

Light efficiency:

112 Lumen/Watt

Light quality:

CRI: 94,0

Color temperature:

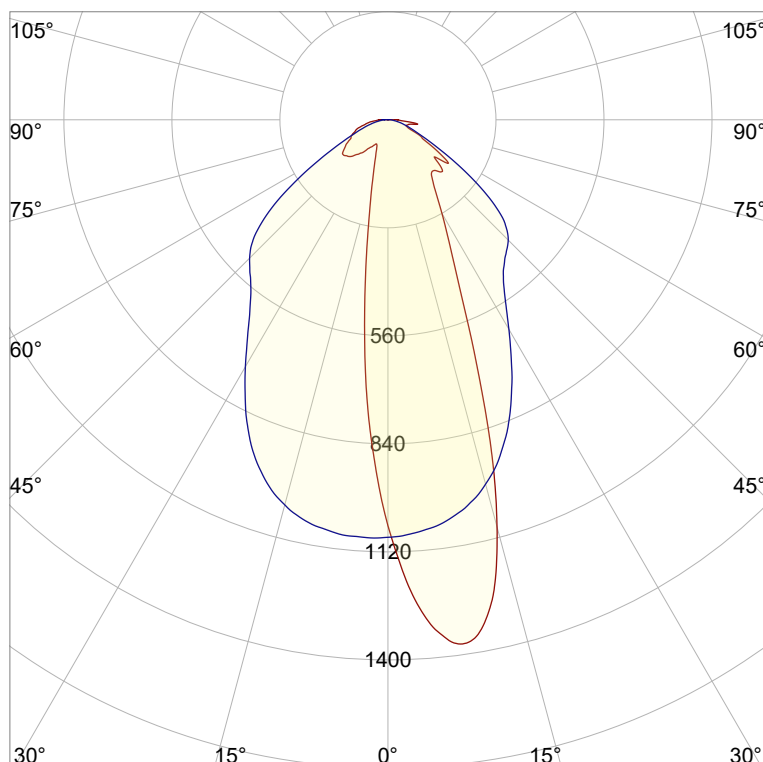
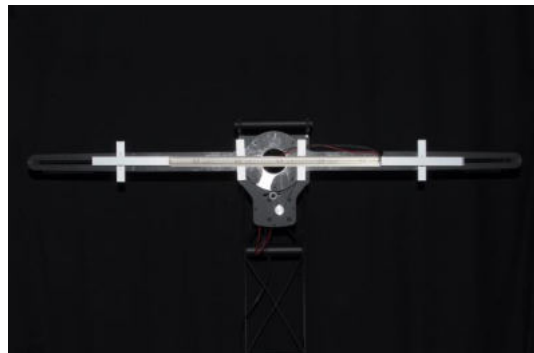
2729 K

Output: 1291 lm

Peak: 1452 cd

Power: 11,5 W

PF: 1,0



Product name:

Jago-2_510mm_927_Lens-Asymmetric-Frosted-2

Item number:

NP/L1C/19B/G1/L1C/0510/927/LAF-2

Date and time:

