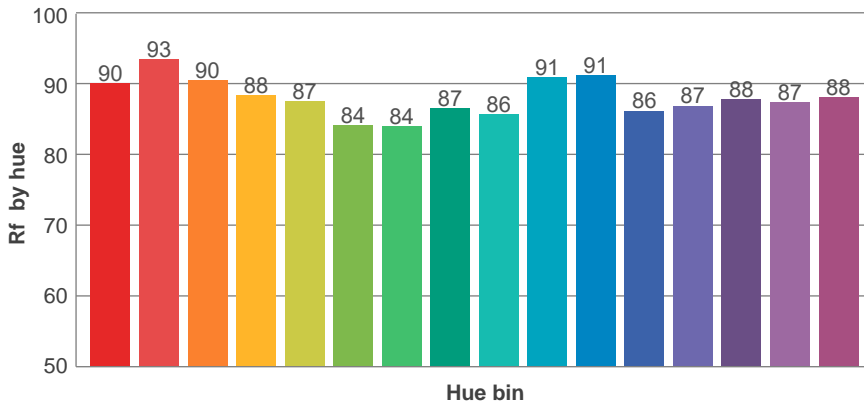
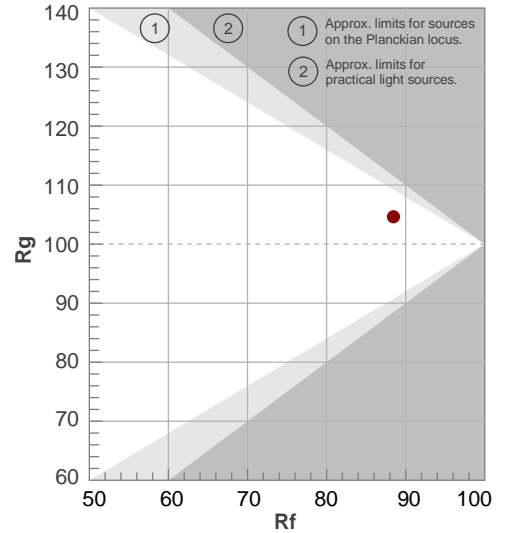
Color temperature	Color rendering index	Red component	Color fidelity	Color gamut	Color quality scale	Color coordinate cie 1931	Color coordinate cie 1931	Color coordinate	Color coordinate	Color deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
2540 K	93.8	79.1	88.5	104.6	86.7	0.480	0.424	0.270	0.357	0.0033

