

Light efficiency:

144 Lumen/Watt

Light quality:

CRI: 81,9

Color temperature:

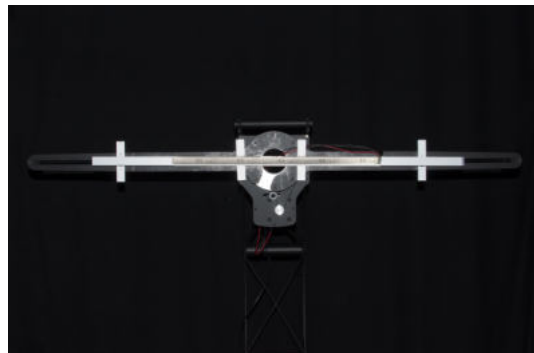
2757 K

Output: 1655 lm

Peak: 807 cd

Power: 11,5 W

PF: 1,0



Product name:

Nova-6_510mm_827_Lens-60°-Frosted

Item number:

NP/L1C/06F/G1/L1C/0510/827/L6F

Date and time:

19.07.2022 09:10:48

Description:

Rank: D60-AC-8GB

Tolerances:

Lumen +/-4%

Candela +/-2,5%

Colour Temp +/-35 Kelvin

CRI +/-0,7

Angular Resolution: 1 Degree Step