25.07.2022 09:37:12

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

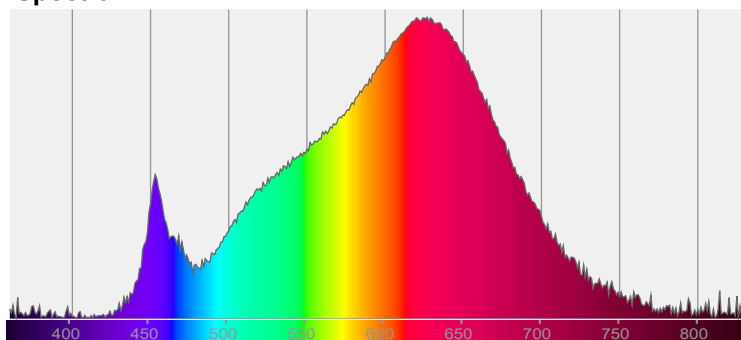


CIE 1931

x: 0,457

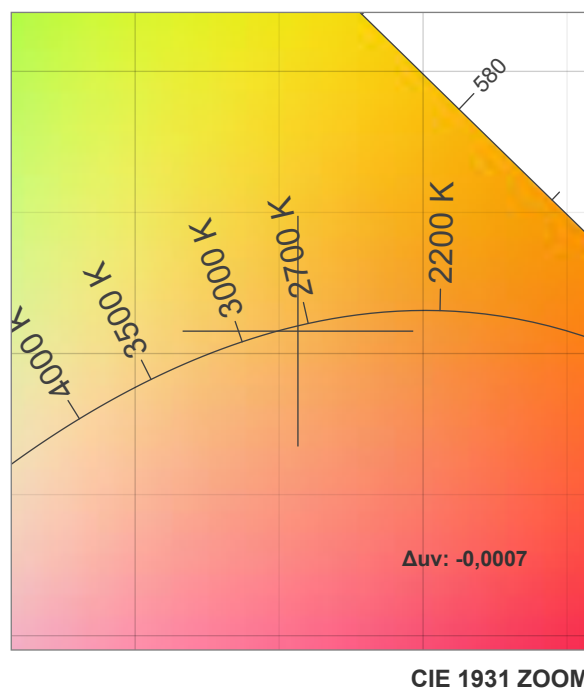
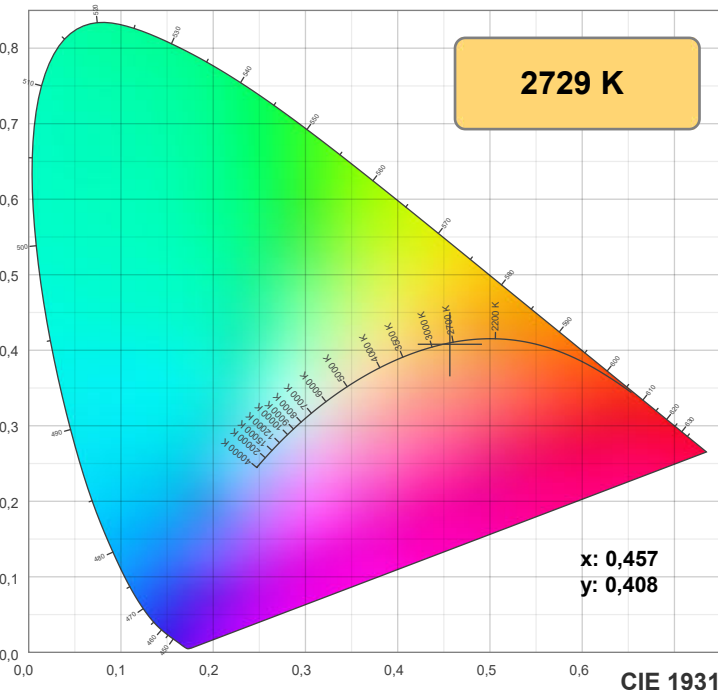
y: 0,408

Spectra



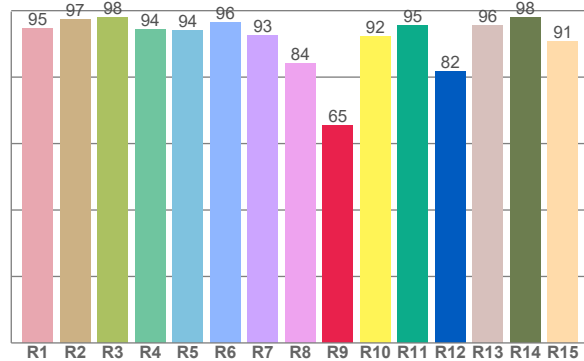
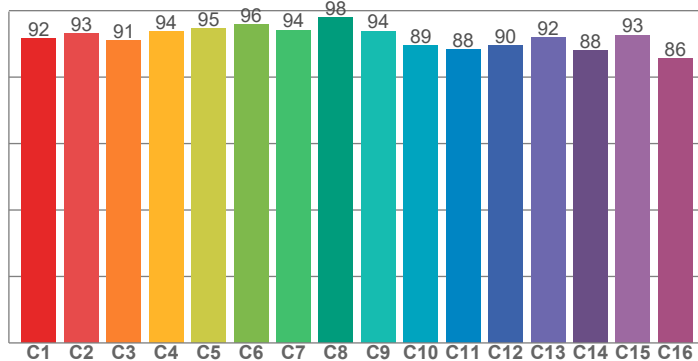
Power

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



TM30: 91,8

CRI: 94,0 (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
94,7	97,3	98,0	94,4	94,1	96,4	92,6	84,2	65,5	92,4	95,4	81,6	95,5	98,0	90,8

