Light efficiency:

79 Lumen/Watt

Light quality:

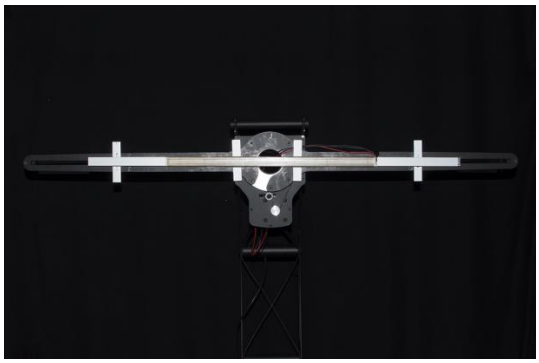
CRI: 82,6

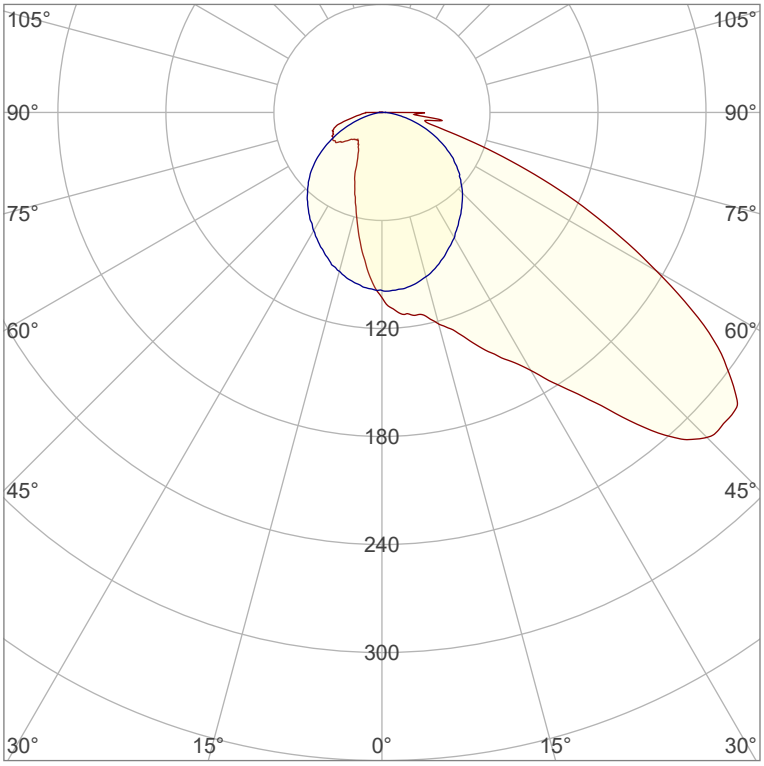
Color temperature:

2700 K

Output: 381 lm
Peak: 257 cd

Power: 4,8 W
PF: 1,0





Product name:
Navigator-3_510mm_827_Inlay-Lens-Asymmetric-Frosted_IP65P

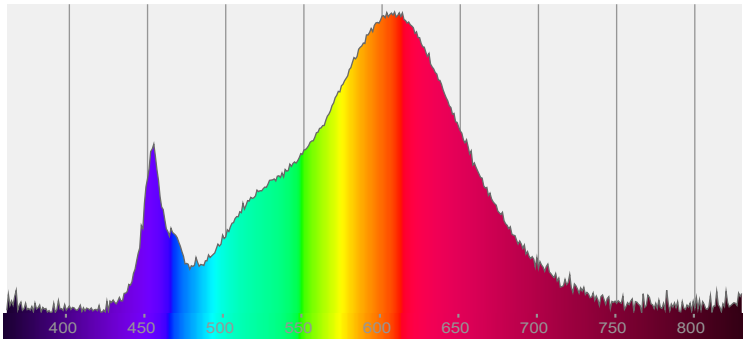
Item number:
NP/L1C/14C/0510/827/ILAF/IP65P

Date and time:
13.09.2022 09:57:46

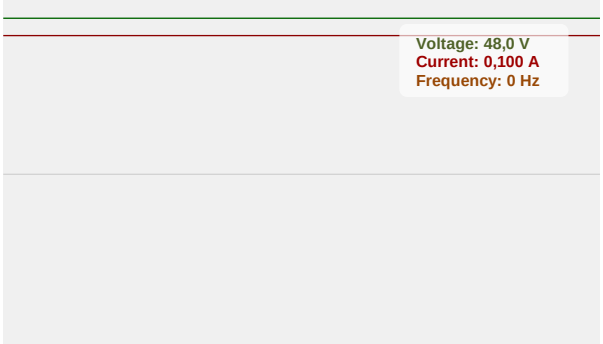
Description:
Tolerances:
Lumen +/-4%
Candela +/-2,5%
Colour Temp +/-35 Kelvin
CRI +/-0,7
Angular Resolution: 1 Degree Step
Last Calibration 20-09-2021
Tester: Peter Ulrich
Test Site: Lichtlabor
Gaustrasse 13
55411 Bingen am Rhein