TM30 details

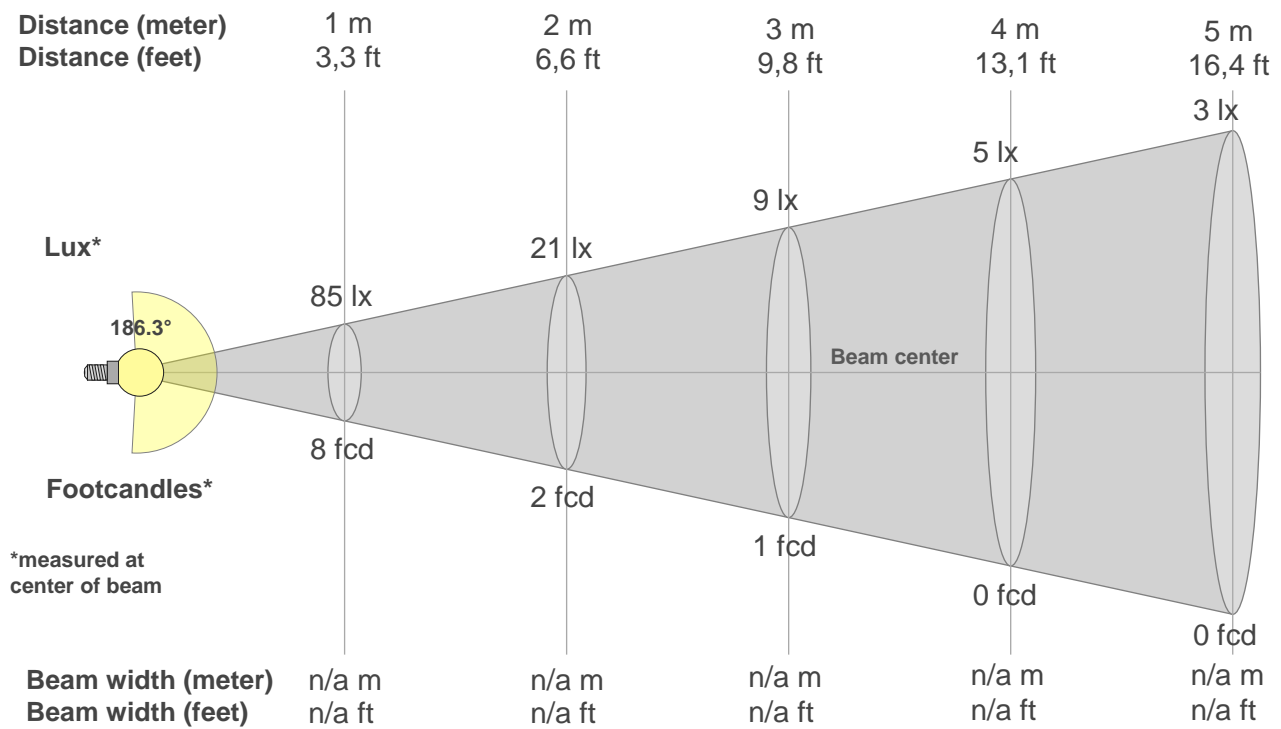
Rf 88.5
Fidelity index Rf

Rg 104.6
Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	90	-3%	-4%
2	93	-2%	0%
3	90	-1%	4%
4	88	4%	6%
5	87	7%	8%
6	84	11%	4%
7	84	8%	-6%
8	87	5%	-7%
9	86	0%	-9%
10	91	-4%	-3%
11	91	-3%	2%
12	86	2%	0%
13	87	6%	-7%
14	88	5%	-6%
15	87	4%	-6%
16	88	-1%	-8%



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
85lx	21lx	9lx	5lx	3lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	0lx	0lx	0lx	0lx	0lx	0lx	0lx
7.9fcd	2fcd	0.9fcd	0.5fcd	0.3fcd	0.2fcd	0.2fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0.1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd

Intensities in 0° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
85.0	85.3	85.5	84.8	81.9	76.1	68.8	65.2	57.1	45.4	36.7	33.5	19.9	31.6	22.6	5.6	1.0	0.4	0.3	0.3
100%	100%	101%	100%	96%	90%	81%	77%	67%	53%	43%	39%	23%	37%	27%	7%	1%	0%	0%	0%

Intensities in 90° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
85	85	84	82	81	80	80	87	158	162	141	79	1	0	0	1	0	0	0	0
100%	100%	99%	97%	95%	95%	94%	102%	186%	190%	165%	93%	1%	1%	1%	1%	1%	1%	0%	0%

Intensities in 180° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
85.0	85.3	85.5	84.8	81.9	76.1	68.8	65.2	57.1	45.4	36.7	33.5	19.9	31.6	22.6	5.6	1.0	0.4	0.3	0.3
100%	100%	101%	100%	96%	90%	81%	77%	67%	53%	43%	39%	23%	37%	27%	7%	1%	0%	0%	0%

