

Light efficiency:

147 Lumen/Watt

Light quality:

CRI: 81,9

Color temperature:

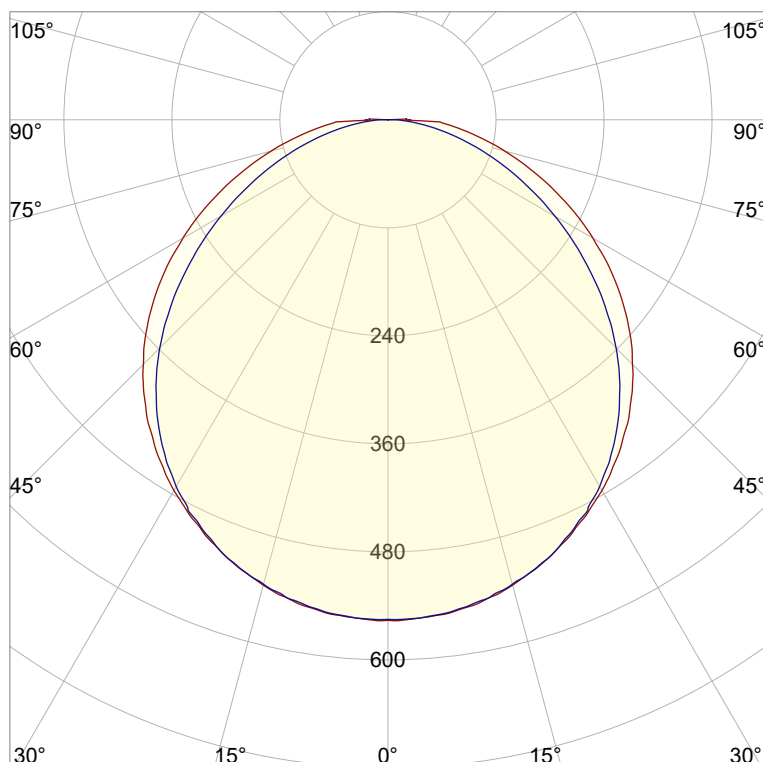
2747 K

Output: 1692 lm

Peak: 557 cd

Power: 11,5 W

PF: 1,0



Product name:

Nova-6_510mm_827_Cover-Round-Frosted

Item number:

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

Date and time:

14.07.2022 16:10:26

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

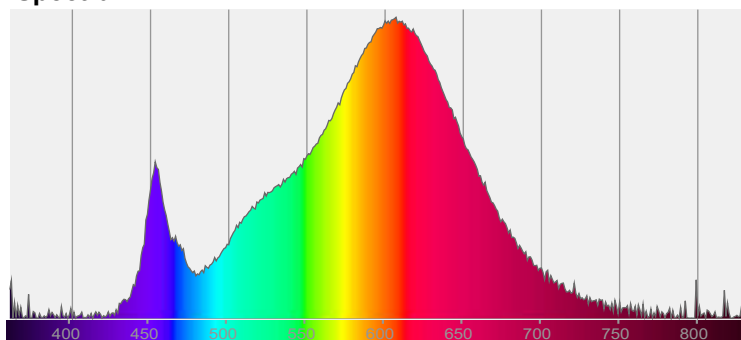


CIE 1931

x: 0,454

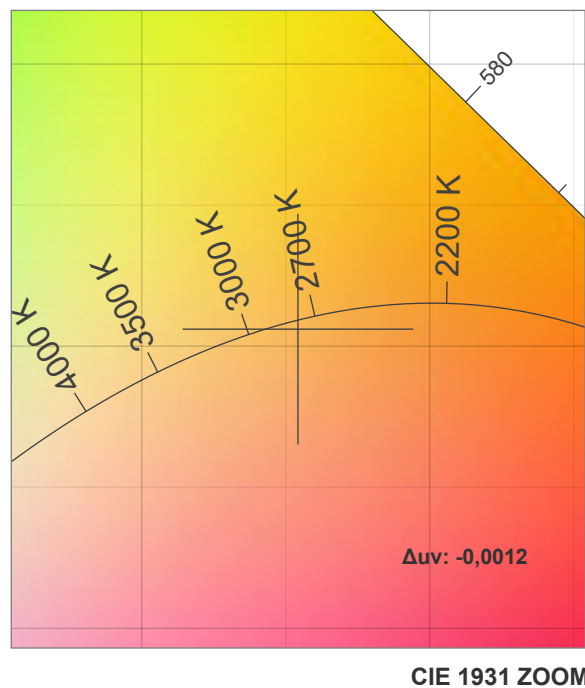
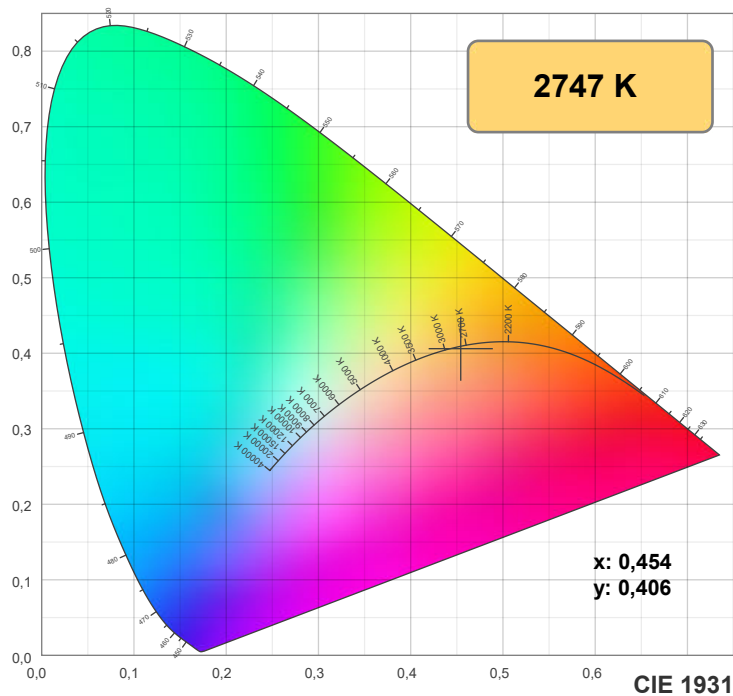
y: 0,406

Spectra



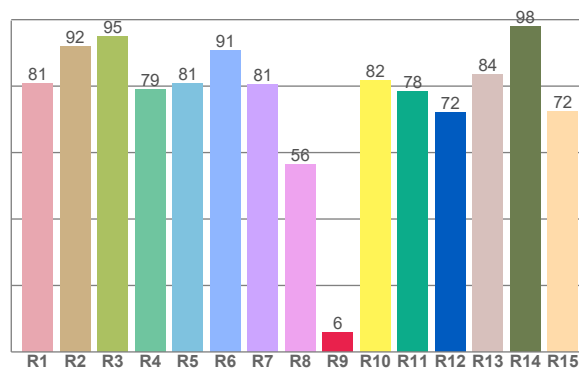
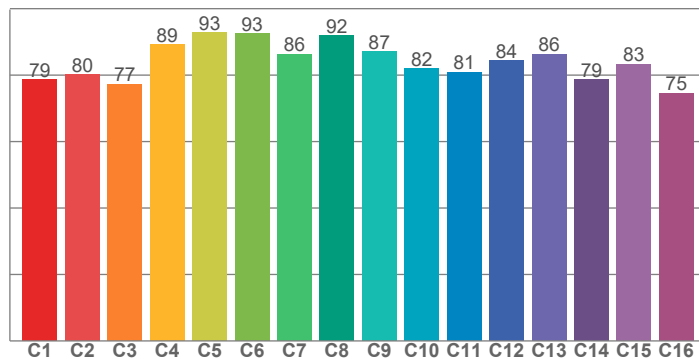
Power

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



TM30: 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
80,7	91,9	94,8	79,1	80,7	90,7	80,6	56,4	5,9	81,8	78,4	72,1	83,5	98,0	72,5

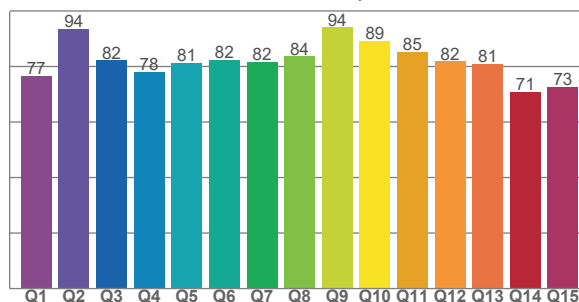
TM30 C values, 16 binned values out of total of 99 C values

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	81,9	80,9	84,4	86,3	78,6	83,4	74,6

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
76,7	93,6	82,1	78,1	81,4	82,4	81,5	83,6	94,0	89,2	85,2	81,8	80,8	70,8	72,6

CQS: 81,0



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
2747 K	81,9	5,9	83,9	95,5	81,0	0,454	0,406	0,261	0,350	-0,0012

