Light efficiency:

144 Lumen/Watt

Light quality:

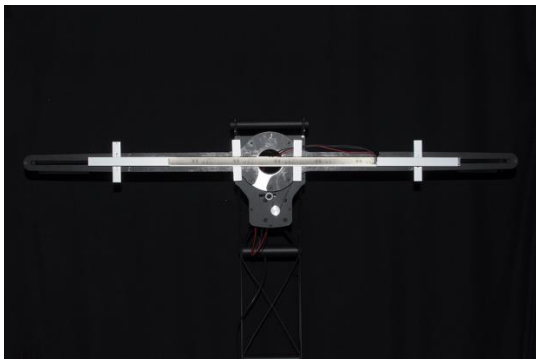
CRI: 81,9

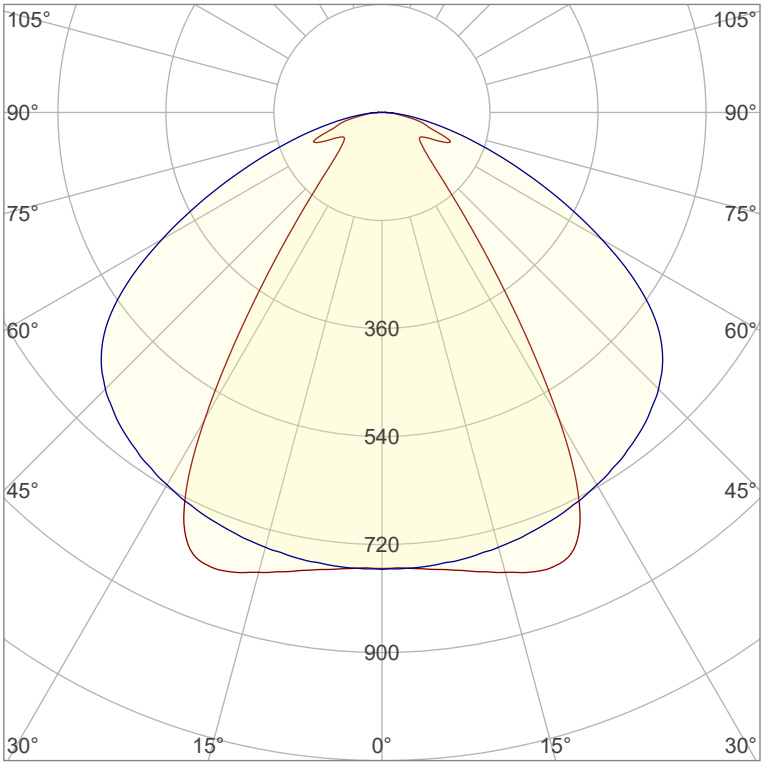
Color temperature:

2700 K

Output: 1661 lm
Peak: 809 cd

Power: 11,5 W
PF: 1,0





Product name:
Nova-6_510mm_827_Lens-60°-Frosted

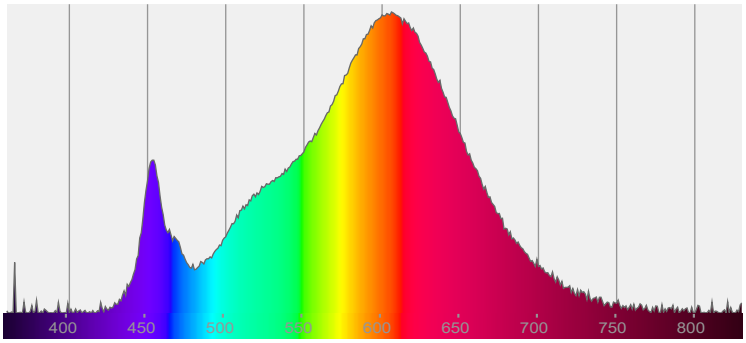
Item number:
NP/L1C/06F/0510/827/L6F

Date and time:
19.07.2022 09:10:48

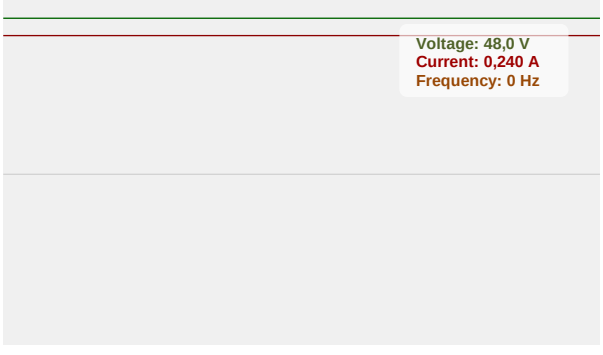
Description:
Tolerances:
Lumen +/-4%
Candela +/-2,5%
Colour Temp +/-35 Kelvin
CRI +/-0,7
Angular Resolution: 1 Degree Step
Last Calibration 20-09-2021
Tester: Peter Ulrich
Test Site: Lichtlabor
Gaustrasse 13
55411 Bingen am Rhein

