

Light efficiency:



Light quality:



Color temperature:

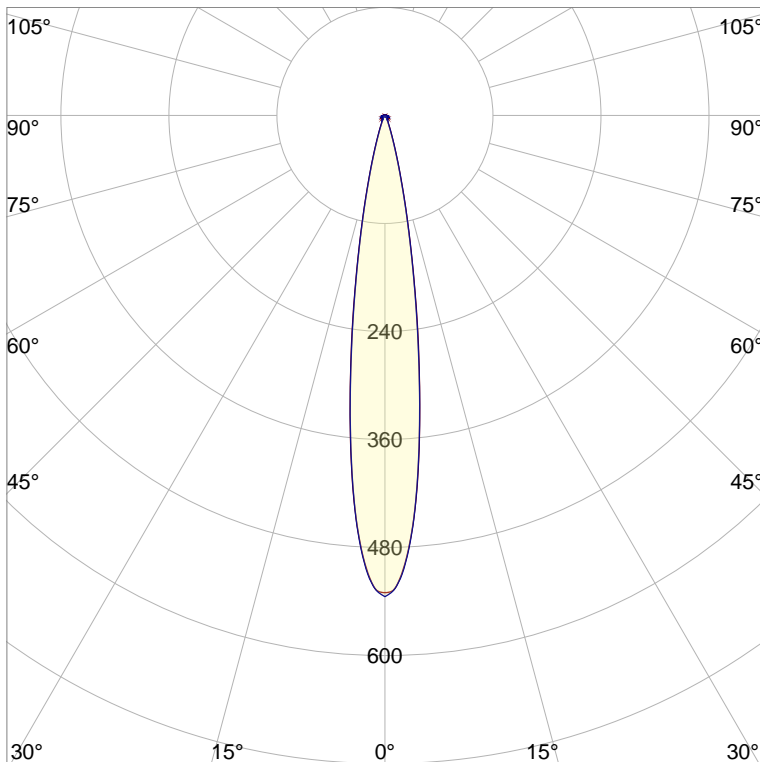
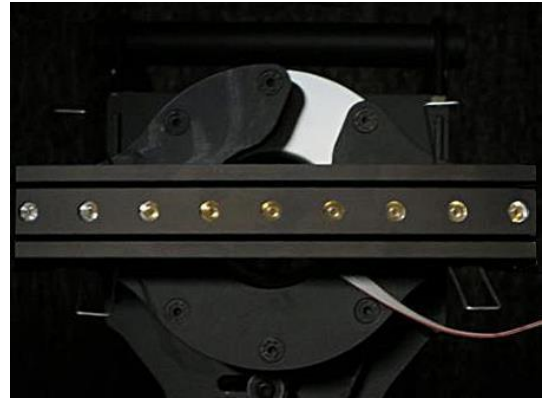


Output: 72,5 lm

Peak: 535 cd

Power: 7,1 W

PF: 0,82



CIE 1931
x: 0,152
y: 0,025

Product name:

FLNP-F4C-C-258-B-927-10771-ALA

Item number:

FLNP-F4C-C-258-B-927-10771-ALA

Date and time:

13.02.2019 16:10:11

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

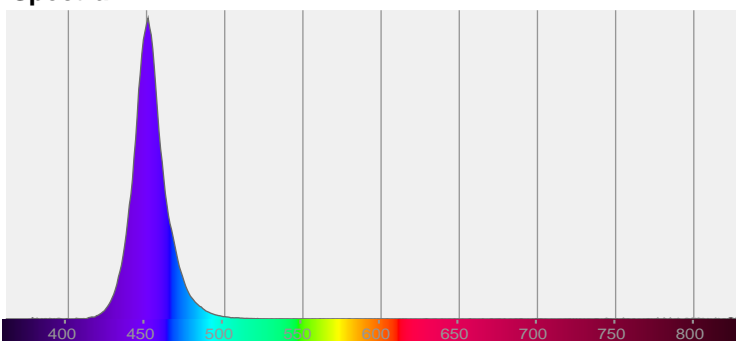
Pruefort:

Lichtlabor

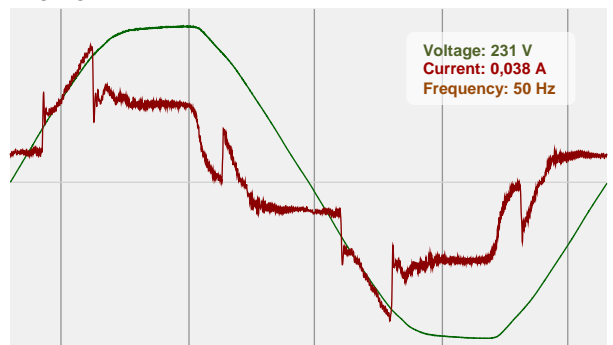
Gaustasse13-15

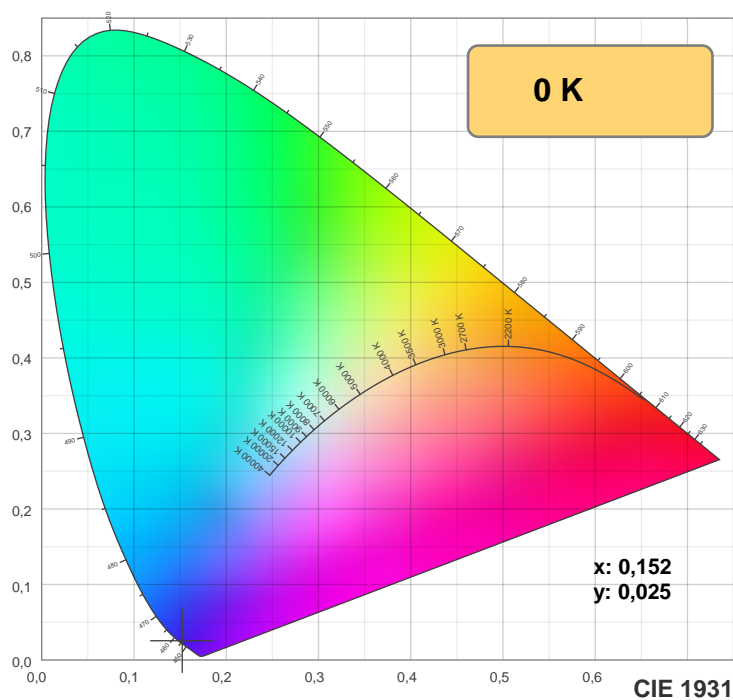
55411 Bingen am Rhein

Spectra

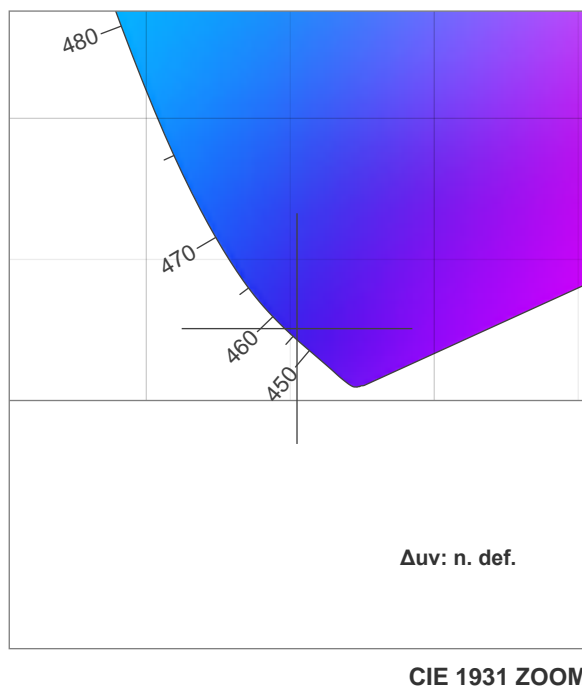


Power



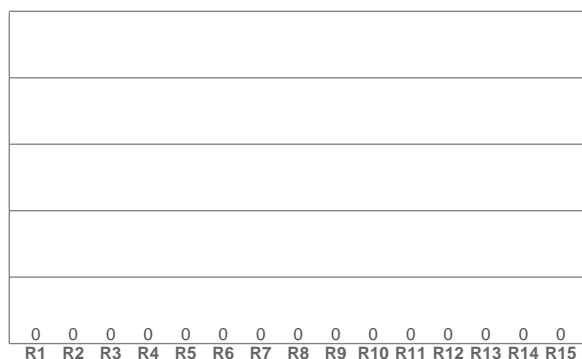


TM30: 0,0

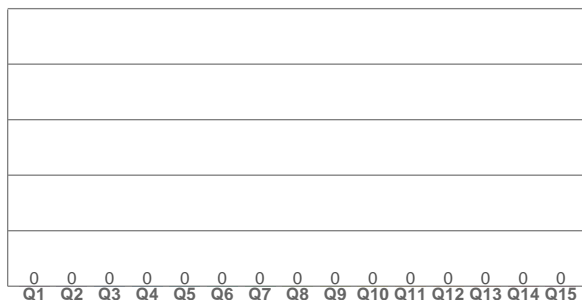


CIE 1931 ZOOM

CRI: 0,0 (R1-R8)



CQS: 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

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	0,152	0,025	0,203	0,051	n. def.

