



Light efficiency:

112 Lumen/Watt

Light quality:

CRI: 82,3

Color temperature:

2758 K

Output: 483 lm

Peak: 920 cd

Power: 4,3 W

PF: 1,0



Product name:

Navigator-3_510mm_827_Inlay-Lens-Wallwasher

Item number:

NP/L1C/14C/0510/827/ILWW

Date and time:

15.08.2025 12:15:14

Description:

Rank: D60-AC-8GB

Tolerances:

Lumen +/-4%

Candela +/-2,5%

Colour Temp +/-35 Kelvin

CRI +/-0,7

Angular Resolution: 1 Degree Step

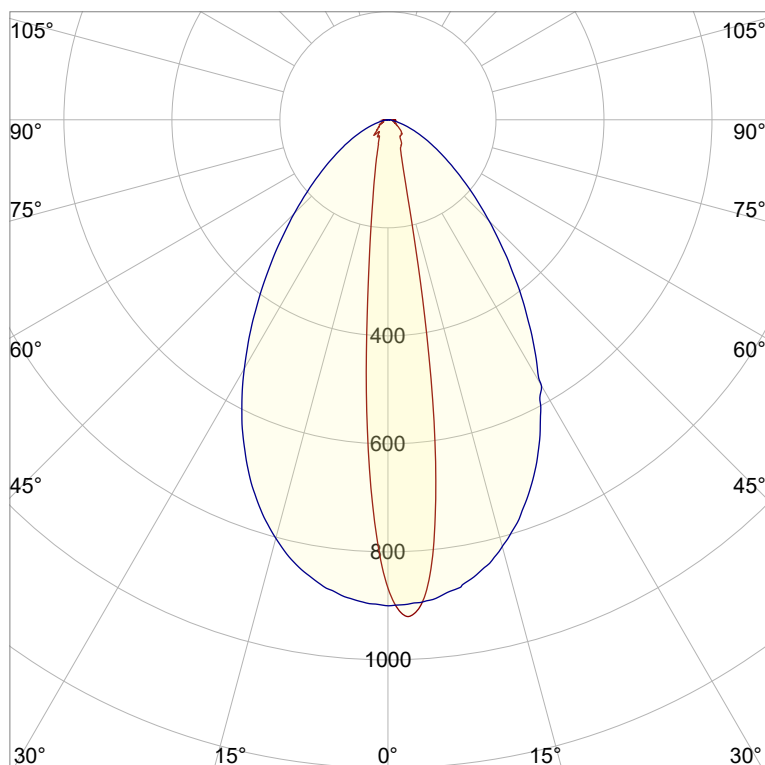
Last Calibration 13.10.2023

Tester: Peter Ulrich