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

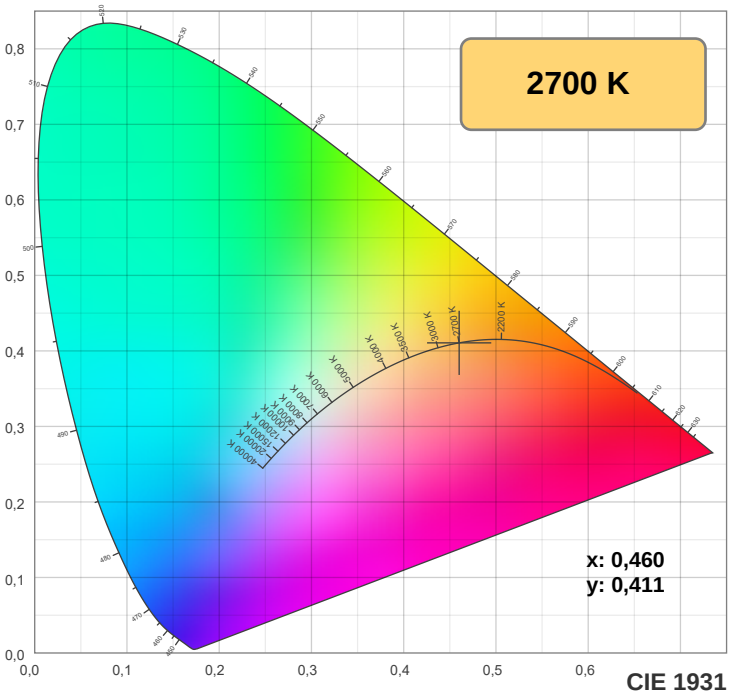
Spectra



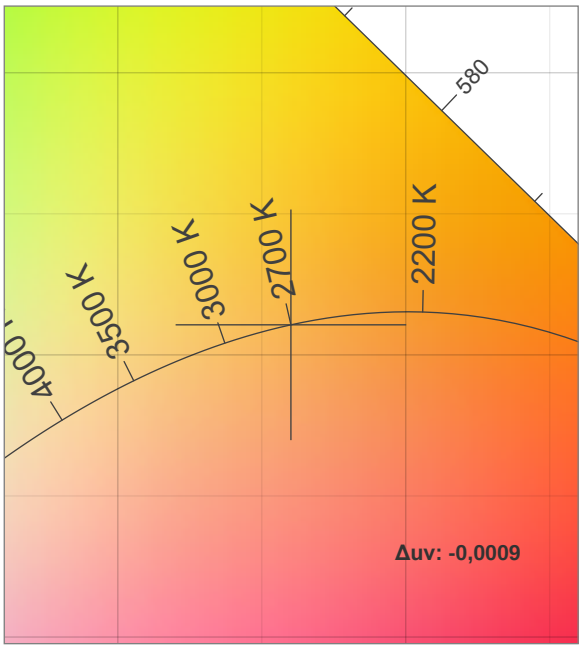
Power



Color details

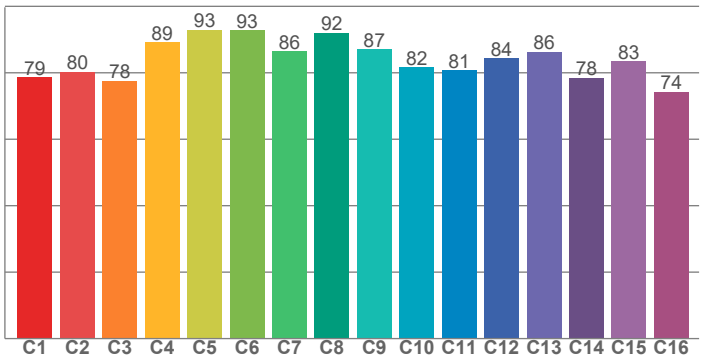


CIE 1931

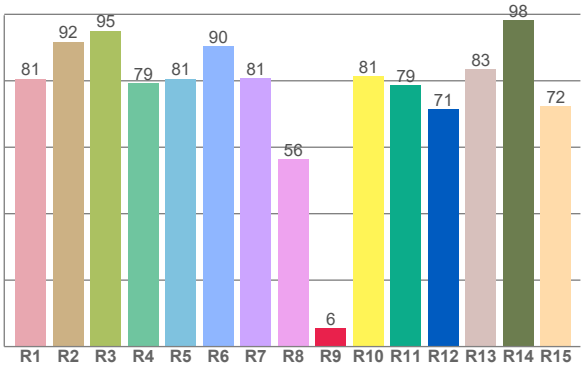


CIE 1931 ZOOM

TM30: 83,9



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
80,6	91,8	95,0	79,2	80,6	90,5	80,7	56,4	5,5	81,4	78,6	71,4	83,4	98,2	72,3

