

Light efficiency:

85 Lumen/Watt

Light quality:

CRI: 82,4

Color temperature:

2756 K

Output: 981 lm

Peak: 652 cd

Power: 11,5 W

PF: 1,0



Product name:

Nova-6_510mm_827_Inlay-Lens-Asymmetric-Frosted_IP65P

Item number:

NP/L1C/06F/G1/L1C/0510/827/ILAF/IP65P

Date and time:

13.09.2022 11:39:11

Description:

Rank: D60-AC-8GB

Tolerances:

Lumen +/-4%

Candela +/-2,5%

Colour Temp +/-35 Kelvin

CRI +/-0,7

Angular Resolution: 1 Degree Step

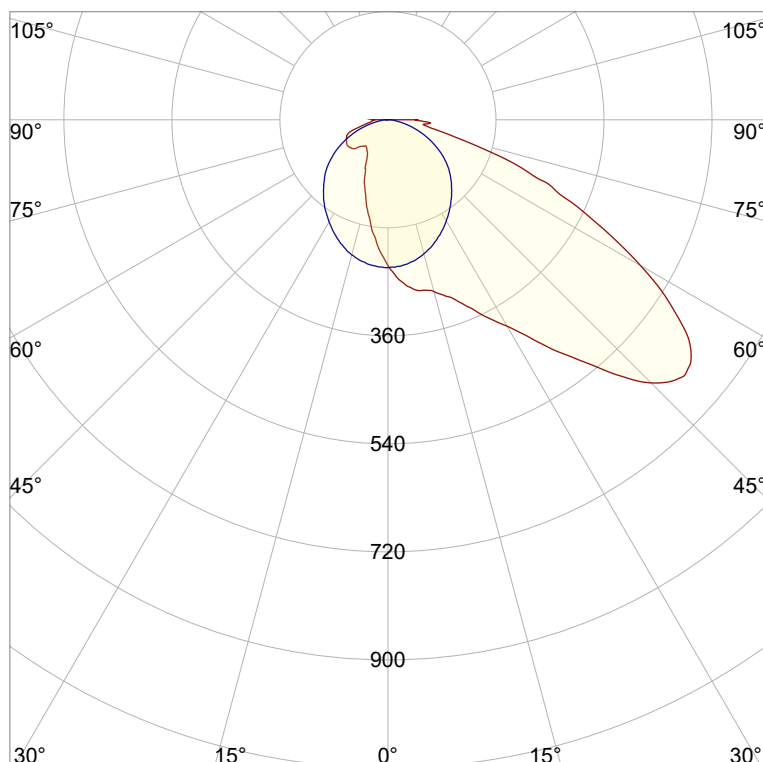
Last Calibration 20-09-2021

Tester: Peter Ulrich

Test Site: Lichtlabor

Gaustrasse 13

55411 Bingen am Rhein