Test Site: Lichtlabor

Gaustrasse 13

55411 Bingen am Rhein

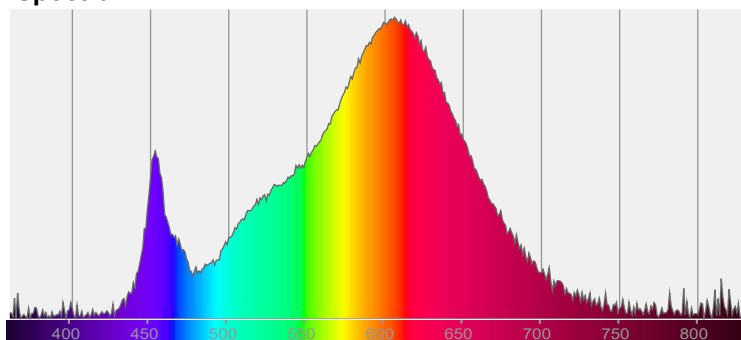


CIE 1931

x: 0,452

y: 0,403

Spectra

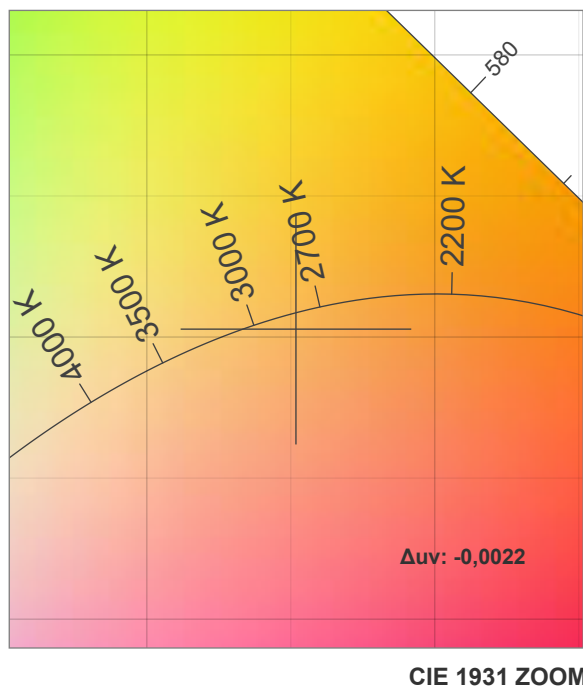
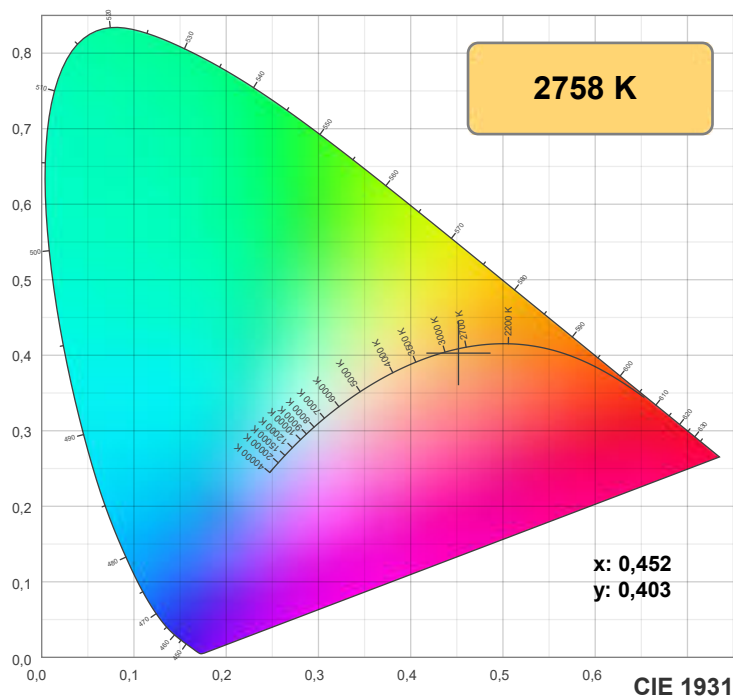


Power

Voltage: 48,0 V
Current: 0,090 A
Frequency: 0 Hz

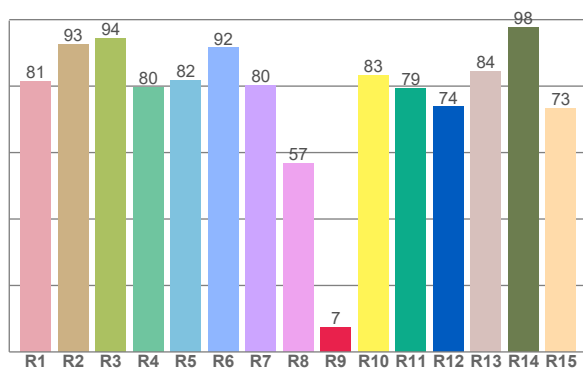
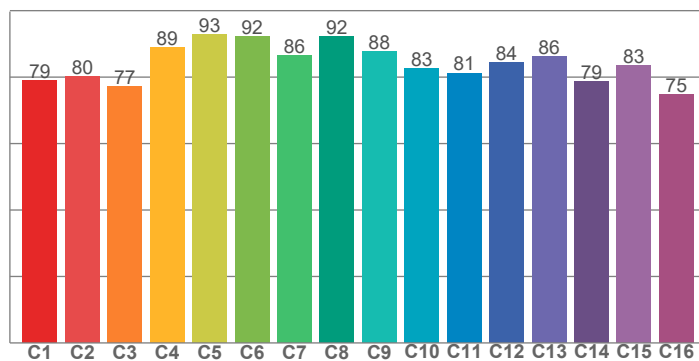


Color details



TM30: 84,0

CRI: 82,3 (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
81,5	92,6	94,3	79,6	81,7	91,5	80,3	56,8	7,4	83,3	79,3	73,8	84,4	97,8	73,4

