

**Light efficiency:**

**95 Lumen/Watt**

**Light quality:**

**CRI: 93,1**

**Color temperature:**

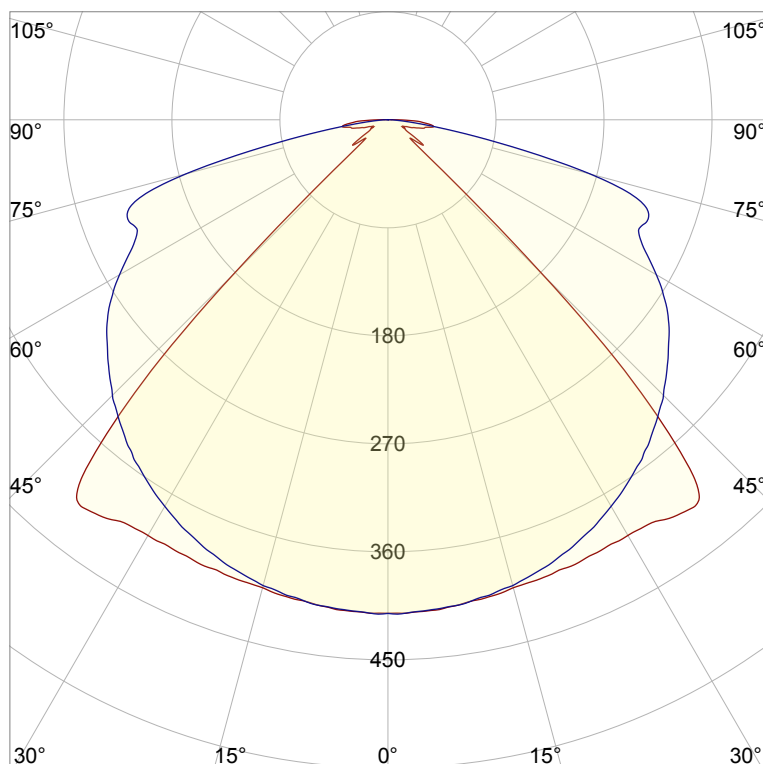
**2684 K**

**Output: 1046 lm**

**Peak: 412 cd**

**Power: 11,0 W**

**PF: 1,0**



**Product name:**

**Pegasus-4-0508-927-L9T**

**Item number:**

**FLNP/L/09D0508/927/L9T**

**Date and time:**

**08.04.2021 09:09:42**

**Description:**

**Rank: F9-8GA**

**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**

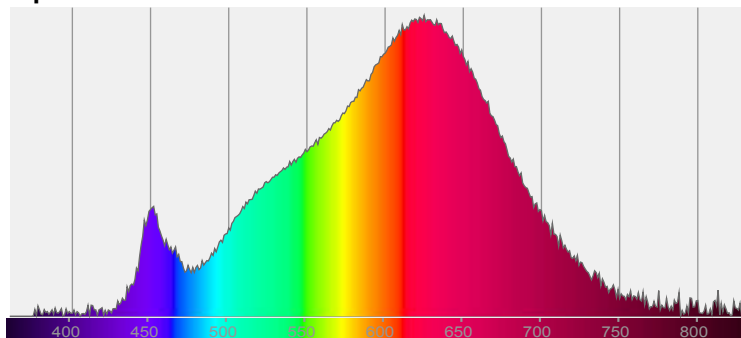


**CIE 1931**

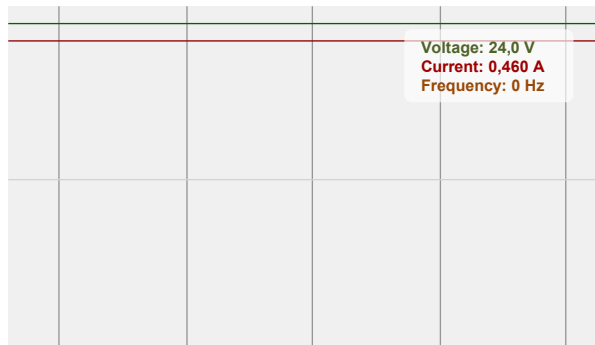
