Light efficiency:

118 Lumen/Watt

Light quality:

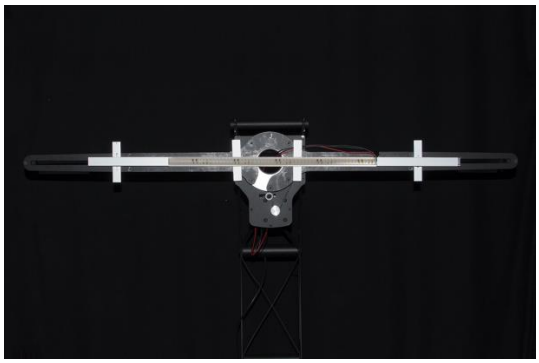
CRI: 94,1

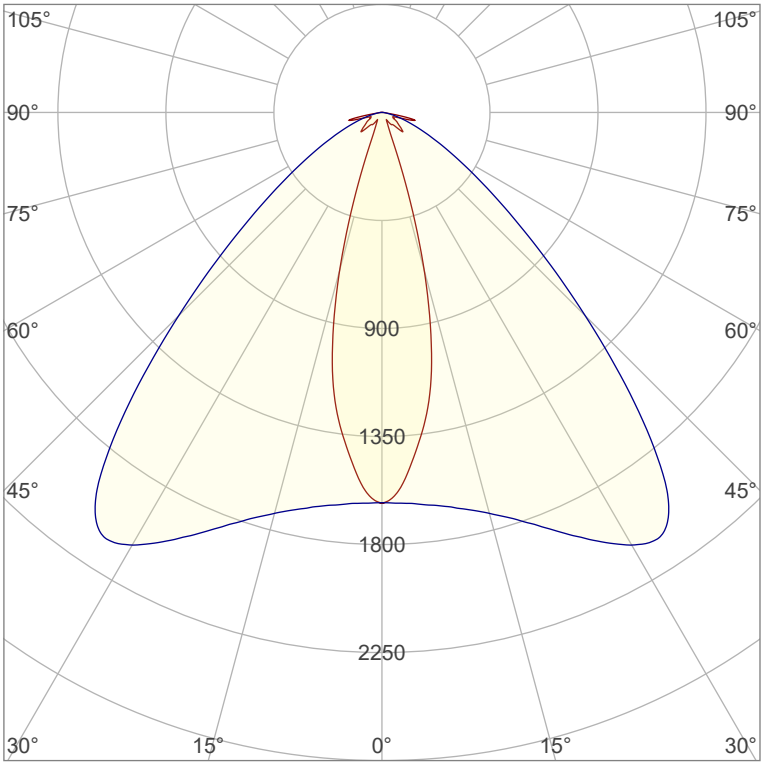
Color temperature:

2700 K

Output: 1358 lm
Peak: 2115 cd

Power: 11,5 W
PF: 1,0





Product name:
Jago-2_510mm_927_Lens-30°-Transparent

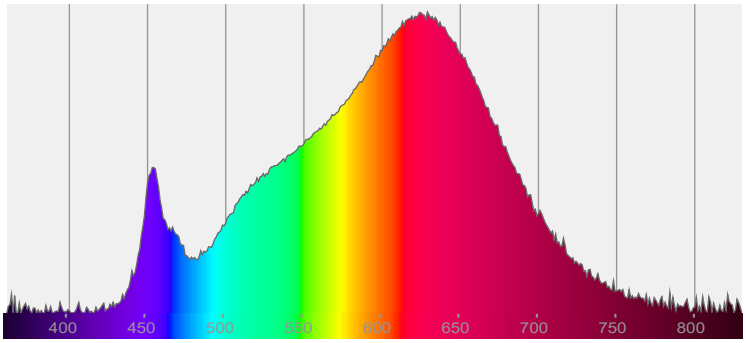
Item number:
NP/L1C/19B/0510/927/L3T

Date and time:
16.05.2024 13:21:10

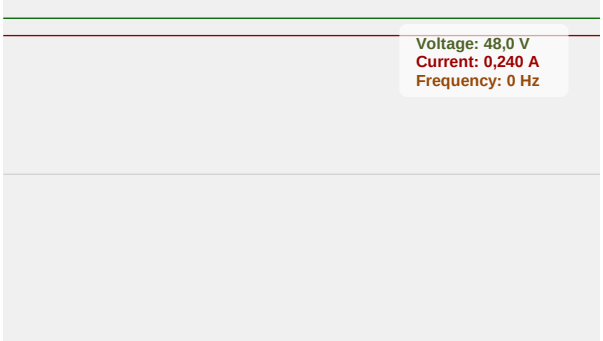
Description:
Tolerances:
Lumen +/-4%
Candela +/-2,5%
Colour Temp +/-35 Kelvin
CRI +/-0,7
Angular Resolution: 1 Degree Step
Last Calibration 07.10.2025
Tester: Peter Ulrich
Test Site: Lichtlabor
Gaustrasse 13
55411 Bingen am Rhein