TM30 details

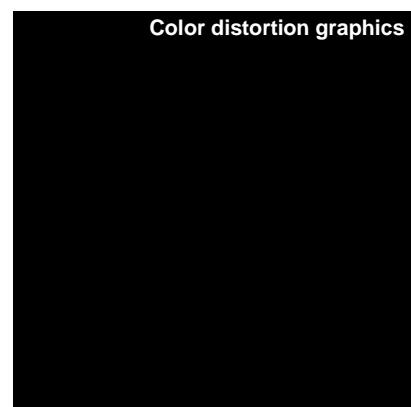
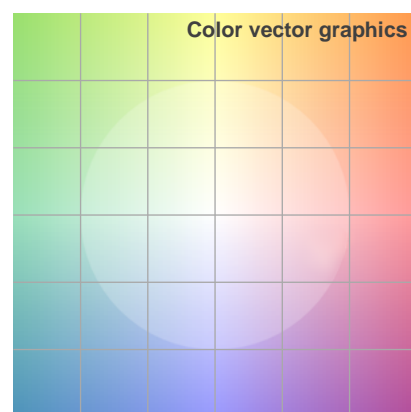
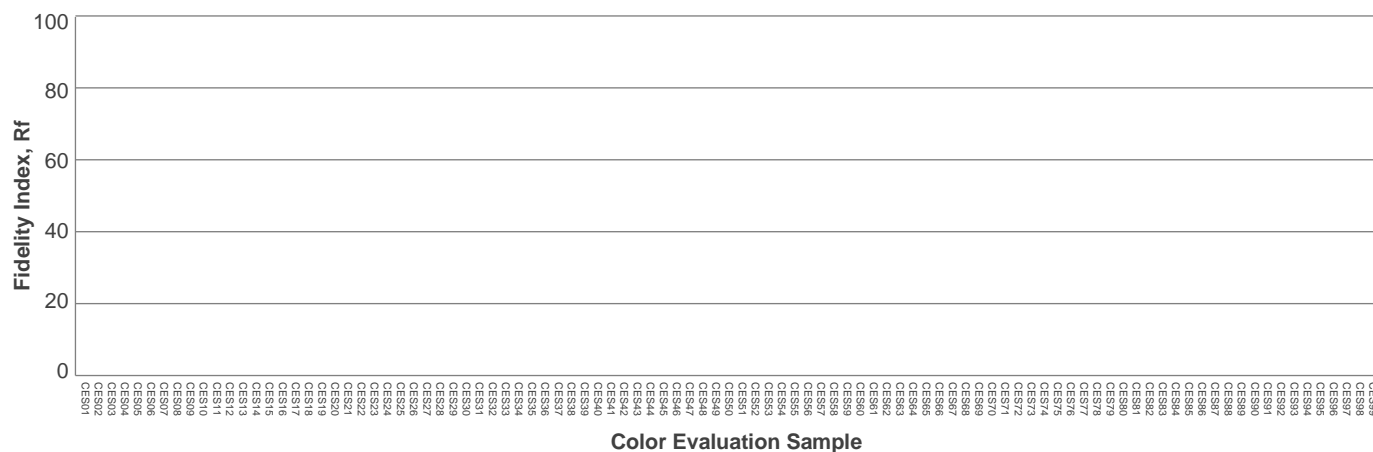
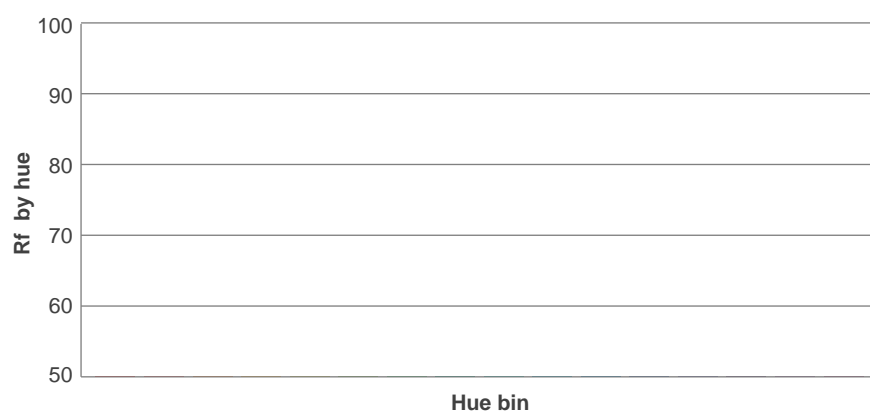
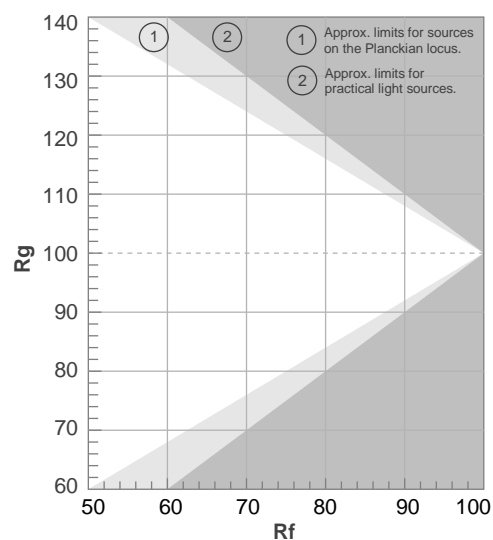
Rf 0,0