**x: 0,462**

**y: 0,412**

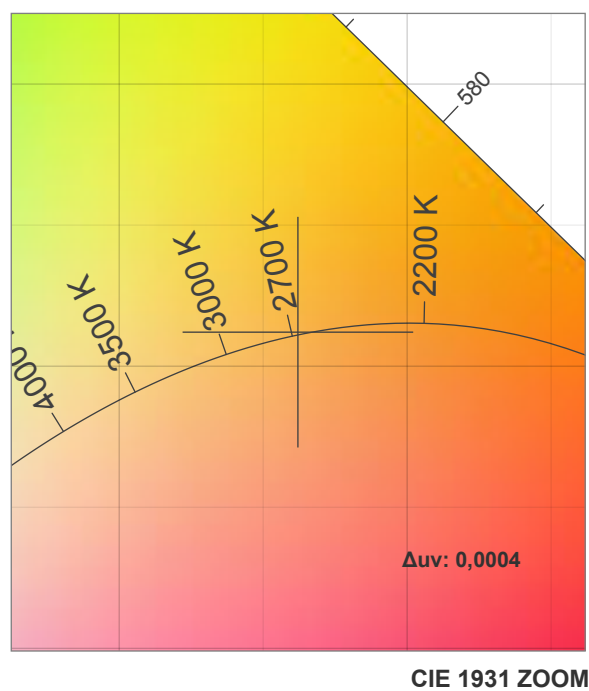
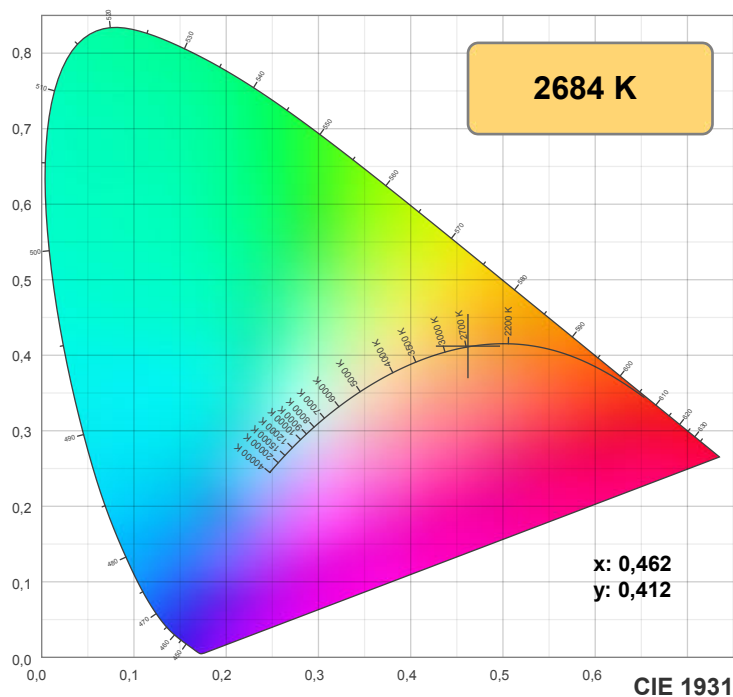
**Spectra**



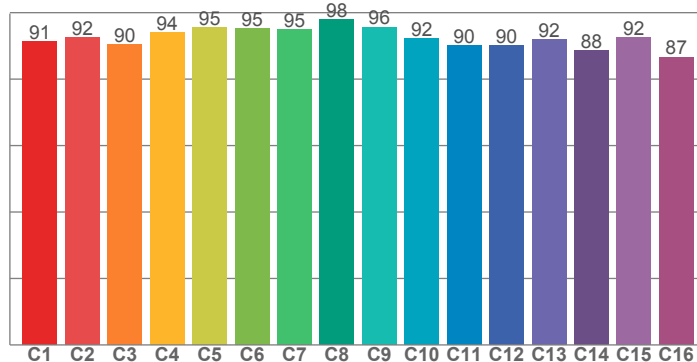
**Power**



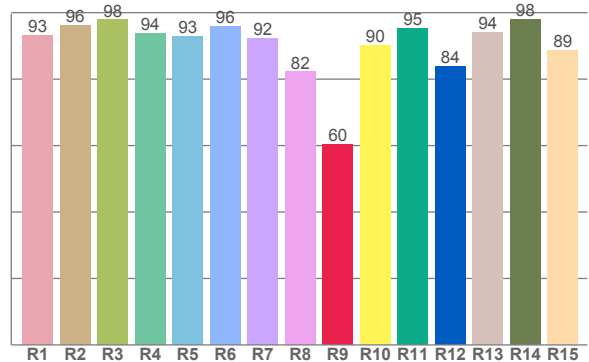
**Voltage: 24,0 V**  
**Current: 0,460 A**  
**Frequency: 0 Hz**



**TM30: 92,4**



**CRI: 93,1 (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
93,3	96,2	97,8	93,9	92,9	96,0	92,4	82,2	60,3	90,2	95,2	83,8	94,0	97,9	88,7

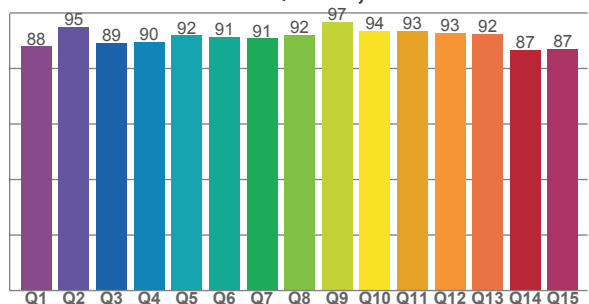
**TM30 C values, 16 binned values out of total of 99 C values**

