Light efficiency:

29 Lumen/Watt

Light quality:

CRI: 0,0

Color temperature:

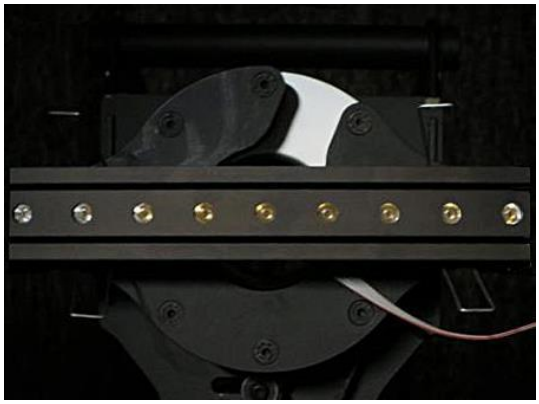
0 K

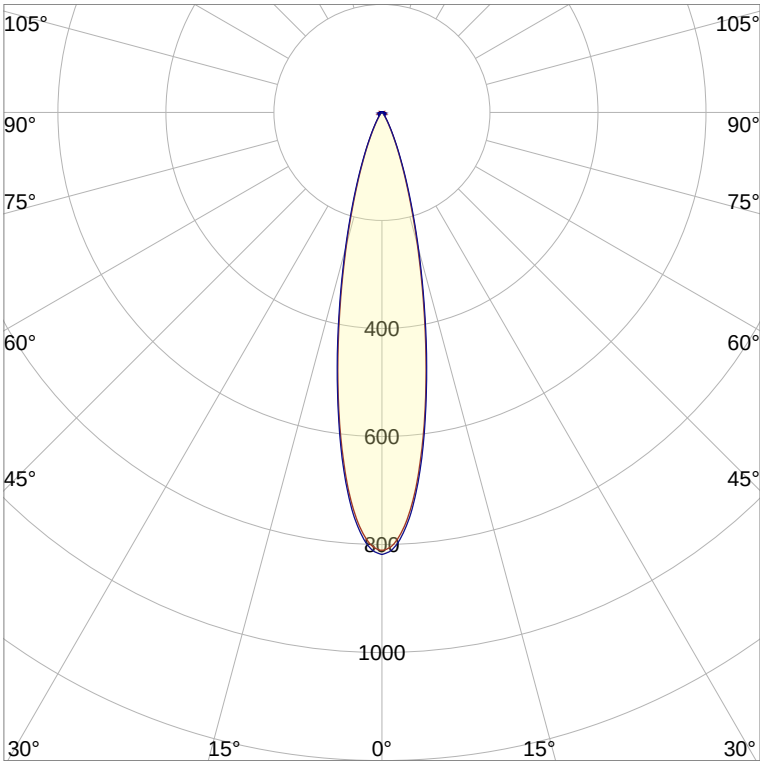
Output: 181 lm

Peak: 819 cd

Power: 6,2 W

PF: 0,78





CIE 1931
x: 0,693
y: 0,302

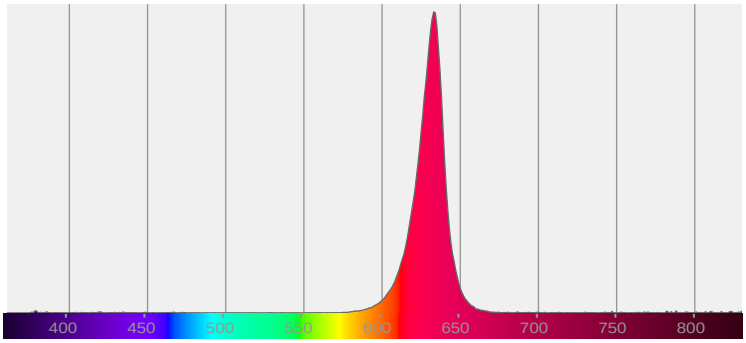
Product name:
FLNP-F4C-C-258-R-927-10772-ALA

