Light efficiency:

144 Lumen/Watt

Light quality:

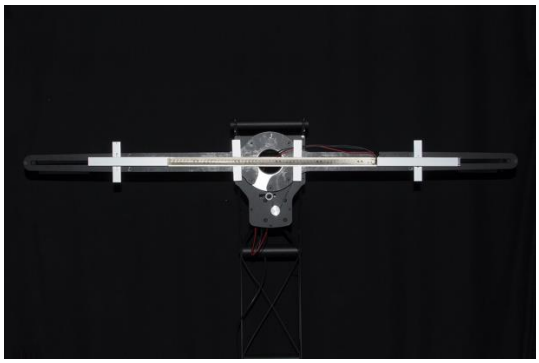
CRI: 81,9

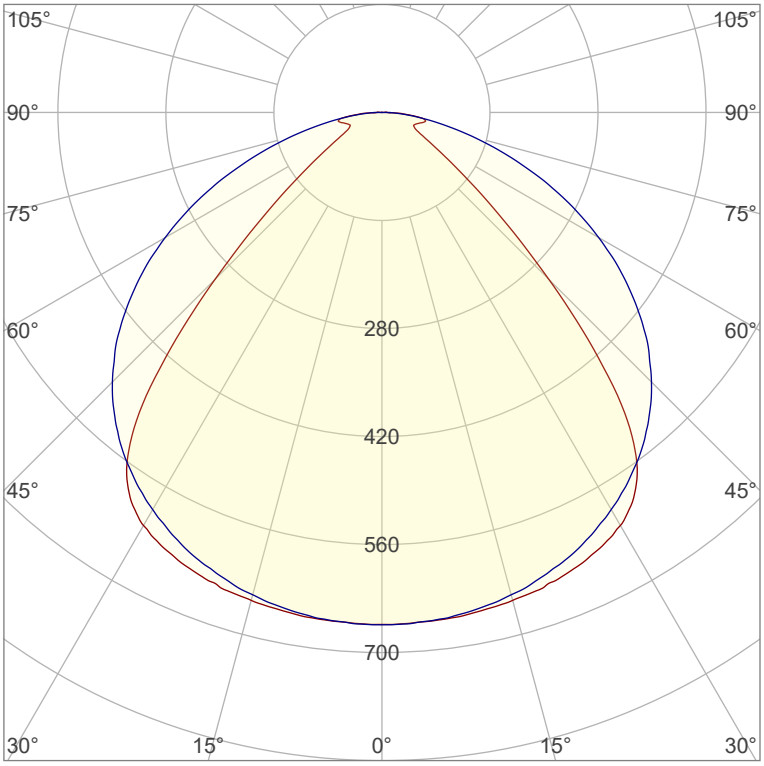
Color temperature:

2700 K

Output: 1661 lm
Peak: 664 cd

Power: 11,5 W
PF: 1,0





Product name:
Nova-6_510mm_827_Lens-90°-Frosted

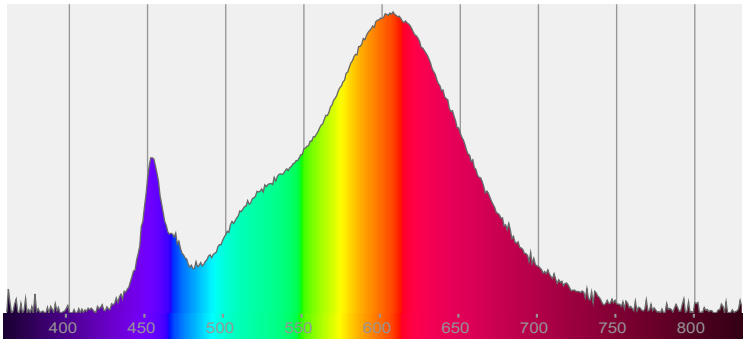
Item number:
NP/L1C/06F/0510/827/L9F

Date and time:
18.07.2022 14:32:44

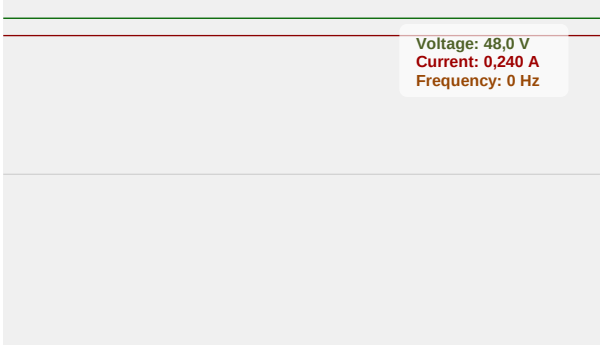
Description:
Tolerances:
Lumen +/-4%
Candela +/-2,5%
Colour Temp +/-35 Kelvin
CRI +/-0,7
Angular Resolution: 1 Degree Step
Last Calibration 20-09-2021
Tester: Peter Ulrich
Test Site: Lichtlabor
Gaustrasse 13
55411 Bingen am Rhein

