

Light efficiency:

116 Lumen/Watt

Light quality:

CRI: 0,0

Color temperature:

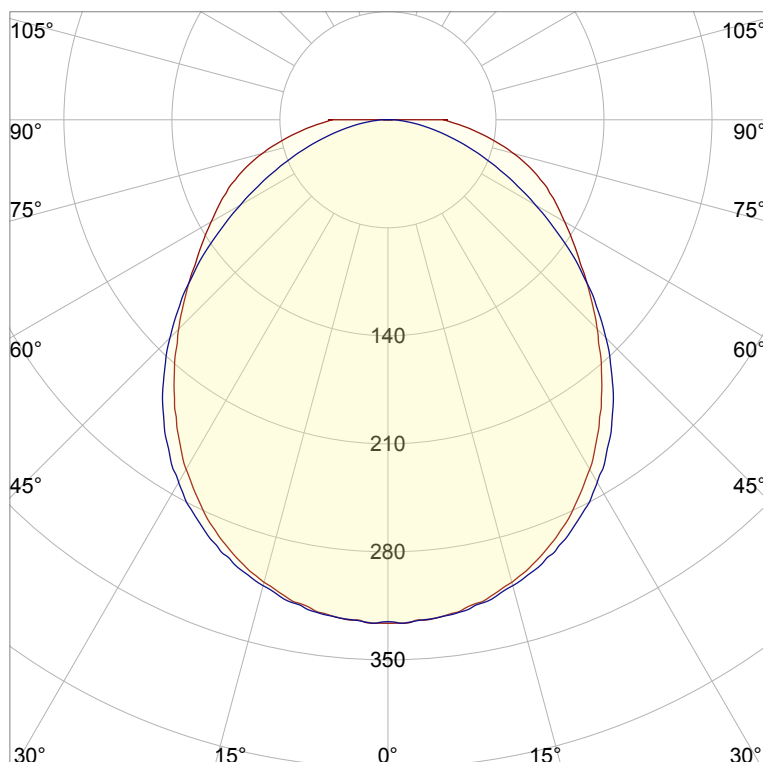
0 K

Output: 890 lm

Peak: 327 cd

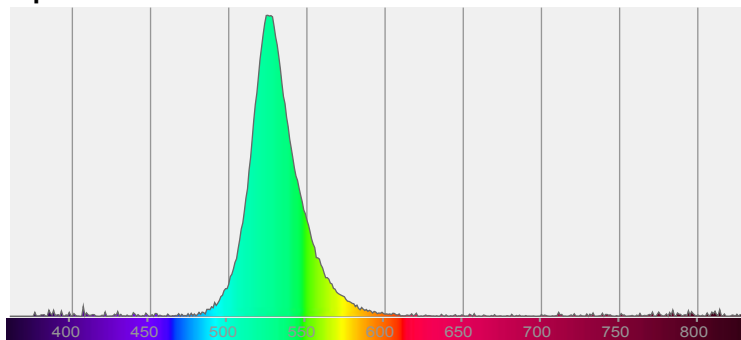
Power: 7,7 W

PF: 1,0

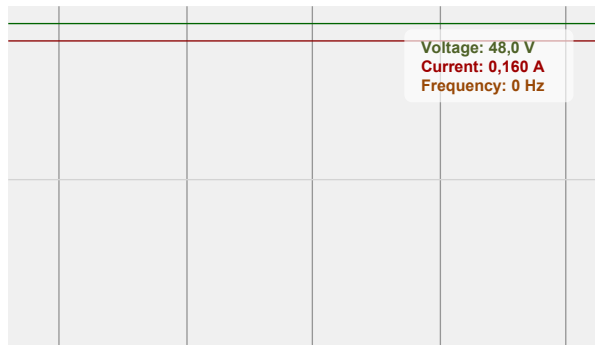


CIE 1931  
x: 0,198  
y: 0,734

Spectra



Power



Product name:

**Defiant-0508-XXG-CSF**

Item number:

**FLNP/L22A0508/XXG/CSF**

Date and time:

**30.06.2020 13:25:55**

Description:

**Rank: R2G2B4/RC2GA2BA5/A**

**Toleranzen:**

**Lumen +/-4%**

**Candela +/-2,5%**

**Colour Temp +/-35 K**

**CRI +/-0,7**

**Angular Resolution 1 Grad Step**

**Last Calibration 20.05.2020**

**Pruefer:**

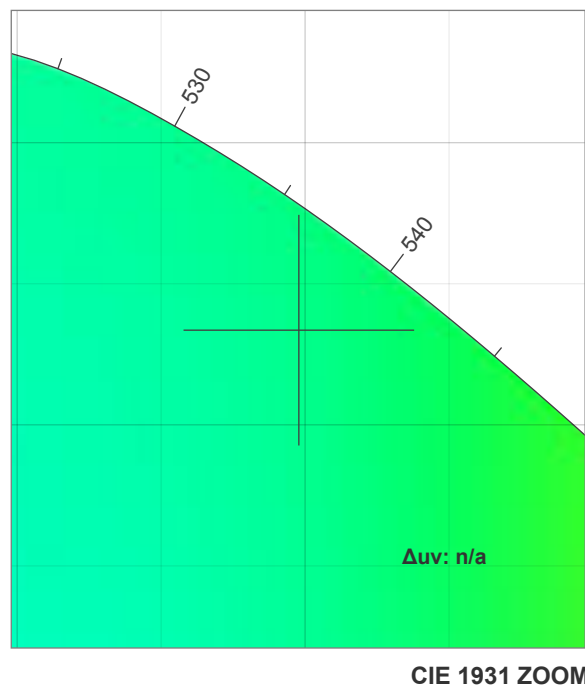
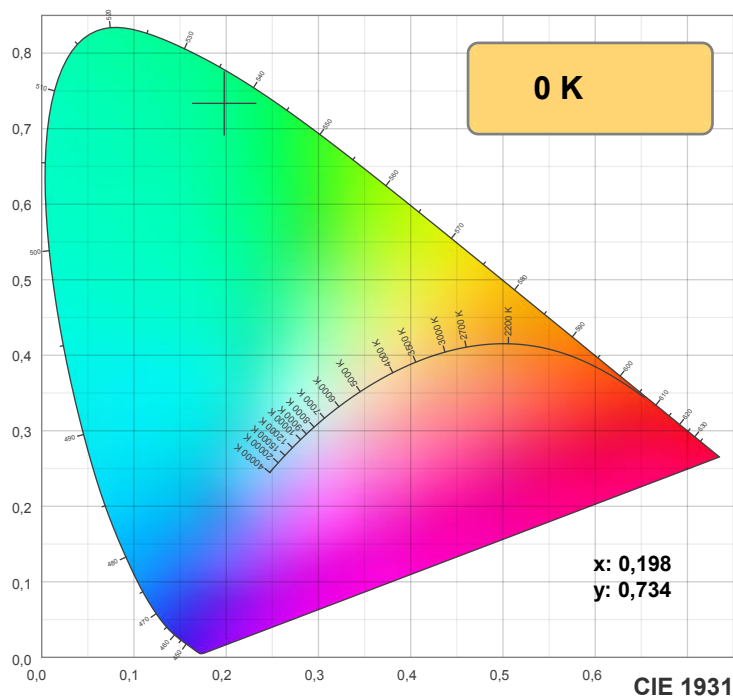
**Peter Ulrich**

**Pruefort:**

**Lichtlabor**

**Gaustrasse 13**

**55411 Bingen am Rhein**



**TM30: 0,0**

**CRI: 0,0 (R1-R8)**

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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
R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	