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

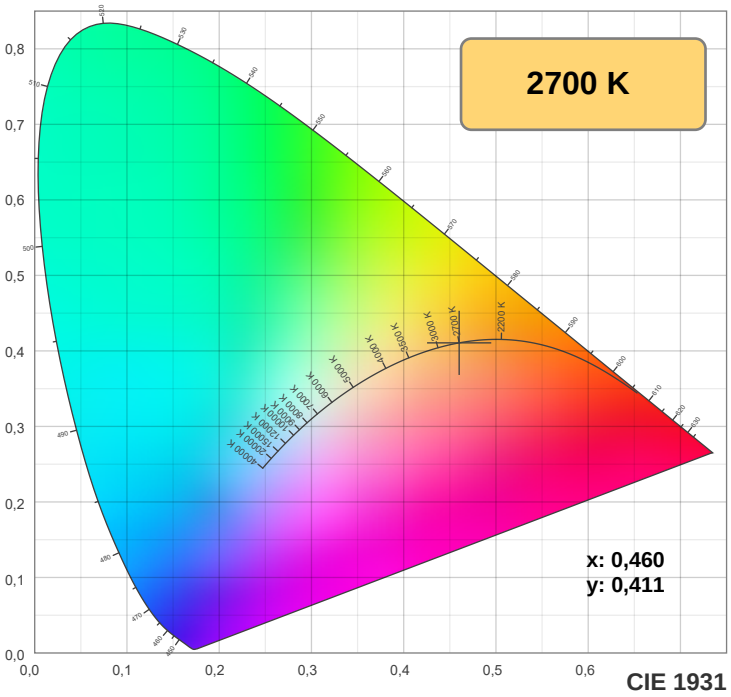
Spectra

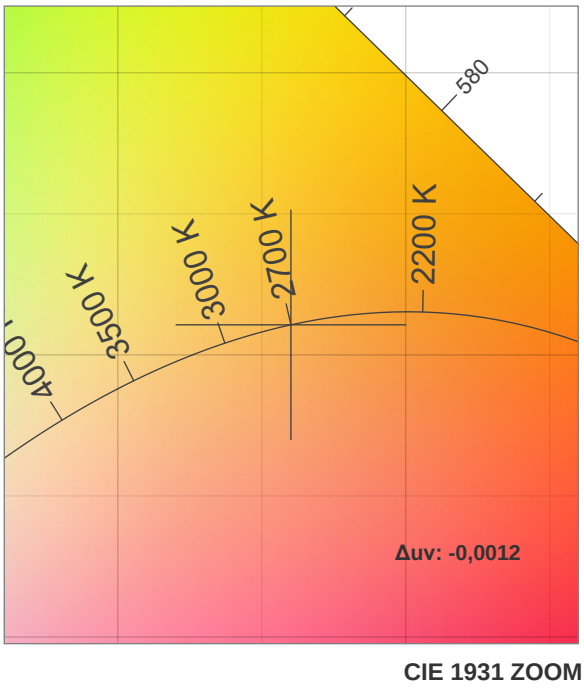


Power

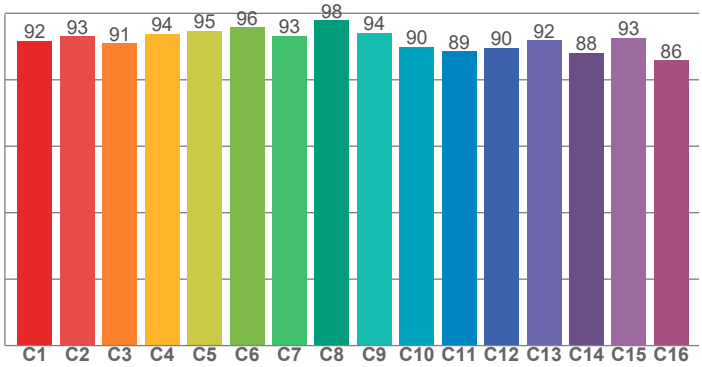


Color details

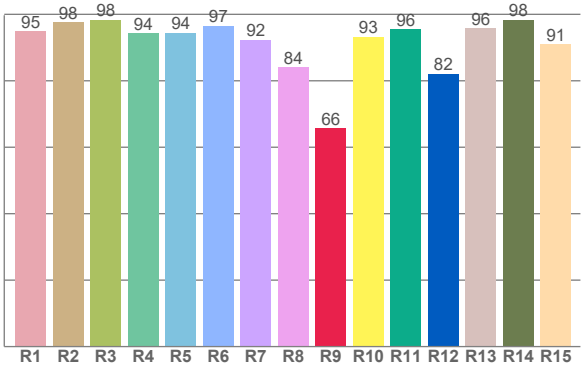




TM30: 91,9



CRI: 94,1 (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
94,8	97,6	98,4	94,4	94,5	96,6	92,4	84,2	65,7	93,3	95,6	82,1	95,8	98,4	91,0