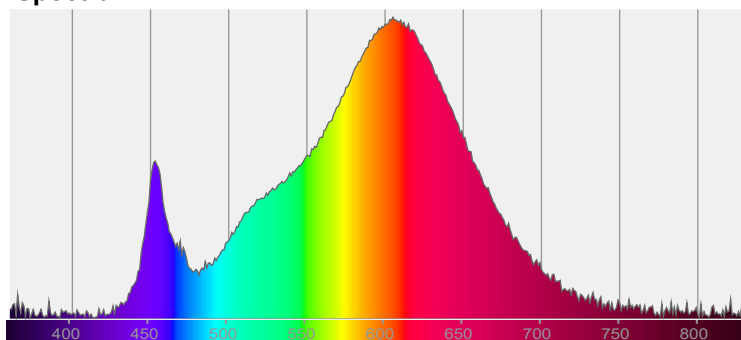


CIE 1931

x: 0,453

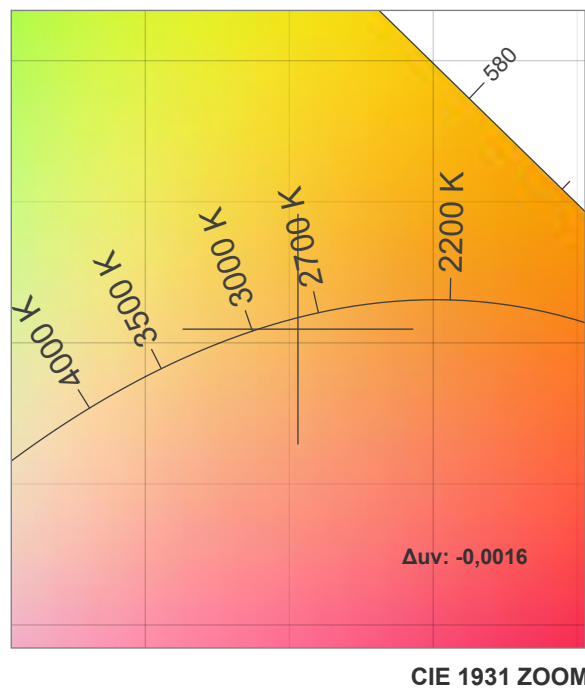
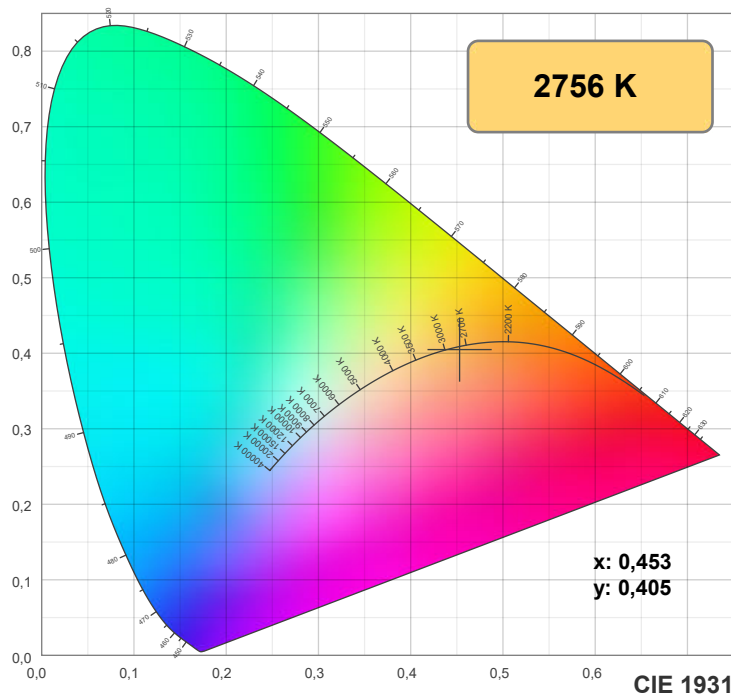
y: 0,405

Spectra



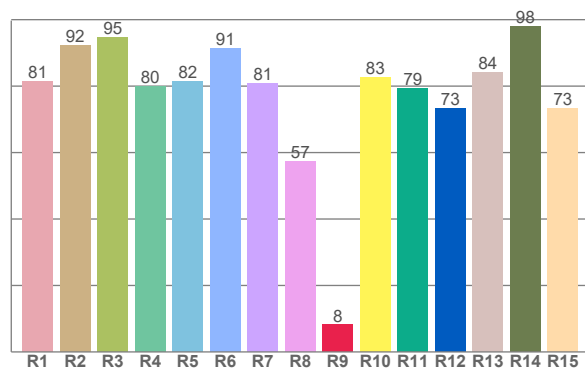
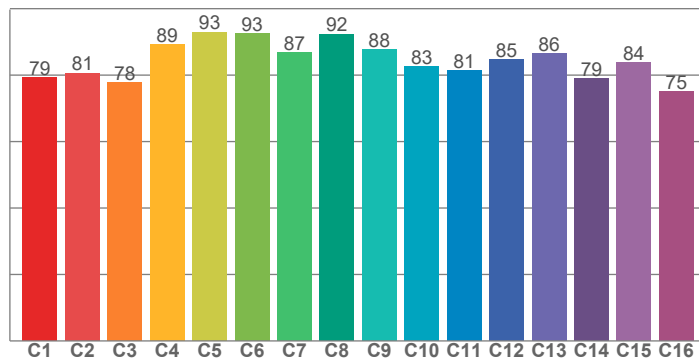
Power

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



TM30: 84,3

CRI: 82,4 (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
81,4	92,4	94,8	79,8	81,5	91,3	80,8	57,3	8,1	82,8	79,4	73,3	84,2	98,0	73,3

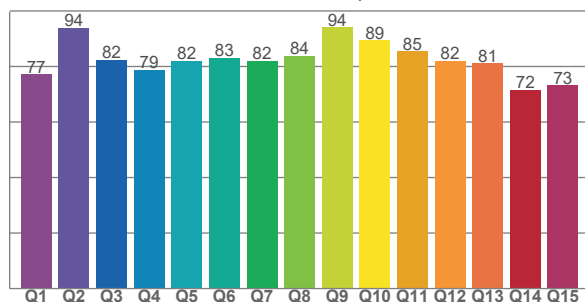
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
79,3	80,6	77,7	89,3	93,0	92,6	86,7	92,4	87,7	82,6	81,4	84,6	86,5	78,9	83,7	75,0