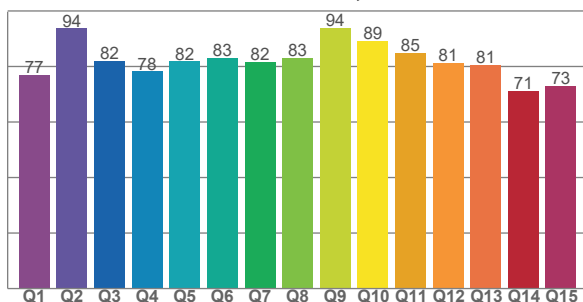
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
79,1	80,2	77,1	89,0	92,8	92,1	86,5	92,3	87,8	82,5	81,3	84,4	86,2	78,6	83,5	74,7

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
76,9	93,8	82,0	78,2	81,9	83,0	81,6	83,2	93,9	89,1	84,9	81,3	80,5	71,3	72,9

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
2758 K	82,3	7,4	84,0	96,1	81,1	0,452	0,403	0,261	0,349	-0,0022



TM30 details



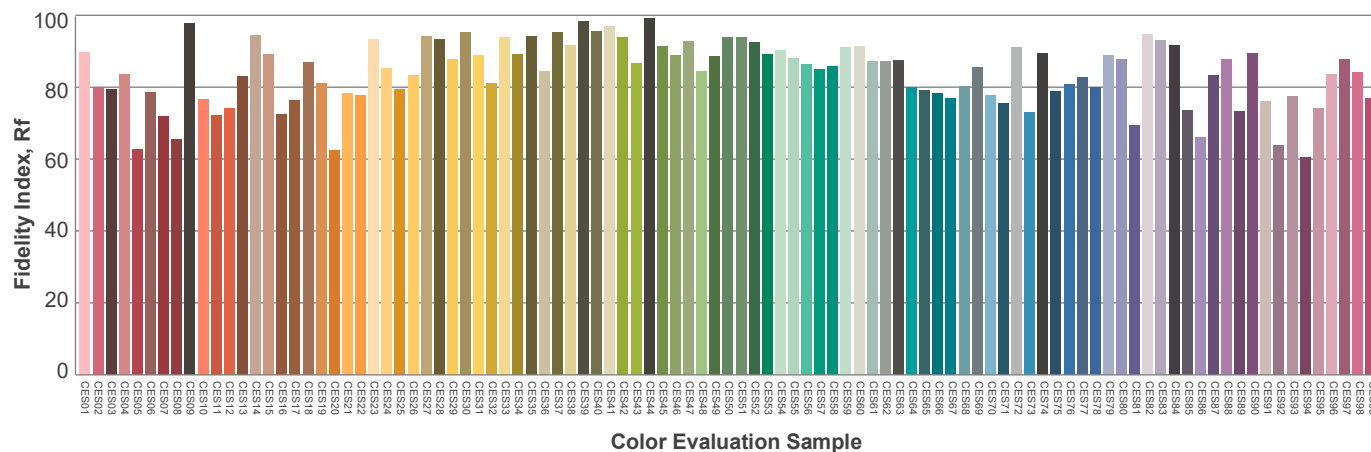
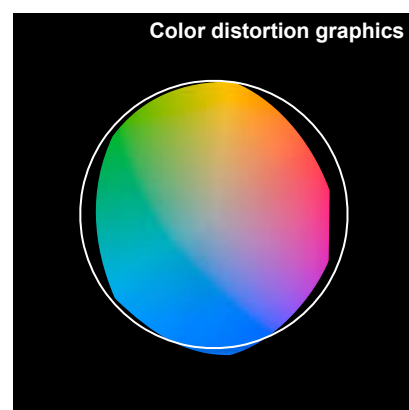
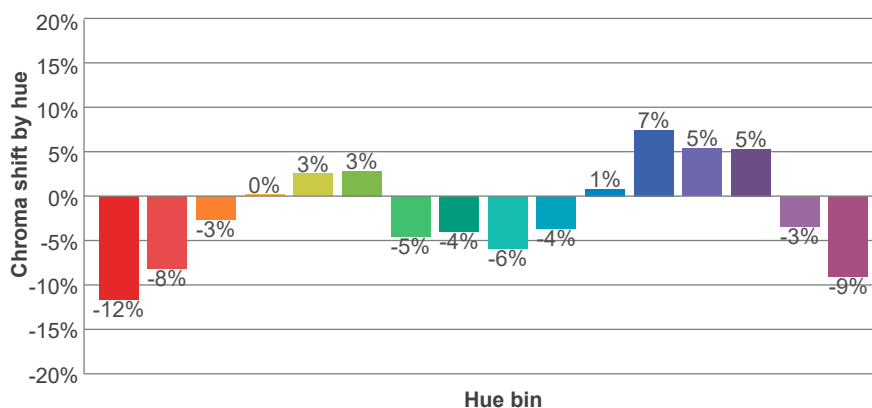
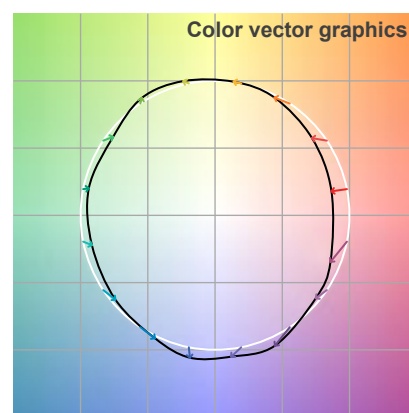
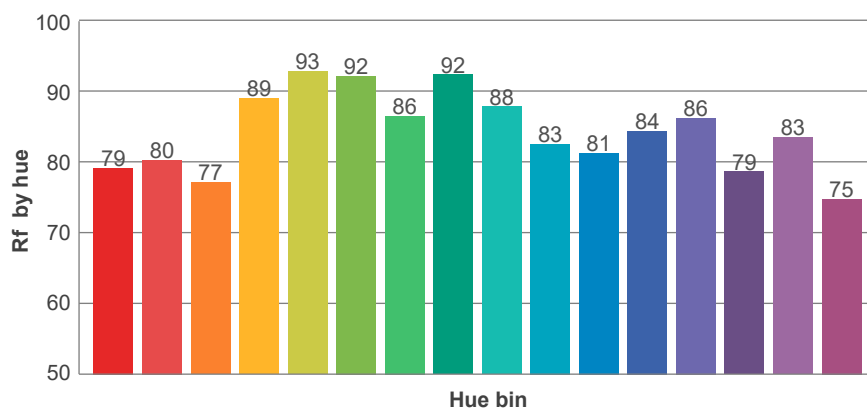
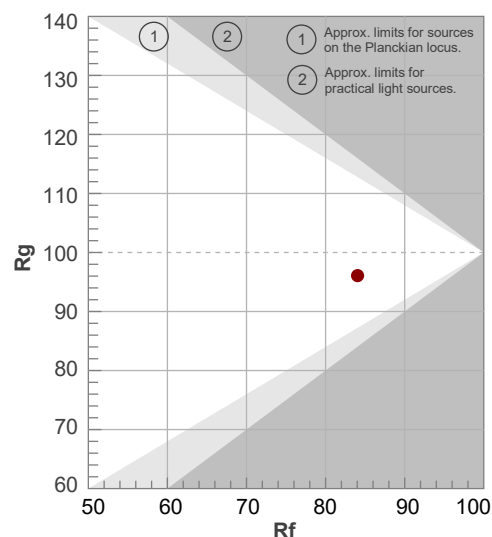
Rf 84,0

