

Light efficiency:

137 Lumen/Watt

Light quality:

CRI: 81,9

Color temperature:

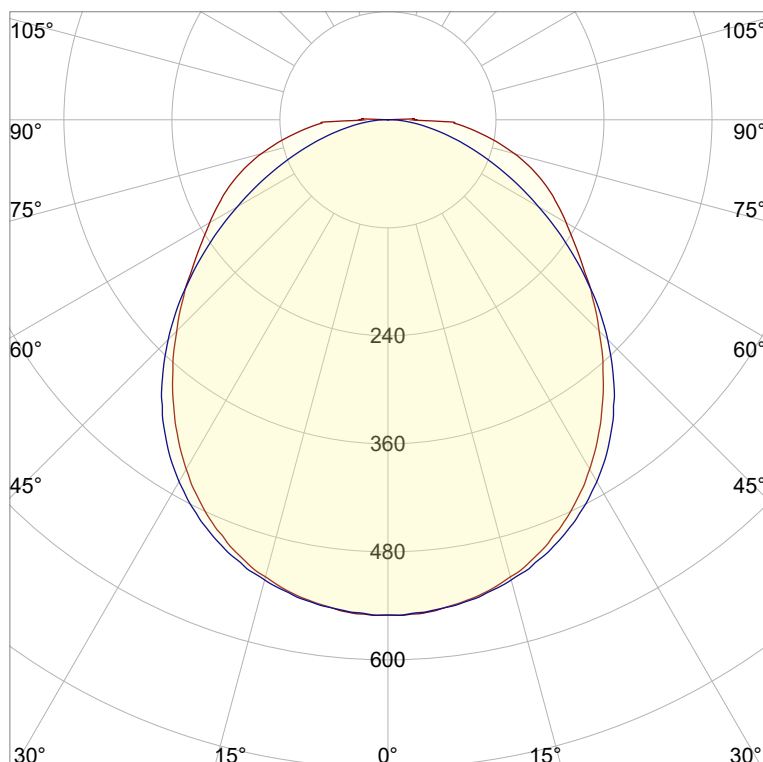
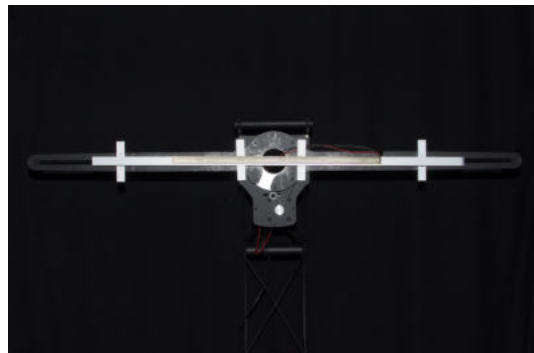
2755 K

Output: 1573 lm

Peak: 551 cd

Power: 11,5 W

PF: 1,0



Product name:

Nova-6_510mm_827_Cover-Square-Frosted

Item number:

NP/L1C/06F/G1/L1C/0510/827/CSF

Date and time:

15.07.2022 09:24:26

Description:

Rank: D60-AC-8GB

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

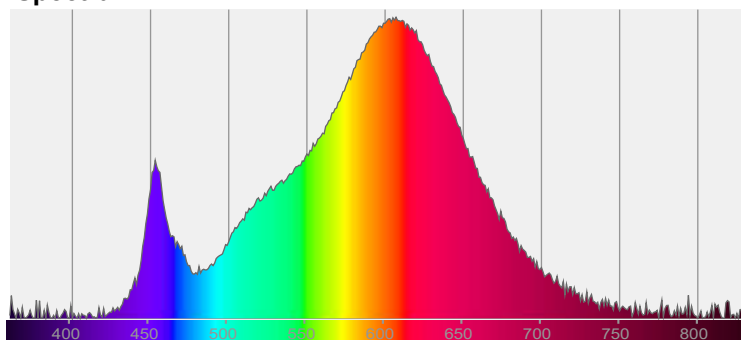


CIE 1931

x: 0,454

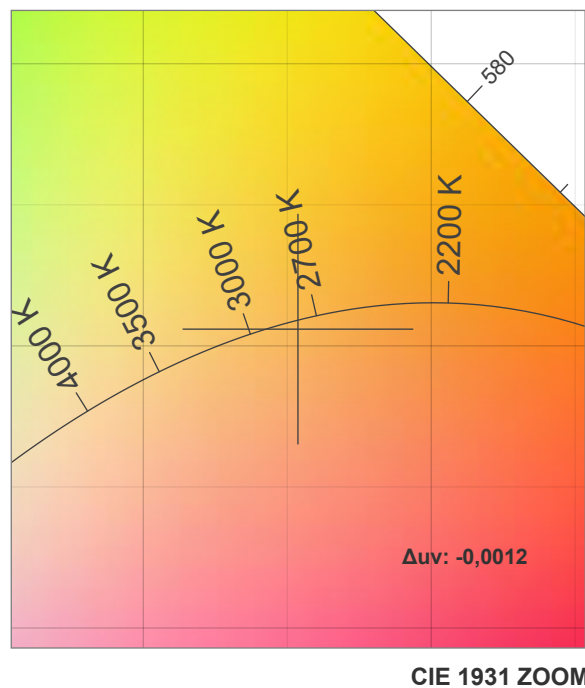
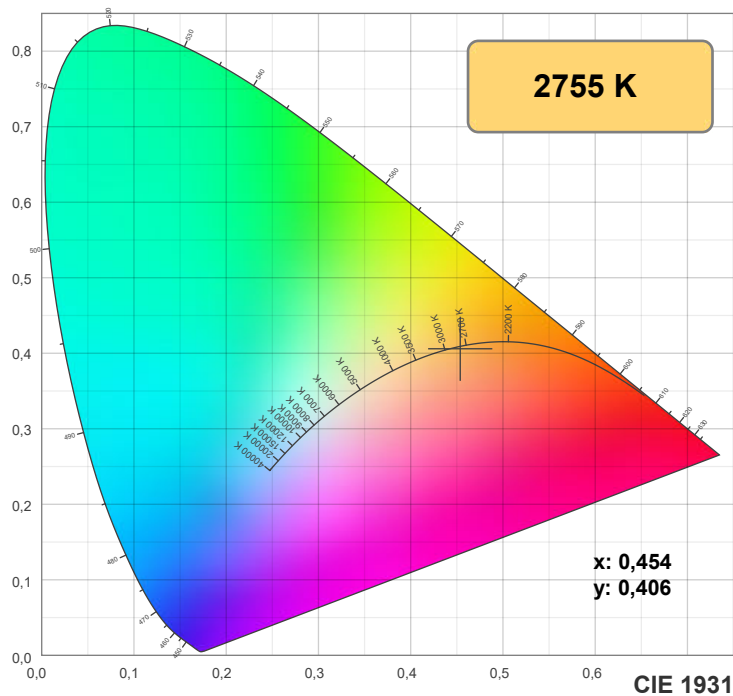
y: 0,406

Spectra



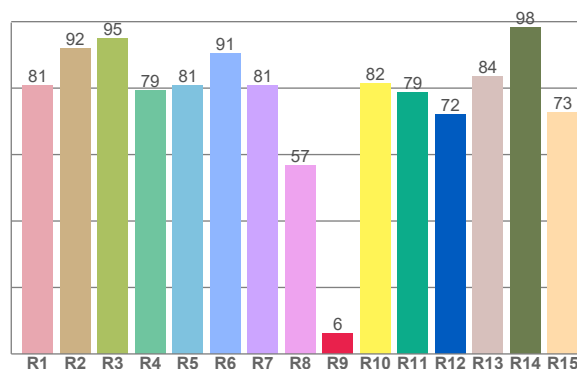
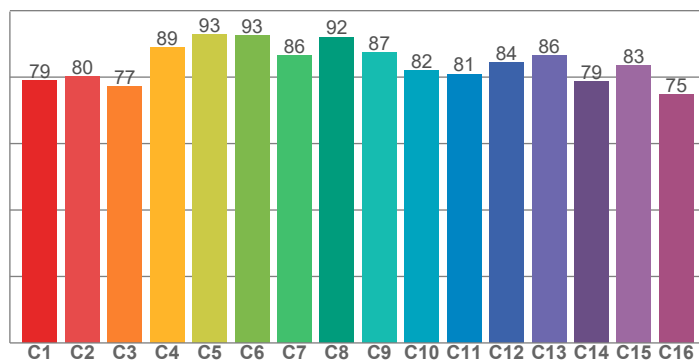
Power

Voltage: 48,0 V
Current: 0,240 A
Frequency: 0 Hz



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

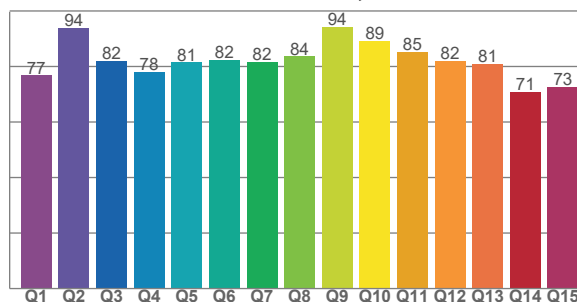
TM30 C values, 16 binned values out of total of 99 C values

