Light efficiency:

121 Lumen/Watt

Light quality:

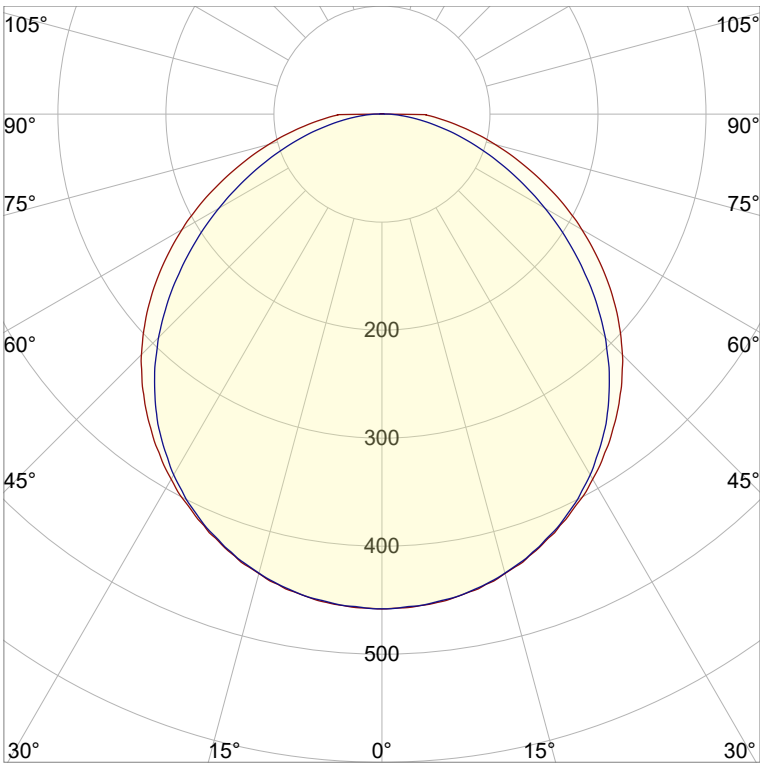
CRI: 94,2

Color temperature:

2722 K

Output: 1396 lm
Peak: 458 cd

Power: 11,5 W
PF: 1,0



Product name:
Jago-2_510mm_927_Cover-Round-Frosted

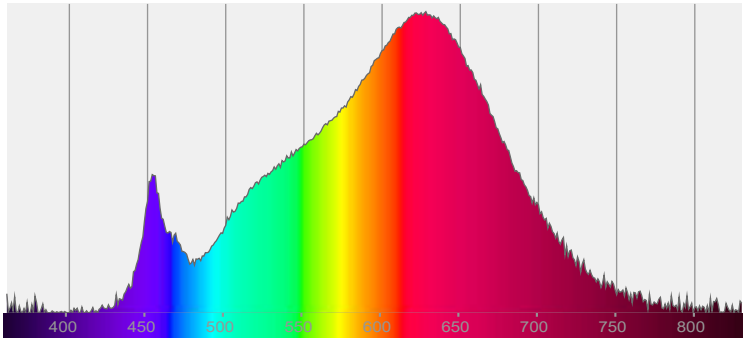
Item number:
NP/L1C/19B/G1/L1C/0510/927/CRF

Date and time:
19.07.2022 13:40:52

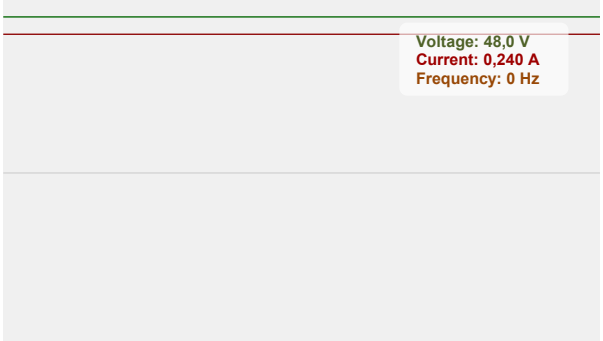
Description:
Rank: C80-AD-8GB
Tolerances:
Lumen +/-4%
Candela +/-2,5%
Colour Temp +/-35 Kelvin
CRI +/-0,7
Angular Resolution: 1 Degree Step
Last Calibration 20-09-2021
Tester: Peter Ulrich
Test Site: Lichtlabor
Gaustrasse 13
55411 Bingen am Rhein

