

Light efficiency:

80 Lumen/Watt

Light quality:

CRI: 93,6

Color temperature:

2992 K

Output: 805 lm

Peak: 6458 cd

Power: 10,1 W

PF: 1,0



Product name:

Focus-4-1CH-Darklite-0258-930-LSNT-10770-BA

Item number:

FLDL-F1C-D0258-930-LSNT-10770-BA

Date and time:

02.02.2021 11:16:27

Description:

Rank: P4-7D2

Toleranzen:

Lumen +/-4%

Candela +/-2,5%

Colour Temp +/-35 Grad K

CRI +/-0,7

Angular Resolution 1 Grad step

Last Calibration 20.05.2020

Pruefer:

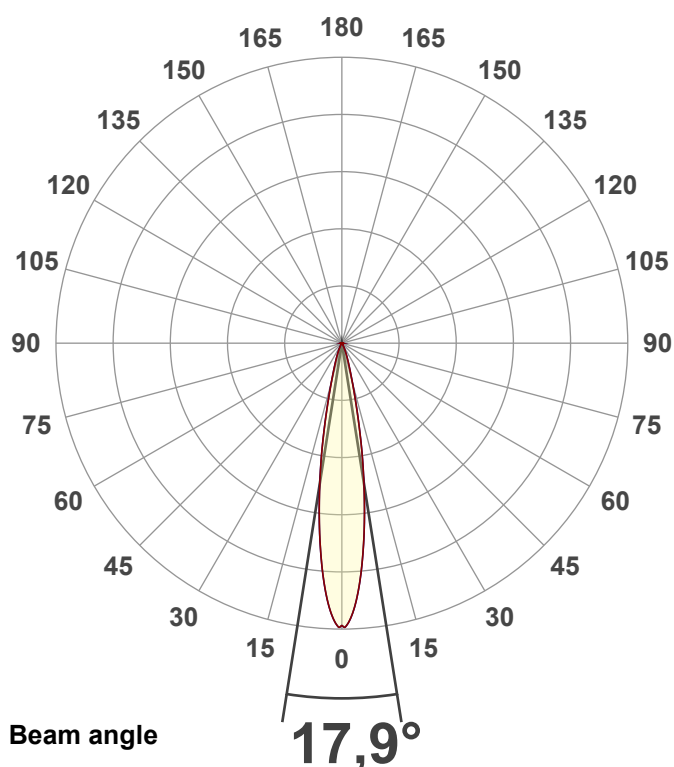
Peter Ulrich

Pruefort:

Lichtlabor

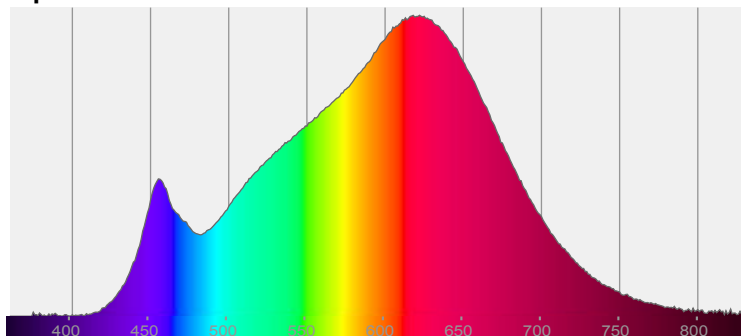
Gaustrasse13-15

55411 Bingen am Rhein

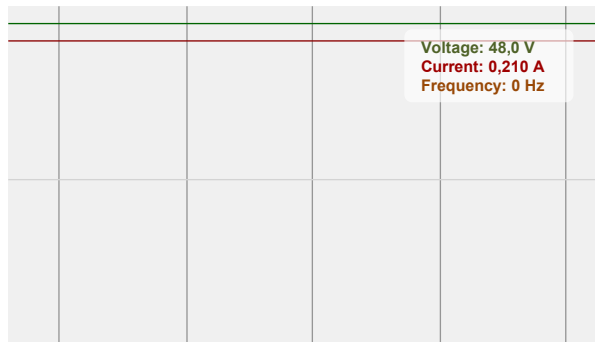


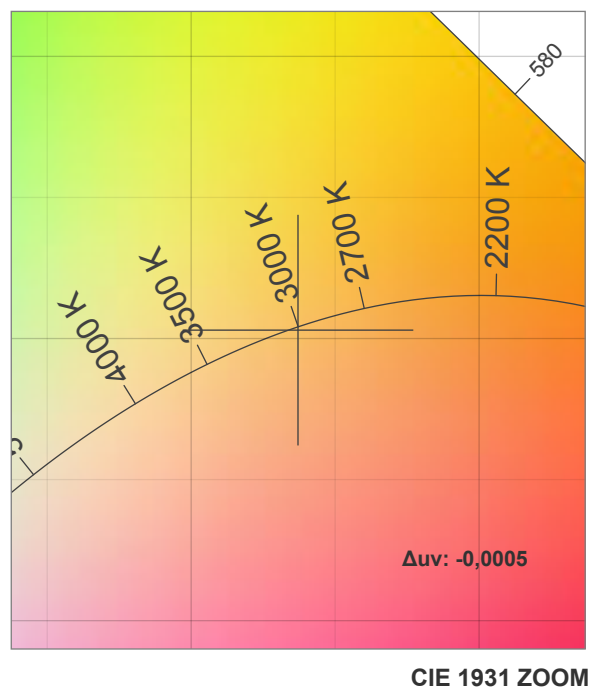
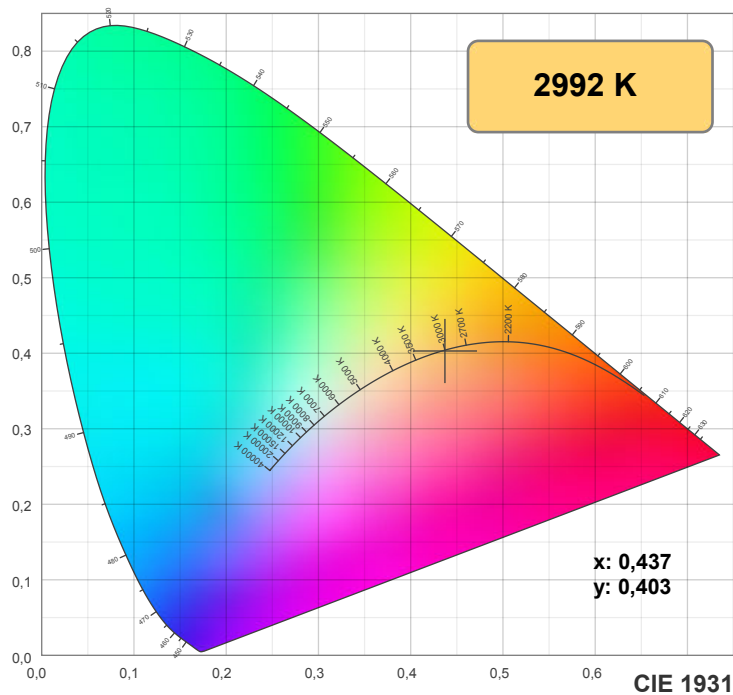
CIE 1931
x: 0,437
y: 0,403

Spectra

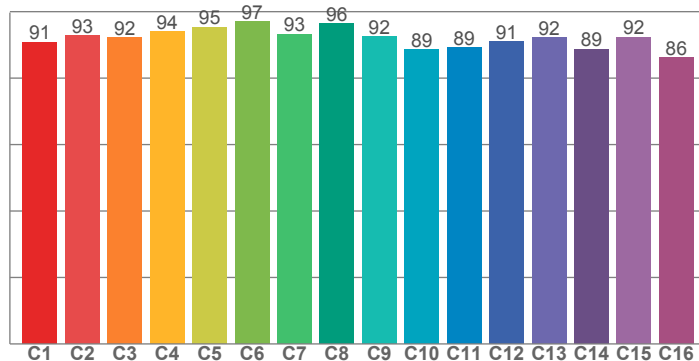


Power

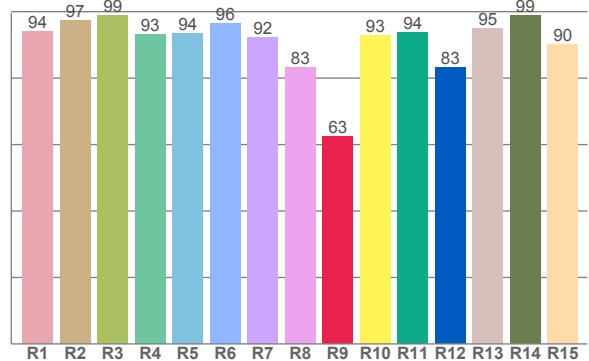




TM30: 92,0



CRI: 93,6 (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
94,0	97,5	98,8	93,2	93,5	96,5	92,1	83,1	62,6	92,7	93,7	83,2	95,1	98,9	90,1

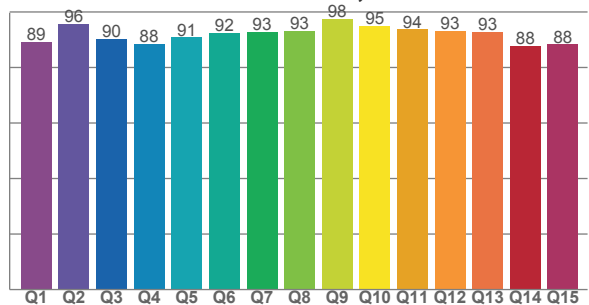
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90,8	92,8	92,1	94,0	95,4	96,9	93,3	96,4	92,5	88,7	89,1	91,0	92,1	88,8	92,4	86,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
89,1	95,6	90,1	88,4	90,8	92,4	92,8	93,3	97,5	94,8	93,7	93,1	92,7	87,9	88,3

