

Light efficiency:

58 Lumen/Watt

Light quality:

CRI: 93,7

Color temperature:

3006 K

Output: 588 lm

Peak: 1066 cd

Power: 10,1 W

PF: 1,0



Product name:

Focus-4-1CH-Darklite-0258-930-LSLF-10773-BA

Item number:

FLDL-F1C-D0258-930-LSLF-10773-BA

Date and time:

03.02.2021 15:33:24

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:

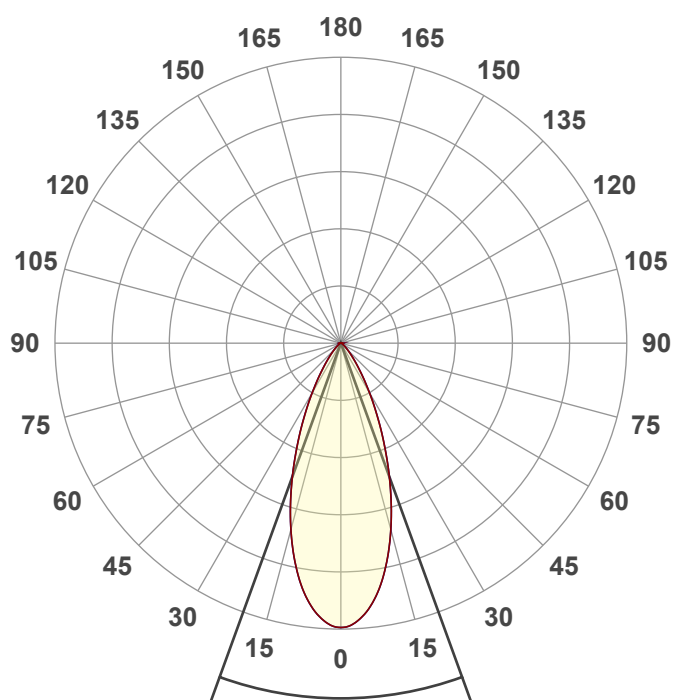
Peter Ulrich

Pruefort:

Lichtlabor

Gaustrasse13-15

55411 Bingen am Rhein



Beam angle

39,9°

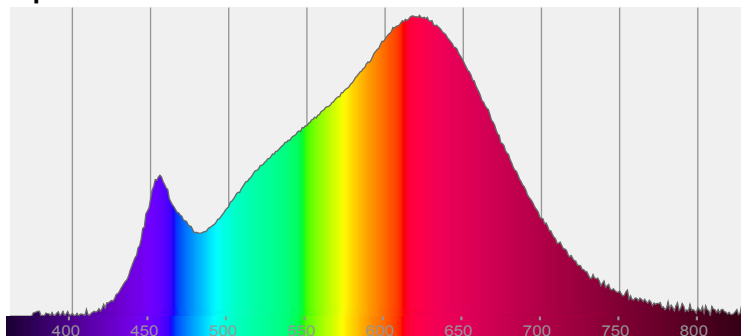


CIE 1931

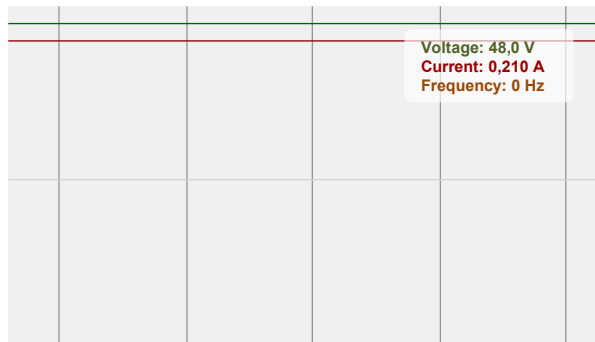
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y: 0,402