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91,2	92,5	90,3	94,1	95,4	95,2	94,9	97,9	95,7	92,2	90,2	90,2	91,9	88,5	92,4	86,7

**CQS Q values**

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87,9	95,0	89,3	89,6	91,9	91,5	90,8	92,2	96,8	93,7	93,5	92,9	92,4	86,5	86,9

**CQS: 90,8**



## 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
2684 K	93,1	60,3	92,4	99,7	90,8	0,462	0,412	0,263	0,352	0,0004

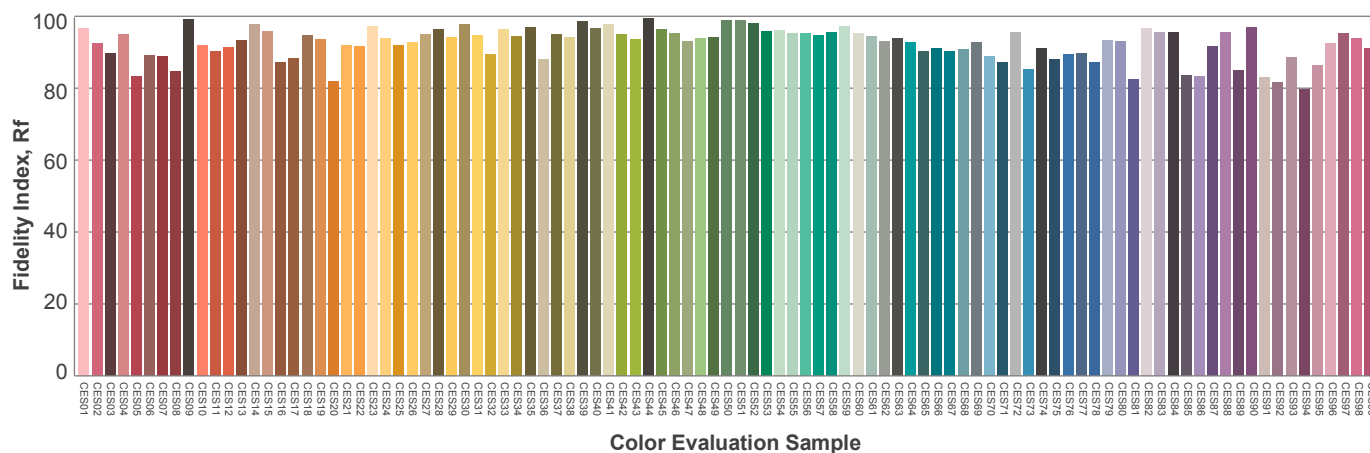
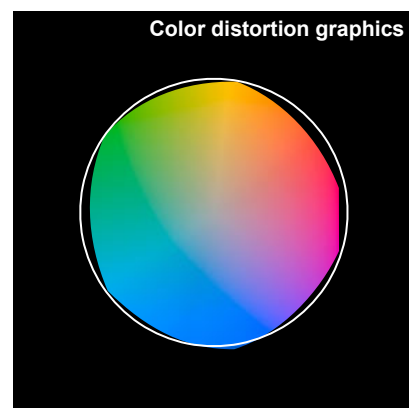
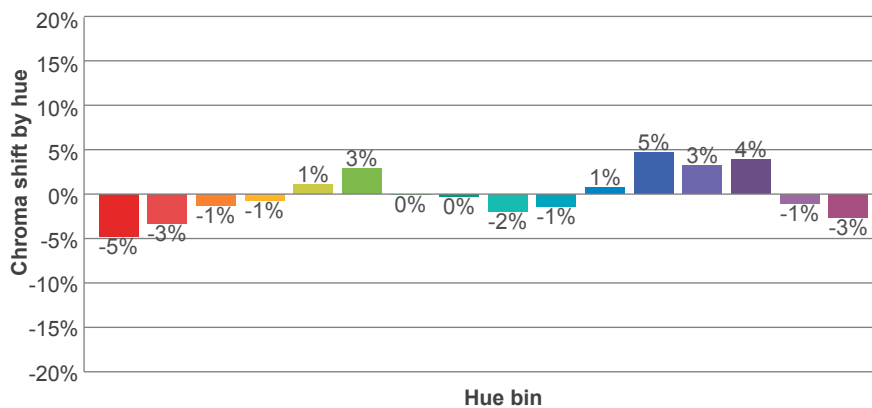
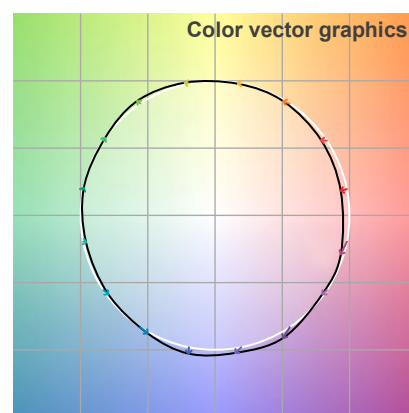
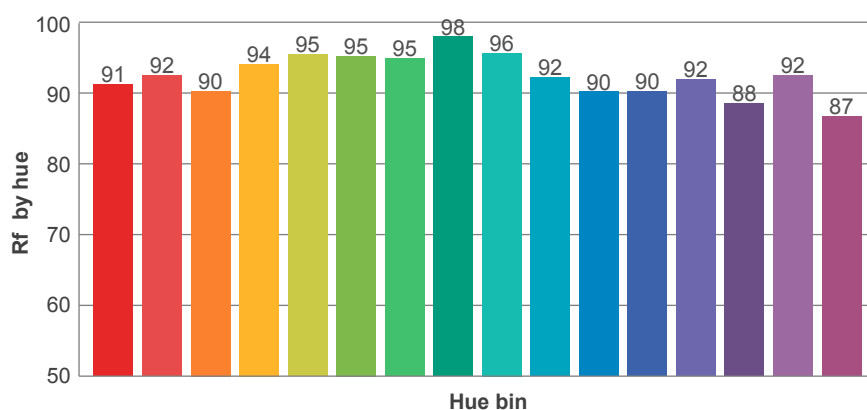
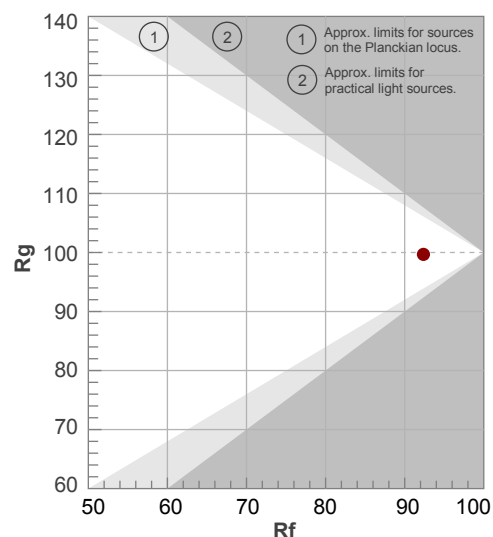
**Rf 92,4**