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

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
76,8	93,7	82,1	78,1	81,4	82,4	81,5	83,6	94,2	89,2	85,2	81,8	80,9	70,9	72,7

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 deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
2755 K	81,9	6,2	84,0	95,6	81,1	0,454	0,406	0,261	0,350	-0,0012

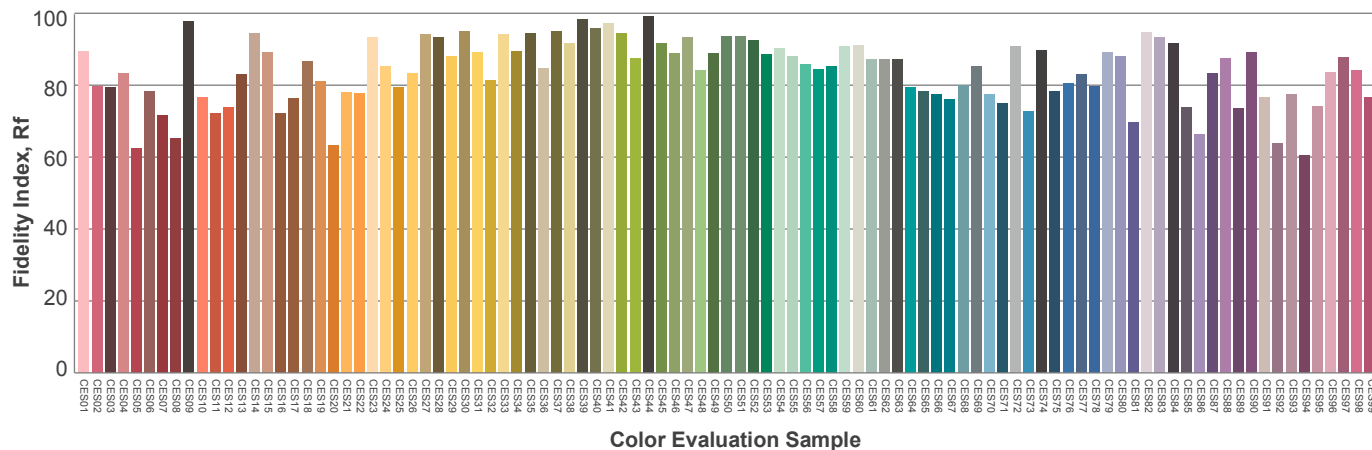
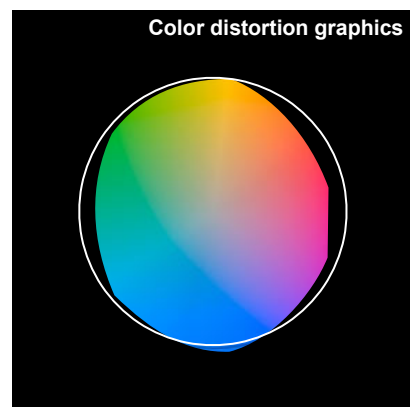
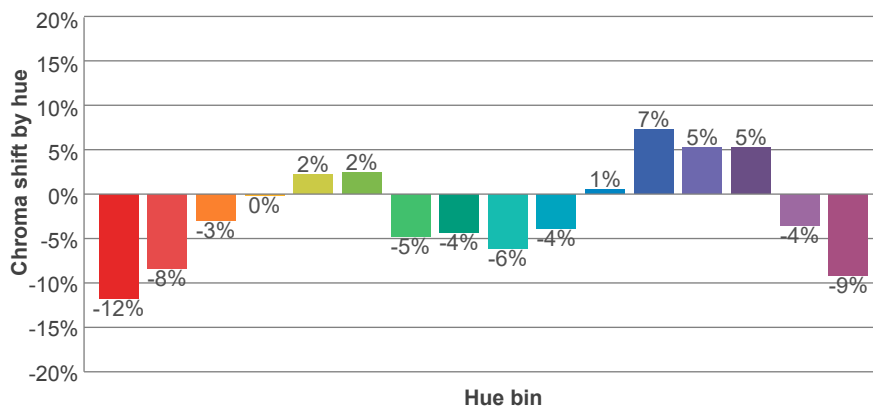
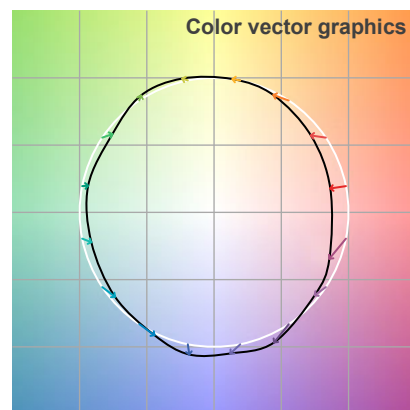
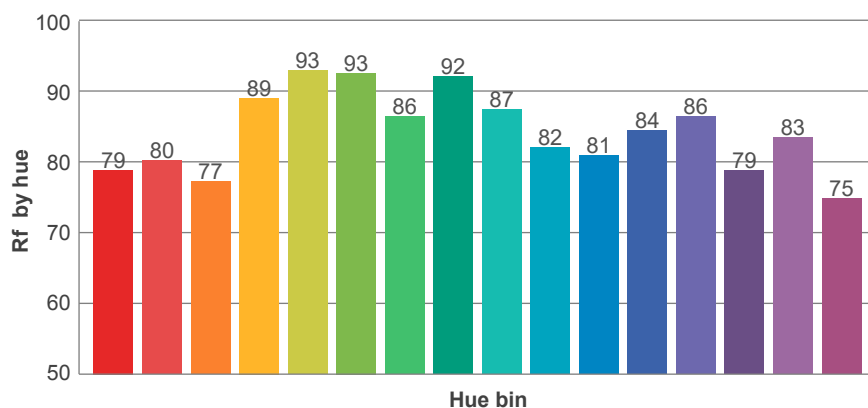
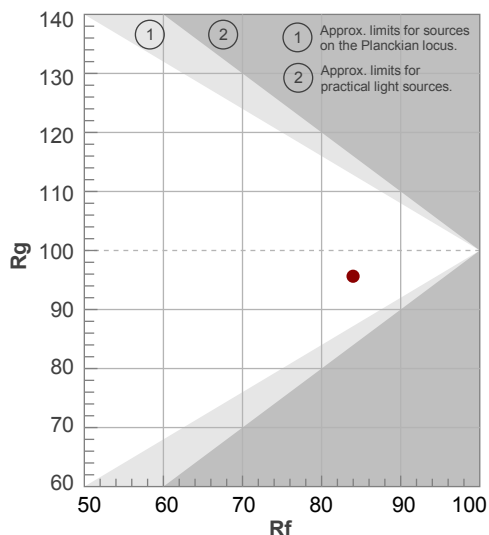
Rf 84,0