CIE 1931
x: 0,457
y: 0,408

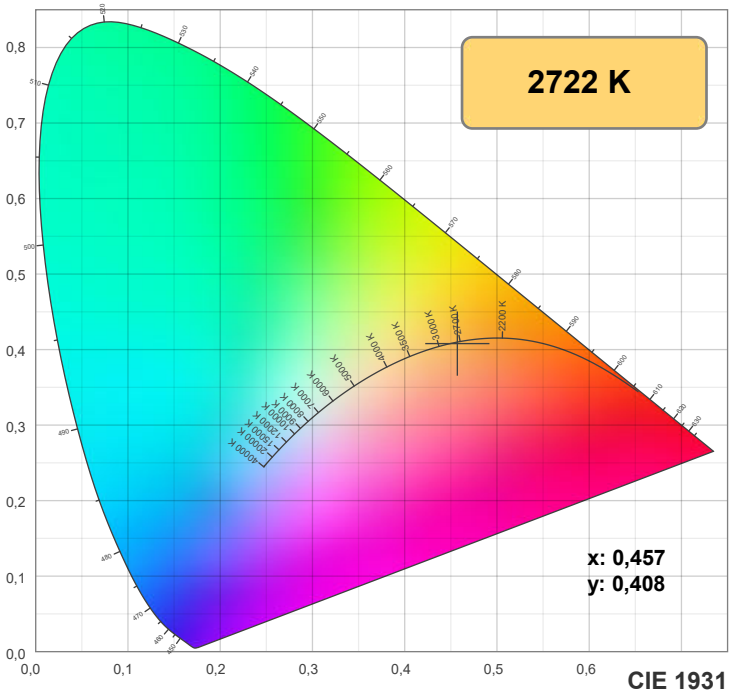
Spectra

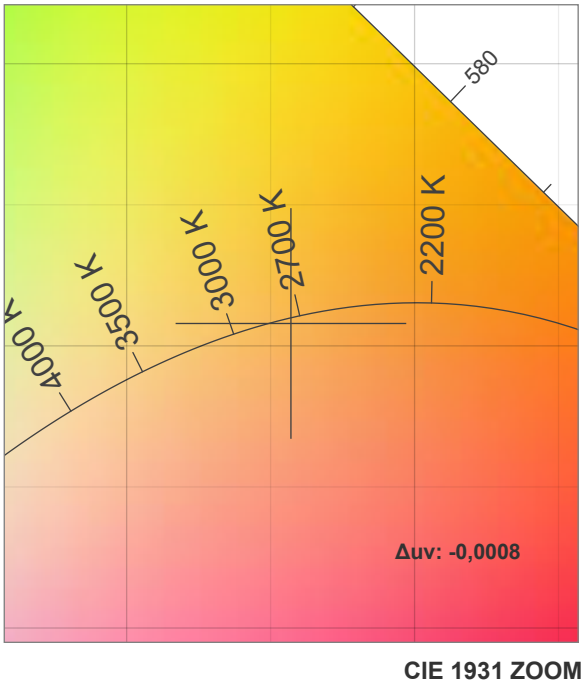


Power

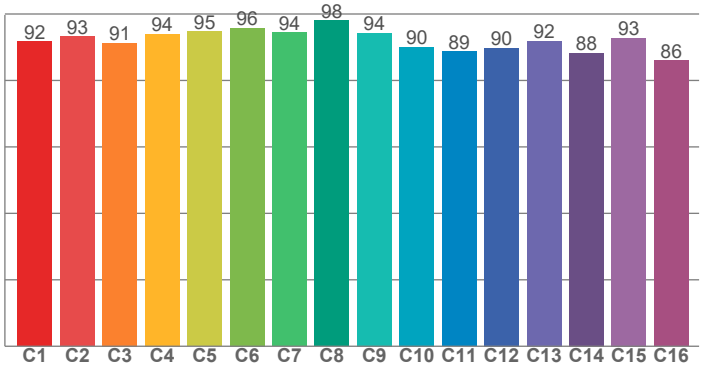


Color details

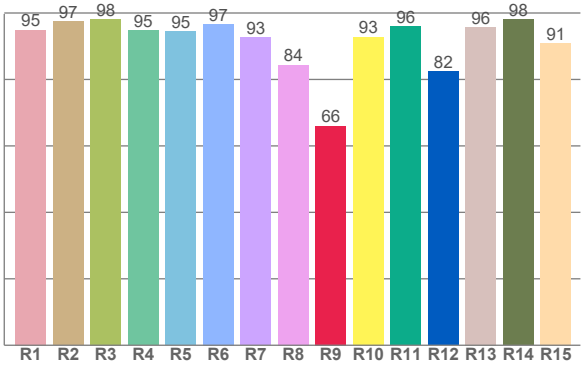




TM30: 92,0



CRI: 94,2 (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
94,9	97,5	98,2	94,7	94,5	96,6	92,7	84,4	66,0	92,8	95,9	82,4	95,8	98,1	91,0