CQS: 91,5



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
2992 K	93,6	62,6	92,0	98,2	91,5	0,437	0,403	0,251	0,347	-0,0005

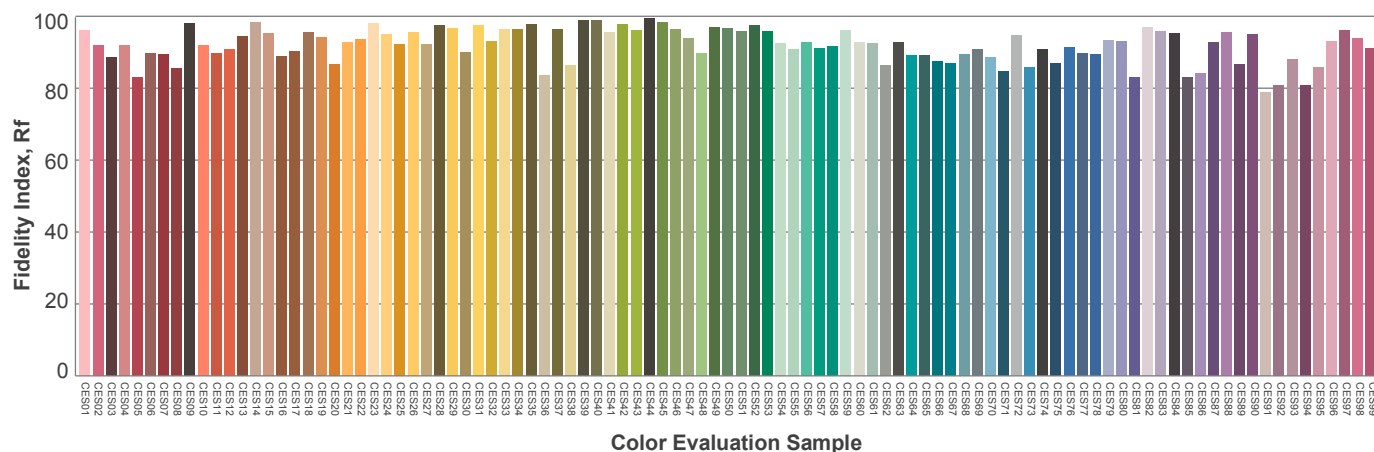
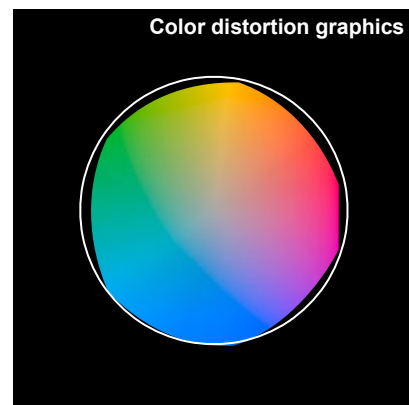
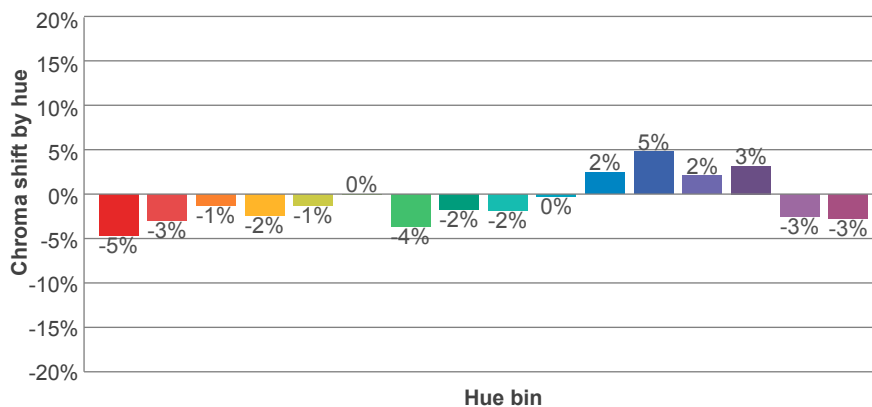
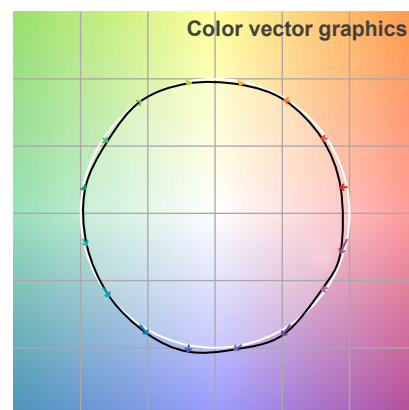
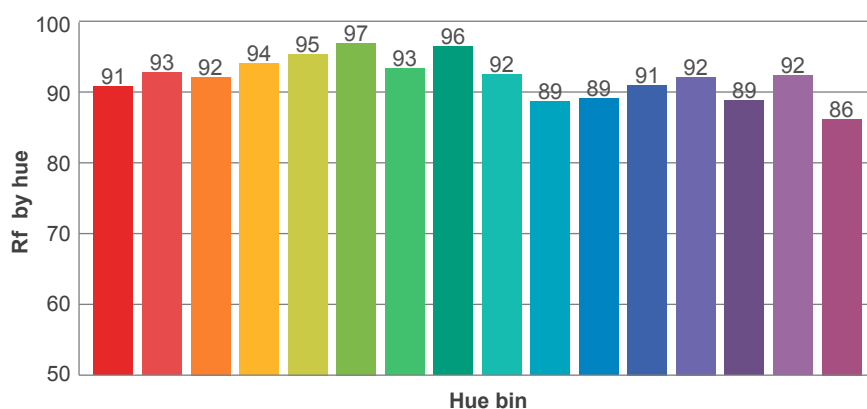
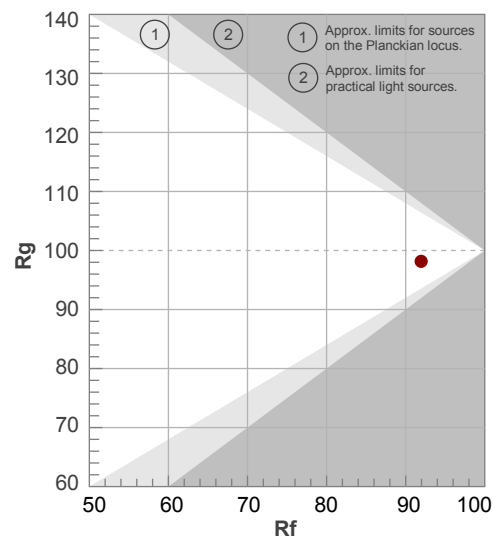
Rf 92,0