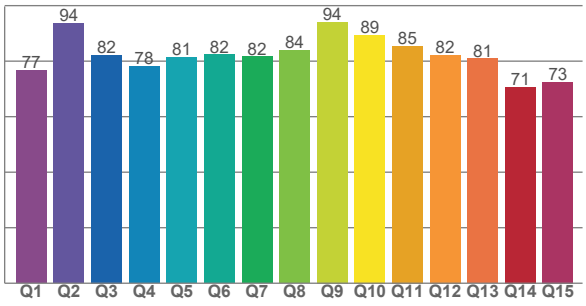
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
78,7	80,2	77,6	89,2	92,9	92,8	86,4	92,0	87,0	81,7	80,8	84,4	86,4	78,5	83,4	74,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
76,7	93,6	82,2	78,1	81,4	82,4	81,7	83,9	94,1	89,4	85,4	82,1	81,0	70,7	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	5,5	83,9	95,4	81,1	0,460	0,411	0,263	0,352	-0,0009

TM30 details

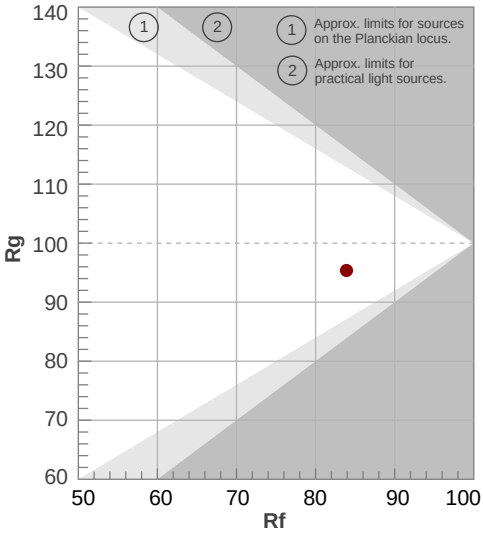
Rf 83,9

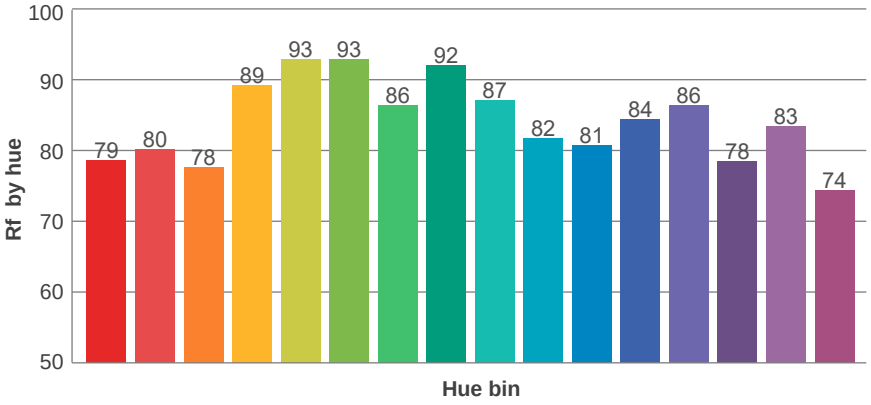
Fidelity index Rf

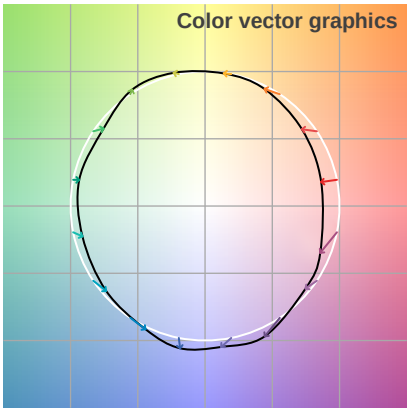
Rg 95,4

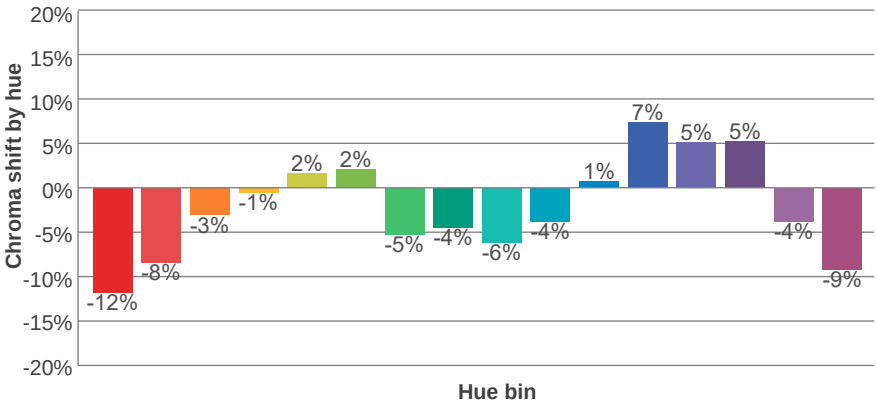
Gammut index Rg

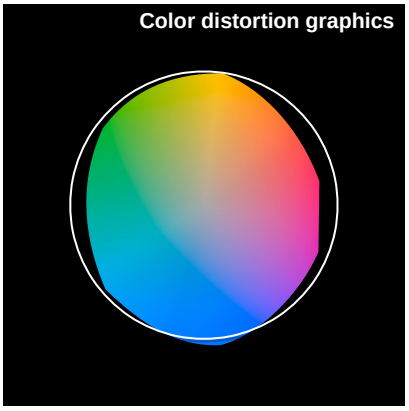
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	79	-12%	1%
2	80	-8%	7%
3	78	-3%	11%
4	89	-1%	6%
5	93	2%	4%
6	93	2%	-3%
7	86	-5%	-6%
8	92	-4%	-1%
9	87	-6%	4%
10	82	-4%	12%
11	81	1%	14%
12	84	7%	2%
13	86	5%	-9%
14	78	5%	-17%
15	83	-4%	-9%
16	74	-9%	-17%

