

Light efficiency:

115 Lumen/Watt

Light quality:

CRI: 80,6

Color temperature:

4204 K

Output: 5440 lm

Peak: 2009 cd

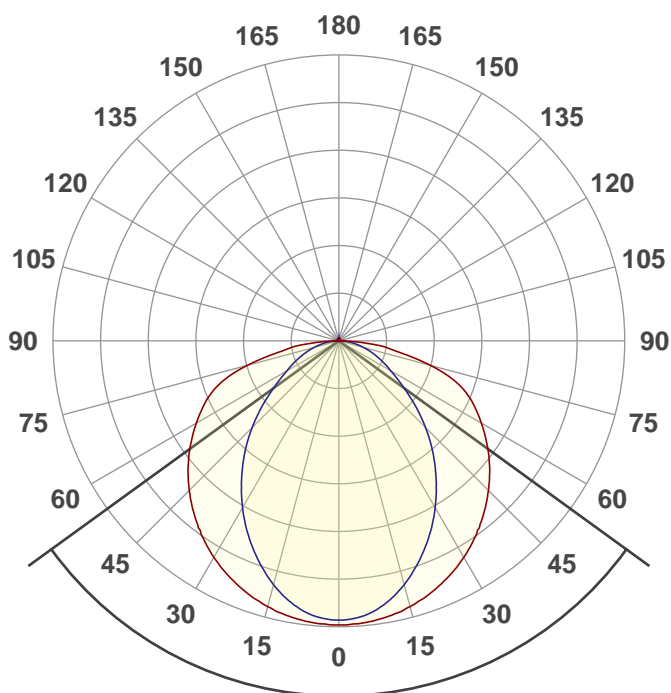
Power: 47,3 W

PF: 0,93



Product name:

E0097-MACERATA-2X25W-4K-AM



Beam angle

108,1°



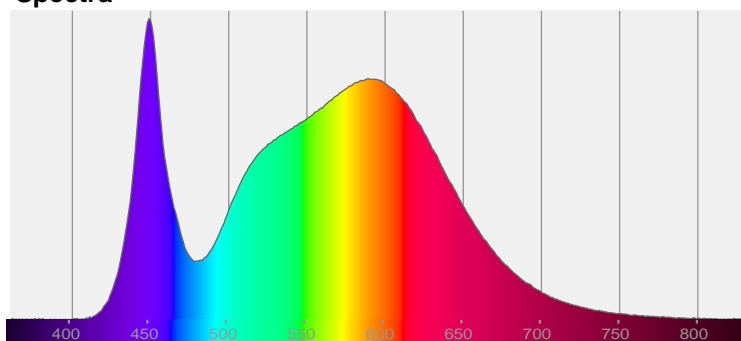
CIE 1931
x: 0,372
y: 0,371

THD Values:

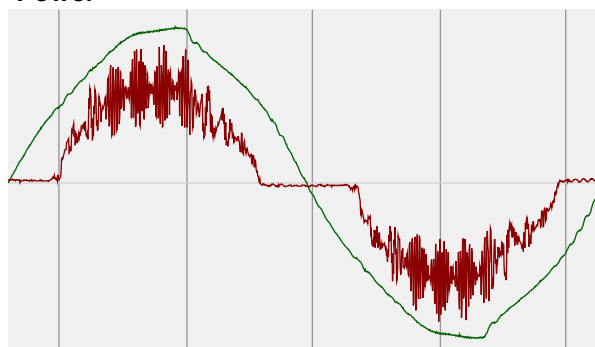
Voltage: 3,22%

Current: 28,83%

Spectra

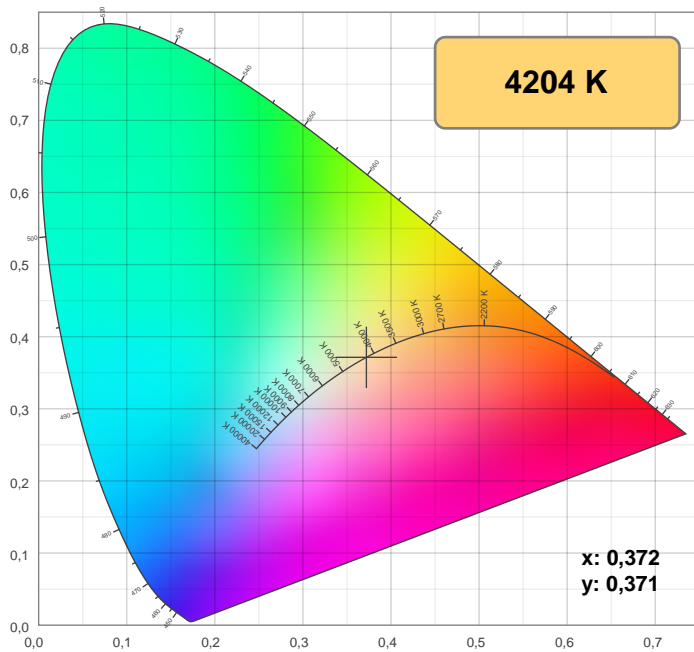


Power



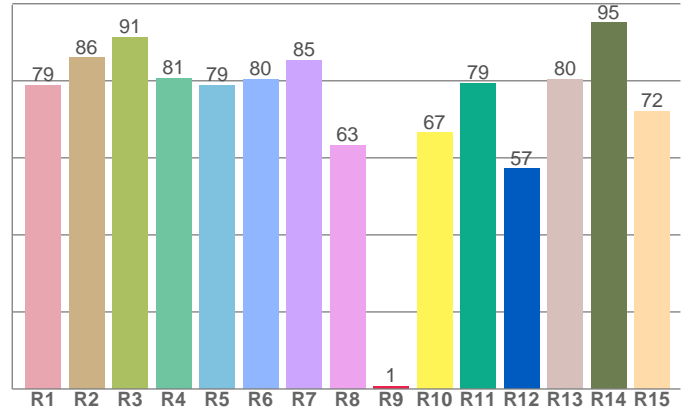
Voltage: 112 V
Current: 0,452 A
Frequency: 60 Hz

Color details



CIE 1931

CRI: 80,6 (R1-R8)

