

### Light efficiency:

**127 Lumen/Watt**

### Light quality:

**CRI: 0,0**

### Color temperature:

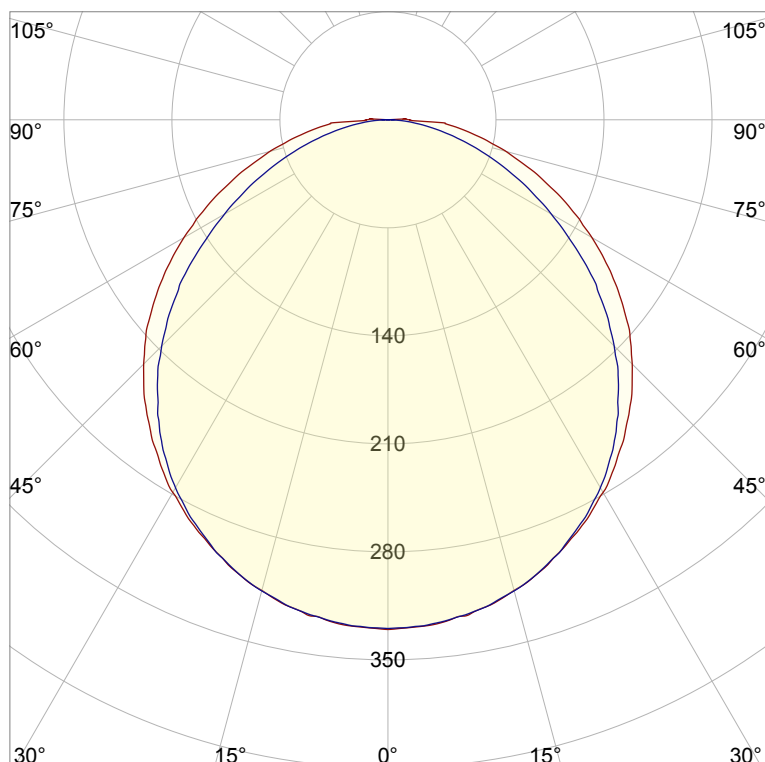
**0 K**

**Output: 972 lm**

**Peak: 330 cd**

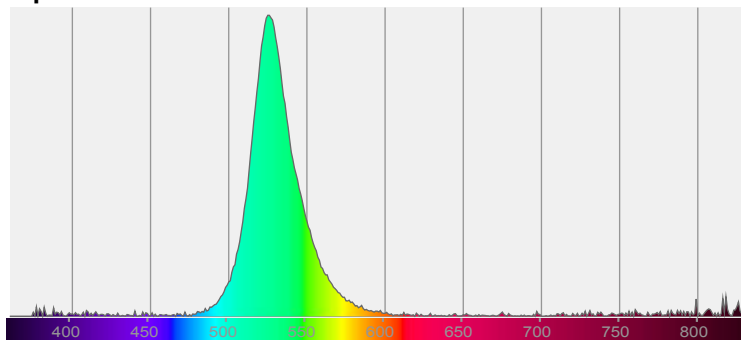
**Power: 7,7 W**

**PF: 1,0**

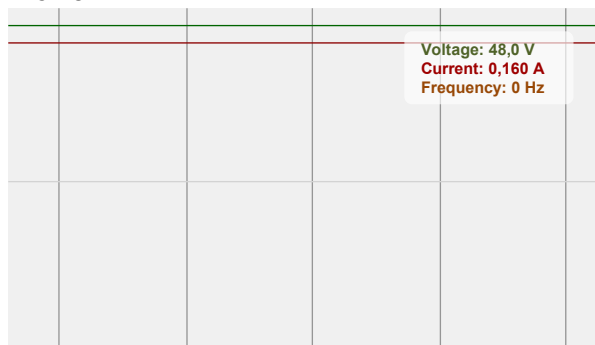


**CIE 1931**  
**x: 0,200**  
**y: 0,729**

### Spectra



### Power



### Product name:

**Defiant-0508-XXG-CRF**

### Item number:

**FLNP/L22A0508/XXG/CRF**