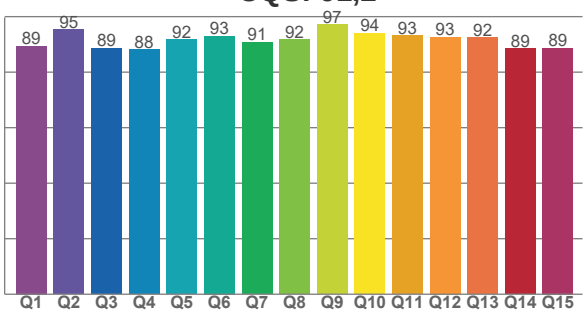
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91,6	93,0	91,0	93,9	94,7	95,8	93,1	97,9	94,1	89,8	88,5	89,7	91,8	88,2	92,7	85,8

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
89,4	95,3	88,6	88,2	91,8	93,0	90,8	91,8	97,1	94,0	93,2	92,6	92,5	88,6	88,7

CQS: 91,2



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	94,1	65,7	91,9	99,7	91,2	0,460	0,411	0,263	0,352	-0,0012

TM30 details

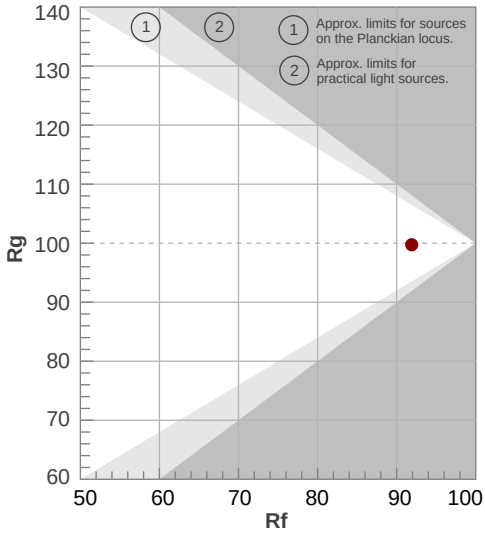
Rf 91,9

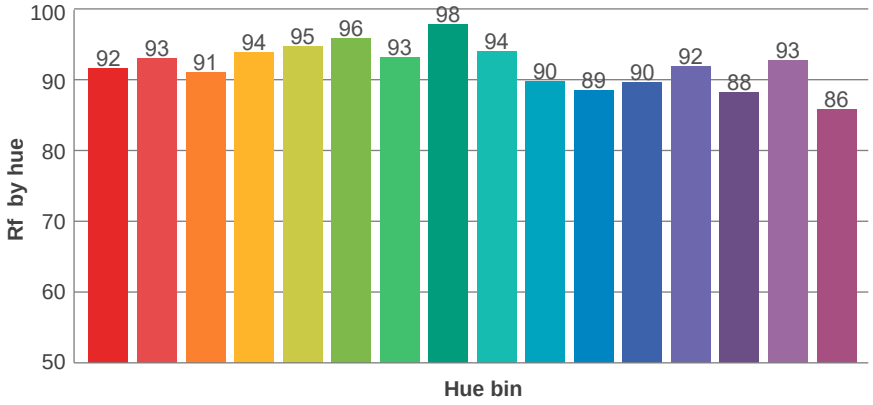
Fidelity index Rf

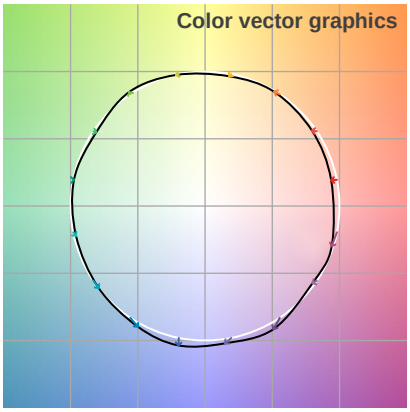
Rg 99,7

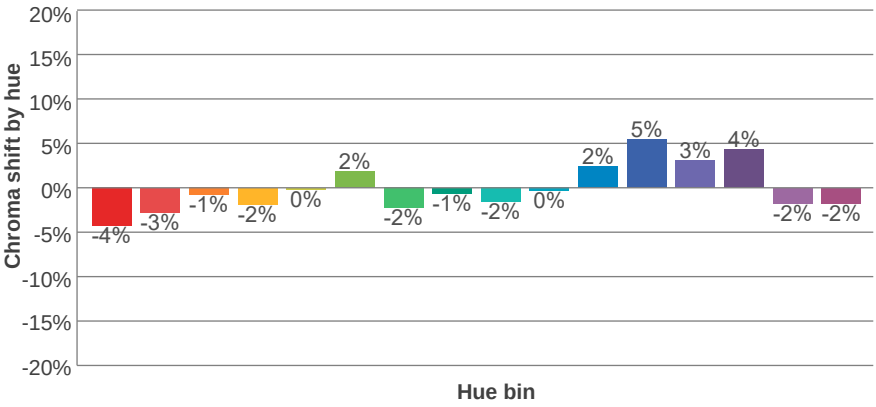
Gammut index Rg

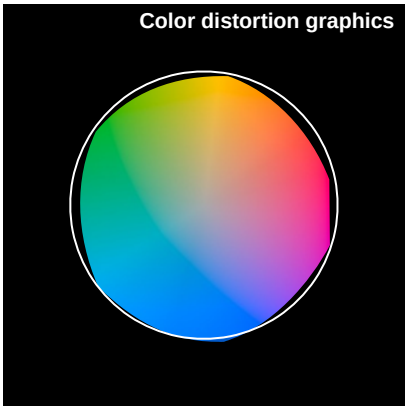
		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	92	-4%	0%
2	93	-3%	2%
3	91	-1%	4%
4	94	-2%	1%
5	95	0%	2%
6	96	2%	0%
7	93	-2%	-1%
8	98	-1%	0%
9	94	-2%	3%
10	90	0%	7%
11	89	2%	8%
12	90	5%	1%
13	92	3%	-5%
14	88	4%	-8%
15	93	-2%	-3%
16	86	-2%	-11%