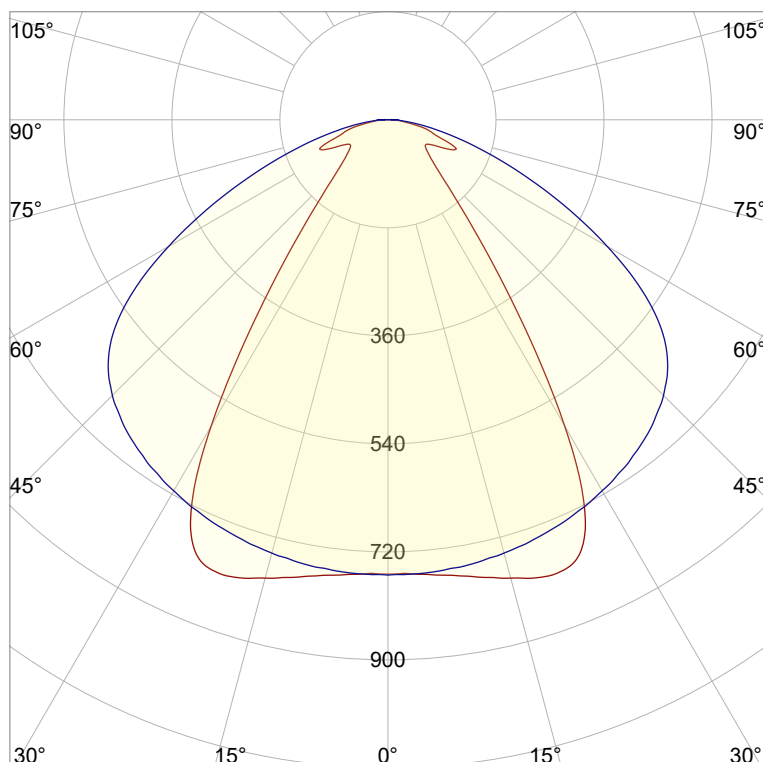
Last Calibration 20-09-2021

Tester: Peter Ulrich

Test Site: Lichtlabor

Gaustrasse 13

55411 Bingen am Rhein

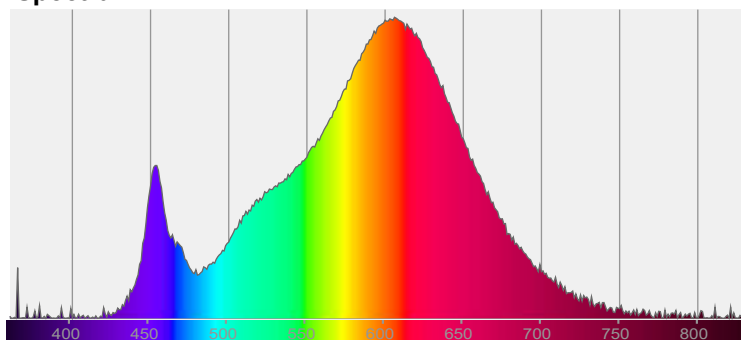


CIE 1931

x: 0,454

y: 0,407

Spectra

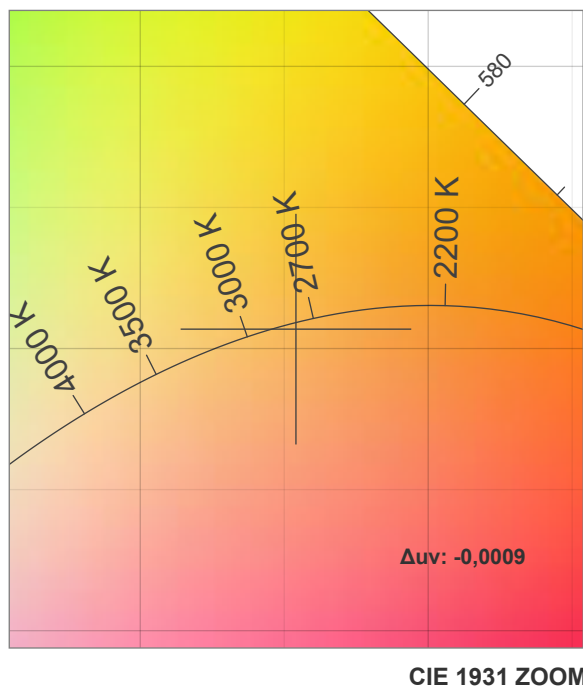
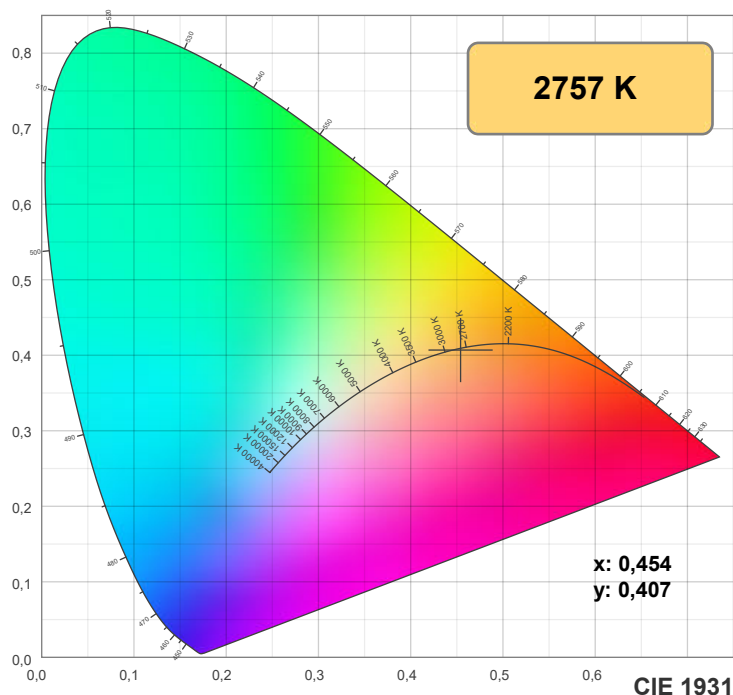


Power

Voltage: 48,0 V

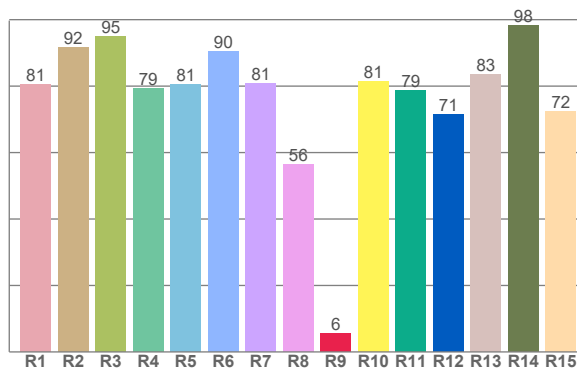
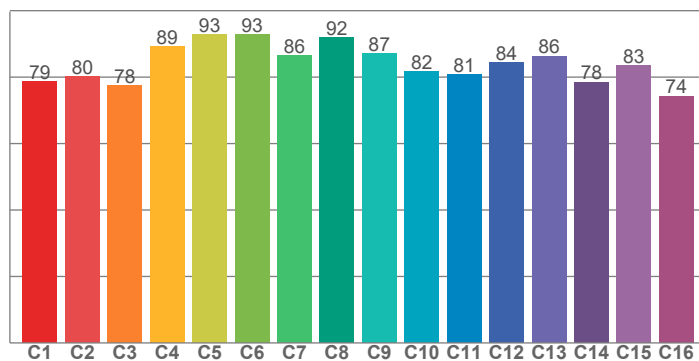
Current: 0,240 A

