

Light efficiency:

142 Lumen/Watt

Light quality:

CRI: 81,8

Color temperature:

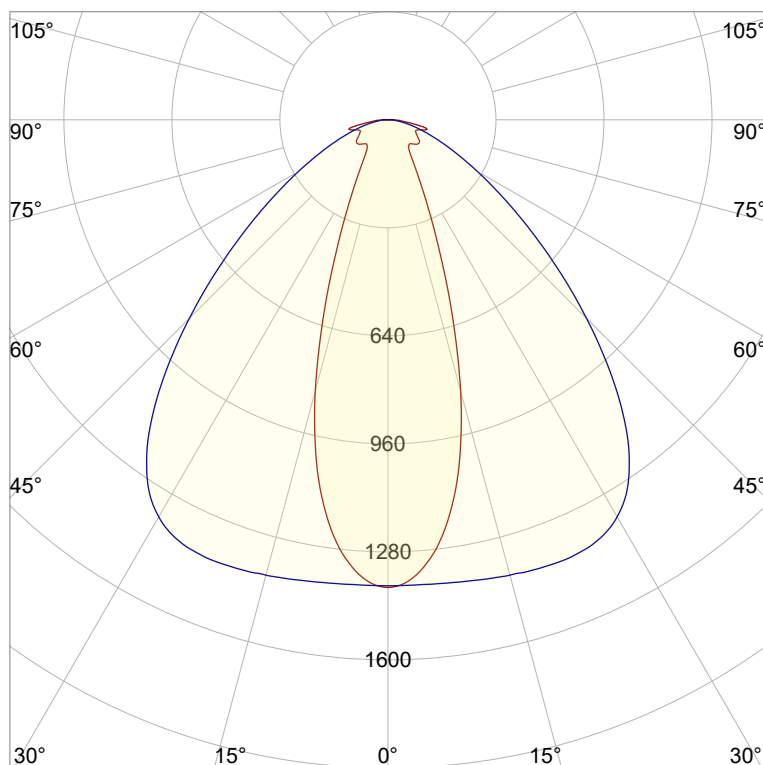
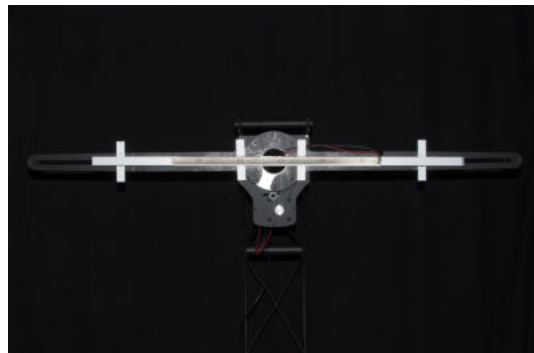
2754 K

Output: 1565 lm

Peak: 1405 cd

Power: 11,0 W

PF: 1,0



Product name:

Nova-6_510mm_827_Lens-30°-Frosted

Item number:

NP/L1C/06F/G1/L1C/0510/827/L3F

Date and time:

19.07.2022 10:28:54

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

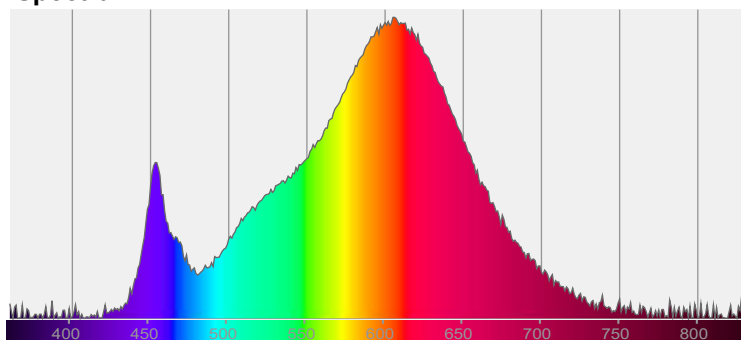


CIE 1931

x: 0,453

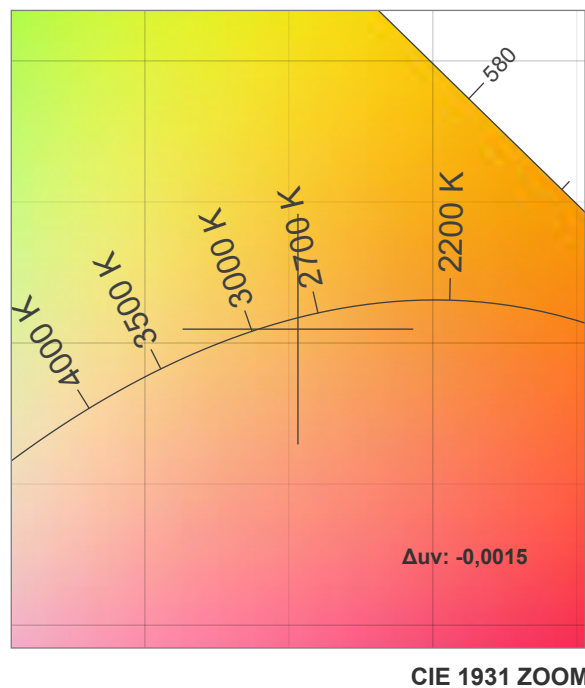
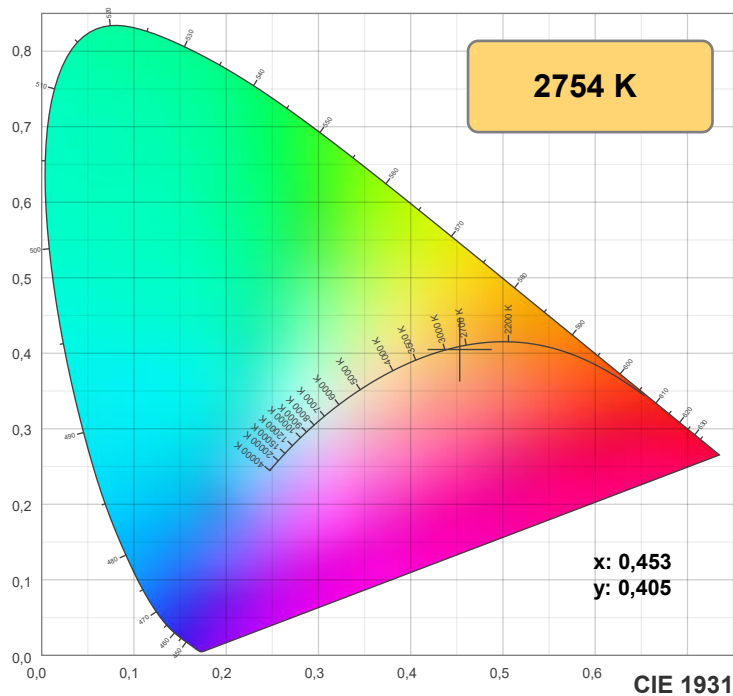
y: 0,405

Spectra



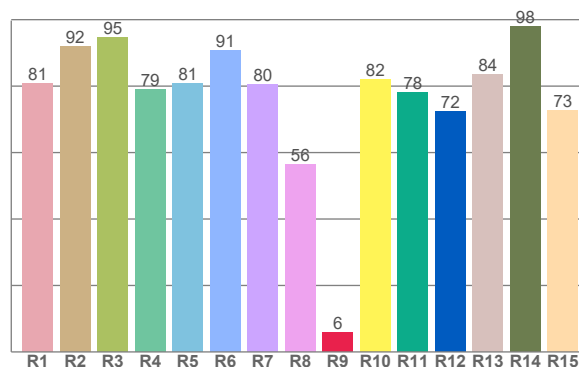
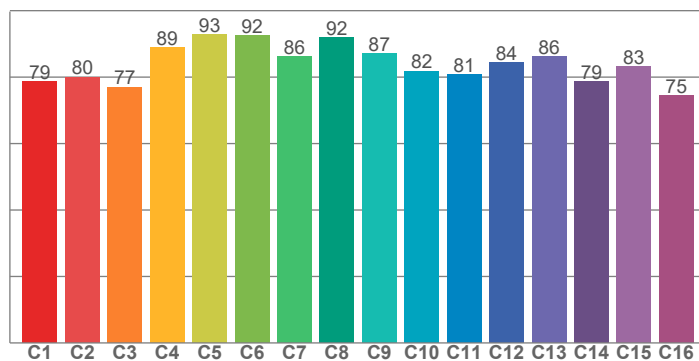
Power

Voltage: 48,0 V
Current: 0,230 A
Frequency: 0 Hz



TM30: 83,8

CRI: 81,8 (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
80,7	92,0	94,6	78,9	80,8	90,8	80,4	56,3	5,9	82,0	78,2	72,4	83,6	97,9	72,6

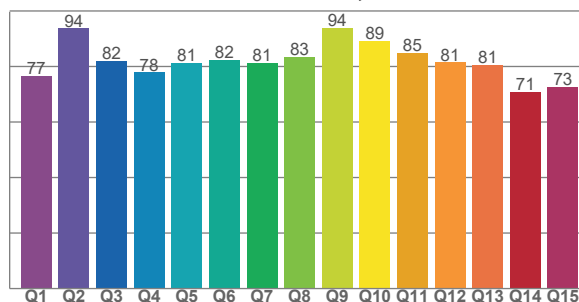
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
78,7	80,0	77,0	89,0	92,8	92,4	86,3	91,8	87,2	81,8	80,8	84,3	86,3	78,6	83,3	74,5