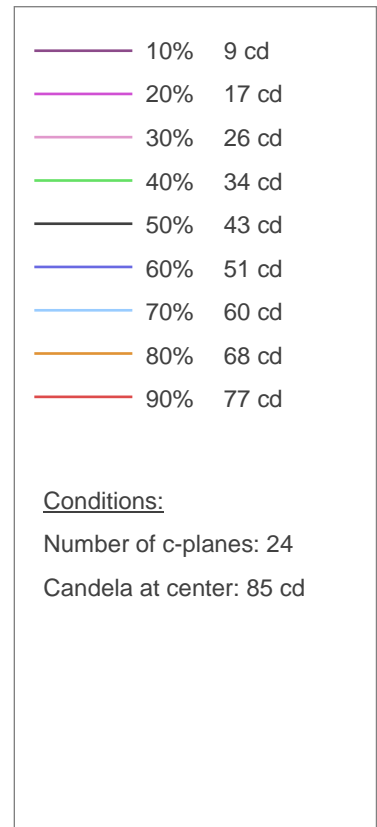
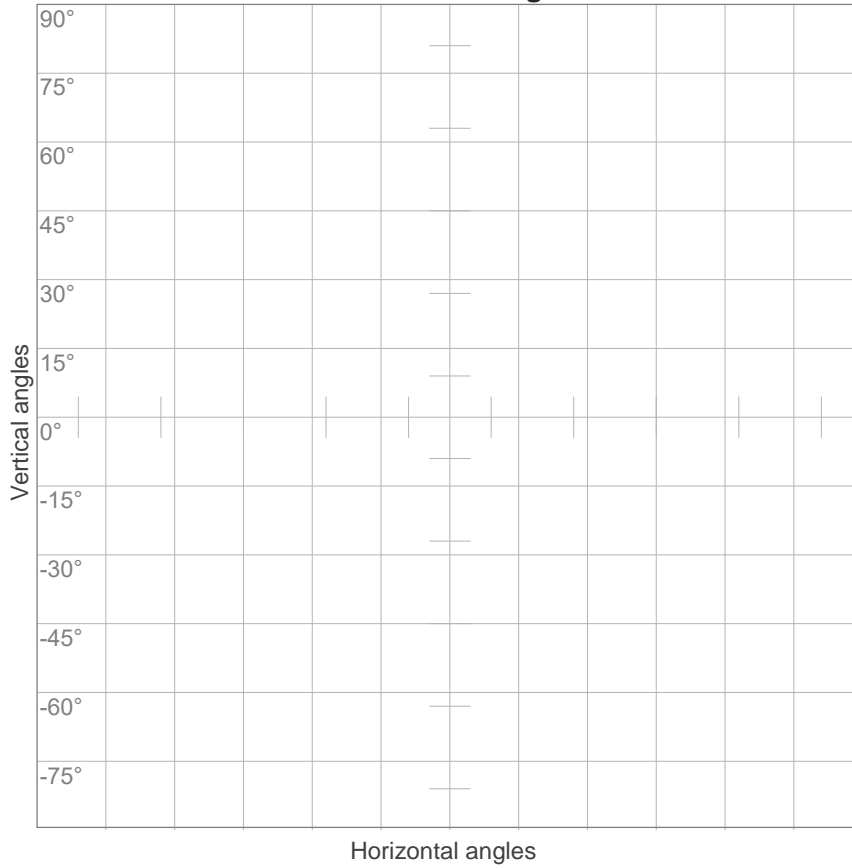
Intensities in 270° c-plane

0°	9°	18°	27°	36°	45°	54°	63°	72°	81°	90°	99°	108°	117°	126°	135°	144°	153°	162°	171°
85	85	84	82	81	80	80	87	158	162	141	79	1	0	0	1	0	0	0	0
100%	100%	99%	97%	95%	95%	94%	102%	186%	190%	165%	93%	1%	1%	1%	1%	1%	1%	0%	0%