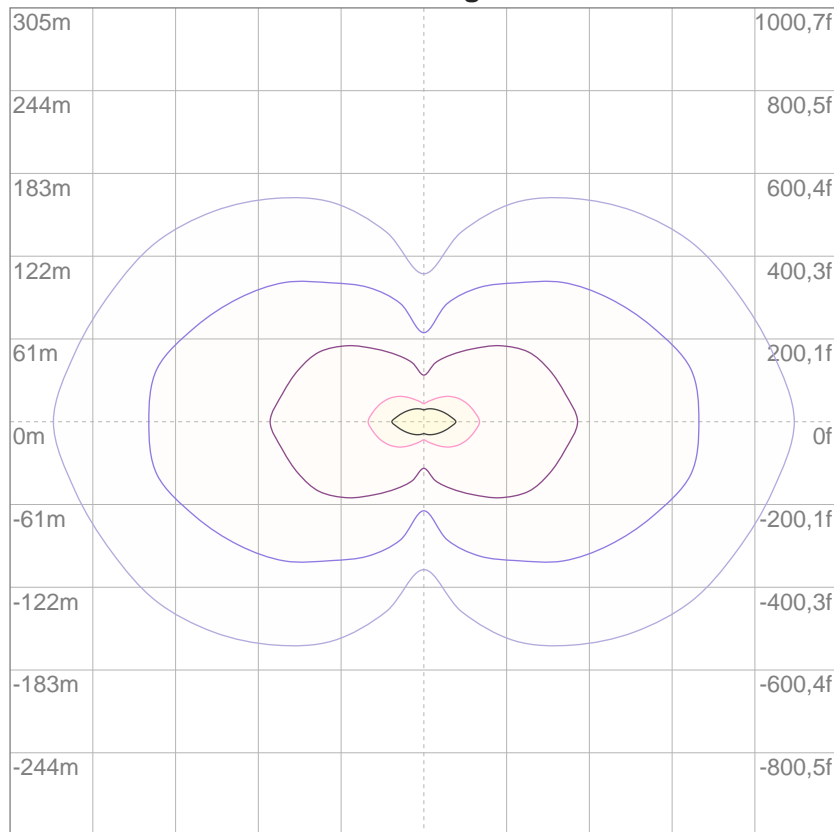


CRI R values, only R1-R8 are used to calculate final CRI value

R1	R2	R3	R4	R5	R6	R7	R8	9	R10	R11	R12	R13	R14	R15
78,8	85,9	91,3	80,7	78,8	80,4	85,4	63,3	0,7	66,5	79,3	57,2	80,4	95,1	72,1

ISO Diagrams

ISO lux diagram



3%	0,597 lx
5%	0,996 lx
10%	1,99 lx
30%	5,97 lx
50%	9,96 lx

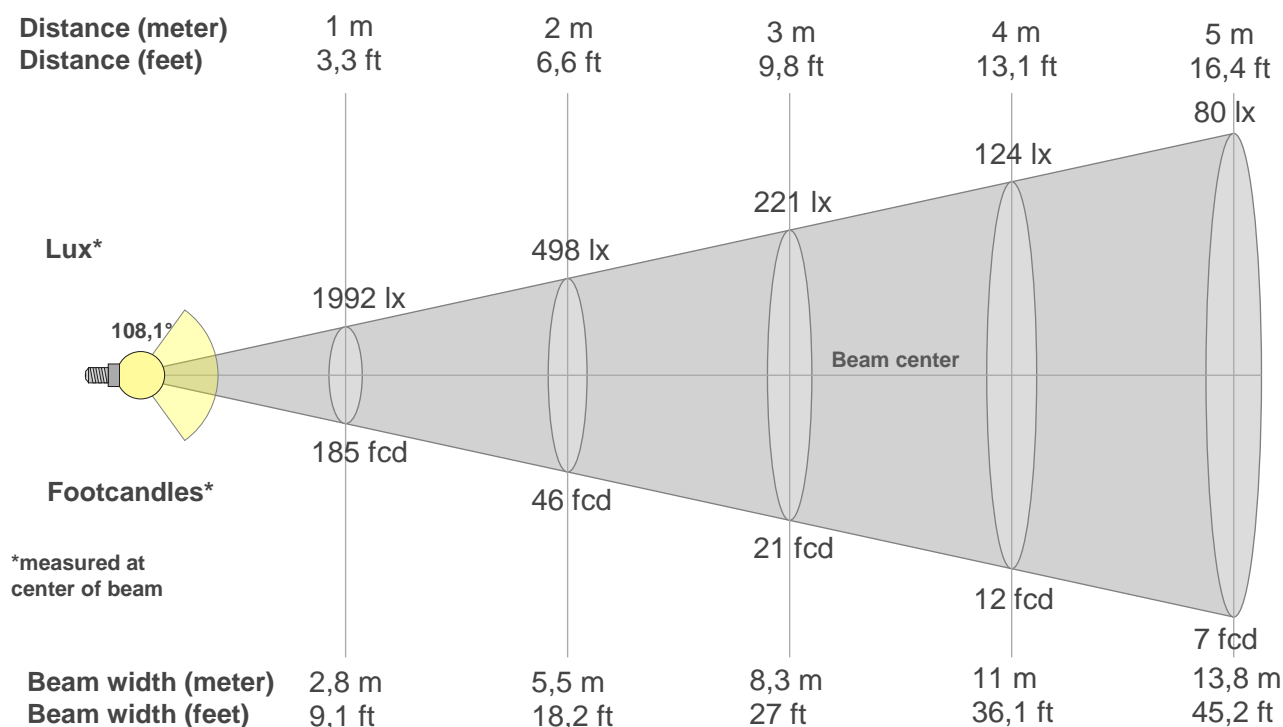
Conditions:

Number of c-planes: 4

Lux at center: 19,9 lx

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

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
1992lx	498lx	221lx	124lx	80lx	55lx	41lx	31lx	25lx	20lx	16lx	14lx	12lx	10lx	9lx	8lx	7lx	6lx	6lx	5lx
185fcd	46,3fcd	20,6fcd	11,6fcd	7,4fcd	5,1fcd	3,8fcd	2,9fcd	2,3fcd	1,9fcd	1,5fcd	1,3fcd	1,1fcd	0,9fcd	0,8fcd	0,7fcd	0,6fcd	0,6fcd	0,5fcd	0,5fcd

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°
1992	2002	1980	1945	1897	1838	1767	1686	1593	1496	1392	1280	1164	1046	902	671	403	197	29	13
100%	101%	99%	98%	95%	92%	89%	85%	80%	75%	70%	64%	58%	53%	45%	34%	20%	10%	1%	1%

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°
1992	1953	1887	1785	1657	1515	1362	1199	1036	866	699	545	425	335	255	182	116	57	12	7
100%	98%	95%	90%	83%	76%	68%	60%	52%	43%	35%	27%	21%	17%	13%	9%	6%	3%	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°
1992	2002	1980	1945	1897	1838	1767	1686	1593	1496	1392	1280	1164	1046	902	671	403	197	29	13
100%	101%	99%	98%	95%	92%	89%	85%	80%	75%	70%	64%	58%	53%	45%	34%	20%	10%	1%	1%

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°
1992	1953	1887	1785	1657	1515	1362	1199	1036	866	699	545	425	335	255	182	116	57	12	7
100%	98%	95%	90%	83%	76%	68%	60%	52%	43%	35%	27%	21%	17%	13%	9%	6%	3%	1%	0%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
108,1°	158,8°	173,8°	75,7%	52,4%

