

Light efficiency:

54 Lumen/Watt

Light quality:

CRI: 91,3

Color temperature:

2584 K

Output: 106 lm

Peak: 393 cd

Power: 2,0 W

PF: 1,0



Product name:

PicoSpot³-927-LSMT-500mA

Item number:

FLNP/PS1C/C01/0108/927/LSMT/10995

Date and time:

28.07.2021 09:54:35

Description:

Toleranzen:

Lumen +/-4%

Candela +/-2,5%

Colour Temp +/-35 Grad K

CRI +/-0,7

Angular Resolution 1 Grad Step

Last Calibration 21.05.2021

Pruefer:

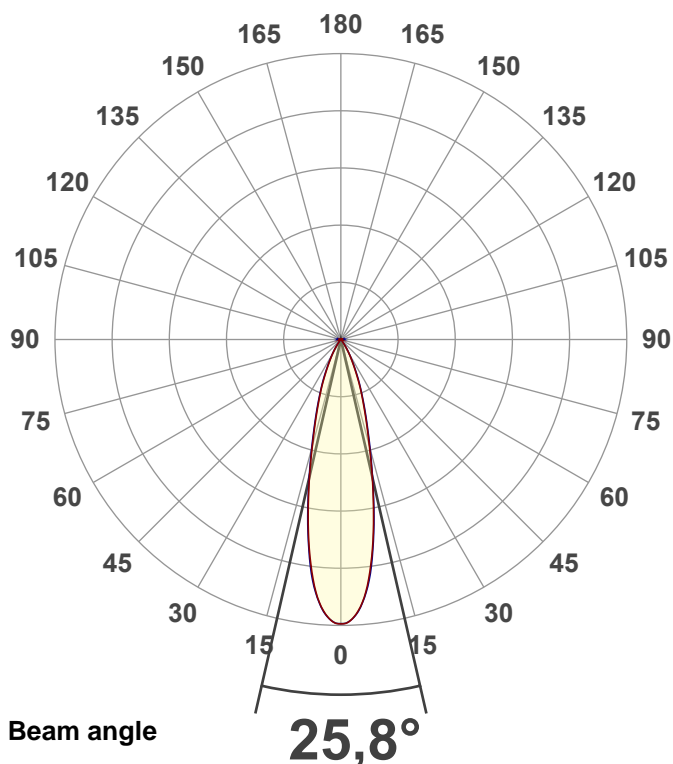
Peter Ulrich

Pruefort:

Lichtlabor

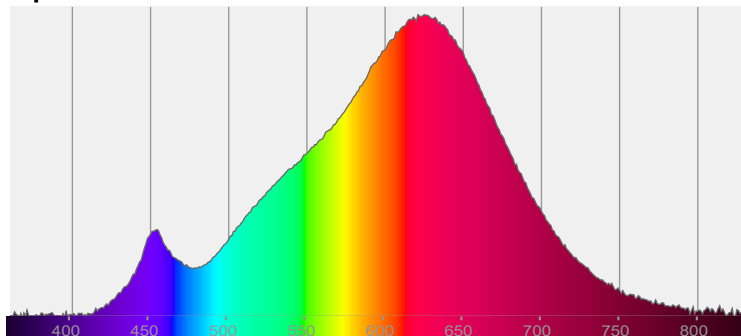
Gaustrasse13

55411 Bingen am Rhein



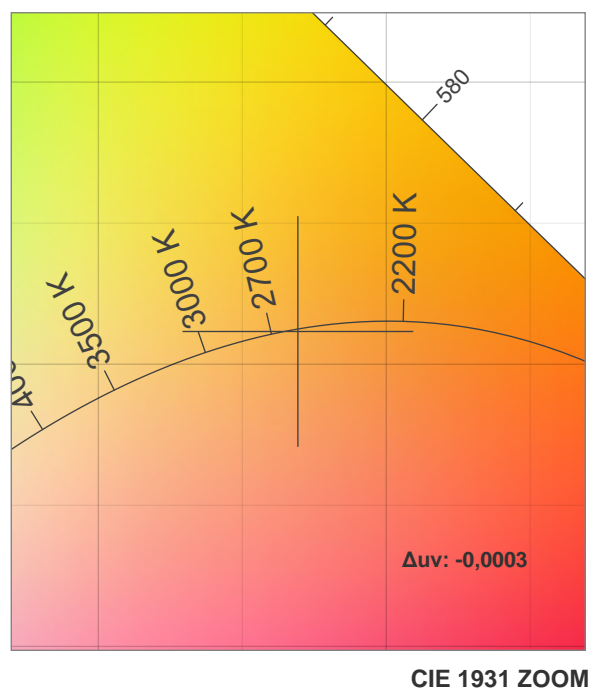
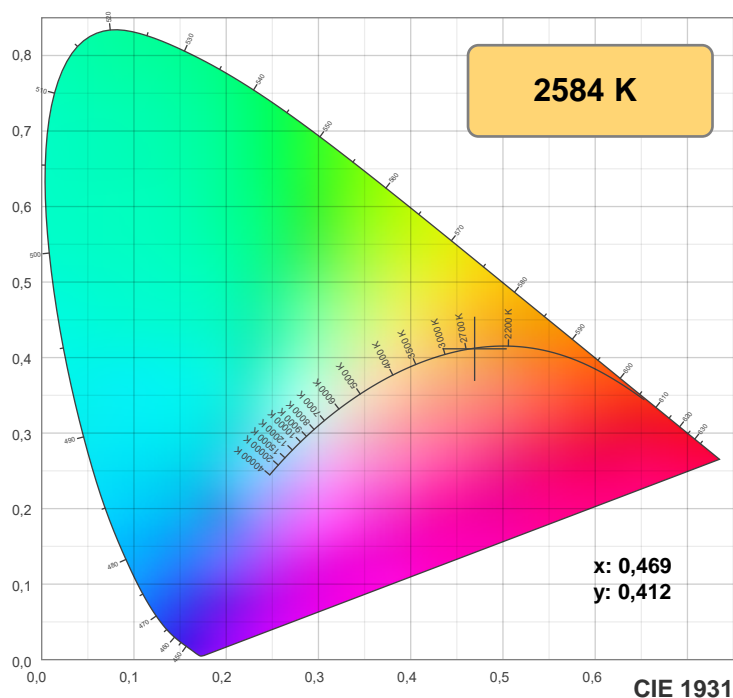
CIE 1931
x: 0,469
y: 0,412

Spectra

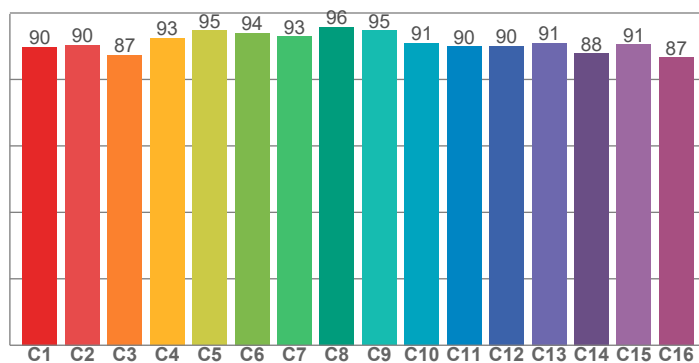


Power

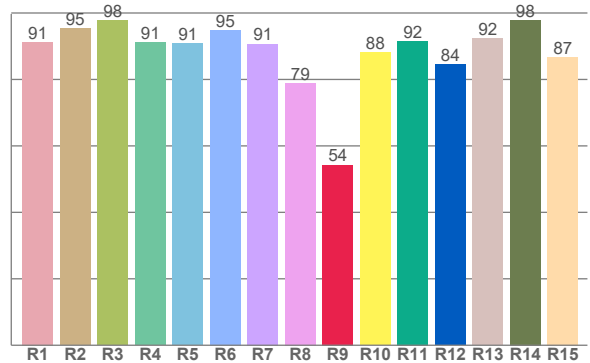
Voltage: 3,84 V
Current: 0,510 A
Frequency: 0 Hz



TM30: 91,1



CRI: 91,3 (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
91,2	95,4	97,8	91,2	90,8	94,9	90,7	78,9	54,3	88,2	91,6	84,5	92,3	97,9	86,7

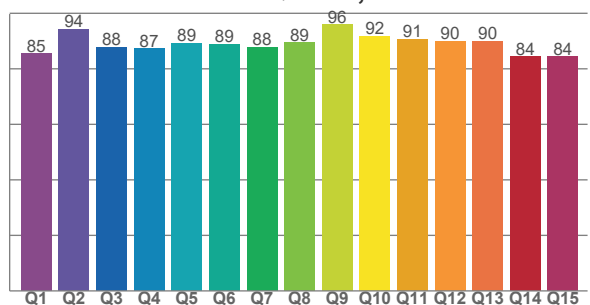
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,7	90,4	87,3	92,5	94,8	94,1	92,9	95,8	94,8	91,0	90,0	90,0	91,0	87,9	90,6	86,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
85,5	94,3	87,8	87,3	89,3	88,8	87,8	89,4	95,9	91,7	90,7	90,0	89,9	84,4	84,4

CQS: 88,5



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
2584 K	91,3	54,3	91,1	99,9	88,5	0,469	0,412	0,268	0,353	-0,0003

