

**Light efficiency:**

**55 Lumen/Watt**

**Light quality:**

**CRI: 91,4**

**Color temperature:**

**2585 K**

**Output: 102 lm**

**Peak: 794 cd**

**Power: 1,9 W**

**PF: 1,0**



**Product name:**

**PicoSpot<sup>3</sup>-927-LSST-500mA**

**Item number:**

**FLNP/PS1C/C01/0108/927/LSST/16558**

**Date and time:**

**28.07.2021 08:54:27**

**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:**

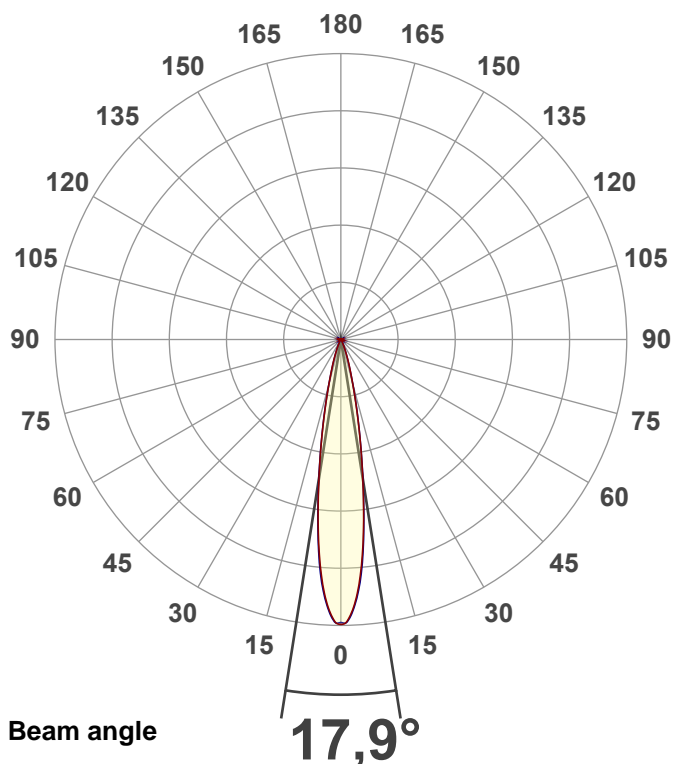
**Peter Ulrich**

**Pruefort:**

**Lichtlabor**

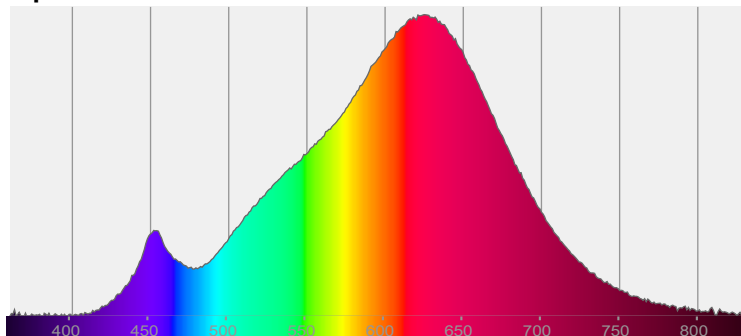
**Gaustrasse13**

**55411 Bingen am Rhein**



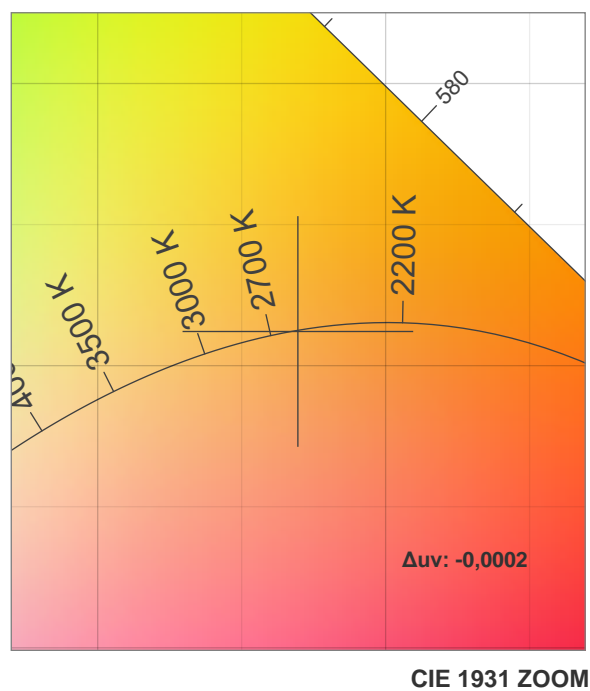
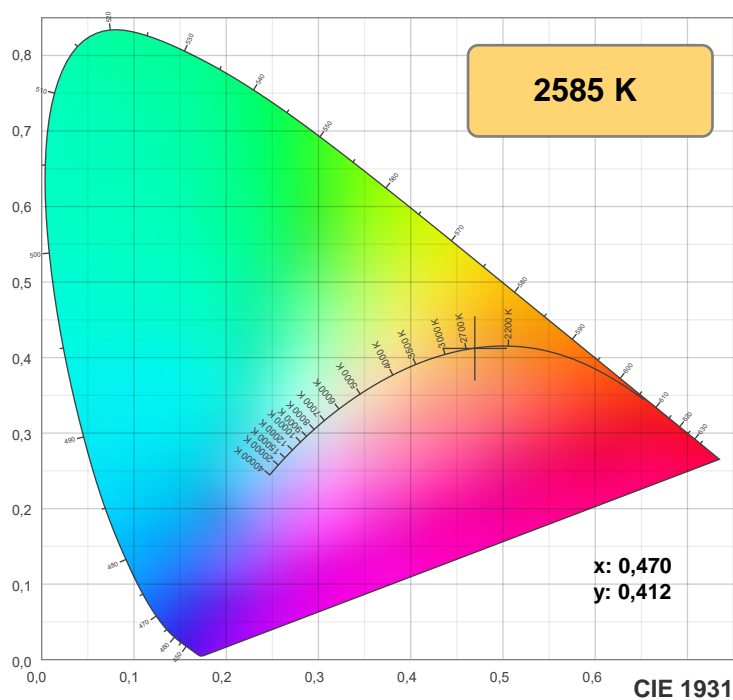