CIE 1931
x: 0,460
y: 0,411

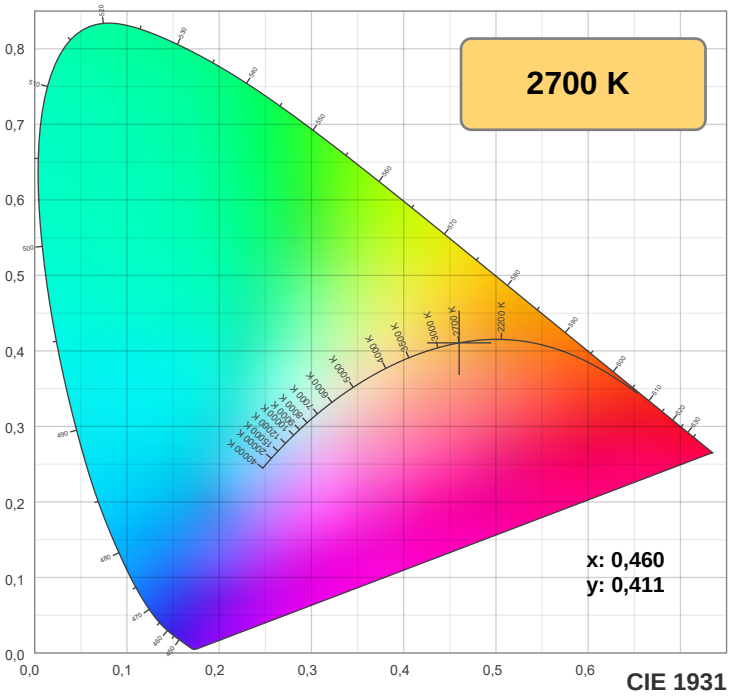
Spectra



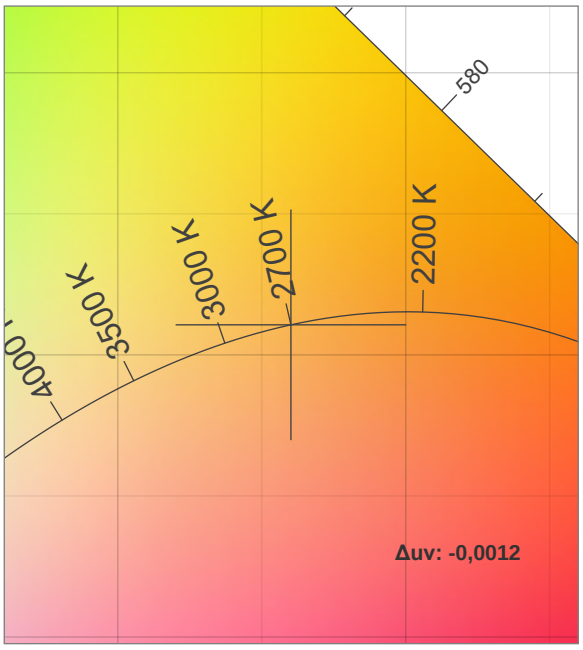
Power



Color details

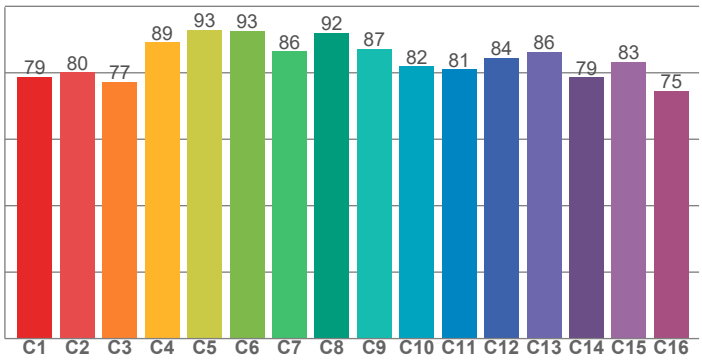


CIE 1931

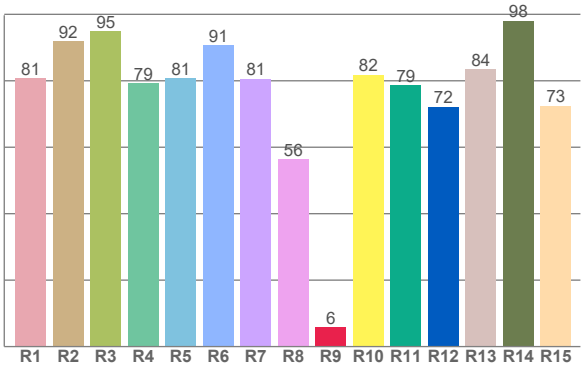


CIE 1931 ZOOM

TM30: 84,0



CRI: 81,9 (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
80,8	92,0	94,8	79,2	80,8	90,7	80,6	56,5	5,9	81,9	78,6	72,2	83,6	98,0	72,5