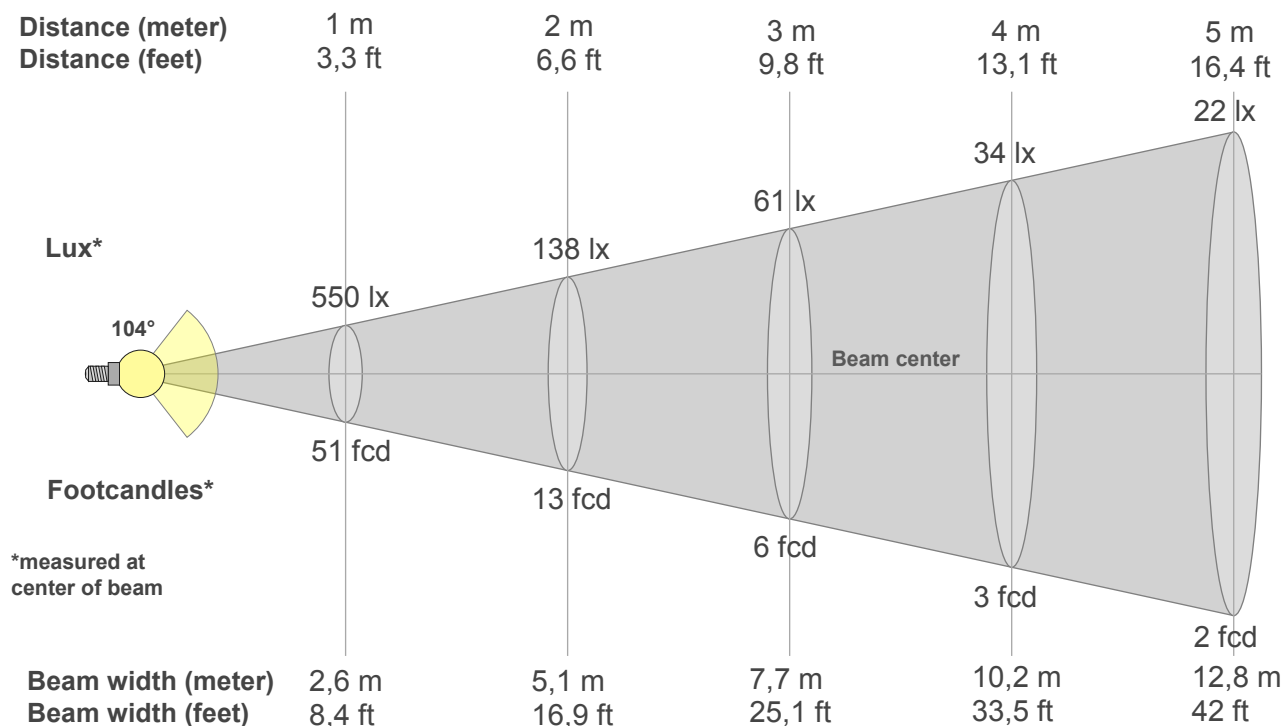
Fidelity index Rf

Rg 95,6

Gamut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		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%	3%
13	86	5%	-8%
14	79	5%	-17%
15	83	-4%	-10%
16	75	-9%	-17%





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
550lx	138lx	61lx	34lx	22lx	15lx	11lx	9lx	7lx	6lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	2lx	1lx
51,1fcd	12,8fcd	5,7fcd	3,2fcd	2fcd	1,4fcd	1fcd	0,8fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	0,2fcd	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°
550	548	540	526	506	480	448	412	372	332	294	258	229	203	175	146	114	85	31	0
100%	100%	98%	96%	92%	87%	81%	75%	68%	60%	54%	47%	42%	37%	32%	26%	21%	15%	6%	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°
550	547	541	529	513	492	464	430	391	345	295	243	193	147	106	71	42	20	3	3
100%	100%	98%	96%	93%	89%	84%	78%	71%	63%	54%	44%	35%	27%	19%	13%	8%	4%	0%	0%

Intensities in 180° c-plane

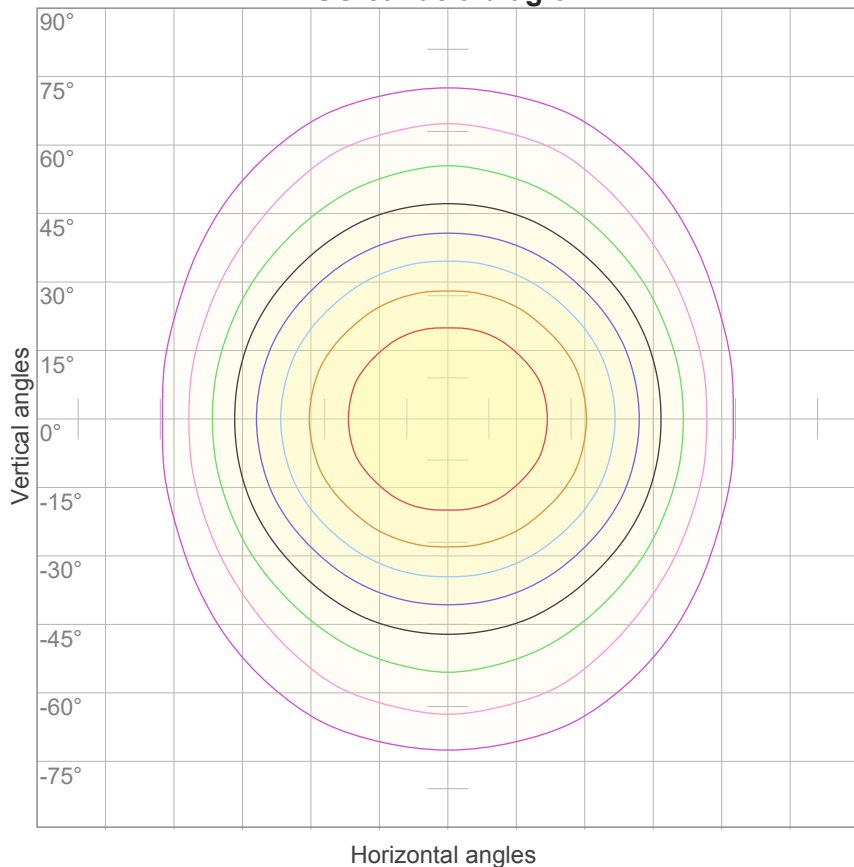
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
550	548	540	526	506	480	448	412	372	332	294	258	229	203	175	146	114	85	31	0
100%	100%	98%	96%	92%	87%	81%	75%	68%	60%	54%	47%	42%	37%	32%	26%	21%	15%	6%	0%

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°
550	547	541	529	513	492	464	430	391	345	295	243	193	147	106	71	42	20	3	3
100%	100%	98%	96%	93%	89%	84%	78%	71%	63%	54%	44%	35%	27%	19%	13%	8%	4%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
104°	167,8°	211,6°	74,4%	52,0%