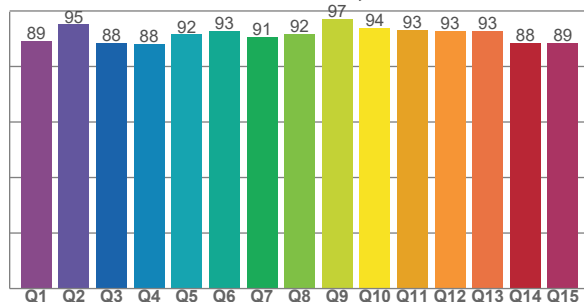
TM30 C values, 16 binned values out of total of 99 C values

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

CQS Q values

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

CQS: 91,1



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
2729 K	94,0	65,5	91,8	99,7	91,1	0,457	0,408	0,262	0,351	-0,0007

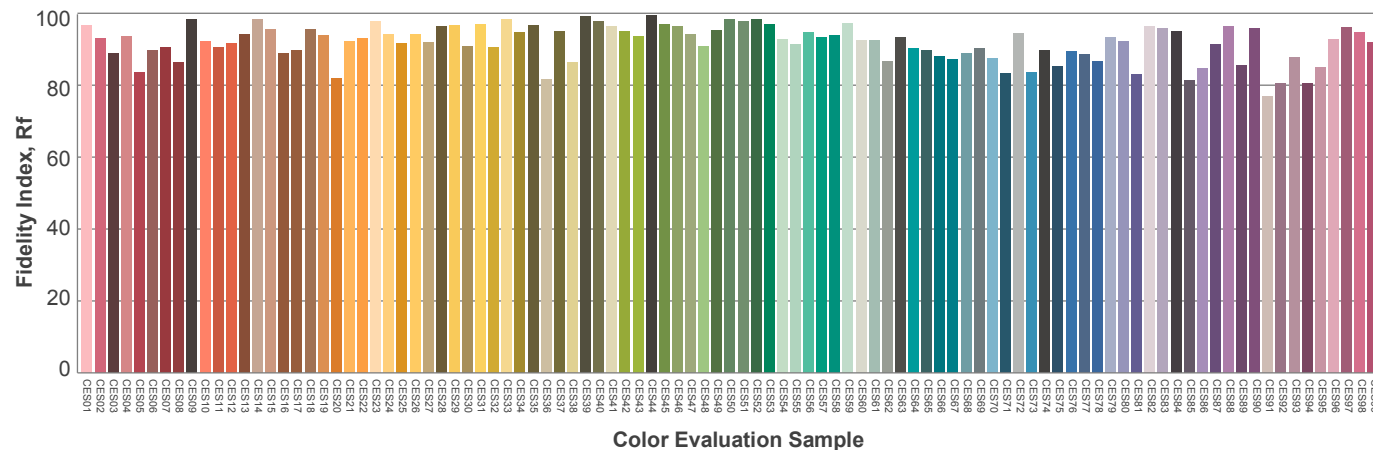
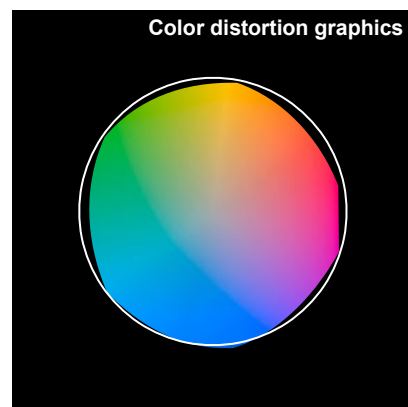
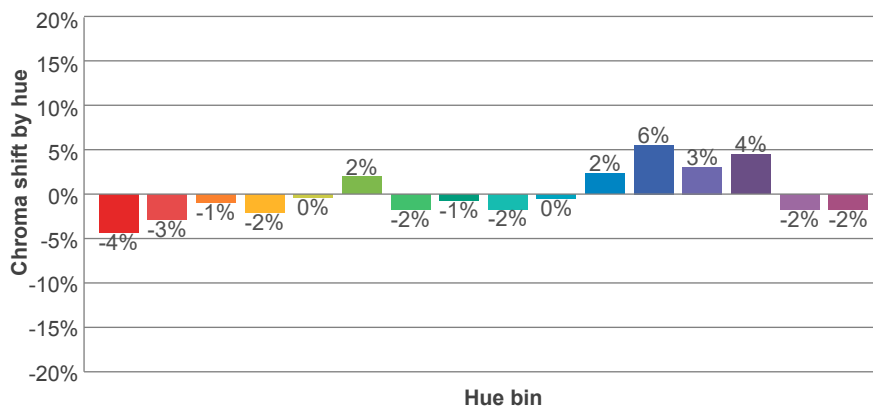
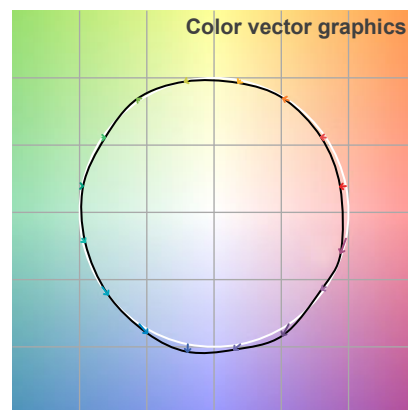
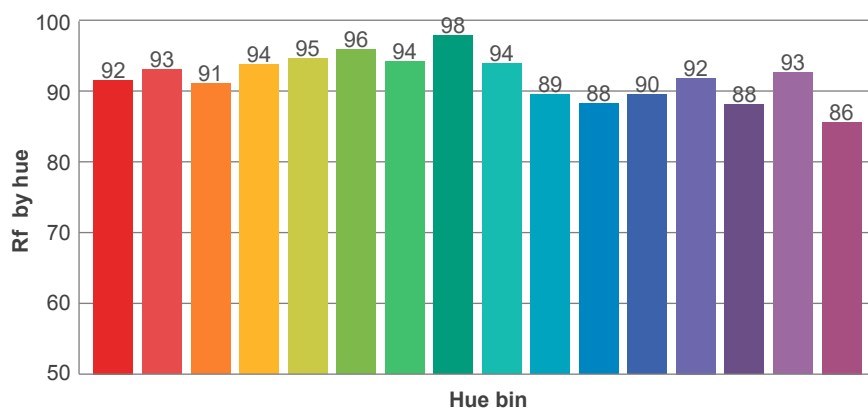
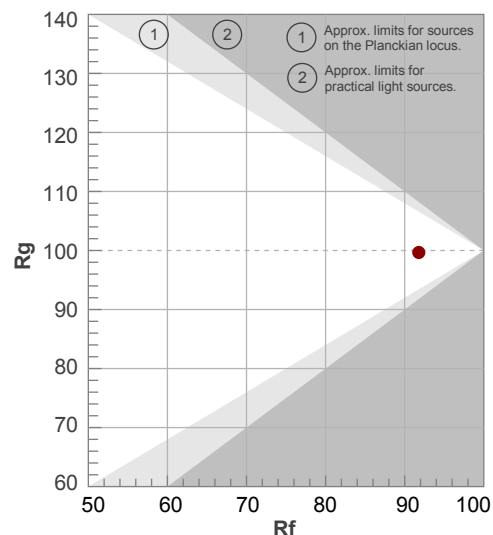
Rf 91,8