### Date and time:

**26.06.2020 10:50:36**

### 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:**

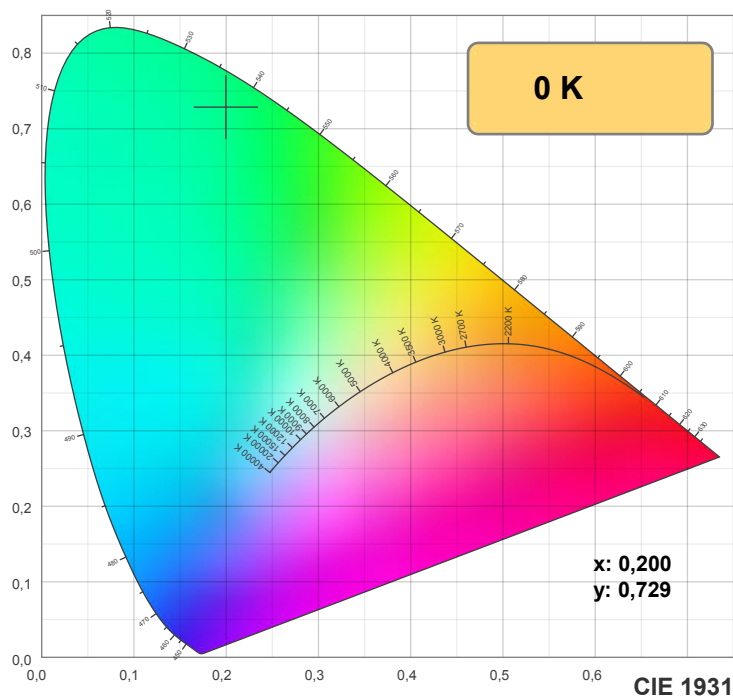
**Peter Ulrich**

**Pruefort:**

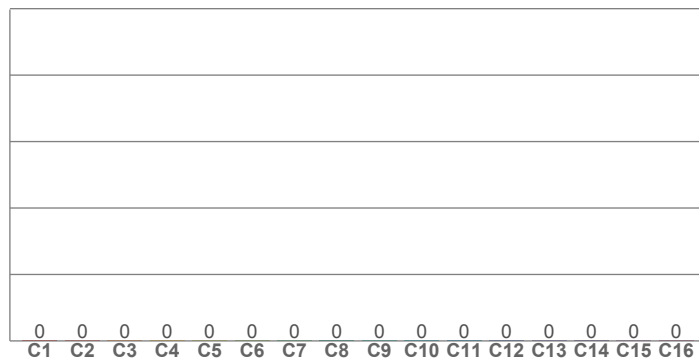
**Lichtlabor**

**Gaustrasse 13**

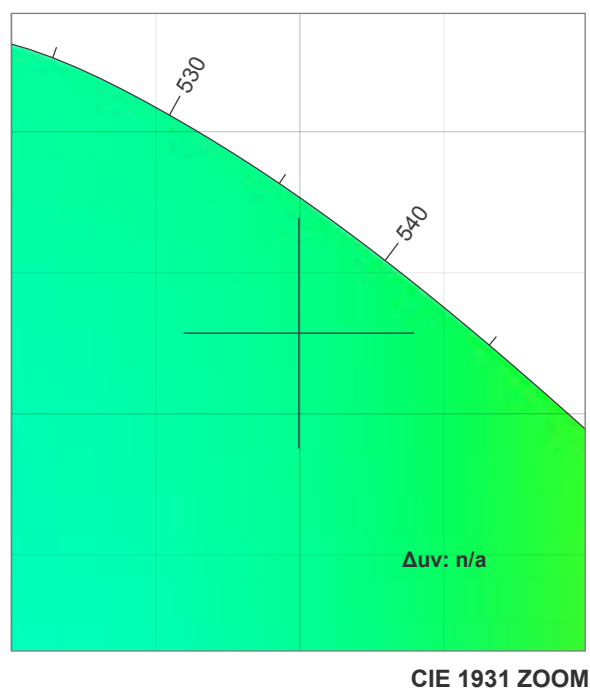
**55411 Bingen am Rhein**



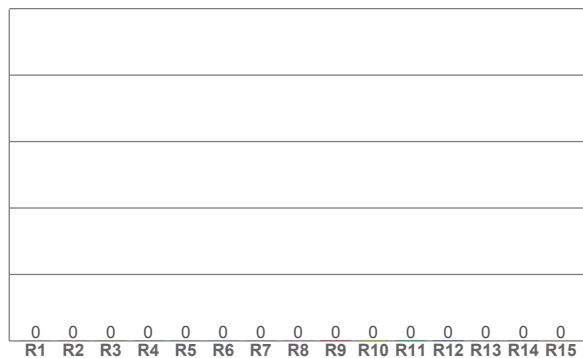
**TM30: 0,0**



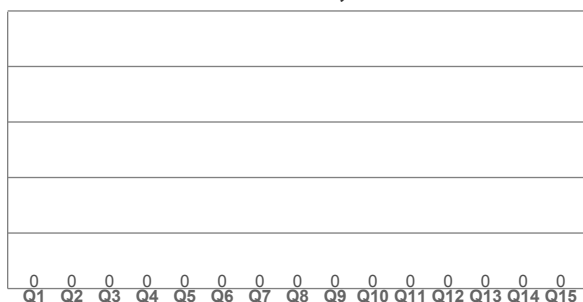