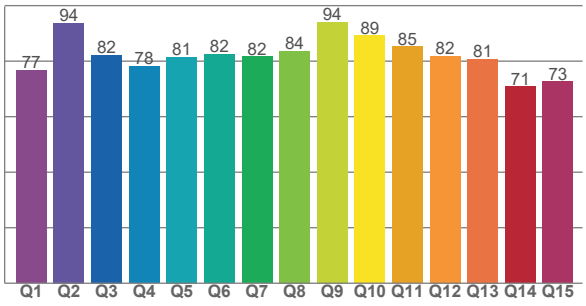
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
78,8	80,1	77,3	89,1	92,9	92,6	86,4	92,0	87,2	82,0	81,0	84,5	86,4	78,6	83,3	74,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
76,7	93,7	82,2	78,2	81,5	82,5	81,6	83,7	94,1	89,3	85,2	81,8	80,8	70,8	72,6

CQS: 81,1



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
2700 K	81,9	5,9	84,0	95,5	81,1	0,460	0,411	0,263	0,352	-0,0012

TM30 details

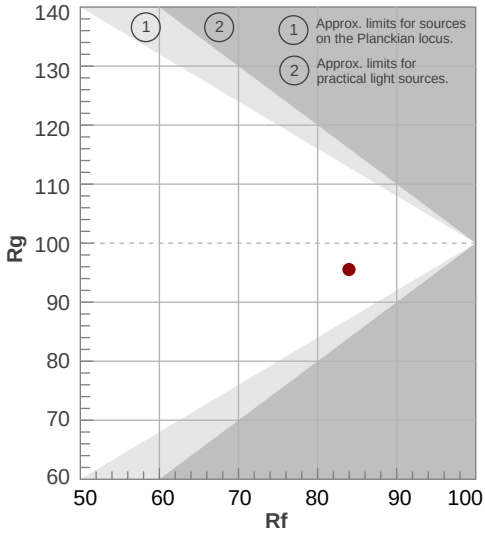
Rf 84,0

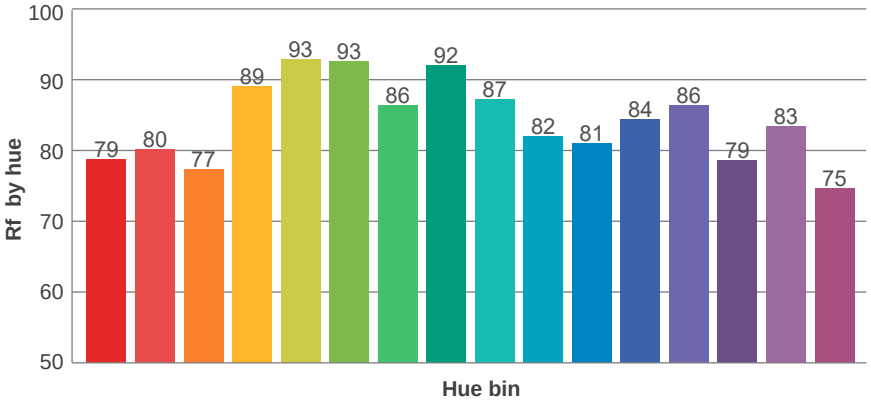
Fidelity index Rf

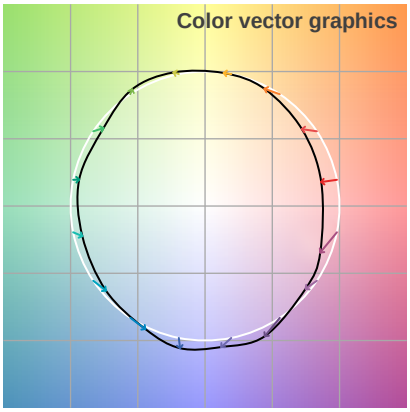
Rg 95,5

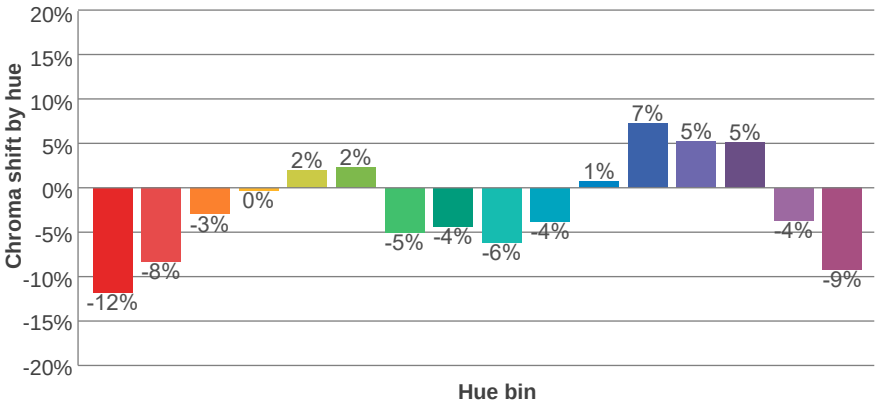
Gammut index Rg

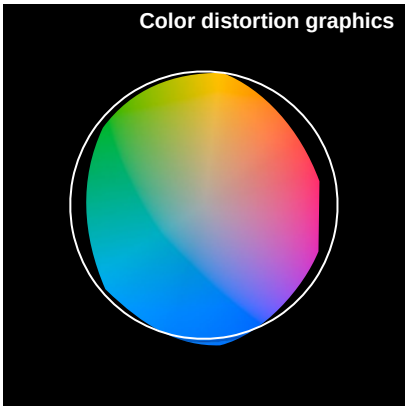
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	79	-12%	1%
2	80	-8%	8%
3	77	-3%	12%
4	89	0%	6%
5	93	2%	4%
6	93	2%	-3%
7	86	-5%	-6%
8	92	-4%	-1%
9	87	-6%	4%
10	82	-4%	11%
11	81	1%	14%
12	84	7%	2%
13	86	5%	-9%
14	79	5%	-17%
15	83	-4%	-10%
16	75	-9%	-17%

