

Light efficiency:

97 Lumen/Watt

Light quality:

CRI: 93,0

Color temperature:

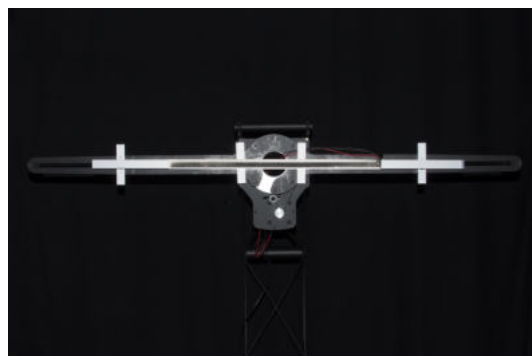
2678 K

Output: 1072 lm

Peak: 363 cd

Power: 11,0 W

PF: 1,0



Product name:

Pegasus-4-0508-927-CRT

Item number:

FLNP/L/09D0508/927/CRT

Date and time:

06.04.2021 10:33:09

Description:

Rank: F9-8GA

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:

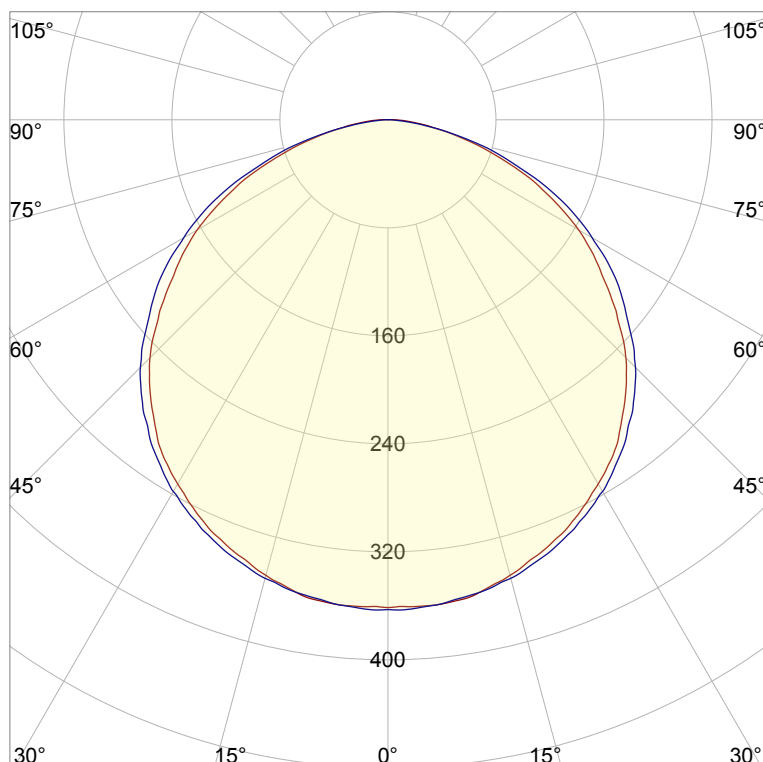
Peter Ulrich

Pruefort:

Lichtlabor

Gaustrasse13-15

55411 Bingen am Rhein

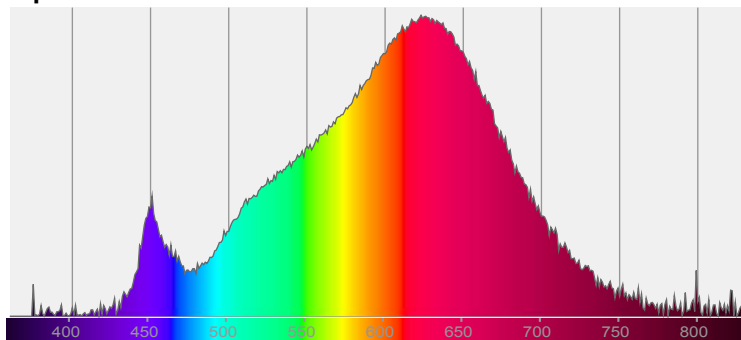


CIE 1931

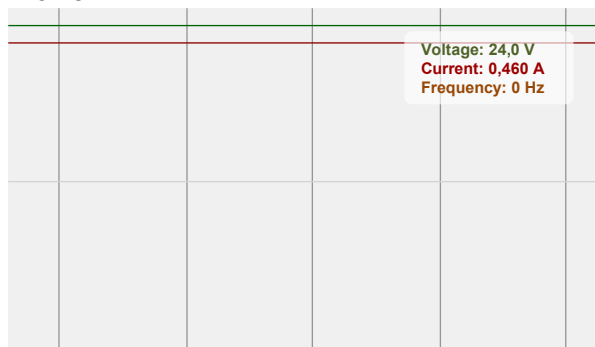
x: 0,463

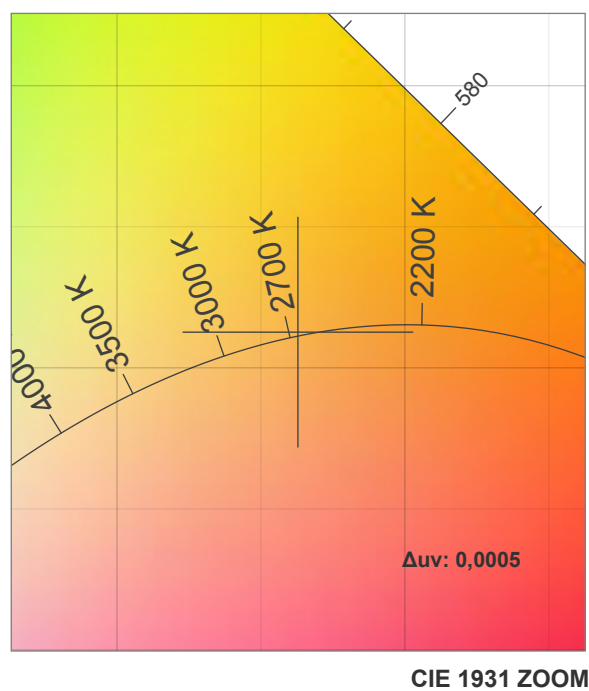
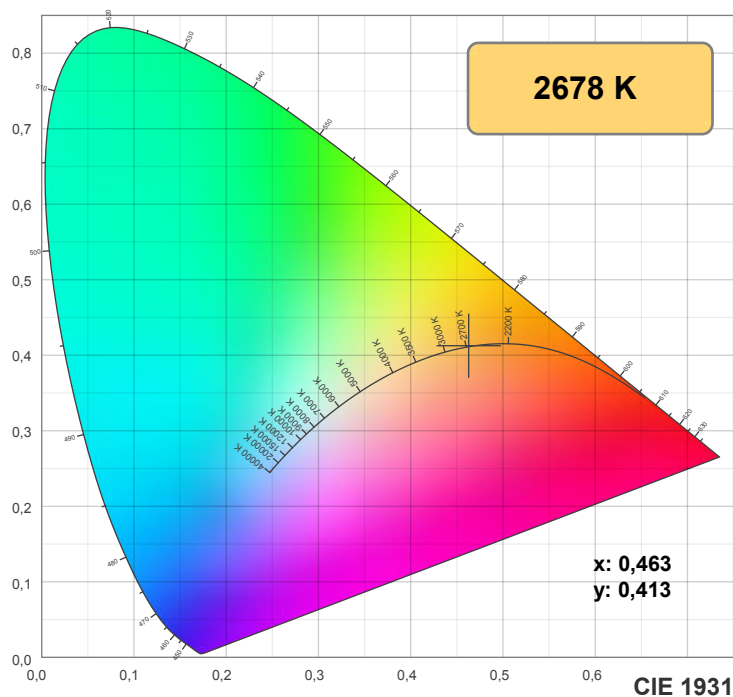
y: 0,413

Spectra

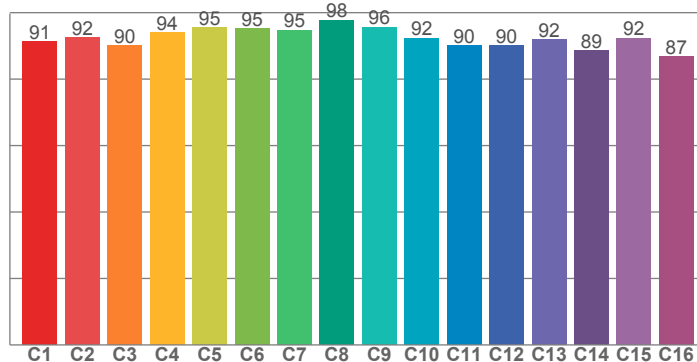


Power

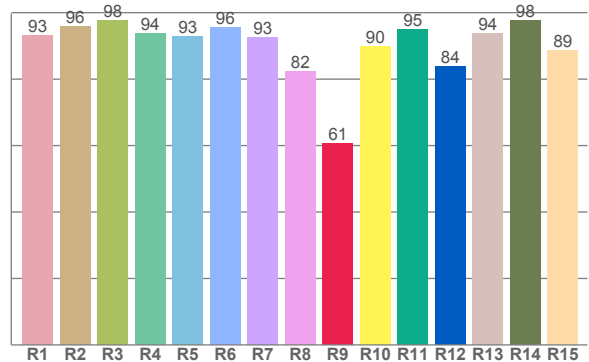




TM30: 92,4



CRI: 93,0 (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
93,1	96,0	97,6	93,8	92,7	95,7	92,6	82,3	60,5	89,8	95,1	83,7	93,8	97,8	88,6