CIE 1931
x: 0,460
y: 0,411

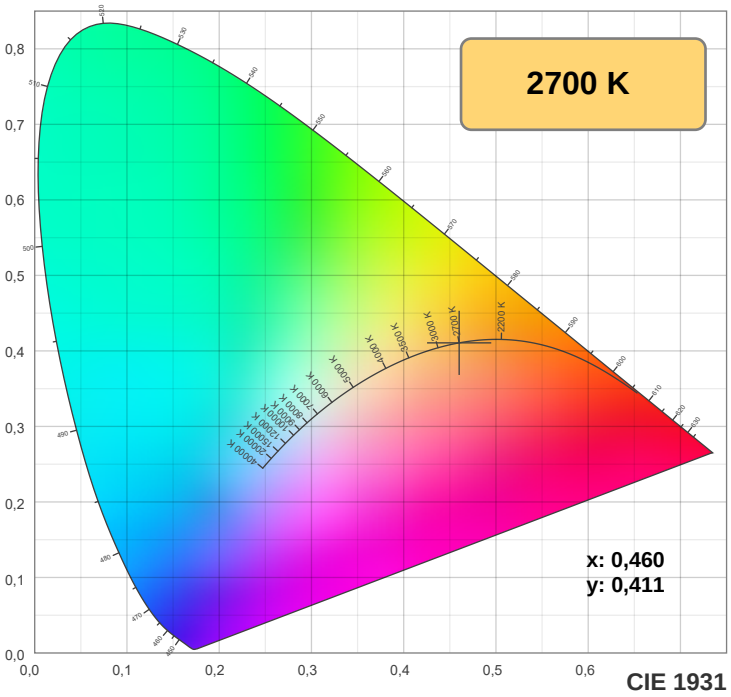
Spectra



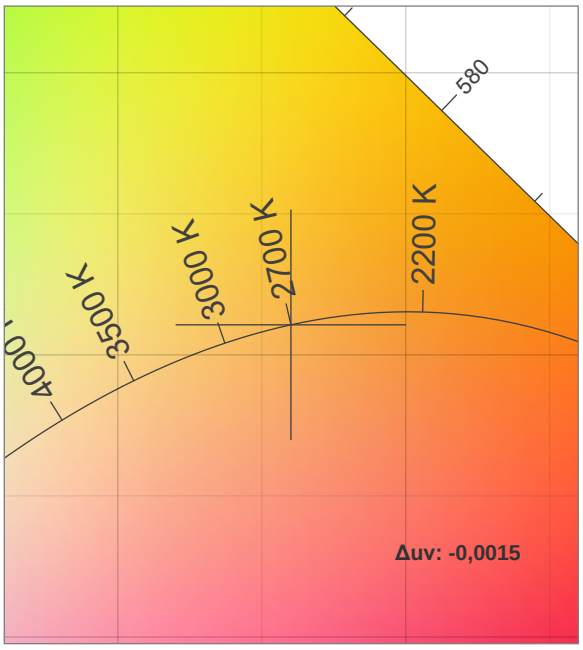
Power



Color details

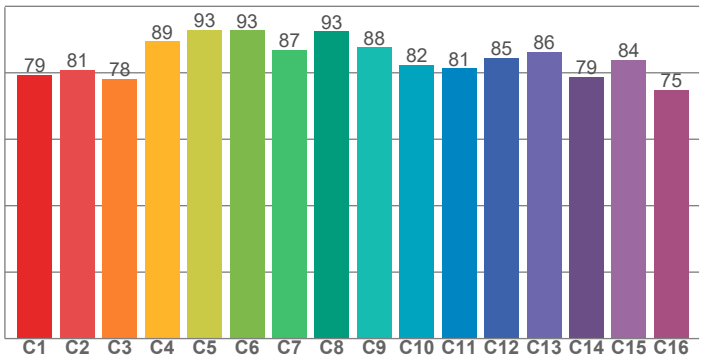


CIE 1931

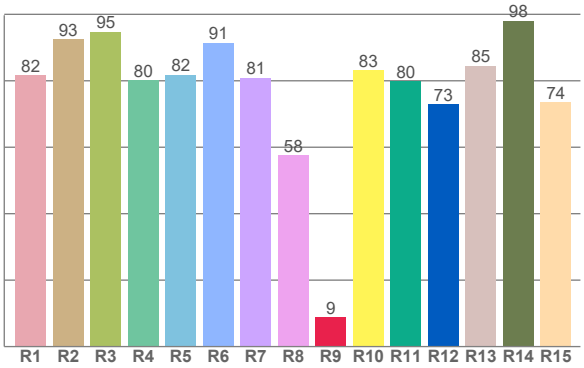


CIE 1931 ZOOM

TM30: 84,3



CRI: 82,6 (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
81,8	92,5	94,8	80,1	81,8	91,5	80,9	57,7	8,9	83,1	79,9	72,9	84,5	98,1	73,6

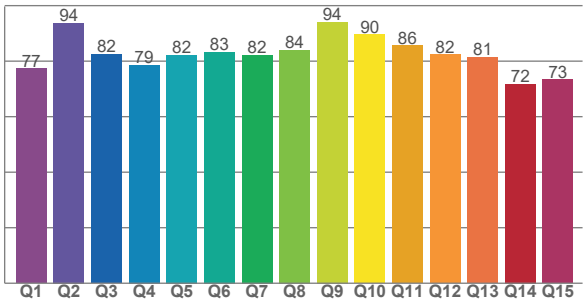
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
79,4	80,9	78,1	89,4	92,9	92,8	86,8	92,5	87,6	82,3	81,3	84,6	86,4	78,8	83,9	74,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
77,3	93,7	82,5	78,7	82,1	83,3	82,3	83,9	94,1	89,6	85,7	82,3	81,4	71,8	73,4

CQS: 81,6



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 diviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
2700 K	82,6	8,9	84,3	95,8	81,6	0,460	0,411	0,263	0,352	-0,0015