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**

0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	

## 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
0 K	0,0	0,0	0,0	0,0	0,0	0,198	0,734	0,069	0,386	n/a

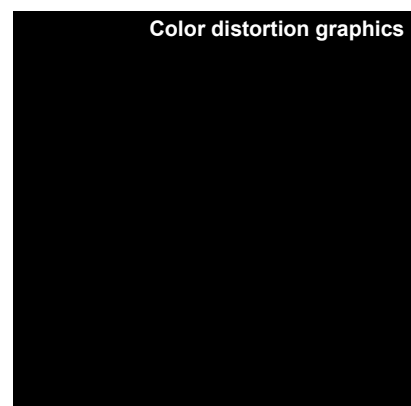
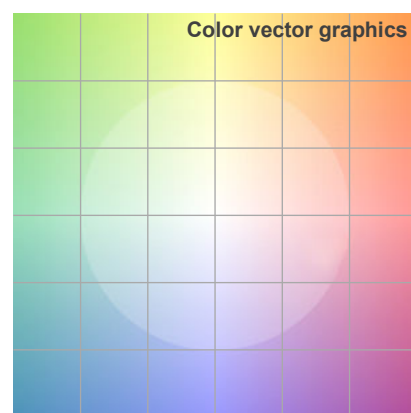
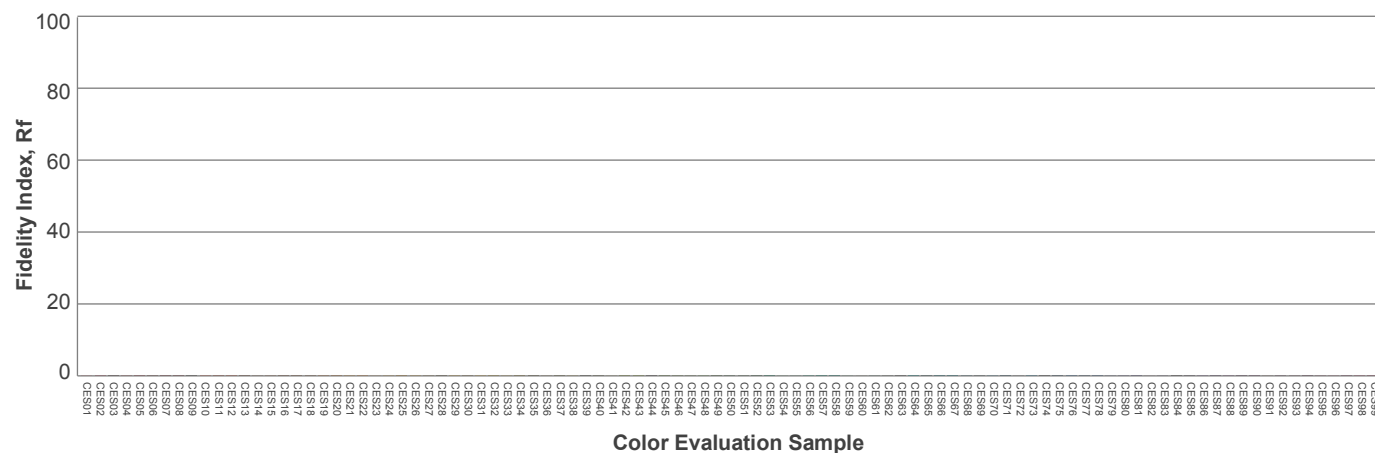
## Rf 0,0