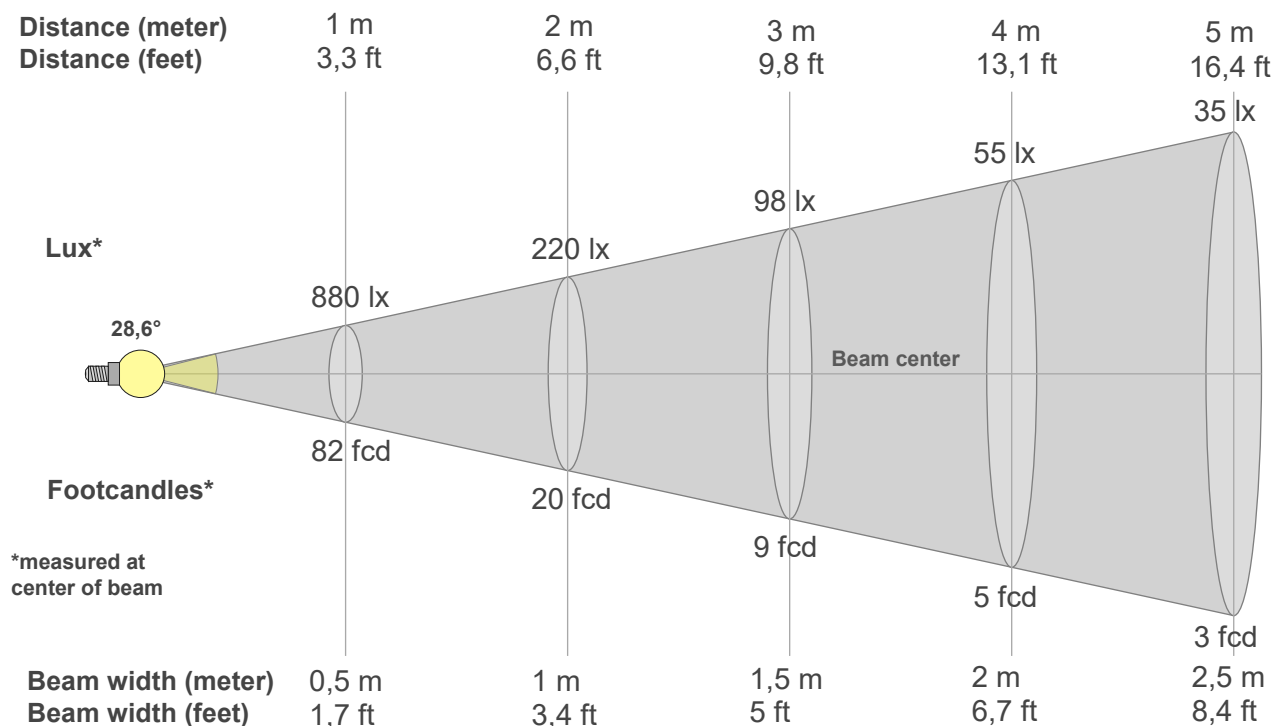
Fidelity index Rf

Rg 96,1

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	3%	4%
6	92	3%	-3%
7	86	-5%	-6%
8	92	-4%	-1%
9	88	-6%	4%
10	83	-4%	11%
11	81	1%	14%
12	84	7%	2%
13	86	5%	-9%
14	79	5%	-17%
15	83	-3%	-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
880lx	220lx	98lx	55lx	35lx	24lx	18lx	14lx	11lx	9lx	7lx	6lx	5lx	4lx	4lx	3lx	3lx	3lx	2lx	2lx
81,8fcd	20,4fcd	9,1fcd	5,1fcd	3,3fcd	2,3fcd	1,7fcd	1,3fcd	1fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd

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°
880	918	897	801	632	428	256	160	114	89	74	64	57	55	53	50	46	40	38	37
100%	104%	102%	91%	72%	49%	29%	18%	13%	10%	8%	7%	7%	6%	6%	6%	5%	5%	4%	4%

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°
880	897	891	882	871	855	837	815	789	760	729	694	656	617	575	532	489	447	405	365
100%	102%	101%	100%	99%	97%	95%	93%	90%	86%	83%	79%	74%	70%	65%	60%	56%	51%	46%	41%