TM30 details

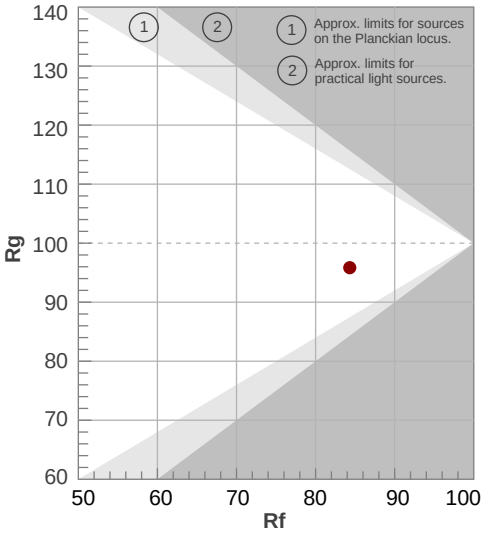
Rf 84,3

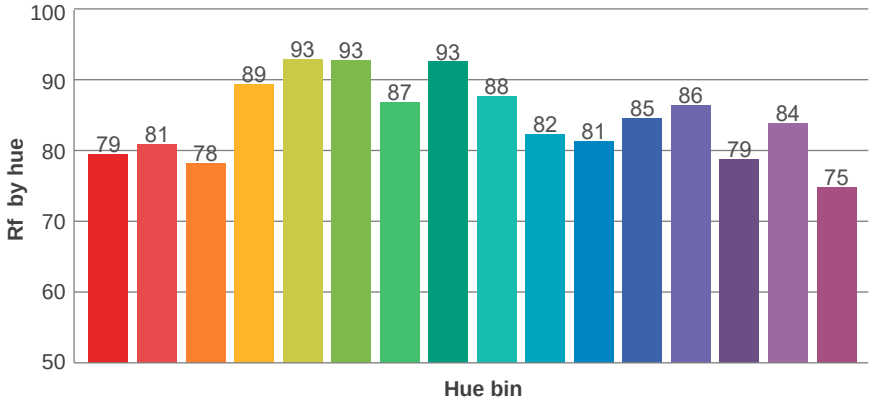
Fidelity index Rf

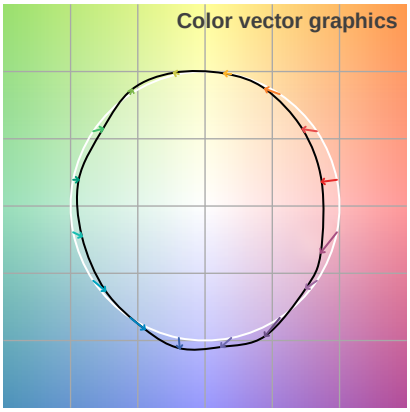
Rg 95,8

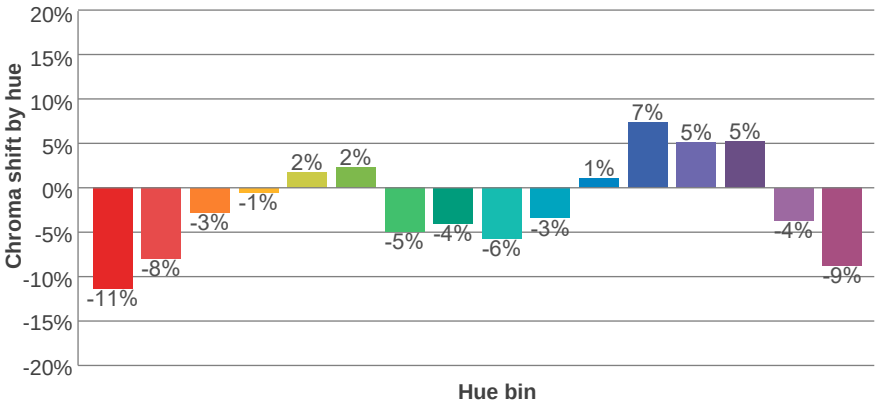
Gammut index Rg

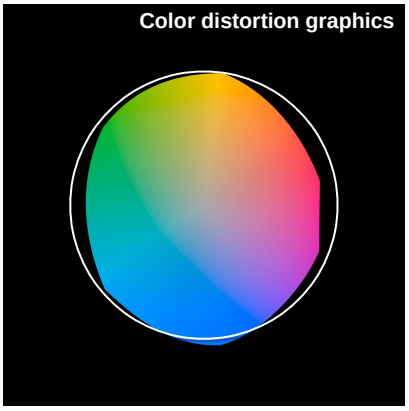
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	79	-11%	1%
2	81	-8%	7%
3	78	-3%	11%
4	89	-1%	5%
5	93	2%	3%
6	93	2%	-3%
7	87	-5%	-6%
8	93	-4%	-1%
9	88	-6%	4%
10	82	-3%	11%
11	81	1%	14%
12	85	7%	2%
13	86	5%	-9%
14	79	5%	-17%
15	84	-4%	-9%
16	75	-9%	-17%

