



#### Light efficiency:

95 Lumen/Watt

#### Light quality:

CRI: 92,8

#### Color temperature:

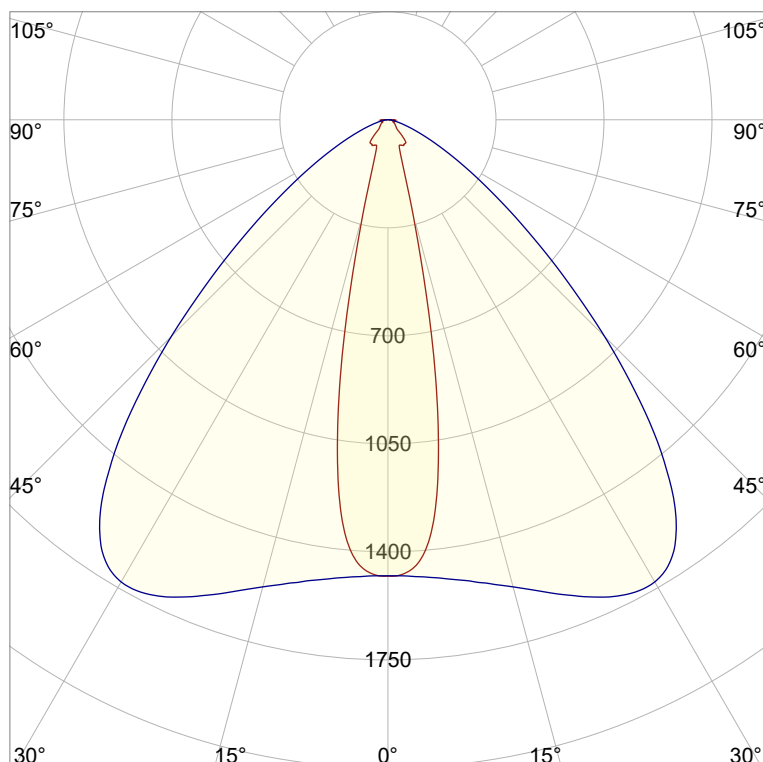
2794 K

Output: 1100 lm

Peak: 1731 cd

Power: 11,5 W

PF: 1,0



#### Product name:

Jago-2\_510mm\_927\_Inlay-Lens-30-Grad

#### Item number:

NP/L1C/19B/0510/927/IL3F

#### Date and time:

27.06.2025 08:49:14

#### Description:

Rank: C80-AC-8GB

Einschub unten

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

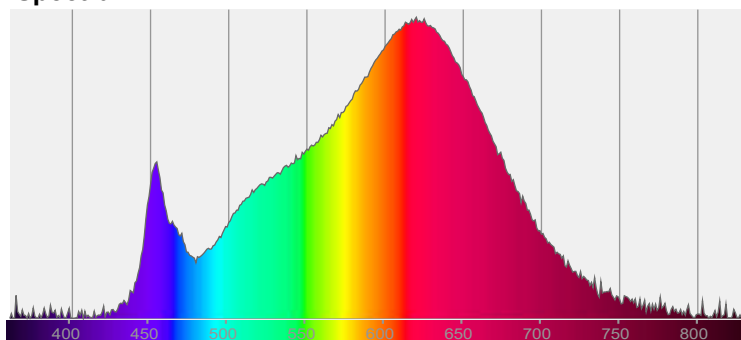


CIE 1931

x: 0,449

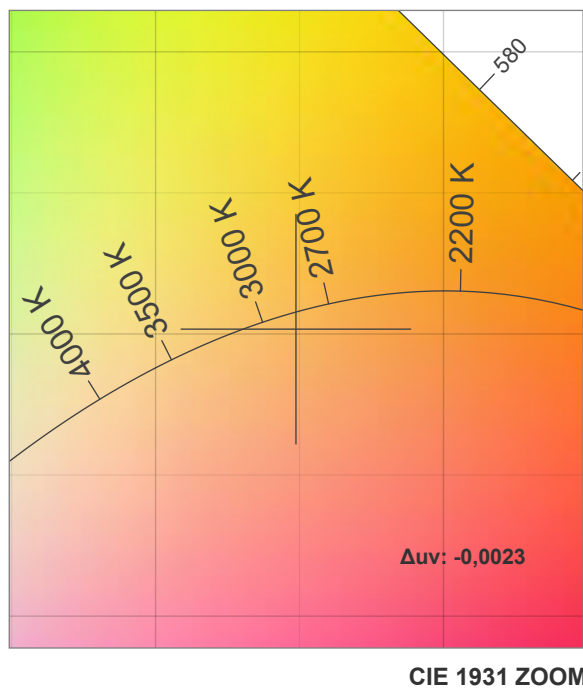
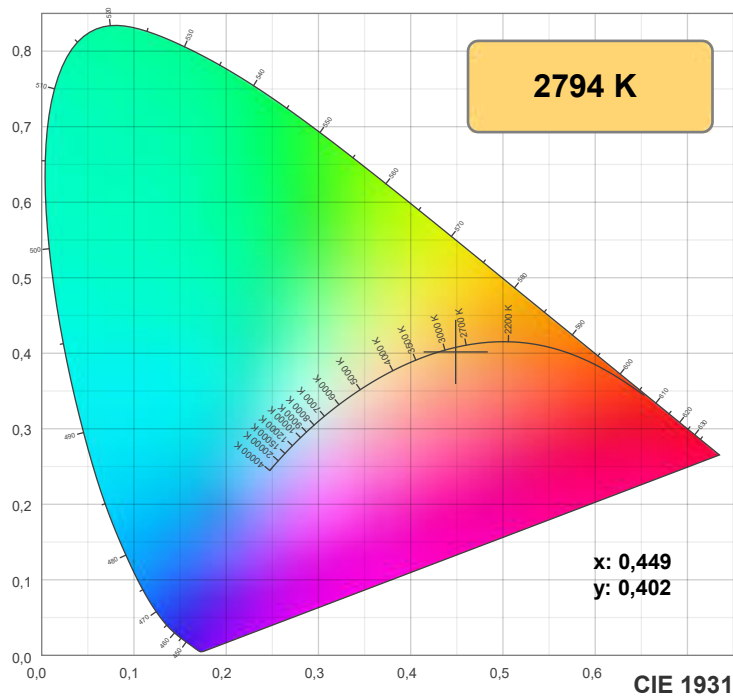
y: 0,402

#### Spectra

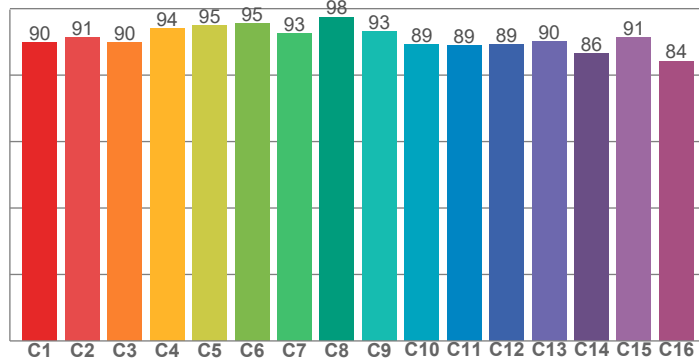


#### Power

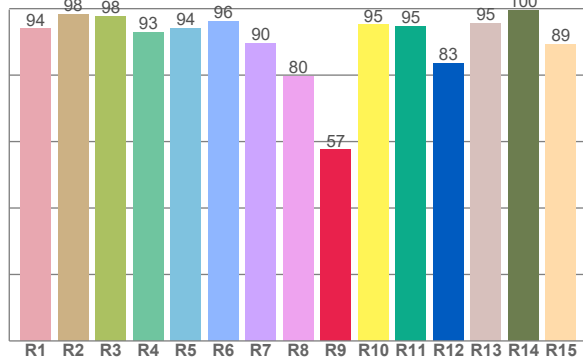
Voltage: 48,0 V  
Current: 0,240 A  
Frequency: 0 Hz