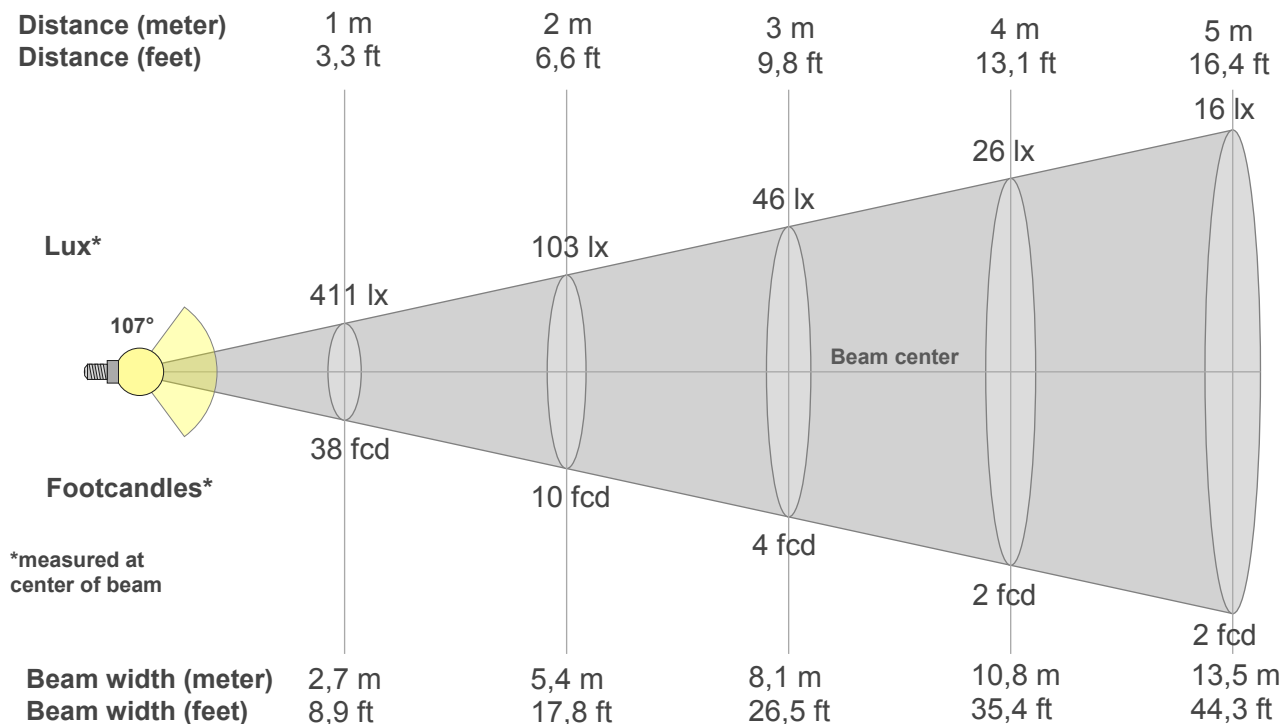
Fidelity index Rf

**Rg 99,7**

Gamut index Rg

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	91	-5%	0%
2	92	-3%	3%
3	90	-1%	5%
4	94	-1%	2%
5	95	1%	3%
6	95	3%	1%
7	95	0%	-2%
8	98	0%	-1%
9	96	-2%	1%
10	92	-1%	5%
11	90	1%	7%
12	90	5%	1%
13	92	3%	-5%
14	88	4%	-8%
15	92	-1%	-4%
16	87	-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
411lx	103lx	46lx	26lx	16lx	11lx	8lx	6lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx	1lx	1lx	1lx
38,2fcd	9,5fcd	4,2fcd	2,4fcd	1,5fcd	1,1fcd	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

## 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°
411	410	407	404	402	400	400	406	401	183	25	34	17	14	17	26	36	31	6	0
100%	100%	99%	98%	98%	97%	97%	99%	97%	45%	6%	8%	4%	3%	4%	6%	9%	7%	1%	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°
411	410	407	402	394	384	372	358	342	325	305	285	258	232	231	174	61	13	1	0
100%	100%	99%	98%	96%	93%	90%	87%	83%	79%	74%	69%	63%	56%	56%	42%	15%	3%	0%	0%

## Intensities in 180° c-plane

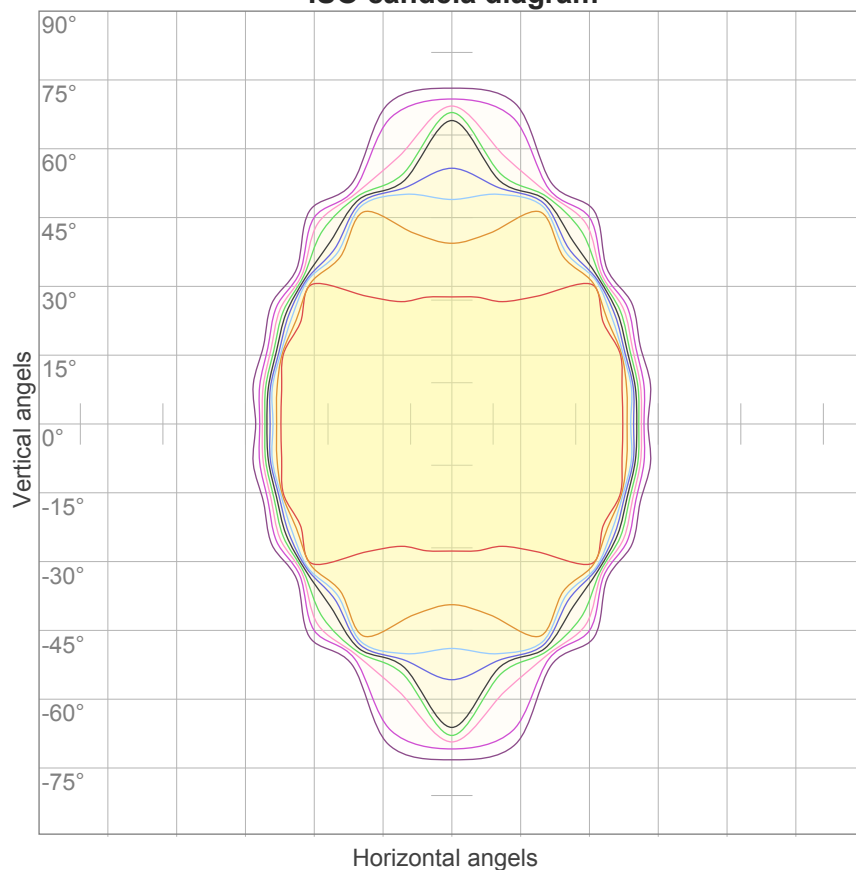
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
411	410	407	404	402	400	400	406	401	183	25	34	17	14	17	26	36	31	6	0
100%	100%	99%	98%	98%	97%	97%	99%	97%	45%	6%	8%	4%	3%	4%	6%	9%	7%	1%	0%