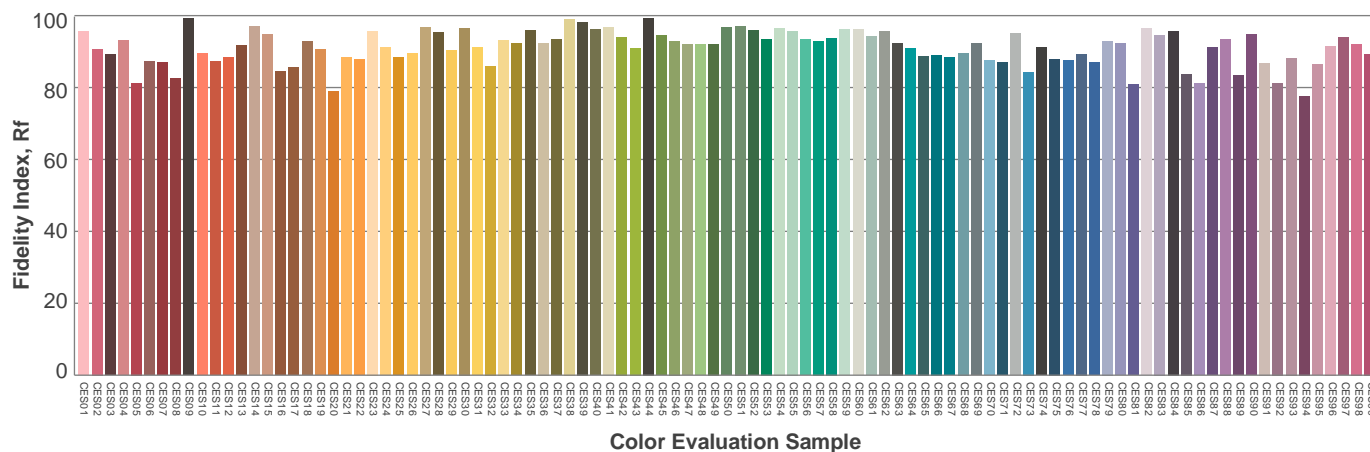
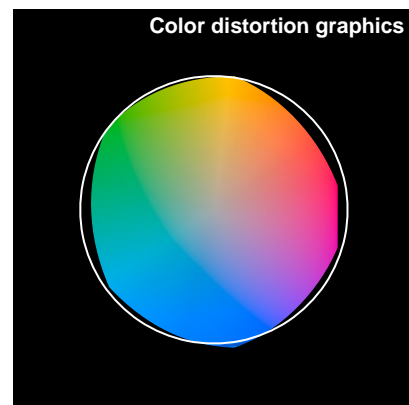
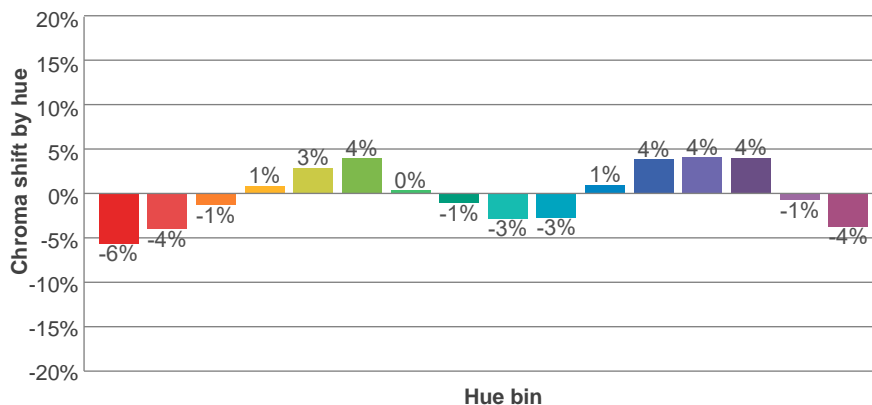
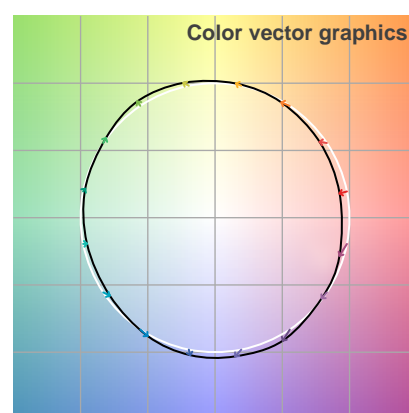
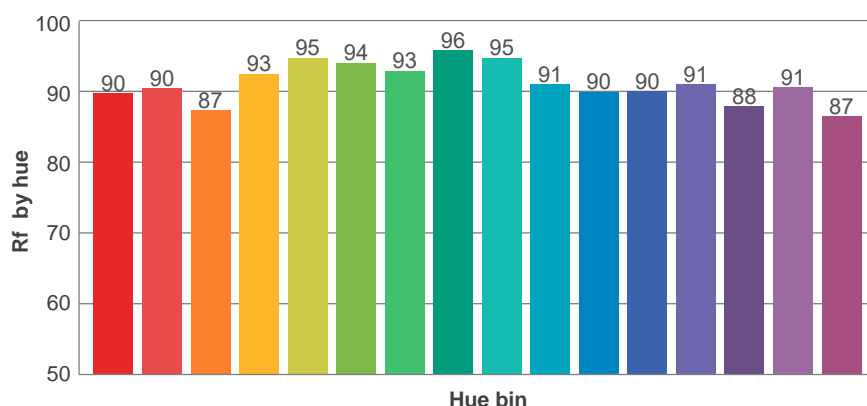
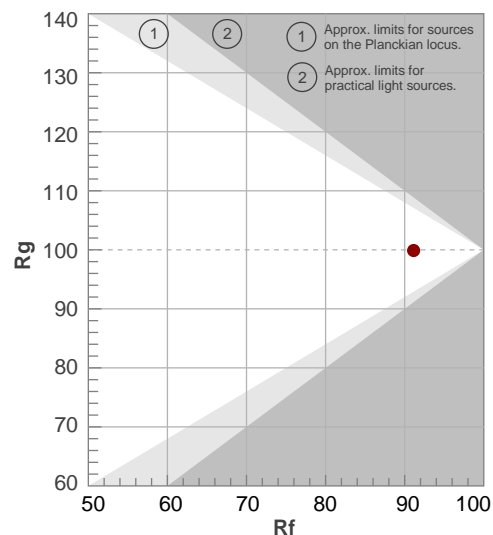
Rf 91,1