**CIE 1931**  
**x: 0,470**  
**y: 0,412**

**Spectra**

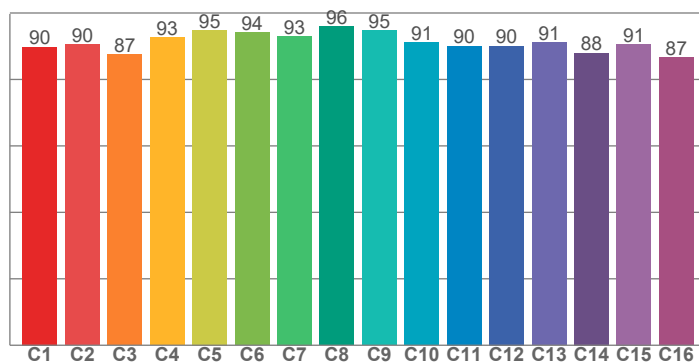


**Power**

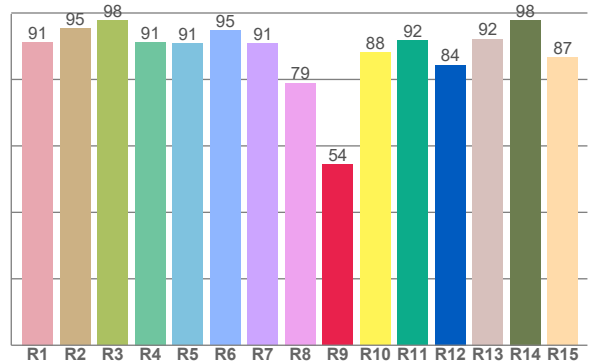
**Voltage: 3,81 V**  
**Current: 0,490 A**  
**Frequency: 0 Hz**



TM30: 91,2



CRI: 91,4 (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
91,2	95,3	97,7	91,3	90,7	94,8	90,9	79,0	54,3	88,0	91,7	84,4	92,2	97,8	86,7

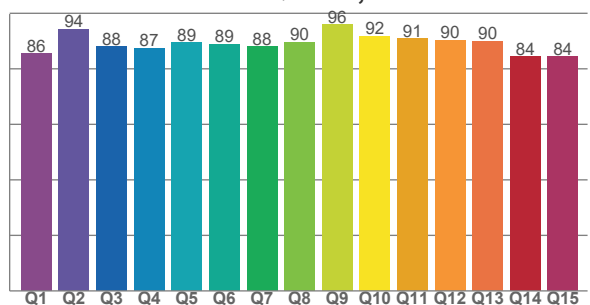
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,8	90,5	87,5	92,6	94,8	94,1	93,0	95,9	94,8	91,1	90,1	90,1	91,1	88,0	90,6	86,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
85,5	94,3	88,0	87,5	89,4	88,9	88,0	89,6	95,9	91,8	90,9	90,3	90,0	84,3	84,5

