

Light efficiency:

39 Lumen/Watt

Light quality:

CRI: 0,0

Color temperature:

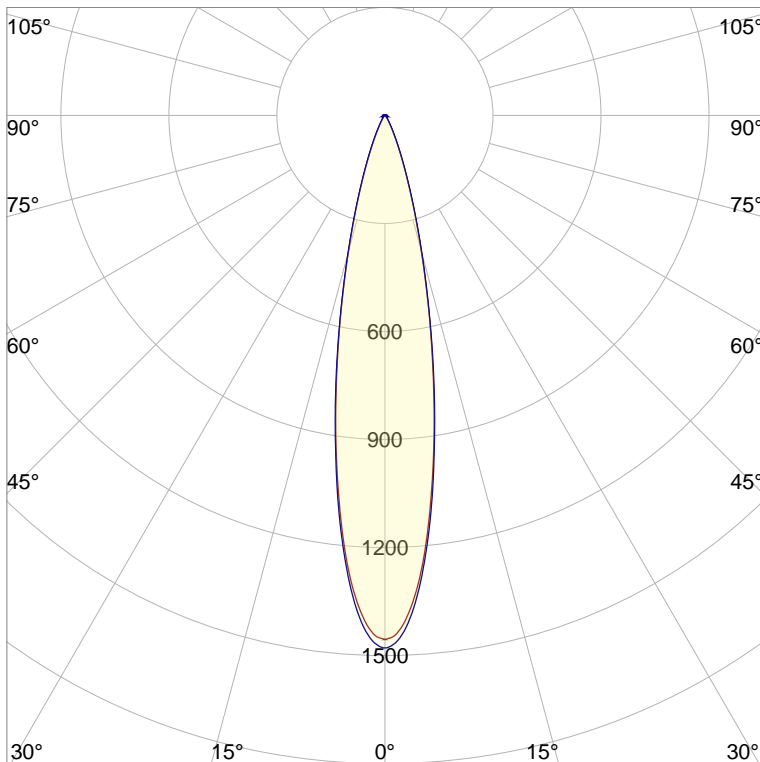
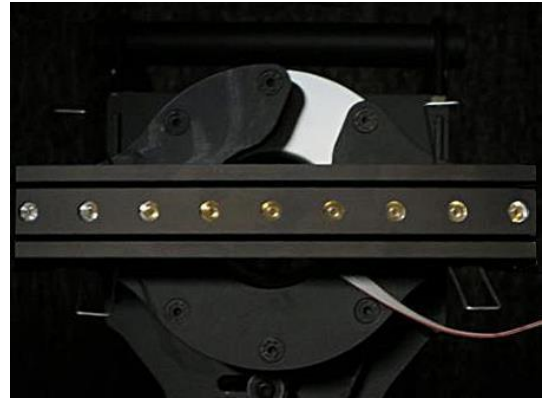
0 K

Output: 275 lm

Peak: 1477 cd

Power: 7,0 W

PF: 0,81



CIE 1931
x: 0,162
y: 0,706

Product name:

FLNP-F4C-C-258-G-927-10772-ALA

Item number:

FLNP-F4C-C-258-G-927-10772-ALA

Date and time:

11.02.2019 17:07:39

Description:

Toleranzen:

Lumen +/-4%

Candela +/-2,5%

Colour Temp +/-35 Grad K

CRI +/-0,7

Angular Resolution 1 Grad step

Last Calibration 06-06-2018

Pruefer:

Mourad Benzineb

Master of Engineering

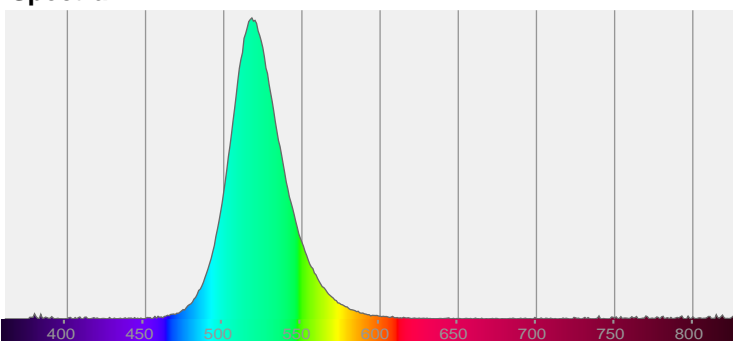
Pruefort:

Lichtlabor

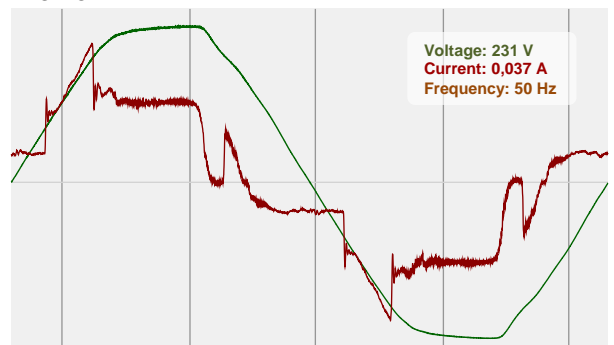
Gaustasse13-15

55411 Bingen am Rhein

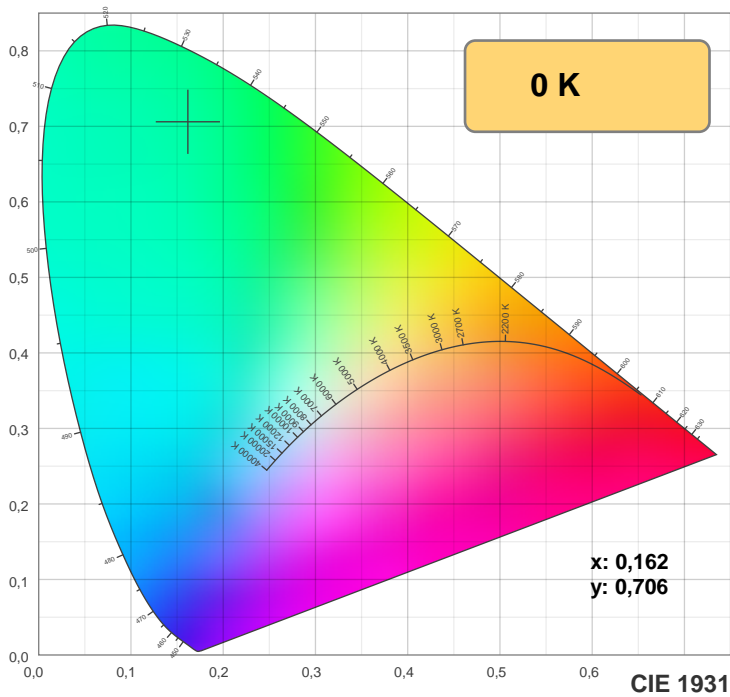
Spectra



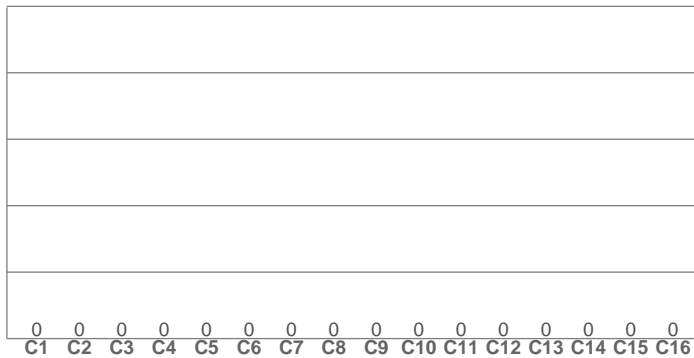
Power



Voltage: 231 V
Current: 0,037 A
Frequency: 50 Hz



TM30: 0,0



CRI R values, only R1-R8 are used to calculate final CRI value

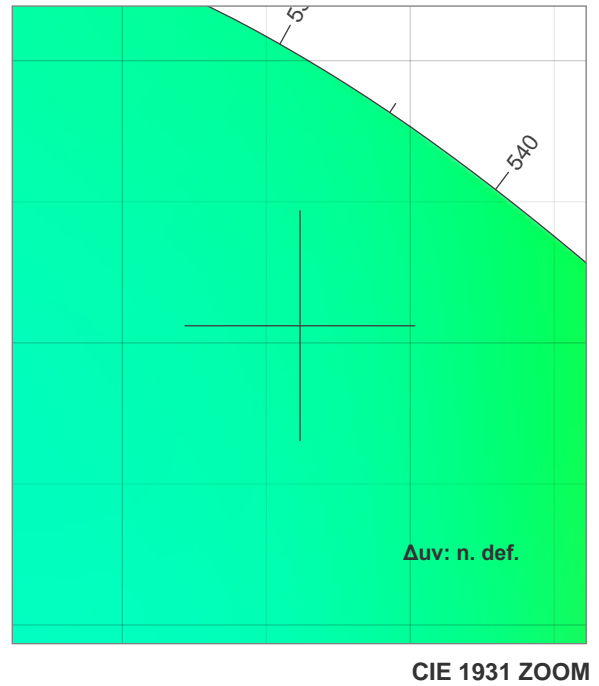
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