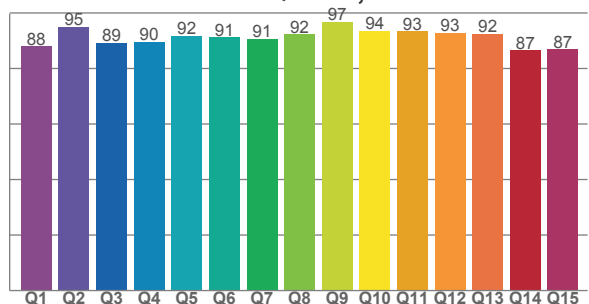
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91,3	92,5	90,2	94,0	95,4	95,2	94,8	97,8	95,7	92,4	90,2	90,2	92,0	88,6	92,4	86,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87,9	95,1	89,3	89,6	91,7	91,2	90,7	92,3	96,8	93,6	93,4	92,8	92,3	86,5	86,9

CQS: 90,7



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
2678 K	93,0	60,5	92,4	99,7	90,7	0,463	0,413	0,264	0,352	0,0005

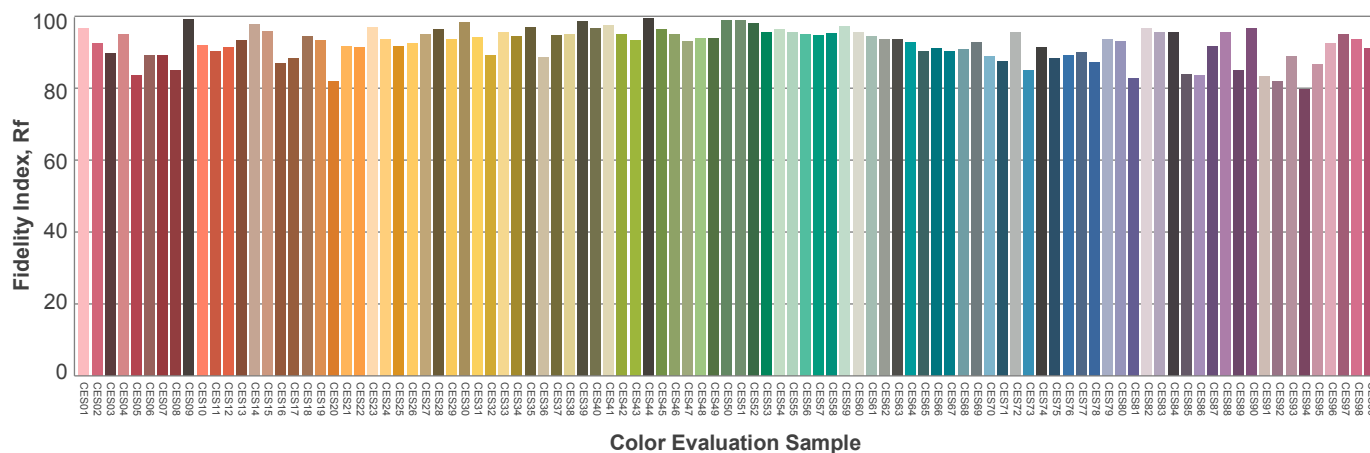
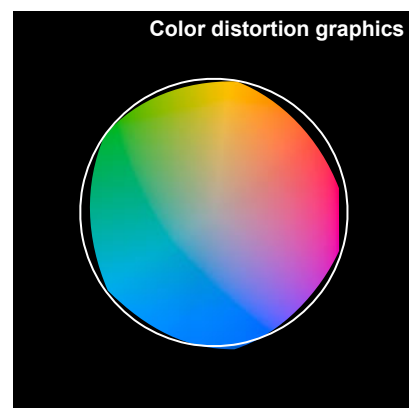
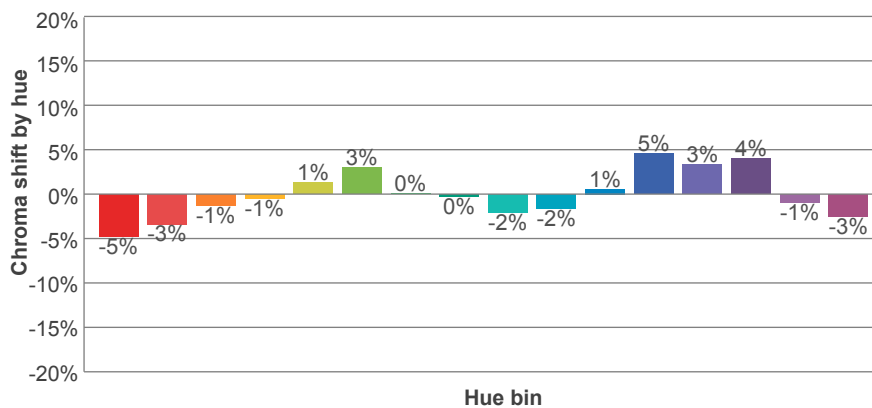
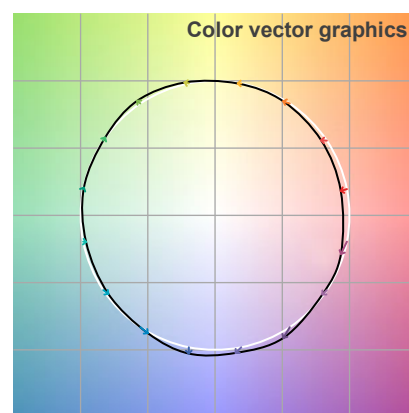
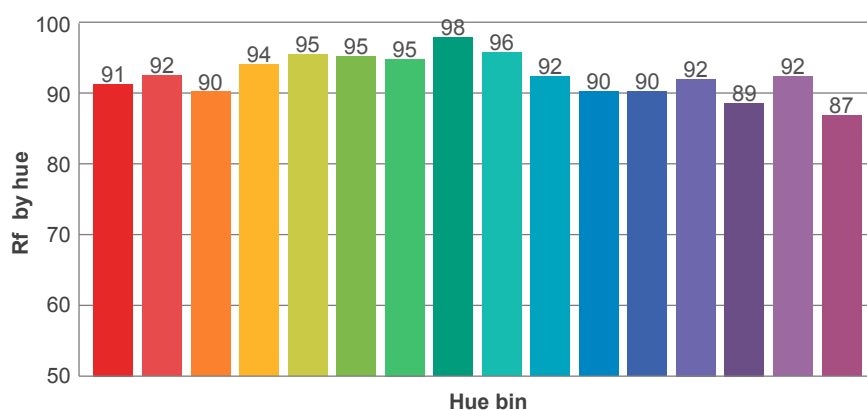
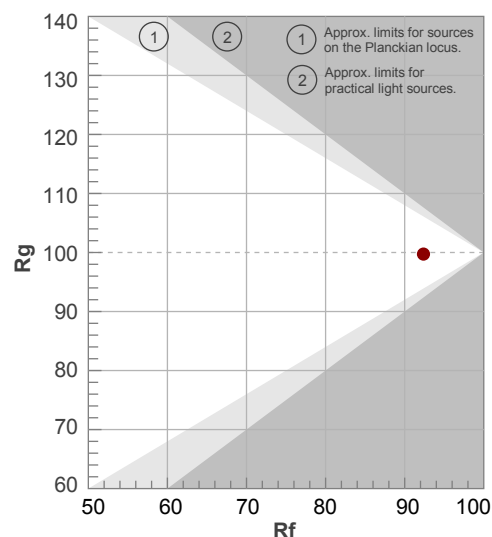
Rf 92,4