**TM30: 0,0**



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



**CQS: 0,0**



**CRI R values, only R1-R8 are used to calculate final CRI value**

[illegible]

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

[illegible]

### CQS Q values

[illegible]

## 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	0,200	0,729	0,070	0,385	n/a

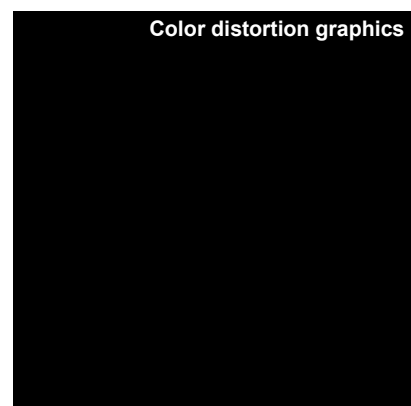
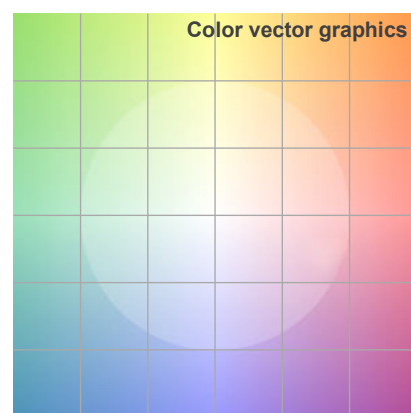
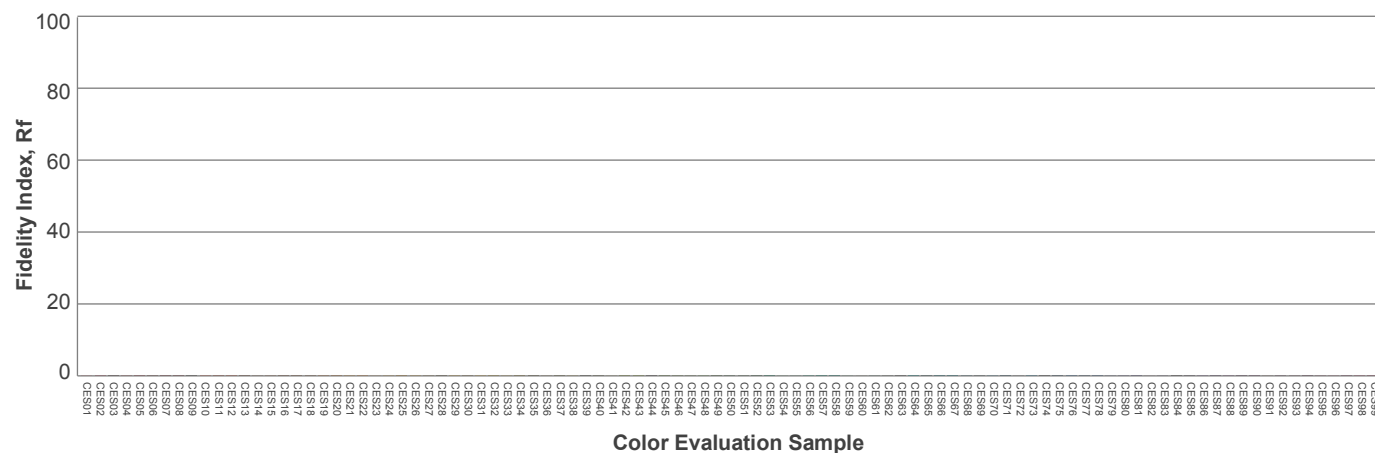
## Rf 0,0