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
77,1	93,8	82,4	76,6	82,0	83,0	82,0	83,8	94,1	89,4	85,4	82,0	81,1	71,5	73,2

CQS: 81,4



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
2756 K	82,4	8,1	84,3	95,9	81,4	0,453	0,405	0,261	0,349	-0,0016

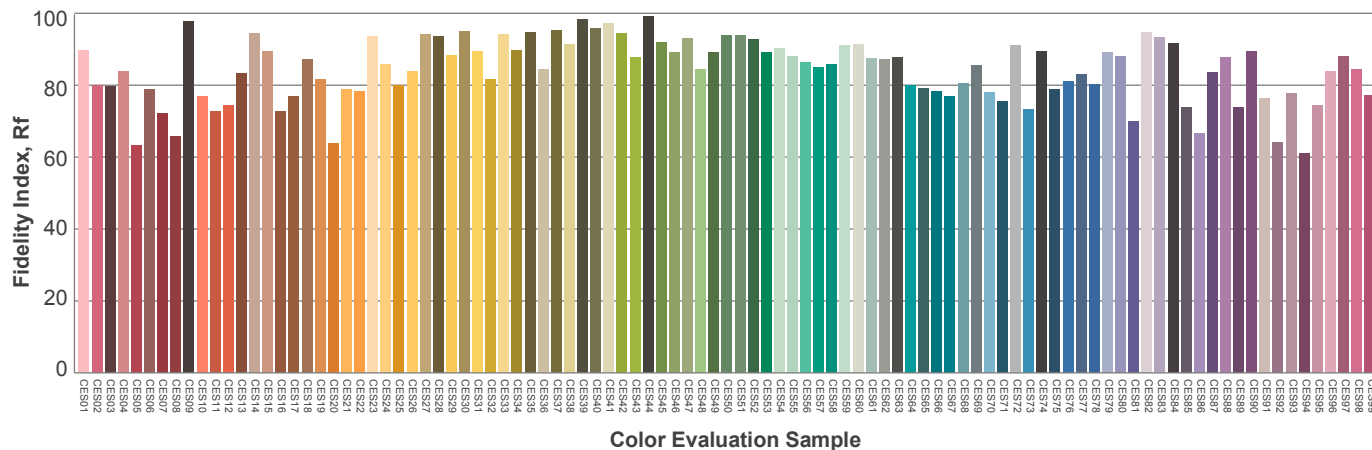
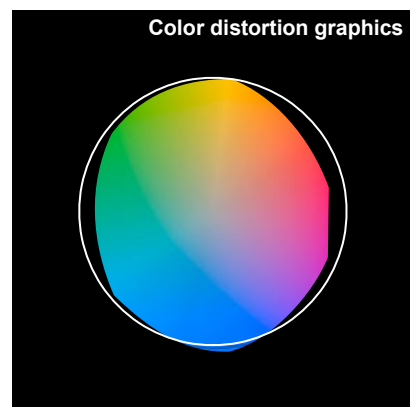
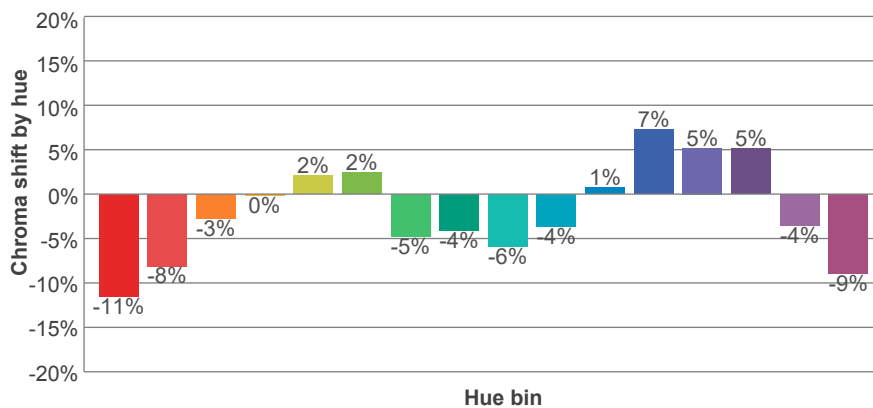
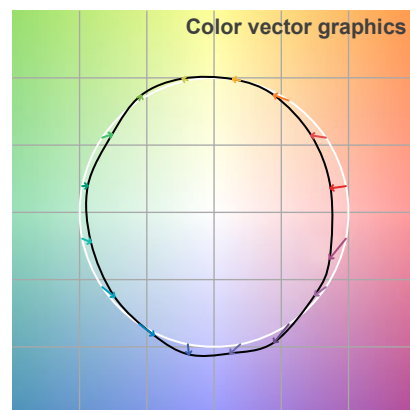
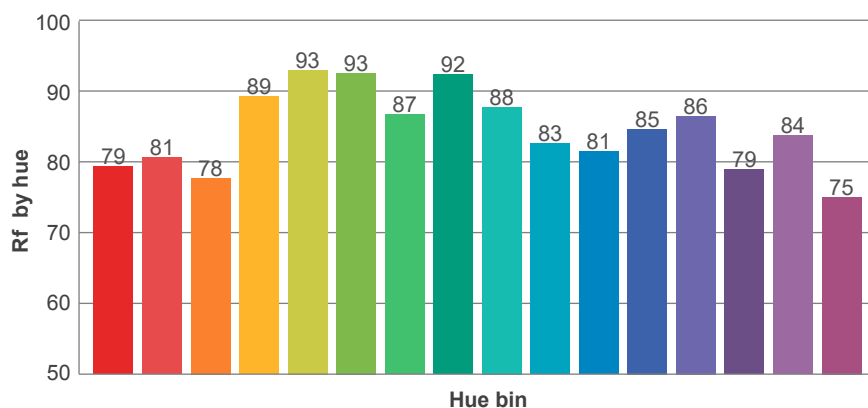
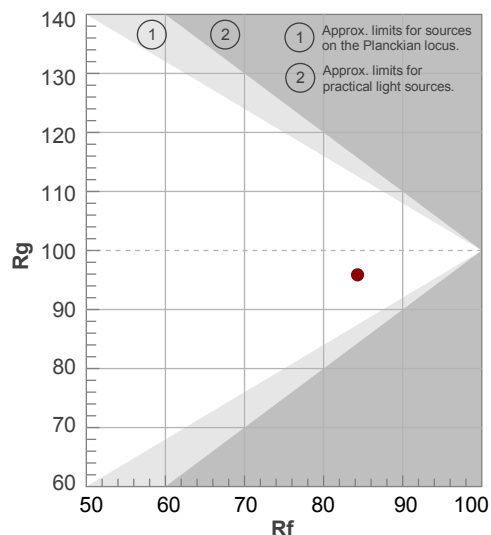
Rf 84,3