TM30 details

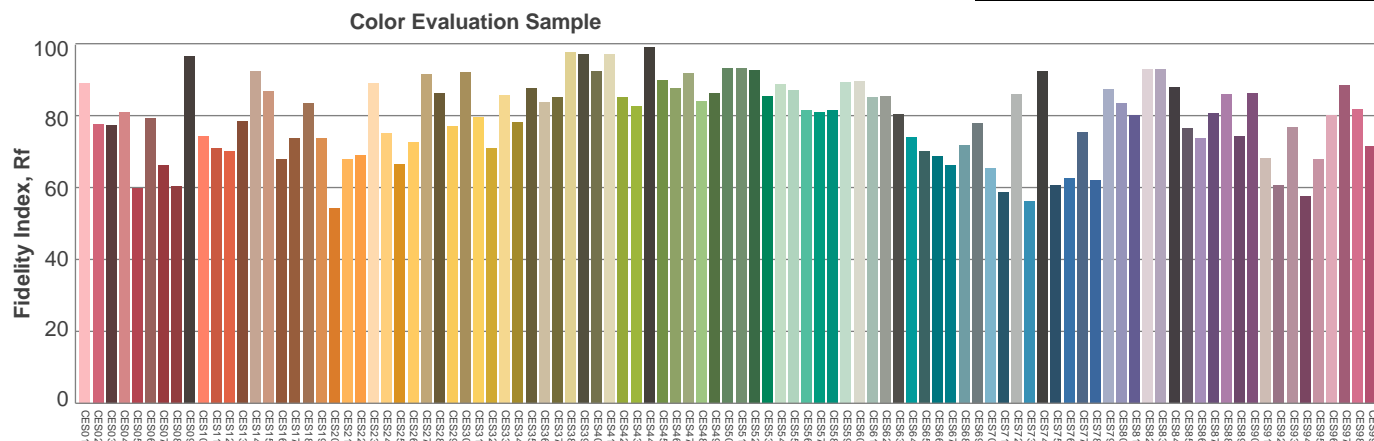
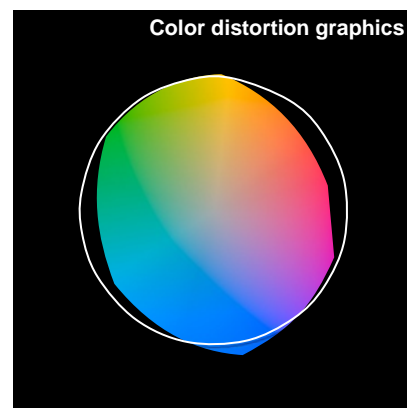
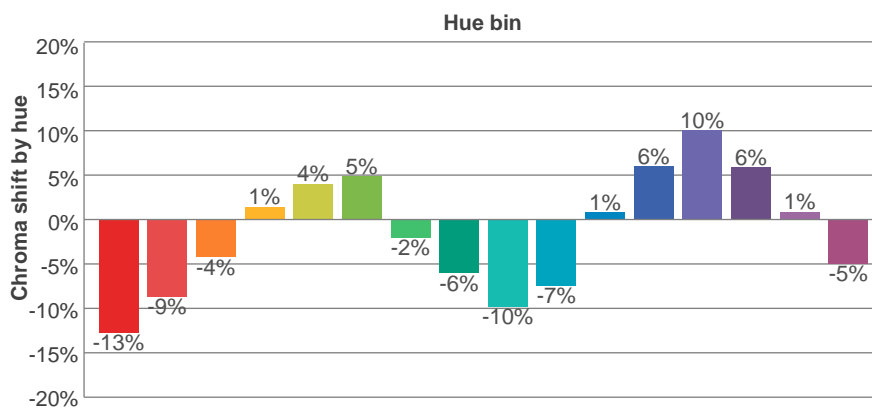
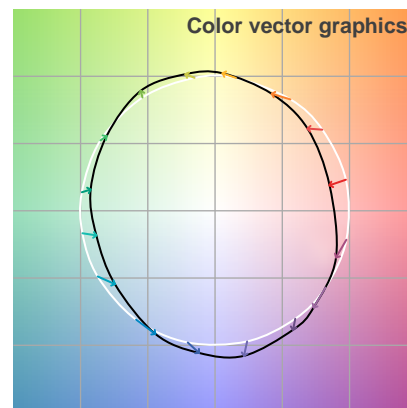
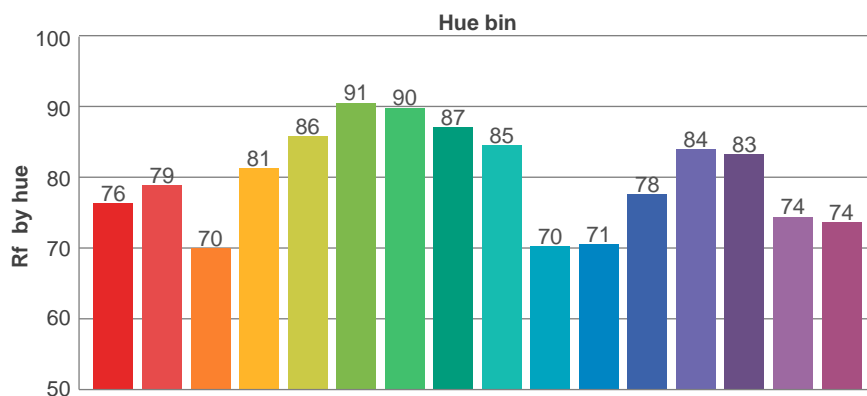
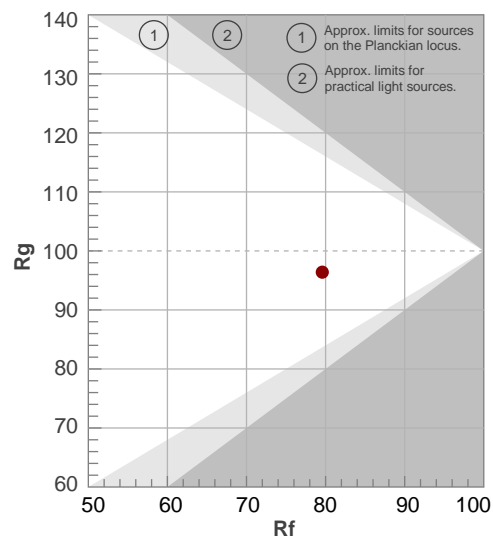
Rf 79,6