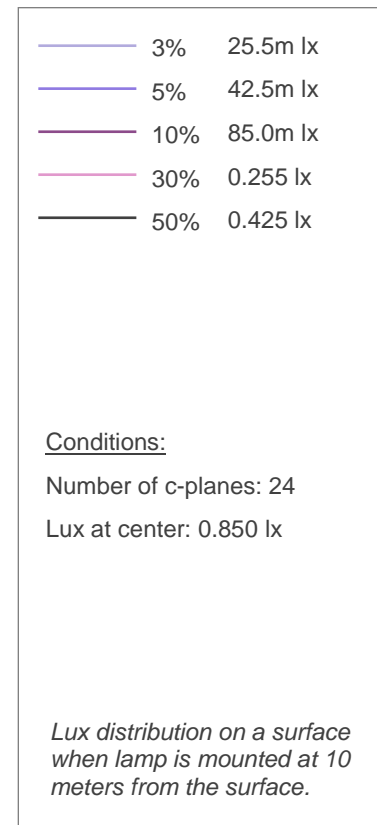
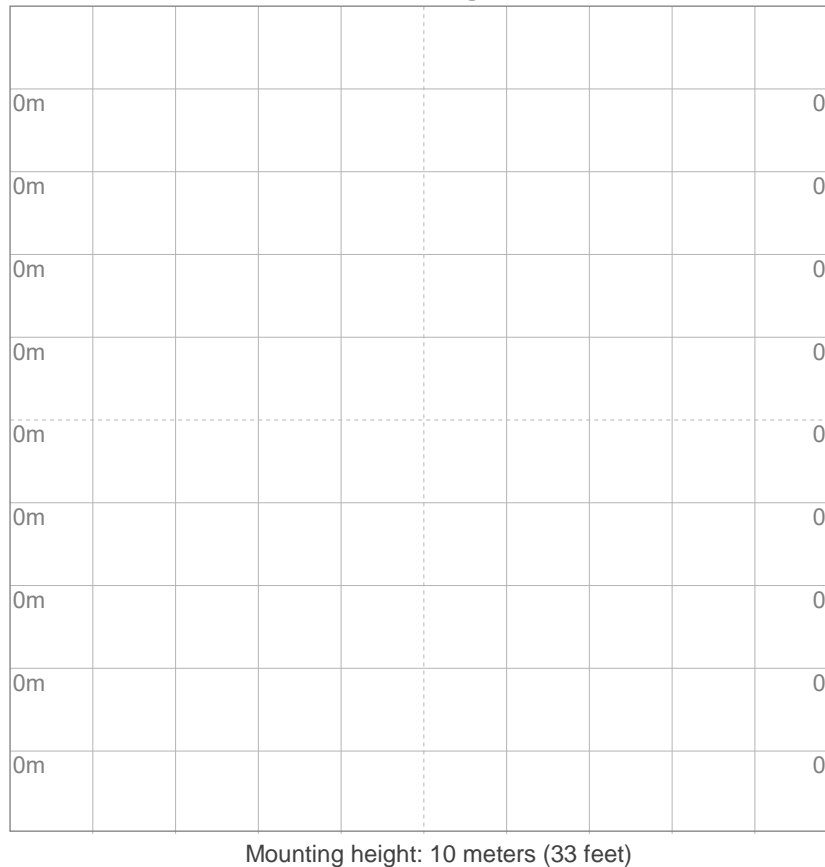
Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
186.3°	206.3°	249.9°	40.4%	23.0%