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

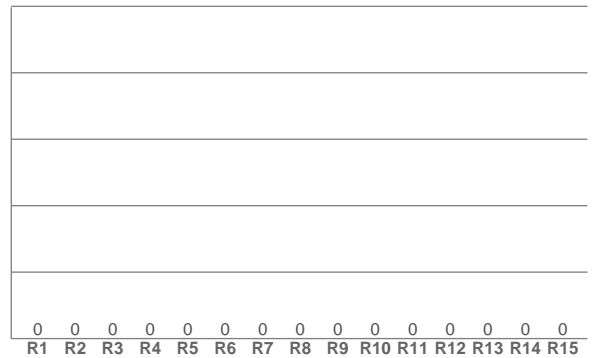
C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0

CQS Q values

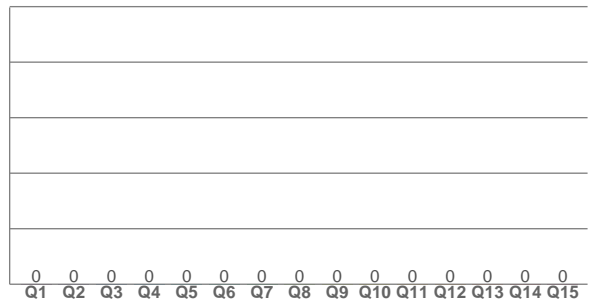
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0



CRI: 0,0 (R1-R8)



CQS: 0,0



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 deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
0 K	0,0	0,0	0,0	0,0	0,0	0,162	0,706	0,058	0,380	n. def.

TM30 details

Rf 0,0

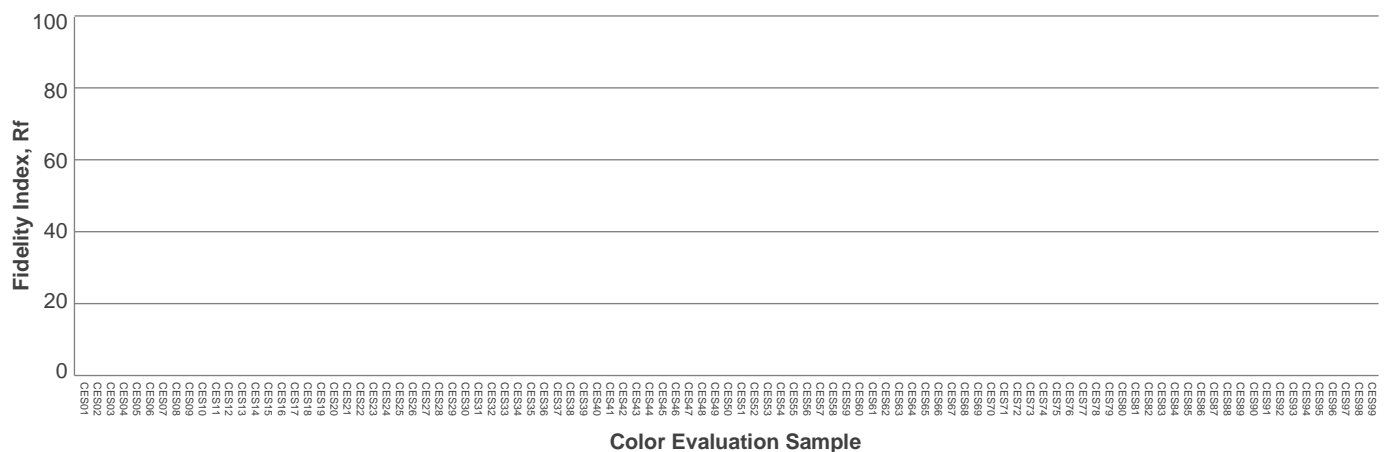
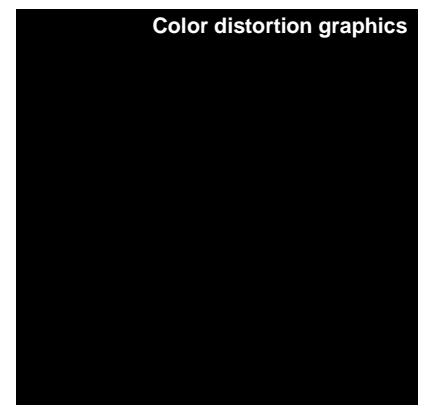
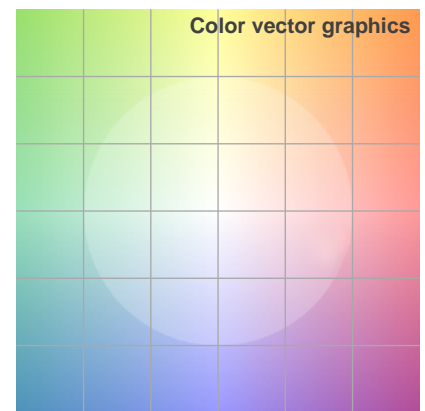
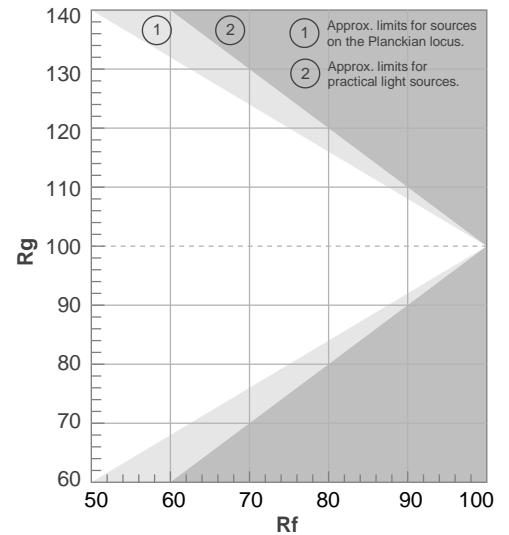
Fidelity index Rf