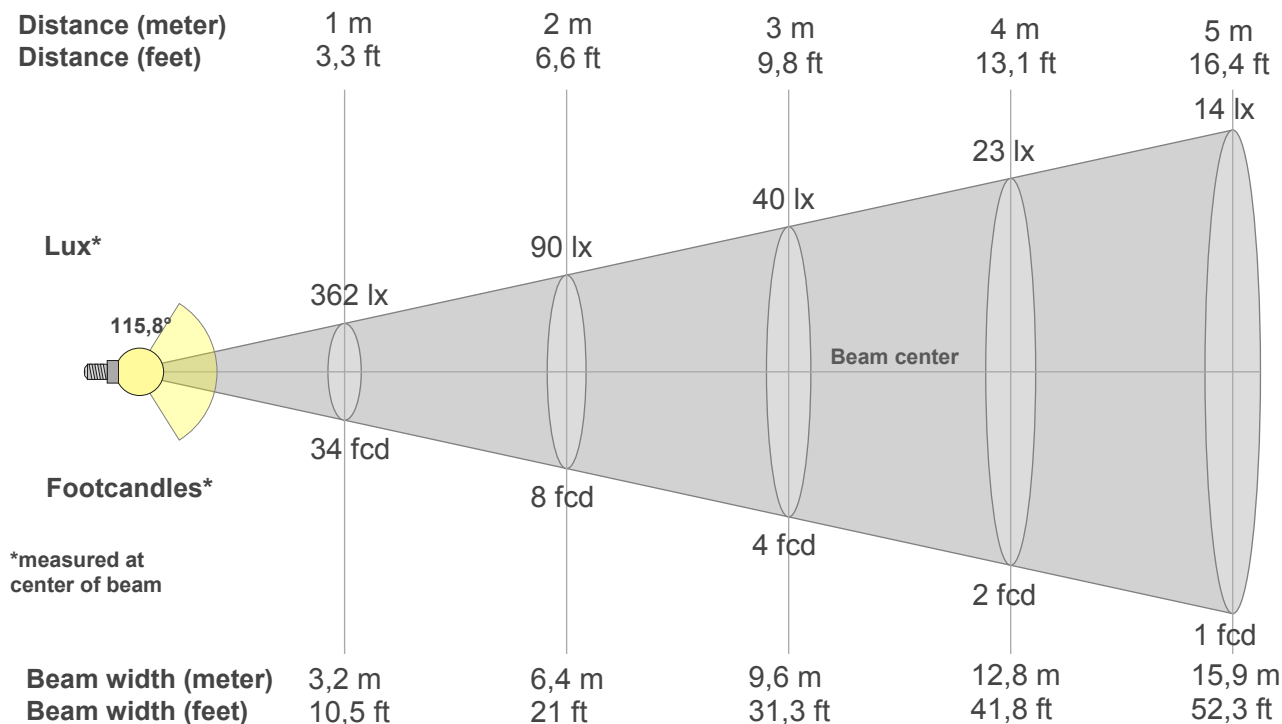
Fidelity index Rf

Rg 99,7

Gamut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	91	-5%	0%
2	92	-3%	3%
3	90	-1%	5%
4	94	-1%	3%
5	95	1%	3%
6	95	3%	1%
7	95	0%	-3%
8	98	0%	-1%
9	96	-2%	1%
10	92	-2%	4%
11	90	1%	7%
12	90	5%	1%
13	92	3%	-5%
14	89	4%	-8%
15	92	-1%	-5%
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
362lx	90lx	40lx	23lx	14lx	10lx	7lx	6lx	4lx	4lx	3lx	3lx	2lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx
33,6fcd	8,4fcd	3,7fcd	2,1fcd	1,3fcd	0,9fcd	0,7fcd	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°
362	361	358	349	339	326	311	295	273	249	221	191	163	130	96	63	35	16	4	0
100%	100%	99%	97%	94%	90%	86%	82%	75%	69%	61%	53%	45%	36%	27%	18%	10%	5%	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°
362	361	357	351	343	331	318	301	282	259	232	206	175	142	104	69	35	10	1	1
100%	100%	99%	97%	95%	92%	88%	83%	78%	72%	64%	57%	48%	39%	29%	19%	10%	3%	0%	0%

Intensities in 180° c-plane

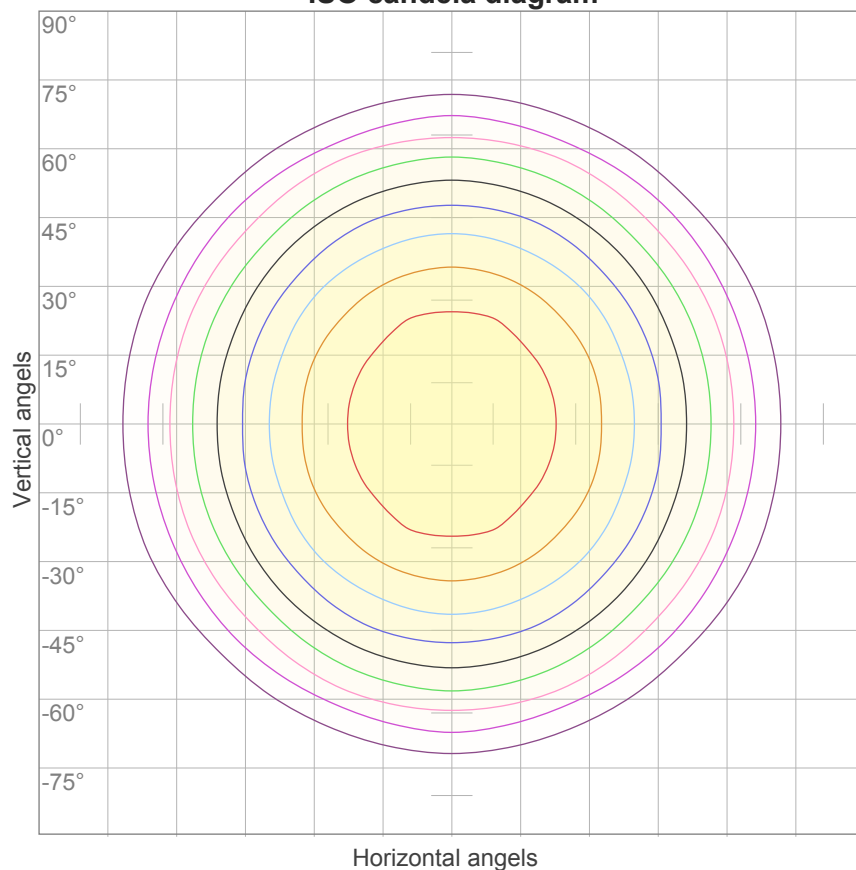
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
362	361	358	349	339	326	311	295	273	249	221	191	163	130	96	63	35	16	4	0
100%	100%	99%	97%	94%	90%	86%	82%	75%	69%	61%	53%	45%	36%	27%	18%	10%	5%	1%	0%