## 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°
411	410	407	402	394	384	372	358	342	325	305	285	258	232	231	174	61	13	1	0
100%	100%	99%	98%	96%	93%	90%	87%	83%	79%	74%	69%	63%	56%	56%	42%	15%	3%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
107°	115,4°	170,5°	88,8%	67,6%

### ISO candela diagram



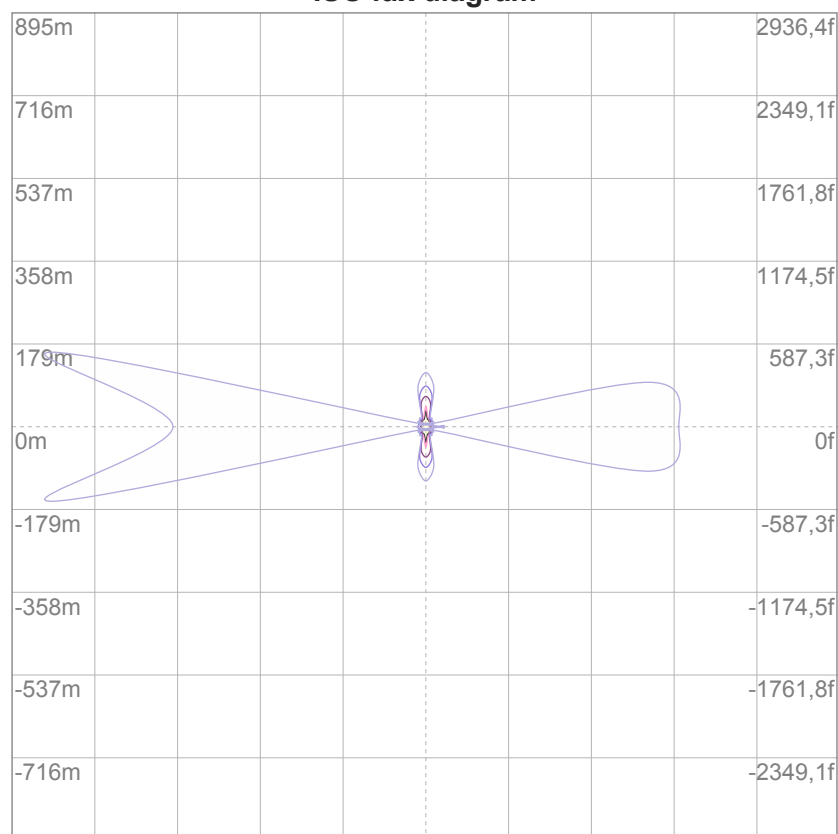
10%	41 cd
20%	82 cd
30%	123 cd
40%	164 cd
50%	205 cd
60%	247 cd
70%	288 cd
80%	329 cd
90%	370 cd