**TM30: 91,1**



**CRI: 92,8 (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
93,9	98,2	97,6	92,9	94,1	96,3	89,6	79,7	57,5	95,1	94,6	83,5	95,5	99,6	89,2

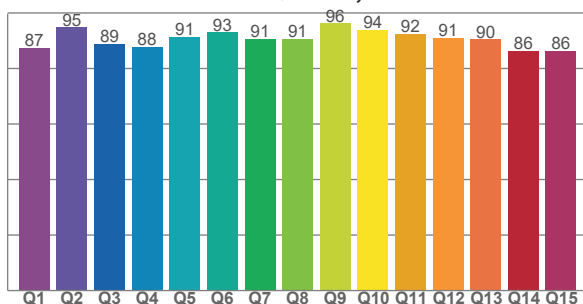
TM30 C values, 16 binned values out of total of 99 C values

C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12	C13	C14	C15	C16
89,9	91,5	89,8	93,9	94,9	95,5	92,6	97,5	93,3	89,3	88,8	89,1	90,2	86,4	91,3	84,3

CQS Q values

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
87,5	94,8	88,8	87,9	91,3	93,0	90,6	90,6	96,2	94,0	92,4	90,9	90,4	86,2	86,4

**CQS: 90,2**



## 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 deviation from black body
CCT	CRI	CRI R9	TM30 Rf	TM30 Rg	CQS	x	y	u	v	Δuv
2794 K	92,8	57,5	91,1	99,2	90,2	0,449	0,402	0,259	0,348	-0,0023