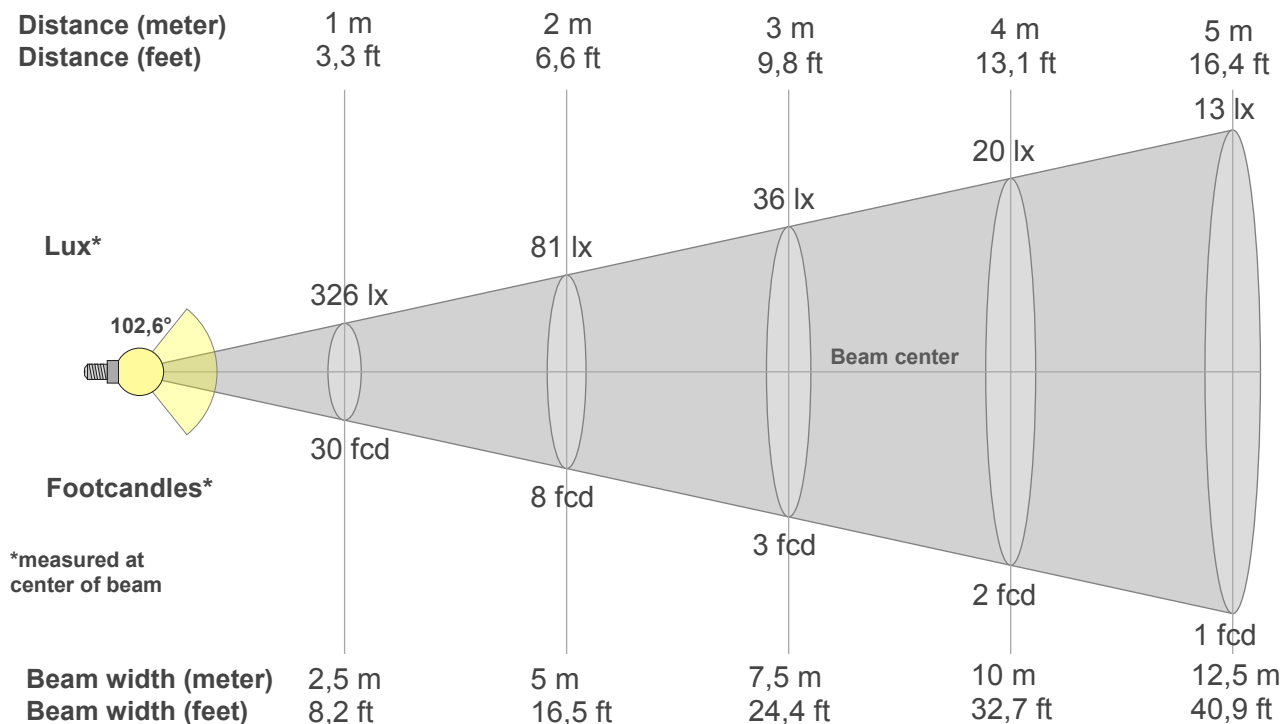
Fidelity index Rf

## Rg 0,0

Gammut index Rg

		Graphic shifts (%)	
Hue Bin	R <sub>f</sub>	Chroma	Hue
1	0	0%	0%
2	0	0%	0%
3	0	0%	0%
4	0	0%	0%
5	0	0%	0%
6	0	0%	0%
7	0	0%	0%
8	0	0%	0%
9	0	0%	0%
10	0	0%	0%
11	0	0%	0%
12	0	0%	0%
13	0	0%	0%
14	0	0%	0%
15	0	0%	0%
16	0	0%	0%





## 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
326lx	81lx	36lx	20lx	13lx	9lx	7lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx
30,3fcd	7,6fcd	3,4fcd	1,9fcd	1,2fcd	0,8fcd	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	0,1fcd

## Intensities in 0° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
326	325	319	310	298	281	261	239	215	192	170	149	132	117	102	84	66	49	27	0
100%	100%	98%	95%	91%	86%	80%	73%	66%	59%	52%	46%	41%	36%	31%	26%	20%	15%	8%	0%

## Intensities in 90° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
326	325	320	313	302	288	271	251	227	200	171	140	110	84	60	40	23	11	2	0
100%	100%	98%	96%	93%	88%	83%	77%	70%	61%	52%	43%	34%	26%	19%	12%	7%	3%	1%	0%