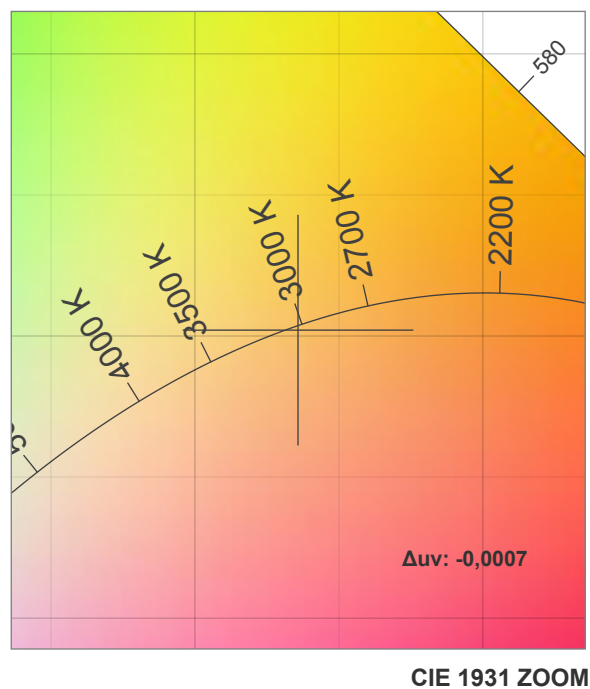
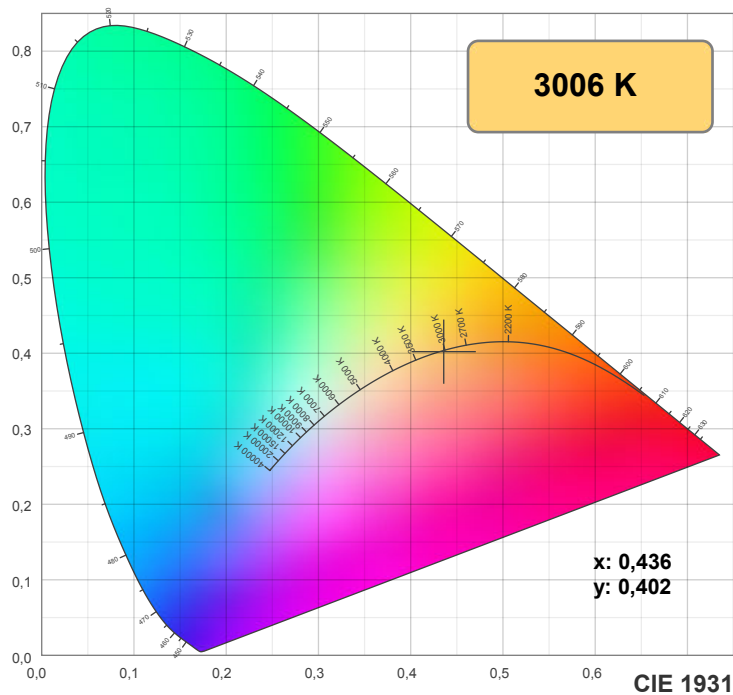
Spectra



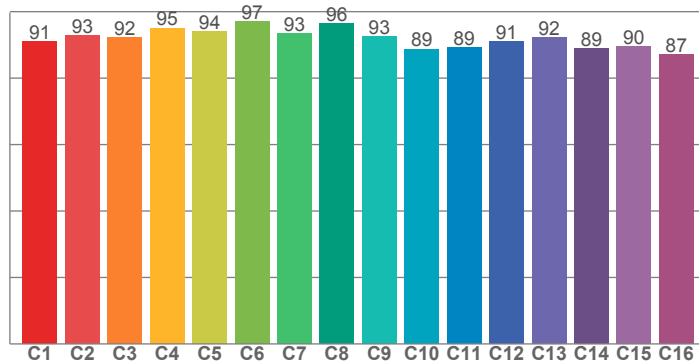
Power



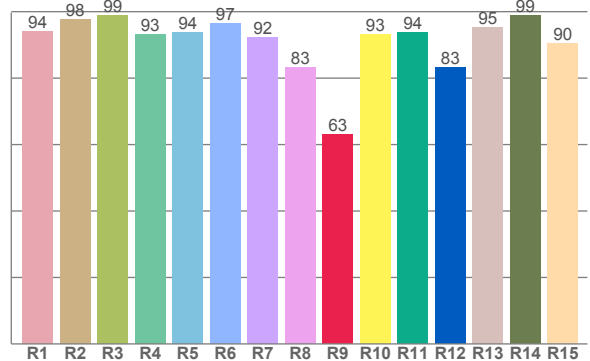
Voltage: 48,0 V
Current: 0,210 A
Frequency: 0 Hz



TM30: 92,0



CRI: 93,7 (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
94,1	97,6	98,8	93,2	93,7	96,5	92,2	83,3	63,2	93,1	93,8	83,3	95,3	98,9	90,4

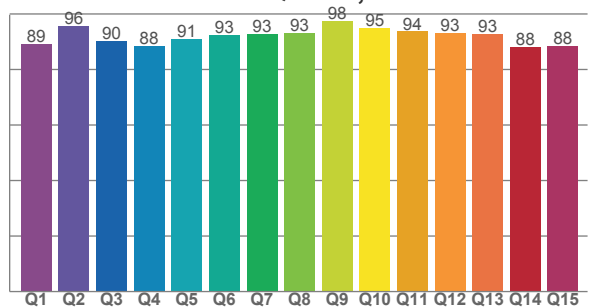
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
90,9	92,9	92,2	95,1	94,1	96,9	93,3	96,5	92,5	88,7	89,2	91,0	92,2	88,9	89,6	87,2