## TM30 details



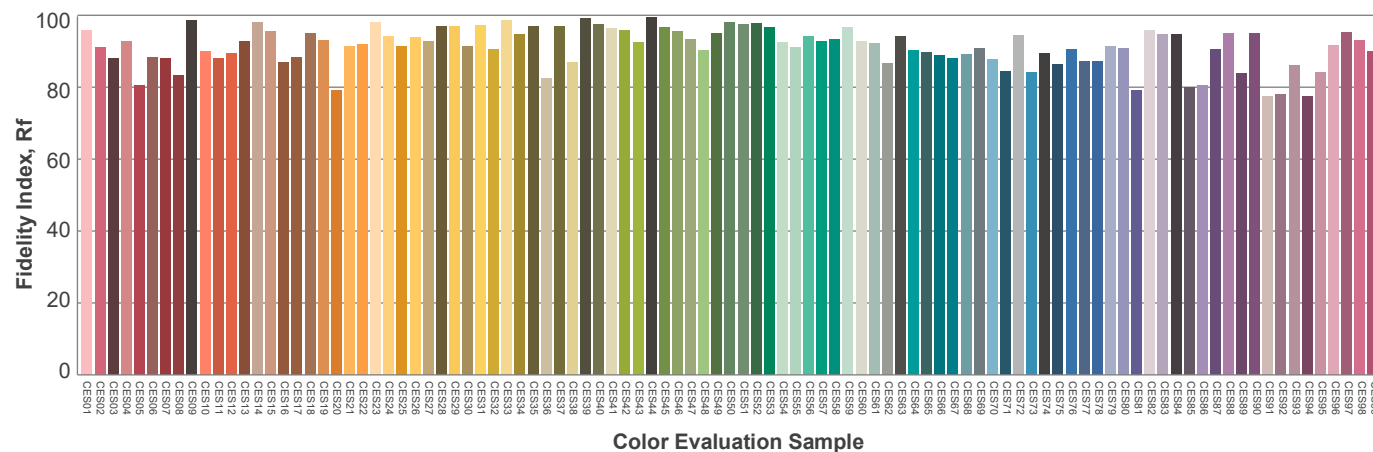
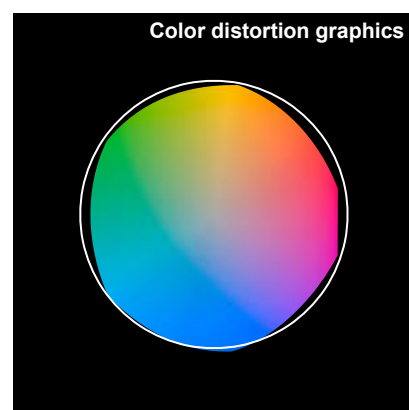
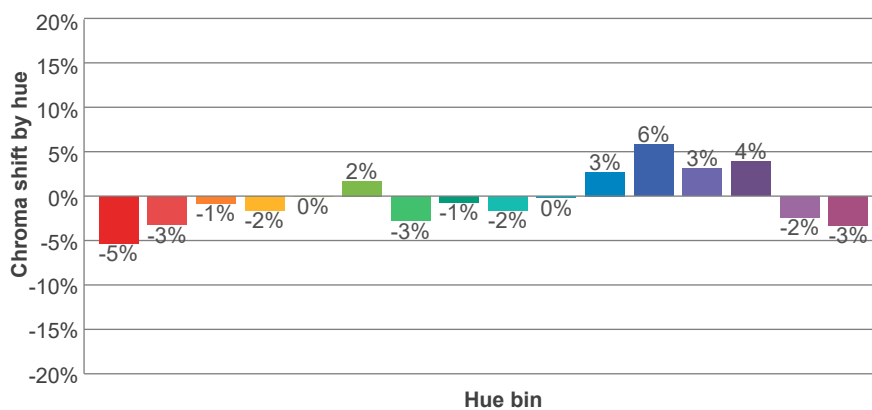
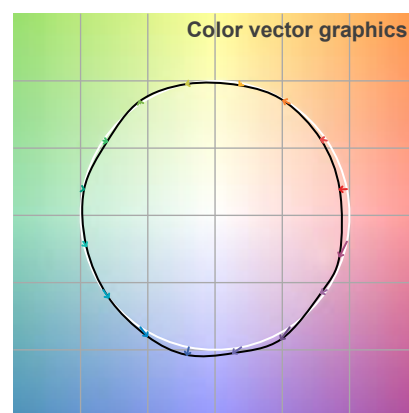
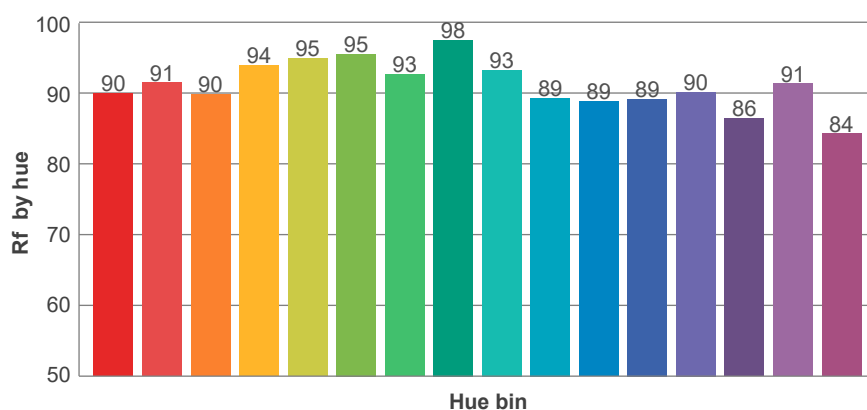
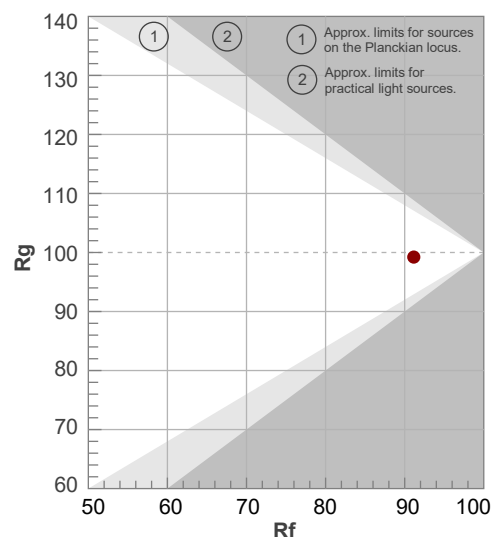
**Rf 91,1**