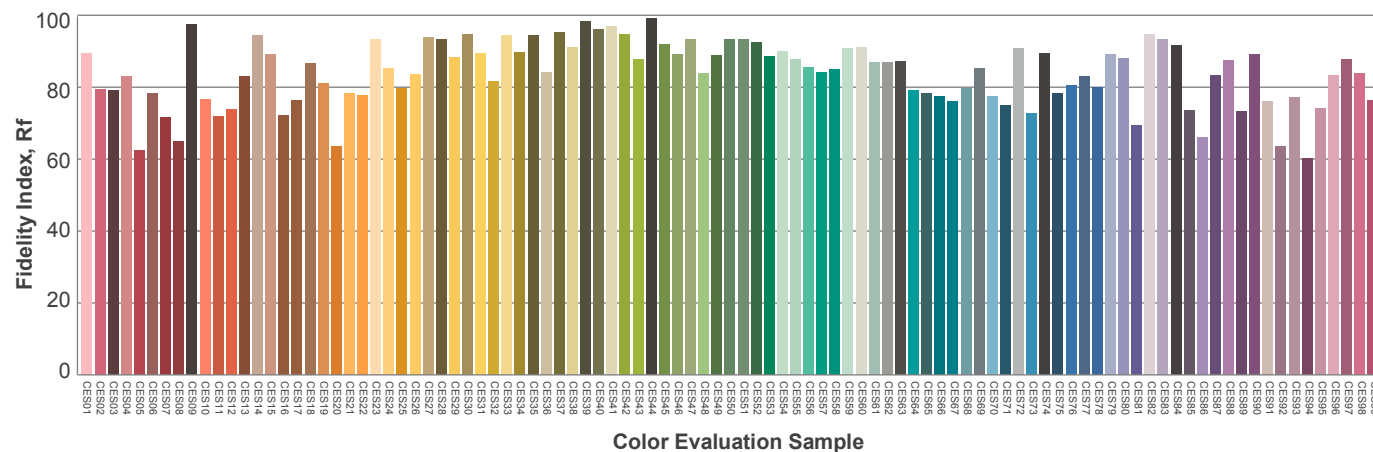
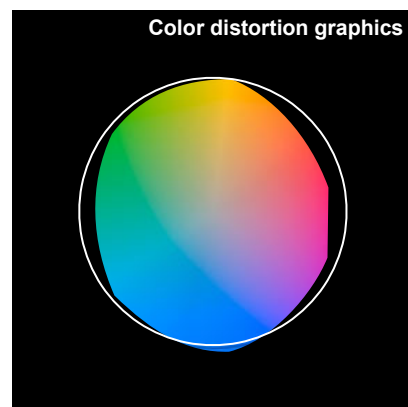
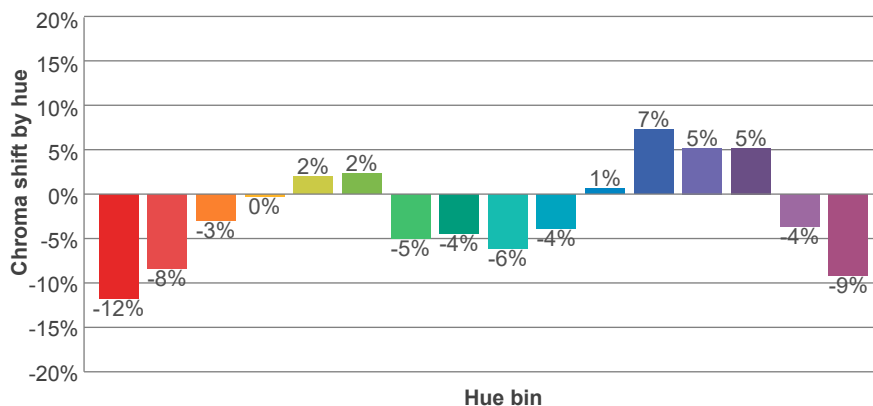
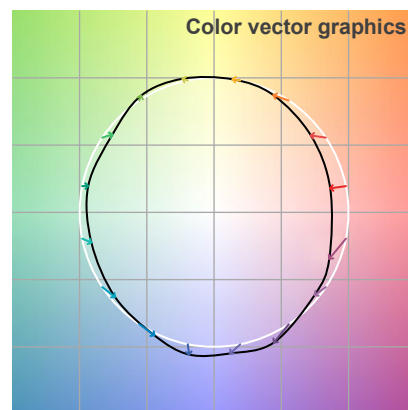
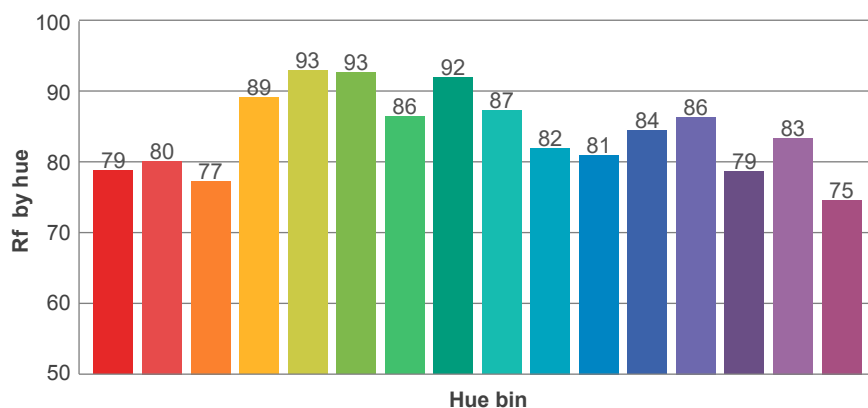
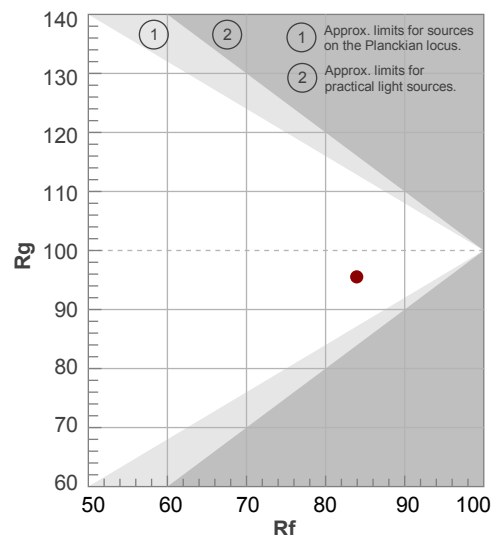
Rf 83,9