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
76,7	93,7	81,9	77,8	81,2	82,3	81,3	83,3	94,0	89,1	84,9	81,5	80,5	70,8	72,6

CQS: 80,9



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
2754 K	81,8	5,9	83,8	95,6	80,9	0,453	0,405	0,261	0,349	-0,0015

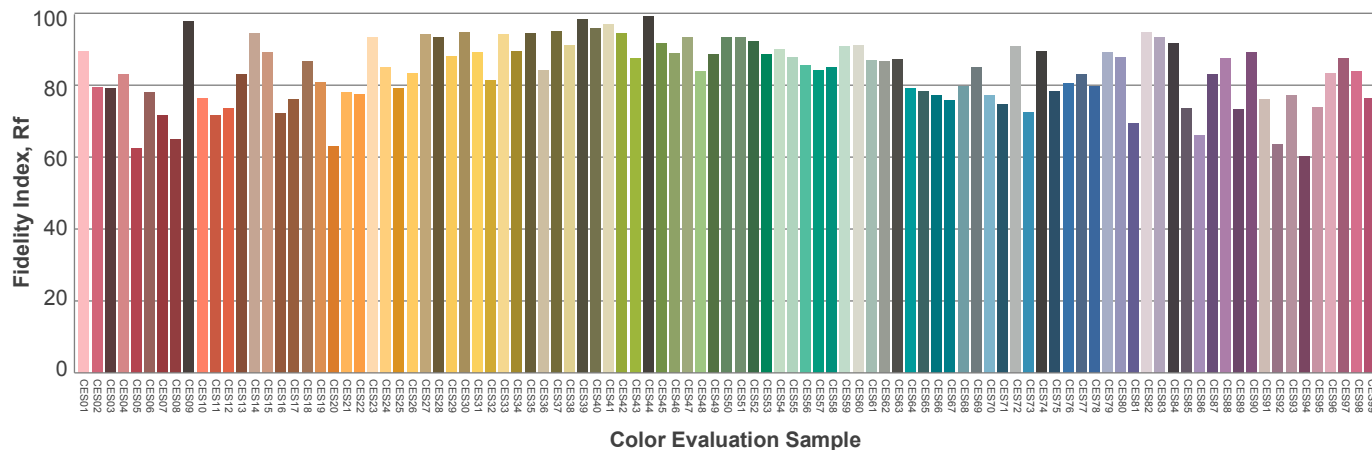
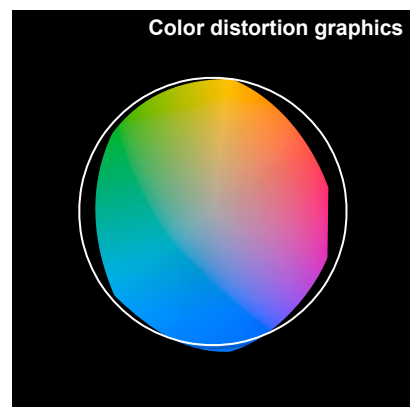
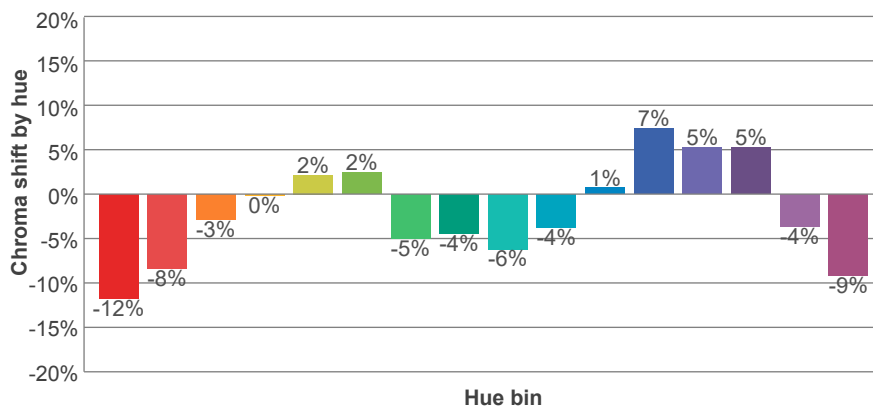
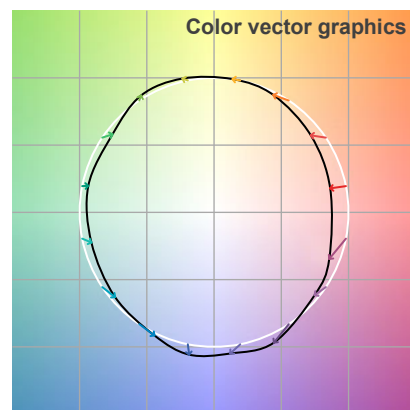
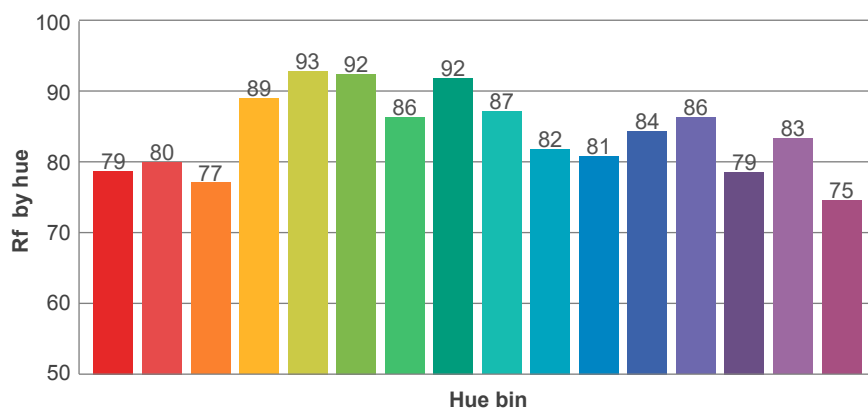
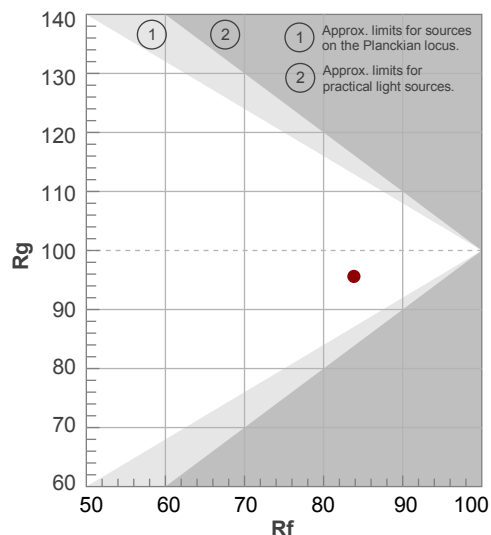
Rf 83,8