CQS: 88,6



## 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
2585 K	91,4	54,3	91,2	99,8	88,6	0,470	0,412	0,268	0,353	-0,0002

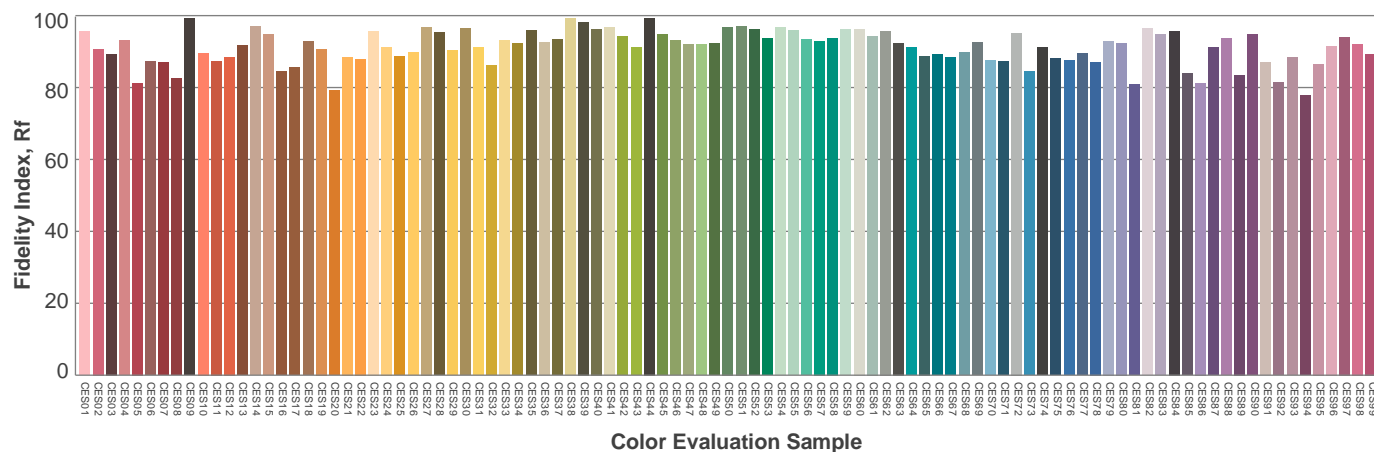
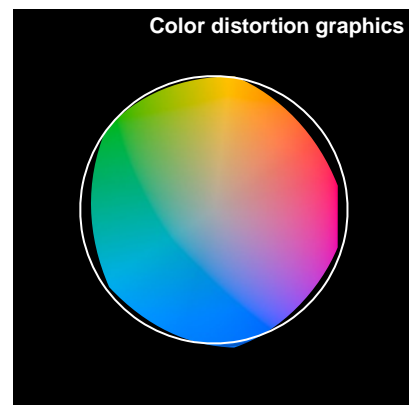
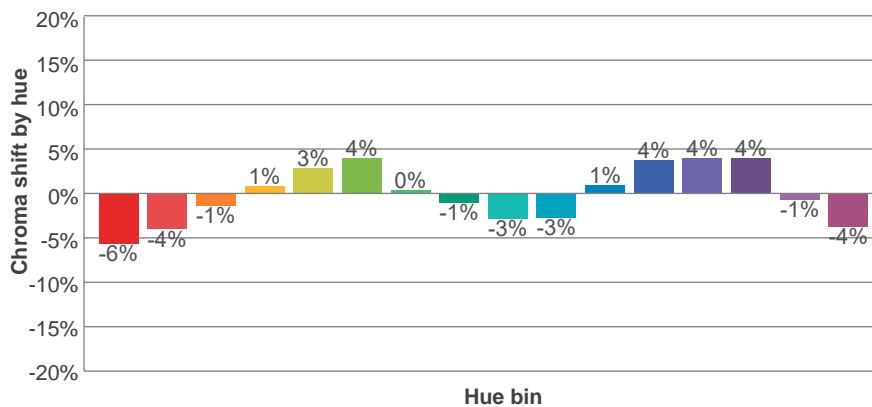
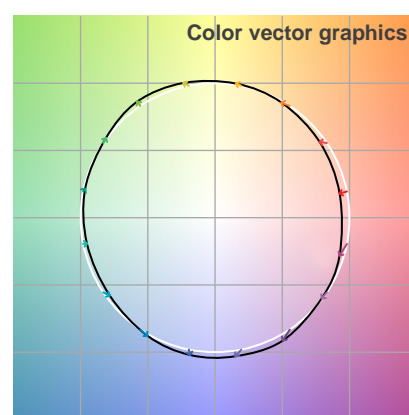
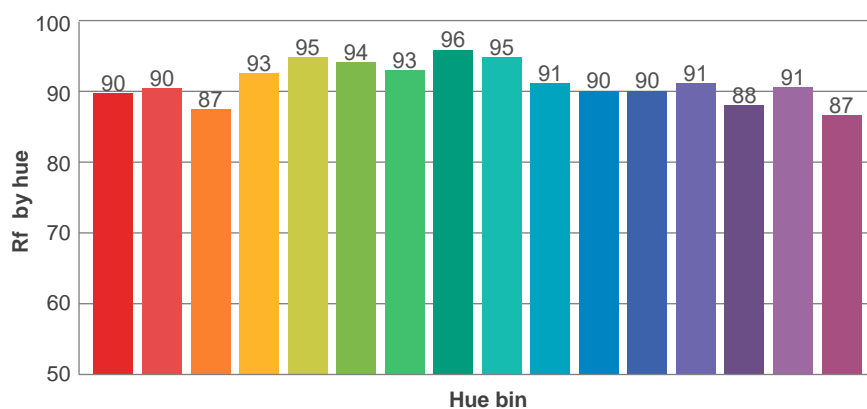
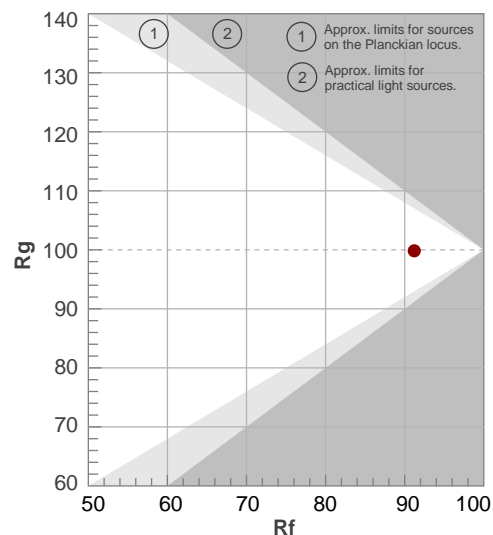
**Rf 91,2**