## Intensities in 180° c-plane

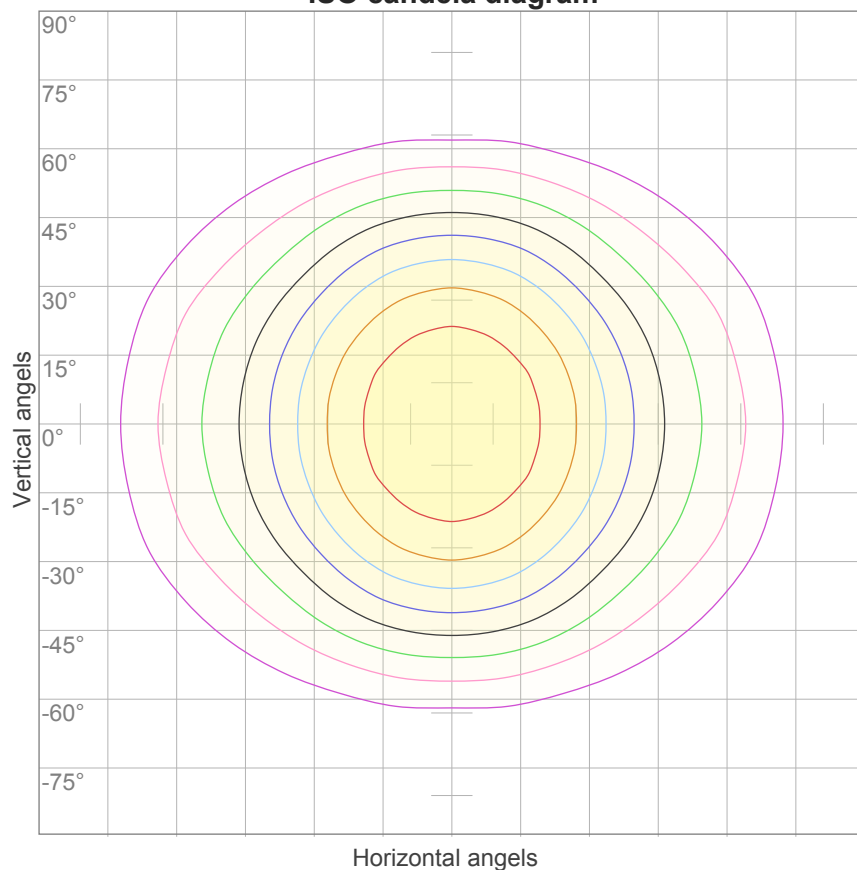
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
326	325	319	310	298	281	261	239	215	192	170	149	132	117	102	84	66	49	27	0
100%	100%	98%	95%	91%	86%	80%	73%	66%	59%	52%	46%	41%	36%	31%	26%	20%	15%	8%	0%

## Intensities in 270° c-plane

0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
326	325	320	313	302	288	271	251	227	200	171	140	110	84	60	40	23	11	2	0
100%	100%	98%	96%	93%	88%	83%	77%	70%	61%	52%	43%	34%	26%	19%	12%	7%	3%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
102,6°	170,8°	179,2°	76,8%	53,9%

### ISO candela diagram



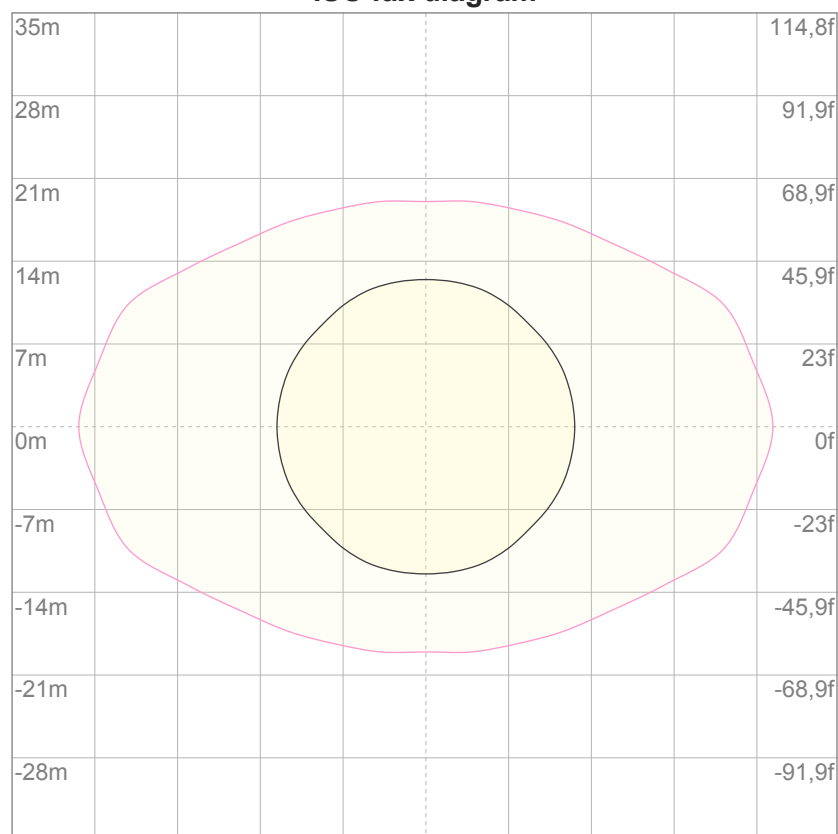
10%	33 cd
20%	65 cd
30%	98 cd
40%	130 cd
50%	163 cd
60%	196 cd
70%	228 cd
80%	261 cd
90%	293 cd