ISO candela diagram



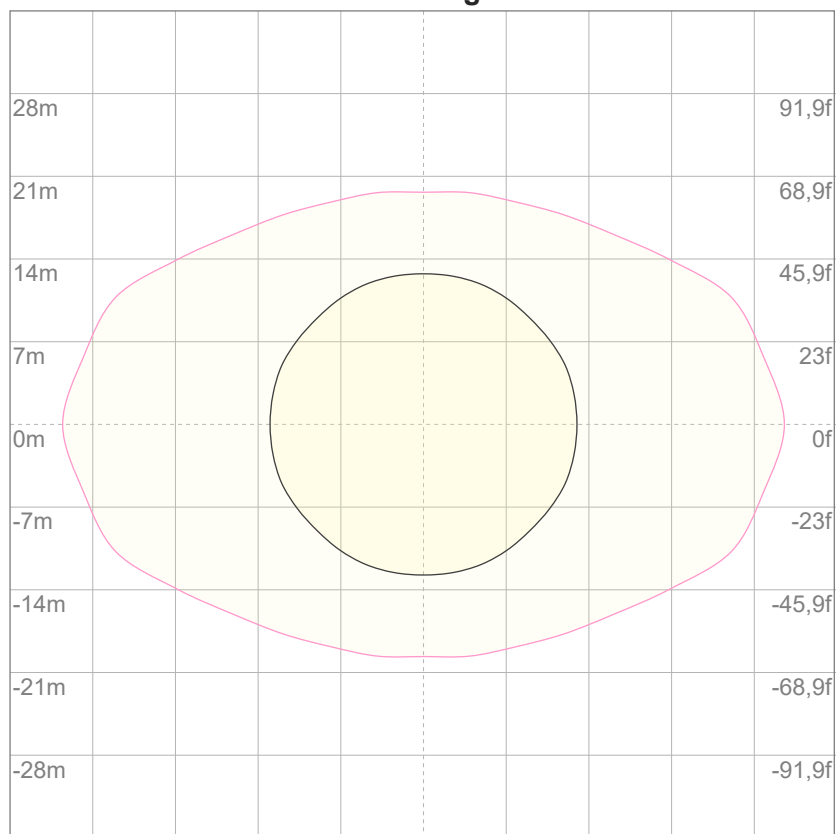
10%	55 cd
20%	110 cd
30%	165 cd
40%	220 cd
50%	275 cd
60%	330 cd
70%	385 cd
80%	440 cd
90%	495 cd

Conditions:

Number of c-planes: 16

Candela at center: 550 cd

ISO lux diagram



3%	0,165 lx
5%	0,275 lx
10%	0,550 lx
30%	1,65 lx
50%	2,75 lx

Conditions:

Number of c-planes: 16

Lux at center: 5,50 lx

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

Glare Evaluation According to UGR

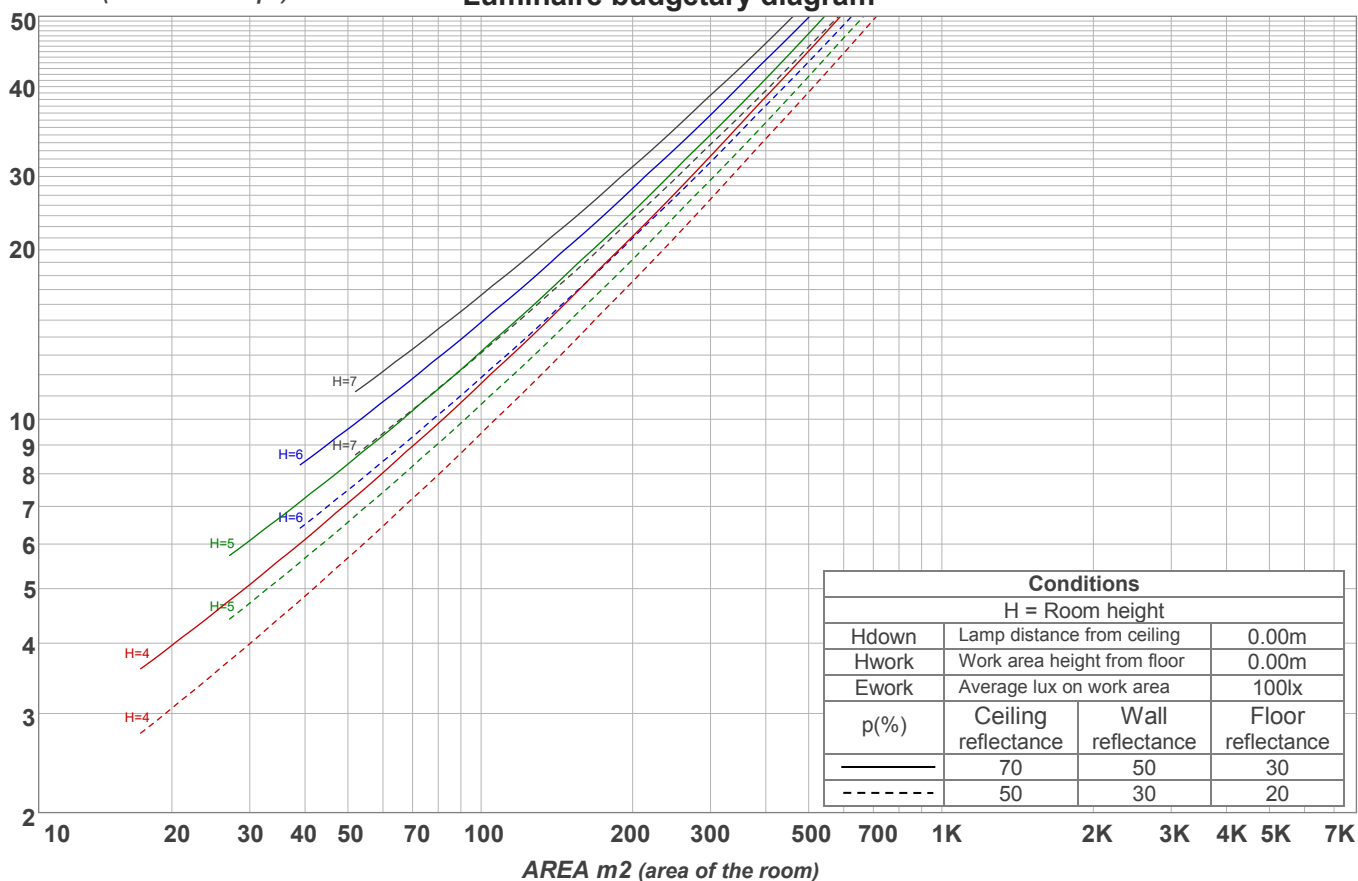
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	23,5	24,7	23,7	25,0	25,2	24,0	25,3	24,3	25,6	25,8
	3H	25,0	26,3	25,4	26,6	26,8	25,1	26,4	25,6	26,7	26,9
	4H	25,8	27,0	26,2	27,3	27,6	25,6	26,8	26,0	27,1	27,4
	6H	26,5	27,6	26,8	27,9	28,3	26,0	27,1	26,3	27,4	27,7
	8H	26,8	27,9	27,1	28,2	28,6	26,1	27,2	26,5	27,5	27,9
	12H	27,0	28,0	27,4	28,4	28,8	26,2	27,2	26,5	27,5	28,0
4H	2H	24,0	25,2	24,4	25,5	25,8	24,4	25,7	24,8	25,9	26,2
	3H	25,9	26,9	26,3	27,3	27,7	25,9	26,9	26,2	27,2	27,7
	4H	26,8	27,7	27,2	28,1	28,7	26,4	27,3	26,8	27,7	28,3
	6H	27,6	28,5	28,1	28,8	29,2	26,8	27,7	27,3	28,1	28,5
	8H	27,9	28,8	28,4	29,1	29,5	27,0	27,8	27,5	28,2	28,6
	12H	28,2	28,9	28,7	29,4	29,8	27,1	27,8	27,6	28,2	28,7
8H	4H	27,0	27,9	27,5	28,2	28,6	26,7	27,5	27,2	27,9	28,3
	6H	28,1	28,7	28,6	29,2	29,7	27,3	28,0	27,8	28,4	29,0
	8H	28,6	29,1	29,1	29,6	30,3	27,6	28,2	28,1	28,7	29,3