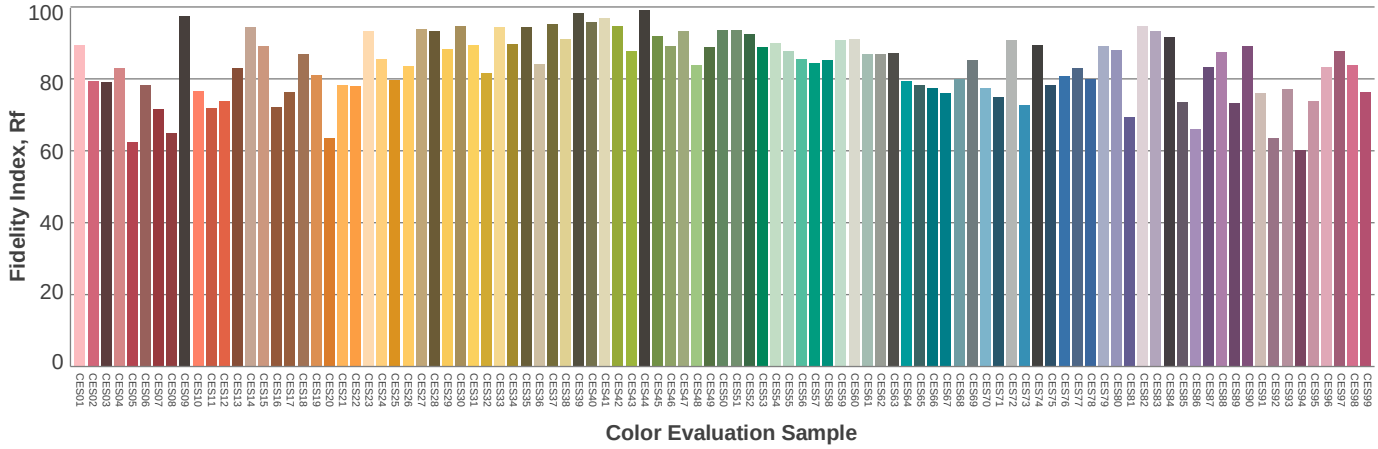




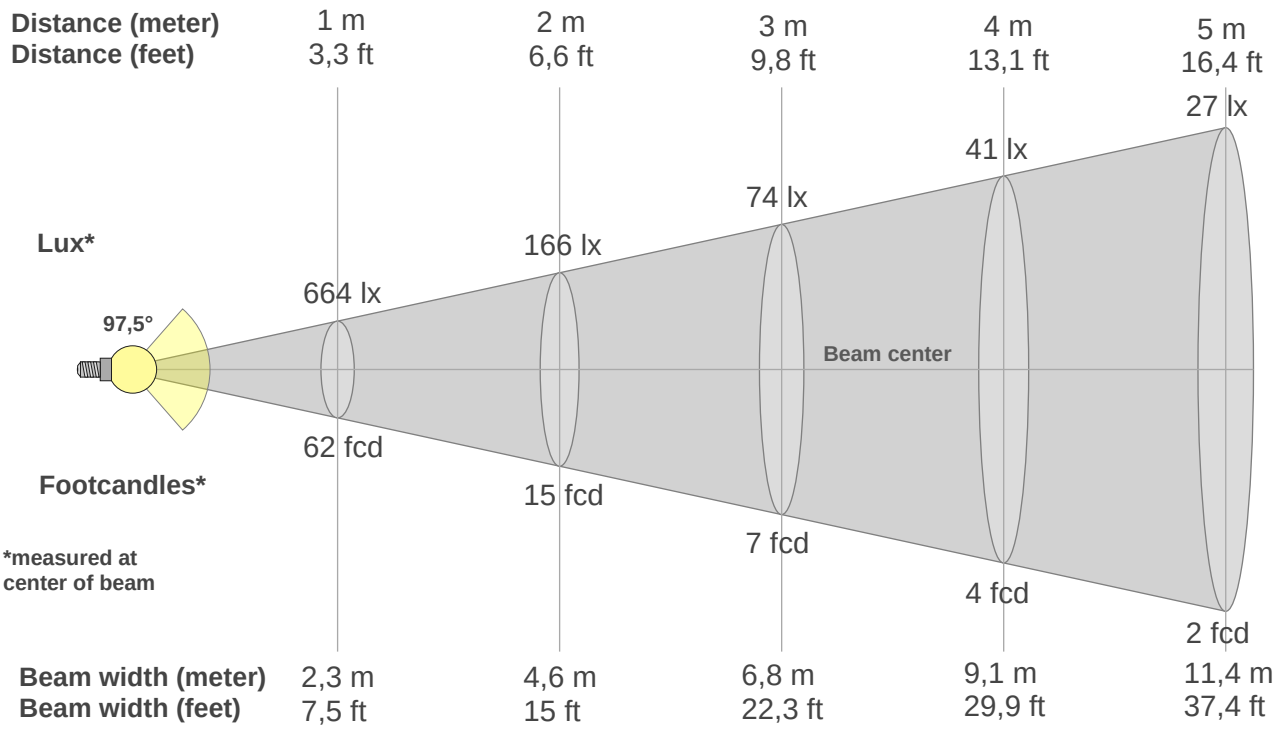








Beam details



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
664lx	166lx	74lx	41lx	27lx	18lx	14lx	10lx	8lx	7lx	5lx	5lx	4lx	3lx	3lx	3lx	2lx	2lx	2lx	2lx
61,6fcd	15,4fcd	6,8fcd	3,9fcd	2,5fcd	1,7fcd	1,3fcd	1fcd	0,8fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	0,2fcd	0,2fcd

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°
664	662	660	655	647	636	618	576	470	306	178	100	62	47	46	52	57	33	7	0