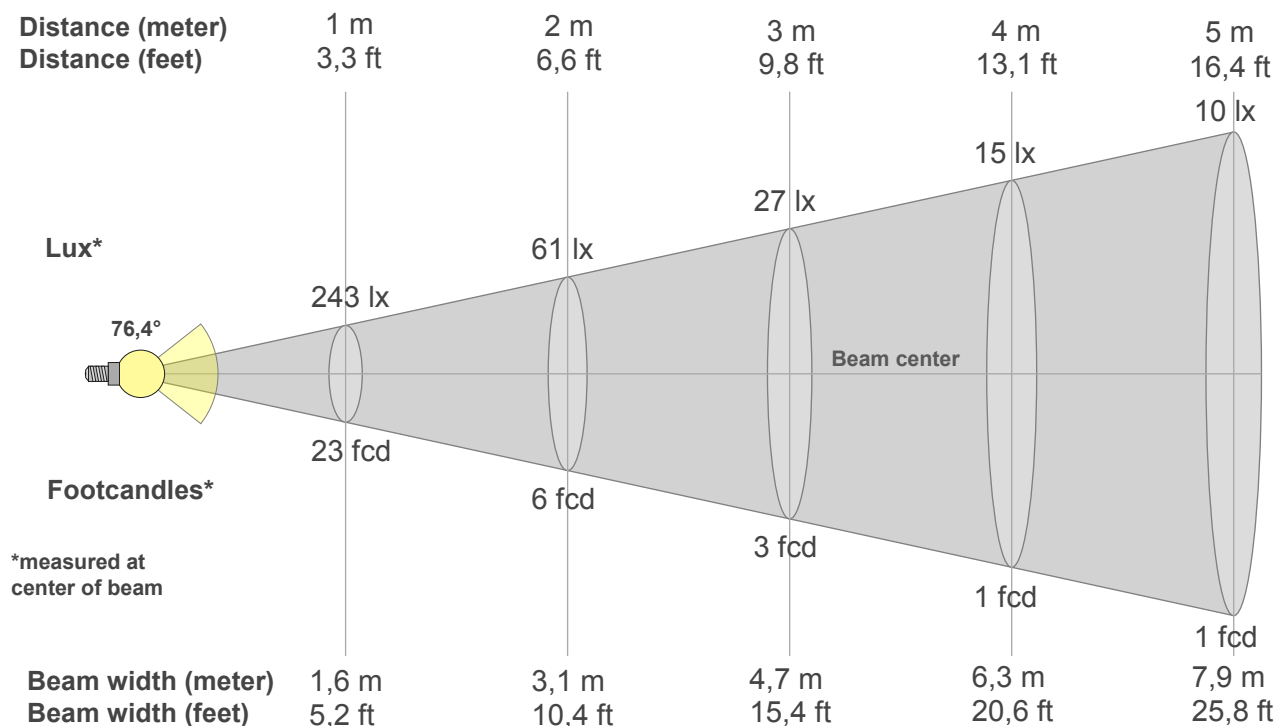
Fidelity index Rf

Rg 95,9

Gamut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	79	-11%	1%
2	81	-8%	7%
3	78	-3%	11%
4	89	0%	6%
5	93	2%	4%
6	93	2%	-3%
7	87	-5%	-6%
8	92	-4%	-1%
9	88	-6%	4%
10	83	-4%	11%
11	81	1%	14%
12	85	7%	2%
13	86	5%	-9%
14	79	5%	-17%
15	84	-4%	-9%
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
243lx	61lx	27lx	15lx	10lx	7lx	5lx	4lx	3lx	2lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx	1lx
22,6fcd	5,6fcd	2,5fcd	1,4fcd	0,9fcd	0,6fcd	0,5fcd	0,4fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	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°