Rg 0,0

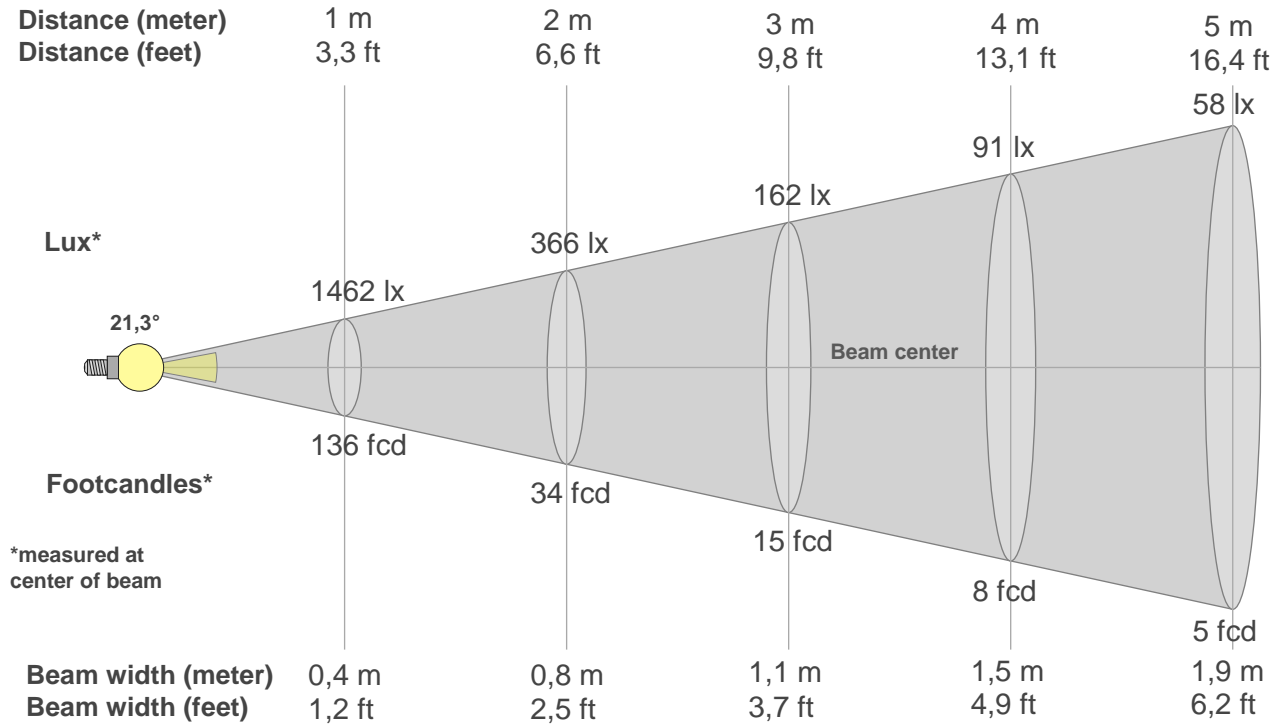
Gammut index Rg

(TM30_BIN_VALUES_START)