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
89,2	95,7	90,2	88,4	90,9	92,5	92,8	93,3	97,6	94,9	93,7	93,0	92,8	88,1	88,4

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
3006 K	93,7	63,2	92,0	98,3	91,5	0,436	0,402	0,251	0,347	-0,0007

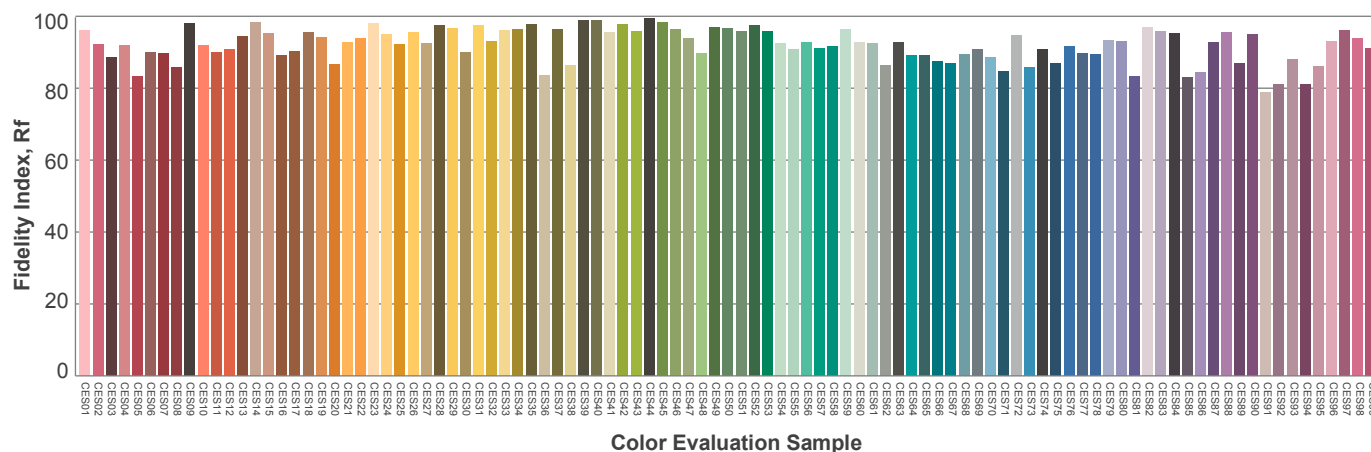
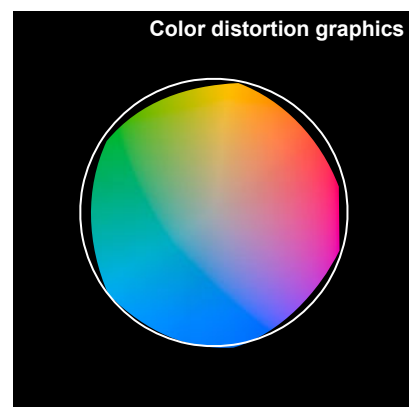
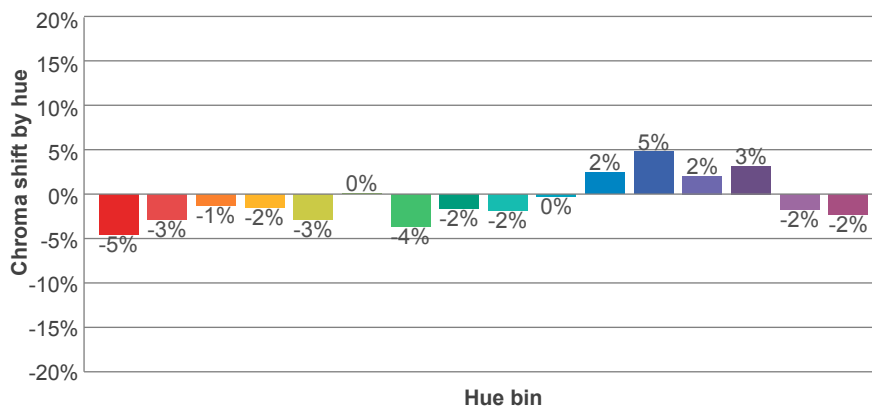
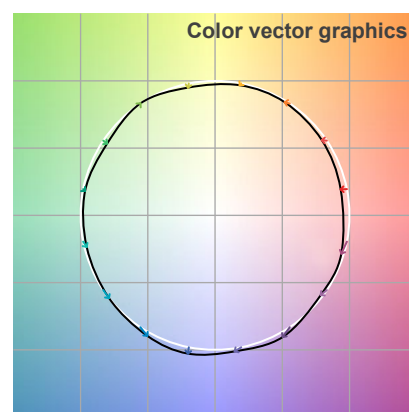
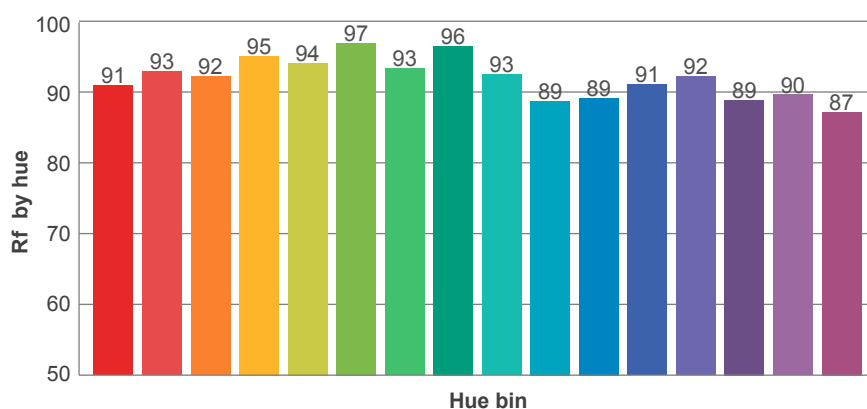
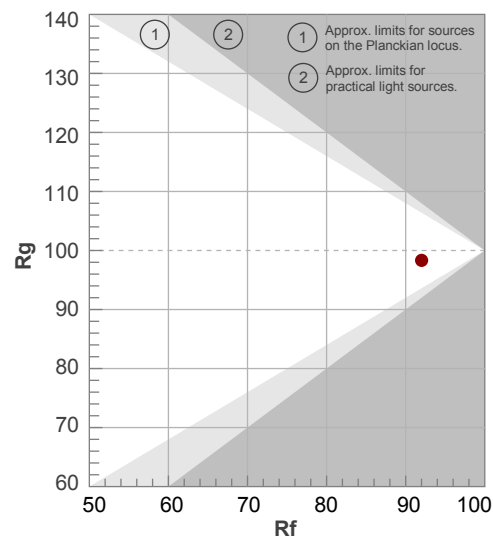
Rf 92,0