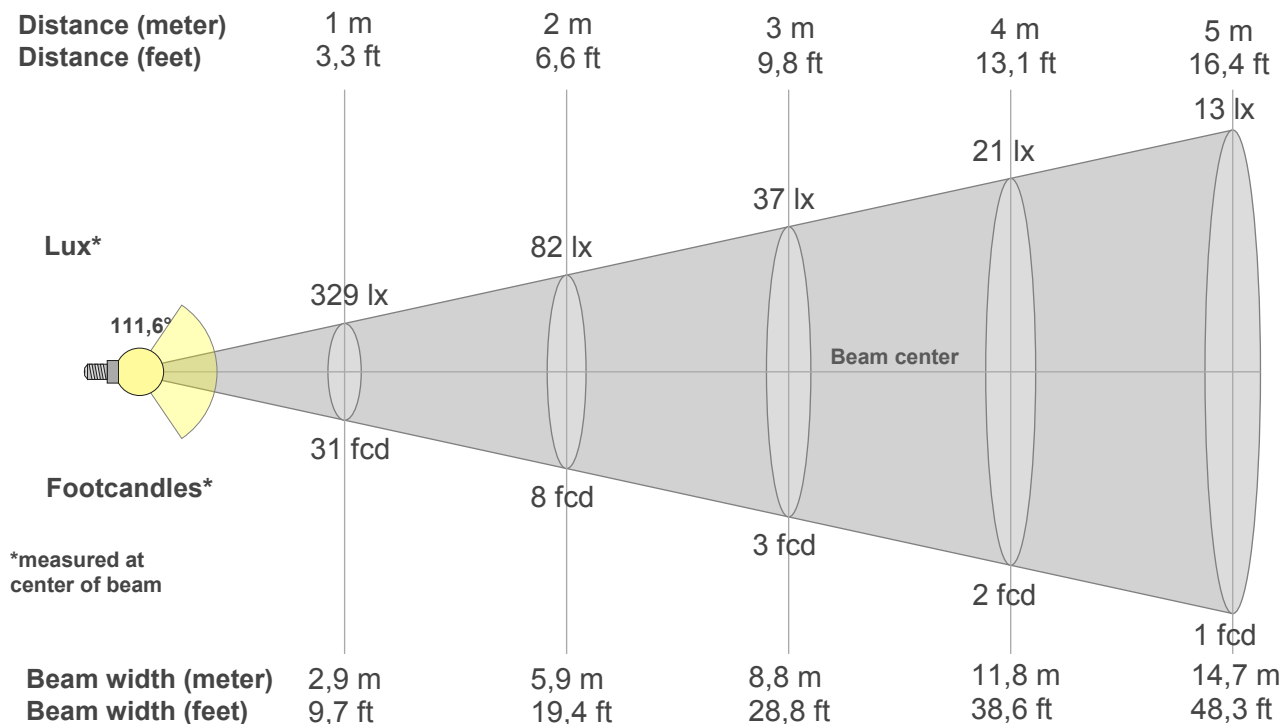
Fidelity index Rf

## 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
329lx	82lx	37lx	21lx	13lx	9lx	7lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx
30,6fcd	7,7fcd	3,4fcd	1,9fcd	1,2fcd	0,9fcd	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°
329	329	324	316	306	293	279	262	244	224	202	178	153	127	102	79	58	40	13	0
100%	100%	98%	96%	93%	89%	85%	79%	74%	68%	61%	54%	46%	39%	31%	24%	18%	12%	4%	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°
329	328	323	316	305	291	275	255	232	207	180	151	122	96	70	47	28	12	2	0
100%	100%	98%	96%	93%	88%	84%	78%	70%	63%	55%	46%	37%	29%	21%	14%	8%	4%	0%	0%