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1		%	%
2		%	%
3		%	%
4		%	%
5		%	%
6		%	%
7		%	%
8		%	%
9		%	%
10		%	%
11		%	%
12		%	%
13		%	%
14		%	%
15		%	%
16		%	%



Beam details



Beam intensities from 1-20m

m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft	ft
lx	lx	lx	lx	lx	lx	lx	lx	lx	lx	lx	lx	lx	lx	lx	lx	lx	lx	lx	lx
fcd	fcd	fcd	fcd	fcd	fcd	fcd	fcd	fcd	fcd	fcd	fcd	fcd	fcd	fcd	fcd	fcd	fcd	fcd	fcd

(BEAM_INT_TABLE_END)

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°
1462	1416	1308	1148	966	781	609	458	334	238	167	116	80	55	37	26	19	14	11	9
100%	97%	89%	79%	66%	53%	42%	31%	23%	16%	11%	8%	5%	4%	3%	2%	1%	1%	1%	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°
1462	1436	1324	1163	976	790	614	461	337	241	169	116	81	56	39	28	21	15	12	9
100%	98%	91%	80%	67%	54%	42%	32%	23%	16%	12%	8%	6%	4%	3%	2%	1%	1%	1%	1%

Intensities in 180° c-plane

(INT_TABLE_180_START)

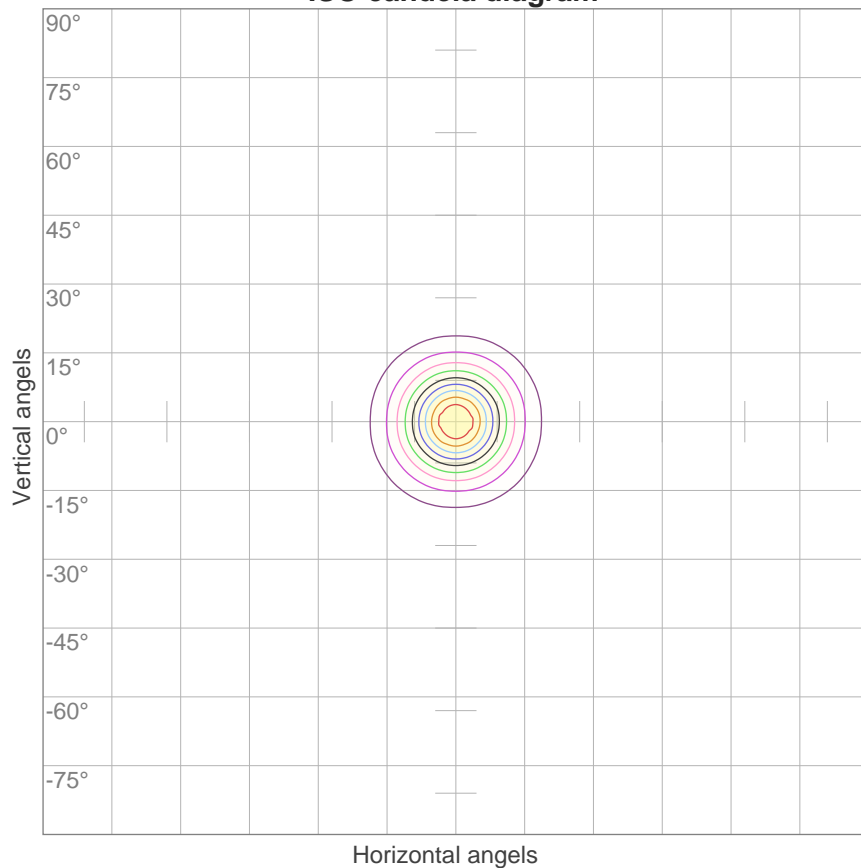
°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%

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°
1462	1436	1324	1163	976	790	614	461	337	241	169	116	81	56	39	28	21	15	12	9
100%	98%	91%	80%	67%	54%	42%	32%	23%	16%	12%	8%	6%	4%	3%	2%	1%	1%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
21,3°	42°	57,1°	97,0%	95,2%