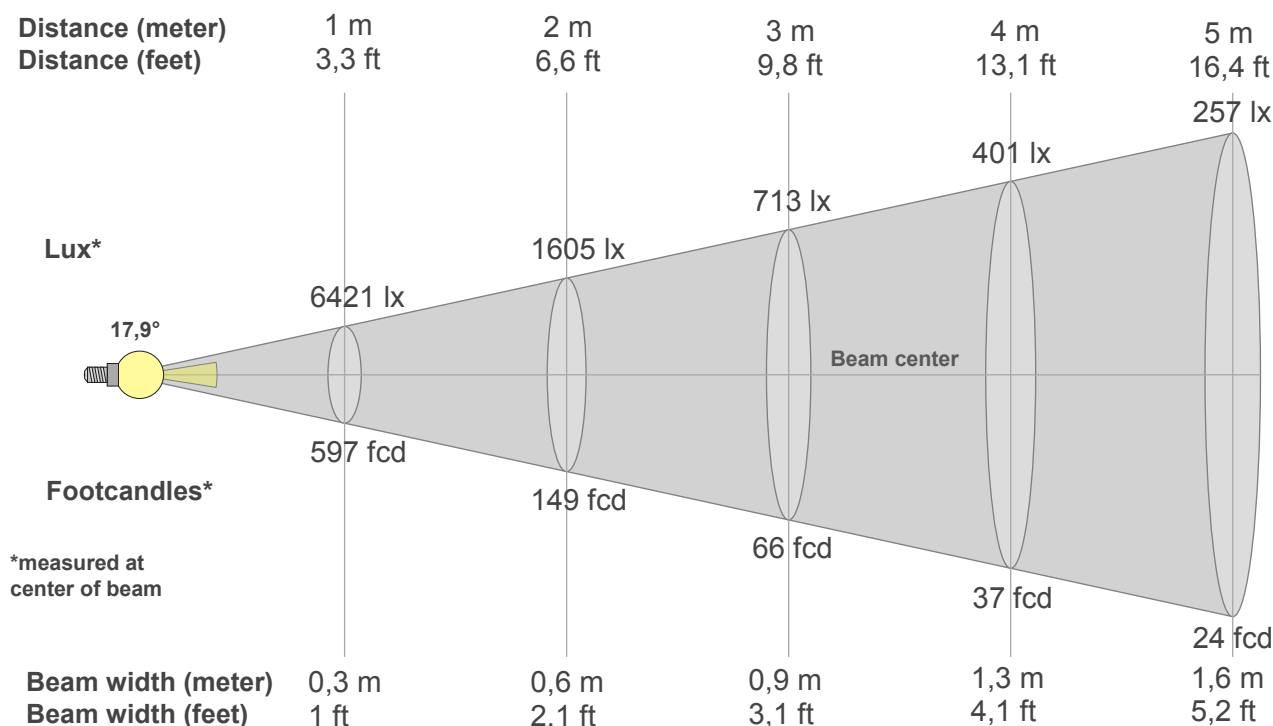
Fidelity index Rf

Rg 98,2

Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	91	-5%	1%
2	93	-3%	2%
3	92	-1%	4%
4	94	-2%	0%
5	95	-1%	2%
6	97	0%	0%
7	93	-4%	0%
8	96	-2%	1%
9	92	-2%	4%
10	89	0%	7%
11	89	2%	8%
12	91	5%	0%
13	92	2%	-5%
14	89	3%	-8%
15	92	-3%	-3%
16	86	-3%	-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
6421lx	1605lx	713lx	401lx	257lx	178lx	131lx	100lx	79lx	64lx	53lx	45lx	38lx	33lx	29lx	25lx	22lx	20lx	18lx	16lx
596,6fcd	149,1fcd	66,3fcd	37,3fcd	23,9fcd	16,6fcd	12,2fcd	9,3fcd	7,4fcd	6fcd	4,9fcd	4,1fcd	3,5fcd	3fcd	2,7fcd	2,3fcd	2,1fcd	1,8fcd	1,7fcd	1,5fcd

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°
6421	6408	6212	5926	5560	5135	4668	4184	3687	3198	2723	2261	1828	1458	1161	927	746	613	507	423
100%	100%	97%	92%	87%	80%	73%	65%	57%	50%	42%	35%	28%	23%	18%	14%	12%	10%	8%	7%

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°
6421	6408	6212	5926	5560	5135	4668	4184	3687	3198	2723	2261	1828	1458	1161	927	746	613	507	423
100%	100%	97%	92%	87%	80%	73%	65%	57%	50%	42%	35%	28%	23%	18%	14%	12%	10%	8%	7%

Intensities in 180° c-plane

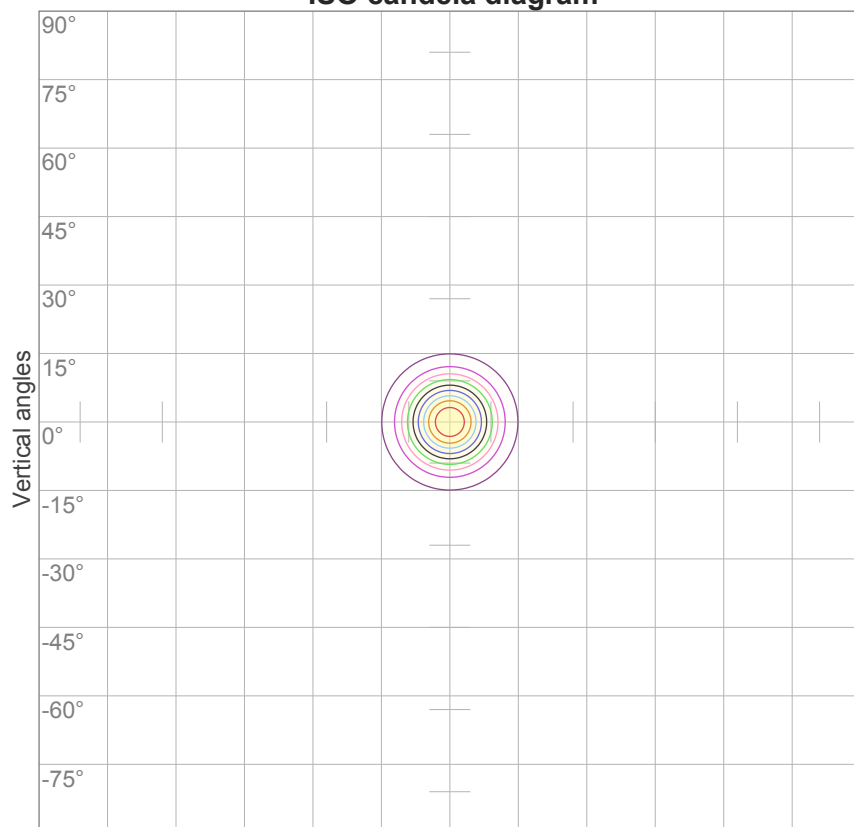
0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
6421	6408	6212	5926	5560	5135	4668	4184	3687	3198	2723	2261	1828	1458	1161	927	746	613	507	423
100%	100%	97%	92%	87%	80%	73%	65%	57%	50%	42%	35%	28%	23%	18%	14%	12%	10%	8%	7%