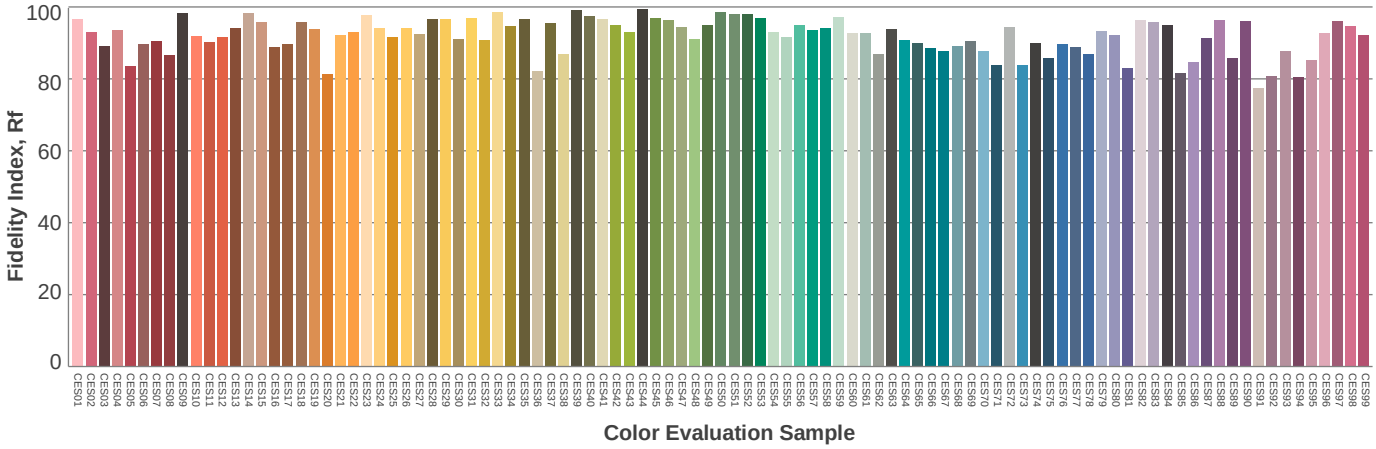




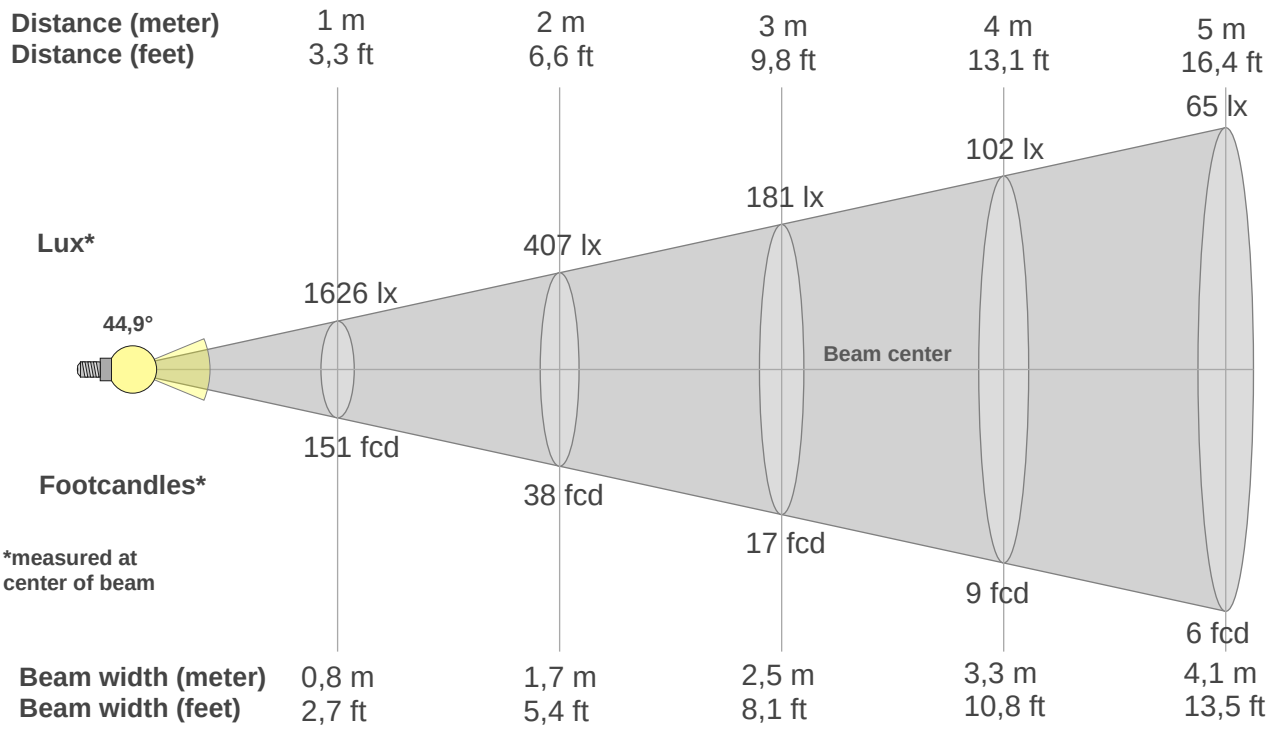








Beam details



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
1626lx	407lx	181lx	102lx	65lx	45lx	33lx	25lx	20lx	16lx	13lx	11lx	10lx	8lx	7lx	6lx	6lx	5lx	5lx	4lx
151,1fc	37,8fcd	16,8fcd	9,4fcd	6fcd	4,2fcd	3,1fcd	2,4fcd	1,9fcd	1,5fcd	1,2fcd	1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,5fcd	0,4fcd	0,4fcd

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°
1626	1593	1510	1403	1295	1162	989	786	566	352	177	93	66	53	43	37	36	45	58	64