Frequency: 0 Hz



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

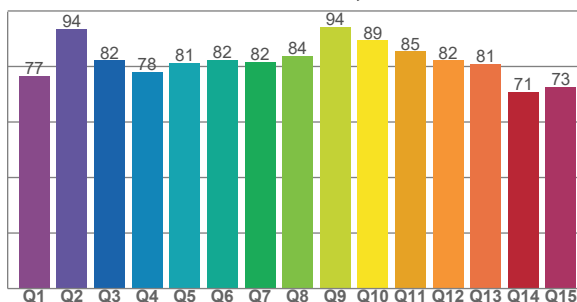
TM30 C values, 16 binned values out of total of 99 C values

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 deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
2757 K	81,9	5,5	83,9	95,4	81,1	0,454	0,407	0,260	0,350	-0,0009

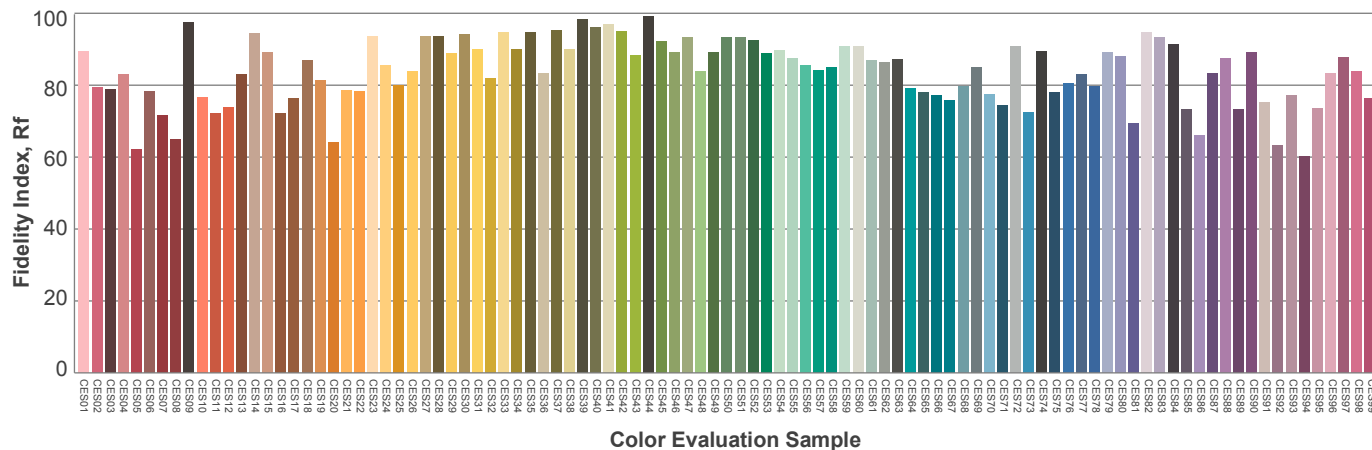
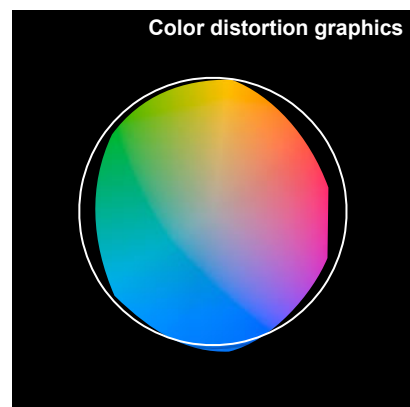
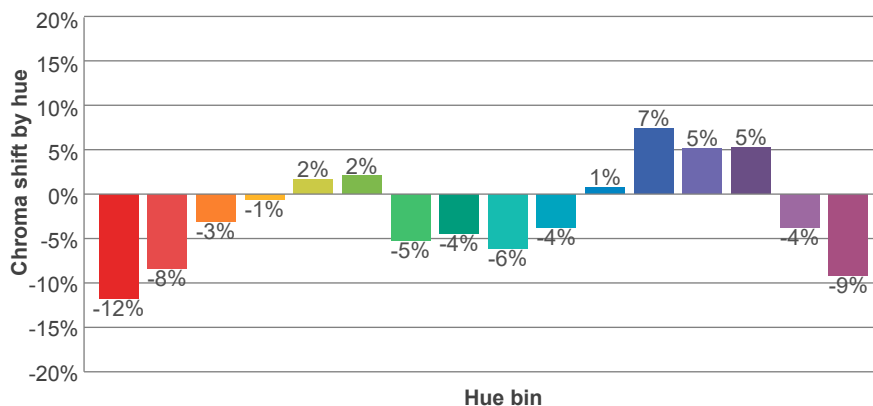
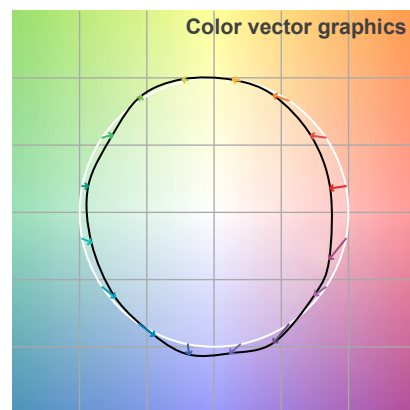
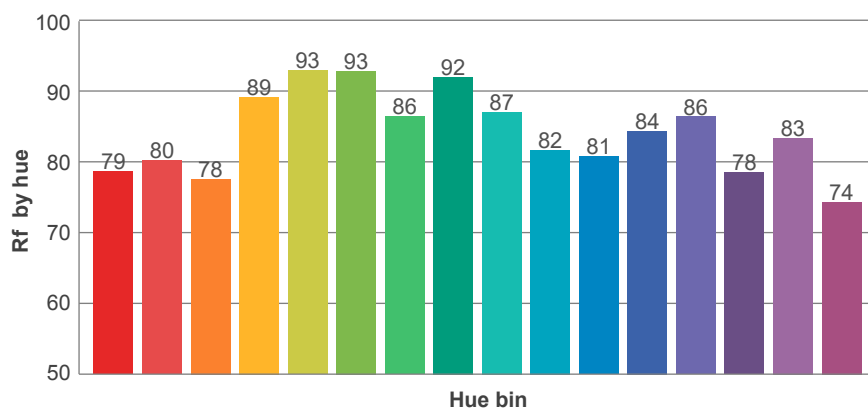
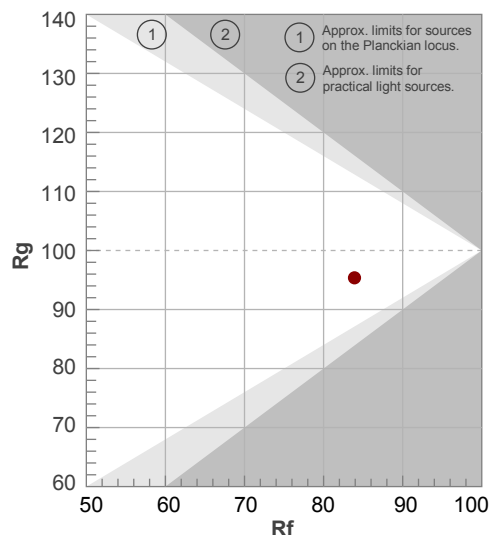
Rf 83,9