100%	100%	99%	99%	98%	96%	93%	87%	71%	46%	27%	15%	9%	7%	7%	8%	9%	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°
664	662	657	647	634	617	594	567	534	494	445	388	324	257	187	123	69	30	5	4
100%	100%	99%	98%	96%	93%	90%	85%	81%	74%	67%	58%	49%	39%	28%	19%	10%	4%	1%	1%

Intensities in 180° c-plane

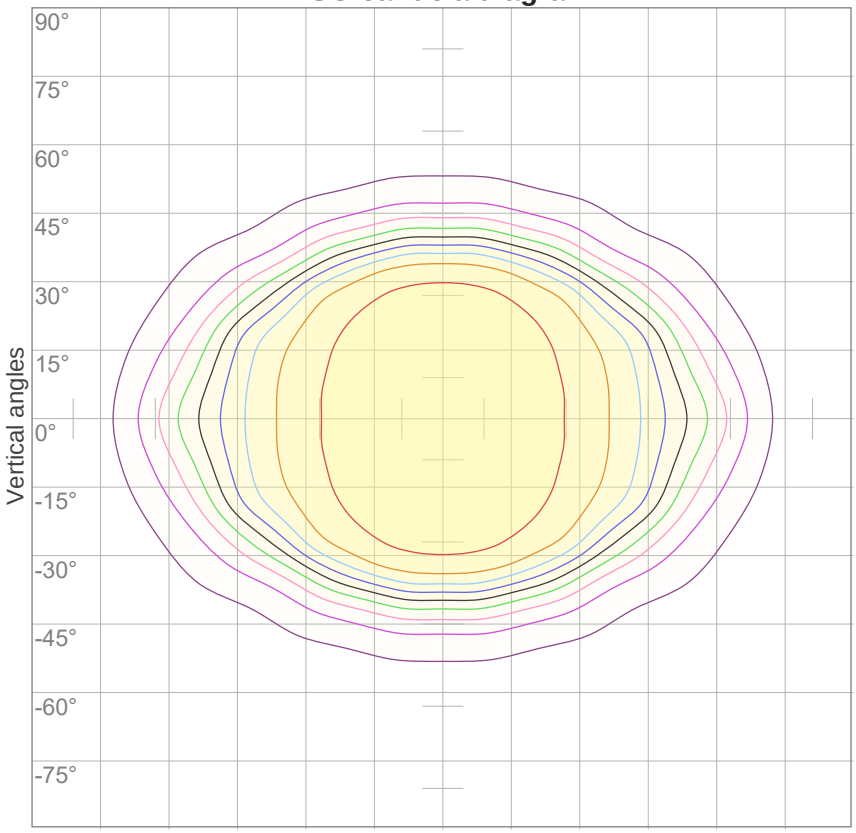
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
664	662	660	655	647	636	618	576	470	306	178	100	62	47	46	52	57	33	7	0
100%	100%	99%	99%	98%	96%	93%	87%	71%	46%	27%	15%	9%	7%	7%	8%	9%	5%	1%	0%