100%	98%	93%	86%	80%	71%	61%	48%	35%	22%	11%	6%	4%	3%	3%	2%	2%	3%	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°
1626	1629	1633	1643	1654	1669	1690	1715	1745	1780	1823	1872	1926	1980	2033	2081	2110	2103	2032	1894
100%	100%	100%	101%	102%	103%	104%	105%	107%	109%	112%	115%	118%	122%	125%	128%	130%	129%	125%	116%

Intensities in 180° c-plane

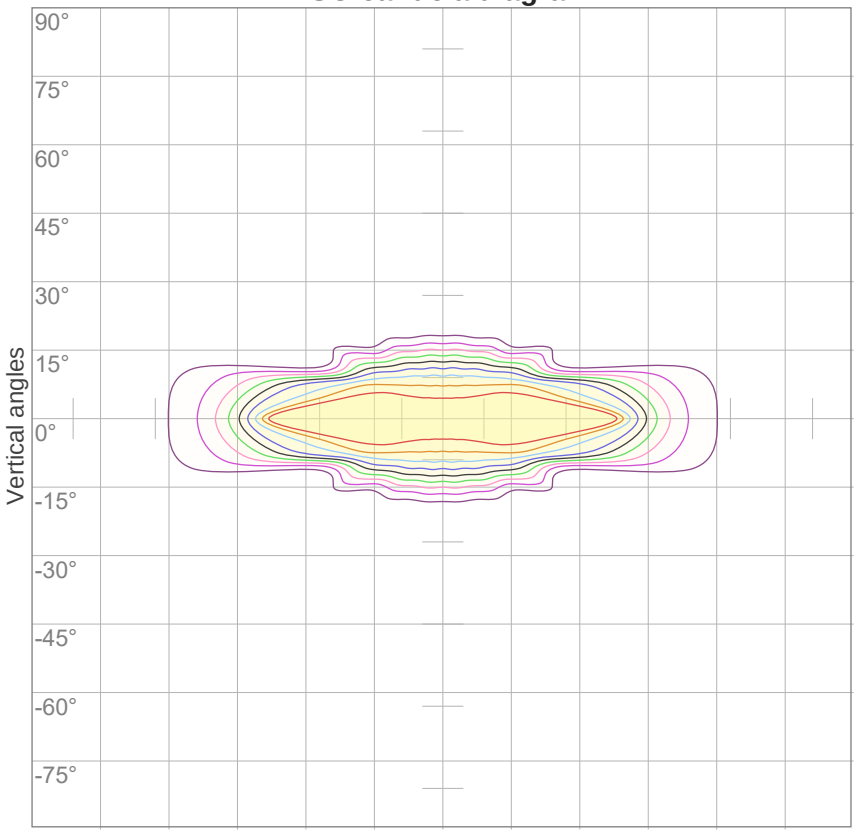
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1626	1593	1510	1403	1295	1162	989	786	566	352	177	93	66	53	43	37	36	45	58	64
100%	98%	93%	86%	80%	71%	61%	48%	35%	22%	11%	6%	4%	3%	3%	2%	2%	3%	4%	4%