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°
6421	6408	6212	5926	5560	5135	4668	4184	3687	3198	2723	2261	1828	1458	1161	927	746	613	507	423
100%	100%	97%	92%	87%	80%	73%	65%	57%	50%	42%	35%	28%	23%	18%	14%	12%	10%	8%	7%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
17,9°	33,4°	48,4°	98,3%	97,5%

ISO candela diagram



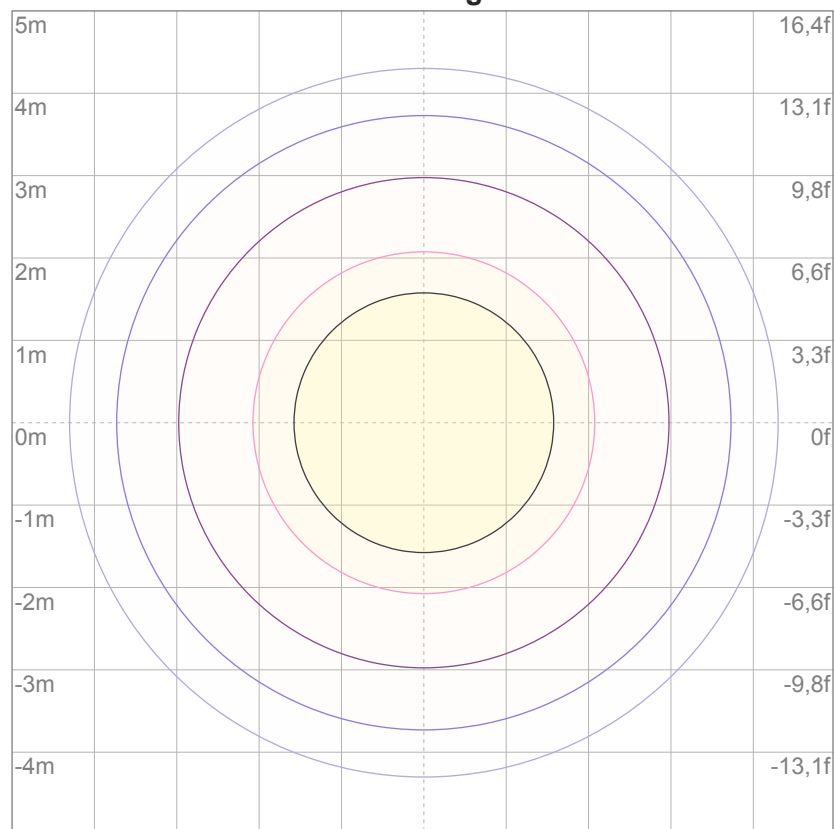
10%	642 cd
20%	1284 cd
30%	1926 cd
40%	2568 cd
50%	3211 cd
60%	3853 cd
70%	4495 cd
80%	5137 cd
90%	5779 cd

Conditions:

Number of c-planes: 16

Candela at center: 6421 cd

ISO lux diagram



3%	1,93 lx
5%	3,21 lx
10%	6,42 lx
30%	19,3 lx
50%	32,1 lx

Conditions:

Number of c-planes: 16

Lux at center: 64,2 lx

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

Glare Evaluation According to UGR

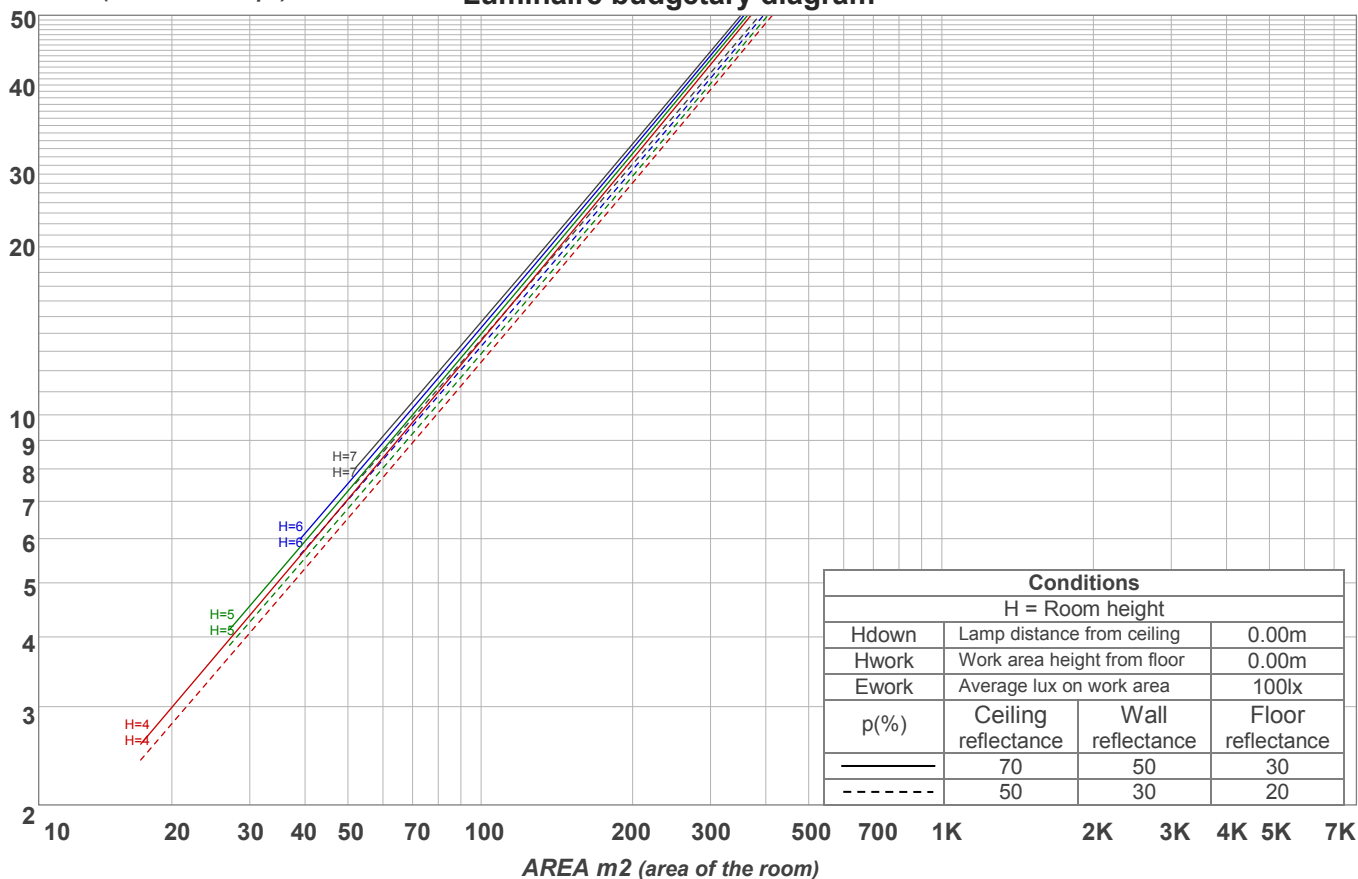
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	4,1	4,4	4,1	4,6	4,8	4,1	4,4	4,1	4,6	4,8
	3H	4,8	5,3	5,2	5,5	5,7	4,8	5,3	5,2	5,5	5,7
	4H	5,3	5,8	5,7	6,0	6,3	5,3	5,8	5,7	6,0	6,3
	6H	6,1	6,5	6,4	6,8	7,1	6,1	6,5	6,4	6,8	7,1
	8H	6,5	6,9	6,8	7,2	7,6	6,5	6,9	6,8	7,2	7,6
	12H	7,1	7,4	7,4	7,8	8,2	7,1	7,4	7,4	7,8	8,2
4H	2H	4,3	4,8	4,7	5,0	5,2	4,3	4,8	4,7	5,0	5,2
	3H	5,5	5,8	5,8	6,2	6,6	5,5	5,8	5,8	6,2	6,6
	4H	6,1	6,4	6,5	6,9	7,4	6,1	6,4	6,5	6,9	7,4
	6H	7,0	7,4	7,5	7,7	8,1	7,0	7,4	7,5	7,7	8,1
	8H	7,5	8,0	8,1	8,3	8,6	7,5	8,0	8,1	8,3	8,6
	12H	8,2	8,5	8,7	9,0	9,4	8,2	8,5	8,7	9,0	9,4
8H	4H	6,4	6,8	6,9	7,1	7,5	6,4	6,8	6,9	7,1	7,5
	6H	7,6	7,8	8,1	8,3	8,8	7,6	7,8	8,1	8,3	8,8
	8H	8,4	8,6	8,9	9,1	9,7	8,4	8,6	8,9	9,1	9,7
	12H	9,3	9,5	9,9	10,0	10,6	9,3	9,5	9,9	10,0	10,6
12H	4H	6,4	6,7	6,9	7,1	7,6	6,4	6,7	6,9	7,1	7,6
	6H	7,8	8,0	8,3	8,5	9,1	7,8	8,0	8,3	8,5	9,1
	8H	8,6	8,8	9,2	9,3	9,9	8,6	8,8	9,2	9,3	9,9
Variation of the observer position for the luminaire distance S											
S = 1.0H		0,5 / -0,2					0,5 / -0,2				
S = 1.5H		1,2 / -0,2					1,2 / -0,2				
S = 2.0H		1,8 / -0,6					1,8 / -0,6				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 805 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	115	113	111	110	113	111	109	108	107	106	104	103	102	101	99	99	98	96
2	112	108	106	103	110	107	104	102	103	101	100	100	99	97	98	96	95	94
3	109	104	101	98	107	103	100	98	100	98	96	98	96	94	96	94	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	92	90	94	91	89	92	90	89	88
6	101	95	92	89	100	95	91	89	93	90	88	92	89	87	91	88	87	86
7	99	93	89	87	97	92	89	86	91	88	86	90	87	85	89	87	85	84
8	96	91	87	85	96	90	87	84	89	86	84	88	86	84	88	85	83	82
9	95	89	85	83	94	88	85	83	88	84	82	87	84	82	86	84	82	81
10	93	87	83	81	92	87	83	81	86	83	81	85	83	81	85	82	80	80