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°
664	662	657	647	634	617	594	567	534	494	445	388	324	257	187	123	69	30	5	4
100%	100%	99%	98%	96%	93%	90%	85%	81%	74%	67%	58%	49%	39%	28%	19%	10%	4%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
97,5°	**130,3°**	**175,4°**	**85,8%**	**64,2%**

ISO candela diagram



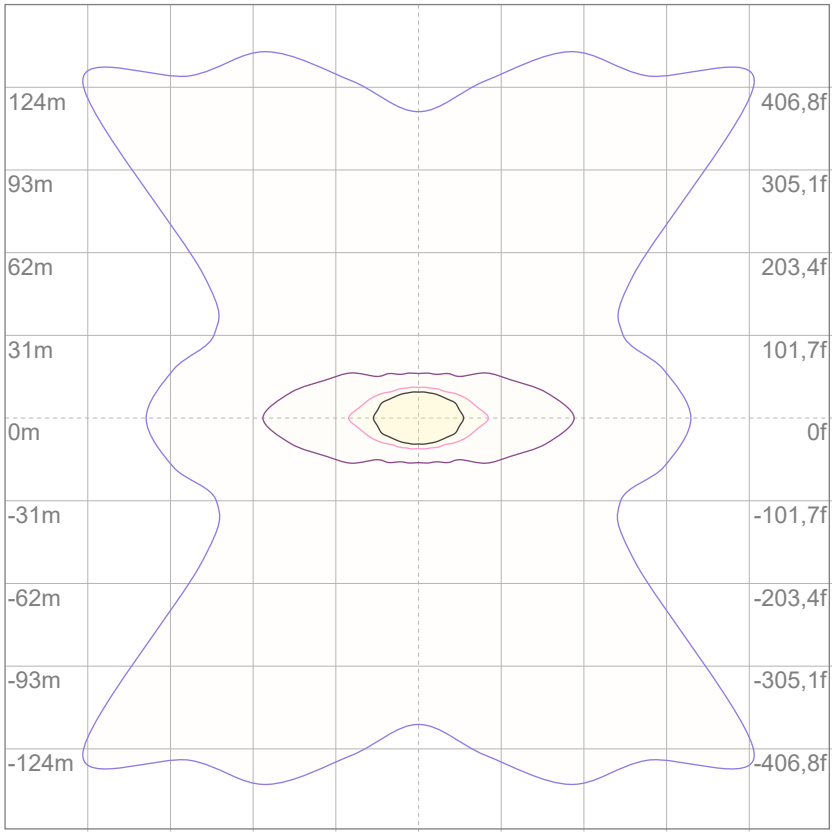
10%	66 cd
20%	133 cd
30%	199 cd
40%	265 cd
50%	332 cd
60%	398 cd
70%	464 cd
80%	531 cd
90%	597 cd

Conditions:

Number of c-planes: 16

Candela at center: 664 cd

ISO lux diagram



3%	0,199 lx
5%	0,332 lx
10%	0,664 lx
30%	1,99 lx
50%	3,32 lx

Conditions:

Number of c-planes: 16

Lux at center: 6,64 lx

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

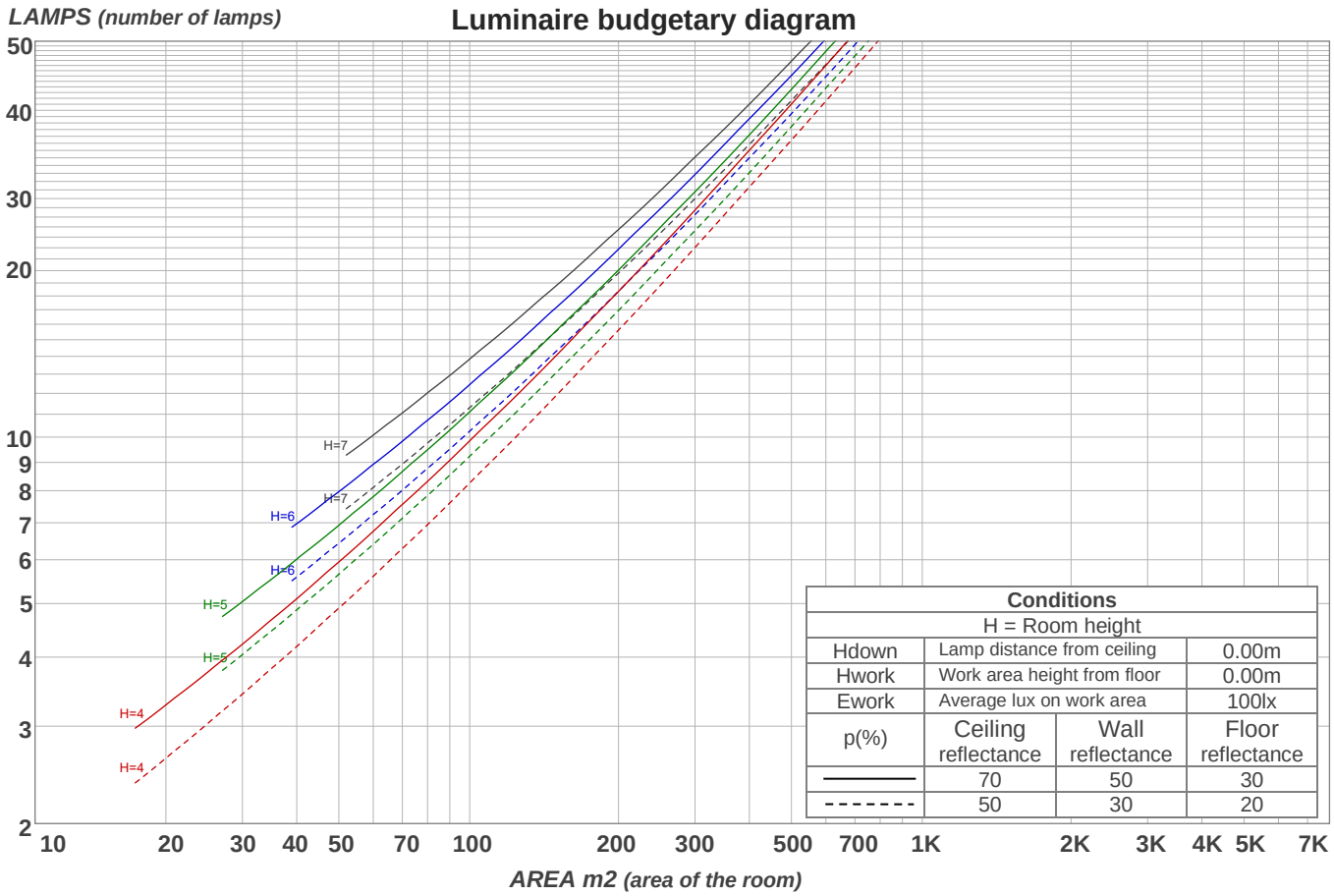
Glare Evaluation According to UGR

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	21,2	22,3	21,4	22,6	22,8	26,3	27,4	26,5	27,6	27,9
	3H	21,2	22,4	21,6	22,6	22,8	27,4	28,5	27,8	28,8	29,0
	4H	21,5	22,6	21,9	22,8	23,1	27,8	28,9	28,2	29,2	29,4
	6H	22,1	23,0	22,4	23,3	23,7	28,3	29,2	28,6	29,5	29,9
	8H	22,3	23,2	22,7	23,6	24,0	28,4	29,3	28,7	29,6	30,0
	12H	22,5	23,4	22,9	23,7	24,2	28,4	29,3	28,8	29,6	30,1
4H	2H	21,5	22,6	21,9	22,9	23,1	26,1	27,2	26,5	27,4	27,7
	3H	21,8	22,7	22,2	23,1	23,5	27,4	28,3	27,8	28,6	29,1
	4H	22,1	22,9	22,5	23,3	23,9	27,9	28,7	28,3	29,1	29,6
	6H	22,8	23,6	23,3	23,9	24,3	28,3	29,1	28,8	29,5	29,8
	8H	23,2	23,9	23,7	24,3	24,7	28,5	29,2	29,0	29,6	29,9
	12H	23,5	24,1	24,0	24,5	25,0	28,6	29,2	29,1	29,6	30,1
8H	4H	22,3	23,0	22,8	23,4	23,8	27,8	28,5	28,3	28,9	29,3
	6H	23,2	23,8	23,7	24,2	24,8	28,3	28,9	28,8	29,3	29,9
	8H	23,8	24,3	24,3	24,8	25,4	28,6	29,0	29,1	29,5	30,2
	12H	24,2	24,6	24,8	25,1	25,7	28,7	29,1	29,3	29,6	30,2
12H	4H	22,3	22,9	22,8	23,4	23,8	27,8	28,4	28,3	28,8	29,3
	6H	23,3	23,8	23,9	24,3	25,0	28,3	28,8	28,8	29,3	30,0
	8H	23,9	24,3	24,5	24,8	25,5	28,6	28,9	29,1	29,5	30,1
Variation of the observer position for the luminaire distance S											
S = 1.0H		0,5 / -0,8					0,1 / -0,2				
S = 1.5H		1,3 / -1,3					0,8 / -1,1				
S = 2.0H		2,2 / -1,5					1,7 / -2,3				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 1661 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	109	105	101	98	107	103	99	96	98	95	93	94	92	90	90	89	87	85
2	101	93	87	82	98	91	86	81	88	83	79	84	80	77	81	78	75	73
3	93	83	76	70	90	81	75	69	78	73	68	75	71	66	73	69	65	63
4	85	74	66	60	83	73	66	60	70	64	59	68	62	58	66	61	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	54	50	48
6	73	61	52	46	71	60	52	46	58	51	46	56	50	45	54	49	45	43
7	68	55	47	41	66	55	47	41	53	46	41	51	45	40	50	44	40	38
8	64	51	43	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	34	58	46	38	33	45	38	33	44	37	33	43	37	33	31
10	56	43	35	30	54	43	35	30	41	35	30	40	34	30	39	34	30	28