#### Conditions:

Number of c-planes: 16

Candela at center: 411 cd

### ISO lux diagram



3%	0,123 lx
5%	0,205 lx
10%	0,411 lx
30%	1,23 lx
50%	2,05 lx

#### Conditions:

Number of c-planes: 16

Lux at center: 4,11 lx

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

### Glare Evaluation According to UGR

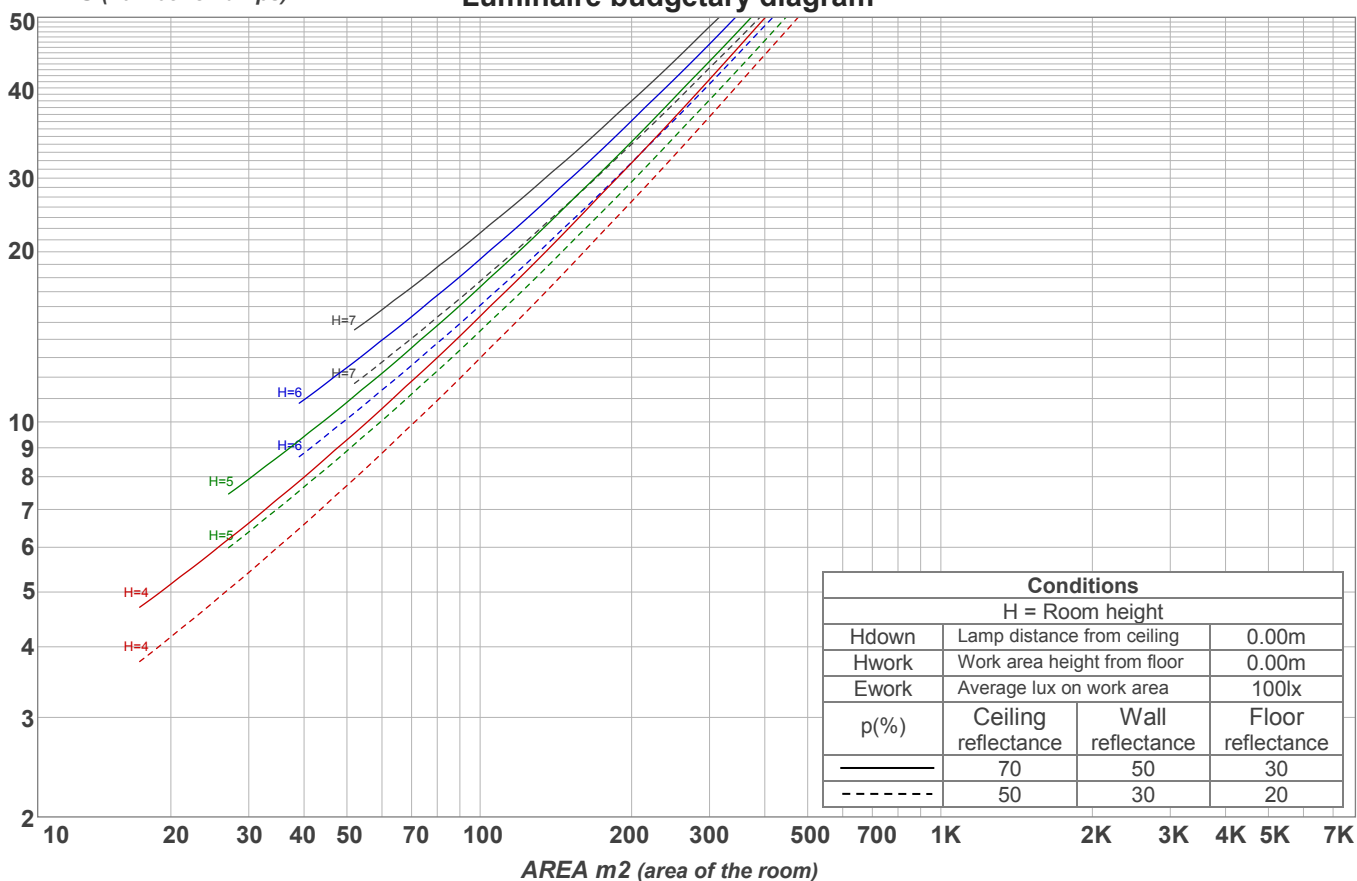
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X      Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	19,8	20,8	20,0	21,1	21,3	25,6	26,7	25,8	27,0	27,2
	3H	19,6	20,7	20,0	20,9	21,1	27,1	28,2	27,5	28,4	28,6
	4H	19,7	20,7	20,1	21,0	21,3	28,2	29,2	28,6	29,5	29,7
	6H	20,2	21,1	20,5	21,4	21,7	28,7	29,6	29,0	29,9	30,3
	8H	20,6	21,5	20,9	21,8	22,2	28,8	29,6	29,1	30,0	30,4
	12H	20,9	21,8	21,3	22,1	22,6	28,7	29,6	29,1	29,9	30,4
4H	2H	19,8	20,9	20,2	21,2	21,4	25,3	26,3	25,7	26,6	26,9
	3H	19,8	20,7	20,2	21,0	21,5	26,9	27,8	27,3	28,1	28,5
	4H	19,9	20,7	20,4	21,1	21,7	27,9	28,7	28,4	29,2	29,7
	6H	20,6	21,3	21,1	21,7	22,0	28,5	29,2	29,0	29,6	29,9
	8H	21,1	21,9	21,7	22,2	22,6	28,5	29,2	29,0	29,6	30,0
	12H	21,7	22,3	22,2	22,7	23,2	28,5	29,1	29,0	29,5	30,0
8H	4H	19,9	20,6	20,4	20,9	21,3	27,8	28,5	28,3	28,9	29,3