ISO Diagrams

ISO candela diagram



ISO lux diagram



UGR

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	32.5	34.0	33.0	34.5	35.0	33.7	35.1	34.2	35.7	36.2
	3H	35.0	36.4	35.6	37.0	37.5	38.2	39.6	38.8	40.2	40.7
	4H	36.3	37.7	36.9	38.2	38.8	41.0	42.4	41.6	42.9	43.5
	6H	37.7	39.0	38.2	39.5	40.1	43.8	45.0	44.3	45.5	46.2
	8H	38.4	39.7	39.0	40.2	40.9	45.1	46.4	45.6	46.9	47.5
	12H	39.2	40.5	39.8	41.0	41.7	46.5	47.7	47.0	48.2	48.9
4H	2H	34.4	35.8	35.0	36.3	36.9	35.2	36.6	35.8	37.1	37.6
	3H	37.2	38.4	37.7	38.9	39.6	39.7	40.9	40.2	41.4	42.1
	4H	38.5	39.8	39.1	40.2	41.0	42.3	43.6	43.0	44.1	44.9
	6H	39.9	40.9	40.5	41.5	42.1	45.1	46.2	45.8	46.8	47.4
	8H	40.6	41.5	41.2	42.1	42.8	46.6	47.5	47.2	48.1	48.8
	12H	41.4	42.2	42.0	42.9	43.6	48.1	48.9	48.7	49.6	50.3
8H	4H	40.0	41.0	40.7	41.6	42.2	42.9	43.8	43.5	44.5	45.1
	6H	41.7	42.5	42.4	43.2	44.0	45.9	46.7	46.6	47.4	48.2
	8H	42.6	43.3	43.3	44.0	44.9	47.5	48.3	48.2	49.0	49.8
	12H	43.5	44.1	44.2	44.8	45.6	49.3	49.9	50.0	50.6	51.5
12H	4H	40.6	41.4	41.2	42.0	42.8	43.0	43.8	43.6	44.4	45.2
	6H	42.4	43.2	43.1	43.9	44.7	46.1	46.8	46.7	47.5	48.4
	8H	43.5	44.1	44.2	44.8	45.6	47.8	48.4	48.5	49.1	49.9
Variation of the observer position for the luminaire distance S											
S = 1.0H		0.1 / -0.1					0.1 / -0.1				
S = 1.5H		0.1 / -0.1					0.1 / -0.1				
S = 2.0H		0.2 / -0.2					0.2 / -0.2				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 662 lm total luminous flux											