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°
362	361	357	351	343	331	318	301	282	259	232	206	175	142	104	69	35	10	1	1
100%	100%	99%	97%	95%	92%	88%	83%	78%	72%	64%	57%	48%	39%	29%	19%	10%	3%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
115,8°	158,9°	173,1°	78,8%	53,1%

ISO candela diagram



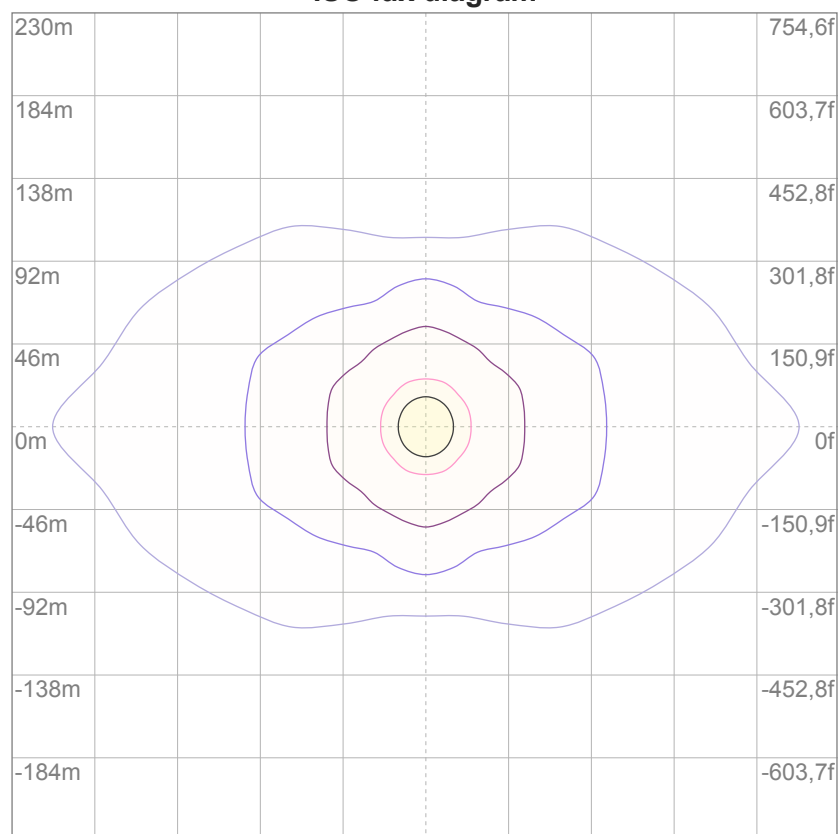
10%	36 cd
20%	72 cd
30%	109 cd
40%	145 cd
50%	181 cd
60%	217 cd
70%	253 cd
80%	289 cd
90%	326 cd

Conditions:

Number of c-planes: 16

Candela at center: 362 cd

ISO lux diagram



3%	0,109 lx
5%	0,181 lx
10%	0,362 lx
30%	1,09 lx
50%	1,81 lx

Conditions:

Number of c-planes: 16

Lux at center: 3,62 lx

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

Glare Evaluation According to UGR

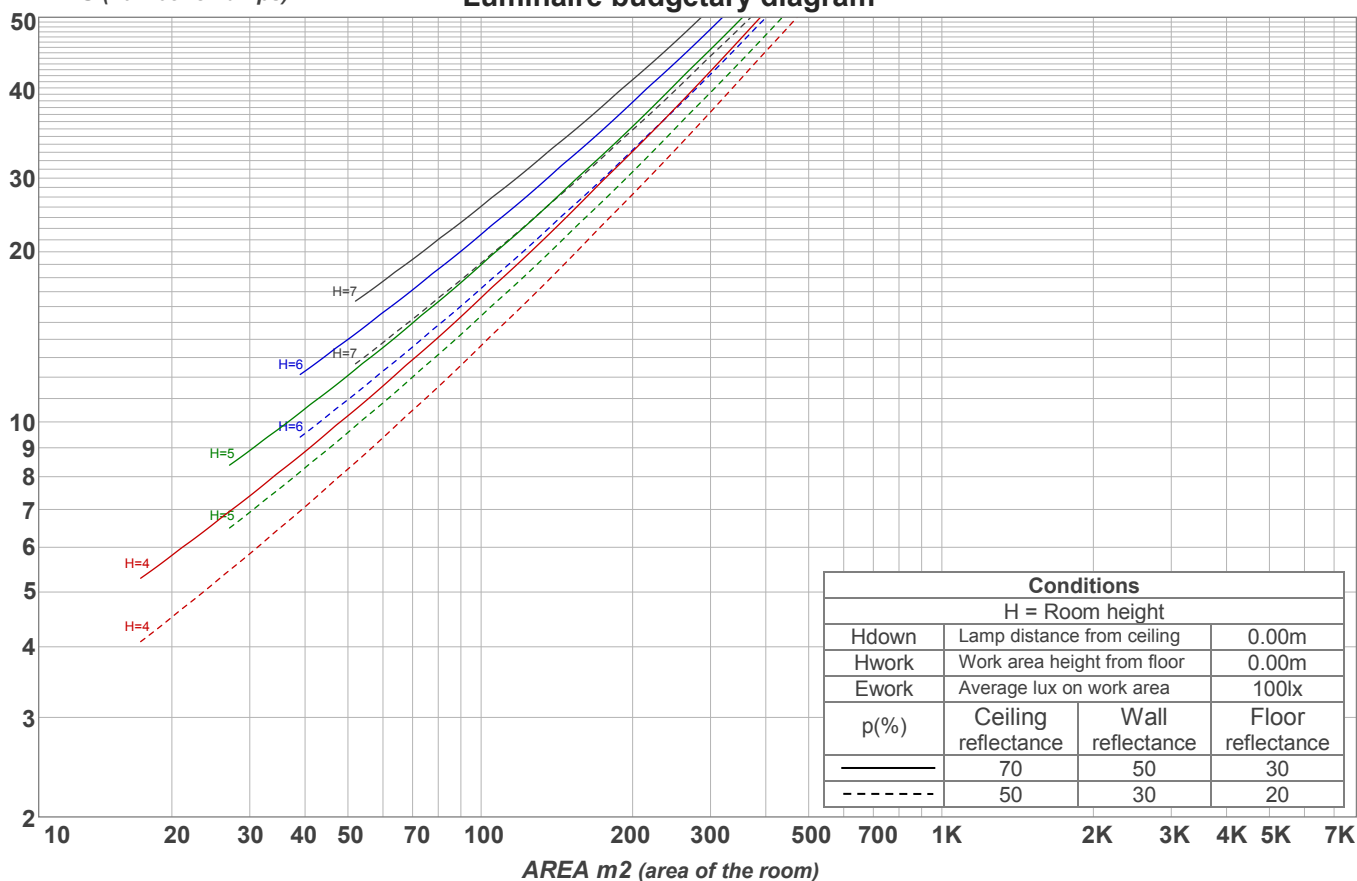
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	22,7	23,9	22,9	24,2	24,4	24,0	25,2	24,2	25,5	25,8
	3H	23,7	24,9	24,1	25,2	25,4	25,4	26,7	25,8	27,0	27,2
	4H	24,0	25,2	24,4	25,5	25,8	25,9	27,1	26,3	27,4	27,7
	6H	24,3	25,3	24,6	25,6	26,0	26,3	27,3	26,6	27,6	28,0
	8H	24,3	25,3	24,6	25,6	26,0	26,3	27,3	26,6	27,6	28,0
	12H	24,2	25,2	24,6	25,6	26,0	26,3	27,3	26,7	27,6	28,1
4H	2H	23,2	24,4	23,6	24,7	25,0	24,3	25,5	24,7	25,8	26,1
	3H	24,5	25,5	24,9	25,9	26,3	26,0	27,0	26,4	27,3	27,8
	4H	24,9	25,8	25,3	26,2	26,8	26,5	27,4	26,9	27,8	28,4
	6H	25,1	26,0	25,6	26,3	26,7	26,8	27,7	27,3	28,1	28,4
	8H	25,2	25,9	25,7	26,3	26,7	26,9	27,7	27,4	28,1	28,4
	12H	25,2	25,8	25,7	26,2	26,7	26,9	27,6	27,4	28,0	28,5
8H	4H	25,1	25,9	25,6	26,2	26,6	26,6	27,3	27,1	27,7	28,1
	6H	25,4	26,0	25,9	26,4	27,0	27,0	27,6	27,5	28,0	28,6
	8H	25,5	26,0	26,0	26,5	27,2	27,1	27,6	27,6	28,1	28,8
	12H	25,5	26,0	26,1	26,5	27,1	27,1	27,6	27,7	28,1	28,7
12H	4H	25,0	25,7	25,5	26,1	26,6	26,5	27,2	27,0	27,6	28,1
	6H	25,4	25,9	25,9	26,5	27,1	27,0	27,5	27,5	28,0	28,7
	8H	25,5	25,9	26,1	26,4	27,1	27,1	27,5	27,7	28,0	28,6
Variation of the observer position for the luminaire distance S											
S = 1.0H		0,1 / -0,2					0,1 / -0,1				
S = 1.5H		0,3 / -0,5					0,3 / -0,5				
S = 2.0H		0,7 / -1,0					0,9 / -1,1				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 1072 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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	89	87	85	83
2	99	91	84	78	96	89	82	77	85	80	75	81	77	73	78	75	71	69
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	64	60	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	61	56	52	50
5	76	63	54	47	73	62	53	47	59	52	46	57	51	45	55	49	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	39	35	33
8	60	46	38	32	58	46	38	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	32	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	25	24