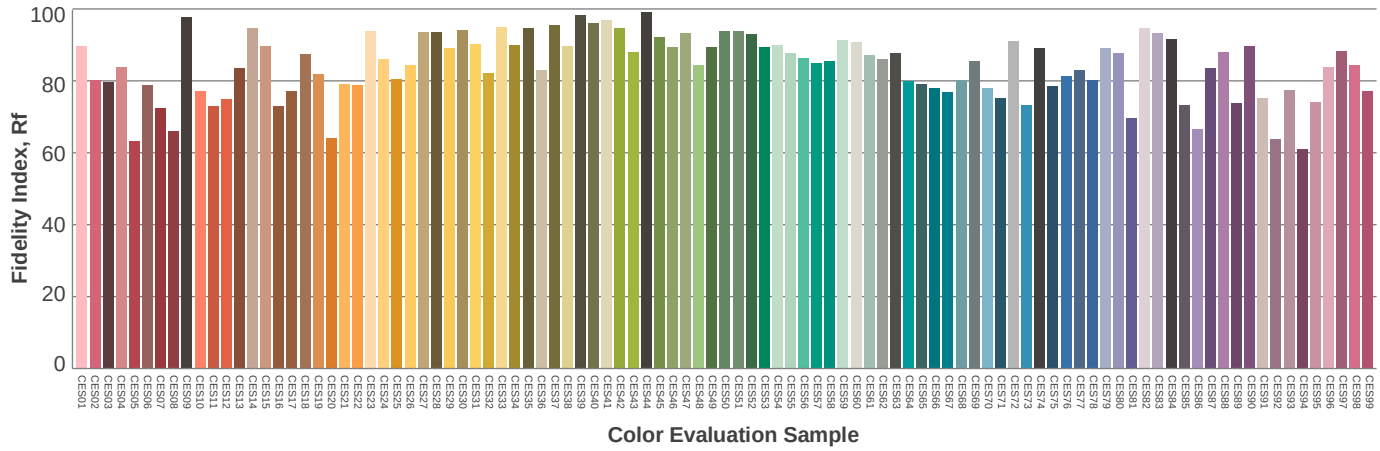




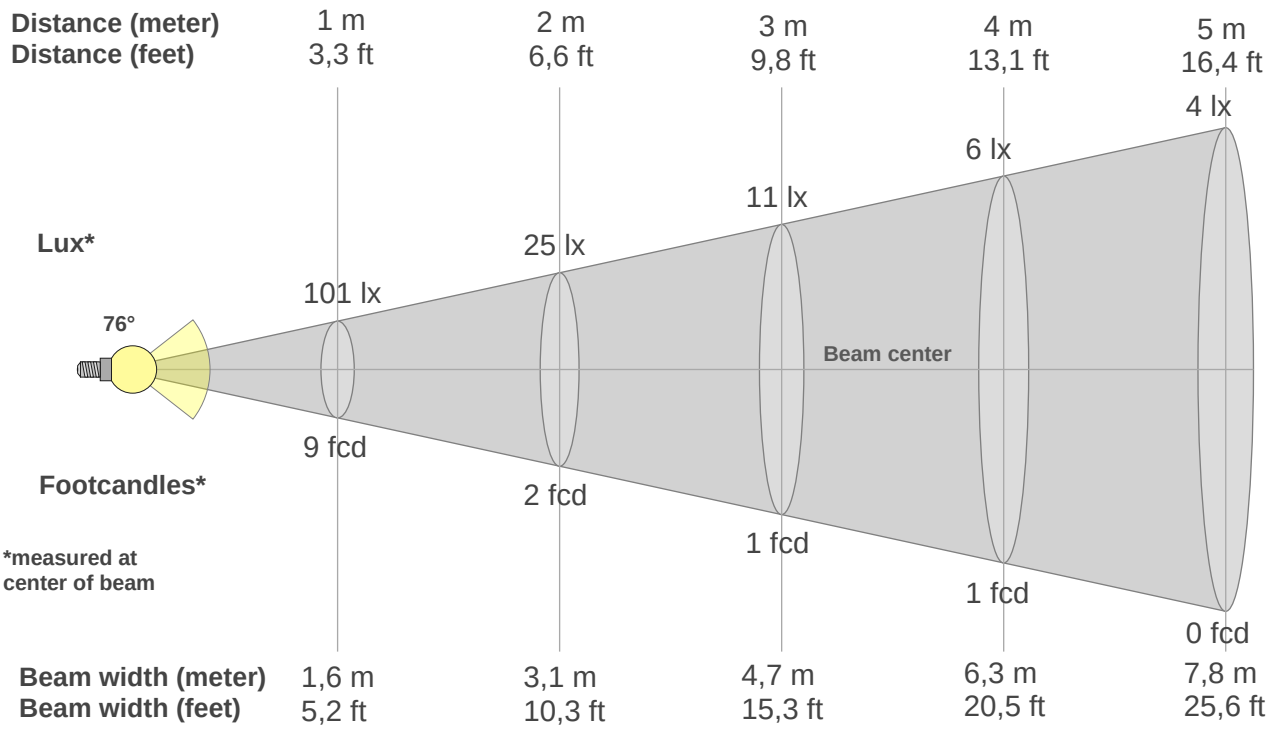








Beam details



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
101lx	25lx	11lx	6lx	4lx	3lx	2lx	2lx	1lx	1lx	1lx	1lx	1lx	1lx	0lx	0lx	0lx	0lx	0lx	0lx
9,4fcd	2,4fcd	1fcd	0,6fcd	0,4fcd	0,3fcd	0,2fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0,1fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd	0fcd

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°
101	112	114	122	132	148	166	192	229	255	256	228	176	123	71	33	25	21	7	0
100%	110%	113%	120%	131%	146%	164%	189%	226%	252%	253%	225%	174%	121%	70%	33%	25%	21%	7%	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°
101	99	97	94	90	85	80	74	69	63	57	50	42	34	25	17	10	5	2	0
100%	98%	96%	93%	89%	84%	79%	73%	68%	62%	56%	49%	41%	33%	25%	17%	10%	5%	2%	0%