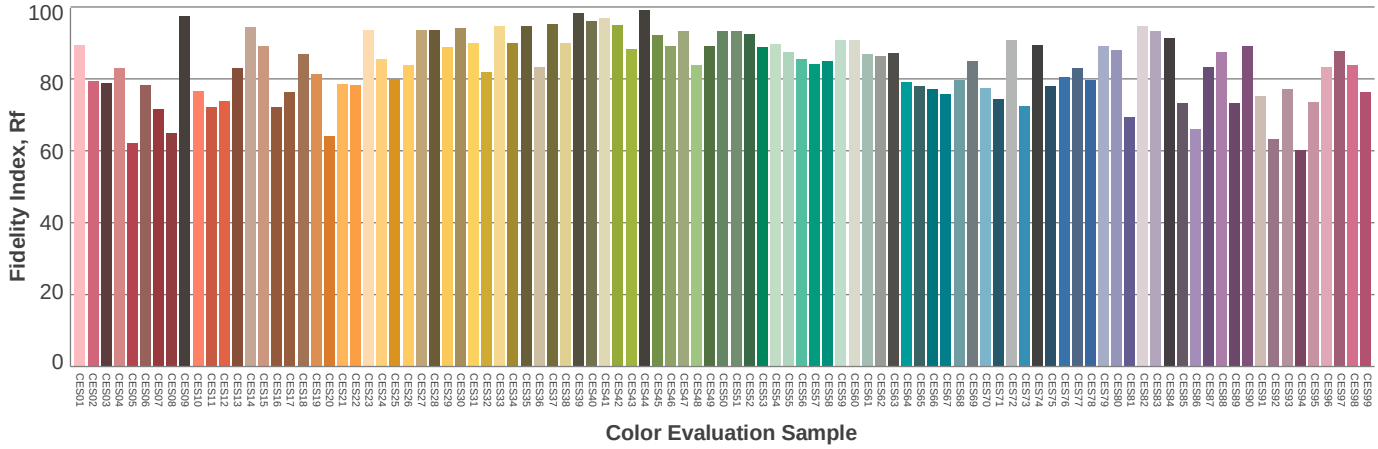




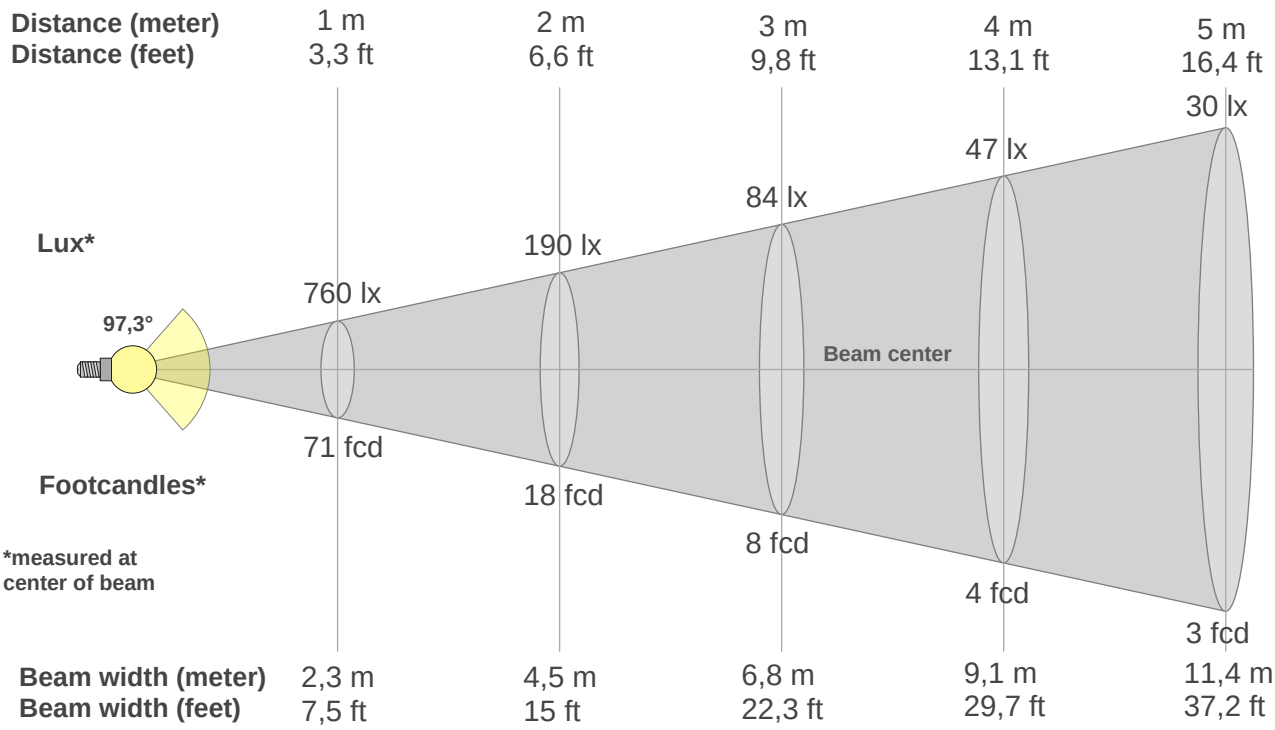








Beam details



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
760lx	190lx	84lx	47lx	30lx	21lx	16lx	12lx	9lx	8lx	6lx	5lx	4lx	4lx	3lx	3lx	3lx	2lx	2lx	2lx
70,6fcd	17,6fcd	7,8fcd	4,4fcd	2,8fcd	2fcd	1,4fcd	1,1fcd	0,9fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	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°
760	763	775	793	809	775	591	341	186	117	89	76	83	119	101	72	42	21	7	0