Fidelity index Rf

Rg 96,4

Gammut index Rg

Hue Bin	R _f	Graphic shifts (%)	
		Chroma	Hue
1	76	-13%	-2%
2	79	-9%	7%
3	70	-4%	14%
4	81	1%	10%
5	86	4%	6%
6	91	5%	-2%
7	90	-2%	-5%
8	87	-6%	-3%
9	85	-10%	4%
10	70	-7%	12%
11	71	1%	18%
12	78	6%	10%
13	84	10%	-4%
14	83	6%	-6%
15	74	1%	-17%
16	74	-5%	-14%



UGR

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	19,1	20,4	19,4	20,7	20,9	15,8	17,1	16,1	17,4	17,6
	3H	21,5	22,7	21,8	23,0	23,3	17,0	18,2	17,4	18,5	18,8
	4H	22,5	23,7	22,9	24,0	24,3	17,5	18,7	17,9	19,0	19,3
	6H	23,2	24,3	23,6	24,6	24,9	17,9	18,9	18,2	19,2	19,6
	8H	23,5	24,5	23,9	24,9	25,2	18,0	19,0	18,4	19,3	19,7
	12H	23,7	24,7	24,1	25,1	25,4	18,1	19,0	18,4	19,4	19,7
4H	2H	19,6	20,7	19,9	21,0	21,3	17,1	18,3	17,5	18,6	18,9
	3H	22,2	23,1	22,6	23,5	23,8	18,6	19,6	19,0	20,0	20,3
	4H	23,3	24,2	23,8	24,6	25,0	19,3	20,2	19,7	20,5	20,9
	6H	24,2	25,0	24,6	25,4	25,8	19,7	20,5	20,2	20,9	21,3
	8H	24,6	25,3	25,0	25,7	26,1	19,9	20,6	20,3	21,0	21,4
	12H	24,9	25,5	25,3	25,9	26,4	20,0	20,6	20,5	21,1	21,5
8H	4H	23,5	24,2	24,0	24,6	25,1	20,1	20,8	20,5	21,2	21,6
	6H	24,5	25,1	25,0	25,6	26,0	20,7	21,3	21,2	21,7	22,2
	8H	25,0	25,5	25,5	26,0	26,5	21,0	21,5	21,5	22,0	22,5
	12H	25,4	25,9	25,9	26,3	26,9	21,2	21,6	21,7	22,1	22,6
12H	4H	23,5	24,2	24,0	24,6	25,0	20,2	20,8	20,7	21,3	21,7
	6H	24,6	25,1	25,1	25,6	26,0	20,9	21,4	21,4	21,9	22,4
	8H	25,1	25,5	25,6	26,0	26,5	21,3	21,7	21,8	22,2	22,7
Variation of the observer position for the luminaire distance S											
S = 1,0H		+0,1 / -0,1					+0,2 / -0,2				
S = 1,5H		+0,1 / -0,1					+0,3 / -0,5				
S = 2,0H		+0,3 / -0,3					+0,6 / -1,0				
Standard table		BK08					BK14				
Correction summand		8,5					4,4				
Corrected glare indices referring to 5440 lm total luminous flux											