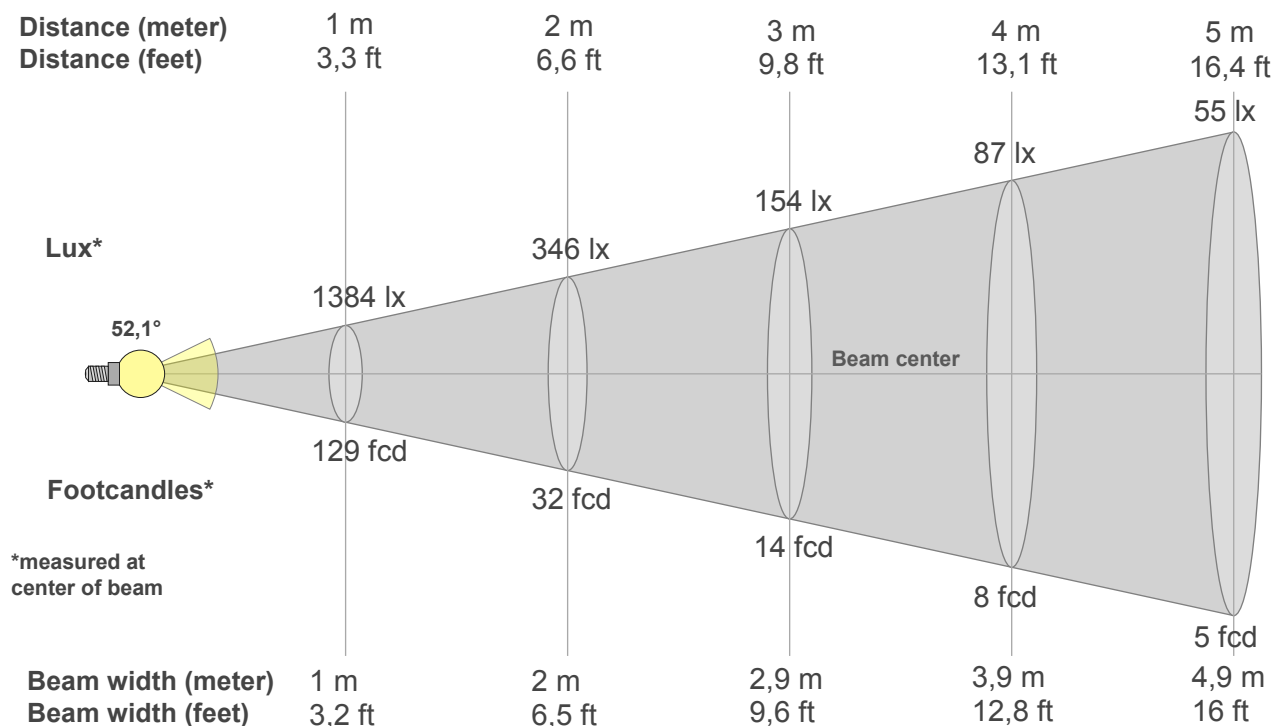
Fidelity index Rf

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	92	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 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
1384lx	346lx	154lx	87lx	55lx	38lx	28lx	22lx	17lx	14lx	11lx	10lx	8lx	7lx	6lx	5lx	5lx	4lx	4lx	3lx
128,6fcd	32,2fcd	14,3fcd	8fcd	5,1fcd	3,6fcd	2,6fcd	2fcd	1,6fcd	1,3fcd	1,1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,4fcd	0,3fcd

Intensities in 0° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1384	1374	1342	1292	1221	1131	1023	898	761	624	498	391	307	242	194	158	132	115	105	99
100%	99%	97%	93%	88%	82%	74%	65%	55%	45%	36%	28%	22%	17%	14%	11%	10%	8%	8%	7%

Intensities in 90° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1384	1380	1380	1382	1384	1387	1391	1395	1398	1401	1403	1405	1401	1395	1381	1358	1324	1276	1214	1141
100%	100%	100%	100%	100%	100%	100%	101%	101%	101%	101%	101%	101%	101%	100%	98%	96%	92%	88%	82%

Intensities in 180° c-plane

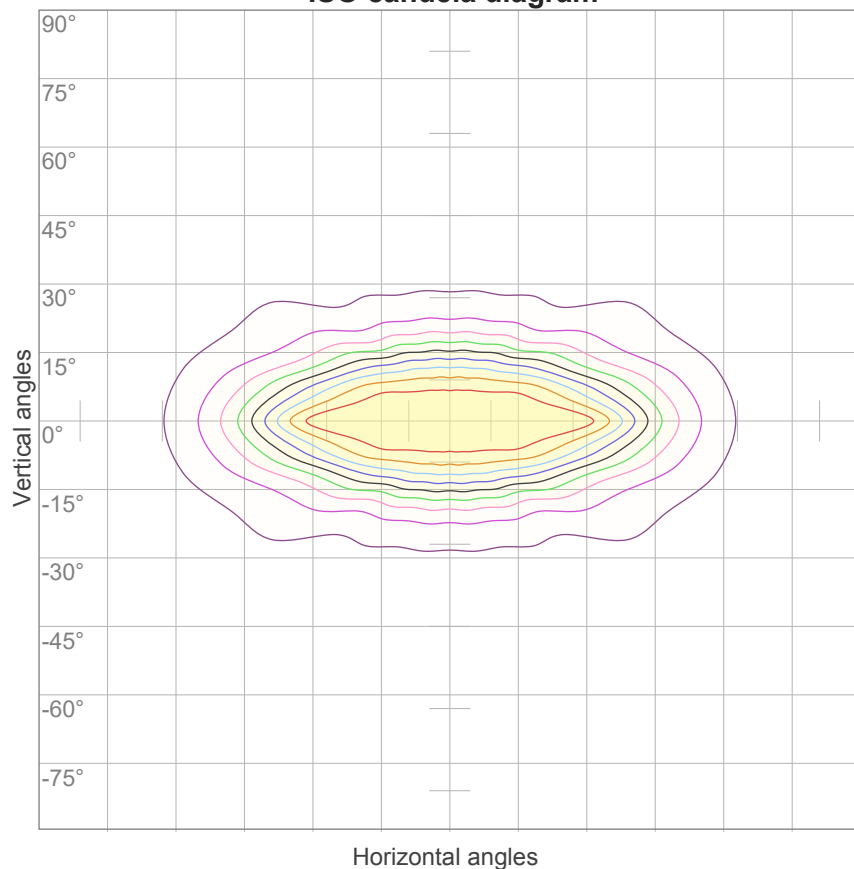
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1384	1374	1342	1292	1221	1131	1023	898	761	624	498	391	307	242	194	158	132	115	105	99
100%	99%	97%	93%	88%	82%	74%	65%	55%	45%	36%	28%	22%	17%	14%	11%	10%	8%	8%	7%

Intensities in 270° c-plane

0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1384	1380	1380	1382	1384	1387	1391	1395	1398	1401	1403	1405	1401	1395	1381	1358	1324	1276	1214	1141
100%	100%	100%	100%	100%	100%	100%	101%	101%	101%	101%	101%	101%	101%	100%	98%	96%	92%	88%	82%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
52,1°	90,1°	171°	83,4%	68,9%