## Intensities in 180° c-plane

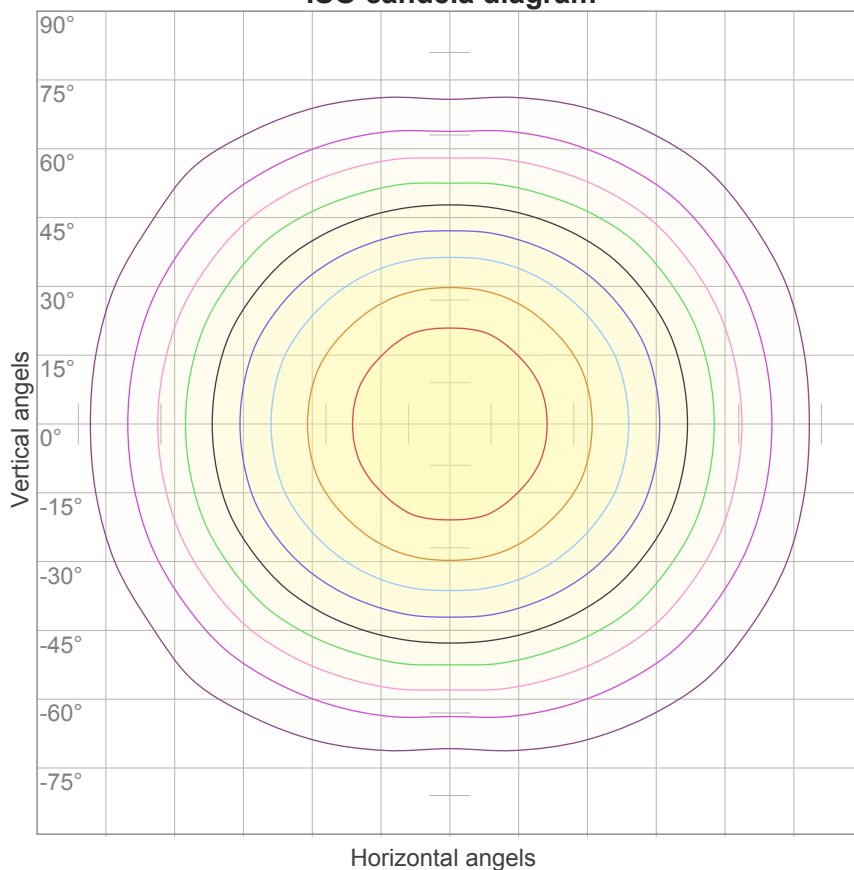
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
329	329	324	316	306	293	279	262	244	224	202	178	153	127	102	79	58	40	13	0
100%	100%	98%	96%	93%	89%	85%	79%	74%	68%	61%	54%	46%	39%	31%	24%	18%	12%	4%	0%

## 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°
329	328	323	316	305	291	275	255	232	207	180	151	122	96	70	47	28	12	2	0
100%	100%	98%	96%	93%	88%	84%	78%	70%	63%	55%	46%	37%	29%	21%	14%	8%	4%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
111,6°	170,1°	215°	75,7%	51,6%