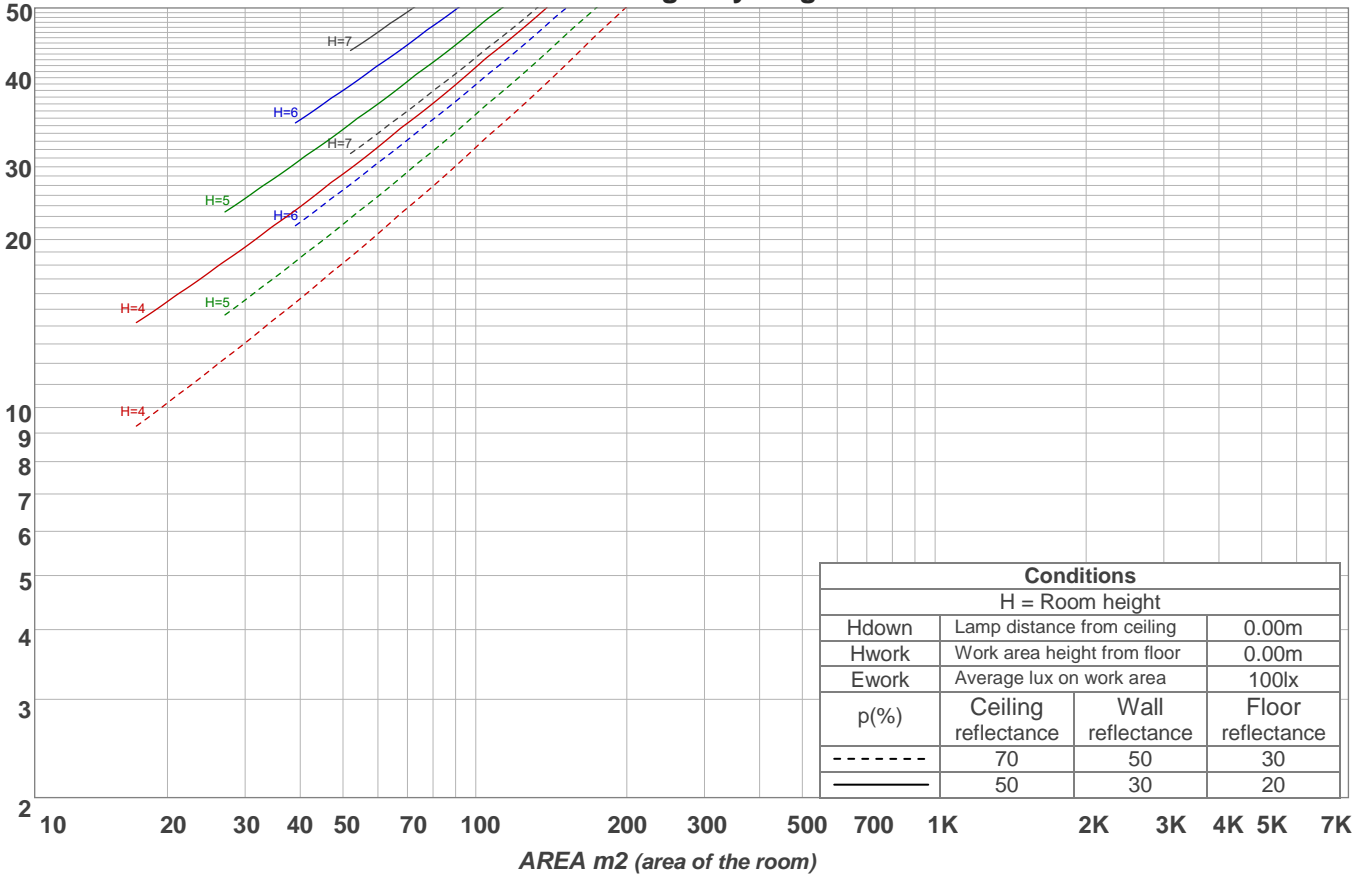
Light planning

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	116	116	116	116	112	112	112	112	104	104	104	97	97	97	90	90	90	87
1	98	90	83	77	94	87	80	74	80	74	69	73	69	65	67	64	61	57
2	86	75	65	57	82	71	62	55	65	58	51	60	54	48	55	50	45	42
3	77	63	52	44	73	60	51	43	55	47	40	51	44	38	46	40	35	32
4	70	55	44	35	66	52	42	34	48	39	32	44	36	30	40	34	29	26
5	63	48	37	29	60	46	36	28	42	33	27	39	31	25	35	29	24	21
6	58	43	32	25	55	41	31	24	38	29	23	35	27	21	32	25	20	18
7	54	38	28	21	51	37	27	21	34	26	20	31	24	19	29	22	18	15
8	50	35	25	19	47	33	24	18	31	23	17	29	21	16	26	20	15	13
9	46	32	23	16	44	30	22	16	28	21	15	26	19	14	24	18	14	12
10	43	29	20	15	41	28	20	14	26	19	14	24	18	13	23	17	12	10

LAMPS (number of lamps)