ISO candela diagram



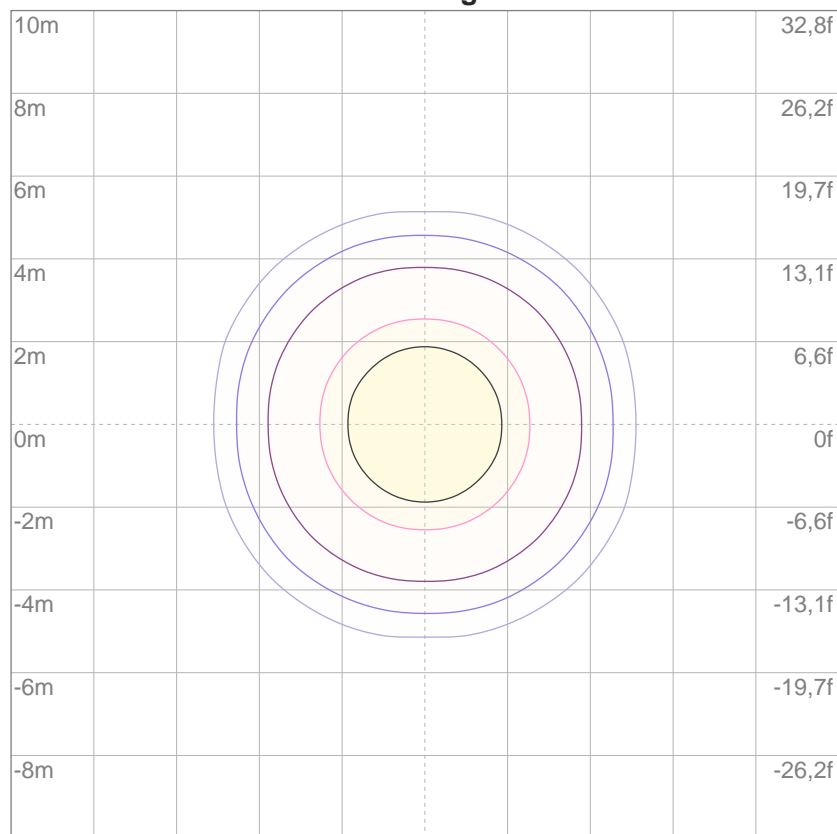
10%	146 cd
20%	292 cd
30%	439 cd
40%	585 cd
50%	731 cd
60%	877 cd
70%	1024 cd
80%	1170 cd
90%	1316 cd

Conditions:

Number of c-planes: 16

Candela at center: 1462 cd

ISO lux diagram



3%	0,439 lx
5%	0,731 lx
10%	1,46 lx
30%	4,39 lx
50%	7,31 lx

Conditions:

Number of c-planes: 16

Lux at center: 14,6 lx

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

Glare Evaluation According to UGR

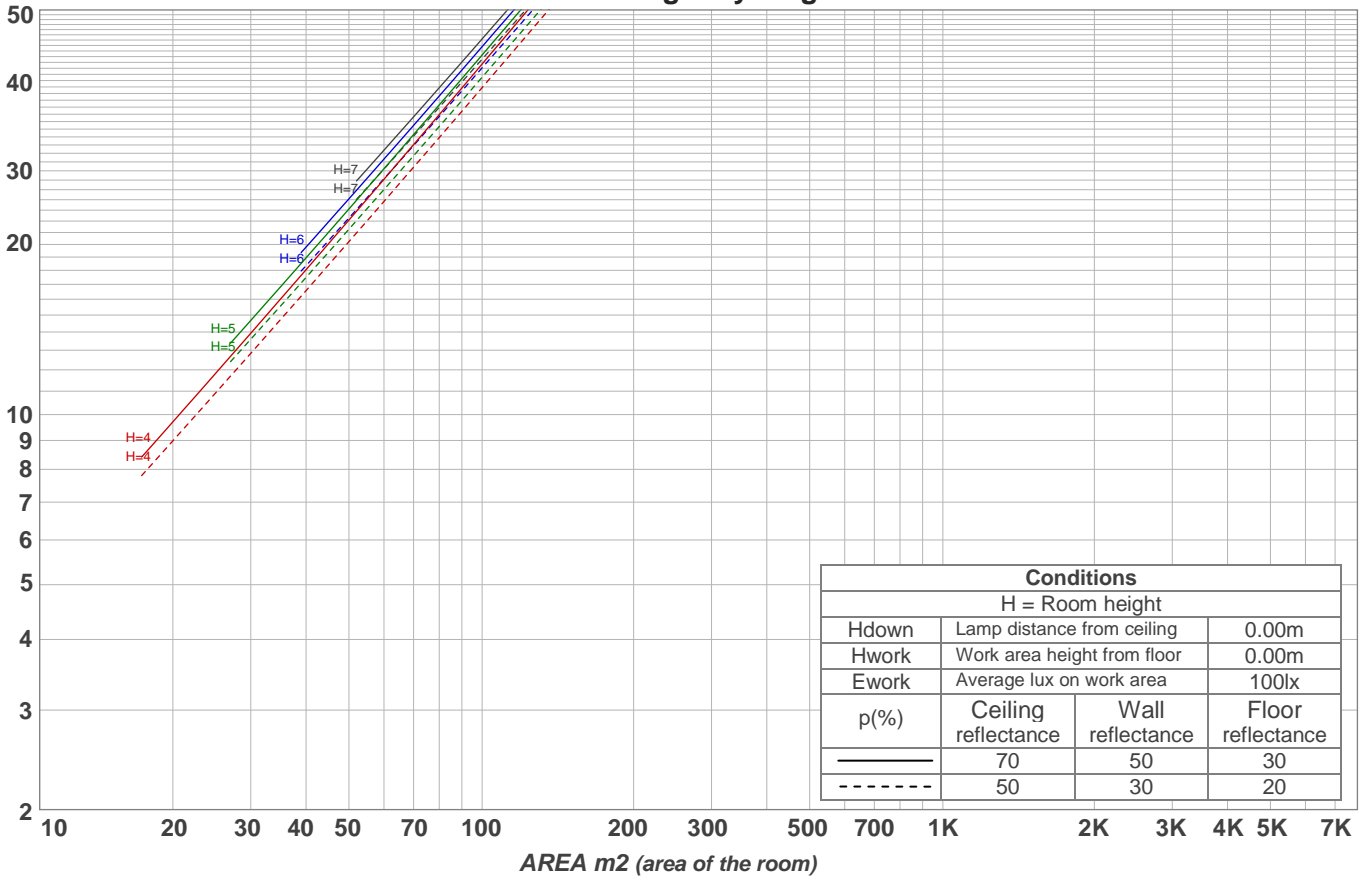
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	5,0	5,7	5,2	5,9	6,0	5,1	5,8	5,4	6,0	6,2
	3H	7,1	7,7	7,4	8,0	8,2	6,8	7,4	7,1	7,6	7,9
	4H	8,7	9,3	9,0	9,5	9,8	7,8	8,4	8,1	8,7	8,9
	6H	9,9	10,5	10,2	10,7	11,0	9,2	9,7	9,5	10,0	10,3
	8H	10,6	11,2	11,0	11,5	11,8	10,1	10,6	10,4	10,9	11,2
	12H	11,3	11,8	11,6	12,1	12,4	10,8	11,3	11,1	11,6	11,9
4H	2H	5,6	6,2	5,9	6,4	6,7	5,7	6,3	6,0	6,5	6,8
	3H	7,9	8,4	8,3	8,7	9,1	7,6	8,1	8,0	8,4	8,8
	4H	9,6	10,1	10,0	10,4	10,8	8,9	9,4	9,3	9,7	10,0
	6H	11,2	11,5	11,6	11,9	12,3	10,5	10,9	10,9	11,2	11,6
	8H	12,1	12,4	12,5	12,8	13,2	11,5	11,8	11,9	12,2	12,6
	12H	12,8	13,1	13,3	13,5	13,9	12,3	12,6	12,8	13,0	13,4
8H	4H	10,1	10,4	10,5	10,8	11,2	9,5	9,8	9,9	10,2	10,6
	6H	12,0	12,3	12,5	12,7	13,1	11,4	11,6	11,8	12,0	12,5
	8H	13,1	13,3	13,5	13,7	14,2	12,5	12,7	13,0	13,1	13,6
	12H	14,0	14,2	14,5	14,6	15,1	13,5	13,7	14,0	14,1	14,6
12H	4H	10,2	10,5	10,7	10,9	11,3	9,7	10,0	10,1	10,4	10,8
	6H	12,2	12,4	12,7	12,9	13,3	11,7	11,9	12,1	12,3	12,8
	8H	13,3	13,5	13,8	14,0	14,5	12,8	13,0	13,3	13,5	13,9
Variation of the observer position for the luminaire distance S											
S = 1,0H		+0,2 / -0,2					+0,2 / -0,2				
S = 1,5H		+0,4 / -0,3					+0,5 / -0,4				
S = 2,0H		+0,6 / -0,6					+0,9 / -0,5				
Standard table		BK11					BK10				
Correction summand		-3,4					-4,3				
Corrected glare indices referring to 275 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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	98	98	97	95
2	110	106	103	100	108	105	102	99	101	99	97	98	97	95	96	94	93	91
3	107	102	98	95	105	100	97	94	98	95	92	95	93	91	93	91	89	88
4	103	97	93	90	102	96	93	90	94	91	88	92	90	87	91	88	86	85
5	100	94	90	86	99	93	89	86	91	88	85	90	87	84	88	86	84	82
6	97	91	86	83	96	90	86	83	88	85	82	87	84	82	86	83	81	80
7	94	88	83	80	93	87	83	80	86	82	80	85	82	79	84	81	79	78
8	92	85	81	78	91	85	81	78	84	80	77	83	79	77	82	79	77	76
9	89	83	78	76	89	82	78	76	81	78	75	81	77	75	80	77	75	74
10	87	80	76	74	86	80	76	74	79	76	73	79	75	73	78	75	73	72