Intensities in 180° c-plane

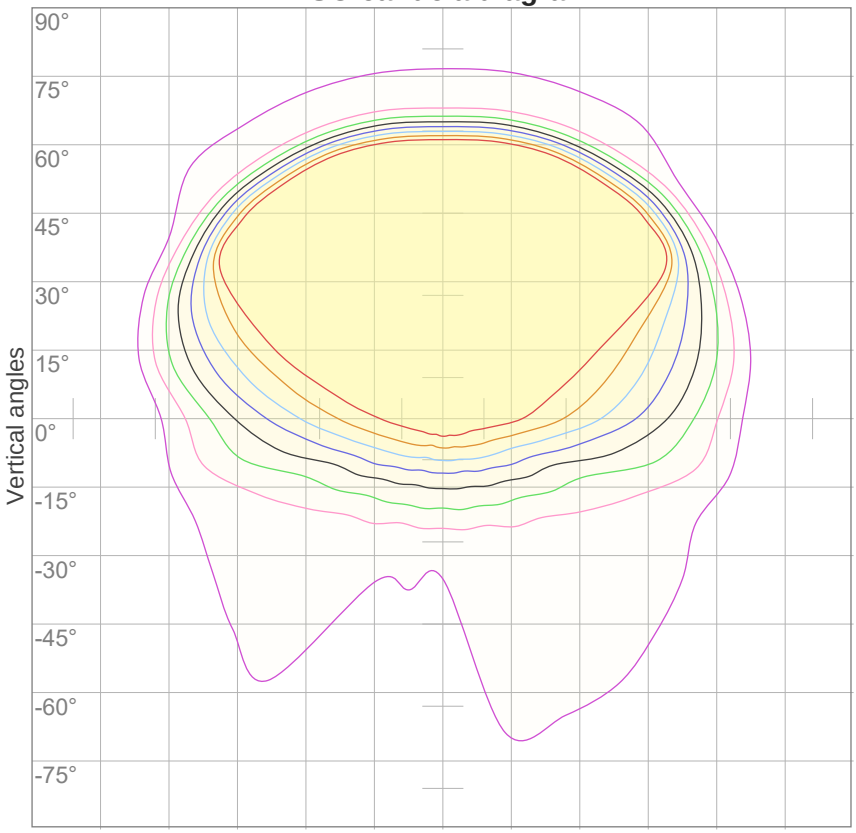
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
101	89	71	56	44	34	26	23	20	21	24	28	31	30	29	24	16	12	4	0
100%	88%	71%	55%	44%	34%	26%	23%	20%	21%	24%	28%	31%	30%	29%	24%	16%	11%	4%	0%

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°
101	98	95	91	87	81	76	70	64	58	52	44	35	26	18	11	5	2	0	0
100%	97%	94%	90%	86%	80%	75%	69%	64%	57%	51%	43%	35%	26%	18%	10%	5%	2%	0%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
76°	**162°**	**179,1°**	**72,4%**	**41,9%**

ISO candela diagram



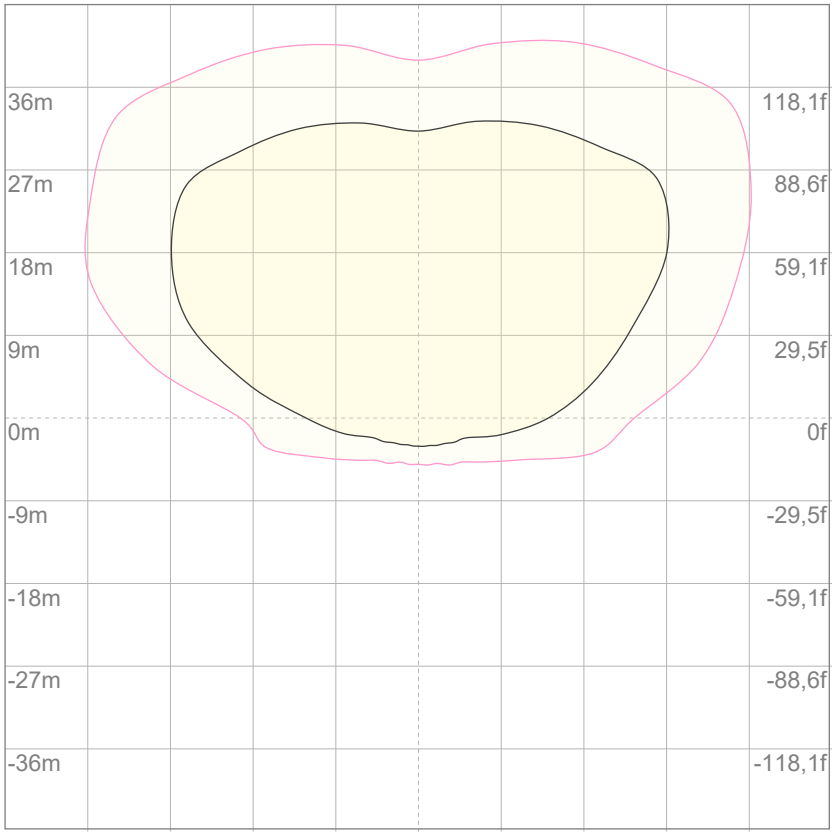
10%	10 cd
20%	20 cd
30%	30 cd
40%	40 cd
50%	51 cd
60%	61 cd
70%	71 cd
80%	81 cd
90%	91 cd

Conditions:

Number of c-planes: 16

Candela at center: 101 cd

ISO lux diagram



Mounting height: 10 meters (33 feet)

3%	30,4m lx
5%	50,6m lx
10%	0,101 lx
30%	0,304 lx
50%	0,506 lx

Conditions:

Number of c-planes: 16

Lux at center: 1,01 lx

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

Glare Evaluation According to UGR

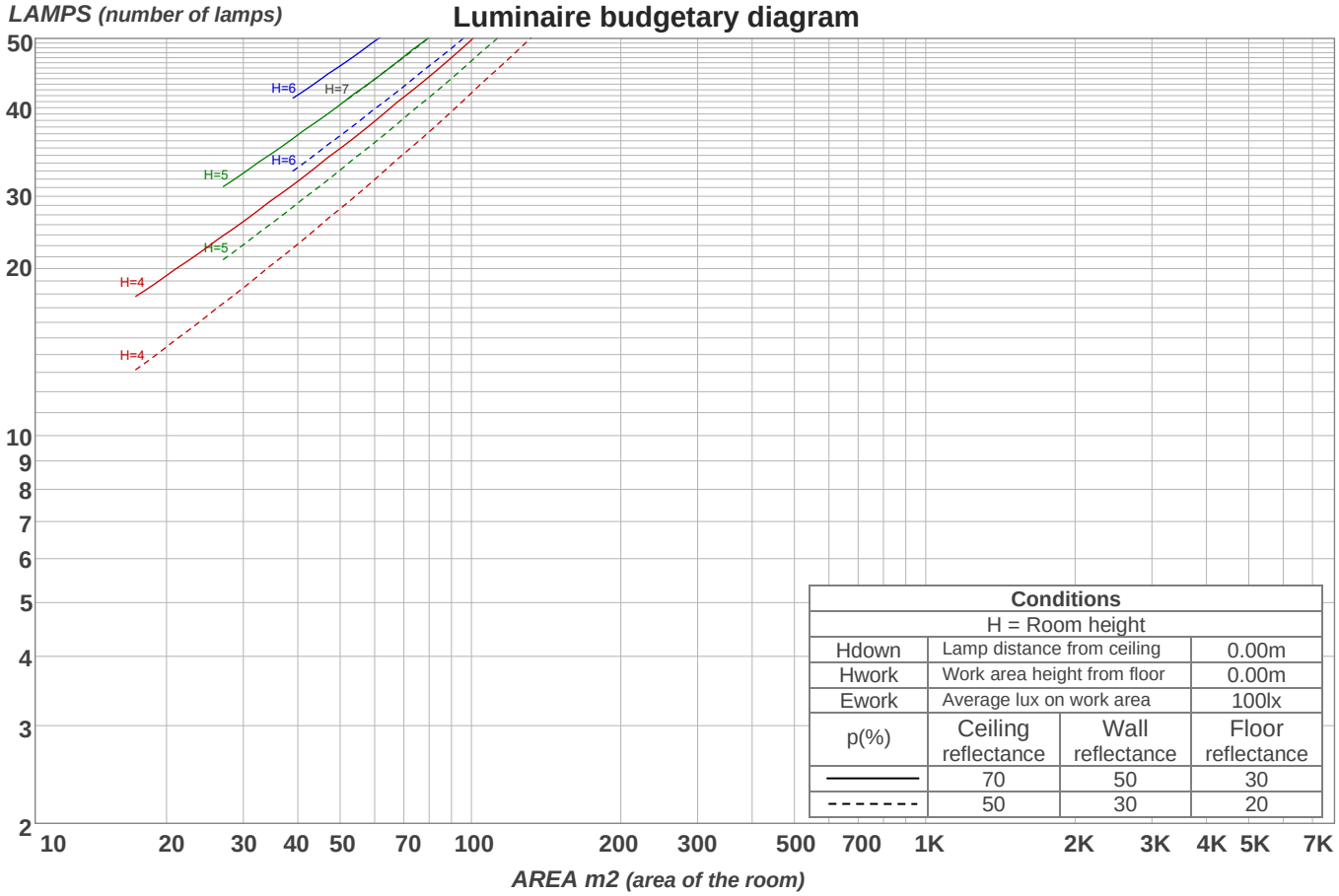
p Ceiling	70	70	50	50	30	70	70	50	50	30
p Walls	50	30	50	30	30	50	30	50	30	30
p Floor	20	20	20	20	20	20	20	20	20	20
Room size X Y	Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	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
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 381 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	107	102	97	92	104	99	95	91	95	91	88	91	88	85	87	85	83	80
2	96	87	79	73	94	85	78	72	81	75	70	78	73	69	75	71	67	65
3	87	75	66	59	84	73	65	58	70	63	57	68	61	56	65	60	55	53
4	79	66	56	48	76	64	55	48	62	54	47	59	52	47	57	51	46	44
5	72	58	48	41	70	57	47	40	54	46	40	52	45	39	50	44	39	37
6	66	51	42	35	64	50	41	35	49	40	34	47	39	34	45	39	34	31
7	61	46	37	30	59	45	36	30	44	36	30	42	35	29	41	34	29	27
8	56	42	33	26	55	41	32	26	40	32	26	38	31	26	37	31	26	24
9	52	38	29	23	51	37	29	23	36	29	23	35	28	23	34	28	23	21
10	49	35	27	21	48	34	26	21	33	26	21	32	25	21	31	25	21	19