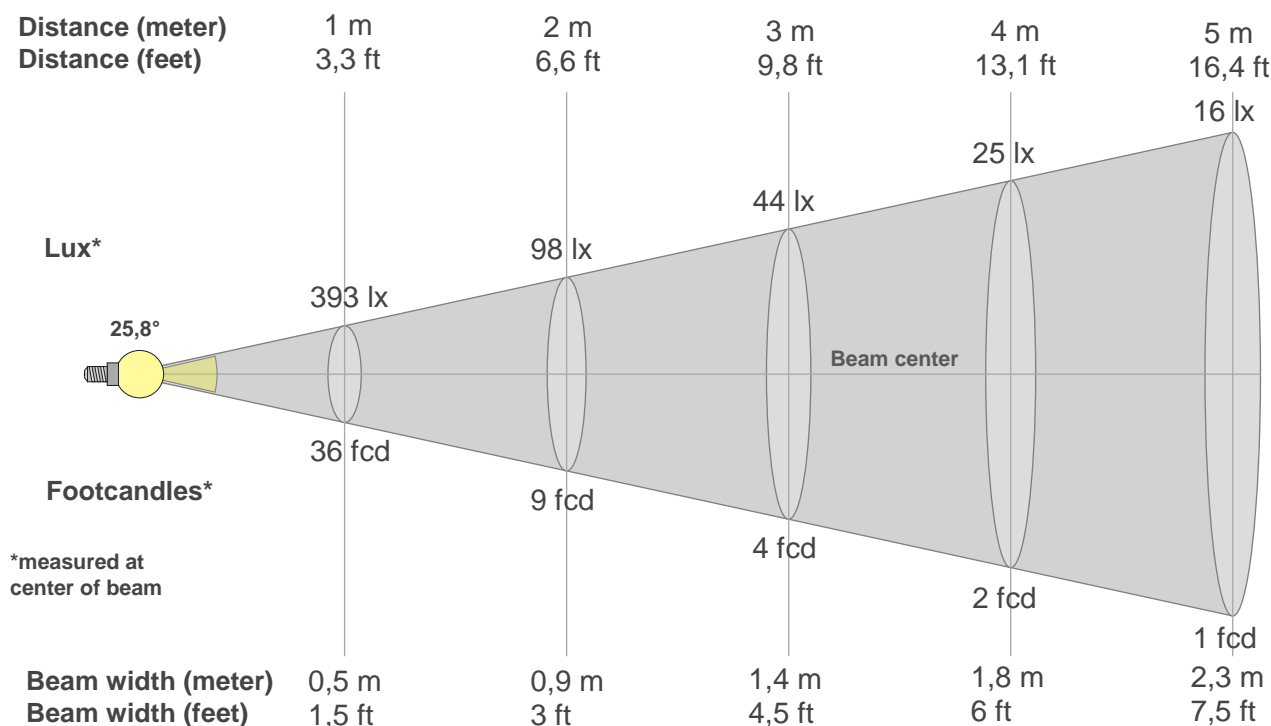
Fidelity index Rf

Rg 99,9

Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	90	-6%	0%
2	90	-4%	4%
3	87	-1%	7%
4	93	1%	4%
5	95	3%	3%
6	94	4%	0%
7	93	0%	-4%
8	96	-1%	-2%
9	95	-3%	0%
10	91	-3%	5%
11	90	1%	7%
12	90	4%	2%
13	91	4%	-5%
14	88	4%	-9%
15	91	-1%	-6%
16	87	-4%	-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
393lx	98lx	44lx	25lx	16lx	11lx	8lx	6lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx	1lx	1lx	1lx
36,5fcd	9,1fcd	4,1fcd	2,3fcd	1,5fcd	1fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd

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°
393	388	372	344	304	259	213	171	136	109	88	70	54	41	31	23	17	10	6	4
100%	99%	95%	88%	78%	66%	54%	44%	35%	28%	22%	18%	14%	10%	8%	6%	4%	3%	2%	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°
393	387	372	346	308	263	216	174	140	112	90	73	57	43	32	23	16	10	6	4
100%	99%	95%	88%	78%	67%	55%	44%	36%	29%	23%	18%	15%	11%	8%	6%	4%	3%	1%	1%

Intensities in 180° c-plane

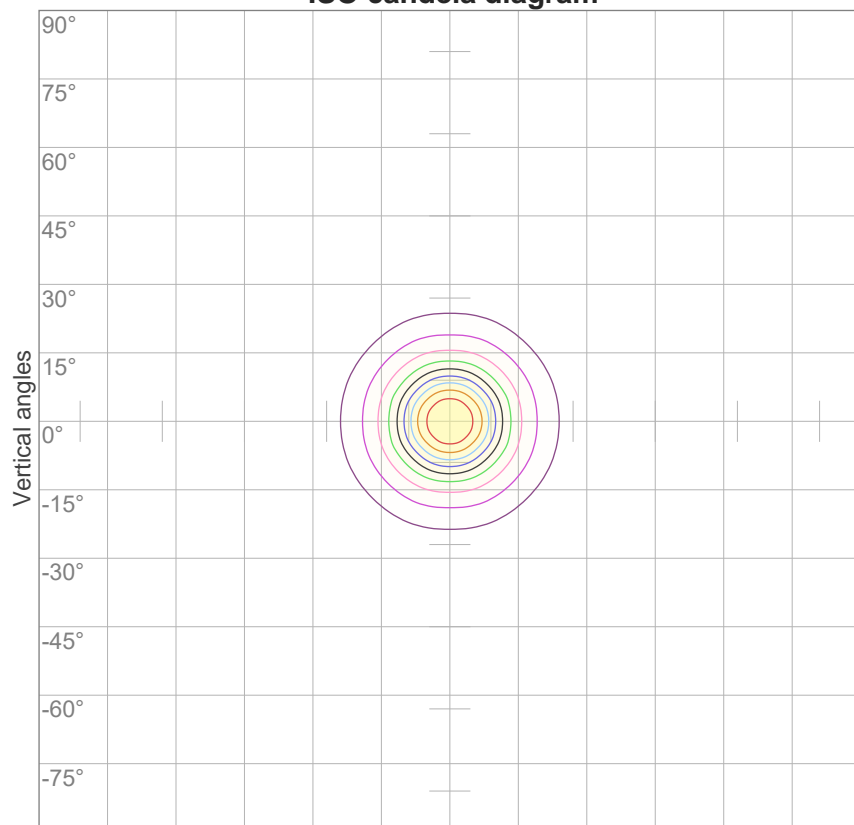
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
393	388	372	344	304	259	213	171	136	109	88	70	54	41	31	23	17	10	6	4
100%	99%	95%	88%	78%	66%	54%	44%	35%	28%	22%	18%	14%	10%	8%	6%	4%	3%	2%	1%

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°
393	387	372	346	308	263	216	174	140	112	90	73	57	43	32	23	16	10	6	4
100%	99%	95%	88%	78%	67%	55%	44%	36%	29%	23%	18%	15%	11%	8%	6%	4%	3%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
25,8°	53,3°	68,4°	98,8%	97,9%