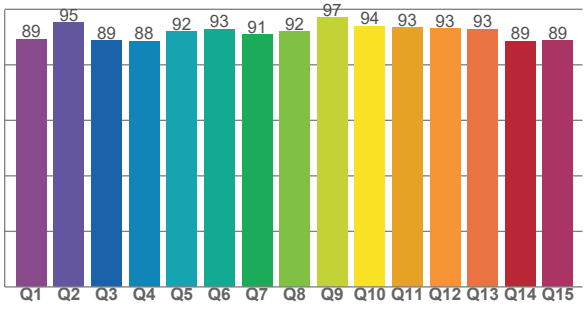
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
91,8	93,2	91,3	94,0	94,7	95,8	94,4	98,0	94,3	90,1	88,8	89,8	91,8	88,3	92,8	85,9

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
89,3	95,1	88,8	88,5	91,9	92,9	90,8	92,0	97,1	94,0	93,5	93,0	92,8	88,6	88,7

CQS: 91,3



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
2722 K	94,2	66,0	92,0	99,8	91,3	0,457	0,408	0,262	0,351	-0,0008

TM30 details

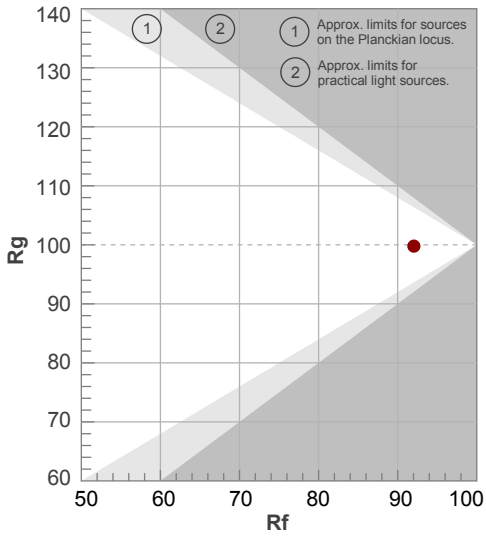
Rf 92,0

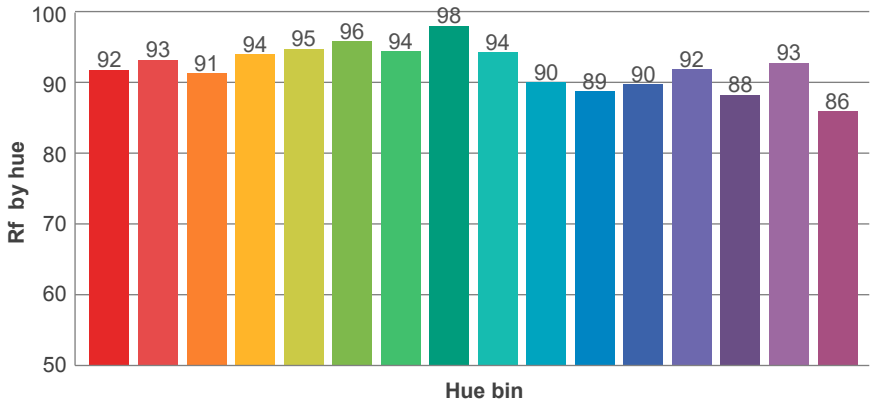
Fidelity index Rf

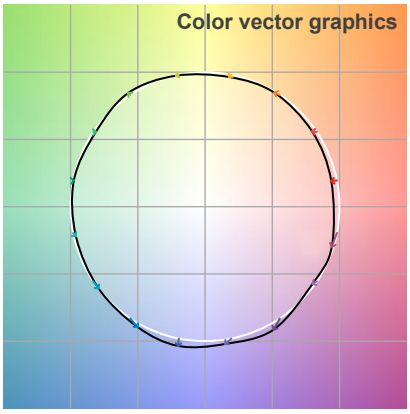
Rg 99,8

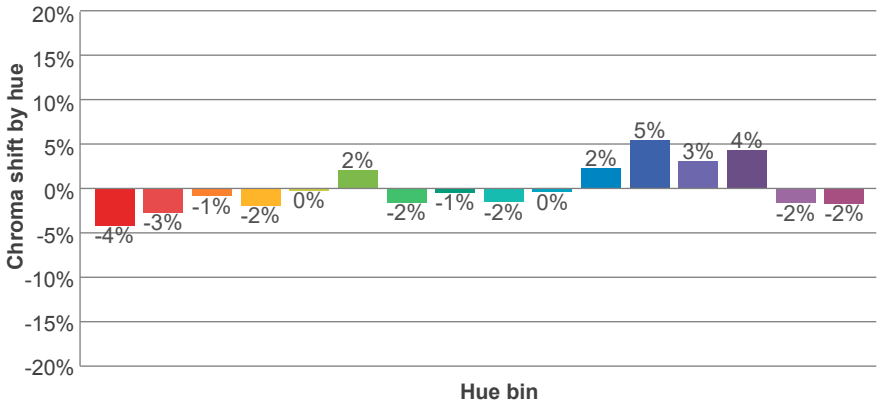
Gammut index Rg

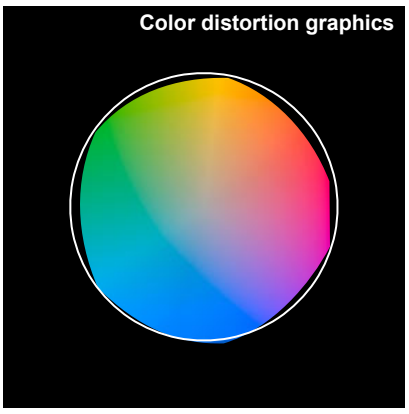
Hue Bin	R_f	Graphic shifts (%) Chroma	Hue
1	92	-4%	0%
2	93	-3%	2%
3	91	-1%	4%
4	94	-2%	1%
5	95	0%	2%
6	96	2%	1%
7	94	-2%	-1%
8	98	-1%	0%
9	94	-2%	3%
10	90	0%	7%
11	89	2%	8%
12	90	5%	1%
13	92	3%	-5%
14	88	4%	-8%
15	93	-2%	-3%
16	86	-2%	-11%