LAMPS (number of lamps)

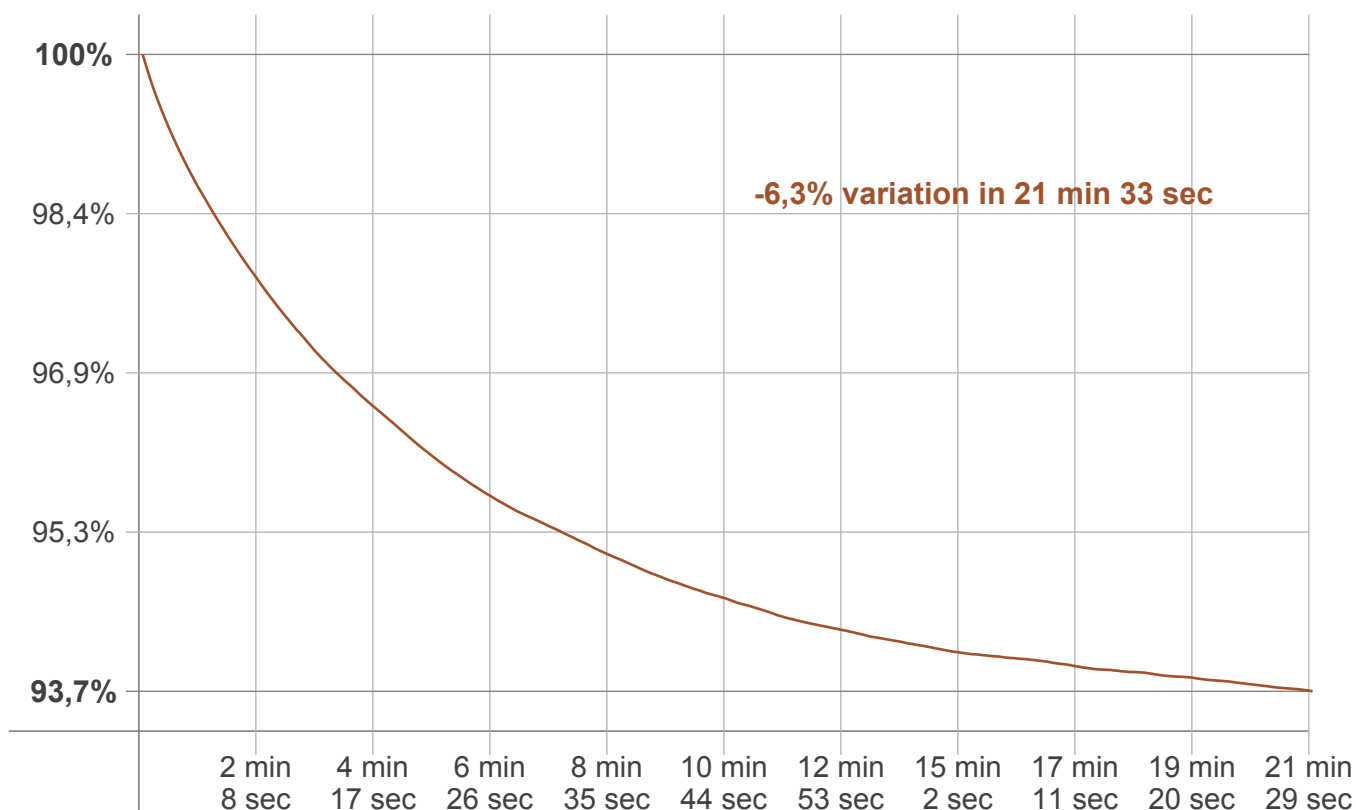
Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
410 lm	289 lm	68,8 lm	14,5 lm	5,78 lm	4,33 lm	3,23 lm	2,00 lm	1,55 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
1,17 lm	1,11 lm	1,04 lm	0,941 lm	0,813 lm	0,659 lm	0,486 lm	0,297 lm	0,100 lm

Warmup curve



Warmup result

Warmup time:	21 min 33 sec
Warmup variation	-6,4%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
3038 K	-46 K	2992 K

Output change

Output start	Output change	Output end
856 lm	-51 lm	805 lm