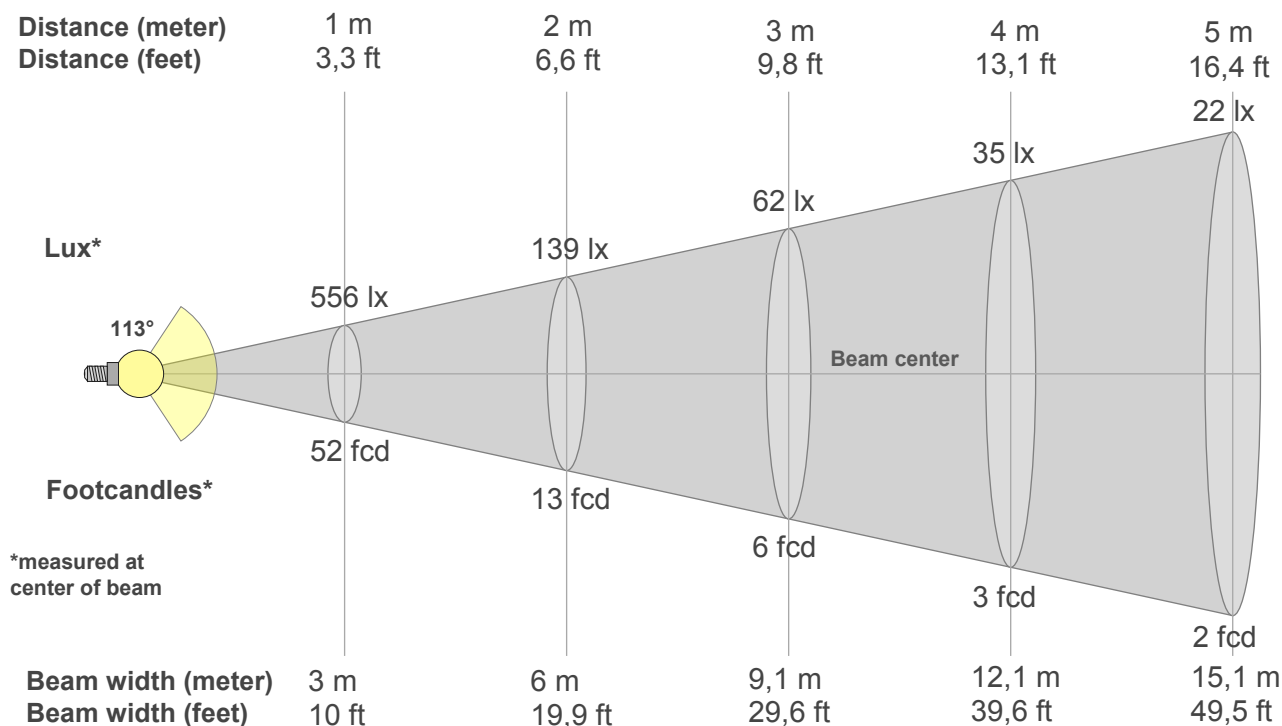
Fidelity index Rf

Rg 95,5

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%	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
556lx	139lx	62lx	35lx	22lx	15lx	11lx	9lx	7lx	6lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	2lx	1lx
51,6fcd	12,9fcd	5,7fcd	3,2fcd	2,1fcd	1,4fcd	1,1fcd	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°
556	554	548	535	519	498	475	449	418	384	347	306	263	219	175	134	98	69	23	0
100%	100%	98%	96%	93%	90%	86%	81%	75%	69%	62%	55%	47%	39%	31%	24%	18%	12%	4%	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°
556	553	546	534	519	496	470	438	400	358	312	263	214	167	125	85	52	25	4	4
100%	100%	98%	96%	93%	89%	85%	79%	72%	64%	56%	47%	39%	30%	22%	15%	9%	4%	1%	1%

Intensities in 180° c-plane

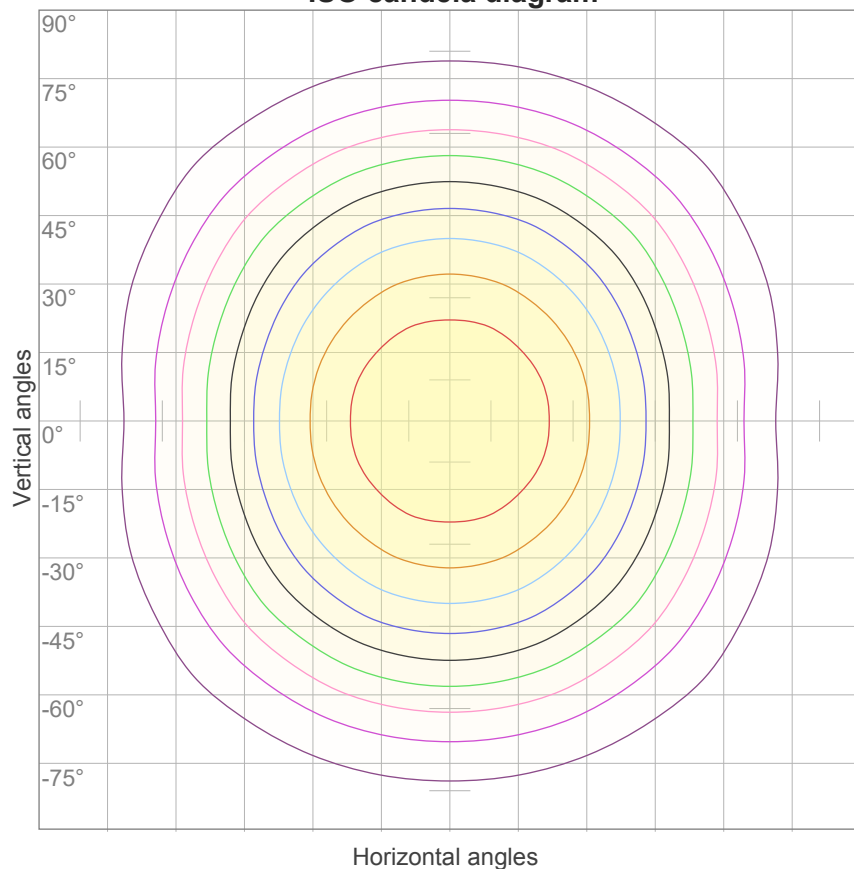
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
556	554	548	535	519	498	475	449	418	384	347	306	263	219	175	134	98	69	23	0
100%	100%	98%	96%	93%	90%	86%	81%	75%	69%	62%	55%	47%	39%	31%	24%	18%	12%	4%	0%

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°
556	553	546	534	519	496	470	438	400	358	312	263	214	167	125	85	52	25	4	4
100%	100%	98%	96%	93%	89%	85%	79%	72%	64%	56%	47%	39%	30%	22%	15%	9%	4%	1%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
113°	171,4°	208,6°	74,4%	50,6%