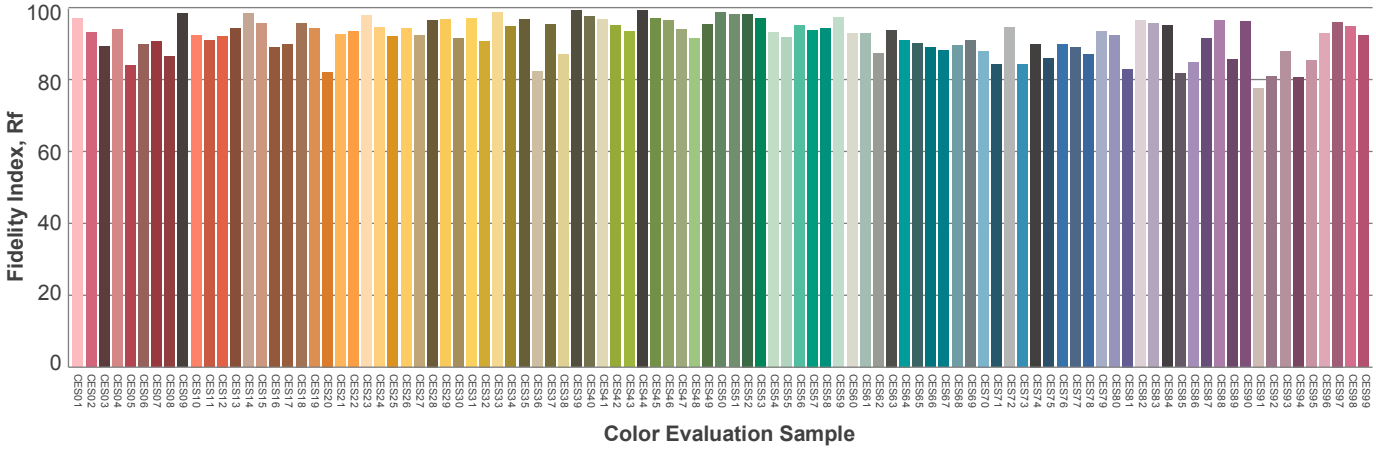




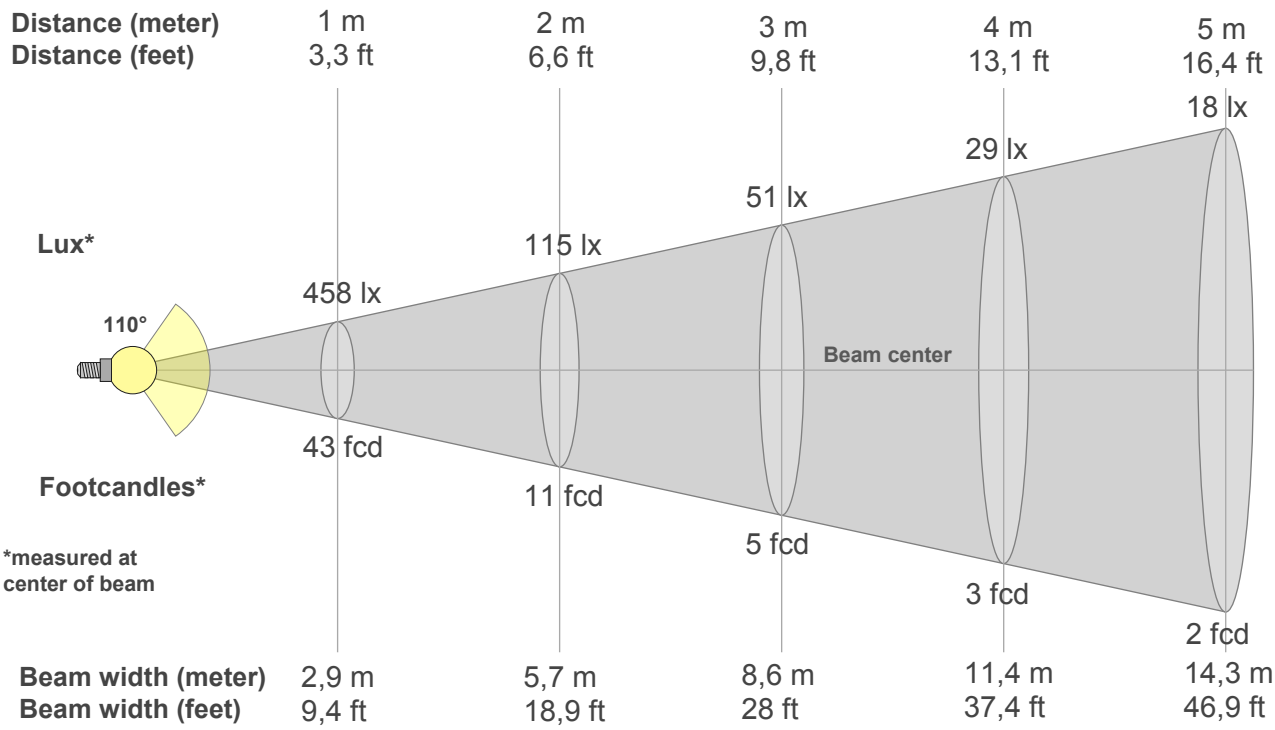








Beam details



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
458lx	115lx	51lx	29lx	18lx	13lx	9lx	7lx	6lx	5lx	4lx	3lx	3lx	2lx	2lx	2lx	2lx	1lx	1lx	1lx
42,5fcd	10,6fcd	4,7fcd	2,7fcd	1,7fcd	1,2fcd	0,9fcd	0,7fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,2fcd	0,2fcd	0,2fcd	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°
458	456	450	440	427	410	390	368	343	315	283	249	214	177	141	108	79	55	19	18