ISO candela diagram



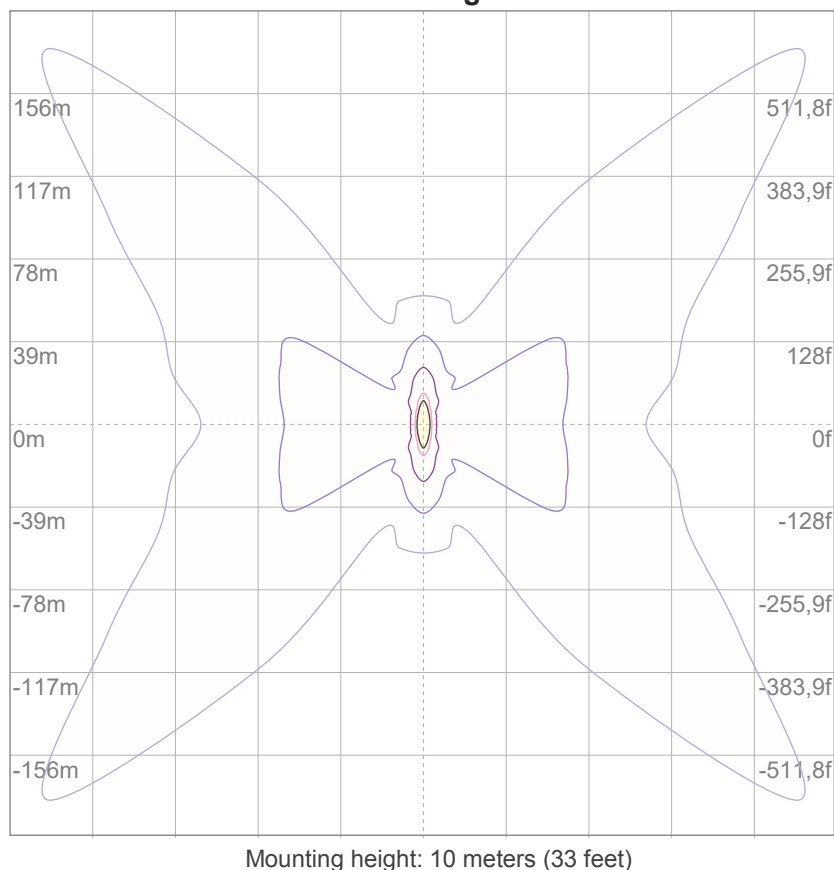
10%	138 cd
20%	277 cd
30%	415 cd
40%	554 cd
50%	692 cd
60%	831 cd
70%	969 cd
80%	1107 cd
90%	1246 cd

Conditions:

Number of c-planes: 16

Candela at center: 1384 cd

ISO lux diagram



3%	0,415 lx
5%	0,692 lx
10%	1,38 lx
30%	4,15 lx
50%	6,92 lx

Conditions:

Number of c-planes: 16

Lux at center: 13,8 lx

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

Glare Evaluation According to UGR

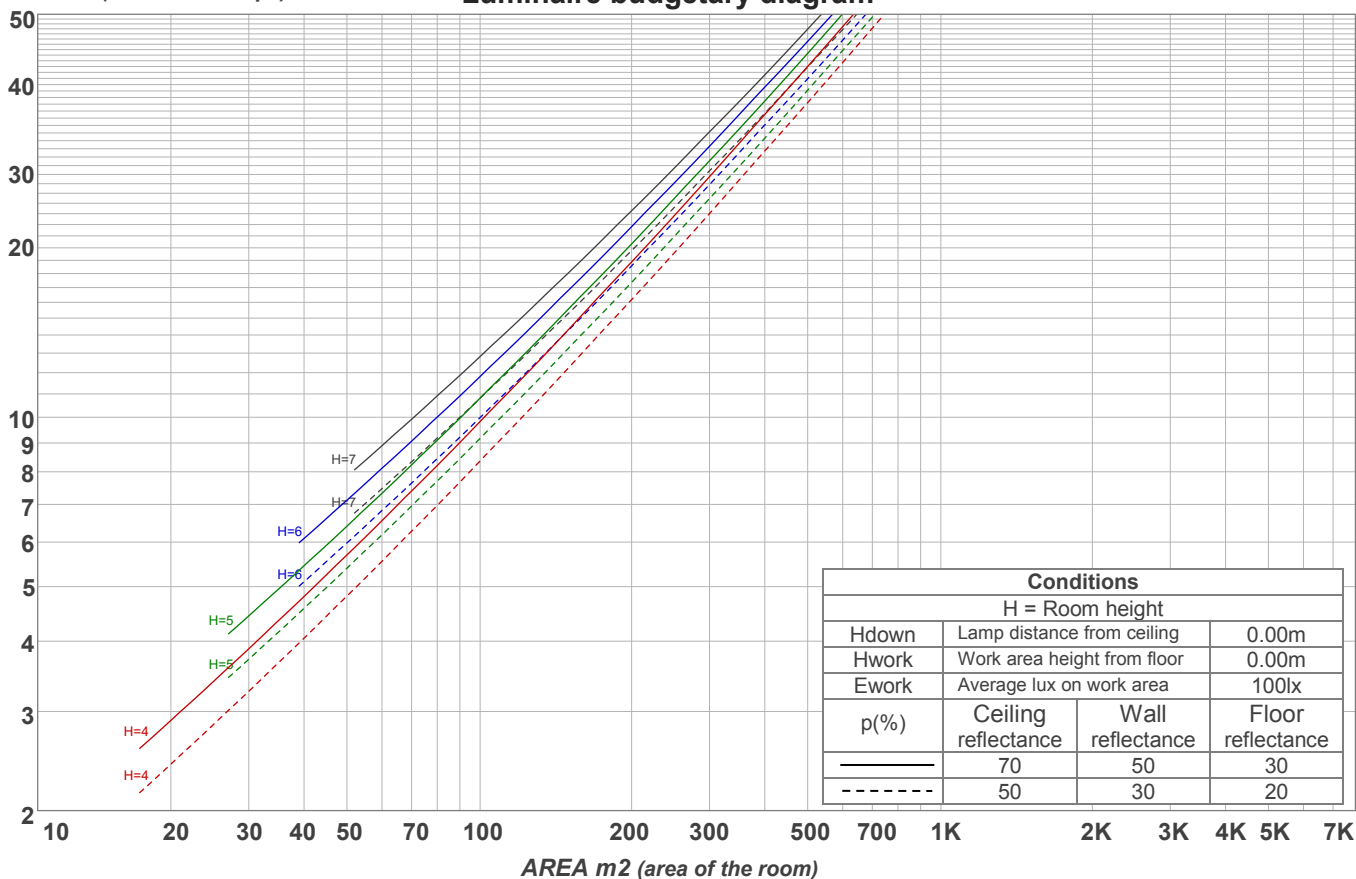
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	17,1	18,1	17,3	18,4	18,6	25,2	26,2	25,4	26,4	26,6
	3H	19,2	20,3	19,6	20,6	20,7	25,9	27,0	26,3	27,2	27,4
	4H	21,0	22,0	21,4	22,3	22,5	26,3	27,3	26,7	27,6	27,8
	6H	22,7	23,6	23,0	23,9	24,3	26,6	27,5	26,9	27,8	28,1
	8H	23,1	23,9	23,4	24,3	24,7	26,7	27,5	27,0	27,8	28,2
	12H	23,2	24,1	23,6	24,4	24,9	26,7	27,6	27,1	27,9	28,3
4H	2H	17,9	18,9	18,3	19,2	19,4	24,9	26,0	25,3	26,2	26,5
	3H	20,3	21,2	20,7	21,5	21,9	25,9	26,8	26,3	27,1	27,6
	4H	22,2	22,9	22,6	23,4	23,9	26,3	27,1	26,7	27,5	28,0
	6H	24,1	24,8	24,6	25,2	25,5	26,7	27,4	27,2	27,8	28,1
	8H	24,5	25,2	25,0	25,5	25,9	26,8	27,5	27,3	27,9	28,2
	12H	24,7	25,3	25,2	25,7	26,2	26,9	27,5	27,4	27,9	28,4
8H	4H	22,6	23,3	23,1	23,7	24,0	26,3	27,0	26,8	27,4	27,8
	6H	24,7	25,3	25,2	25,7	26,3	26,8	27,3	27,3	27,8	28,3
	8H	25,3	25,8	25,8	26,3	26,9	27,1	27,5	27,6	28,0	28,7
	12H	25,7	26,0	26,2	26,5	27,1	27,2	27,6	27,8	28,1	28,7