ISO candela diagram



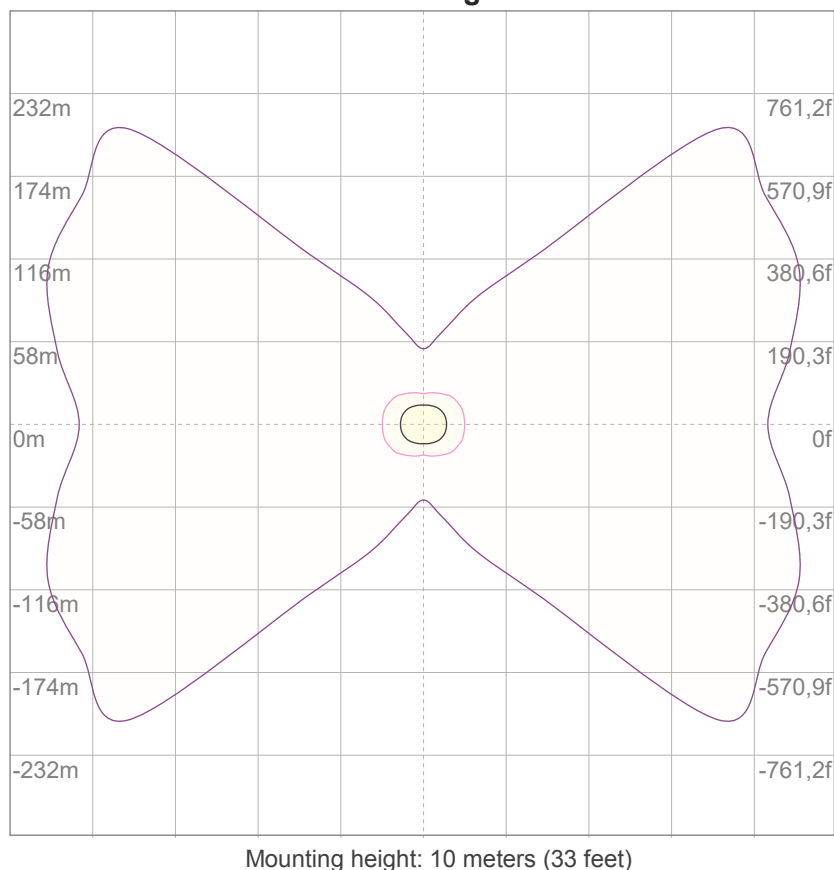
10%	56 cd
20%	111 cd
30%	167 cd
40%	222 cd
50%	278 cd
60%	334 cd
70%	389 cd
80%	445 cd
90%	500 cd

Conditions:

Number of c-planes: 16

Candela at center: 556 cd

ISO lux diagram



3%	0,167 lx
5%	0,278 lx
10%	0,556 lx
30%	1,67 lx
50%	2,78 lx

Conditions:

Number of c-planes: 16

Lux at center: 5,56 lx

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

Glare Evaluation According to UGR

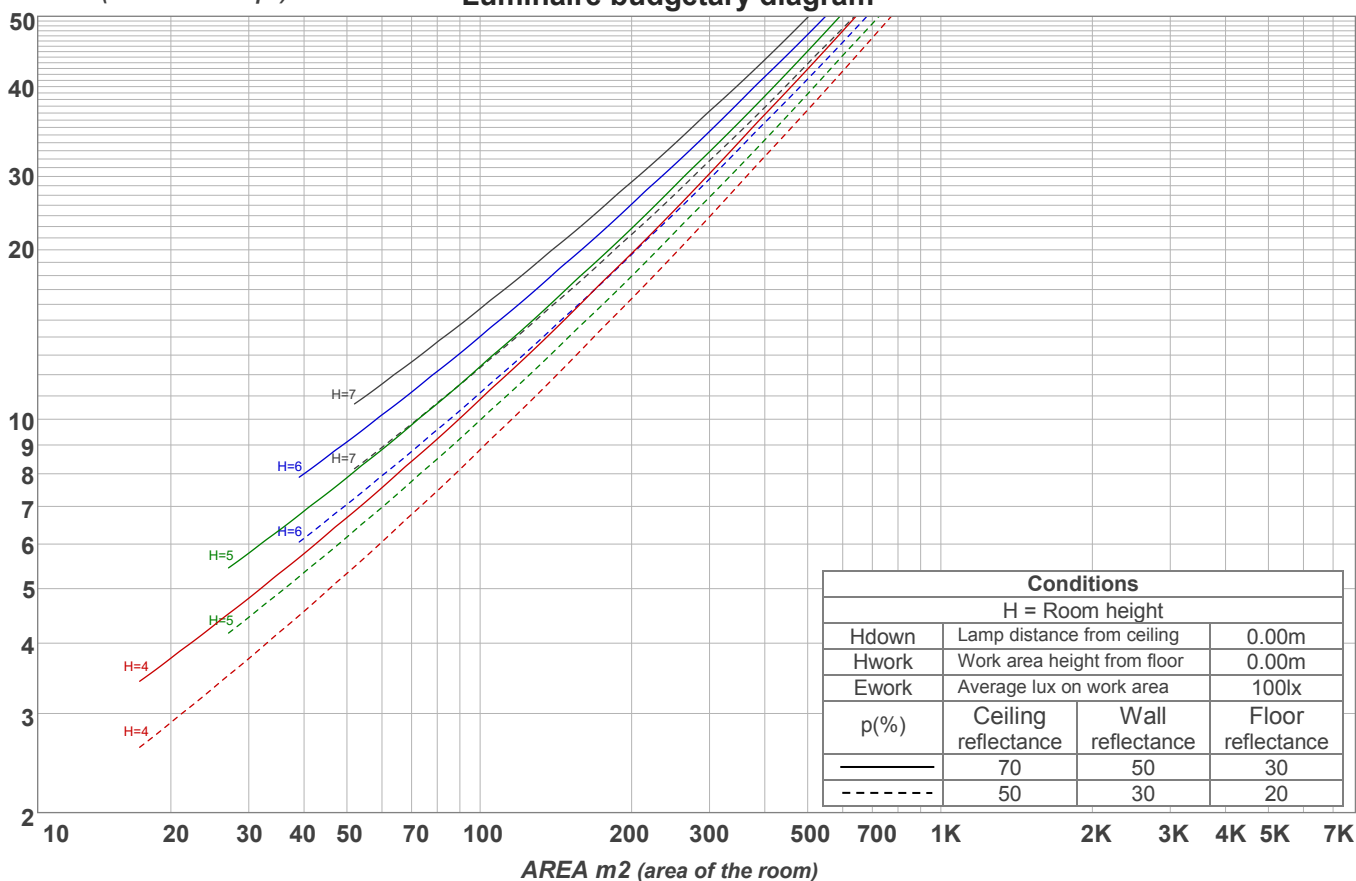
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	24,2	25,4	24,4	25,7	26,0	24,5	25,7	24,7	26,1	26,3
	3H	25,4	26,7	25,9	27,0	27,2	25,7	27,0	26,1	27,3	27,5
	4H	26,0	27,2	26,4	27,5	27,8	26,3	27,5	26,7	27,8	28,0
	6H	26,5	27,6	26,8	27,9	28,3	26,7	27,8	27,0	28,1	28,5
	8H	26,7	27,7	27,0	28,0	28,4	26,9	27,9	27,2	28,2	28,6
	12H	26,8	27,8	27,2	28,1	28,6	26,9	28,0	27,3	28,3	28,7
4H	2H	24,7	26,0	25,1	26,3	26,5	25,0	26,2	25,4	26,5	26,8
	3H	26,3	27,4	26,7	27,7	28,2	26,5	27,6	26,9	27,9	28,4
	4H	26,9	27,9	27,4	28,3	28,9	27,1	28,1	27,6	28,5	29,0
	6H	27,5	28,4	28,0	28,8	29,2	27,6	28,6	28,1	28,9	29,3
	8H	27,7	28,6	28,2	28,9	29,3	27,8	28,7	28,3	29,0	29,4
	12H	27,9	28,6	28,4	29,0	29,5	28,0	28,7	28,5	29,1	29,6
8H	4H	27,2	28,1	27,7	28,4	28,8	27,4	28,2	27,9	28,6	29,0
	6H	28,0	28,6	28,5	29,1	29,6	28,1	28,7	28,6	29,2	29,8
	8H	28,3	28,9	28,8	29,4	30,1	28,4	29,0	28,9	29,5	30,1