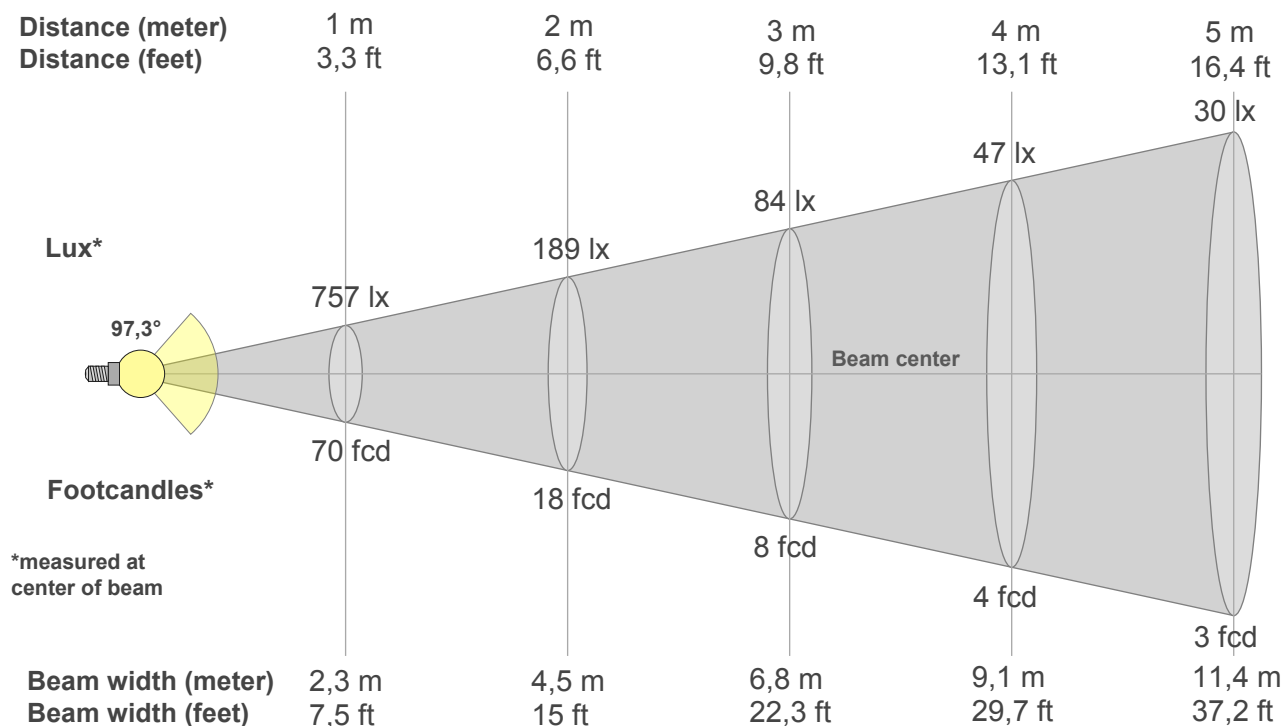
Fidelity index Rf

Rg 95,4

Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		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 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
757lx	189lx	84lx	47lx	30lx	21lx	15lx	12lx	9lx	8lx	6lx	5lx	4lx	4lx	3lx	3lx	3lx	2lx	2lx	2lx
70,3fcd	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°
757	760	772	791	807	772	588	339	186	116	88	76	83	118	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°
757	758	754	747	739	728	714	698	677	649	607	532	422	305	203	123	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

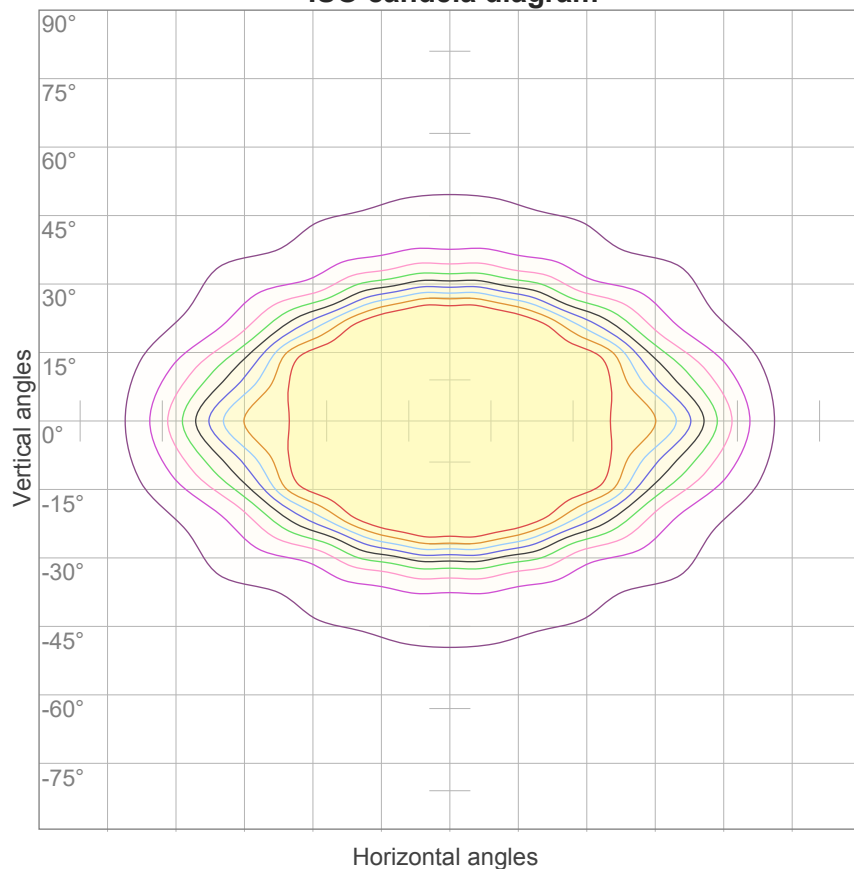
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
757	760	772	791	807	772	588	339	186	116	88	76	83	118	101	72	42	21	7	0
100%	100%	102%	104%	107%	102%	78%	45%	25%	15%	12%	10%	11%	16%	13%	9%	6%	3%	1%	0%