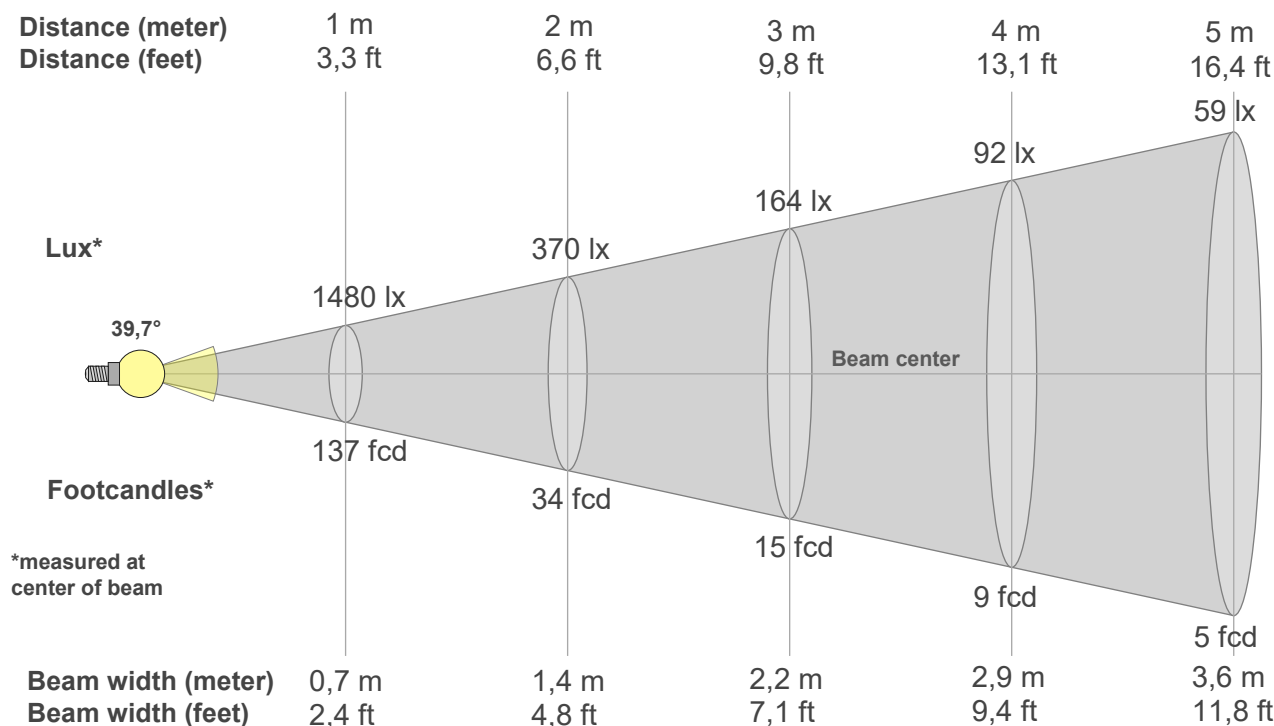
Fidelity index Rf

**Rg 99,2**

Gammut index Rg

Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	90	-5%	1%
2	91	-3%	3%
3	90	-1%	5%
4	94	-2%	1%
5	95	0%	2%
6	95	2%	-1%
7	93	-3%	-1%
8	98	-1%	0%
9	93	-2%	4%
10	89	0%	7%
11	89	3%	8%
12	89	6%	0%
13	90	3%	-7%
14	86	4%	-10%
15	91	-2%	-4%
16	84	-3%	-12%