100%	100%	102%	104%	107%	102%	78%	45%	25%	15%	12%	10%	11%	16%	13%	9%	6%	3%	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°
760	760	757	750	741	730	716	701	680	652	609	534	423	306	203	124	66	27	5	4
100%	100%	100%	99%	98%	96%	94%	92%	89%	86%	80%	70%	56%	40%	27%	16%	9%	4%	1%	1%

Intensities in 180° c-plane

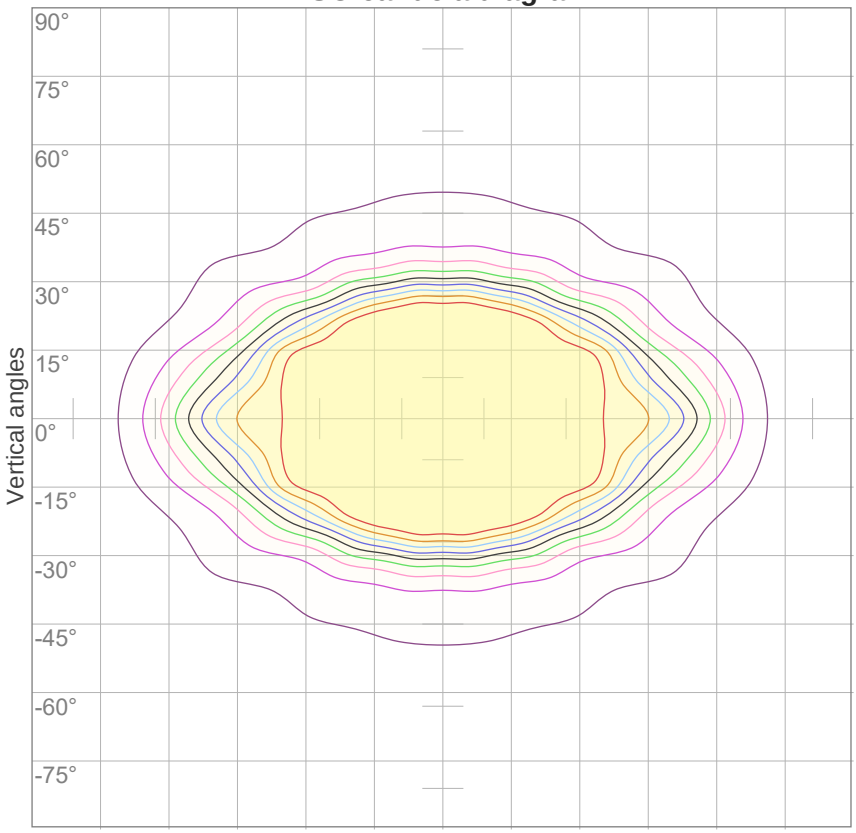
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
760	763	775	793	809	775	591	341	186	117	89	76	83	119	101	72	42	21	7	0
100%	100%	102%	104%	107%	102%	78%	45%	25%	15%	12%	10%	11%	16%	13%	9%	6%	3%	1%	0%