Item number:
FLNP-F4C-C-258-R-927-10772-ALA

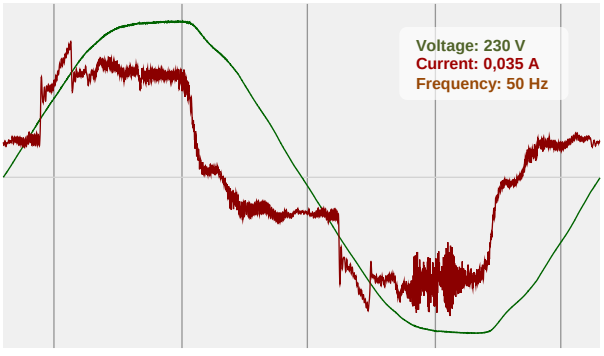
Date and time:
11.02.2019 16:35:19

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
Gaustrasse13-15
55411 Bingen am Rhein

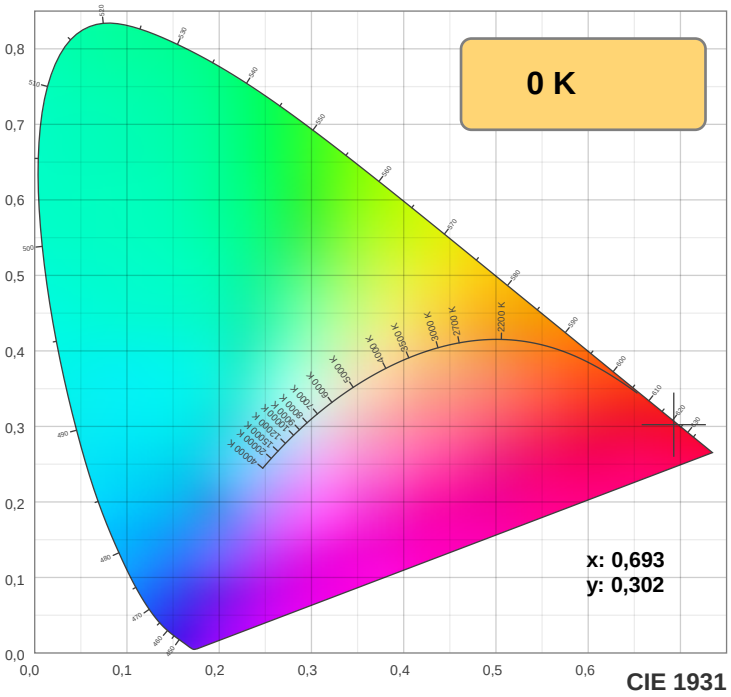
Spectra



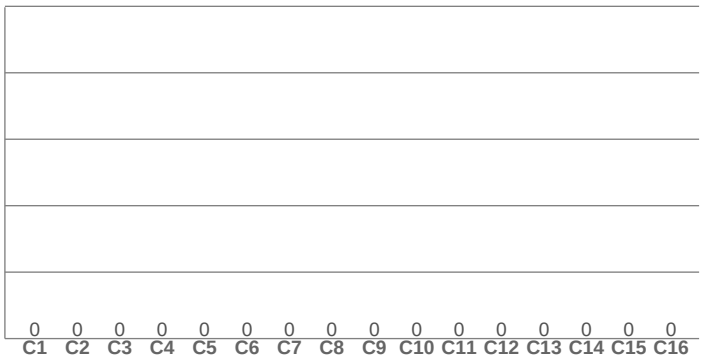
Power



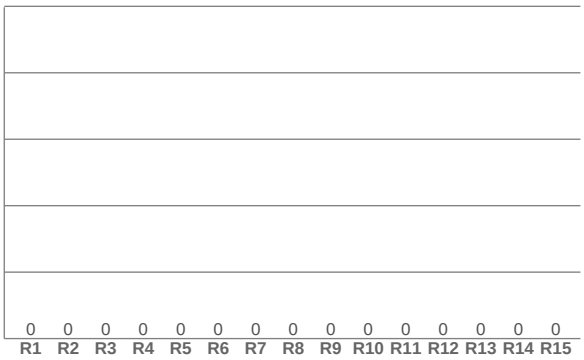
Color details



TM30: 0,0



CRI: 0,0 (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
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

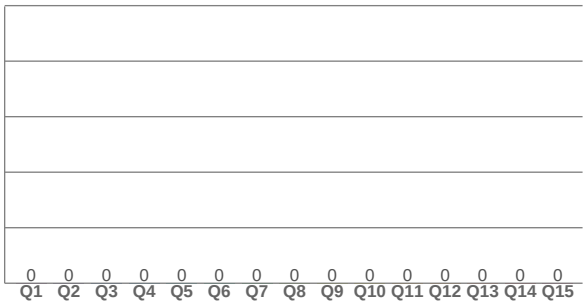
TM30 C values, 16 binned values out of total of 99 C values

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

CQS: 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 diviation 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	0,693	0,302	0,529	0,346	n. def.