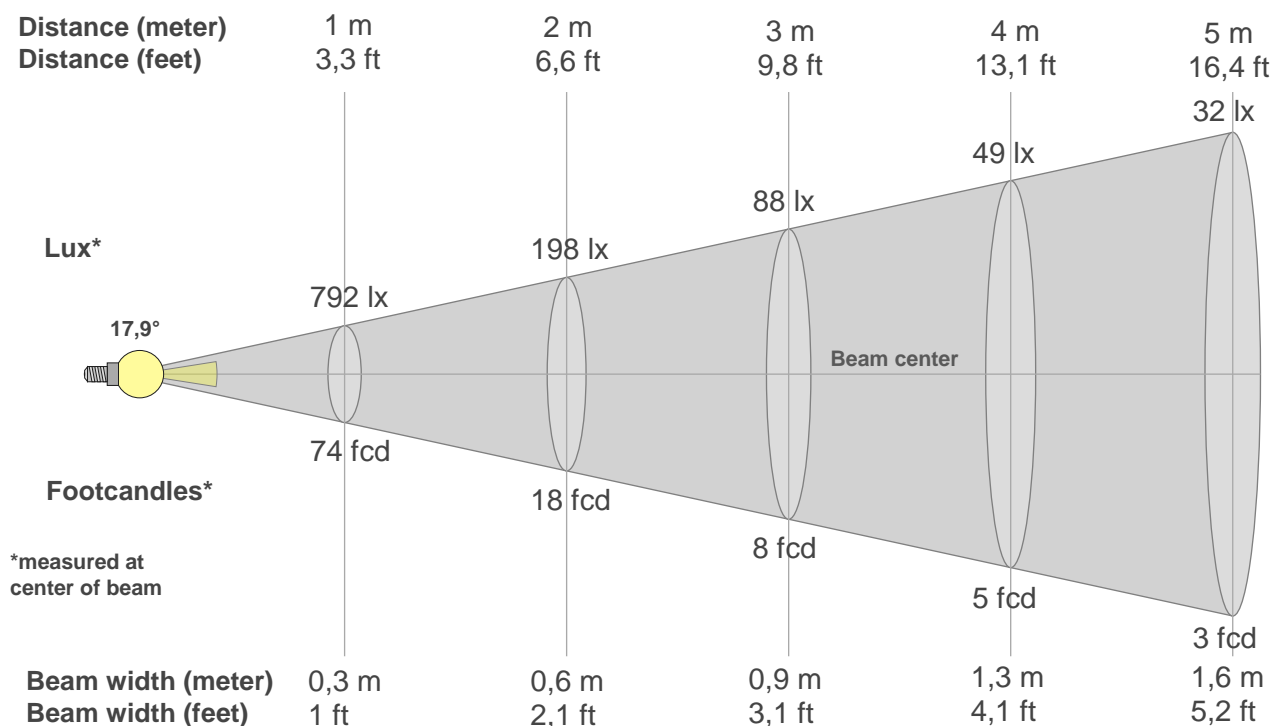
Fidelity index Rf

**Rg 99,8**

Gammut index Rg

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	90	-6%	0%
2	90	-4%	4%
3	87	-1%	7%
4	93	1%	4%
5	95	3%	4%
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
792lx	198lx	88lx	49lx	32lx	22lx	16lx	12lx	10lx	8lx	7lx	5lx	5lx	4lx	4lx	3lx	3lx	2lx	2lx	2lx
73,5fcd	18,4fcd	8,2fcd	4,6fcd	2,9fcd	2fcd	1,5fcd	1,1fcd	0,9fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd

## 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°
792	785	764	733	692	641	582	517	452	389	331	279	232	191	157	129	105	87	73	60
100%	99%	97%	93%	87%	81%	73%	65%	57%	49%	42%	35%	29%	24%	20%	16%	13%	11%	9%	8%

## 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°
792	787	769	739	700	651	591	523	455	391	332	279	233	193	157	127	103	84	68	56
100%	99%	97%	93%	88%	82%	75%	66%	57%	49%	42%	35%	29%	24%	20%	16%	13%	11%	9%	7%

## Intensities in 180° c-plane

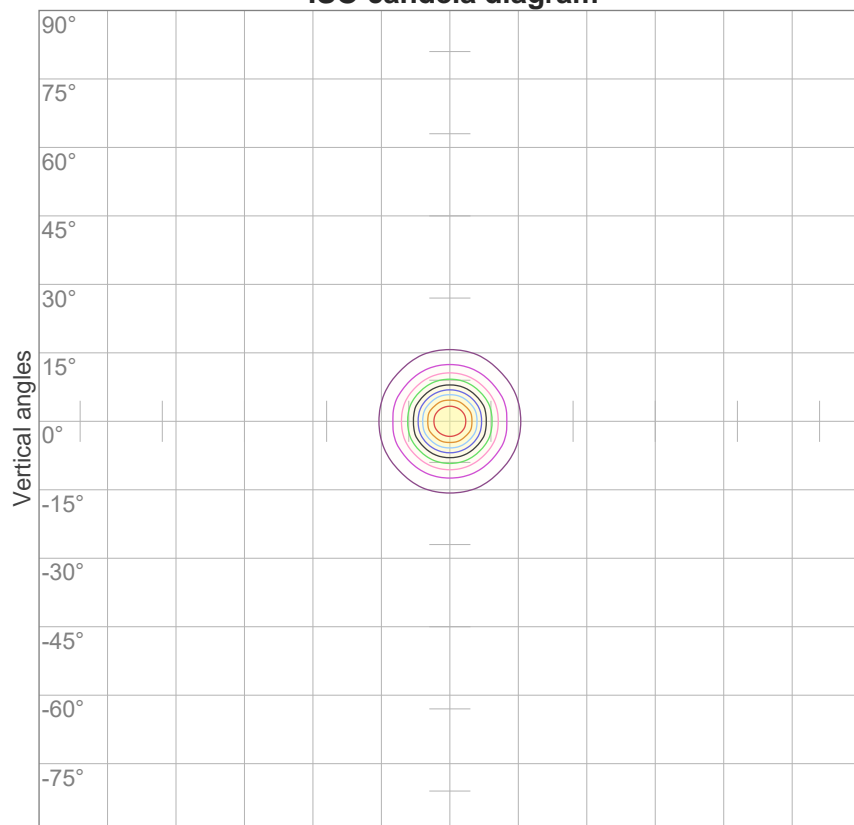
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
792	785	764	733	692	641	582	517	452	389	331	279	232	191	157	129	105	87	73	60
100%	99%	97%	93%	87%	81%	73%	65%	57%	49%	42%	35%	29%	24%	20%	16%	13%	11%	9%	8%

## 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°
792	787	769	739	700	651	591	523	455	391	332	279	233	193	157	127	103	84	68	56
100%	99%	97%	93%	88%	82%	75%	66%	57%	49%	42%	35%	29%	24%	20%	16%	13%	11%	9%	7%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,9°	34,8°	48,1°	99,1%	97,7%