ISO candela diagram



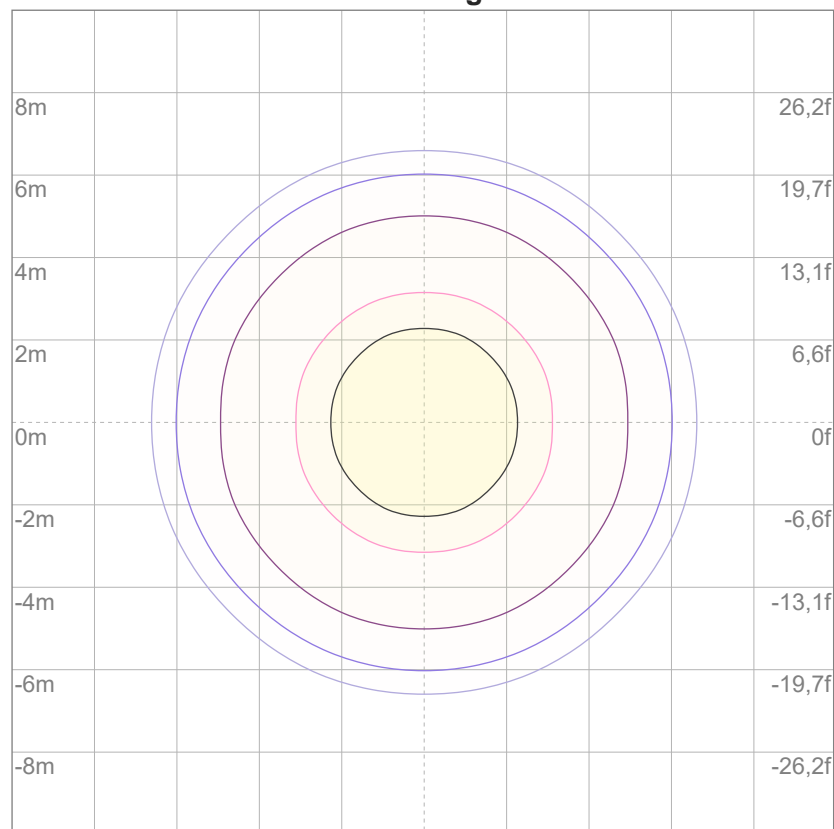
10%	39 cd
20%	79 cd
30%	118 cd
40%	157 cd
50%	196 cd
60%	236 cd
70%	275 cd
80%	314 cd
90%	353 cd

Conditions:

Number of c-planes: 16

Candela at center: 393 cd

ISO lux diagram



3%	0,118 lx
5%	0,196 lx
10%	0,393 lx
30%	1,18 lx
50%	1,96 lx

Conditions:

Number of c-planes: 16

Lux at center: 3,93 lx

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

Glare Evaluation According to UGR

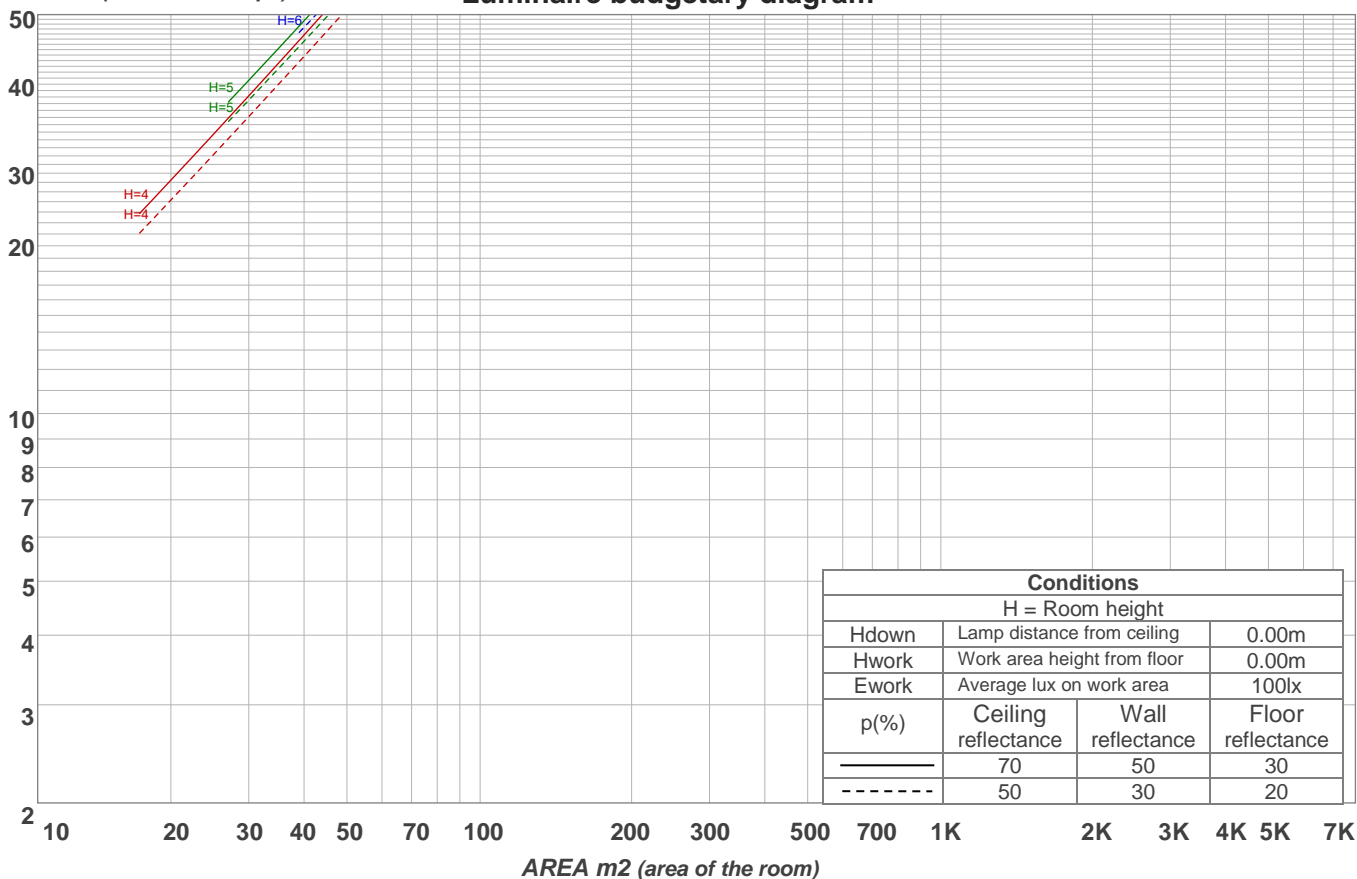
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	16,9	17,3	16,9	17,5	17,7	16,8	17,3	16,9	17,5	17,7
	3H	16,7	17,3	17,0	17,5	17,7	16,6	17,3	17,0	17,4	17,6
	4H	16,7	17,3	17,1	17,5	17,7	16,6	17,2	17,0	17,5	17,7
	6H	16,8	17,2	17,0	17,5	17,9	16,7	17,2	17,0	17,5	17,8
	8H	16,7	17,2	17,1	17,5	17,9	16,7	17,2	17,0	17,5	17,9
	12H	16,7	17,2	17,1	17,5	17,9	16,7	17,1	17,0	17,5	17,9
4H	2H	16,5	17,1	16,9	17,4	17,6	16,5	17,1	16,9	17,3	17,5
	3H	16,6	17,1	17,0	17,4	17,8	16,6	17,0	16,9	17,4	17,8
	4H	16,6	17,0	17,0	17,4	17,9	16,6	17,0	17,0	17,4	17,9
	6H	16,6	17,1	17,1	17,4	17,8	16,6	17,1	17,1	17,4	17,7
	8H	16,6	17,1	17,1	17,4	17,8	16,6	17,0	17,1	17,4	17,7
	12H	16,6	17,0	17,1	17,4	17,8	16,6	16,9	17,1	17,3	17,8
8H	4H	16,5	17,0	17,0	17,3	17,7	16,5	16,9	17,0	17,3	17,6
	6H	16,6	16,9	17,1	17,4	17,9	16,6	16,8	17,1	17,3	17,8
	8H	16,7	16,9	17,2	17,4	18,1	16,6	16,9	17,2	17,4	18,0
	12H	16,7	16,9	17,3	17,4	18,0	16,7	16,9	17,3	17,4	18,0