TM30 details

Rf 0,0

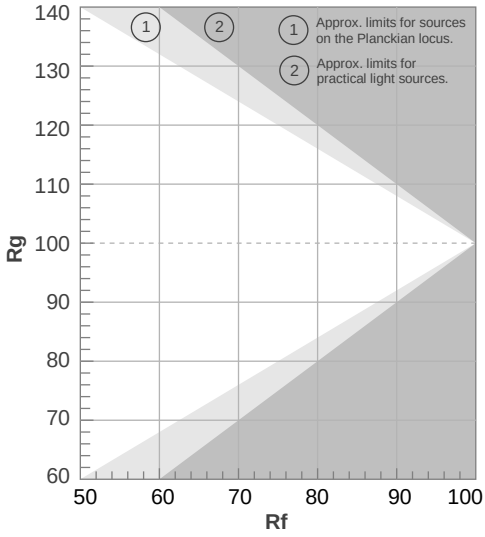
Fidelity index Rf

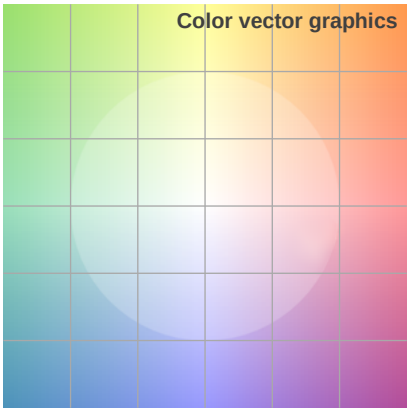
Rg 0,0

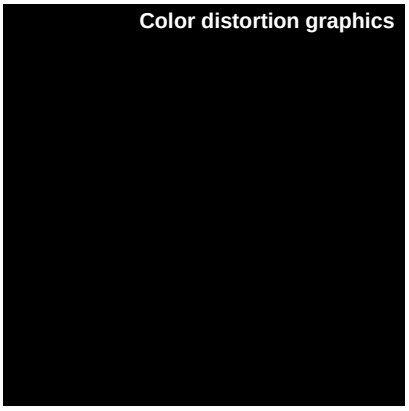
Gammut index Rg

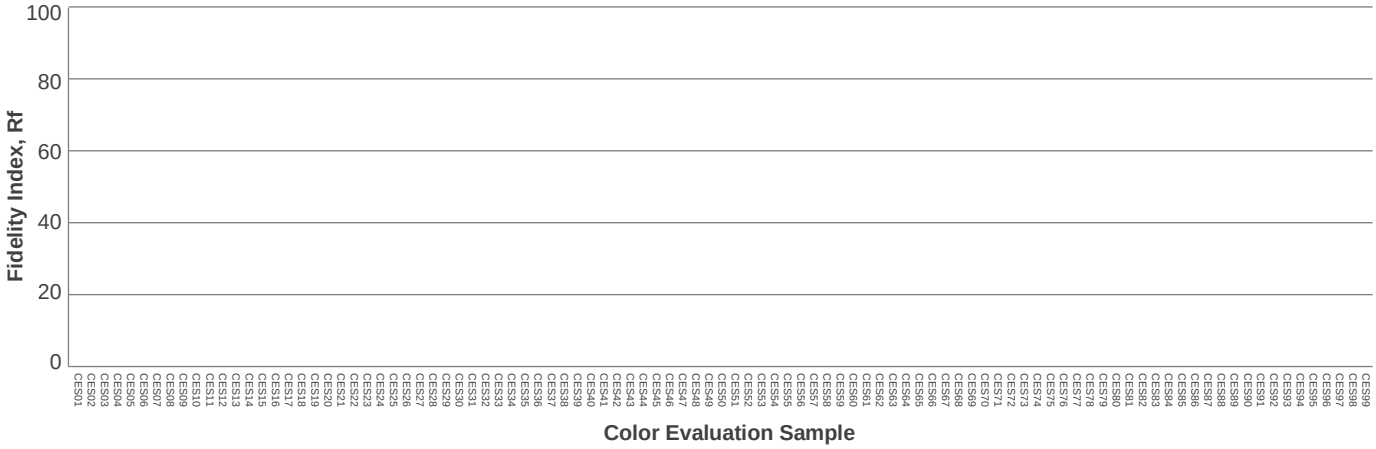
{TM30_BIN_VALUES_START}

		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1		%	%
2		%	%
3		%	%
4		%	%
5		%	%
6		%	%
7		%	%
8		%	%
9		%	%
10		%	%
11		%	%
12		%	%
13		%	%
14		%	%
15		%	%
16		%	%



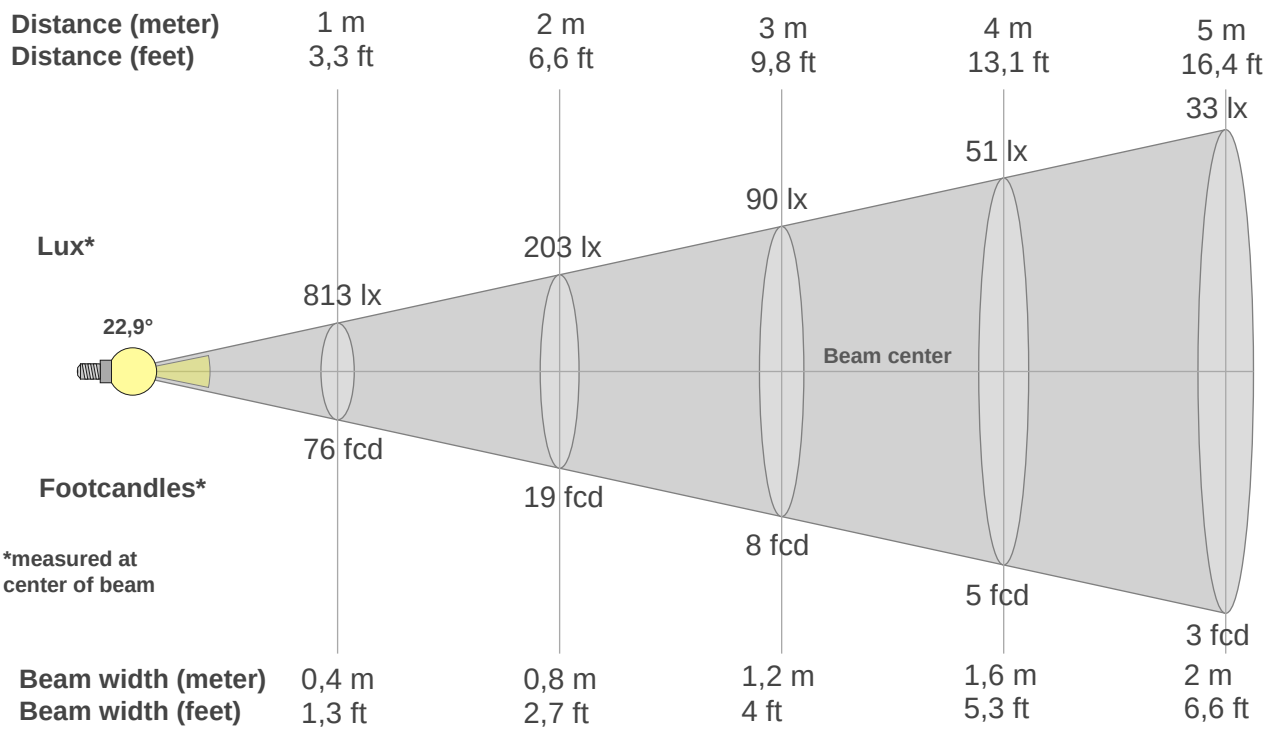






FLASHAAR

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°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
813	791	739	661	568	470	375	290	220	163	119	86	62	44	31	22	16	12	9	7
100%	97%	91%	81%	70%	58%	46%	36%	27%	20%	15%	11%	8%	5%	4%	3%	2%	1%	1%	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°
813	799	748	669	575	476	382	298	227	170	125	90	65	46	33	24	18	13	10	8
100%	98%	92%	82%	71%	59%	47%	37%	28%	21%	15%	11%	8%	6%	4%	3%	2%	2%	1%	1%