243	271	289	297	317	354	397	461	536	620	650	600	486	355	240	126	69	70	21	0
100%	112%	119%	122%	130%	146%	164%	190%	221%	255%	268%	247%	200%	146%	99%	52%	28%	29%	9%	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°
243	245	239	231	221	208	194	180	165	150	133	115	95	75	54	34	18	8	2	0
100%	101%	99%	95%	91%	86%	80%	74%	68%	62%	55%	48%	39%	31%	22%	14%	8%	3%	1%	0%

Intensities in 180° c-plane

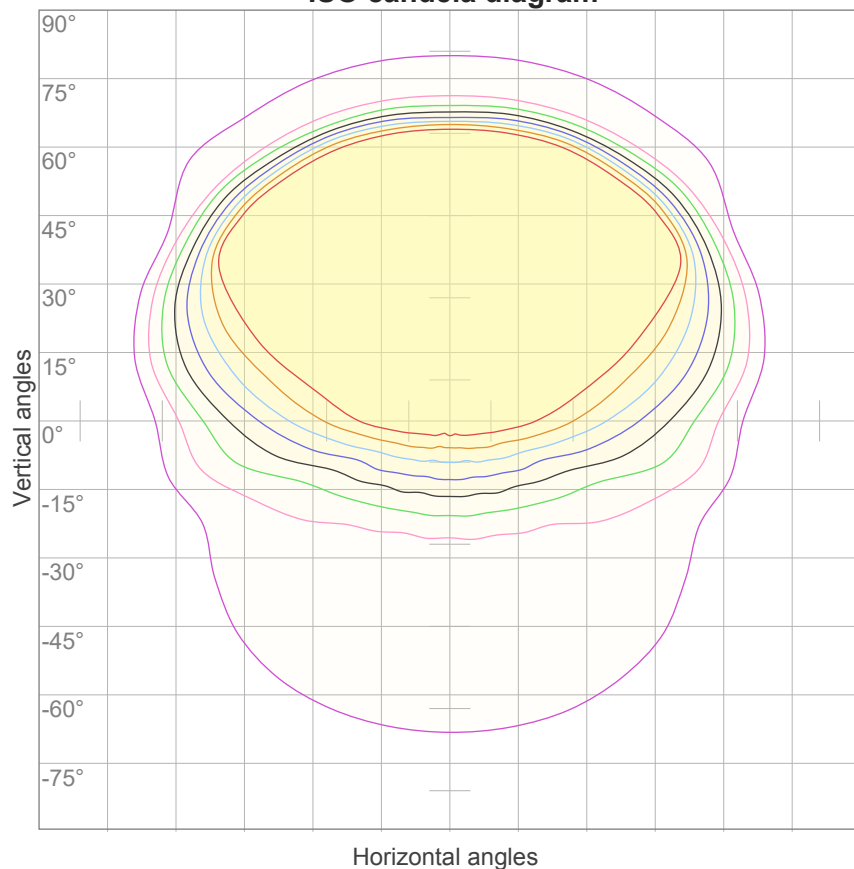
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
243	208	171	140	114	89	69	61	57	63	75	79	79	76	71	53	36	27	9	0
100%	86%	70%	58%	47%	37%	28%	25%	24%	26%	31%	32%	33%	31%	29%	22%	15%	11%	4%	0%