### ISO candela diagram



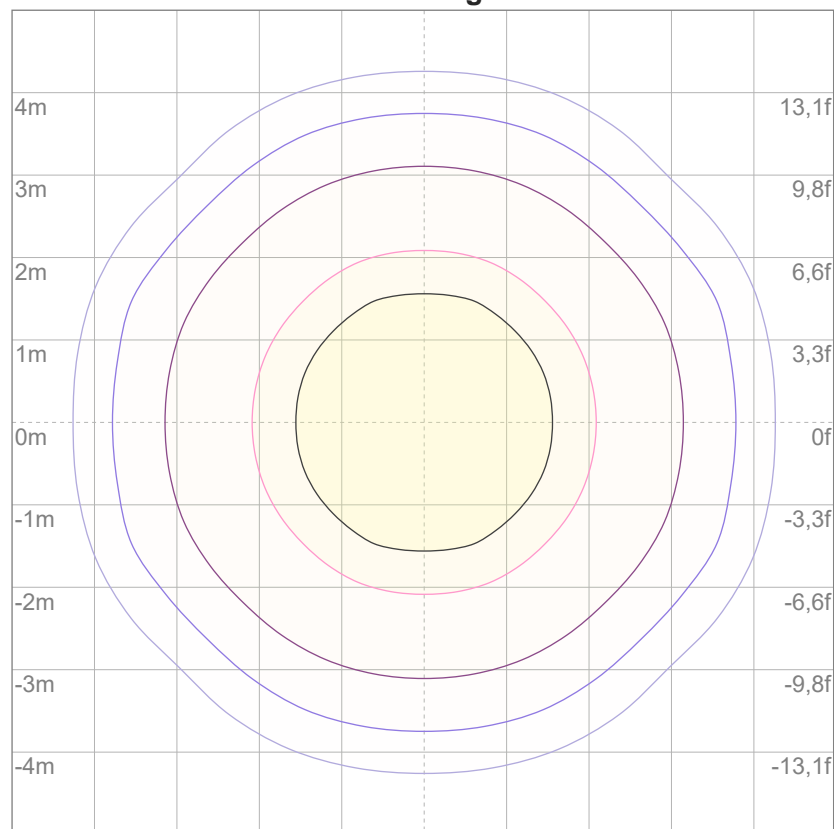
10%	79 cd
20%	158 cd
30%	237 cd
40%	317 cd
50%	396 cd
60%	475 cd
70%	554 cd
80%	633 cd
90%	712 cd