LAMPS (number of lamps)

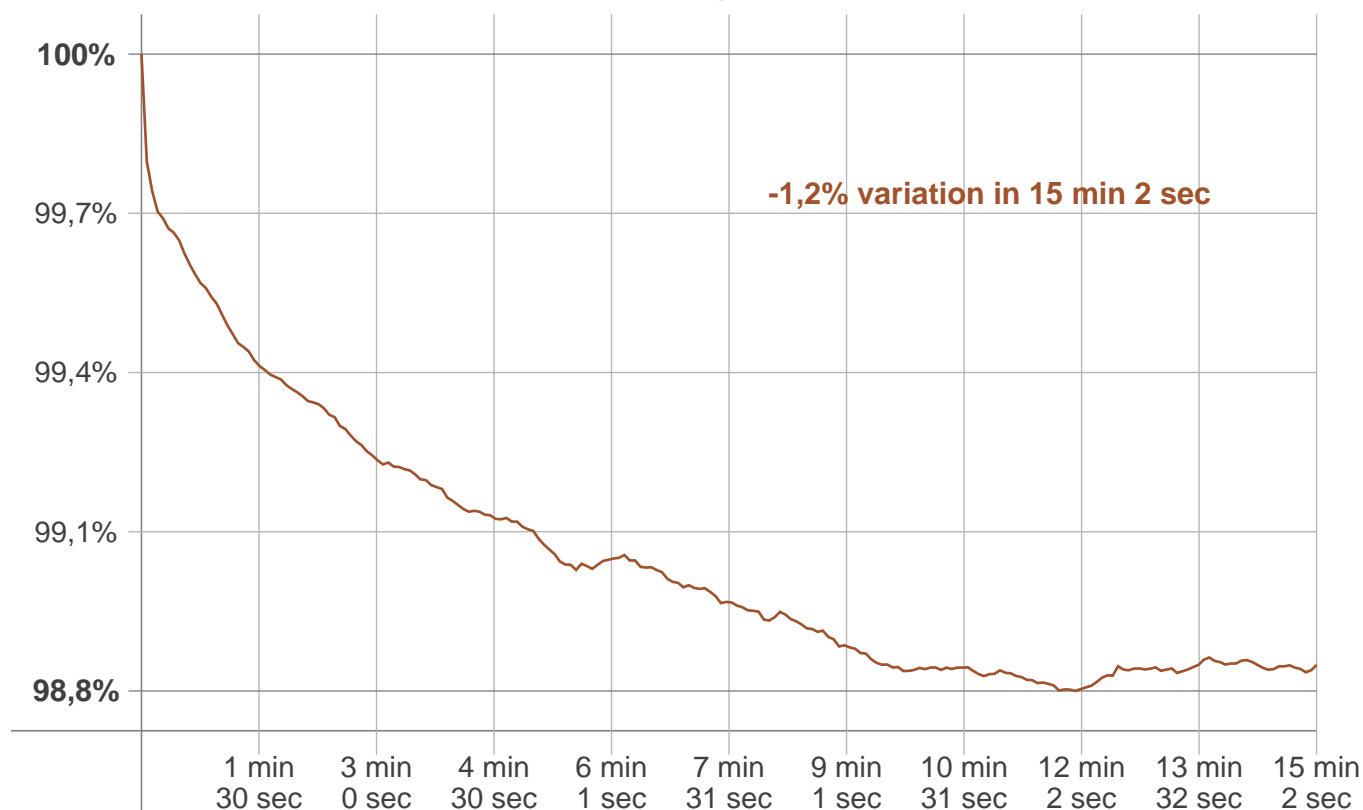
Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
103 lm	{LUM10-20}	{LUM20-30}	{LUM30-40}	{LUM40-50}	{LUM50-60}	{LUM60-70}	{LUM70-80}	{LUM80-90}
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
{LUM90-100}	{LUM100-110}	0,395 lm	{LUM120-130}	{LUM130-140}	{LUM140-150}	{LUM150-160}	{LUM160-170}	{LUM170-180}

Warmup curve



Warmup result

Warmup time:	15 min 2 sec
Warmup variation	-1,2%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
0 K	{WU_CHNG_CCT} K	0 K

Output change

Output start	Output change	Output end
277 lm	-2 lm	275 lm