Intensities in 180° c-plane

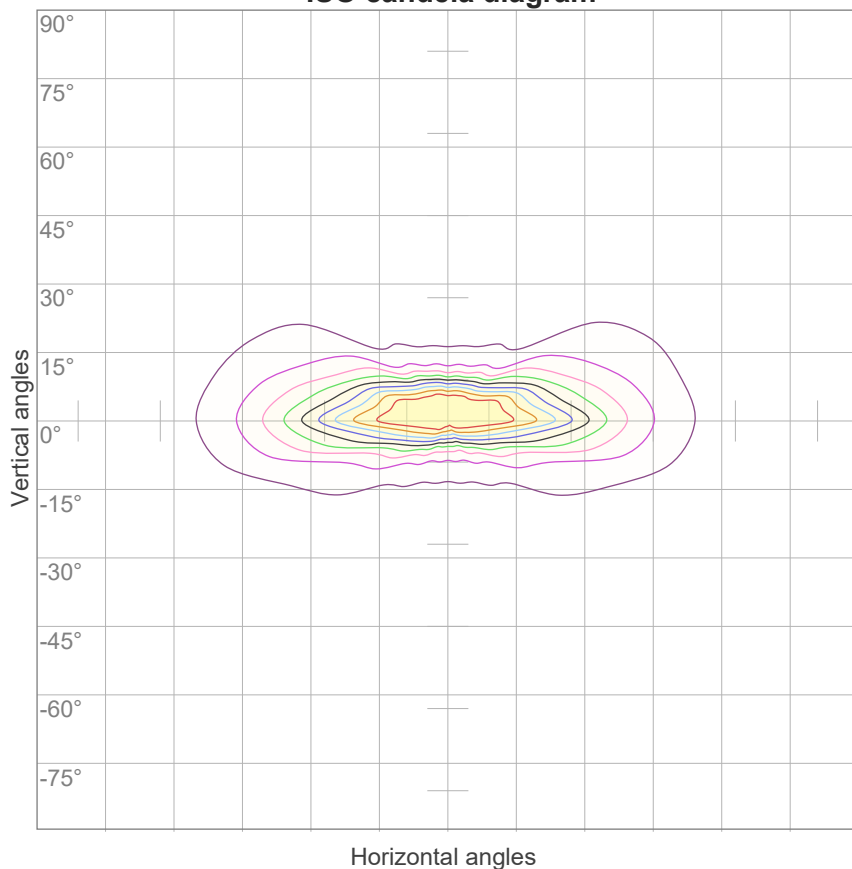
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
880	735	556	369	243	169	127	98	79	64	53	48	41	36	34	36	36	31	27	29
100%	84%	63%	42%	28%	19%	14%	11%	9%	7%	6%	5%	5%	4%	4%	4%	4%	3%	3%	3%

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°
880	898	895	889	879	866	849	830	806	781	750	717	681	643	603	566	517	474	432	392
100%	102%	102%	101%	100%	98%	96%	94%	92%	89%	85%	81%	77%	73%	68%	64%	59%	54%	49%	44%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
28,6°	62,3°	121,5°	89,0%	74,5%

ISO candela diagram



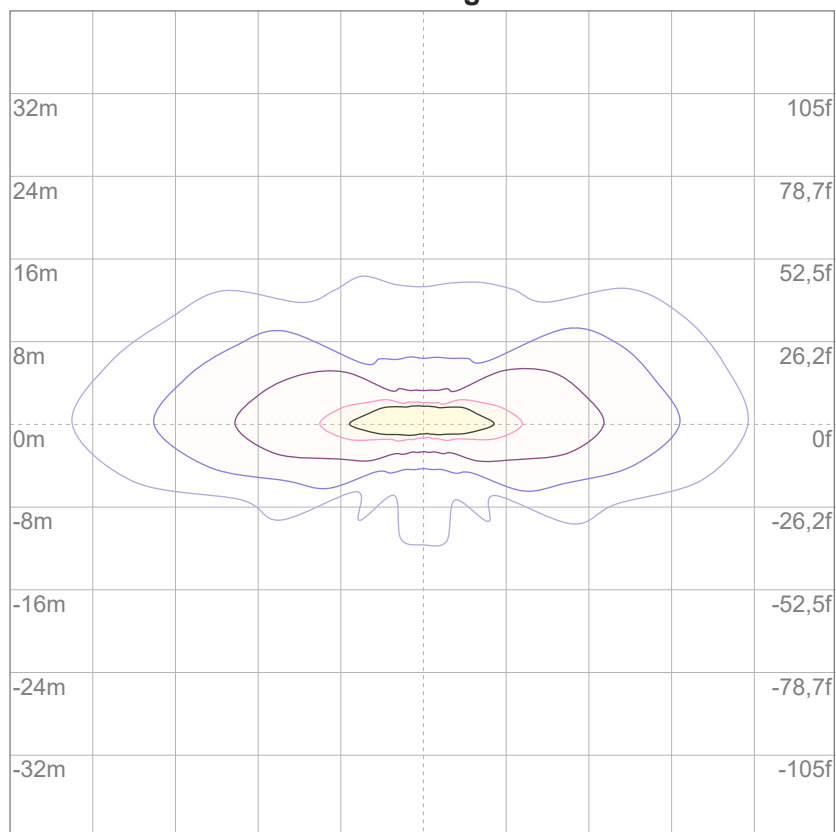
10%	88 cd
20%	176 cd
30%	264 cd
40%	352 cd
50%	440 cd
60%	528 cd
70%	616 cd
80%	704 cd
90%	792 cd

Conditions:

Number of c-planes: 16

Candela at center: 880 cd

ISO lux diagram



3%	0,264 lx
5%	0,440 lx
10%	0,880 lx
30%	2,64 lx
50%	4,40 lx

Conditions:

Number of c-planes: 16

Lux at center: 8,80 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 483 lm total luminous flux										

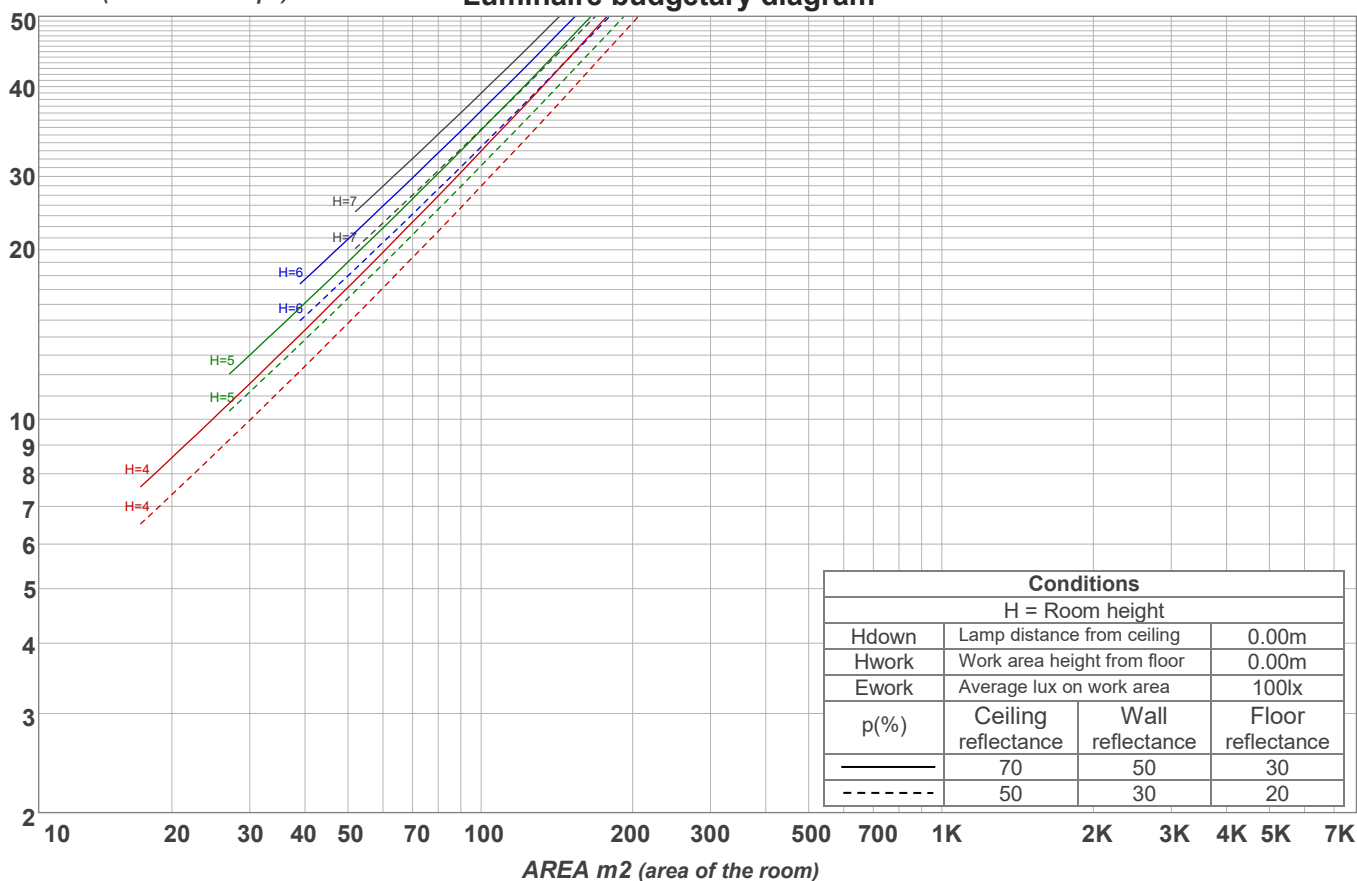
UGR data could not be calculated due to missing/wrong symmetry. Go to Edit -> Photometric -> Corrections and select Correct asymmetry (UGR not defined for asymmetrical distributions)..