100%	100%	98%	96%	93%	89%	85%	80%	75%	69%	62%	54%	47%	39%	31%	24%	17%	12%	4%	4%

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°
458	456	450	440	426	408	386	359	327	292	254	214	174	136	101	69	42	20	4	0
100%	100%	98%	96%	93%	89%	84%	78%	71%	64%	55%	47%	38%	30%	22%	15%	9%	4%	1%	0%

Intensities in 180° c-plane

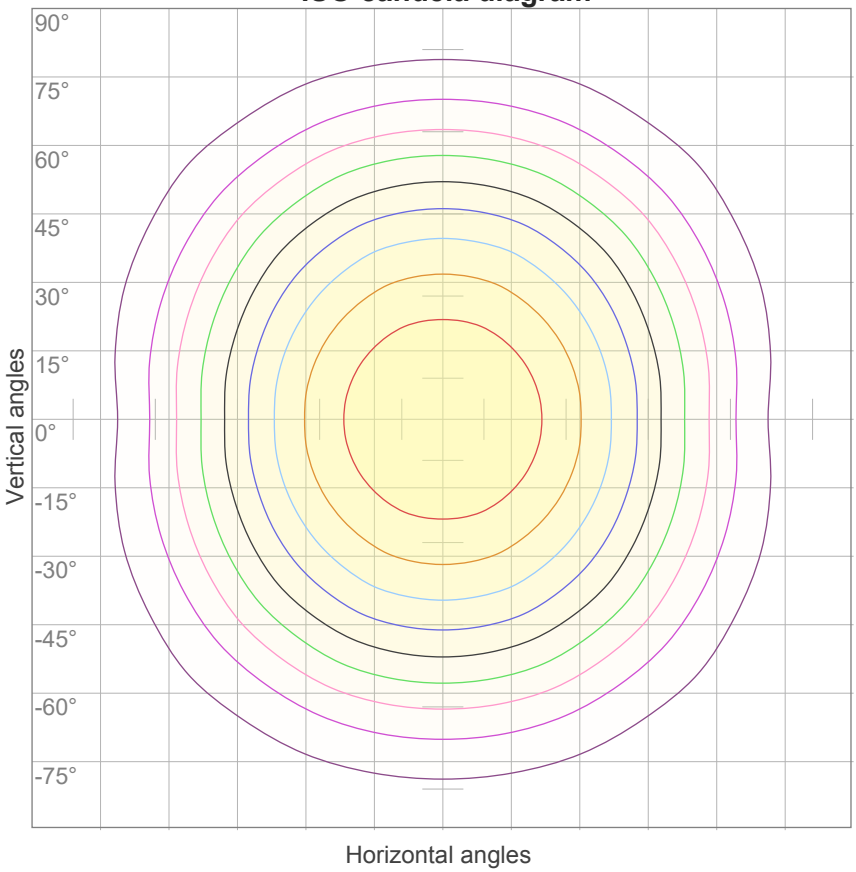
0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°
458	456	450	440	427	410	390	368	343	315	283	249	214	177	141	108	79	55	19	18
100%	100%	98%	96%	93%	89%	85%	80%	75%	69%	62%	54%	47%	39%	31%	24%	17%	12%	4%	4%