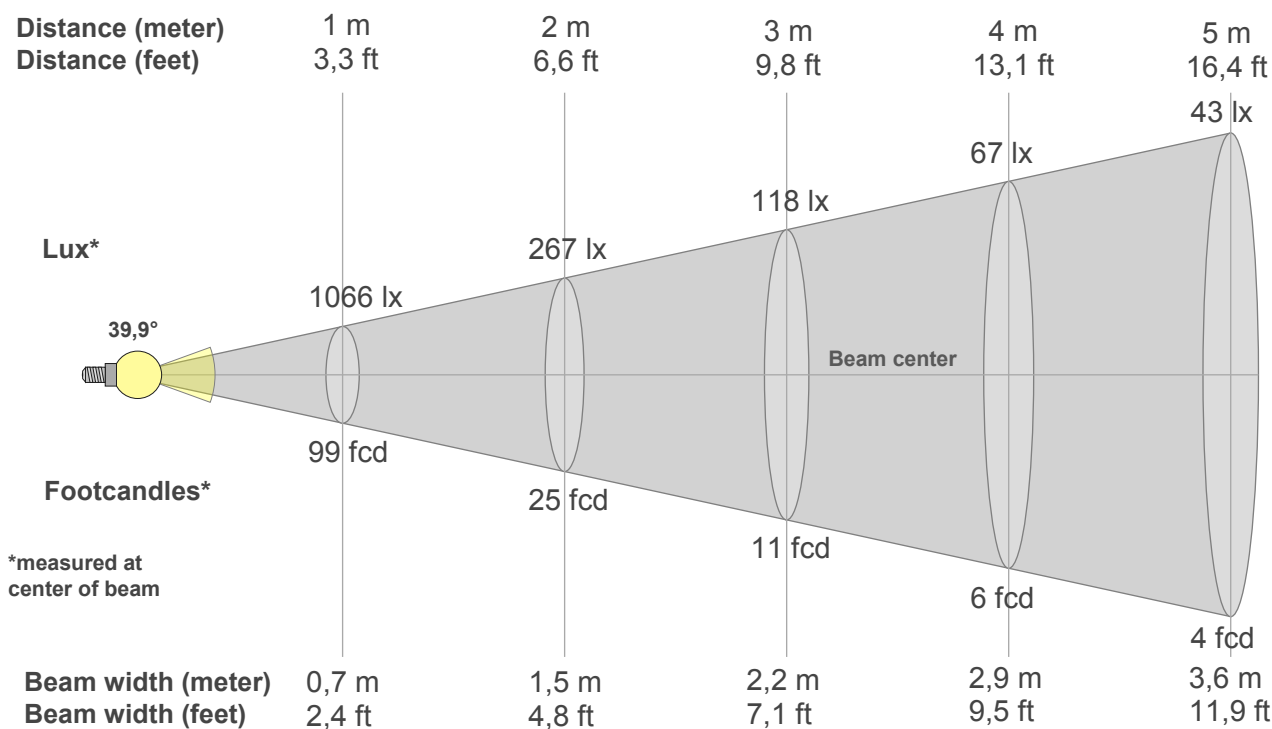
Fidelity index Rf

Rg 98,3

Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	91	-5%	1%
2	93	-3%	2%
3	92	-1%	4%
4	95	-2%	1%
5	94	-3%	1%
6	97	0%	0%
7	93	-4%	0%
8	96	-2%	1%
9	93	-2%	4%
10	89	0%	7%
11	89	2%	8%
12	91	5%	0%
13	92	2%	-5%
14	89	3%	-8%
15	90	-2%	-6%
16	87	-2%	-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
1066lx	267lx	118lx	67lx	43lx	30lx	22lx	17lx	13lx	11lx	9lx	7lx	6lx	5lx	5lx	4lx	4lx	3lx	3lx	3lx
99fcd	24,8fcd	11fcd	6,2fcd	4fcd	2,8fcd	2fcd	1,5fcd	1,2fcd	1fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,3fcd	0,2fcd

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°
1066	1059	1036	1002	955	899	833	761	686	608	531	456	386	322	265	215	172	136	107	85
100%	99%	97%	94%	90%	84%	78%	71%	64%	57%	50%	43%	36%	30%	25%	20%	16%	13%	10%	8%