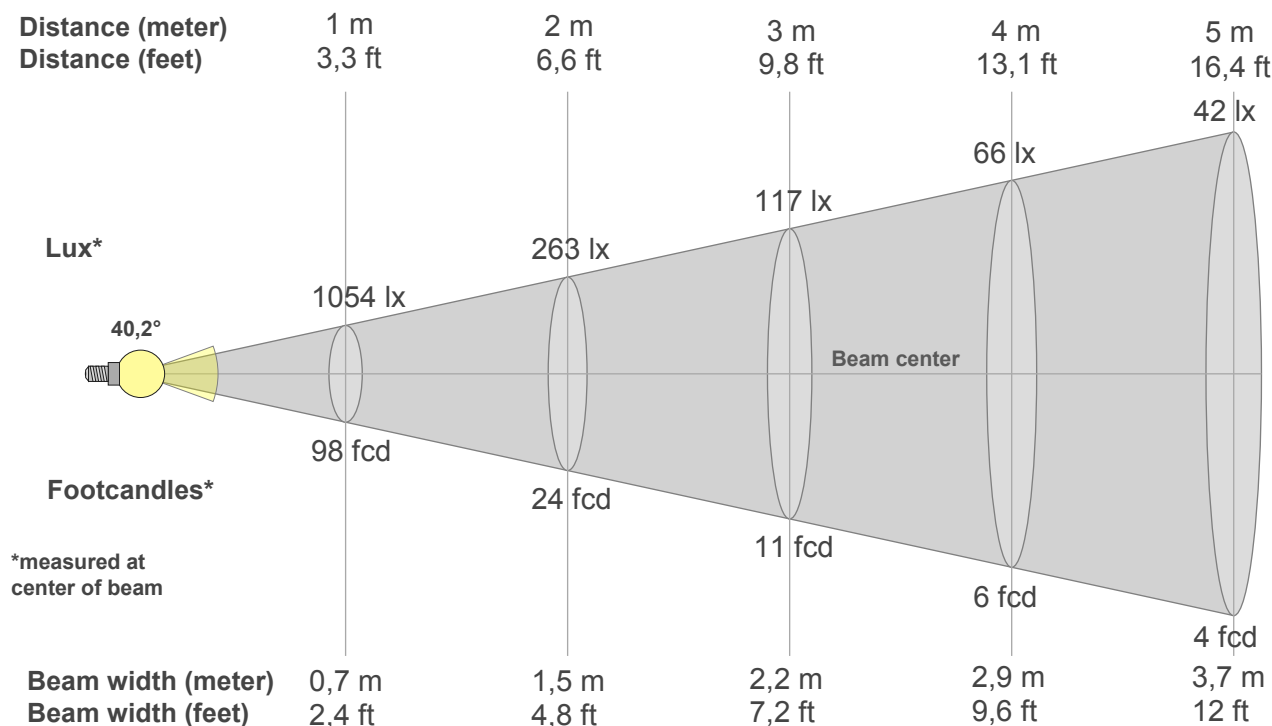
Fidelity index Rf

Rg 99,7

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%	0%
7	94	-2%	-1%
8	98	-1%	0%
9	94	-2%	3%
10	89	0%	7%
11	88	2%	9%
12	90	6%	1%
13	92	3%	-5%
14	88	4%	-8%
15	93	-2%	-3%
16	86	-2%	-11%





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
1054lx	263lx	117lx	66lx	42lx	29lx	22lx	16lx	13lx	11lx	9lx	7lx	6lx	5lx	5lx	4lx	4lx	3lx	3lx	3lx
97,9fcd	24,5fcd	10,9fcd	6,1fcd	3,9fcd	2,7fcd	2fcd	1,5fcd	1,2fcd	1fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd	0,3fcd	0,3fcd	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°
1054	1178	1280	1343	1371	1351	1283	1166	1013	841	670	533	436	370	320	279	245	218	199	184
100%	112%	121%	127%	130%	128%	122%	111%	96%	80%	64%	51%	41%	35%	30%	27%	23%	21%	19%	17%

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°
1054	1079	1072	1064	1053	1037	1017	993	962	928	885	838	786	733	678	627	580	540	509	487
100%	102%	102%	101%	100%	98%	96%	94%	91%	88%	84%	80%	75%	70%	64%	59%	55%	51%	48%	46%

Intensities in 180° c-plane

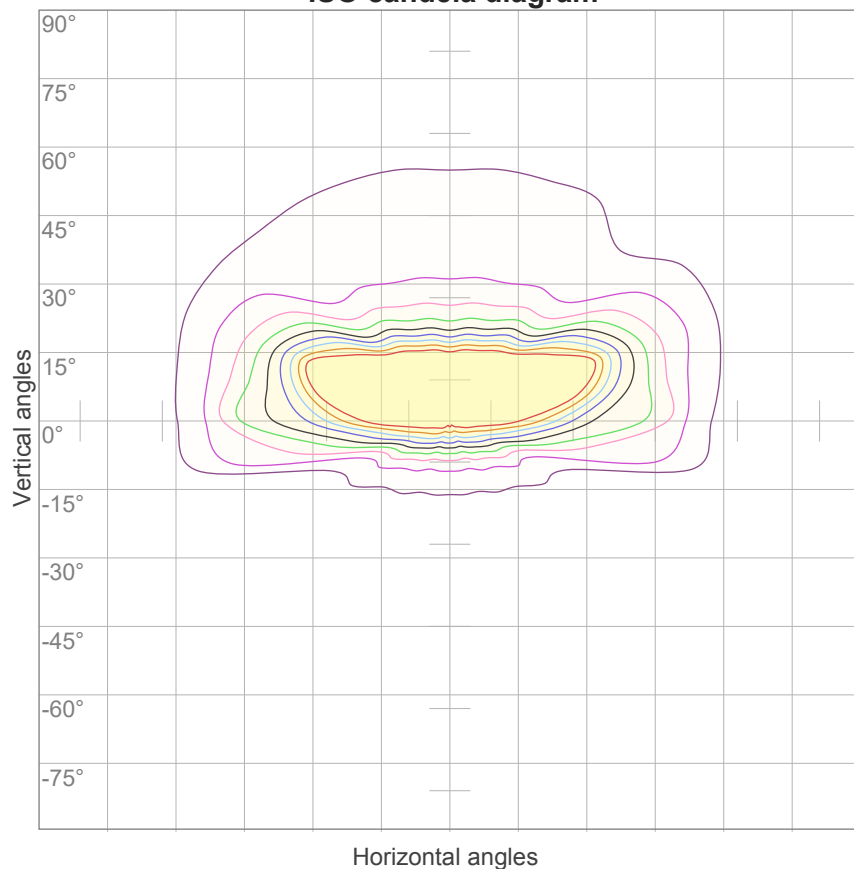
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1054	904	748	577	420	300	219	166	130	105	89	77	71	70	74	79	83	89	99	108
100%	86%	71%	55%	40%	28%	21%	16%	12%	10%	8%	7%	7%	7%	7%	8%	8%	8%	9%	10%