12H	4H	16,5	16,8	17,0	17,2	17,7	16,4	16,8	16,9	17,2	17,6
	6H	16,6	16,8	17,1	17,4	18,0	16,6	16,8	17,1	17,3	17,9
	8H	16,7	16,8	17,3	17,4	18,0	16,6	16,8	17,2	17,3	17,9
Variation of the observer position for the luminaire distance S											
S = 1.0H		5,7 / -4,4					5,7 / -4,5				
S = 1.5H		8,4 / -4,8					8,4 / -5,0				
S = 2.0H		10,3 / -5,0					10,3 / -5,1				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 106 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	102	102	102	100
1	115	112	110	108	112	110	108	107	106	105	103	102	101	100	99	98	97	95
2	110	106	103	100	108	105	102	99	101	99	97	99	97	95	96	94	93	91
3	106	101	97	94	105	100	96	93	97	94	92	95	93	91	93	91	89	88
4	103	97	92	89	101	96	92	89	94	90	88	92	89	87	90	88	86	84
5	99	93	88	85	98	92	88	85	90	87	84	89	86	83	87	85	82	81
6	96	89	85	81	95	88	84	81	87	83	80	86	82	80	84	82	79	78
7	93	86	81	78	92	85	81	78	84	80	77	83	80	77	82	79	77	76
8	90	83	78	75	89	82	78	75	81	77	75	80	77	74	79	76	74	73
9	87	80	75	72	86	79	75	72	79	75	72	78	74	72	77	74	72	71
10	85	77	73	70	84	77	73	70	76	72	70	76	72	70	75	72	69	68