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°
243	245	240	233	222	210	196	182	167	151	135	117	97	77	56	36	19	8	1	0
100%	101%	99%	96%	91%	86%	81%	75%	69%	62%	56%	48%	40%	32%	23%	15%	8%	3%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
76,4°	162,6°	179,1°	70,5%	40,2%

ISO candela diagram



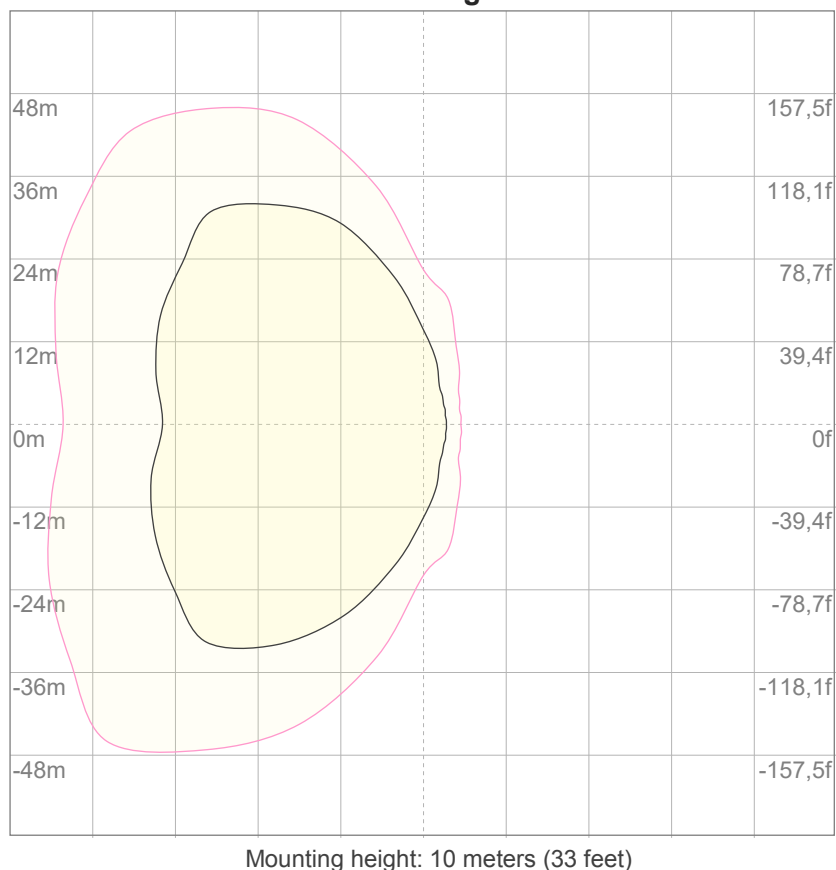
10%	24 cd
20%	49 cd
30%	73 cd
40%	97 cd
50%	121 cd
60%	146 cd
70%	170 cd
80%	194 cd
90%	219 cd

Conditions:

Number of c-planes: 16

Candela at center: 243 cd

ISO lux diagram



3%	72,8m lx
5%	0,121 lx
10%	0,243 lx
30%	0,728 lx
50%	1,21 lx

Conditions:

Number of c-planes: 16

Lux at center: 2,43 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				
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Variation of the observer position for the luminaire distance S										
n/a	n/a					n/a				
n/a	n/a					n/a				
n/a	n/a					n/a				
Standard table	n/a					n/a				
Correction summand	n/a					n/a				
Corrected glare indices referring to 981 lm total luminous flux										