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°
760	760	757	750	741	730	716	701	680	652	609	534	423	306	203	124	66	27	5	4
100%	100%	100%	99%	98%	96%	94%	92%	89%	86%	80%	70%	56%	40%	27%	16%	9%	4%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
97,3°	**145,4°**	**173,2°**	**84,7%**	**68,1%**

ISO candela diagram



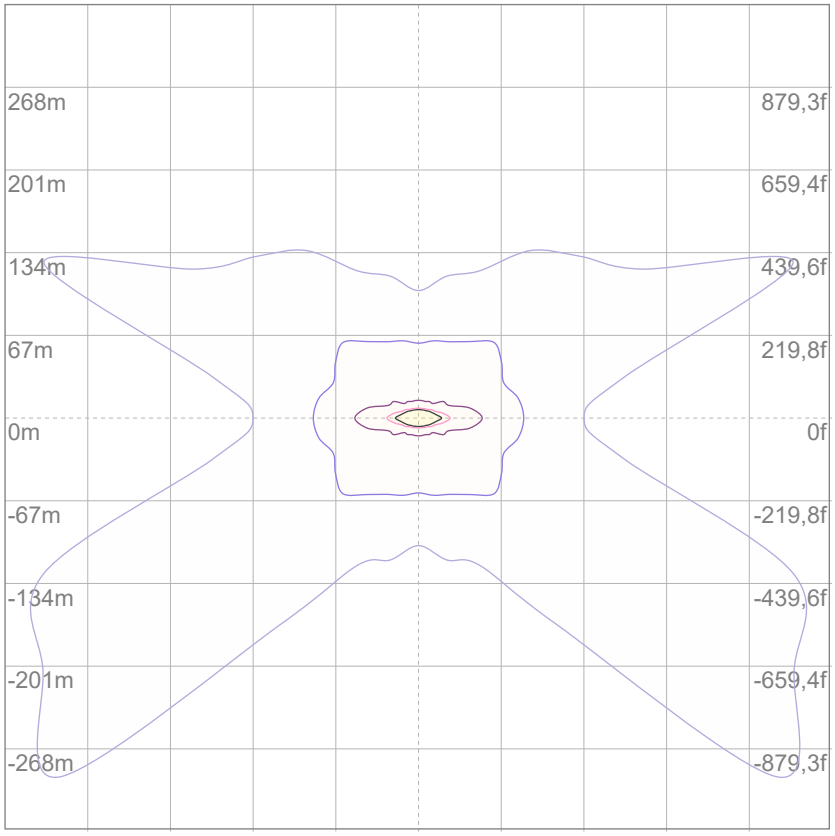
10%	76 cd
20%	152 cd
30%	228 cd
40%	304 cd
50%	380 cd
60%	456 cd
70%	532 cd
80%	608 cd
90%	684 cd

Conditions:

Number of c-planes: 16

Candela at center: 760 cd

ISO lux diagram



Mounting height: 10 meters (33 feet)

3%	0,228 lx
5%	0,380 lx
10%	0,760 lx
30%	2,28 lx
50%	3,80 lx

Conditions:

Number of c-planes: 16

Lux at center: 7,60 lx

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

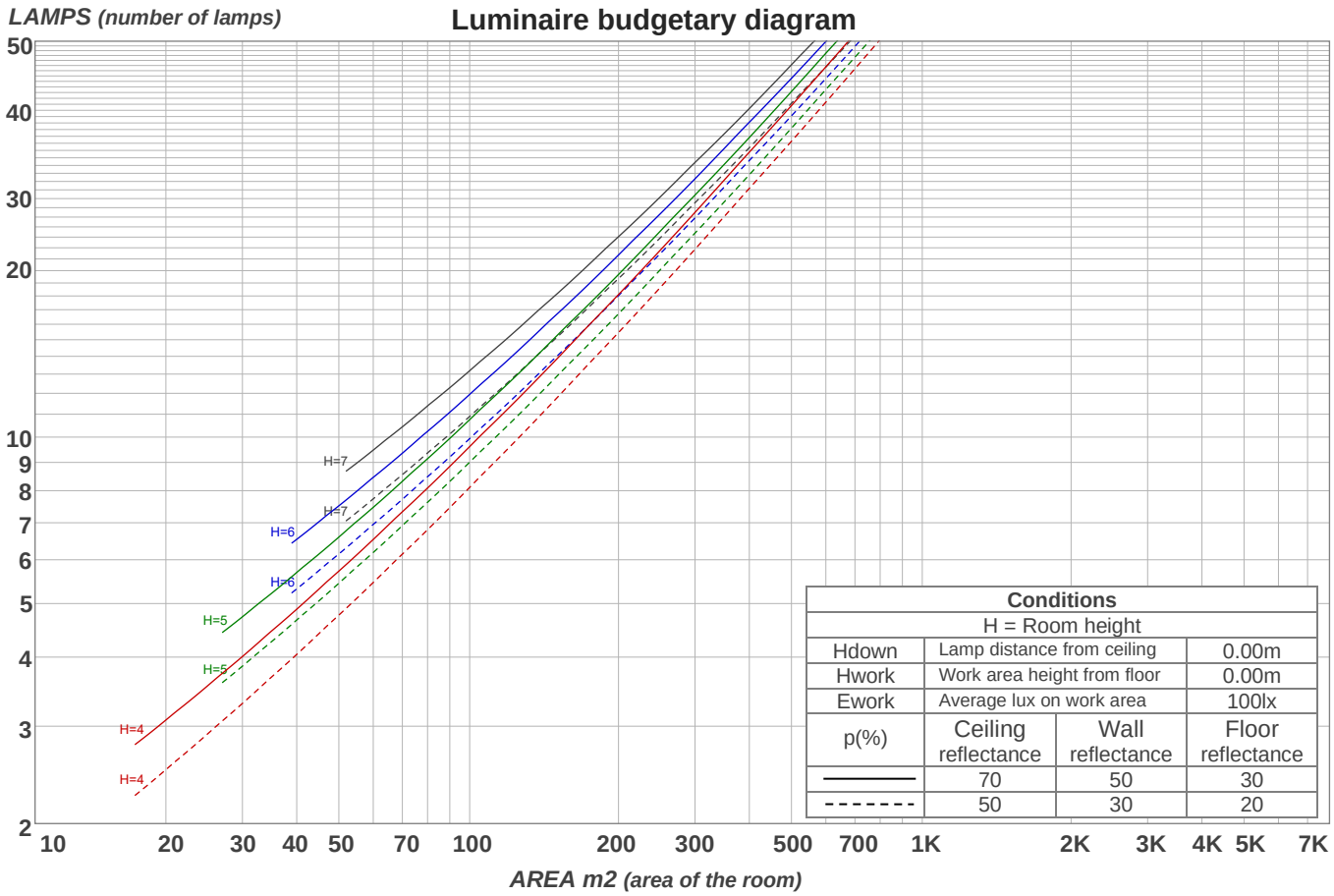
Glare Evaluation According to UGR

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	18,0	19,1	18,2	19,4	19,6	26,3	27,3	26,5	27,6	27,8
	3H	20,4	21,5	20,8	21,7	21,9	27,3	28,4	27,7	28,7	28,9
	4H	21,1	22,2	21,5	22,4	22,7	27,8	28,8	28,2	29,1	29,3
	6H	21,6	22,6	21,9	22,8	23,2	28,2	29,1	28,5	29,4	29,7
	8H	21,7	22,6	22,1	22,9	23,3	28,2	29,1	28,6	29,4	29,9
	12H	21,8	22,6	22,1	23,0	23,4	28,3	29,2	28,6	29,5	29,9
4H	2H	18,6	19,7	19,0	20,0	20,2	26,0	27,1	26,4	27,3	27,6
	3H	21,3	22,2	21,7	22,5	23,0	27,3	28,2	27,6	28,5	28,9
	4H	22,1	22,9	22,6	23,3	23,9	27,7	28,5	28,2	28,9	29,5
	6H	22,7	23,5	23,2	23,8	24,2	28,1	28,9	28,6	29,3	29,6
	8H	22,8	23,6	23,3	23,9	24,3	28,3	29,0	28,8	29,3	29,7
	12H	22,9	23,5	23,4	23,9	24,4	28,4	29,0	28,9	29,4	29,9
8H	4H	22,5	23,2	23,0	23,6	24,0	27,7	28,4	28,2	28,8	29,2
	6H	23,2	23,8	23,7	24,2	24,8	28,2	28,7	28,7	29,2	29,7
	8H	23,5	23,9	24,0	24,5	25,1	28,4	28,9	28,9	29,4	30,0
	12H	23,6	24,0	24,2	24,5	25,1	28,6	29,0	29,1	29,5	30,1
12H	4H	22,5	23,1	23,0	23,5	24,0	27,7	28,3	28,2	28,7	29,1
	6H	23,4	23,8	23,9	24,3	25,0	28,2	28,7	28,7	29,2	29,8
	8H	23,6	24,0	24,2	24,5	25,1	28,4	28,8	29,0	29,3	29,9
Variation of the observer position for the luminaire distance S											
S = 1.0H		0,5 / -0,2					0,5 / -0,8				
S = 1.5H		1,2 / -0,8					1,6 / -2,0				
S = 2.0H		1,9 / -0,8					2,7 / -3,0				
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	98
1	110	105	102	98	107	103	100	96	99	96	93	94	92	90	91	89	87	85
2	101	94	88	83	98	92	86	82	88	84	80	85	81	78	82	78	76	74
3	93	84	77	71	91	82	76	70	79	74	69	76	72	68	74	70	66	64
4	86	76	68	62	84	74	67	61	72	65	60	69	64	59	67	62	59	57
5	80	69	61	55	78	68	60	54	65	59	54	63	57	53	61	56	52	50
6	75	63	54	49	73	62	54	48	60	53	48	58	52	47	56	51	47	45
7	70	57	49	44	68	56	49	44	55	48	43	53	47	43	52	46	42	40
8	65	53	45	40	64	52	45	39	51	44	39	49	43	39	48	43	38	37
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35	33
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31