LAMPS (number of lamps)

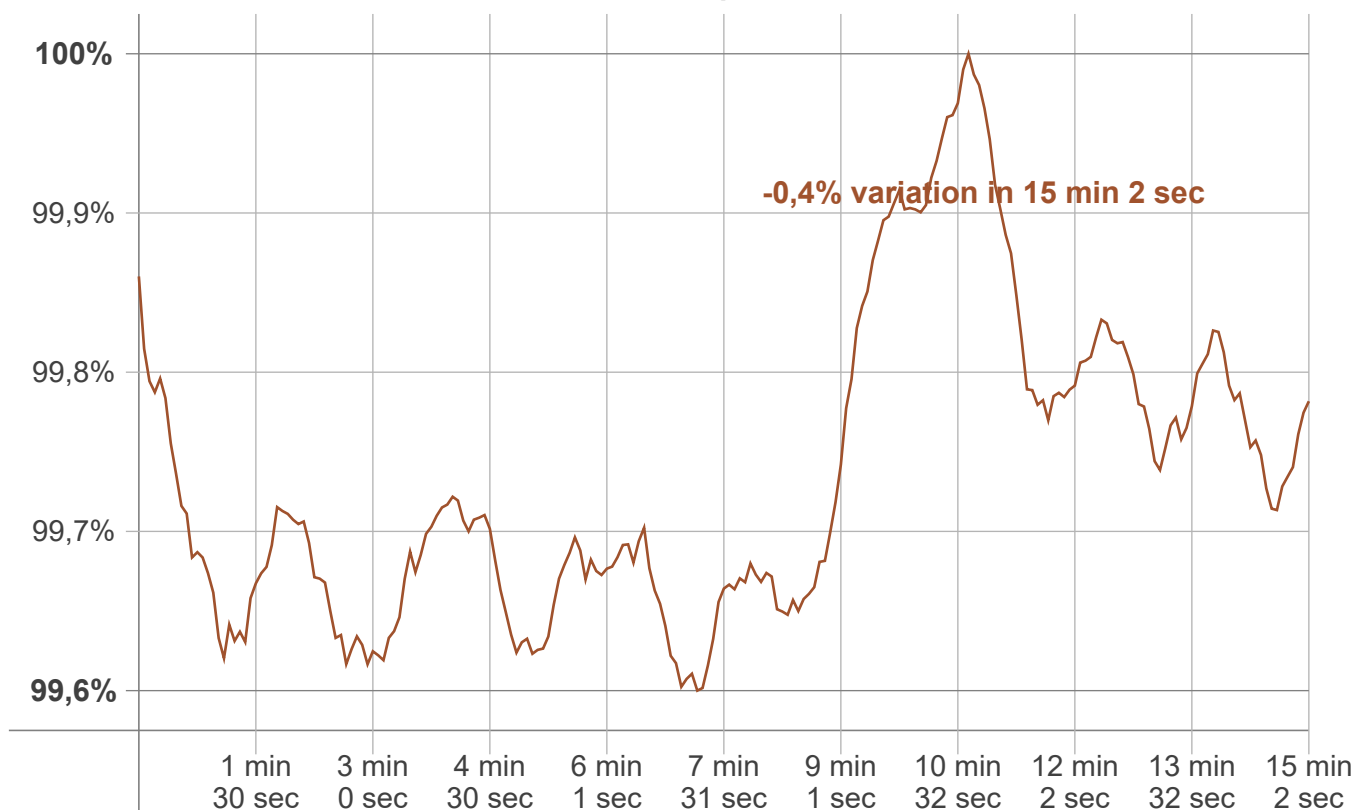
Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
31,1 lm	43,6 lm	23,2 lm	5,87 lm	0,946 lm	0,580 lm	0,437 lm	0,343 lm	0,215 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0,074 lm	0,070 lm	0,031 lm	0,021 lm	0,018 lm	0,014 lm	0,011 lm	0,007 lm	0,002 lm

Warmup curve



Warmup result

Warmup time:	Lamp stabilized in 15 min 2 sec
Warmup variation	-0,4%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
2587 K	-3 K	2584 K

Output change

Output start	Output change	Output end
107 lm	lm	106 lm