Fidelity index Rf

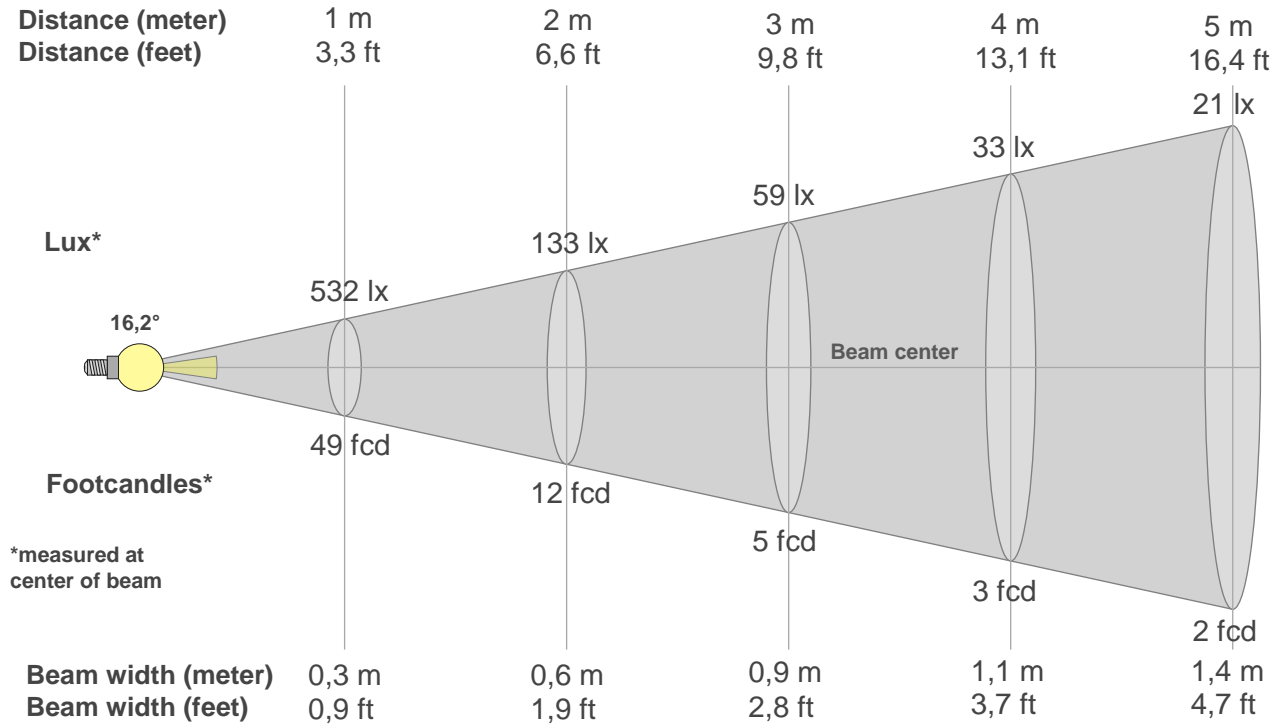
Rg 0,0

Gammut index Rg

(TM30_BIN_VALUES_START)			
Graphic shifts (%)			
Hue Bin	R _f	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°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
532	526	511	485	452	411	365	317	271	227	187	152	122	97	77	60	47	37	28	23
100%	99%	96%	91%	85%	77%	69%	60%	51%	43%	35%	29%	23%	18%	14%	11%	9%	7%	5%	4%