Luminaire budgetary diagram

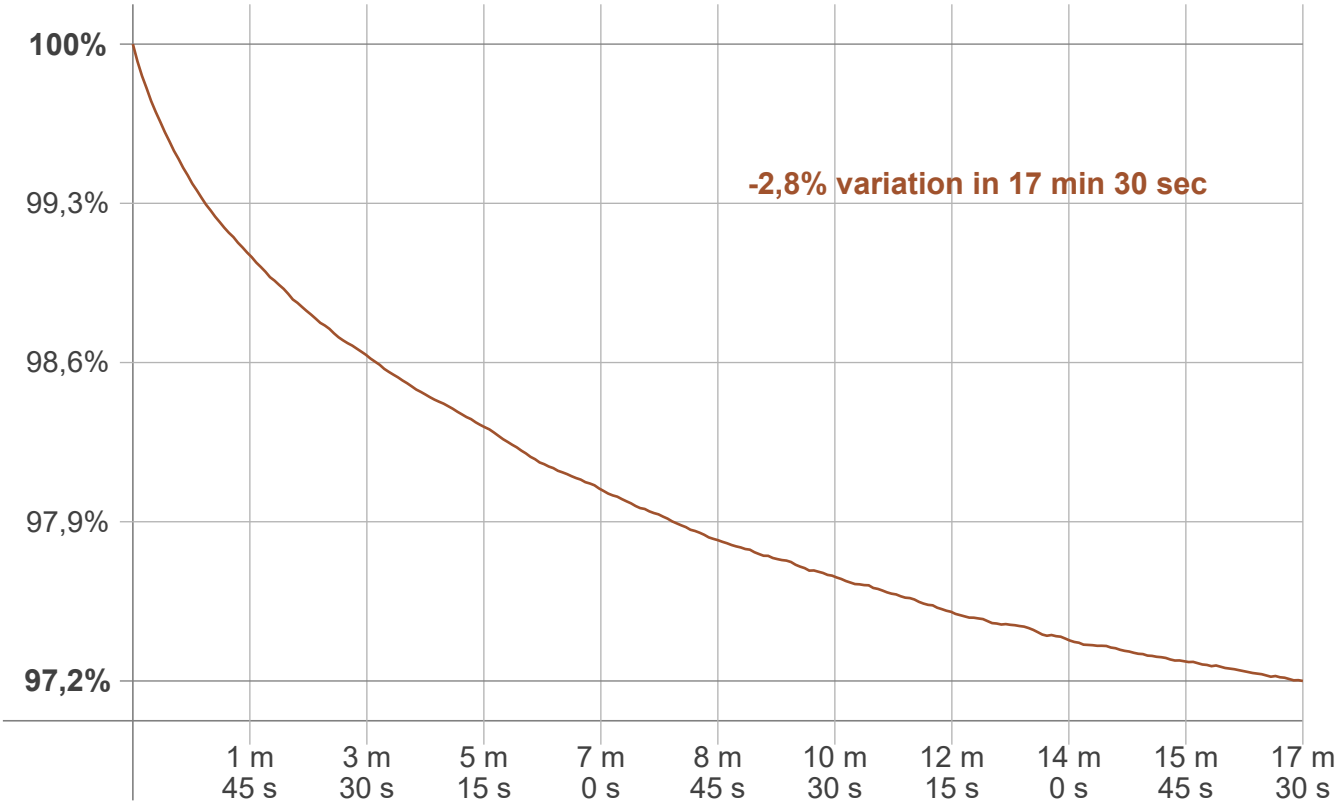


Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
67,5 lm	214 lm	347 lm	362 lm	255 lm	164 lm	117 lm	79,3 lm	29,8 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
9,51 lm	1,56 lm	1,47 lm	1,33 lm	0,874 lm	0,554 lm	0,408 lm	0,250 lm	11,0 lm

Warmup curve



Warmup result

Warmup time:	**Lamp stabilized in 17 min 30 sec**
Warmup variation	**-2,8%**

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
2696 K	+4 K	2700 K

Output change

Output start	Output change	Output end
1713 lm	-52 lm	1661 lm