#### Conditions:

Number of c-planes: 16

Candela at center: 326 cd

### ISO lux diagram



3%	97,8m lx
5%	0,163 lx
10%	0,326 lx
30%	0,978 lx
50%	1,63 lx

#### Conditions:

Number of c-planes: 16

Lux at center: 3,26 lx

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

### Glare Evaluation According to UGR

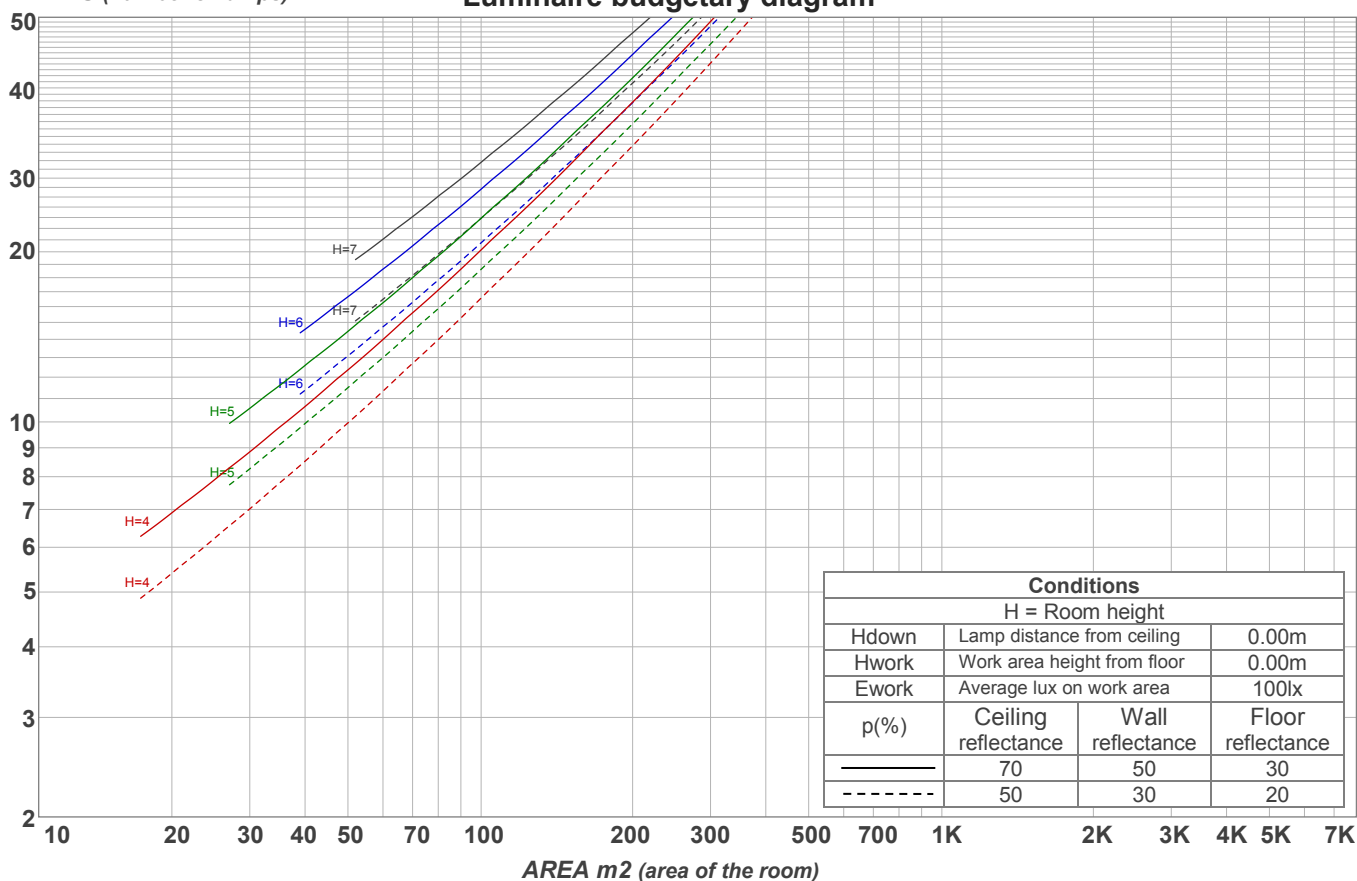
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X      Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	21,7	22,9	21,9	23,2	23,4	22,2	23,5	22,5	23,8	24,0
	3H	23,2	24,5	23,6	24,8	25,0	23,3	24,6	23,7	24,9	25,1
	4H	24,0	25,2	24,4	25,5	25,8	23,8	25,0	24,2	25,3	25,5
	6H	24,7	25,8	25,0	26,1	26,5	24,1	25,2	24,5	25,5	25,9
	8H	25,0	26,0	25,3	26,4	26,8	24,2	25,3	24,6	25,6	26,0
	12H	25,2	26,2	25,6	26,6	27,0	24,3	25,3	24,6	25,6	26,1
4H	2H	22,2	23,4	22,6	23,7	24,0	22,6	23,8	23,0	24,1	24,4
	3H	24,1	25,1	24,5	25,5	25,9	24,0	25,1	24,4	25,4	25,8
	4H	24,9	25,9	25,4	26,3	26,9	24,5	25,5	25,0	25,9	26,4
	6H	25,8	26,7	26,3	27,0	27,4	25,0	25,9	25,5	26,2	26,6
	8H	26,1	27,0	26,6	27,3	27,7	25,1	26,0	25,6	26,3	26,7
	12H	26,4	27,1	26,9	27,6	28,0	25,2	25,9	25,7	26,3	26,8