### ISO candela diagram



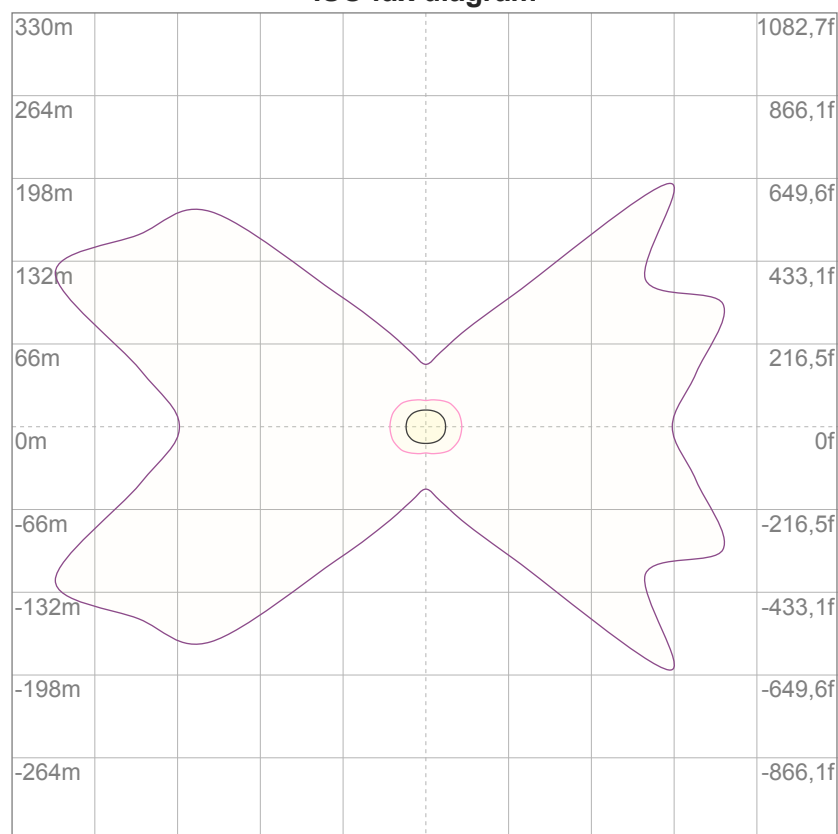
10%	33 cd
20%	66 cd
30%	99 cd
40%	132 cd
50%	165 cd
60%	198 cd
70%	231 cd
80%	264 cd
90%	297 cd