	12H	28,6	29,1	29,2	29,6	30,2	28,6	29,1	29,2	29,6	30,2
12H	4H	27,3	28,0	27,7	28,4	28,9	27,4	28,1	27,9	28,5	29,0
	6H	28,1	28,6	28,6	29,2	29,8	28,2	28,8	28,7	29,3	29,9
	8H	28,4	28,9	29,0	29,4	30,1	28,5	29,0	29,1	29,5	30,1
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 / -0,3					0,2 / -0,3				
S = 2.0H		0,4 / -0,5					0,5 / -0,6				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 1692 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	110	110	110	104	104	104	100	100	100	97
1	107	102	98	93	104	100	95	92	95	91	88	90	88	85	86	84	82	80
2	97	89	82	76	94	87	80	74	83	77	72	79	74	70	75	72	68	66
3	89	78	69	63	86	76	68	62	73	66	60	69	64	59	66	62	58	55
4	81	69	60	53	78	67	59	52	64	57	51	62	55	50	59	54	49	47
5	74	61	52	45	72	60	51	45	58	50	44	55	49	44	53	47	43	41
6	69	55	46	40	67	54	46	39	52	44	39	50	43	38	48	42	38	35
7	64	50	41	35	62	49	41	35	47	40	34	46	39	34	44	38	33	31
8	59	46	37	31	58	45	37	31	43	36	31	42	35	30	40	34	30	28
9	55	42	34	28	54	41	33	28	40	33	27	38	32	27	37	31	27	25
10	52	39	31	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