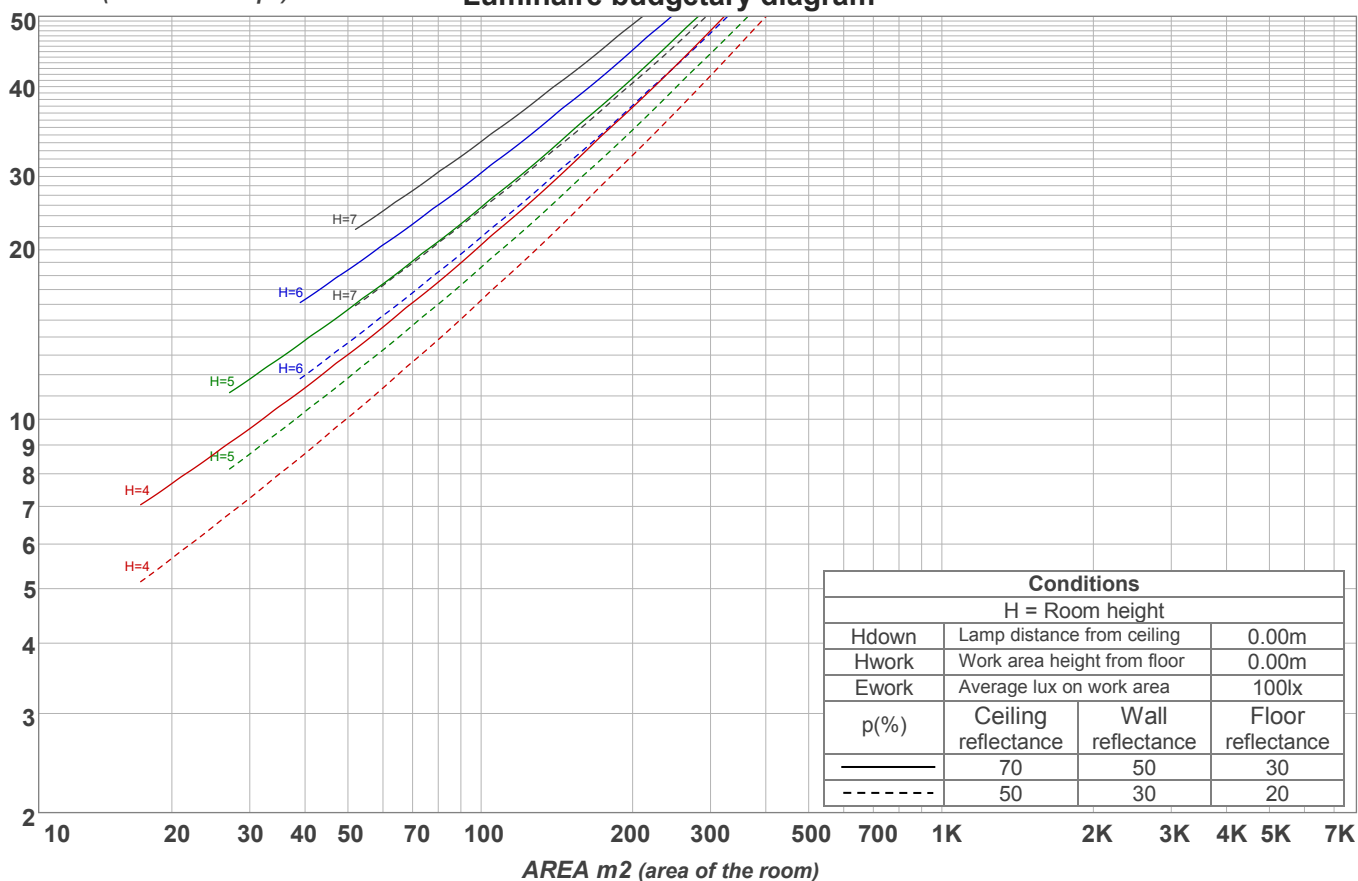
UGR data could not be calculated due to missing/wrong symmetry. Goto Edit->Photometric->Corrections and select Correct asymmetry.