	6H	20,7	21,2	21,2	21,7	22,2	28,4	28,9	28,9	29,3	29,9
	8H	21,6	22,0	22,1	22,5	23,2	28,5	28,9	29,0	29,4	30,1
	12H	22,4	22,8	23,0	23,3	23,9	28,5	28,8	29,1	29,3	30,0
12H	4H	19,8	20,4	20,3	20,8	21,3	27,8	28,4	28,3	28,8	29,2
	6H	20,8	21,2	21,3	21,7	22,4	28,4	28,8	28,9	29,3	30,0
	8H	21,6	22,0	22,2	22,5	23,1	28,4	28,8	29,0	29,3	29,9
Variation of the observer position for the luminaire distance S											
S = 1.0H		1,1 / -1,2					0,5 / -0,8				
S = 1.5H		2,4 / -1,4					1,6 / -3,3				
S = 2.0H		3,7 / -1,6					2,8 / -6,0				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 1046 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	98
1	110	106	102	99	107	103	100	97	99	96	94	95	92	90	91	89	87	85
2	101	94	88	83	99	92	87	82	88	84	80	85	81	78	82	79	76	74
3	93	84	77	71	91	83	76	71	79	74	69	77	72	68	74	70	66	64
4	86	76	68	62	84	74	67	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	56	52	50
6	74	62	54	48	72	61	53	47	59	52	47	57	51	46	55	50	46	44
7	69	56	48	42	67	55	48	42	54	47	42	52	46	41	51	45	41	39
8	64	51	43	38	63	51	43	38	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	58	47	39	34	45	39	34	44	38	34	43	37	33	32
10	56	44	36	31	55	43	36	31	42	35	31	41	35	31	40	34	30	29