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°
532	527	512	486	452	410	364	316	269	225	185	150	121	96	75	59	46	36	28	22
100%	99%	96%	91%	85%	77%	68%	59%	50%	42%	35%	28%	23%	18%	14%	11%	9%	7%	5%	4%

Intensities in 180° c-plane

(INT_TABLE_180_START)

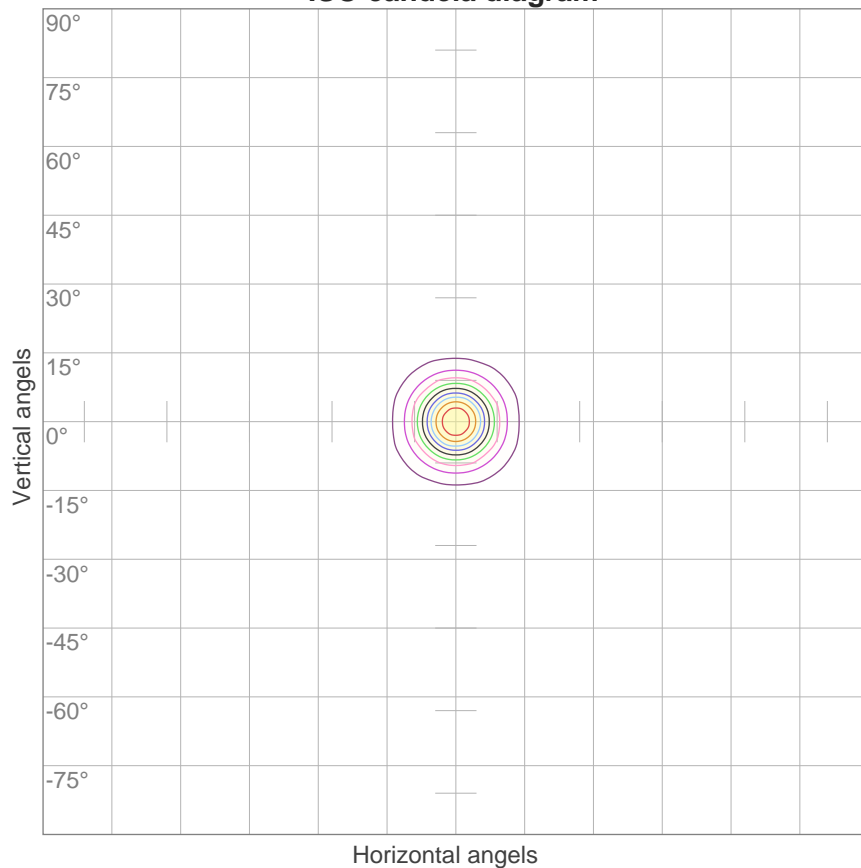
°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%

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°
532	527	512	486	452	410	364	316	269	225	185	150	121	96	75	59	46	36	28	22
100%	99%	96%	91%	85%	77%	68%	59%	50%	42%	35%	28%	23%	18%	14%	11%	9%	7%	5%	4%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
16,2°	31,4°	44,1°	85,0%	80,3%