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°
1066	1059	1036	1002	955	899	833	761	686	608	531	456	386	322	265	215	172	136	107	85
100%	99%	97%	94%	90%	84%	78%	71%	64%	57%	50%	43%	36%	30%	25%	20%	16%	13%	10%	8%

Intensities in 180° c-plane

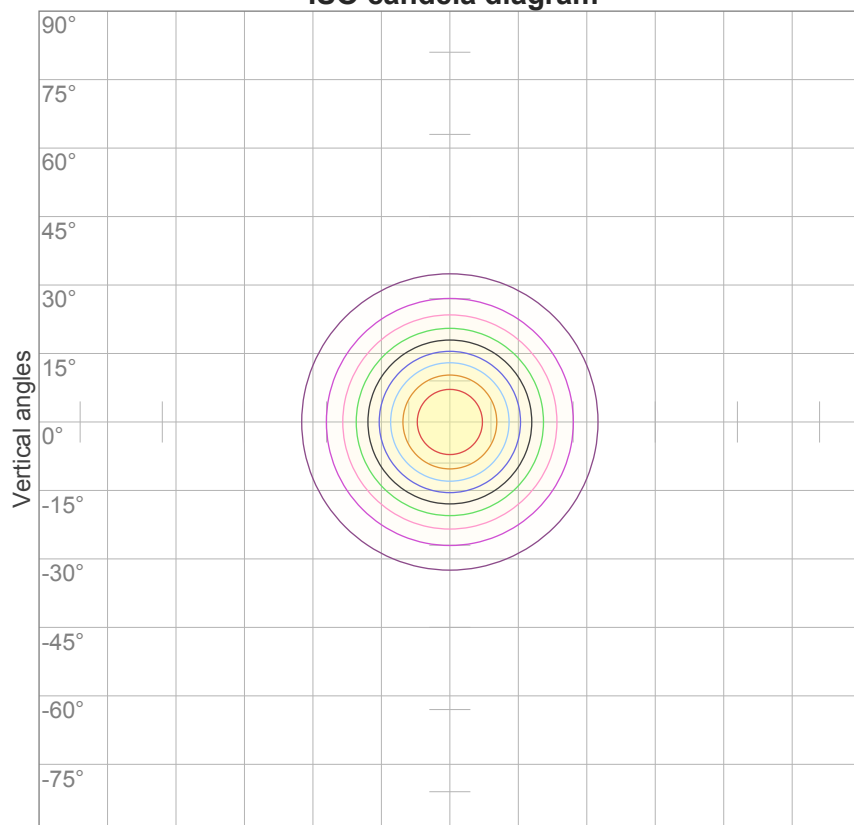
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1066	1059	1036	1002	955	899	833	761	686	608	531	456	386	322	265	215	172	136	107	85
100%	99%	97%	94%	90%	84%	78%	71%	64%	57%	50%	43%	36%	30%	25%	20%	16%	13%	10%	8%

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°
1066	1059	1036	1002	955	899	833	761	686	608	531	456	386	322	265	215	172	136	107	85
100%	99%	97%	94%	90%	84%	78%	71%	64%	57%	50%	43%	36%	30%	25%	20%	16%	13%	10%	8%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
39,9°	72,1°	95,4°	97,5%	93,7%