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°
757	758	754	747	739	728	714	698	677	649	607	532	422	305	203	123	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



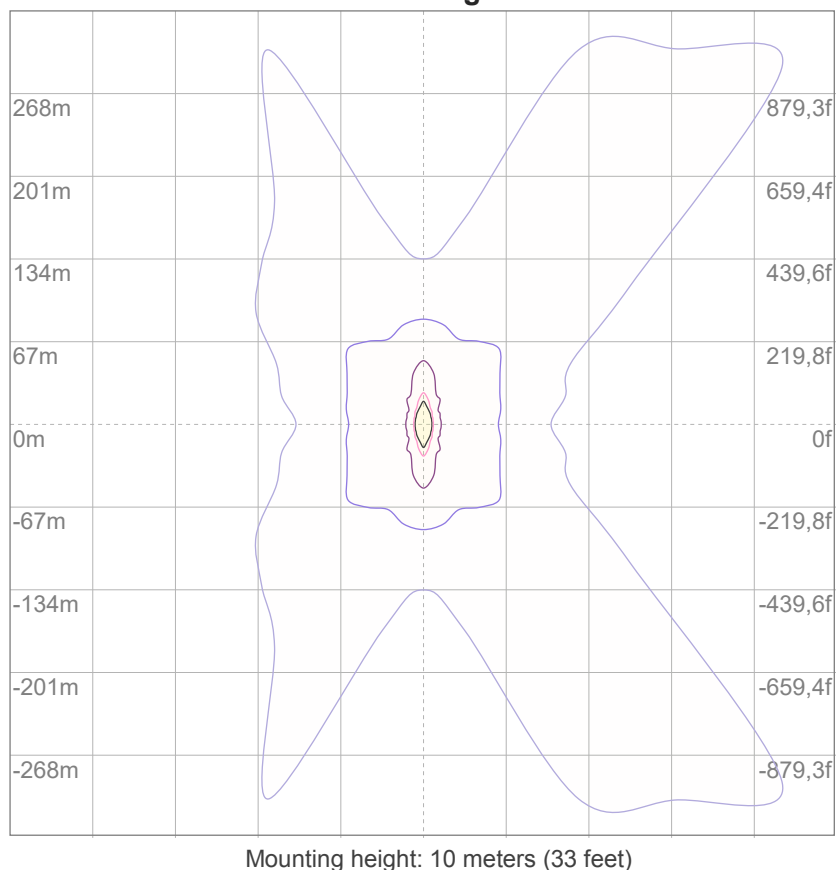
10%	76 cd
20%	151 cd
30%	227 cd
40%	303 cd
50%	378 cd
60%	454 cd
70%	530 cd
80%	606 cd
90%	681 cd

Conditions:

Number of c-planes: 16

Candela at center: 757 cd

ISO lux diagram



3%	0,227 lx
5%	0,378 lx
10%	0,757 lx
30%	2,27 lx
50%	3,78 lx

Conditions:

Number of c-planes: 16

Lux at center: 7,57 lx

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

Glare Evaluation According to UGR

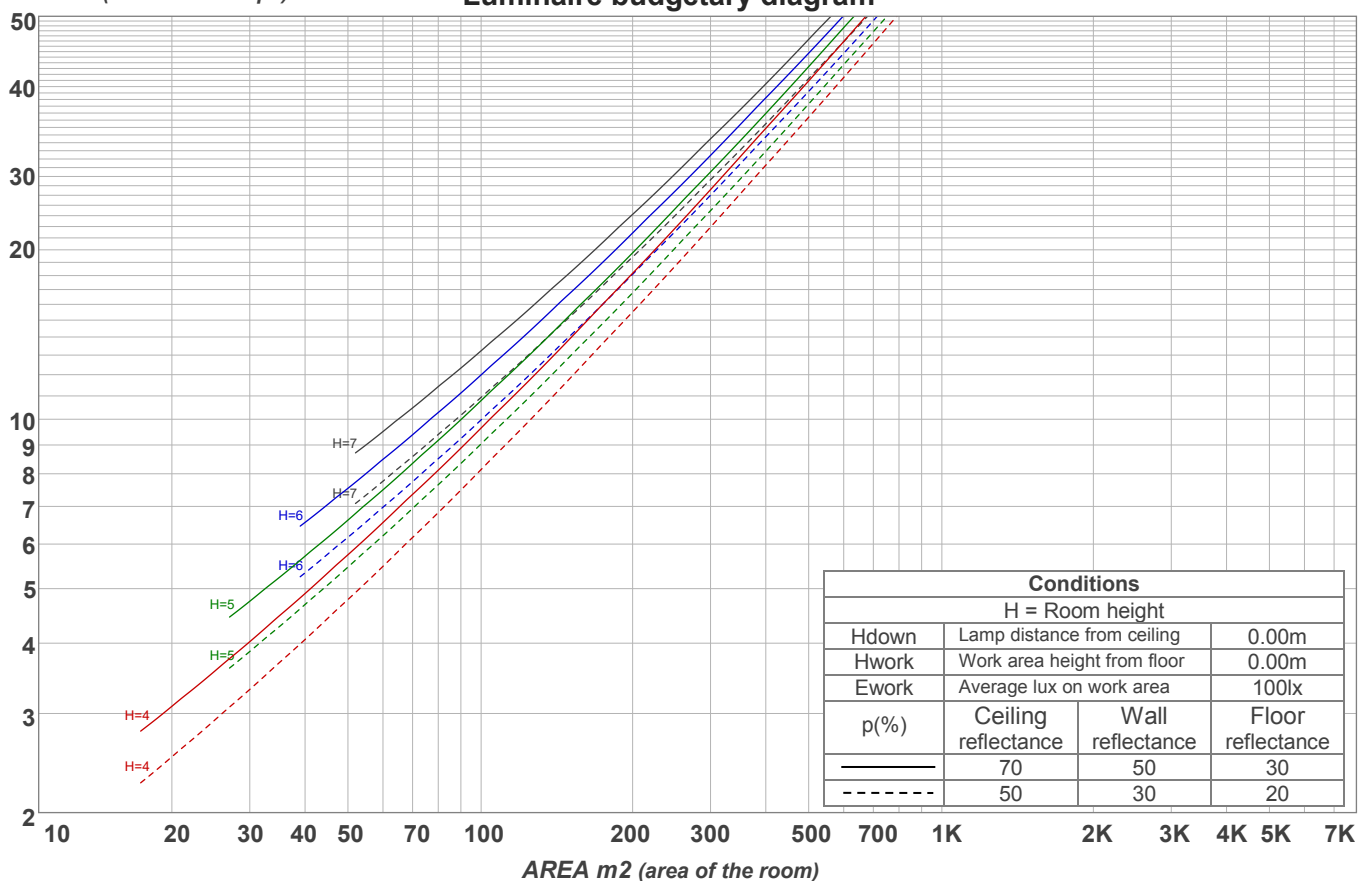
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	18,0	19,1	18,2	19,4	19,6	26,3	27,3	26,5	27,6	27,8
	3H	20,4	21,5	20,8	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	28,1	29,1	28,5	29,3	29,7
	8H	21,7	22,6	22,0	22,9	23,3	28,2	29,1	28,6	29,4	29,8
	12H	21,7	22,6	22,1	22,9	23,4	28,3	29,1	28,6	29,5	29,9
4H	2H	18,6	19,7	19,0	19,9	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	28,1	27,6	28,5	28,9
	4H	22,1	22,9	22,6	23,3	23,9	27,7	28,5	28,1	28,9	29,5
	6H	22,7	23,5	23,2	23,8	24,2	28,1	28,9	28,6	29,2	29,6
	8H	22,8	23,5	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	28,9	28,9	29,4	29,8
8H	4H	22,5	23,2	23,0	23,6	23,9	27,7	28,4	28,2	28,8	29,1
	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	24,4	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	28,9	29,1	29,4	30,1
12H	4H	22,5	23,1	23,0	23,5	24,0	27,7	28,2	28,1	28,7	29,1
	6H	23,4	23,8	23,9	24,3	25,0	28,2	28,6	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 1655 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