## 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
1480lx	370lx	164lx	92lx	59lx	41lx	30lx	23lx	18lx	15lx	12lx	10lx	9lx	8lx	7lx	6lx	5lx	5lx	4lx	4lx
137,5fcd	34,4fcd	15,3fcd	8,6fcd	5,5fcd	3,8fcd	2,8fcd	2,1fcd	1,7fcd	1,4fcd	1,1fcd	1fcd	0,8fcd	0,7fcd	0,6fcd	0,5fcd	0,5fcd	0,4fcd	0,4fcd	0,3fcd

## 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°
1480	1472	1436	1341	1163	914	632	391	240	159	120	100	91	91	93	96	97	95	95	94
100%	99%	97%	91%	79%	62%	43%	26%	16%	11%	8%	7%	6%	6%	6%	6%	7%	6%	6%	6%

## 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°
1480	1479	1484	1492	1504	1517	1535	1556	1579	1607	1636	1665	1693	1715	1729	1729	1709	1662	1587	1481
100%	100%	100%	101%	102%	103%	104%	105%	107%	109%	111%	113%	114%	116%	117%	117%	115%	112%	107%	100%

## Intensities in 180° c-plane

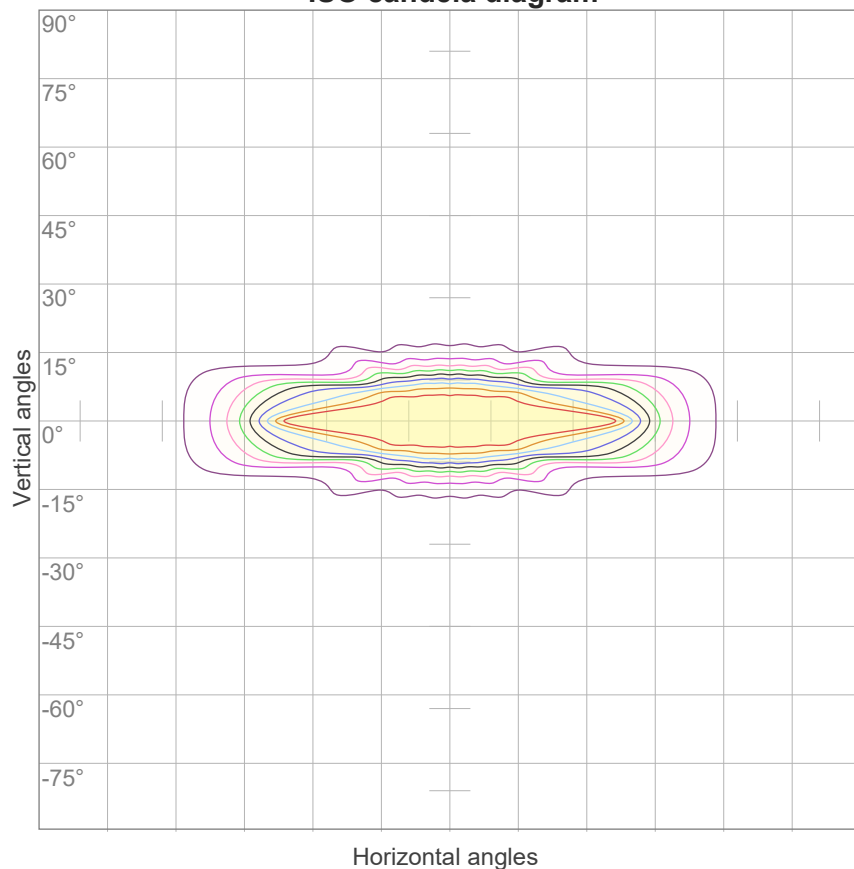
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1480	1472	1436	1341	1163	914	632	391	240	159	120	100	91	91	93	96	97	95	95	94
100%	99%	97%	91%	79%	62%	43%	26%	16%	11%	8%	7%	6%	6%	6%	6%	7%	6%	6%	6%

## 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°
1480	1479	1484	1492	1504	1517	1535	1556	1579	1607	1636	1665	1693	1715	1729	1729	1709	1662	1587	1481
100%	100%	100%	101%	102%	103%	104%	105%	107%	109%	111%	113%	114%	116%	117%	117%	115%	112%	107%	100%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
39,7°	60,6°	121,4°	89,9%	76,2%