ISO candela diagram



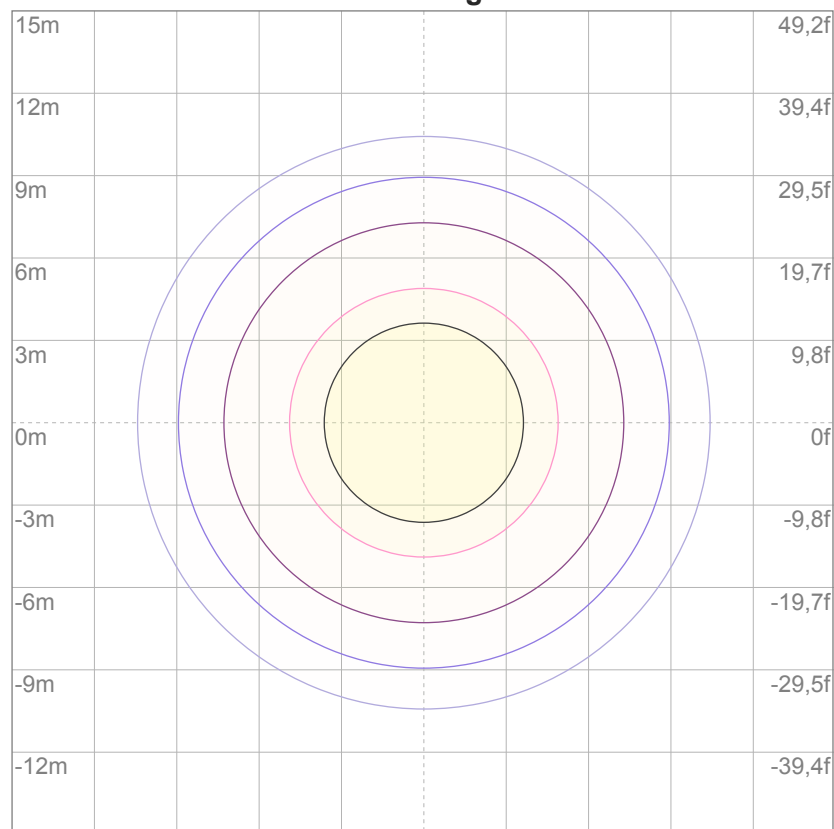
10%	107 cd
20%	213 cd
30%	320 cd
40%	426 cd
50%	533 cd
60%	640 cd
70%	746 cd
80%	853 cd
90%	960 cd

Conditions:

Number of c-planes: 16

Candela at center: 1066 cd

ISO lux diagram



3%	0,320 lx
5%	0,533 lx
10%	1,07 lx
30%	3,20 lx
50%	5,33 lx

Conditions:

Number of c-planes: 16

Lux at center: 10,7 lx

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

Glare Evaluation According to UGR

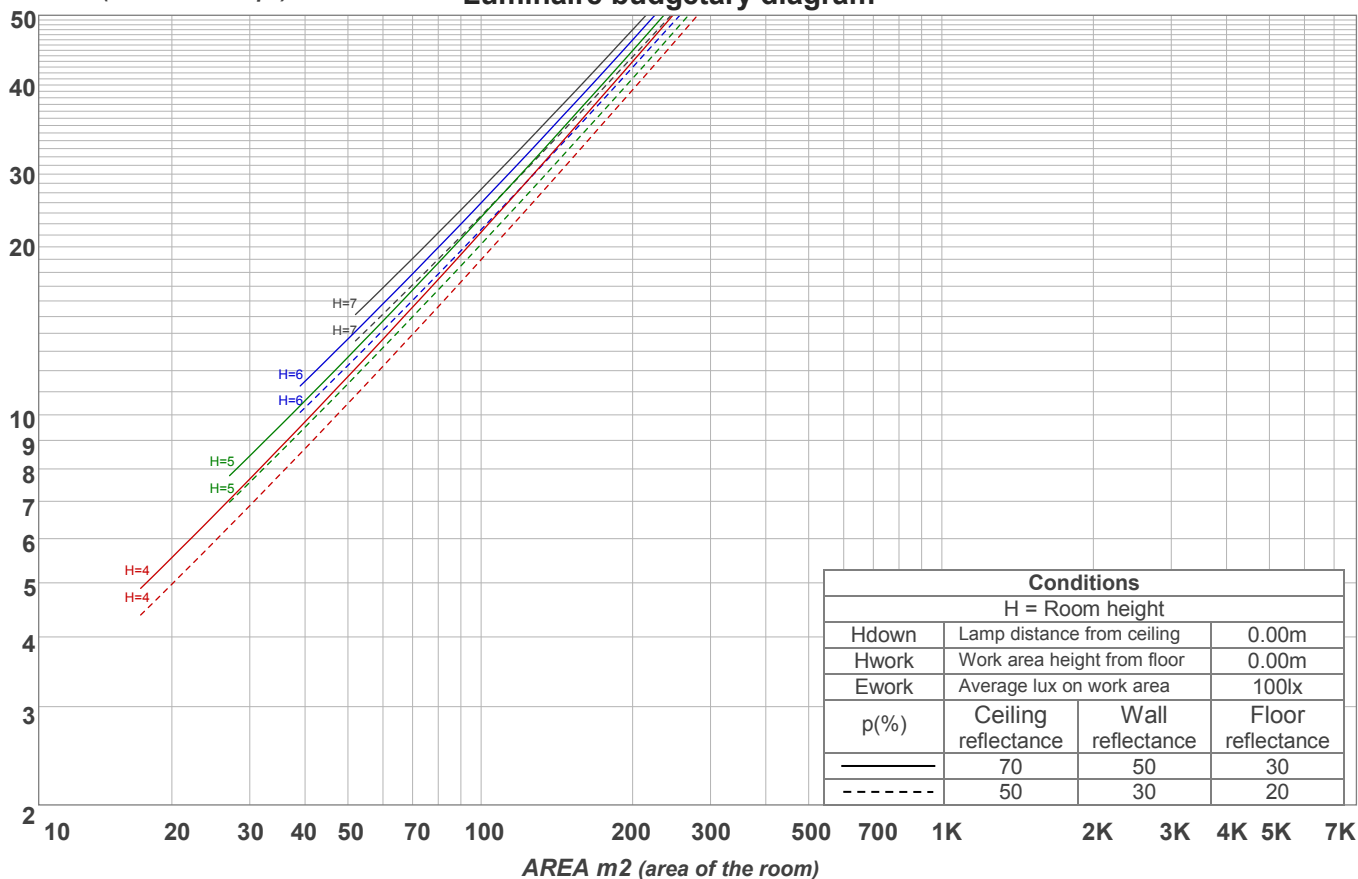
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	14,6	15,2	14,7	15,5	15,6	14,6	15,2	14,7	15,5	15,6
	3H	14,5	15,2	14,9	15,4	15,6	14,5	15,2	14,9	15,4	15,6
	4H	14,5	15,2	14,9	15,4	15,7	14,5	15,2	14,9	15,4	15,7
	6H	14,6	15,2	14,9	15,5	15,9	14,6	15,2	14,9	15,5	15,9
	8H	14,6	15,2	15,0	15,5	15,9	14,6	15,2	15,0	15,5	15,9
	12H	14,7	15,2	15,0	15,6	16,0	14,7	15,2	15,0	15,6	16,0
4H	2H	14,4	15,1	14,8	15,3	15,5	14,4	15,1	14,8	15,3	15,5
	3H	14,5	15,0	14,8	15,4	15,8	14,5	15,0	14,8	15,4	15,8
	4H	14,5	15,0	14,9	15,4	15,9	14,5	15,0	14,9	15,4	15,9
	6H	14,6	15,2	15,1	15,5	15,8	14,6	15,2	15,1	15,5	15,8
	8H	14,7	15,2	15,2	15,5	15,9	14,7	15,2	15,2	15,5	15,9
	12H	14,7	15,1	15,2	15,5	16,0	14,7	15,1	15,2	15,5	16,0
8H	4H	14,5	15,0	15,0	15,3	15,7	14,5	15,0	15,0	15,3	15,7
	6H	14,7	15,0	15,2	15,4	16,0	14,7	15,0	15,2	15,4	16,0
	8H	14,8	15,1	15,3	15,6	16,2	14,8	15,1	15,3	15,6	16,2
	12H	14,9	15,2	15,5	15,7	16,3	14,9	15,2	15,5	15,7	16,3
12H	4H	14,4	14,8	14,9	15,2	15,7	14,4	14,8	14,9	15,2	15,7
	6H	14,7	15,0	15,2	15,5	16,1	14,7	15,0	15,2	15,5	16,1
	8H	14,8	15,0	15,4	15,5	16,1	14,8	15,0	15,4	15,5	16,1
Variation of the observer position for the luminaire distance S											
S = 1.0H		3,1 / -2,5					3,1 / -2,5				
S = 1.5H		5,4 / -3,3					5,4 / -3,3				
S = 2.0H		7,2 / -3,7					7,2 / -3,7				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 588 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	113	111	108	106	111	108	106	104	104	103	101	100	99	98	97	96	95	93
2	108	103	100	96	106	102	98	95	98	95	93	95	93	91	92	90	89	87
3	103	97	92	88	101	95	91	88	93	89	86	90	87	85	88	85	83	82
4	98	91	86	82	96	90	85	81	88	84	80	86	82	79	84	81	78	77
5	94	86	80	76	92	85	80	76	83	79	75	81	78	75	80	76	74	72
6	90	81	76	72	88	80	75	71	79	74	71	77	73	70	76	73	70	68
7	86	77	71	67	84	76	71	67	75	70	67	74	70	66	73	69	66	65
8	82	73	68	64	81	73	67	64	71	67	63	70	66	63	69	66	63	61
9	79	70	64	61	78	69	64	60	68	63	60	67	63	60	66	63	60	58
10	75	66	61	58	74	66	61	57	65	60	57	64	60	57	64	60	57	56