12H	4H	22,6	23,2	23,1	23,6	24,1	26,3	26,9	26,8	27,3	27,8
	6H	24,9	25,4	25,4	25,9	26,5	26,9	27,4	27,4	27,9	28,5
	8H	25,5	25,9	26,1	26,4	27,0	27,2	27,5	27,7	28,0	28,7
Variation of the observer position for the luminaire distance S											
S = 1.0H		0,1 / 0,0					1,0 / -0,9				
S = 1.5H		0,1 / -0,1					2,3 / -1,8				
S = 2.0H		0,2 / -0,1					3,5 / -2,5				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 1565 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	115	115	115	115	110	110	110	105	105	105	100	100	100	98
1	110	105	102	98	107	103	99	96	98	95	93	94	92	90	90	88	87	85
2	102	94	89	84	99	92	87	83	89	84	80	85	81	78	82	79	76	74
3	94	85	79	73	92	84	77	72	81	75	71	78	73	69	75	71	68	66
4	88	78	70	65	86	76	70	64	74	68	63	71	66	62	69	65	61	59
5	82	71	64	58	80	70	63	58	68	62	57	66	60	56	64	59	55	54
6	77	66	58	53	75	65	58	53	63	57	52	61	56	51	60	55	51	49
7	73	61	54	48	71	60	53	48	59	52	48	57	51	47	56	51	47	45
8	69	57	50	45	67	56	49	44	55	49	44	54	48	44	52	47	43	42
9	65	53	46	41	64	53	46	41	51	45	41	50	45	41	49	44	40	39
10	62	50	43	39	60	50	43	38	48	42	38	47	42	38	46	41	38	36