Intensities in 180° c-plane

{INT_TABLE_180_START}

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

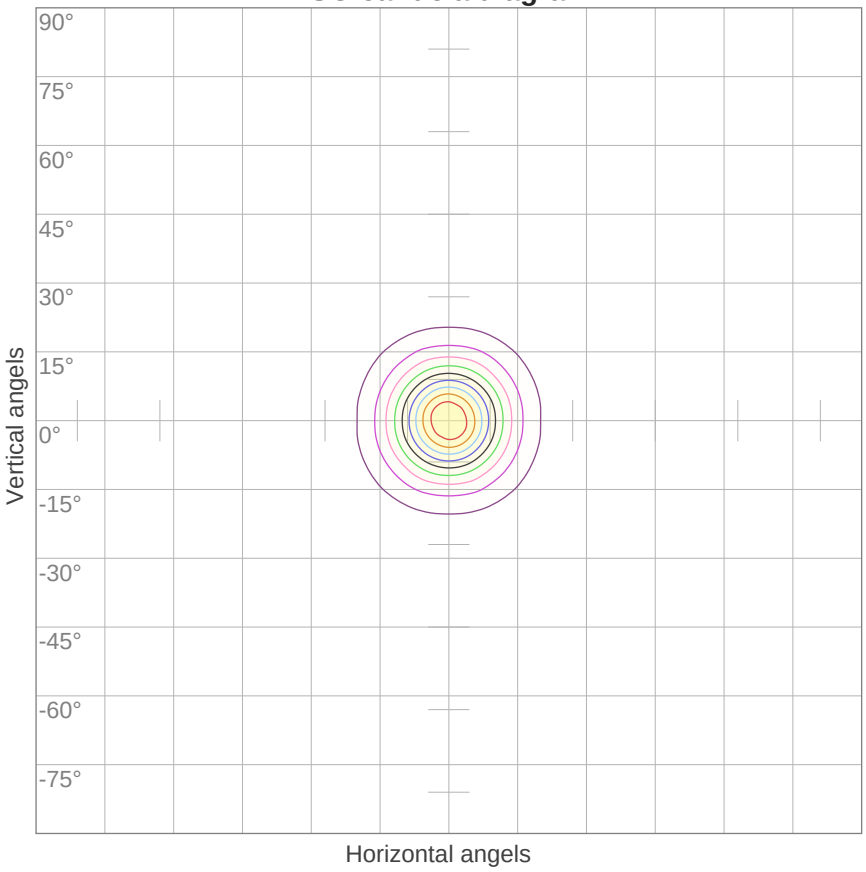
Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
813	799	748	669	575	476	382	298	227	170	125	90	65	46	33	24	18	13	10	8
100%	98%	92%	82%	71%	59%	47%	37%	28%	21%	15%	11%	8%	6%	4%	3%	2%	2%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
22,9°	**45,6°**	**62,5°**	**96,1%**	**93,9%**

ISO Diagrams

ISO candela diagram



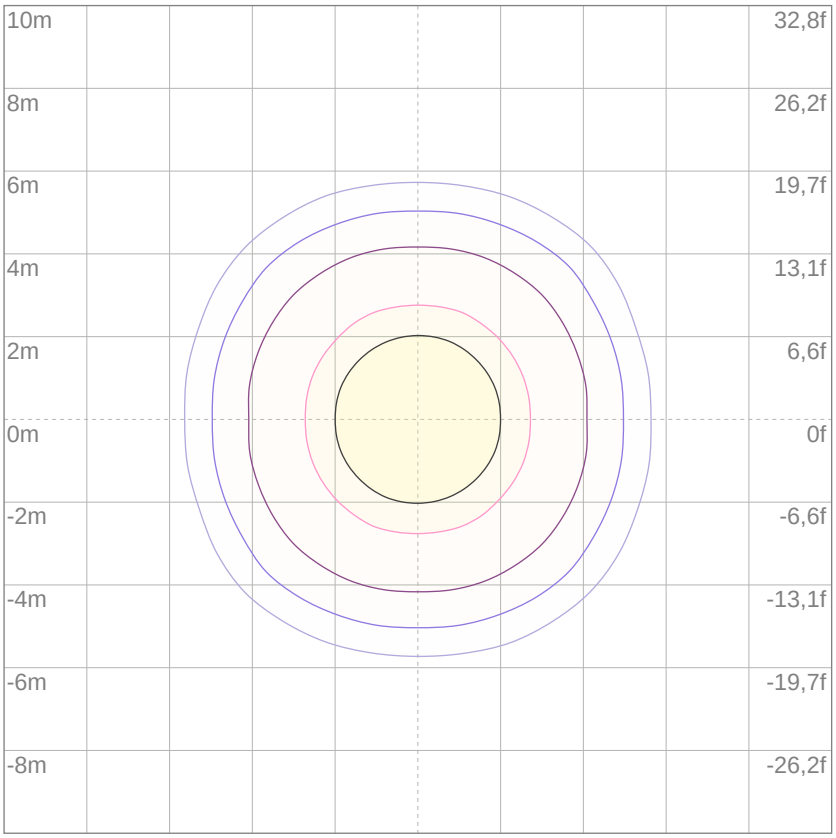
10%	81 cd
20%	163 cd
30%	244 cd
40%	325 cd
50%	407 cd
60%	488 cd
70%	569 cd
80%	650 cd
90%	732 cd