ISO candela diagram



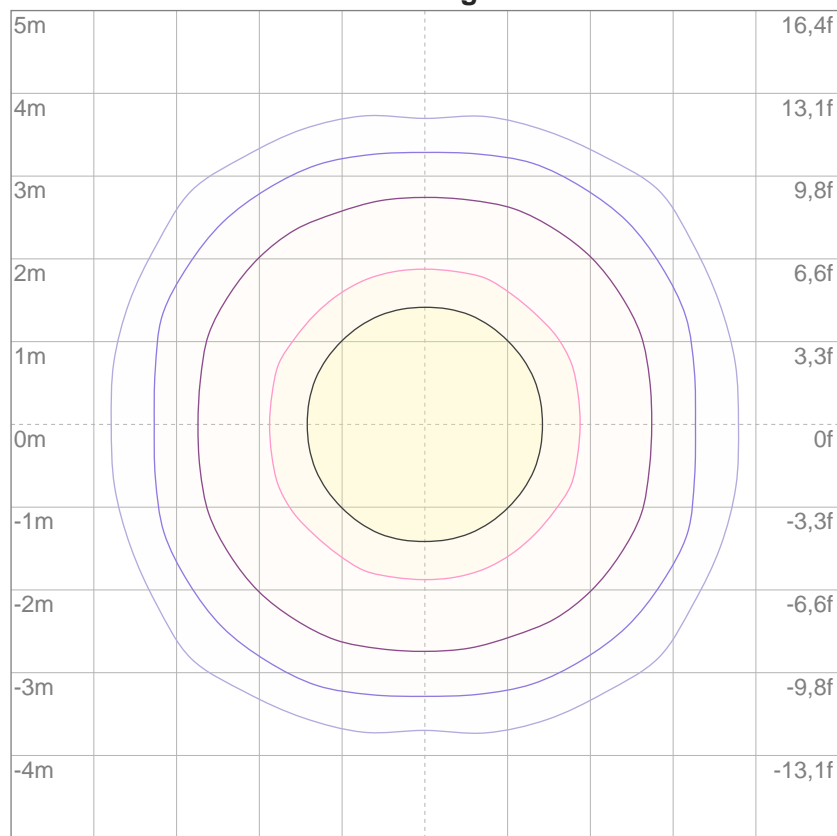
10%	53 cd
20%	106 cd
30%	160 cd
40%	213 cd
50%	266 cd
60%	319 cd
70%	372 cd
80%	426 cd
90%	479 cd

Conditions:

Number of c-planes: 16

Candela at center: 532 cd

ISO lux diagram



3%	0,160 lx
5%	0,266 lx
10%	0,532 lx
30%	1,60 lx
50%	2,66 lx

Conditions:

Number of c-planes: 16

Lux at center: 5,32 lx

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

Glare Evaluation According to UGR

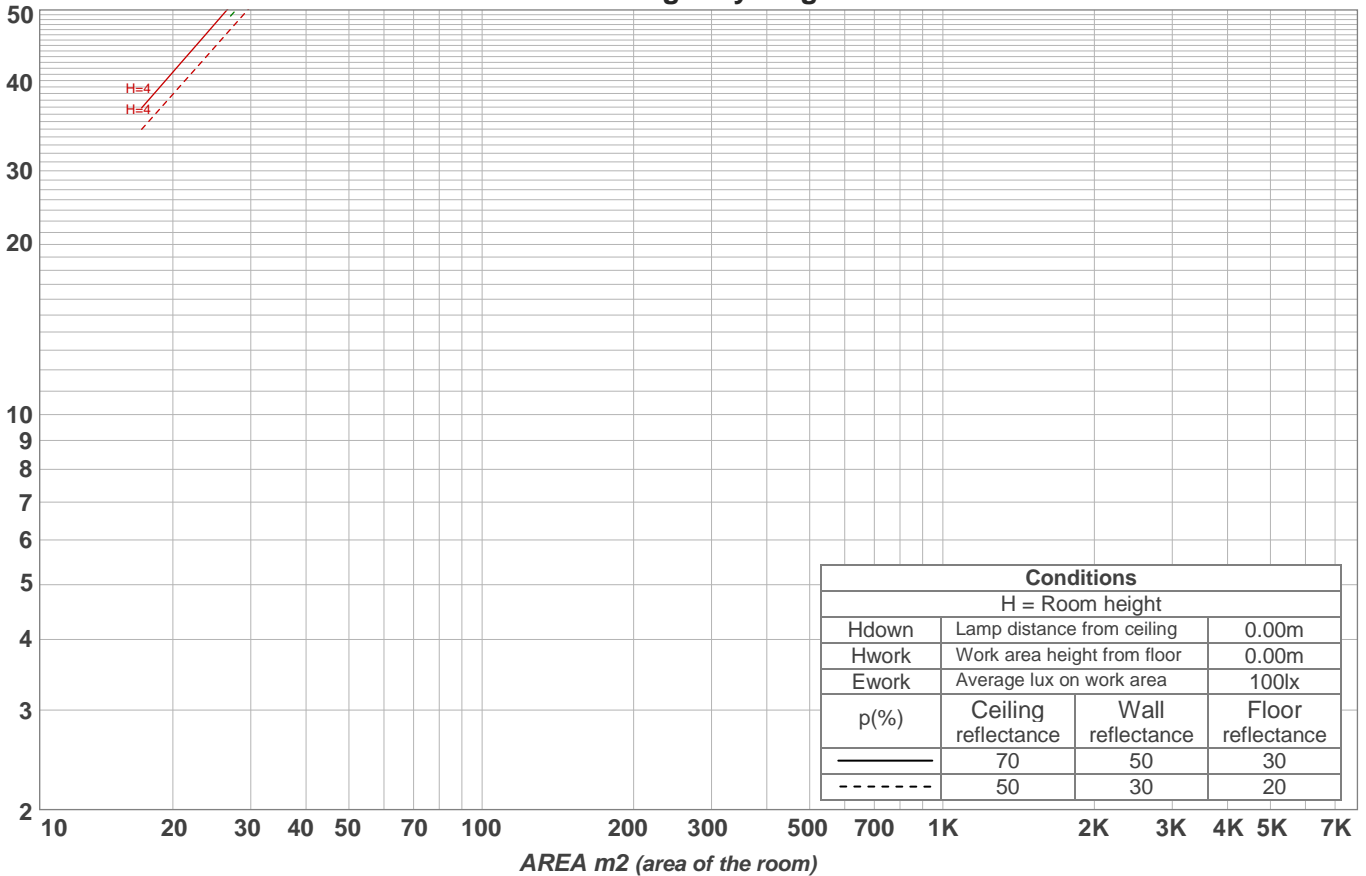
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	6,9	7,7	7,1	7,9	8,1	6,6	7,4	6,8	7,6	7,8
	3H	10,2	11,0	10,5	11,2	11,5	9,7	10,4	10,0	10,7	10,9
	4H	12,0	12,7	12,3	13,0	13,3	11,5	12,3	11,8	12,5	12,8
	6H	14,1	14,8	14,5	15,1	15,4	13,2	13,9	13,5	14,1	14,4
	8H	15,2	15,9	15,5	16,2	16,5	14,2	14,9	14,5	15,2	15,5
	12H	16,4	17,0	16,7	17,3	17,6	15,5	16,1	15,8	16,4	16,8
4H	2H	8,0	8,7	8,3	9,0	9,2	7,8	8,5	8,1	8,8	9,0
	3H	11,4	12,0	11,8	12,3	12,7	11,0	11,6	11,4	12,0	12,3
	4H	13,4	14,0	13,8	14,3	14,6	13,0	13,6	13,4	14,0	14,3
	6H	15,8	16,3	16,2	16,6	17,0	14,9	15,4	15,3	15,8	16,2
	8H	17,0	17,4	17,4	17,8	18,2	16,0	16,5	16,4	16,9	17,3
	12H	18,2	18,6	18,7	19,1	19,5	17,4	17,8	17,8	18,2	18,6
8H	4H	14,2	14,7	14,6	15,0	15,4	13,9	14,4	14,4	14,8	15,2
	6H	16,9	17,3	17,4	17,7	18,1	16,1	16,5	16,6	16,9	17,3
	8H	18,2	18,6	18,7	19,0	19,5	17,4	17,7	17,9	18,1	18,6
	12H	19,7	20,0	20,2	20,5	21,0	18,9	19,2	19,4	19,6	20,1
12H	4H	14,4	14,8	14,8	15,2	15,6	14,2	14,6	14,7	15,0	15,5
	6H	17,2	17,5	17,7	18,0	18,4	16,5	16,8	17,0	17,3	17,7
	8H	18,6	18,9	19,1	19,4	19,8	17,9	18,1	18,4	18,6	19,1
Variation of the observer position for the luminaire distance S											
S = 1,0H		+0,2 / -0,1					+0,2 / -0,2				
S = 1,5H		+0,3 / -0,3					+0,3 / -0,4				
S = 2,0H		+0,5 / -0,6					+0,6 / -0,5				
Standard table		---					---				
Correction summand		---					---				
Corrected glare indices referring to 72,5 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	118	118	118	118	115	115	115	115	108	108	108	103	103	103	98	98	98	95
1	111	108	105	102	108	105	103	100	100	98	96	96	94	93	92	90	89	87
2	106	101	97	93	103	99	95	92	95	92	89	91	89	86	88	86	84	82
3	102	96	91	87	99	94	89	86	91	87	84	87	84	82	85	82	80	78
4	98	91	86	82	96	90	85	81	87	83	80	84	81	78	82	79	77	76
5	95	87	82	78	93	86	81	78	84	80	77	82	78	76	80	77	75	73
6	92	84	79	76	90	83	79	75	81	77	74	80	76	73	78	75	73	71
7	89	82	77	73	88	81	76	73	79	75	72	78	74	71	76	73	71	70
8	87	79	74	71	85	78	74	71	77	73	70	76	72	70	75	71	69	68
9	85	77	72	69	83	76	72	69	75	71	69	74	71	68	73	70	68	67
10	83	75	71	68	82	75	70	68	74	70	67	73	69	67	72	69	66	65