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	111	111	111	106	106	106	102	102	102	100
1	107	101	96	92	104	99	94	90	95	91	87	91	88	85	87	84	82	80
2	96	86	79	72	93	84	77	71	81	75	69	77	72	68	74	70	66	64
3	86	74	65	58	84	73	64	57	70	62	56	67	60	55	64	59	54	52
4	78	65	55	47	76	63	54	47	61	53	46	58	51	46	56	50	45	43
5	71	57	47	40	69	56	46	39	54	45	39	51	44	38	49	43	38	36
6	65	51	41	34	63	50	40	34	48	39	33	46	39	33	44	38	33	30
7	60	45	36	29	58	45	35	29	43	35	29	41	34	29	40	33	28	26
8	56	41	32	26	54	40	32	25	39	31	25	38	30	25	36	30	25	23
9	52	37	29	23	50	37	28	23	36	28	22	34	27	22	33	27	22	20
10	48	34	26	20	47	34	26	20	33	25	20	32	25	20	31	24	20	18

LAMPS (number of lamps)

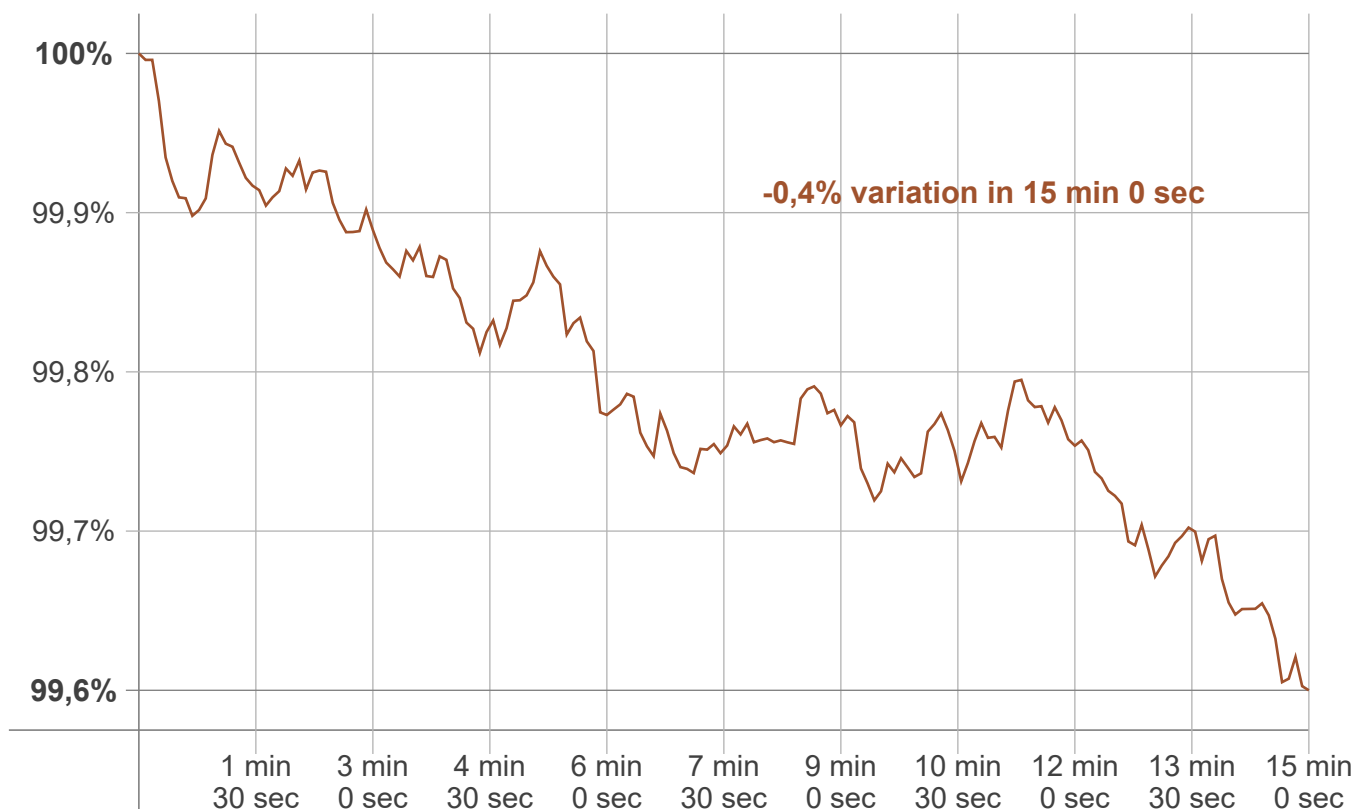
Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
22,7 lm	62,9 lm	96,2 lm	131 lm	176 lm	203 lm	164 lm	88,5 lm	37,1 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0,053 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm	0,000 lm

Warmup curve



Warmup result

Warmup time:	Lamp stabilized in 15 min 0 sec
Warmup variation	-0,4%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
2756 K	0 K	2756 K

Output change

Output start	Output change	Output end
983 lm	-2 lm	981 lm