8H	4H	25,2	26,0	25,7	26,4	26,8	24,8	25,7	25,3	26,0	26,4
	6H	26,2	26,9	26,8	27,4	27,9	25,5	26,1	26,0	26,6	27,1
	8H	26,8	27,3	27,3	27,8	28,5	25,7	26,3	26,2	26,8	27,4
	12H	27,2	27,7	27,8	28,2	28,8	25,9	26,4	26,5	26,9	27,5
12H	4H	25,2	25,9	25,7	26,4	26,8	24,9	25,6	25,4	26,0	26,5
	6H	26,3	26,9	26,9	27,4	28,1	25,6	26,2	26,1	26,7	27,3
	8H	26,9	27,4	27,5	27,9	28,5	25,9	26,4	26,5	26,9	27,5
Variation of the observer position for the luminaire distance S											
S = 1.0H		0,1 / -0,1					0,1 / -0,1				
S = 1.5H		0,1 / -0,2					0,3 / -0,4				
S = 2.0H		0,3 / -0,4					0,7 / -0,8				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 890 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	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	98	89	82	76	95	87	81	75	84	78	74	81	76	72	77	74	70	68
3	89	79	70	64	87	77	69	63	74	67	62	71	65	61	69	64	60	57
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	37
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	44	37	32	42	36	32	30
9	56	43	35	29	55	42	35	29	41	34	29	40	34	29	39	33	29	27
10	53	40	32	27	52	39	32	26	38	31	26	37	31	26	36	30	26	24

LAMPS (number of lamps)