LAMPS (number of lamps)

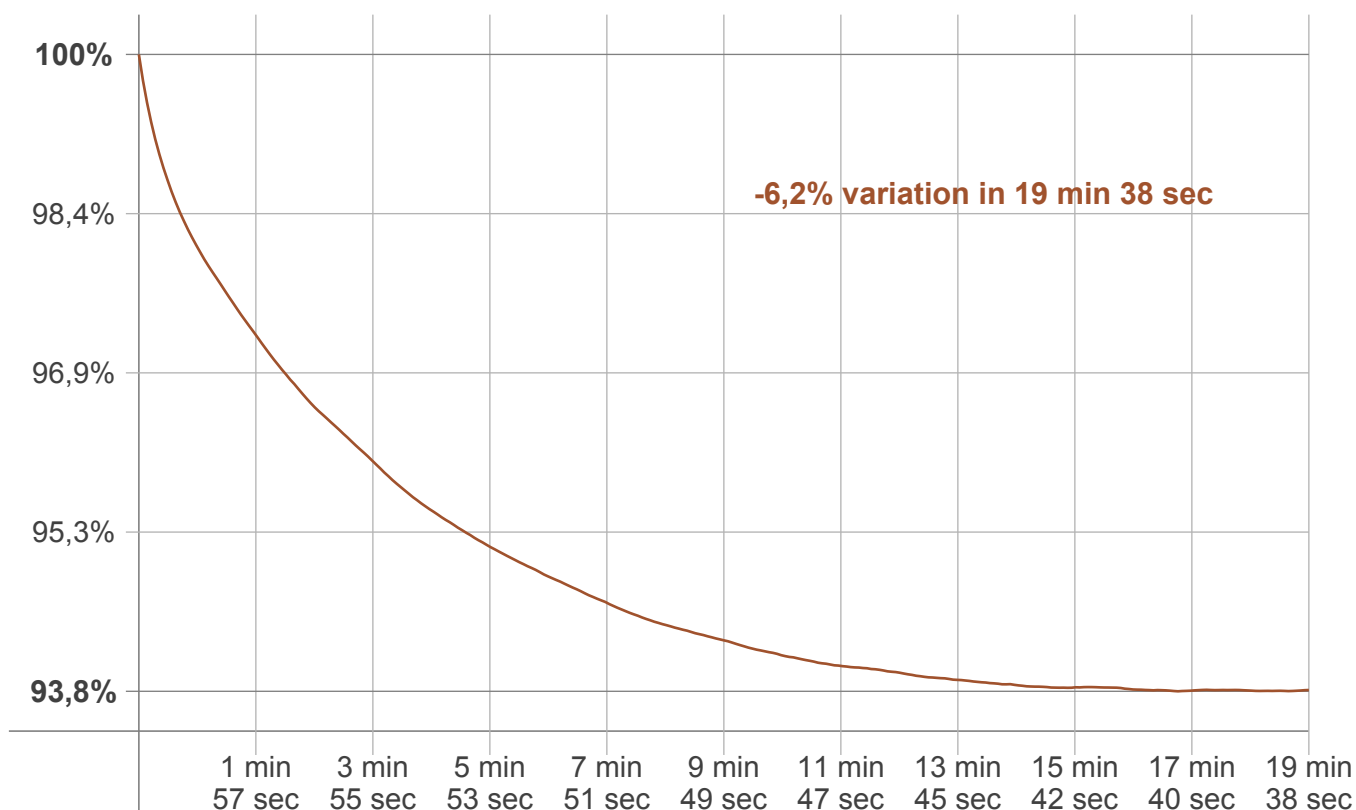
Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
93,5 lm	199 lm	162 lm	78,4 lm	29,7 lm	11,3 lm	4,84 lm	2,63 lm	1,45 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0,968 lm	0,936 lm	0,879 lm	0,794 lm	0,685 lm	0,556 lm	0,410 lm	0,251 lm	0,084 lm

Warmup curve



Warmup result

Warmup time:	19 min 38 sec
Warmup variation	-6,2%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
3049 K	-43 K	3006 K

Output change

Output start	Output change	Output end
622 lm	-34 lm	588 lm