Luminaire budgetary diagram



Zonal Lumen Summary

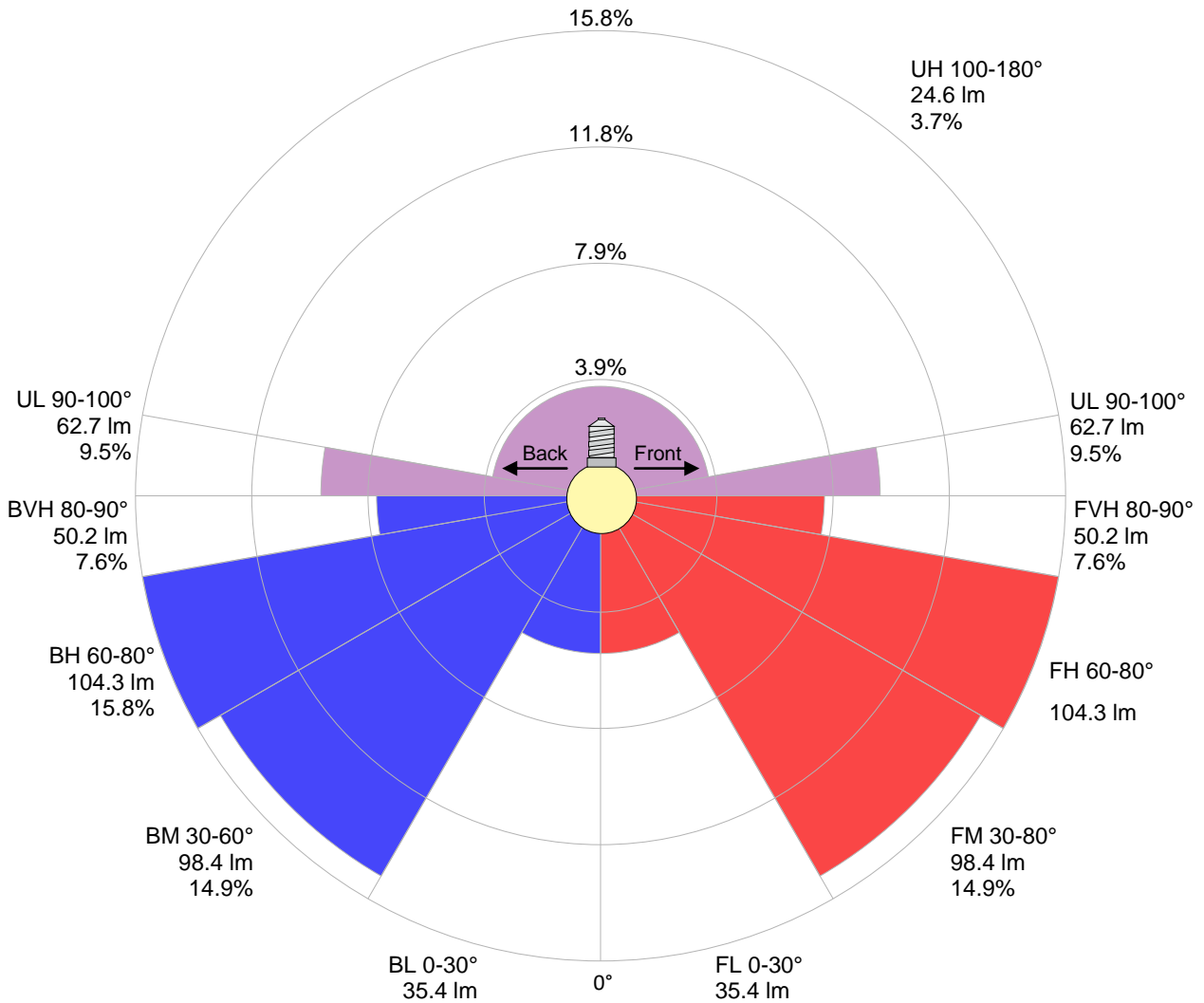
0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
8.11 lm	24.0 lm	38.6 lm	51.3 lm	64.4 lm	81.0 lm	97.1 lm	112 lm	101 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
63.0 lm	8.54 lm	5.29 lm	4.84 lm	2.24 lm	0.588 lm	0.171 lm	0.090 lm	0.033 lm