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°
1054	1084	1083	1083	1076	1070	1059	1044	1023	998	966	930	887	840	789	739	690	646	609	577
100%	103%	103%	103%	102%	101%	100%	99%	97%	95%	92%	88%	84%	80%	75%	70%	65%	61%	58%	55%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
40,2°	92,8°	172,2°	83,9%	65,8%

ISO candela diagram



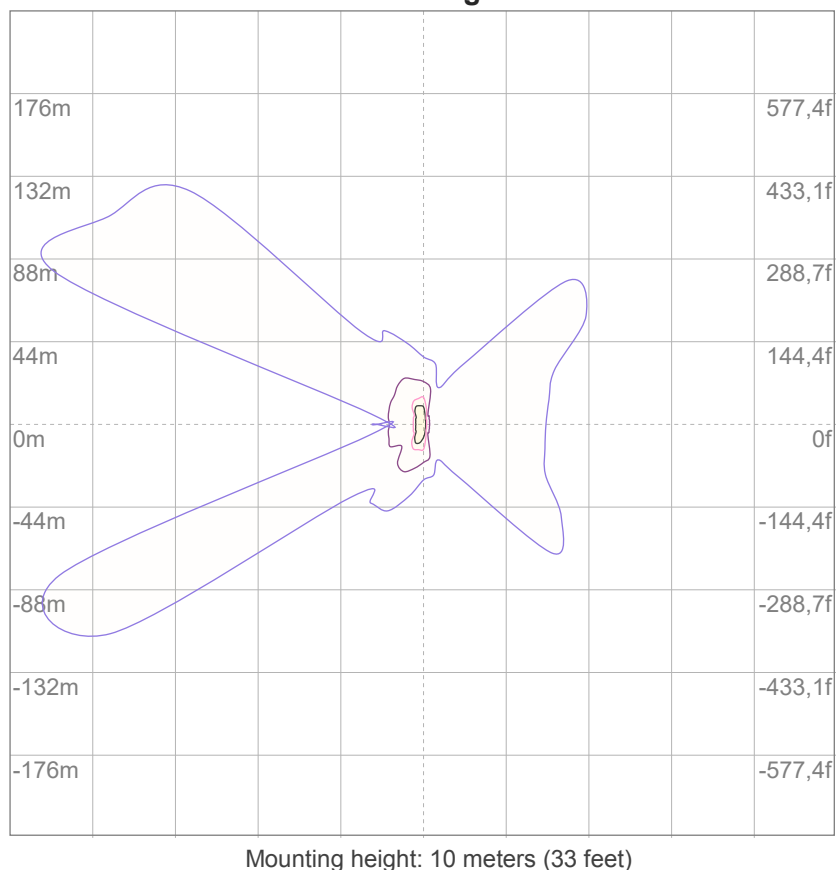
10%	105 cd
20%	211 cd
30%	316 cd
40%	422 cd
50%	527 cd
60%	632 cd
70%	738 cd
80%	843 cd
90%	949 cd

Conditions:

Number of c-planes: 16

Candela at center: 1054 cd

ISO lux diagram



3%	0,316 lx
5%	0,527 lx
10%	1,05 lx
30%	3,16 lx
50%	5,27 lx

Conditions:

Number of c-planes: 16

Lux at center: 10,5 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
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 1291 lm total luminous flux										

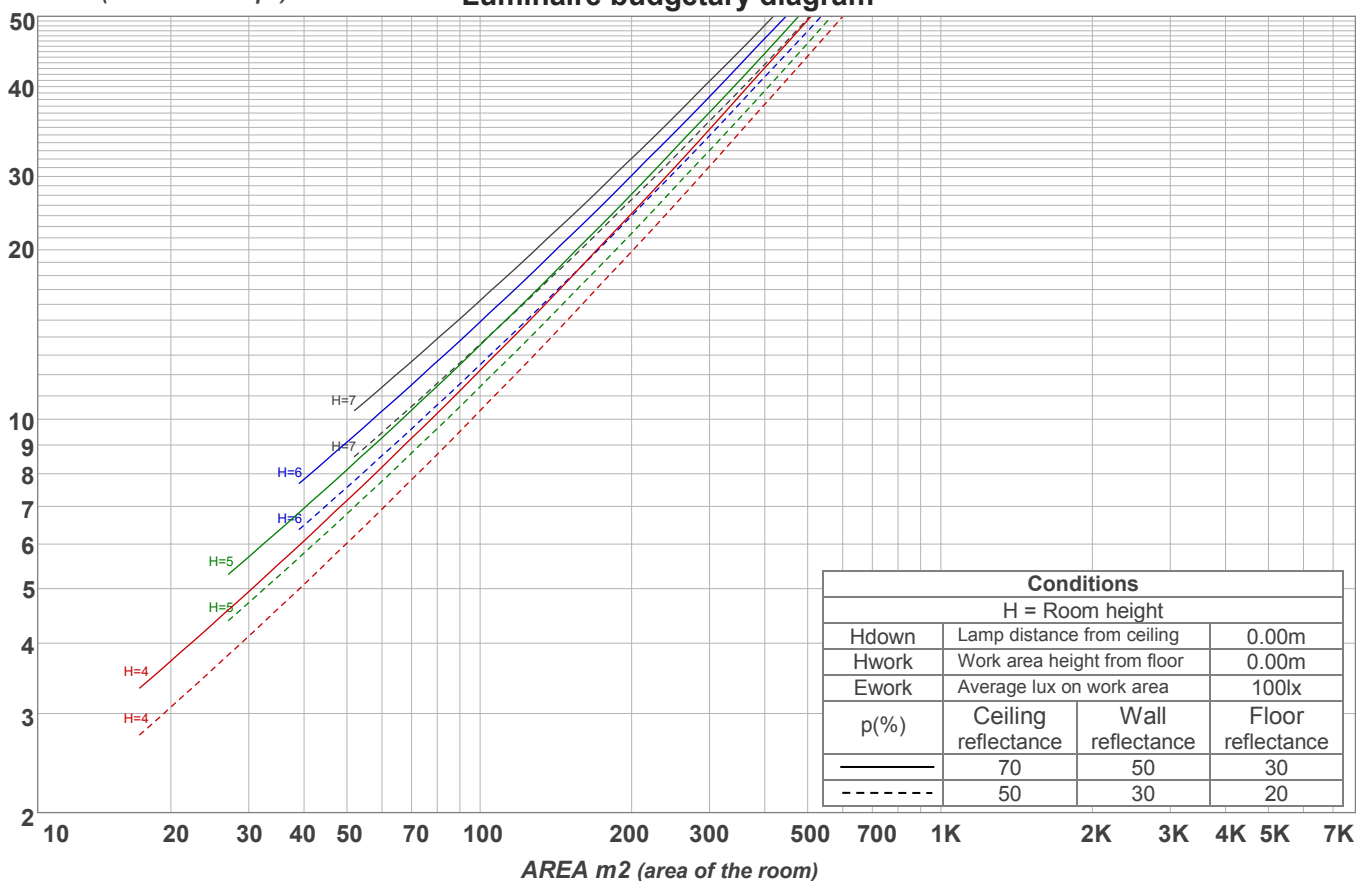
UGR data could not be calculated due to missing/wrong symmetry. Goto Edit->Photometric->Corrections and select Correct asymmetry.