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°
458	456	450	440	426	408	386	359	327	292	254	214	174	136	101	69	42	20	4	0
100%	100%	98%	96%	93%	89%	84%	78%	71%	64%	55%	47%	38%	30%	22%	15%	9%	4%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
110°	167,3°	206,8°	73,6%	50,1%

ISO candela diagram



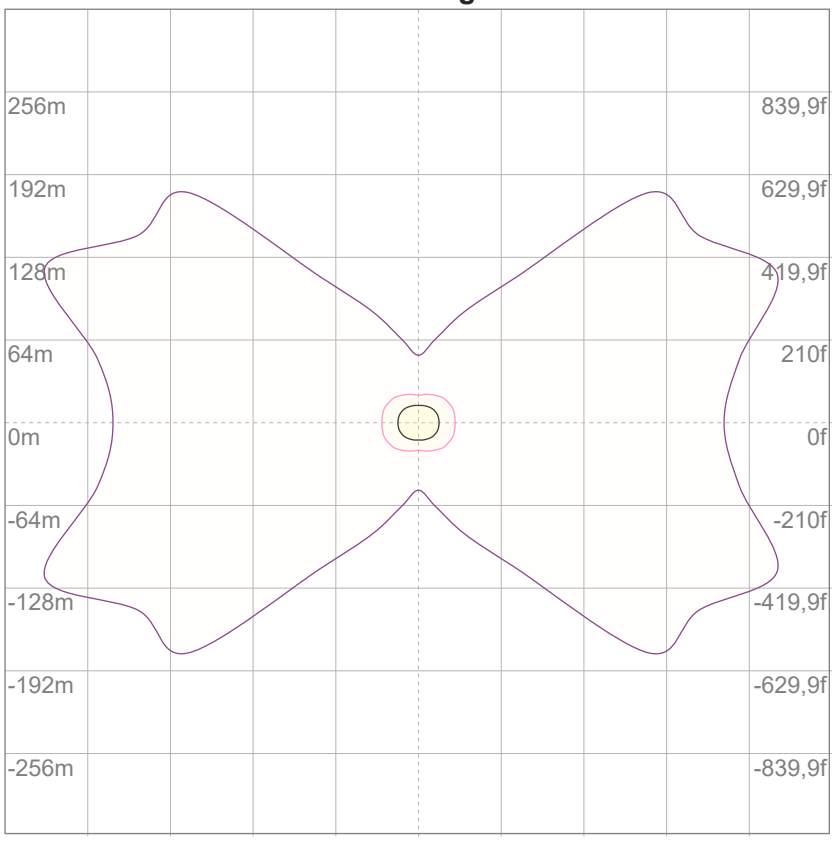
10%	46 cd
20%	92 cd
30%	137 cd
40%	183 cd
50%	229 cd
60%	275 cd
70%	321 cd
80%	366 cd
90%	412 cd

Conditions:

Number of c-planes: 16

Candela at center: 458 cd

ISO lux diagram



3%	0,137 lx
5%	0,229 lx
10%	0,458 lx
30%	1,37 lx
50%	2,29 lx

Conditions:

Number of c-planes: 16

Lux at center: 4,58 lx

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

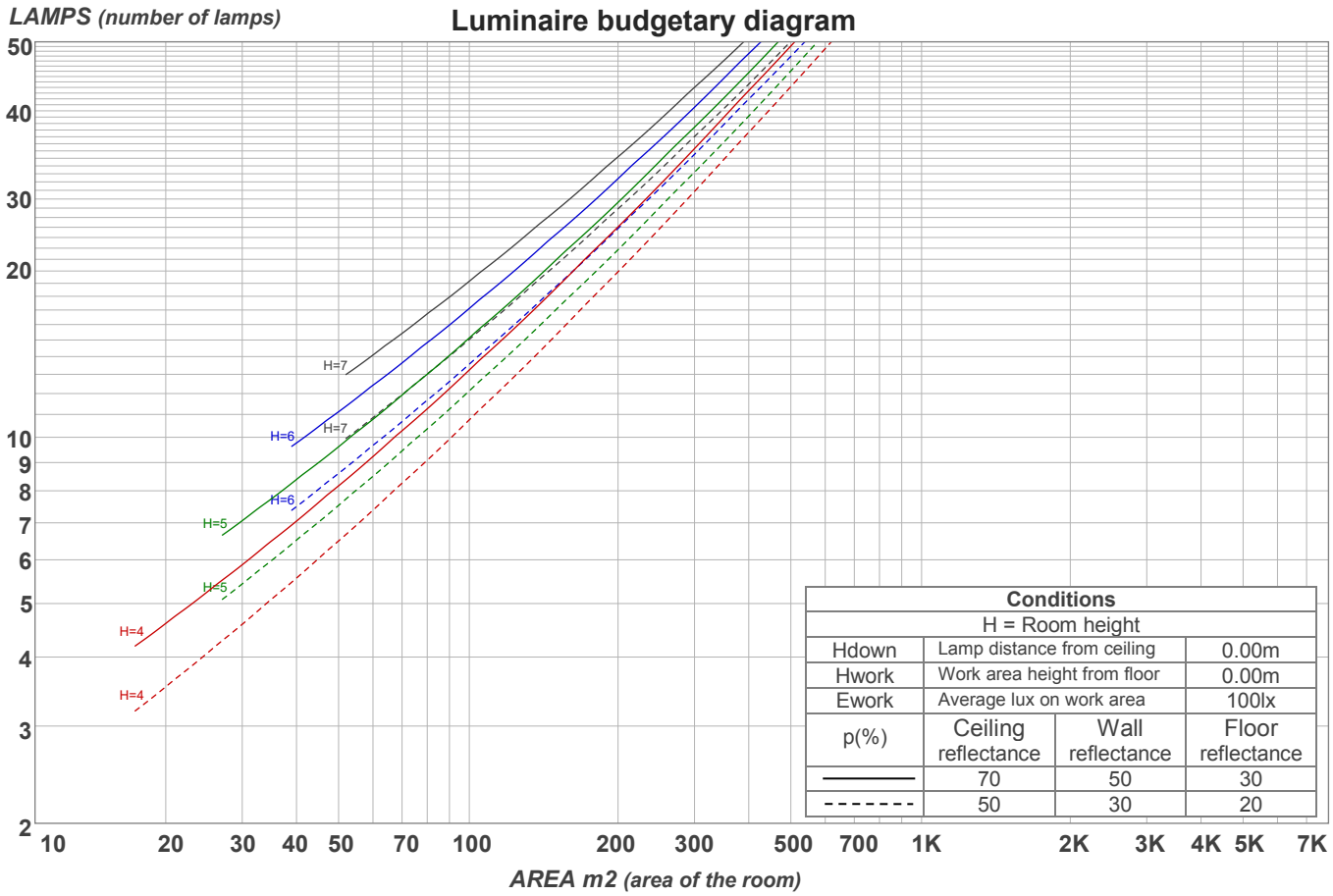
Glare Evaluation According to UGR

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	23,5	24,7	23,7	25,1	25,3	23,8	25,1	24,0	25,4	25,6
	3H	24,7	26,0	25,2	26,3	26,5	25,0	26,3	25,5	26,6	26,8
	4H	25,3	26,5	25,7	26,8	27,1	25,6	26,8	26,0	27,1	27,3
	6H	25,8	26,9	26,1	27,2	27,5	26,0	27,1	26,3	27,4	27,8
	8H	25,9	27,0	26,3	27,3	27,7	26,1	27,2	26,5	27,5	27,9
	12H	26,1	27,1	26,4	27,4	27,9	26,2	27,3	26,6	27,6	28,0
4H	2H	24,0	25,3	24,5	25,6	25,8	24,3	25,5	24,7	25,8	26,1
	3H	25,6	26,7	26,0	27,0	27,5	25,8	26,9	26,2	27,2	27,7
	4H	26,2	27,2	26,7	27,6	28,2	26,4	27,4	26,9	27,8	28,3
	6H	26,8	27,7	27,3	28,1	28,4	26,9	27,9	27,4	28,2	28,6
	8H	27,0	27,9	27,5	28,2	28,6	27,1	28,0	27,6	28,3	28,7
	12H	27,2	27,9	27,7	28,3	28,8	27,3	28,0	27,8	28,4	28,9
8H	4H	26,5	27,4	27,0	27,7	28,1	26,7	27,5	27,2	27,9	28,3
	6H	27,3	27,9	27,8	28,4	28,9	27,4	28,0	27,9	28,5	29,0
	8H	27,6	28,2	28,1	28,7	29,3	27,7	28,3	28,2	28,8	29,4
	12H	27,9	28,4	28,5	28,9	29,5	27,9	28,4	28,5	28,9	29,5
12H	4H	26,5	27,2	27,0	27,7	28,2	26,7	27,4	27,2	27,8	28,3
	6H	27,4	27,9	27,9	28,5	29,1	27,5	28,1	28,0	28,6	29,2
	8H	27,7	28,2	28,3	28,7	29,3	27,8	28,3	28,4	28,8	29,4
Variation of the observer position for the luminaire distance S											
S = 1.0H		0,1 / -0,1					0,1 / -0,1				
S = 1.5H		0,2 / -0,3					0,2 / -0,3				
S = 2.0H		0,4 / -0,6					0,5 / -0,6				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 1396 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	109	109	109	104	104	104	99	99	99	97
1	107	102	97	93	104	99	95	91	94	91	88	90	87	84	86	83	81	79
2	97	88	81	75	94	86	80	74	82	77	72	78	74	70	75	71	68	65
3	88	77	69	62	86	76	68	62	72	66	60	69	63	59	66	61	57	55
4	81	69	60	53	78	67	59	52	64	57	51	61	55	50	59	53	49	47
5	74	61	52	45	72	60	51	45	57	50	44	55	48	43	53	47	42	40
6	69	55	46	39	66	54	45	39	52	44	38	50	43	38	48	42	37	35
7	64	50	41	35	62	49	40	35	47	40	34	45	39	34	44	38	33	31
8	59	45	37	31	57	45	36	31	43	36	30	41	35	30	40	34	30	28
9	55	42	33	28	54	41	33	28	40	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	35	29	25	34	28	24	22