LAMPS (number of lamps)

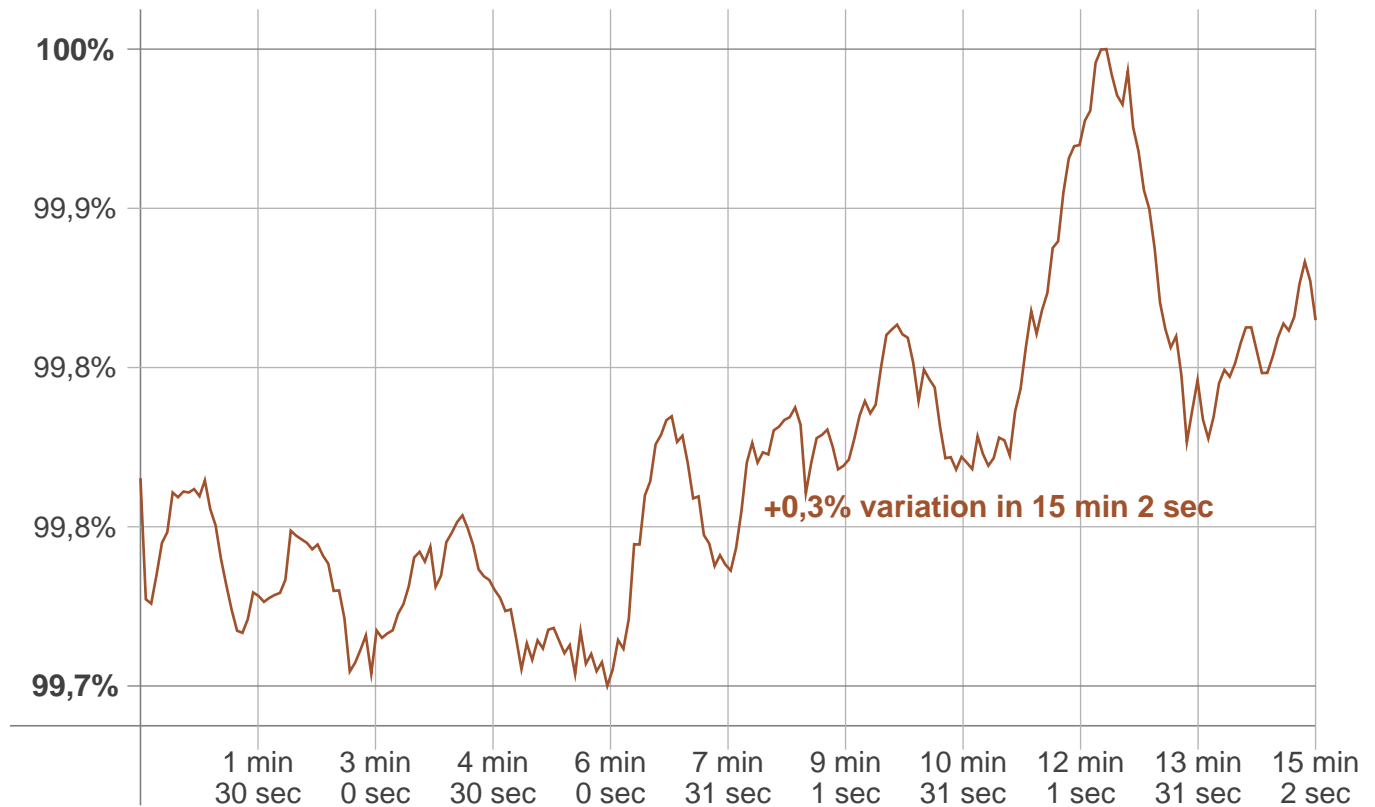
Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
31,5 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}	0,767 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	+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
0 K	{WU_CHNG_CCT} K	0 K

Output change

Output start	Output change	Output end
72,5 lm	0,0 lm	72,5 lm