LAMPS (number of lamps)

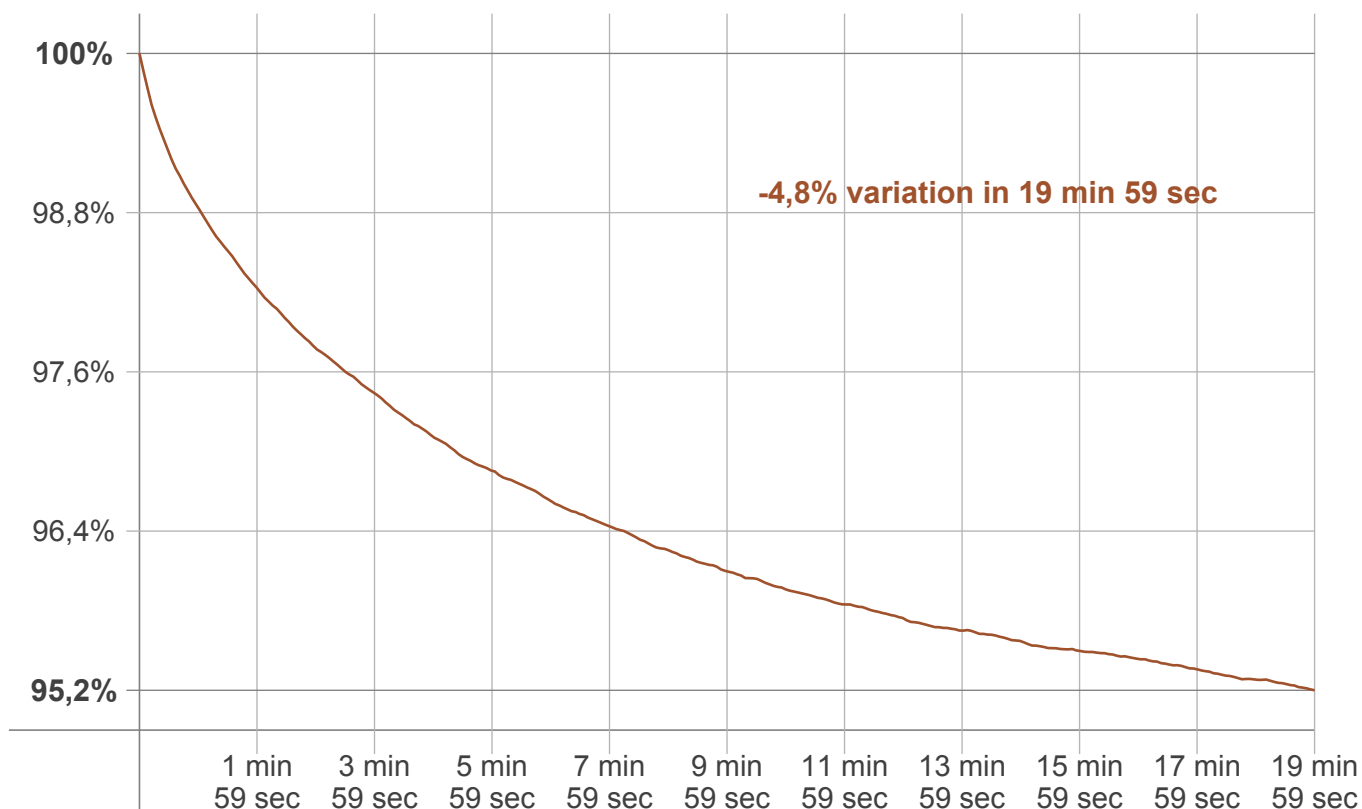
## Luminaire budgetary diagram



## Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
39,0 lm	114 lm	181 lm	240 lm	235 lm	120 lm	46,9 lm	34,0 lm	18,9 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
6,49 lm	2,32 lm	2,01 lm	1,81 lm	1,56 lm	1,27 lm	0,935 lm	0,573 lm	0,193 lm

## Warmup curve



## Warmup result

Warmup time:	19 min 59 sec
Warmup variation	-4,8%

## Warmup conditions

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

## Color temperature change

CCT start	CCT change	CCT end
2694 K	-10 K	2684 K

## Output change

Output start	Output change	Output end
1094 lm	-48 lm	1046 lm