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°
1626	1629	1633	1643	1654	1669	1690	1715	1745	1780	1823	1872	1926	1980	2033	2081	2110	2103	2032	1894
100%	100%	100%	101%	102%	103%	104%	105%	107%	109%	112%	115%	118%	122%	125%	128%	130%	129%	125%	116%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
44,9°	**63,6°**	**160,8°**	**87,2%**	**72,9%**

ISO candela diagram



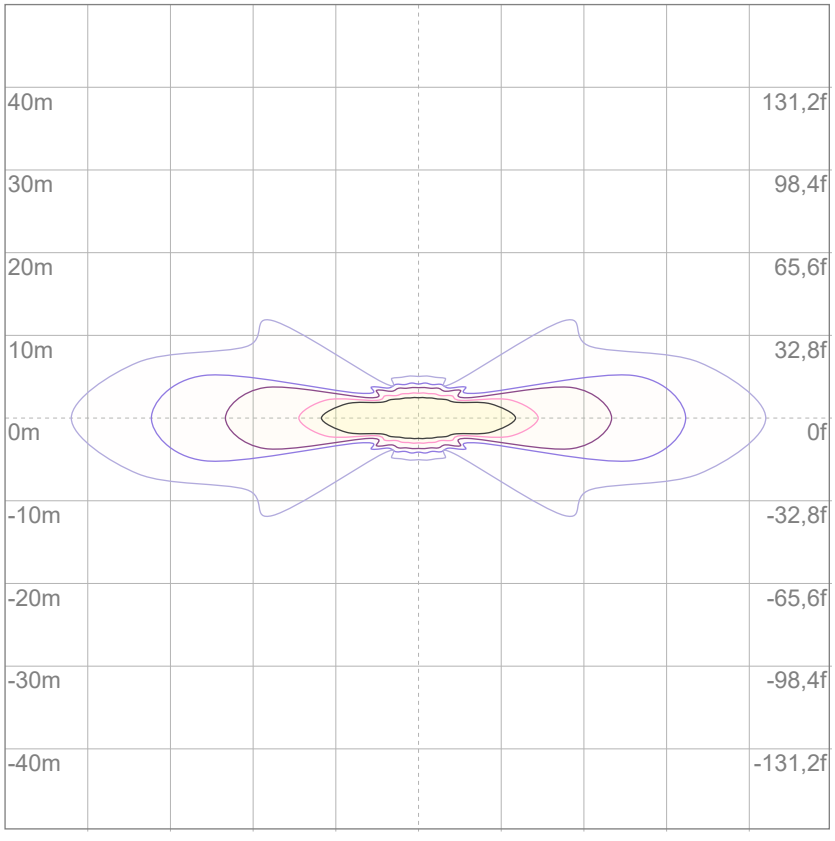
10%	163 cd
20%	325 cd
30%	488 cd
40%	651 cd
50%	813 cd
60%	976 cd
70%	1138 cd
80%	1301 cd
90%	1464 cd

Conditions:

Number of c-planes: 16

Candela at center: 1626 cd

ISO lux diagram



Mounting height: 10 meters (33 feet)

3%	0,488 lx
5%	0,813 lx
10%	1,63 lx
30%	4,88 lx
50%	8,13 lx

Conditions:

Number of c-planes: 16

Lux at center: 16,3 lx

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

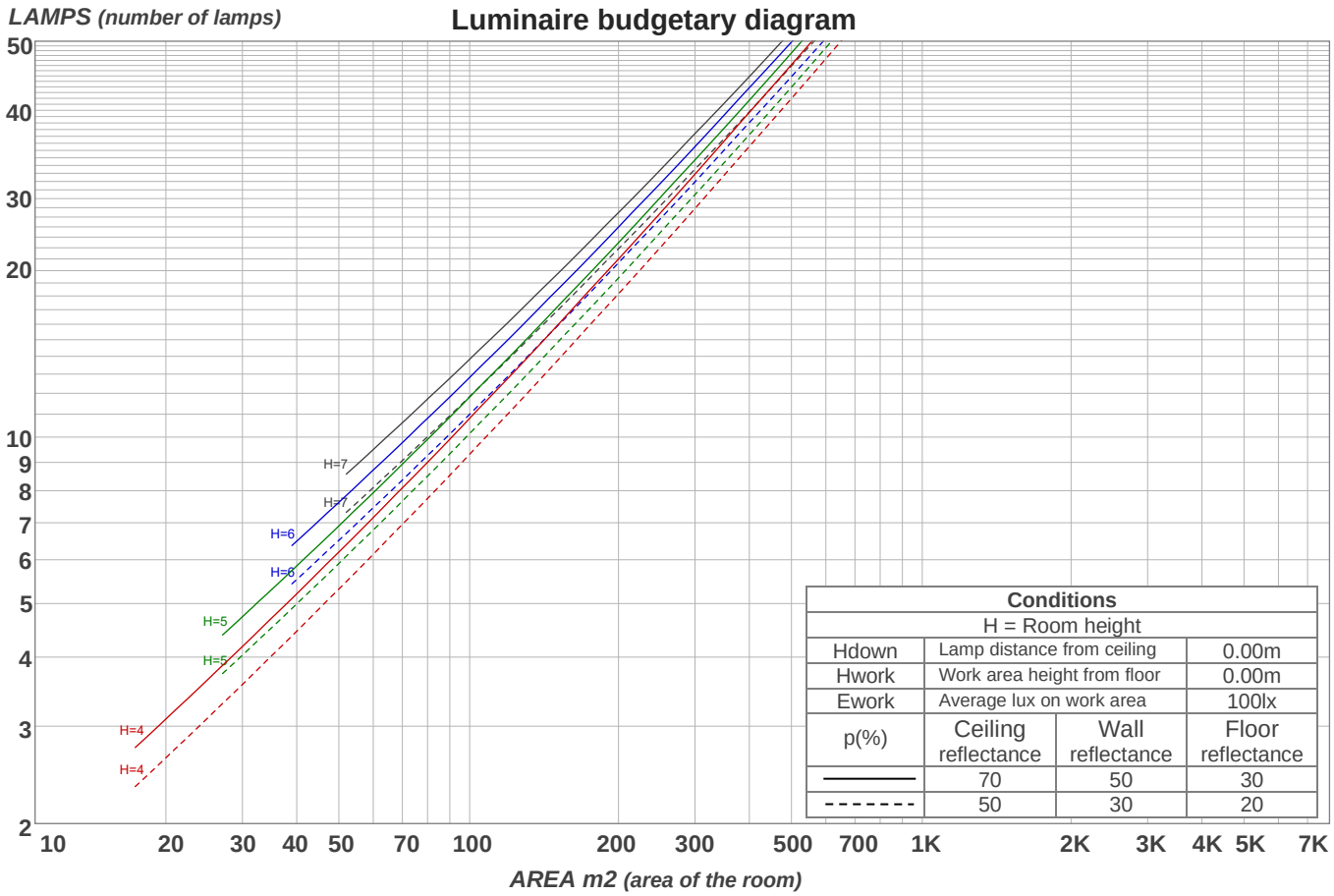
Glare Evaluation According to UGR

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	15,1	16,0	15,3	16,3	16,5	26,1	27,0	26,2	27,2	27,4
	3H	16,7	17,7	17,0	17,9	18,1	26,4	27,4	26,8	27,7	27,9
	4H	19,6	20,5	20,0	20,8	21,0	26,6	27,5	27,0	27,8	28,0
	6H	22,3	23,2	22,6	23,4	23,8	26,7	27,5	27,0	27,8	28,2
	8H	22,4	23,2	22,8	23,5	23,9	26,7	27,5	27,0	27,8	28,2
	12H	22,4	23,2	22,8	23,5	24,0	26,7	27,5	27,0	27,8	28,2
4H	2H	15,6	16,5	16,0	16,8	17,0	25,8	26,7	26,2	27,0	27,2
	3H	17,5	18,3	17,9	18,6	19,1	26,3	27,1	26,7	27,4	27,9
	4H	20,7	21,4	21,1	21,8	22,3	26,4	27,1	26,8	27,6	28,1
	6H	23,7	24,4	24,2	24,8	25,1	26,5	27,2	27,0	27,6	27,9
	8H	23,8	24,5	24,3	24,9	25,2	26,5	27,2	27,0	27,6	27,9
	12H	23,8	24,4	24,3	24,8	25,3	26,5	27,1	27,0	27,5	28,0
8H	4H	21,0	21,7	21,5	22,0	22,4	26,4	27,0	26,9	27,4	27,7
	6H	24,3	24,8	24,8	25,3	25,8	26,5	27,0	27,0	27,5	28,0
	8H	24,6	25,0	25,1	25,5	26,2	26,6	27,1	27,2	27,6	28,2
	12H	24,6	25,0	25,2	25,5	26,1	26,7	27,0	27,3	27,5	28,2
12H	4H	21,1	21,6	21,6	22,0	22,5	26,4	26,9	26,9	27,3	27,8
	6H	24,5	24,9	25,0	25,4	26,0	26,6	27,1	27,2	27,6	28,2
	8H	24,8	25,1	25,3	25,6	26,2	26,7	27,1	27,3	27,6	28,2
Variation of the observer position for the luminaire distance S											
S = 1.0H		0,1 / -0,1					2,2 / -2,7				
S = 1.5H		0,3 / -0,3					4,2 / -4,0				
S = 2.0H		0,4 / -0,6					5,9 / -4,8				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 1358 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	116	116	116	116	110	110	110	105	105	105	101	101	101	99
1	111	107	103	100	108	104	101	98	100	97	95	96	94	92	92	90	89	87
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	84	82	79	77
3	96	88	81	76	94	86	80	75	83	78	74	80	76	73	78	74	71	69
4	90	81	73	68	88	79	73	68	77	71	67	74	70	66	72	68	65	63
5	85	74	67	62	83	73	66	61	71	65	61	69	64	60	67	63	59	57
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	58	55	53
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	59	54	51	49
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	68	57	50	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43
10	64	53	47	42	63	53	46	42	52	46	42	51	46	42	50	45	42	40