LAMPS (number of lamps)

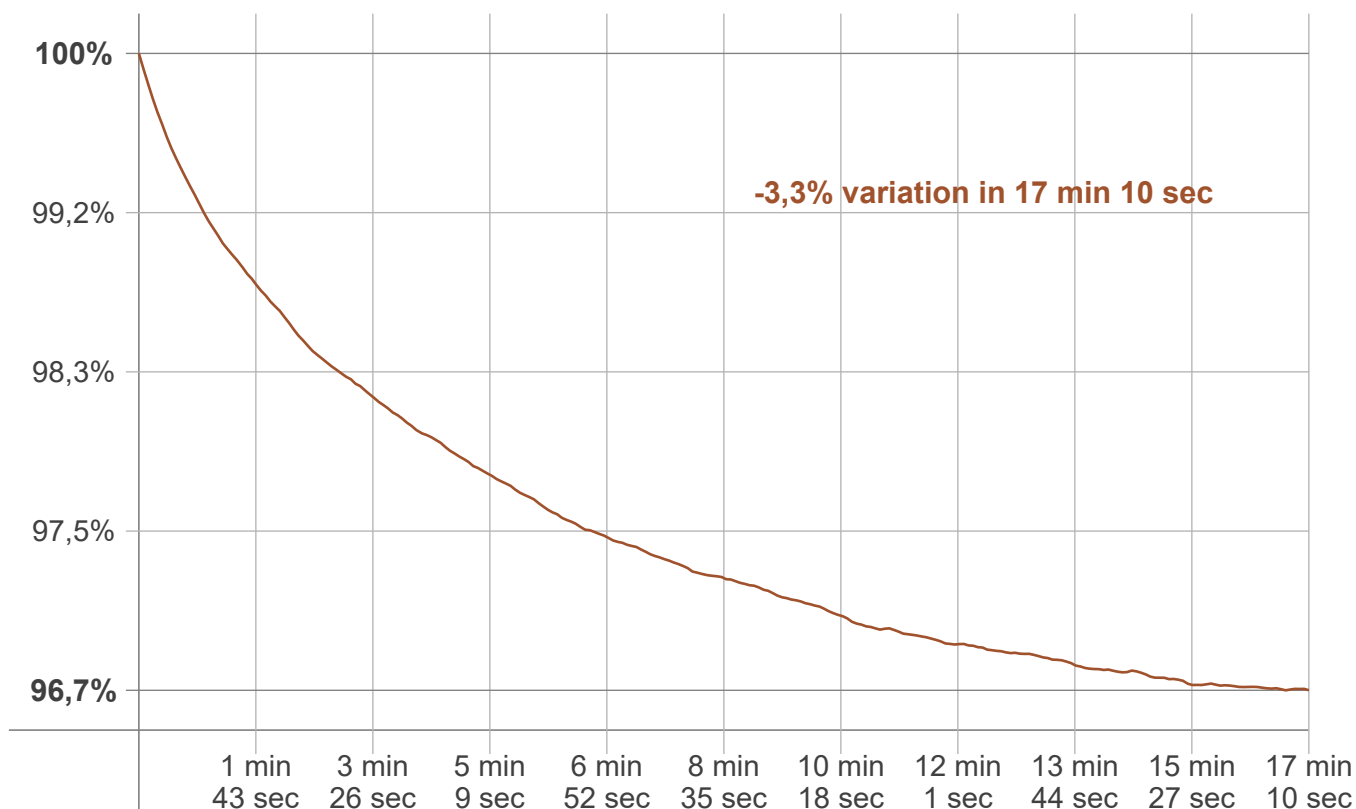
Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
52,6 lm	151 lm	230 lm	278 lm	288 lm	260 lm	200 lm	128 lm	61,5 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
18,0 lm	5,86 lm	5,03 lm	4,55 lm	3,72 lm	2,89 lm	2,13 lm	1,30 lm	0,439 lm

Warmup curve



Warmup result

Warmup time:	Lamp stabilized in 17 min 10 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
2740 K	+7 K	2747 K

Output change

Output start	Output change	Output end
1747 lm	-54 lm	1692 lm