#### Conditions:

Number of c-planes: 16

Candela at center: 792 cd

### ISO lux diagram



3%	0,237 lx
5%	0,396 lx
10%	0,792 lx
30%	2,37 lx
50%	3,96 lx

#### Conditions:

Number of c-planes: 16

Lux at center: 7,92 lx

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

### Glare Evaluation According to UGR

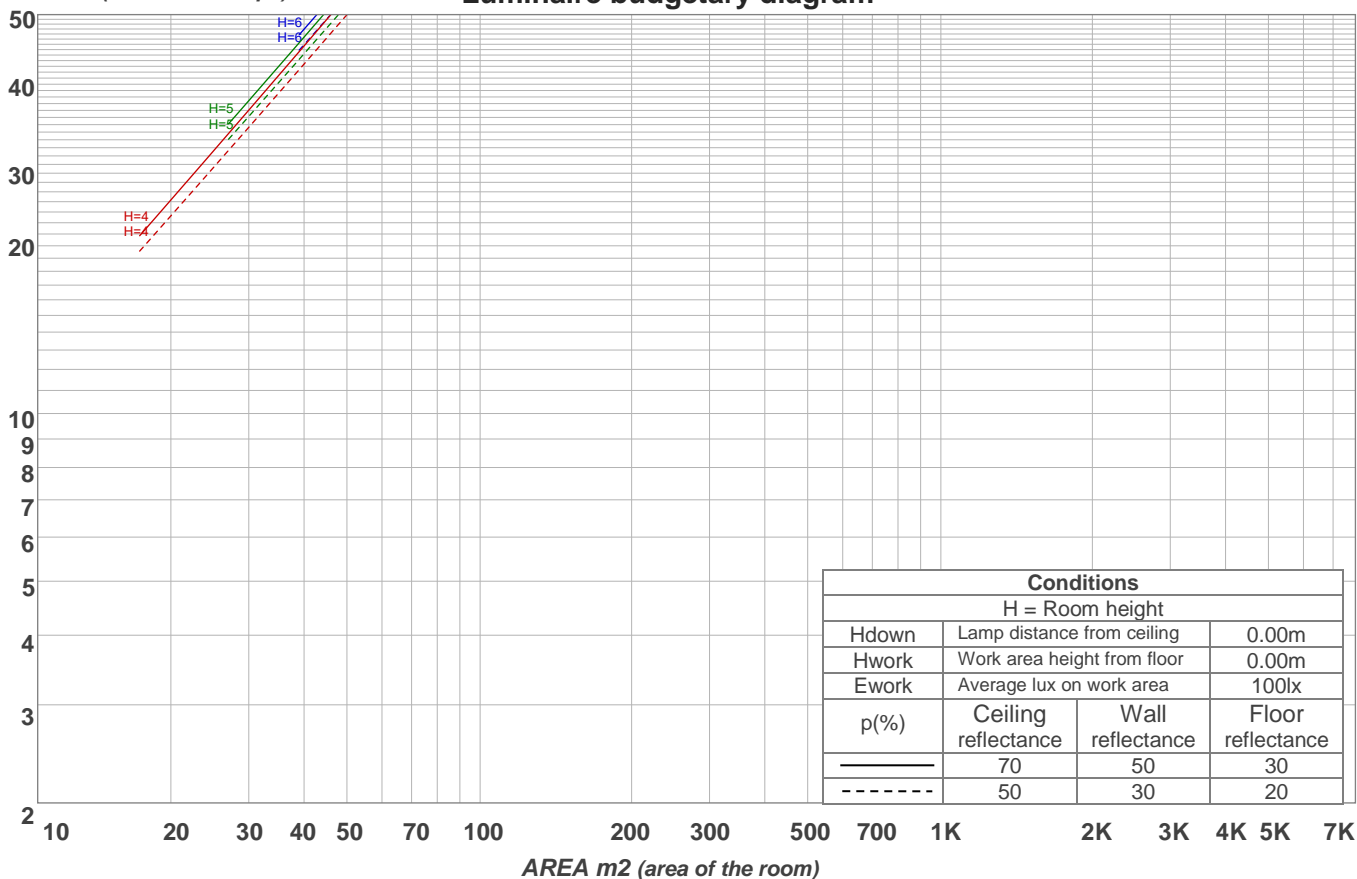
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X      Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	12,5	12,8	12,5	13,0	13,2	11,5	11,8	11,5	12,0	12,2
	3H	12,3	12,8	12,7	13,0	13,2	11,4	11,9	11,8	12,1	12,3
	4H	12,4	12,9	12,7	13,1	13,3	11,5	12,0	11,9	12,2	12,5
	6H	12,5	12,9	12,8	13,2	13,6	11,7	12,1	12,0	12,4	12,7
	8H	12,5	12,9	12,8	13,2	13,6	11,8	12,2	12,1	12,5	12,9
	12H	12,5	12,9	12,8	13,3	13,7	11,8	12,2	12,1	12,5	12,9
4H	2H	12,4	12,9	12,8	13,1	13,3	11,5	12,0	11,9	12,2	12,5
	3H	12,5	12,9	12,9	13,3	13,7	11,8	12,1	12,1	12,5	12,9
	4H	12,5	12,9	13,0	13,3	13,8	11,9	12,2	12,3	12,7	13,2
	6H	12,7	13,1	13,2	13,4	13,8	12,1	12,5	12,6	12,8	13,2
	8H	12,7	13,1	13,2	13,4	13,8	12,2	12,6	12,7	12,9	13,3
	12H	12,7	13,0	13,2	13,4	13,9	12,2	12,5	12,7	12,9	13,4
8H	4H	12,5	12,9	13,0	13,2	13,6	11,9	12,3	12,4	12,6	13,0
	6H	12,7	13,0	13,2	13,4	14,0	12,2	12,4	12,7	12,9	13,4