## ISO candela diagram



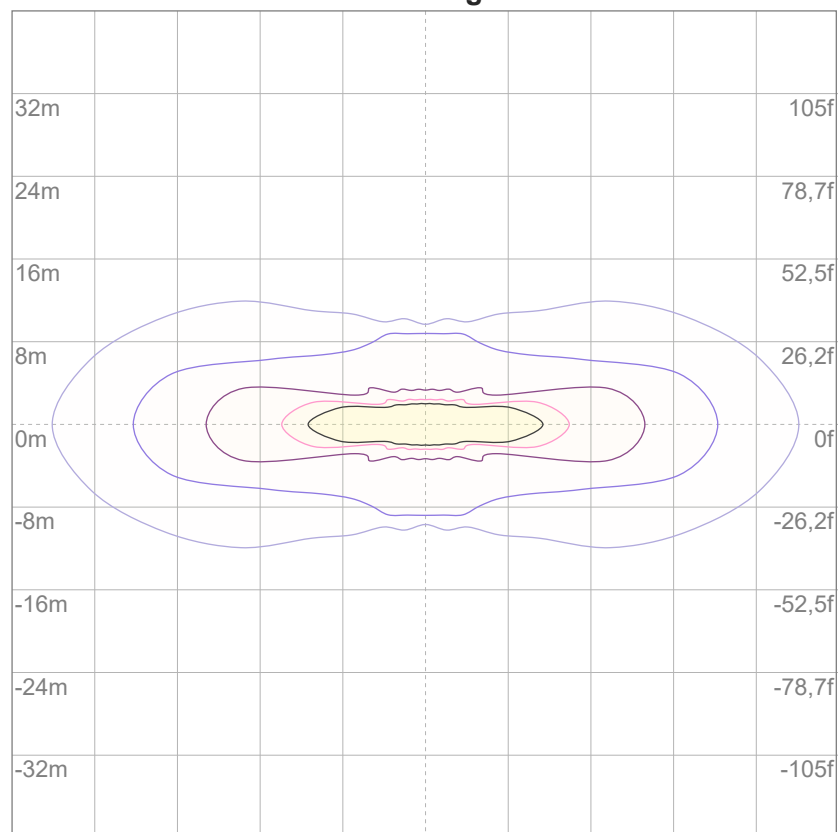
10%	148 cd
20%	296 cd
30%	444 cd
40%	592 cd
50%	740 cd
60%	888 cd
70%	1036 cd
80%	1184 cd
90%	1332 cd