Luminaire budgetary diagram

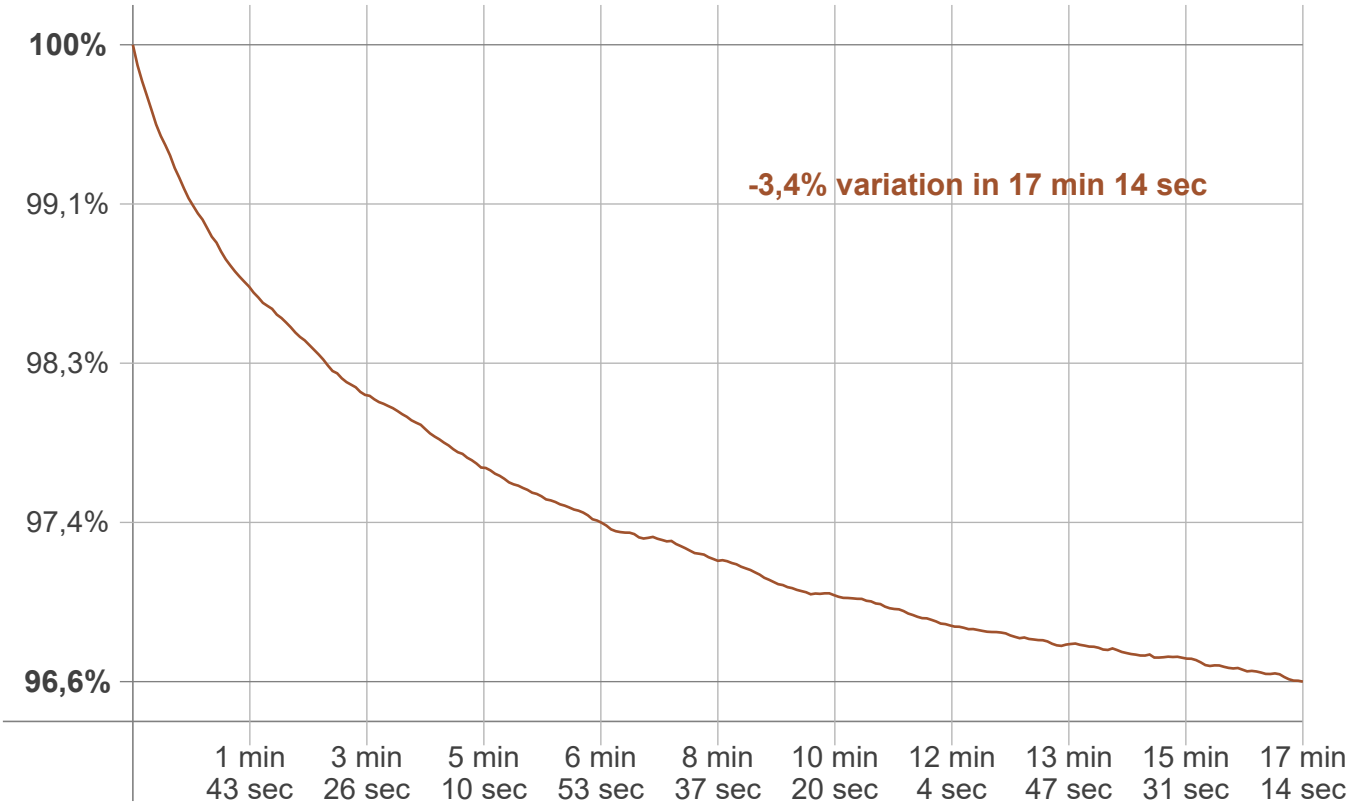


Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
43,1 lm	124 lm	188 lm	227 lm	235 lm	212 lm	163 lm	105 lm	53,6 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
6,62 lm	9,67 lm	3,85 lm	15,7 lm	1,57 lm	0,591 lm	0,435 lm	0,267 lm	8,39 lm

Warmup curve



Warmup result

Warmup time:	**Lamp stabilized in 17 min 14 sec**
Warmup variation	**-3,4%**

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
2729 K	-7 K	2722 K

Output change

Output start	Output change	Output end
1441 lm	-44 lm	1396 lm