	8H	12,9	13,1	13,4	13,6	14,2	12,4	12,6	12,9	13,1	13,7
	12H	13,0	13,1	13,6	13,6	14,2	12,6	12,7	13,2	13,2	13,8
12H	4H	12,5	12,8	13,0	13,2	13,6	11,8	12,1	12,3	12,5	13,0
	6H	12,8	13,0	13,3	13,5	14,1	12,2	12,4	12,7	12,9	13,6
	8H	12,9	13,1	13,5	13,6	14,2	12,4	12,6	13,0	13,1	13,7
Variation of the observer position for the luminaire distance S											
S = 1.0H		2,4 / -1,3					2,0 / -1,0				
S = 1.5H		4,1 / -3,2					3,7 / -2,5				
S = 2.0H		5,7 / -3,8					5,3 / -2,7				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 102 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	113	111	110	113	111	109	108	107	106	105	103	102	102	100	99	99	97
2	112	108	106	103	110	107	104	102	104	102	100	101	99	98	98	97	96	94
3	109	104	101	98	107	103	100	98	101	98	96	98	96	95	96	95	93	92
4	106	101	97	95	104	100	97	94	98	95	93	96	94	92	94	92	91	90
5	103	98	94	91	102	97	94	91	95	93	90	94	91	90	93	91	89	88
6	101	95	91	89	100	95	91	89	93	90	88	92	89	87	91	89	87	86
7	99	93	89	87	98	92	89	86	91	88	86	90	87	85	89	87	85	84
8	96	91	87	84	96	90	87	84	89	86	84	88	86	84	88	85	83	83
9	94	89	85	83	94	88	85	83	87	84	82	87	84	82	86	84	82	81
10	93	87	83	81	92	86	83	81	86	83	81	85	82	81	85	82	80	80