Luminaire budgetary diagram

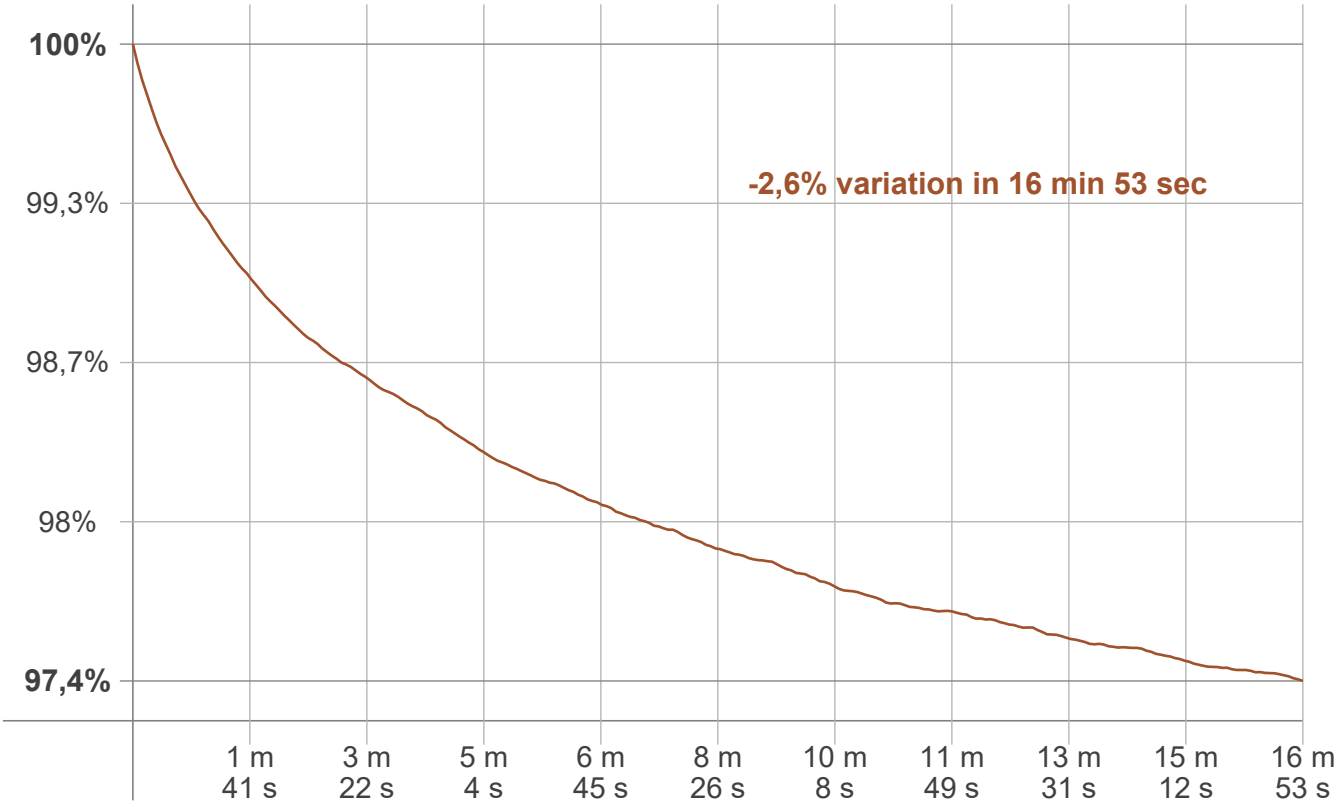


Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
62,7 lm	183 lm	288 lm	358 lm	327 lm	208 lm	111 lm	65,2 lm	34,4 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
3,20 lm	6,92 lm	1,32 lm	1,19 lm	0,768 lm	0,460 lm	0,339 lm	0,207 lm	10,4 lm

Warmup curve



Warmup result

Warmup time:	**Lamp stabilized in 16 min 53 sec**
Warmup variation	**-2,6%**

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
2694 K	+6 K	2700 K

Output change

Output start	Output change	Output end
1710 lm	-49 lm	1661 lm