Conditions:

Number of c-planes: 16

Candela at center: 813 cd

ISO lux diagram



3%	0,244 lx
5%	0,407 lx
10%	0,813 lx
30%	2,44 lx
50%	4,07 lx

Conditions:

Number of c-planes: 16

Lux at center: 8,13 lx

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

UGR

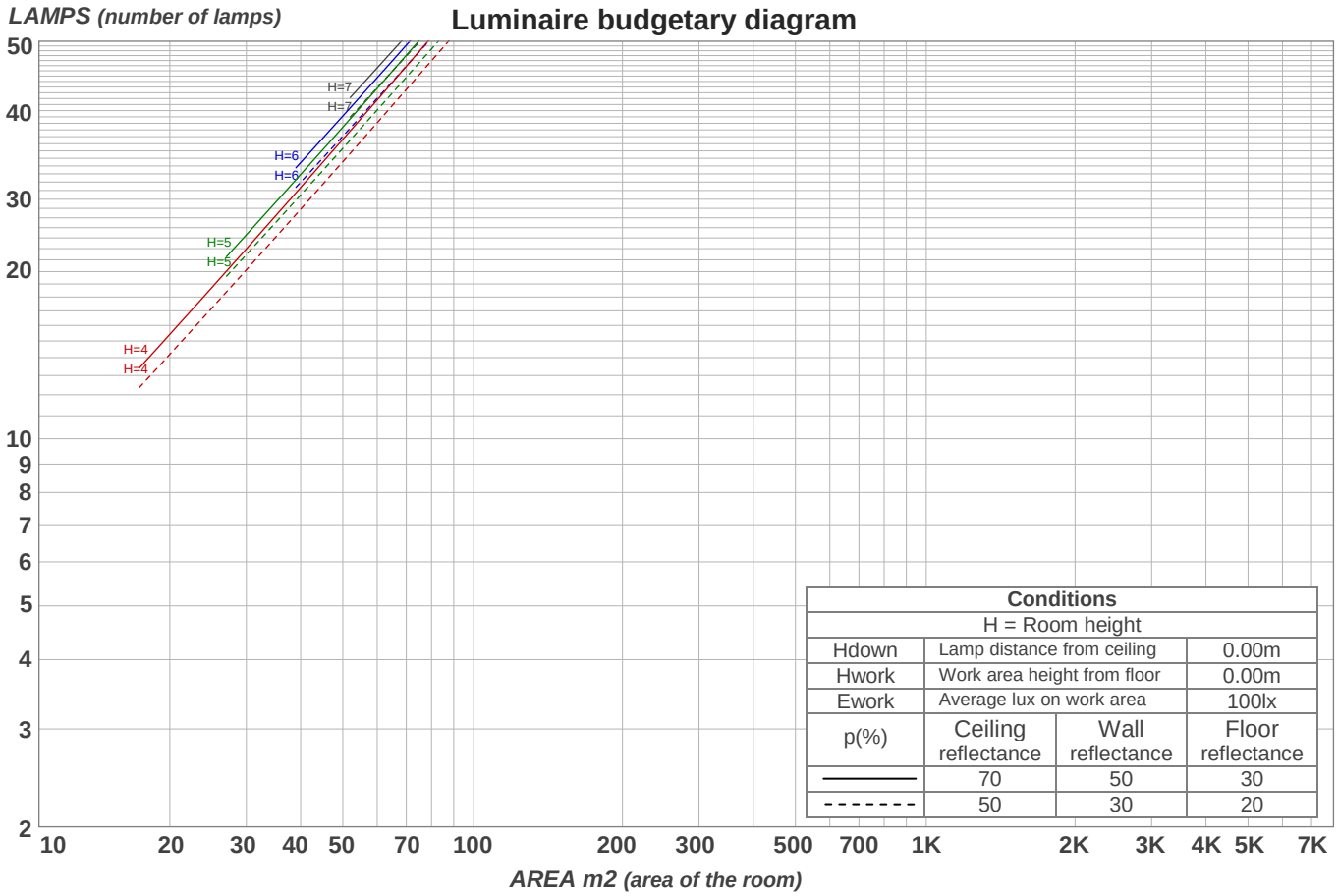
Glare Evaluation According to UGR

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	5,1	5,8	5,4	6,0	6,2	5,3	6,0	5,5	6,2	6,4
	3H	7,1	7,8	7,4	8,0	8,3	7,0	7,6	7,2	7,8	8,1
	4H	8,5	9,2	8,8	9,4	9,7	8,1	8,7	8,4	9,0	9,2
	6H	9,9	10,5	10,2	10,7	11,0	9,7	10,2	10,0	10,5	10,8
	8H	10,7	11,2	11,0	11,5	11,8	10,5	11,0	10,8	11,3	11,6
	12H	11,3	11,8	11,6	12,1	12,4	11,2	11,7	11,6	12,0	12,4
4H	2H	5,7	6,3	6,0	6,6	6,8	5,8	6,4	6,1	6,7	6,9
	3H	8,1	8,6	8,4	8,9	9,2	7,9	8,5	8,3	8,8	9,1
	4H	9,6	10,0	9,9	10,4	10,7	9,3	9,8	9,7	10,1	10,4
	6H	11,3	11,6	11,7	12,0	12,4	11,2	11,5	11,6	11,9	12,3
	8H	12,2	12,6	12,6	12,9	13,3	12,0	12,3	12,4	12,7	13,1
	12H	12,9	13,2	13,4	13,6	14,0	12,9	13,2	13,3	13,6	14,0
8H	4H	10,1	10,5	10,5	10,8	11,2	9,9	10,3	10,3	10,6	11,0
	6H	12,2	12,4	12,6	12,9	13,3	12,0	12,3	12,4	12,7	13,1
	8H	13,3	13,5	13,8	14,0	14,4	12,9	13,2	13,4	13,6	14,1