Luminaire budgetary diagram

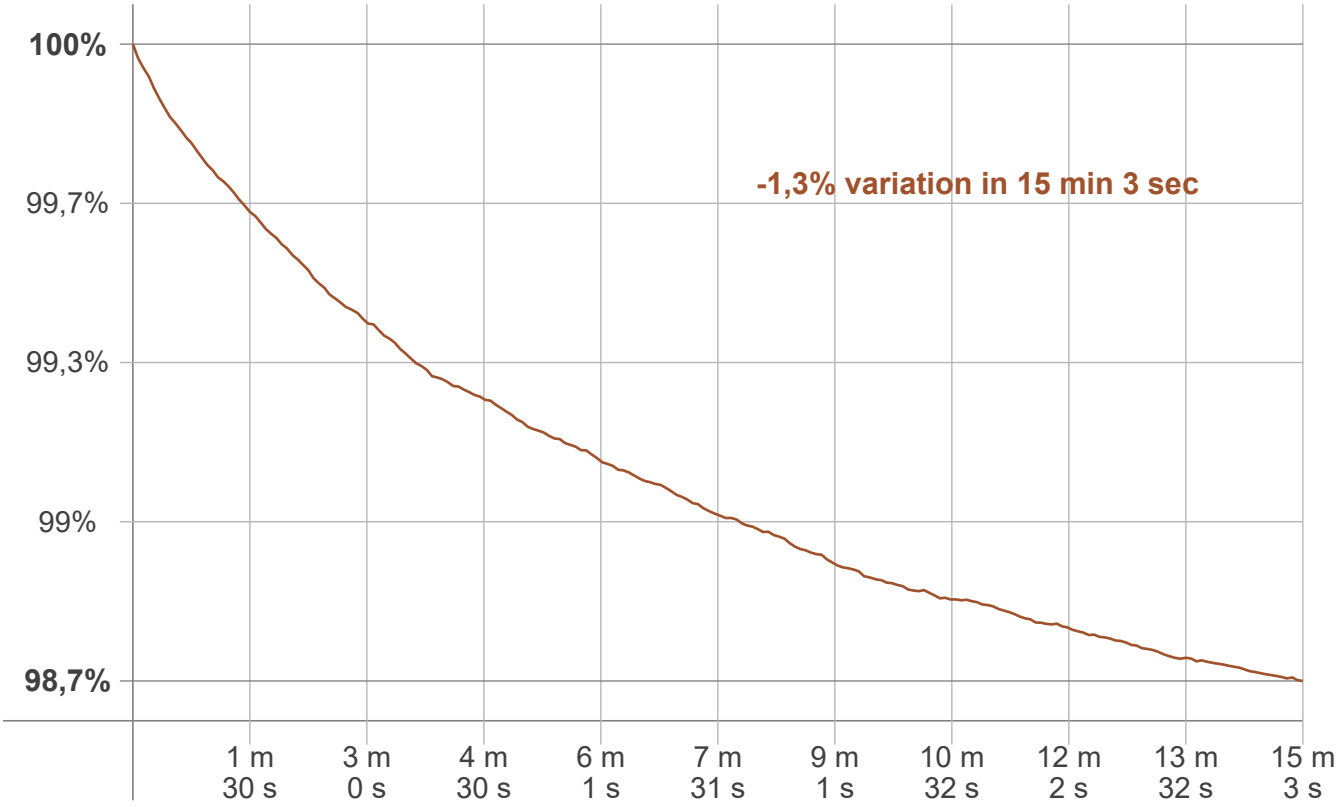


Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
142 lm	302 lm	260 lm	200 lm	166 lm	116 lm	69,3 lm	57,8 lm	27,9 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
1,96 lm	4,39 lm	0,627 lm	0,567 lm	0,394 lm	0,247 lm	0,182 lm	0,112 lm	9,79 lm

Warmup curve



Warmup result

Warmup time:	**Lamp stabilized in 15 min 3 sec**
Warmup variation	**-1,3%**

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
2707 K	-7 K	2700 K

Output change

Output start	Output change	Output end
1377 lm	-19 lm	1358 lm