	12H	29,0	29,5	29,6	30,0	30,6	27,8	28,3	28,4	28,8	29,4
12H	4H	27,0	27,7	27,5	28,2	28,6	26,7	27,4	27,2	27,9	28,3
	6H	28,2	28,7	28,7	29,2	29,9	27,5	28,0	28,0	28,5	29,2
	8H	28,7	29,2	29,3	29,7	30,3	27,8	28,2	28,3	28,7	29,4
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 / -0,2					0,3 / -0,4				
S = 2.0H		0,3 / -0,4					0,7 / -0,8				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 1573 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	118	118	118	118	115	115	115	115	109	109	109	104	104	104	99	99	99	97
1	107	102	97	93	104	99	95	92	95	91	88	90	87	85	86	84	82	79
2	97	89	82	76	94	87	80	75	83	77	72	79	74	70	75	72	68	66
3	89	78	70	63	86	76	68	62	73	66	61	70	64	59	67	62	58	56
4	81	69	60	53	79	68	59	53	65	58	52	62	56	51	59	54	50	48
5	75	62	53	46	73	61	52	46	58	51	45	56	49	44	54	48	43	41
6	69	56	47	40	67	55	46	40	53	45	39	51	44	39	49	43	38	36
7	64	51	42	36	62	50	41	35	48	40	35	46	39	35	45	39	34	32
8	60	46	38	32	58	45	37	32	44	37	31	42	36	31	41	35	31	29
9	56	42	34	29	54	42	34	29	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	36	30	25	35	29	25	23