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	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	101	94	88	82	99	92	86	81	88	84	80	85	81	78	82	79	76	74
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67	65
4	87	76	68	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58
5	81	70	62	56	79	69	61	55	67	60	55	65	59	54	63	58	54	52
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47
7	71	59	51	46	70	58	51	46	57	50	45	55	49	45	54	49	45	43
8	67	55	47	42	66	54	47	42	53	46	42	52	46	41	51	45	41	39
9	63	51	44	39	62	51	43	39	49	43	38	48	43	38	48	42	38	36
10	60	48	41	36	59	47	41	36	46	40	36	46	40	36	45	39	35	34

LAMPS (number of lamps)

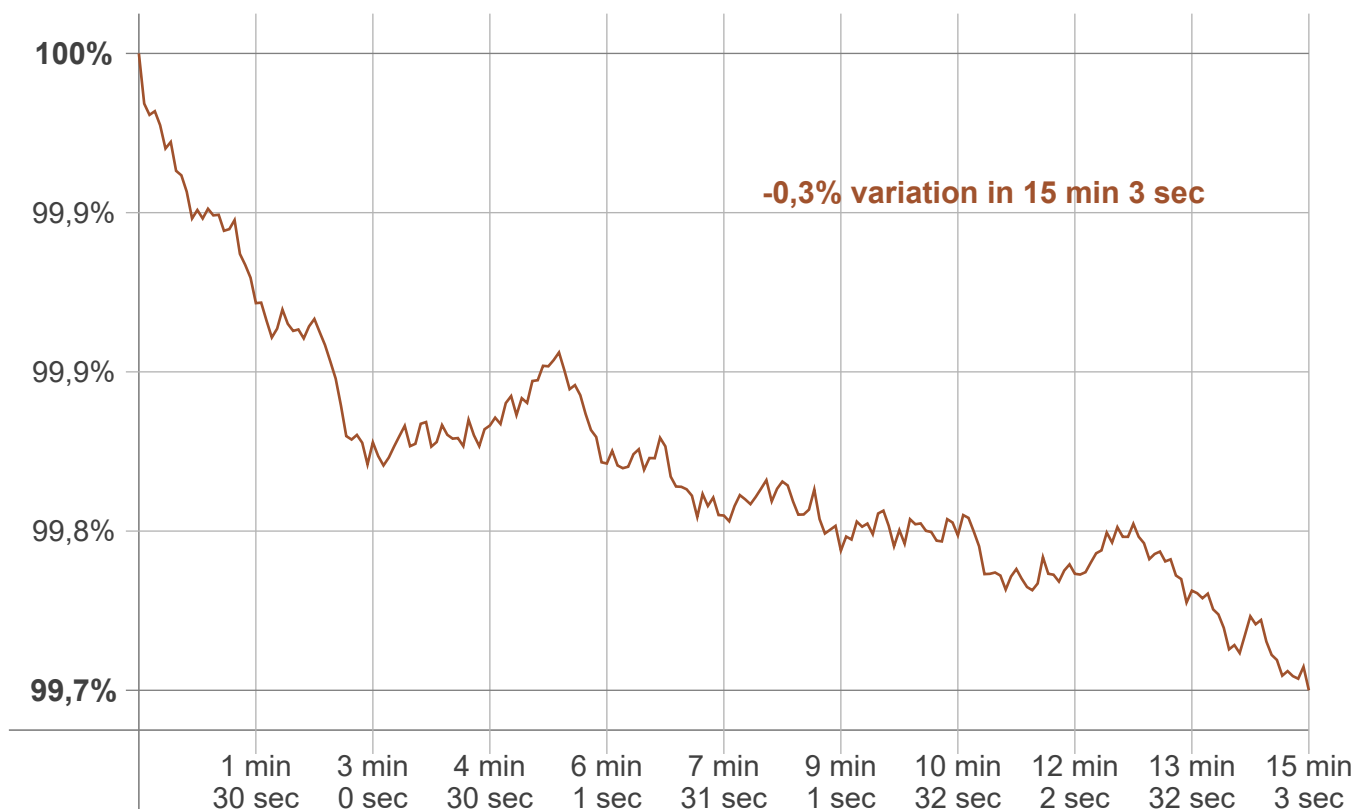
Luminaire budgetary diagram



Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
94,4 lm	222 lm	236 lm	206 lm	177 lm	147 lm	98,9 lm	64,2 lm	45,1 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0,059 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 3 sec
Warmup variation	-0,3%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
2730 K	-1 K	2729 K

Output change

Output start	Output change	Output end
1292 lm	-2 lm	1291 lm