Road report

LCS table

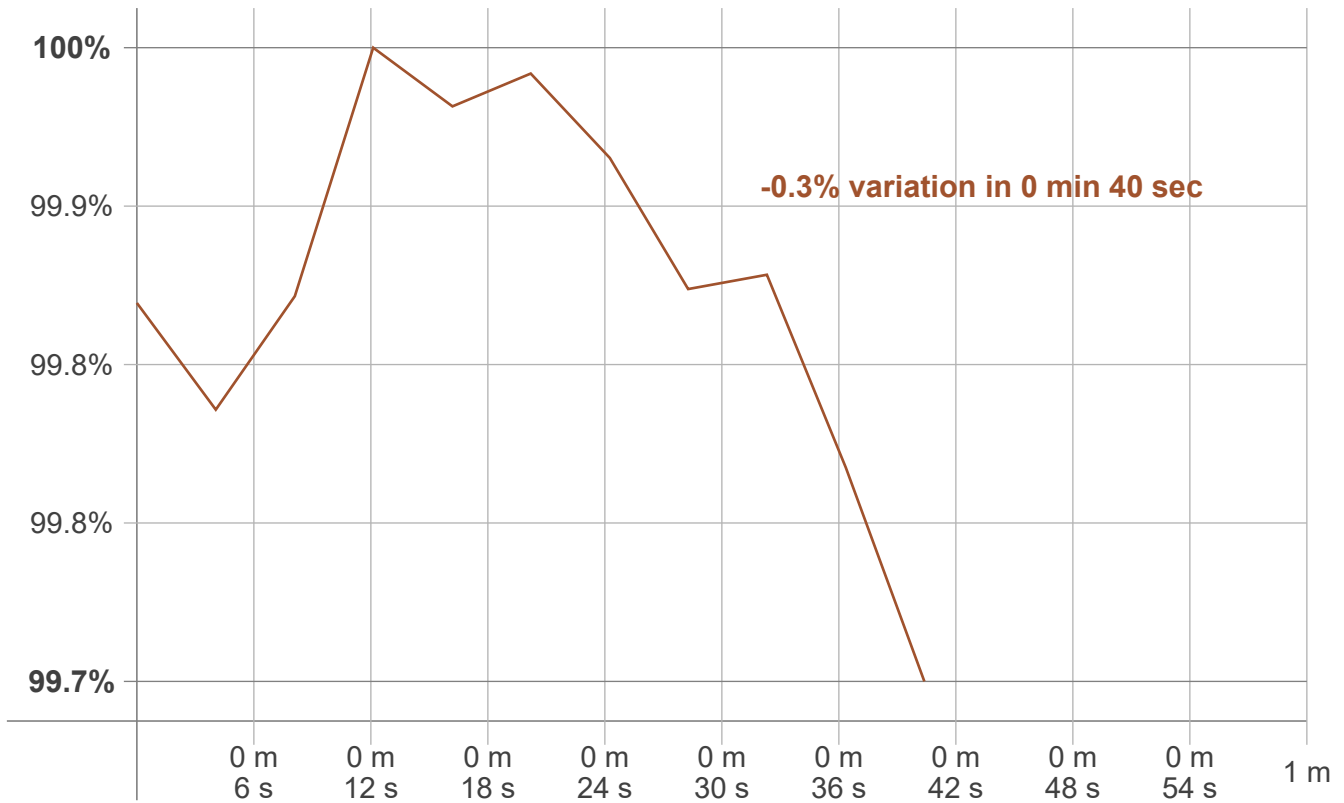
BUG rating:	B0 U3 G1	
Forward light	Lumens	Lumens %
Low(0-30):	35.4	5.3%
Medium(30-60):	98.4	14.9%
High(60-80):	104.3	15.8%
Very high(80-90):	50.2	7.6%
Back light		
Low(0-30):	35.4	5.3%
Medium(30-60):	98.4	14.9%
High(60-80):	104.3	15.8%
Very high(80-90):	50.2	7.6%
Uplight		
Low(90-100):	62.7	9.5%
High(100-180):	24.6	3.7%

LCS graph



Stabilization

Warmup curve



Warmup result

Warmup time:	Not completed
Warmup variation	-0.3%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
2544 K	-4 K	2540 K

Output change

Output start	Output change	Output end
662 lm	lm	662 lm