	12H	14,3	14,5	14,8	14,9	15,4	14,0	14,2	14,5	14,7	15,2
12H	4H	10,3	10,6	10,7	11,0	11,4	10,1	10,4	10,5	10,8	11,2
	6H	12,4	12,6	12,9	13,1	13,5	12,2	12,4	12,7	12,9	13,4
	8H	13,6	13,8	14,1	14,2	14,7	13,2	13,4	13,7	13,9	14,4
Variation of the observer position for the luminaire distance S											
S = 1,0H		+0,2 / -0,2					+0,2 / -0,2				
S = 1,5H		+0,4 / -0,4					+0,5 / -0,3				
S = 2,0H		+0,6 / -0,5					+1,0 / -0,6				
Standard table		BK11					BK11				
Correction summand		-3,3					-3,3				
Corrected glare indices referring to 181 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	114	111	109	107	111	109	107	105	105	103	102	101	100	99	98	97	96	94
2	110	105	102	99	107	104	101	98	100	98	96	97	95	93	95	93	91	90
3	106	100	96	93	104	99	95	92	96	93	91	94	91	89	92	89	88	86
4	102	96	91	88	100	95	91	87	93	89	86	91	88	85	89	86	84	83
5	98	92	87	84	97	91	87	84	89	86	83	88	84	82	86	83	81	80
6	95	88	84	80	94	88	83	80	86	82	80	85	82	79	84	81	78	77
7	92	85	81	77	91	85	80	77	83	80	77	82	79	76	81	78	76	75
8	90	82	78	75	89	82	78	75	81	77	74	80	76	74	79	76	74	73
9	87	80	75	72	86	79	75	72	79	75	72	78	74	72	77	74	72	70
10	85	77	73	70	84	77	73	70	76	73	70	76	72	70	75	72	70	69