### Conditions:

Number of c-planes: 16

Candela at center: 1480 cd

## ISO lux diagram



3%	0,444 lx
5%	0,740 lx
10%	1,48 lx
30%	4,44 lx
50%	7,40 lx

### Conditions:

Number of c-planes: 16

Lux at center: 14,8 lx

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

### Glare Evaluation According to UGR

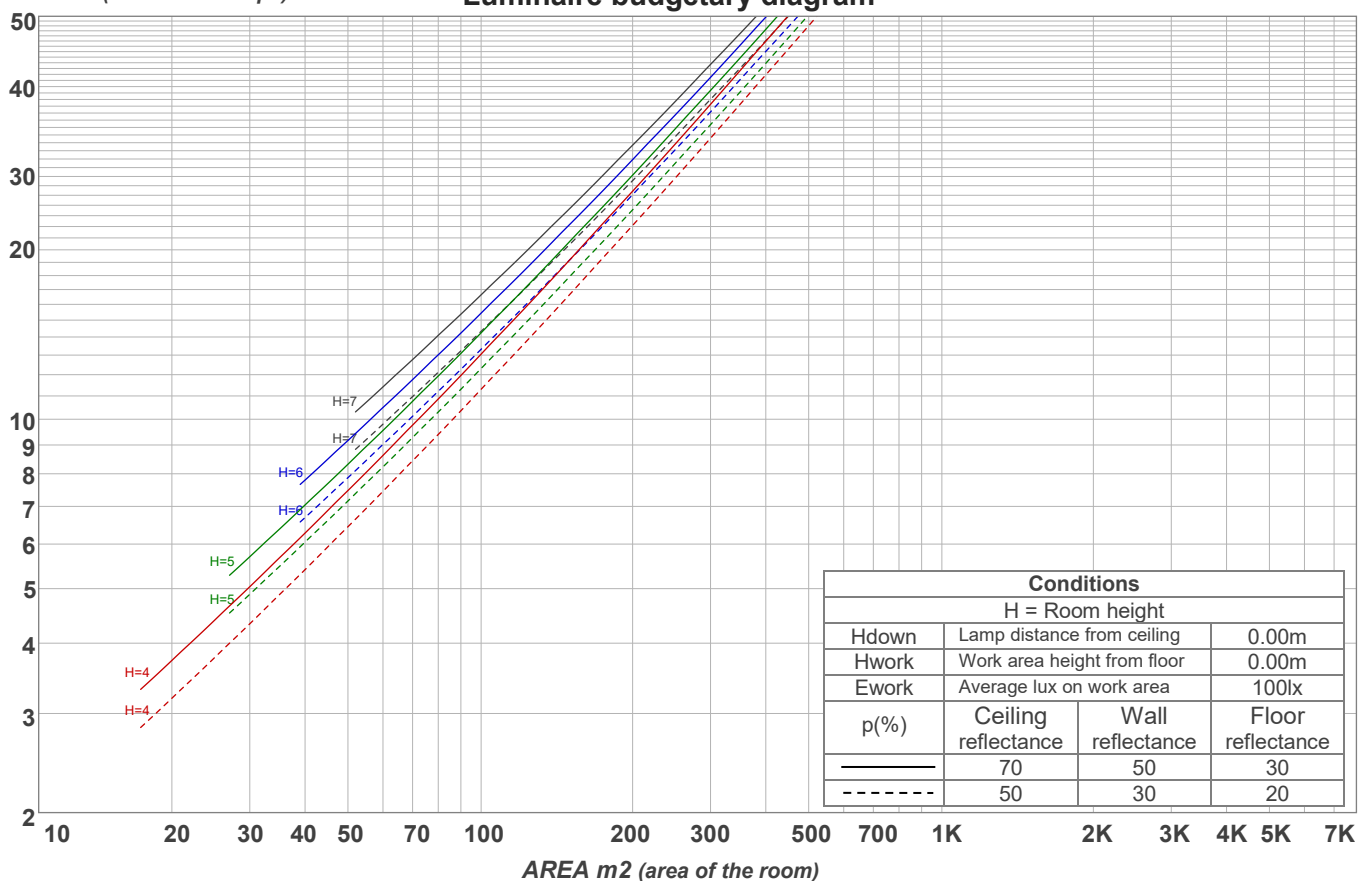
p Ceiling		70	70	50	50	30	70	70	50	50	30
p Walls		50	30	50	30	30	50	30	50	30	30
p Floor		20	20	20	20	20	20	20	20	20	20
Room size X      Y		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
2H	2H	11,6	12,4	11,7	12,7	12,9	25,6	26,5	25,8	26,7	26,9
	3H	12,4	13,4	12,8	13,6	13,8	25,9	26,9	26,3	27,1	27,3
	4H	13,2	14,1	13,6	14,3	14,6	26,0	26,9	26,4	27,2	27,4
	6H	14,3	15,1	14,6	15,4	15,7	26,1	26,9	26,4	27,2	27,6
	8H	14,9	15,7	15,3	16,0	16,4	26,1	26,9	26,5	27,2	27,6
	12H	15,6	16,3	16,0	16,7	17,1	26,1	26,9	26,5	27,2	27,6
4H	2H	12,8	13,7	13,2	13,9	14,2	25,3	26,2	25,7	26,5	26,7
	3H	13,9	14,6	14,3	15,0	15,4	25,8	26,5	26,2	26,9	27,3
	4H	14,6	15,3	15,1	15,8	16,3	25,9	26,6	26,3	27,0	27,5
	6H	15,8	16,5	16,3	16,8	17,2	26,0	26,7	26,5	27,0	27,4
	8H	16,5	17,1	17,0	17,5	17,8	26,0	26,7	26,5	27,0	27,4
	12H	17,2	17,7	17,7	18,2	18,6	26,0	26,5	26,5	27,0	27,4
8H	4H	15,4	16,0	15,9	16,4	16,8	25,8	26,4	26,3	26,8	27,2
	6H	16,8	17,2	17,3	17,7	18,2	26,0	26,4	26,5	26,9	27,4
	8H	17,6	18,0	18,1	18,5	19,1	26,1	26,4	26,6	27,0	27,6
	12H	18,5	18,8	19,1	19,3	20,0	26,1	26,4	26,7	26,9	27,6
12H	4H	15,6	16,1	16,1	16,5	17,0	25,7	26,3	26,2	26,7	27,1
	6H	17,1	17,4	17,6	18,0	18,6	26,0	26,4	26,5	26,9	27,5
	8H	18,0	18,3	18,5	18,8	19,4	26,0	26,4	26,6	26,9	27,5
Variation of the observer position for the luminaire distance S											
S = 1.0H		0,2 / -0,2					2,2 / -2,7				
S = 1.5H		0,3 / -0,2					4,2 / -3,9				
S = 2.0H		0,5 / -0,5					5,9 / -4,6				
Standard table		n/a					n/a				
Correction summand		n/a					n/a				
Corrected glare indices referring to 1100 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	104	101	108	105	102	99	101	98	96	97	95	93	93	91	90	88
2	104	98	92	88	101	96	91	87	92	88	85	89	86	83	86	83	81	79
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	79	76	73	71
4	91	82	75	70	89	81	74	70	78	73	68	76	71	67	74	70	67	65
5	86	76	69	64	84	75	68	63	73	67	62	71	66	62	69	64	61	59
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	64	60	56	55
7	76	66	59	54	75	65	58	54	63	57	53	62	57	53	61	56	52	51
8	72	61	55	50	71	61	54	50	59	54	49	58	53	49	57	52	49	47
9	69	58	51	47	67	57	51	46	56	50	46	55	50	46	54	49	46	44
10	65	55	48	44	64	54	48	44	53	47	43	52	47	43	51	46	43	42