#### Conditions:

Number of c-planes: 16

Candela at center: 329 cd

### ISO lux diagram



3%	98,8m lx
5%	0,165 lx
10%	0,329 lx
30%	0,988 lx
50%	1,65 lx

#### Conditions:

Number of c-planes: 16

Lux at center: 3,29 lx

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

### Glare Evaluation According to UGR

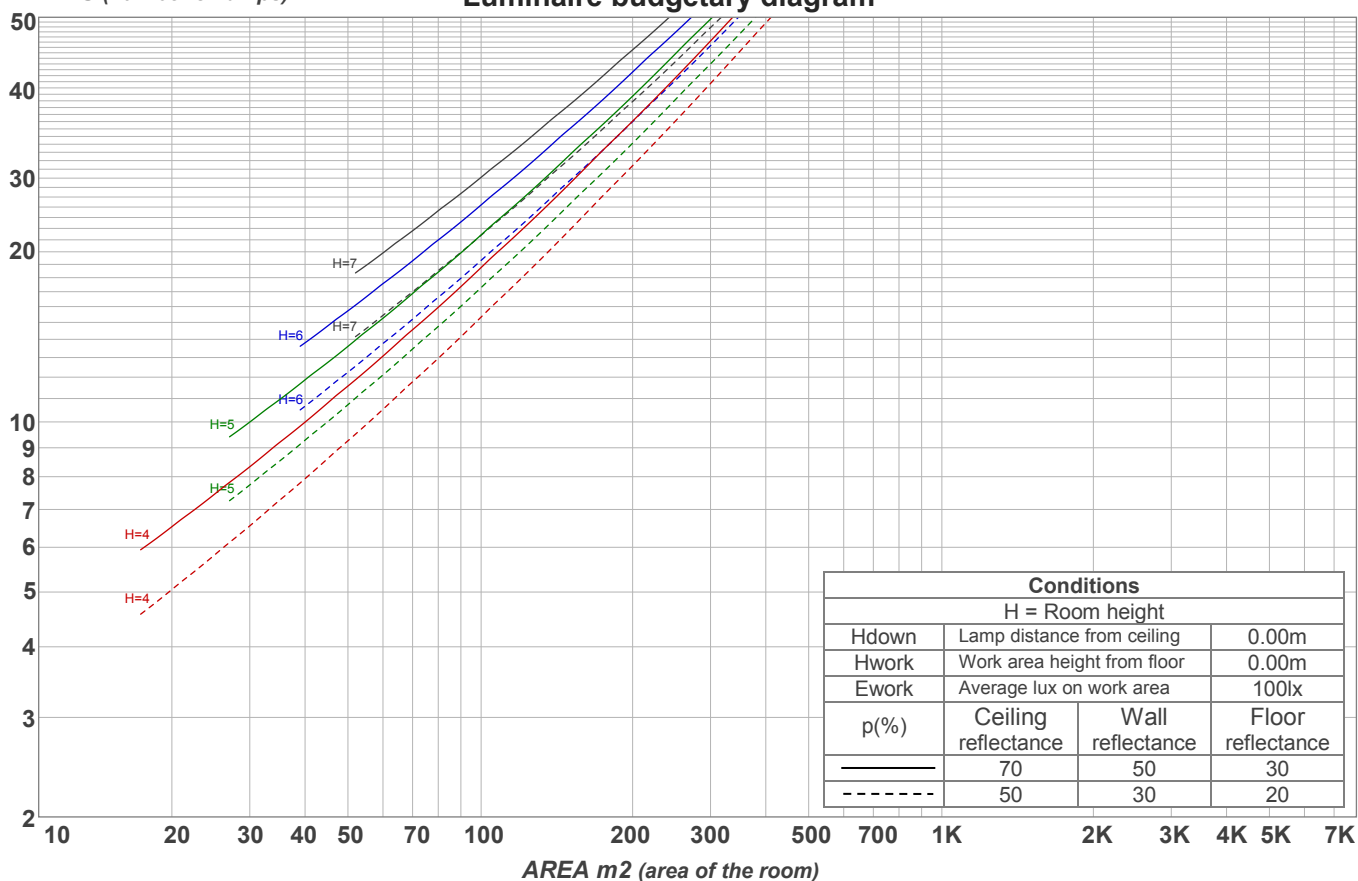
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X      Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	22,3	23,6	22,6	23,9	24,1	22,6	23,9	22,8	24,2	24,4
	3H	23,6	24,9	24,0	25,2	25,4	23,8	25,1	24,2	25,4	25,6
	4H	24,2	25,4	24,6	25,7	26,0	24,3	25,6	24,7	25,8	26,1
	6H	24,7	25,8	25,0	26,1	26,4	24,8	25,9	25,1	26,1	26,5
	8H	24,9	25,9	25,2	26,2	26,6	24,9	25,9	25,2	26,2	26,6
	12H	25,0	26,0	25,3	26,3	26,8	24,9	25,9	25,3	26,3	26,7
4H	2H	22,9	24,1	23,3	24,4	24,7	23,1	24,3	23,5	24,6	24,9
	3H	24,5	25,5	24,9	25,9	26,3	24,6	25,7	25,0	26,0	26,4
	4H	25,1	26,1	25,6	26,5	27,0	25,2	26,1	25,6	26,6	27,1
	6H	25,7	26,6	26,2	27,0	27,3	25,7	26,6	26,2	27,0	27,3
	8H	25,9	26,8	26,4	27,1	27,5	25,8	26,7	26,4	27,1	27,4
	12H	26,1	26,8	26,6	27,2	27,7	26,0	26,7	26,5	27,1	27,6
8H	4H	25,4	26,2	25,9	26,6	27,0	25,5	26,3	26,0	26,7	27,1
	6H	26,2	26,8	26,7	27,3	27,8	26,1	26,8	26,6	27,2	27,8
	8H	26,5	27,1	27,0	27,6	28,2	26,4	27,0	26,9	27,5	28,2
	12H	26,8	27,3	27,4	27,8	28,4	26,6	27,1	27,2	27,6	28,2
12H	4H	25,4	26,1	25,9	26,5	27,0	25,5	26,2	26,0	26,6	27,1
	6H	26,3	26,8	26,8	27,3	28,0	26,2	26,8	26,8	27,3	28,0
	8H	26,6	27,1	27,2	27,6	28,2	26,6	27,0	27,1	27,5	28,2
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 / -0,3					0,2 / -0,3				
S = 2.0H		0,4 / -0,5					0,5 / -0,6				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 972 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	110	110	110	105	105	105	101	101	101	99
1	108	103	98	94	105	100	96	92	96	92	89	91	89	86	88	85	83	81
2	98	89	82	76	95	87	81	75	83	78	73	80	75	71	76	73	69	67
3	89	78	70	63	86	76	69	62	73	67	61	70	65	60	67	63	59	56
4	81	69	60	53	79	68	59	53	65	58	52	62	56	51	60	55	50	48
5	75	62	53	46	73	60	52	45	58	51	45	56	49	44	54	48	44	41
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	38	36
7	64	50	41	35	62	49	41	35	48	40	35	46	39	34	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	42	36	31	41	35	30	28
9	56	42	34	28	54	41	34	28	40	33	28	39	32	28	38	32	27	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	35	29	25	23