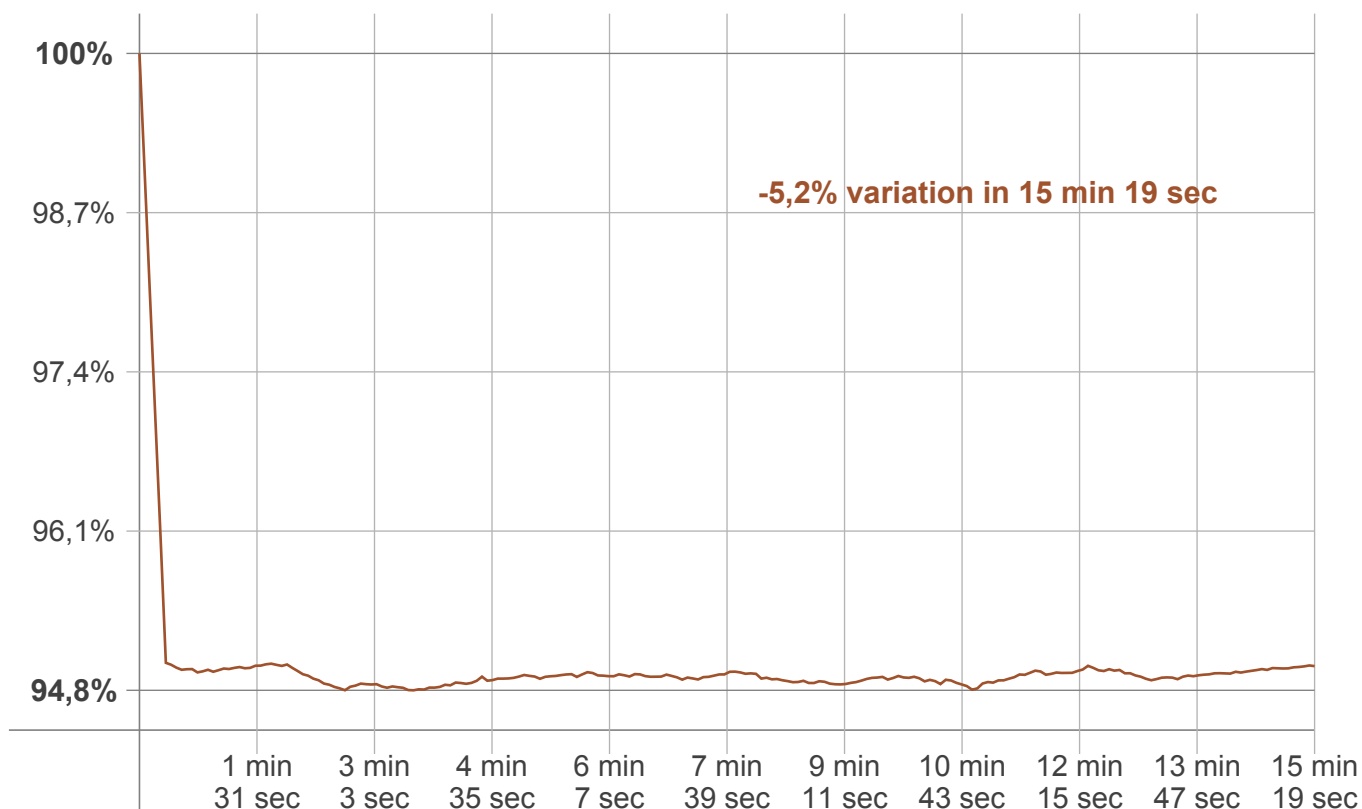
## Luminaire budgetary diagram



## Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
30,8 lm	87,8 lm	131 lm	153 lm	151 lm	130 lm	100 lm	68,3 lm	38,2 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0,095 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm

### Warmup curve



### Warmup result

Warmup time:	15 min 19 sec
Warmup variation	-5,2%

### Warmup conditions

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

### Color temperature change

CCT start	CCT change	CCT end
0 K	0 K	0 K

### Output change

Output start	Output change	Output end
936 lm	-46 lm	890 lm