Luminaire budgetary diagram

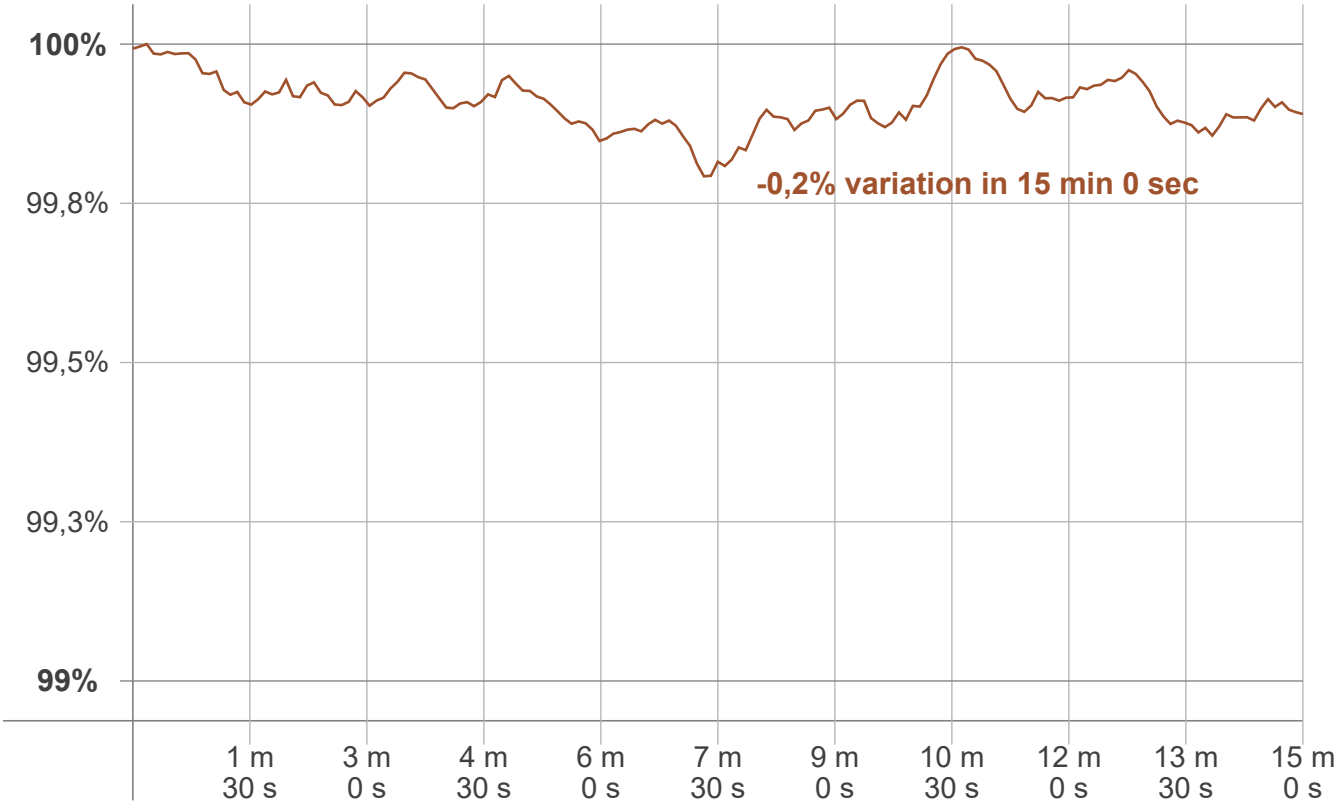


Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
9,34 lm	25,3 lm	38,8 lm	52,9 lm	70,9 lm	78,5 lm	60,8 lm	30,2 lm	14,4 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0,021 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	**-0,2%**

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
2700 K	0 K	2700 K

Output change

Output start	Output change	Output end
381 lm	lm	381 lm