LAMPS (number of lamps)

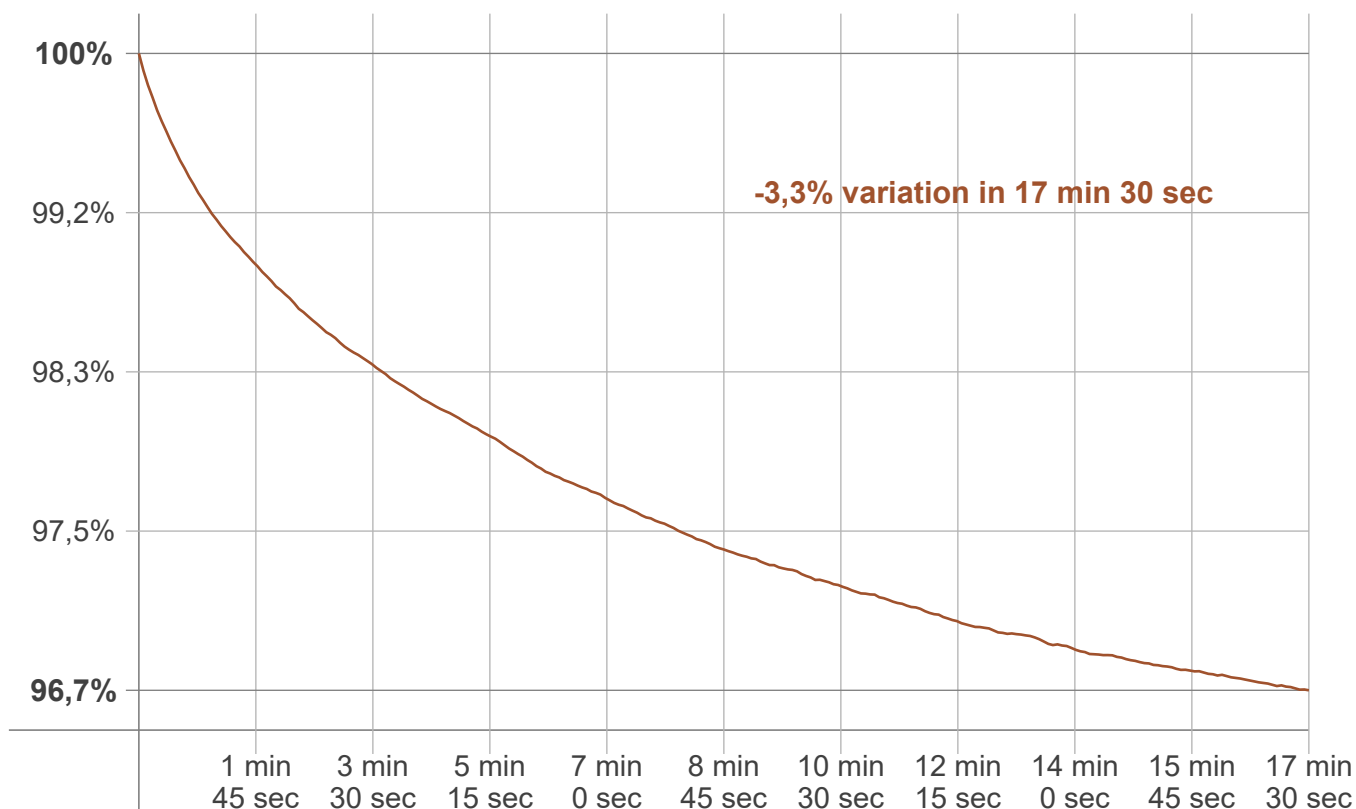
Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
67,3 lm	213 lm	345 lm	360 lm	254 lm	163 lm	117 lm	79,1 lm	29,7 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
9,47 lm	1,56 lm	1,46 lm	1,32 lm	0,871 lm	0,552 lm	0,407 lm	0,249 lm	10,9 lm

Warmup curve



Warmup result

Warmup time:	Lamp stabilized in 17 min 30 sec
Warmup variation	-3,3%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
2753 K	+4 K	2757 K

Output change

Output start	Output change	Output end
1707 lm	-52 lm	1655 lm