LAMPS (number of lamps)

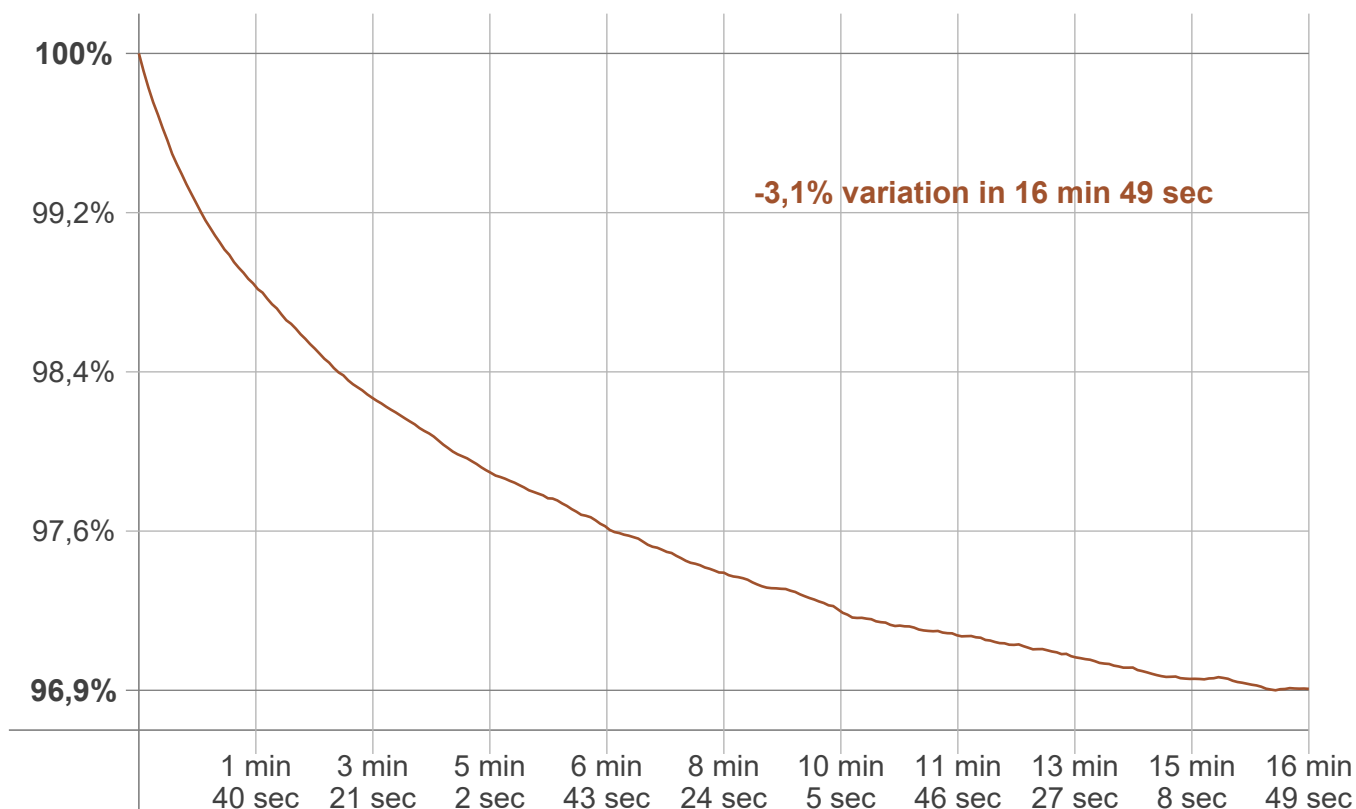
Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
50,7 lm	150 lm	220 lm	266 lm	257 lm	227 lm	171 lm	121 lm	61,5 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
9,61 lm	12,5 lm	2,96 lm	2,68 lm	2,17 lm	1,66 lm	1,22 lm	0,749 lm	14,8 lm

Warmup curve



Warmup result

Warmup time:	Lamp stabilized in 16 min 49 sec
Warmup variation	-3,1%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
2749 K	+6 K	2755 K

Output change

Output start	Output change	Output end
1619 lm	-46 lm	1573 lm