Luminaire budgetary diagram



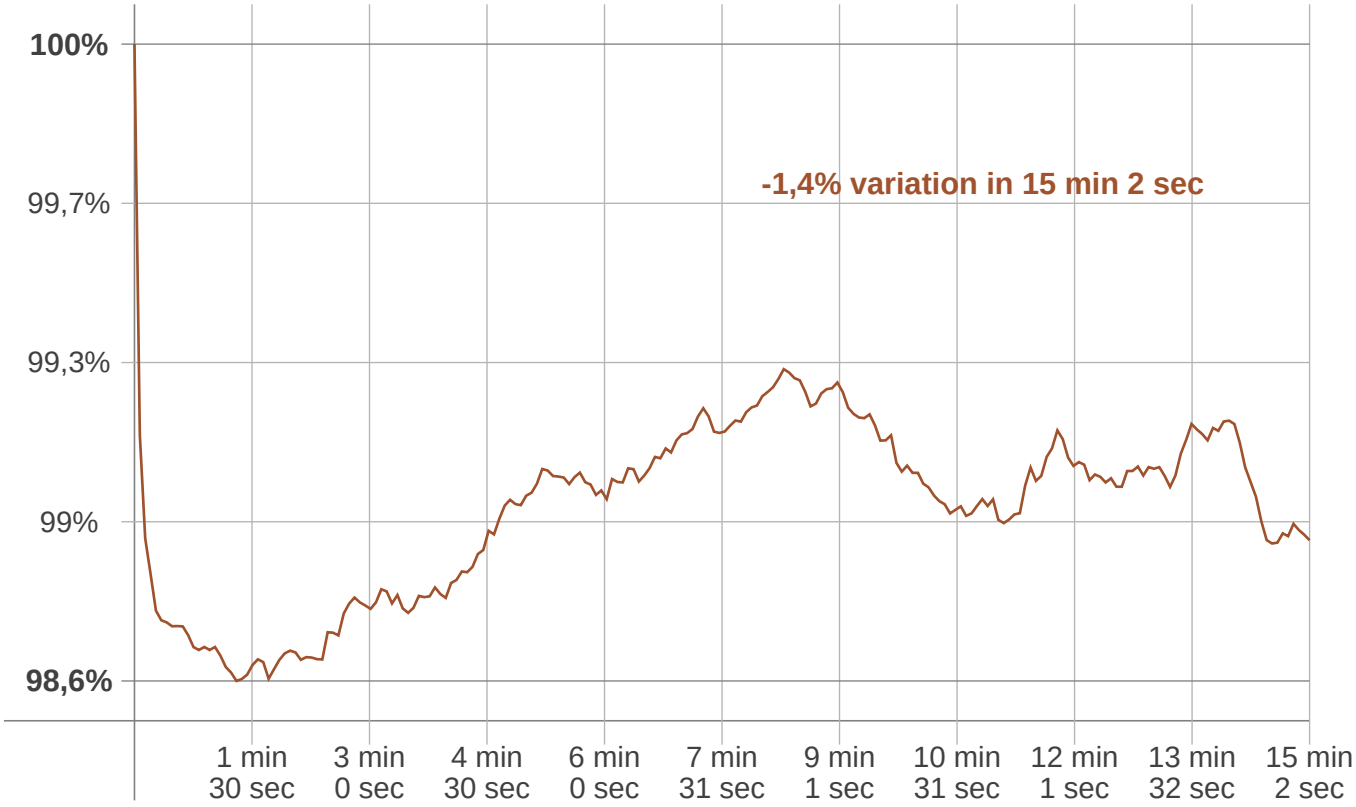
Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
59,7 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-	{LUM100-	0,310 lm	{LUM120-	{LUM130-	{LUM140-	{LUM150-	{LUM160-	{LUM170-

Stabilization

Warmup curve



Warmup result

Warmup time:	**15 min 2 sec**
Warmup variation	**-1,4%**

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
0 K	{WU_CHNG_CCT} K	0 K

Output change

Output start	Output change	Output end
182 lm	-1 lm	181 lm