LAMPS (number of lamps)

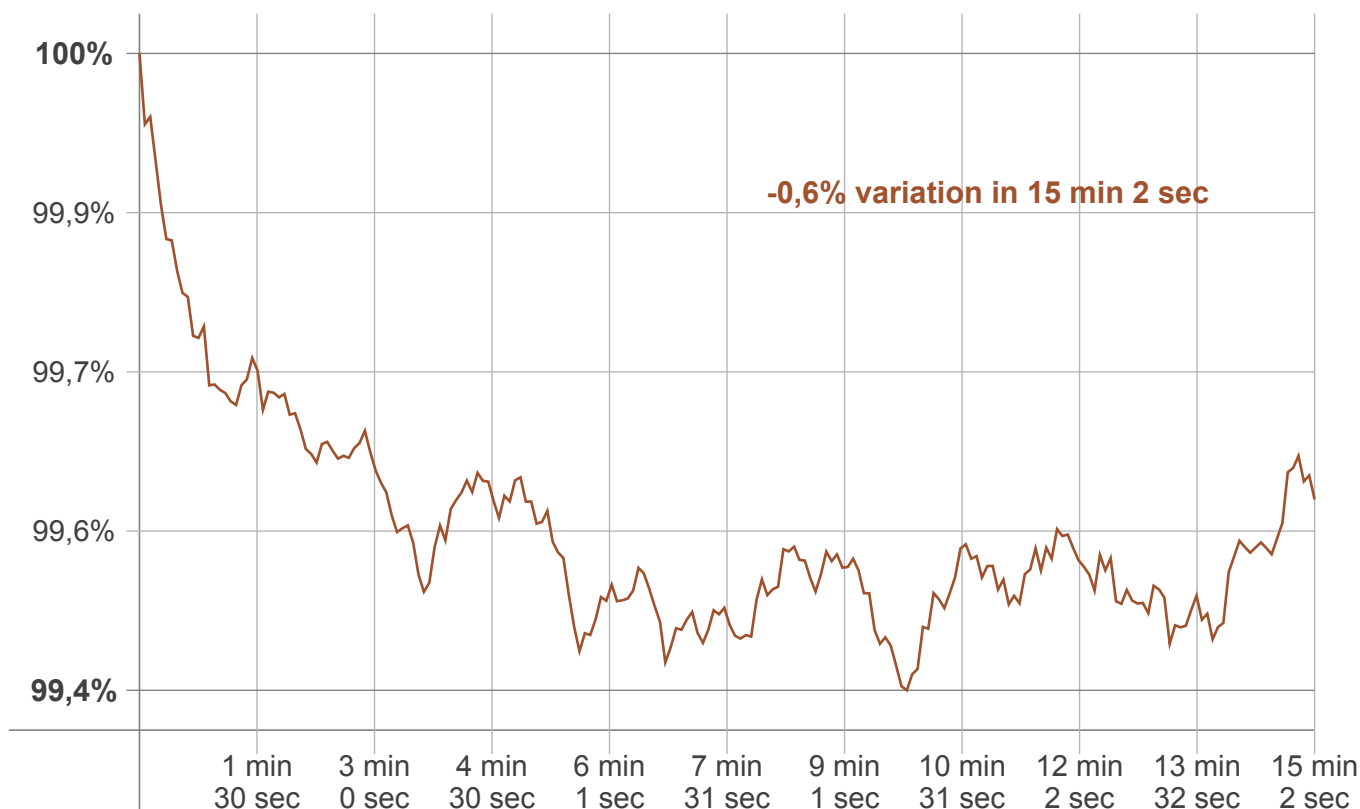
## Luminaire budgetary diagram



## Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
31,1 lm	89,1 lm	135 lm	162 lm	168 lm	150 lm	115 lm	73,7 lm	34,1 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
6,78 lm	6,07 lm	0,634 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 2 sec
Warmup variation	-0,6%

### 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
974 lm	-3 lm	972 lm