LAMPS (number of lamps)

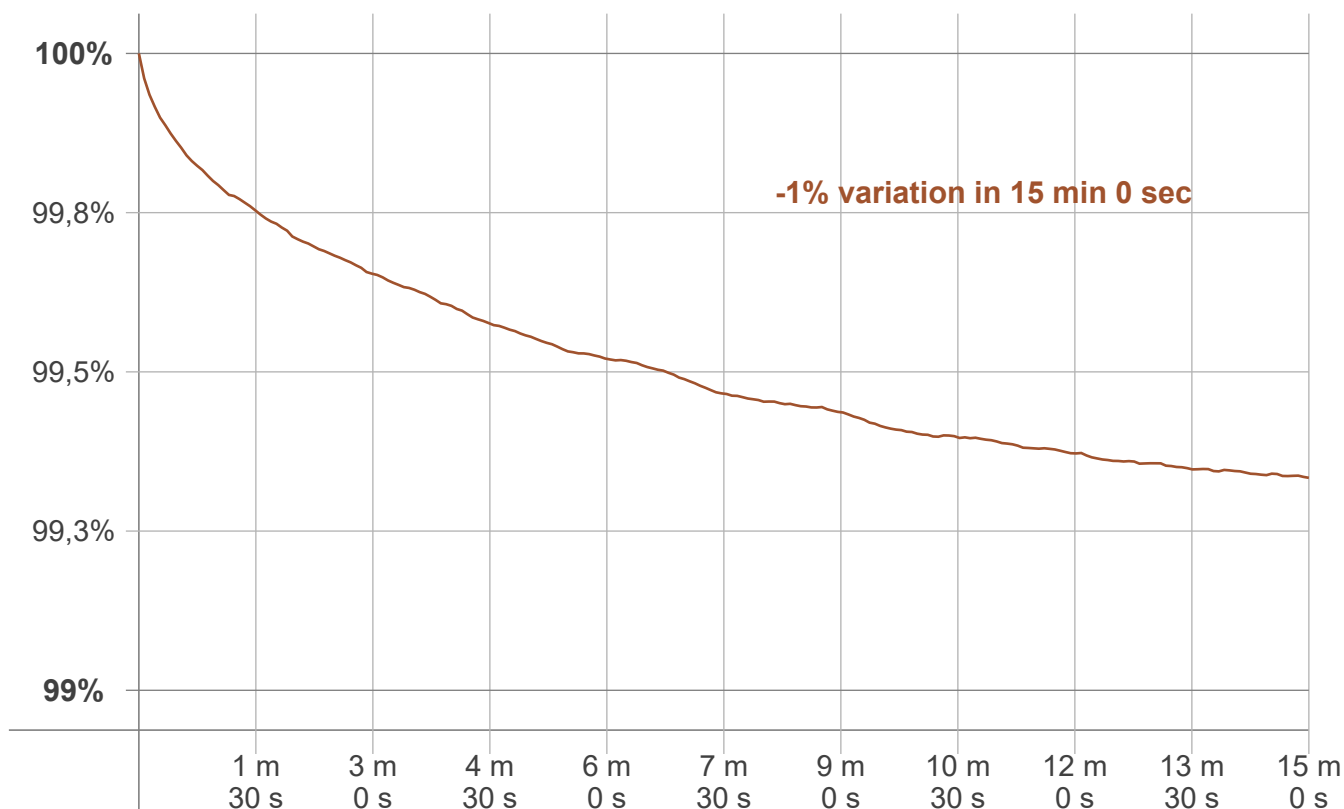
## Luminaire budgetary diagram



## Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
132 lm	237 lm	200 lm	188 lm	145 lm	87,0 lm	49,0 lm	28,2 lm	17,6 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
6,64 lm	2,08 lm	1,95 lm	1,76 lm	1,38 lm	1,02 lm	0,753 lm	0,461 lm	0,155 lm

## Warmup curve



## Warmup result

Warmup time:	Lamp stabilized in 15 min 0 sec
Warmup variation	-1,0%

## Warmup conditions

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

## Color temperature change

CCT start	CCT change	CCT end
2797 K	-3 K	2794 K

## Output change

Output start	Output change	Output end
1108 lm	-8 lm	1100 lm