LAMPS (number of lamps)

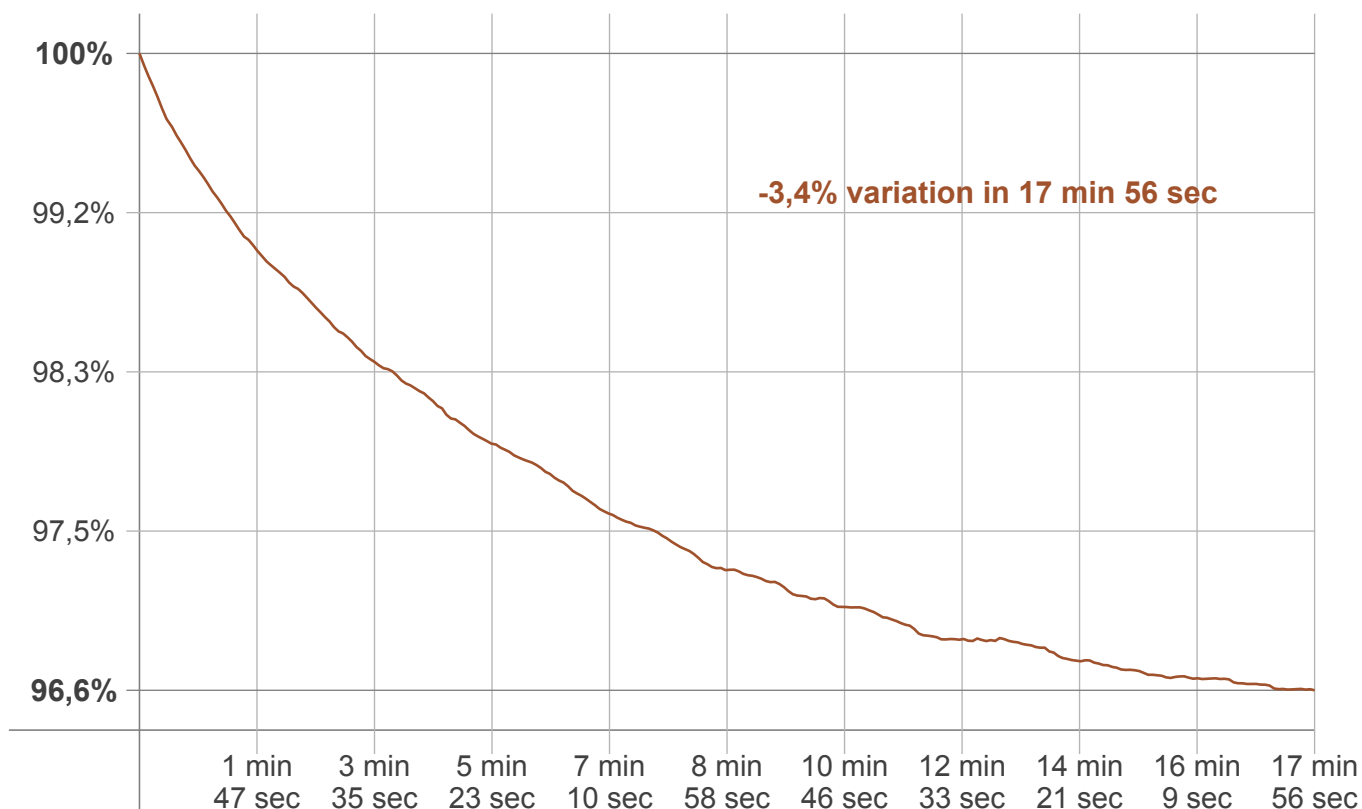
Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
34,4 lm	99,1 lm	152 lm	186 lm	196 lm	178 lm	133 lm	67,9 lm	16,0 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
3,47 lm	1,55 lm	1,39 lm	1,26 lm	1,01 lm	0,787 lm	0,580 lm	0,355 lm	0,120 lm

Warmup curve



Warmup result

Warmup time:	17 min 56 sec
Warmup variation	-3,4%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
2685 K	-7 K	2678 K

Output change

Output start	Output change	Output end
1108 lm	-35 lm	1072 lm