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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65
5	86	75	68	63	84	74	68	63	72	67	62	71	66	62	69	65	61	59
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	56	55
7	76	66	58	54	75	65	58	53	63	57	53	62	57	53	61	56	52	51
8	72	61	55	50	71	61	54	50	60	54	49	59	53	49	58	53	49	47
9	69	58	51	47	68	57	51	47	56	51	46	55	50	46	55	50	46	45
10	66	55	48	44	65	54	48	44	53	48	44	53	47	44	52	47	43	42

LAMPS (number of lamps)

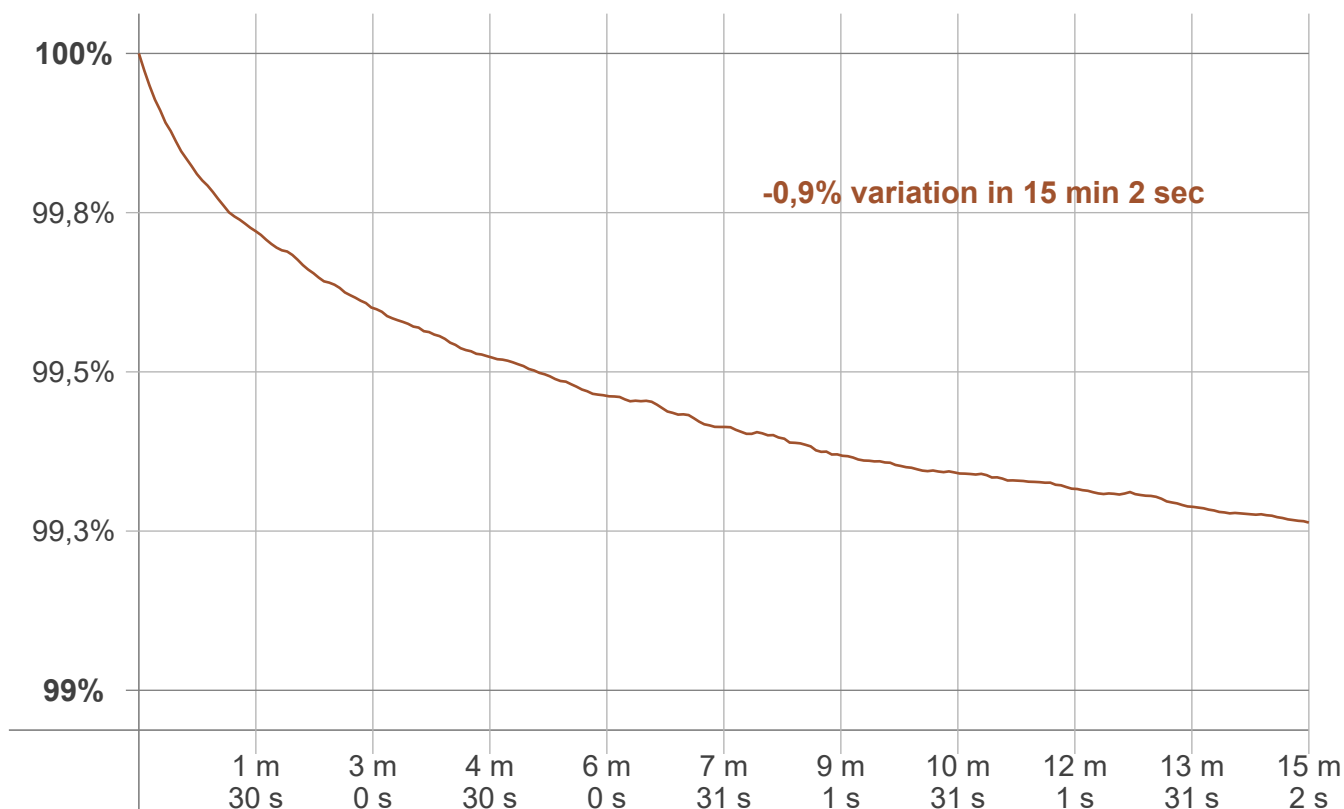
Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
65,6 lm	99,4 lm	88,2 lm	74,9 lm	59,8 lm	42,1 lm	25,6 lm	15,9 lm	11,4 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0,038 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 2 sec
Warmup variation	-0,9%

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	+2 K	2758 K

Output change

Output start	Output change	Output end
487 lm	-4 lm	483 lm