LAMPS (number of lamps)

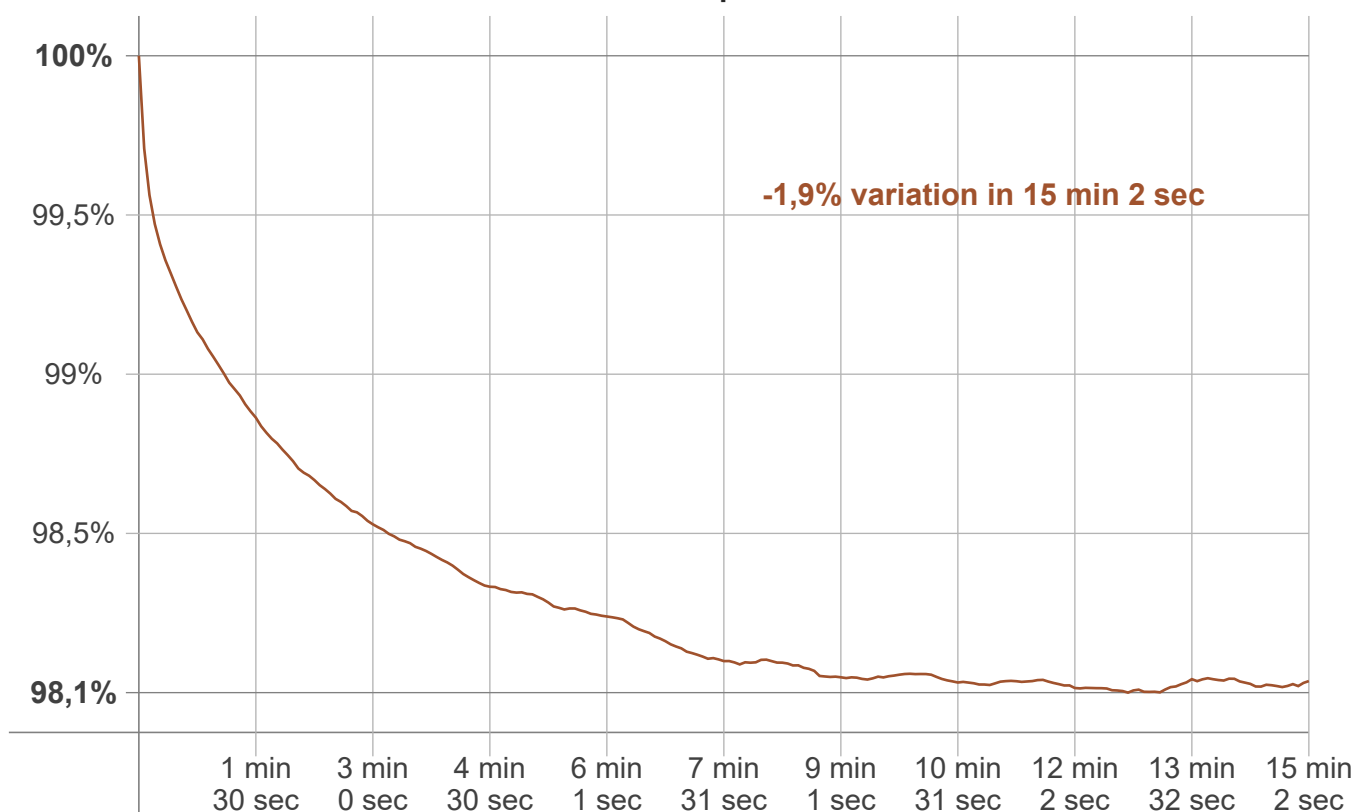
## Luminaire budgetary diagram



## Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
51,0 lm	38,1 lm	8,49 lm	1,81 lm	0,815 lm	0,972 lm	0,300 lm	0,245 lm	0,184 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0,085 lm	0,036 lm	0,029 lm	0,026 lm	0,019 lm	0,013 lm	0,009 lm	0,006 lm	0,002 lm

### Warmup curve



### Warmup result

Warmup time:	Lamp stabilized in 15 min 2 sec
Warmup variation	-1,9%

### Warmup conditions

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

### Color temperature change

CCT start	CCT change	CCT end
2593 K	-8 K	2585 K

### Output change

Output start	Output change	Output end
103 lm	-1 lm	102 lm