LAMPS (number of lamps)

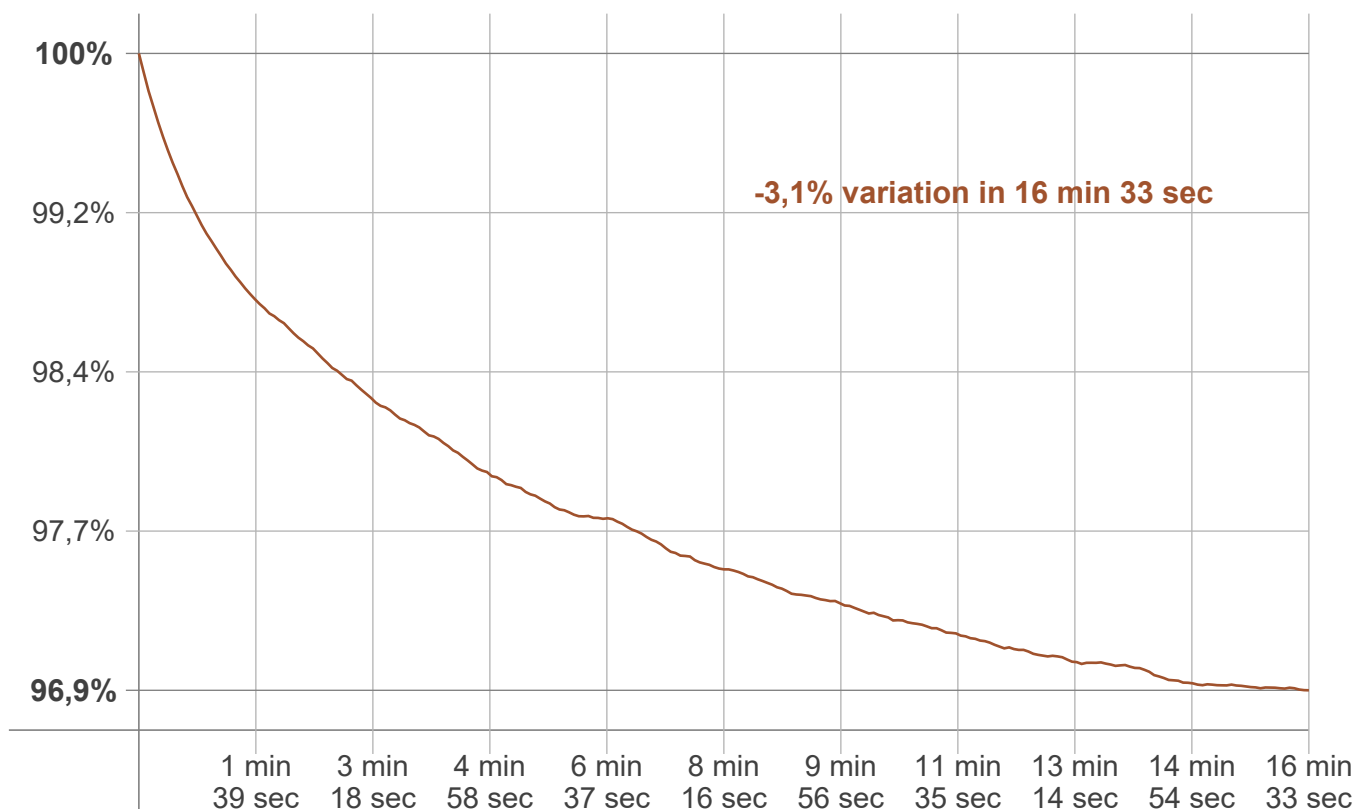
Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
126 lm	302 lm	309 lm	243 lm	185 lm	141 lm	101 lm	80,4 lm	42,8 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
14,1 lm	4,56 lm	4,28 lm	3,87 lm	3,11 lm	2,37 lm	1,75 lm	1,07 lm	0,361 lm

Warmup curve



Warmup result

Warmup time:	Lamp stabilized in 16 min 33 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
2748 K	+6 K	2754 K

Output change

Output start	Output change	Output end
1611 lm	-46 lm	1565 lm