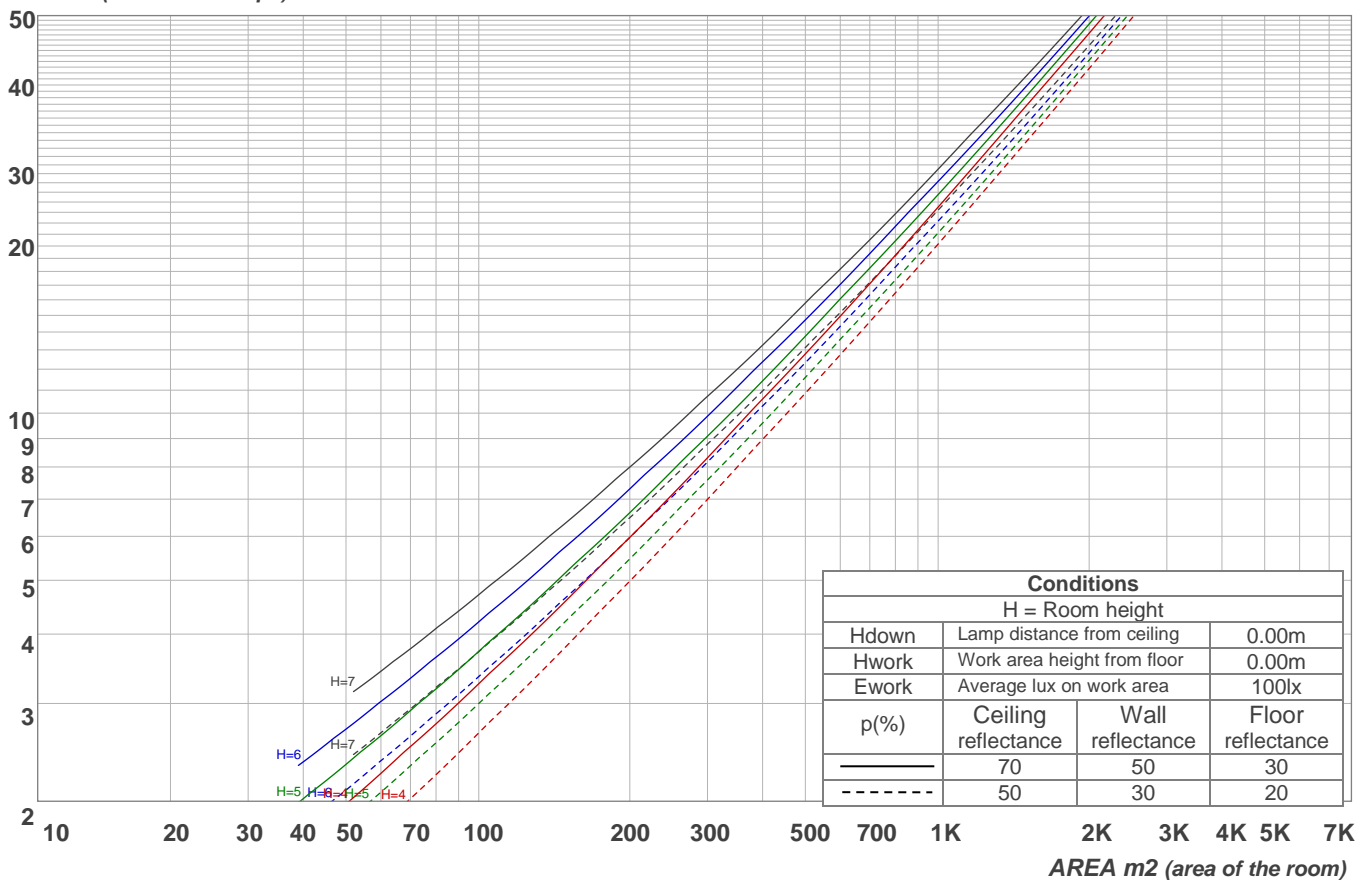
Light planning

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	101	101	101	99
1	108	103	99	94	105	101	97	93	96	93	90	92	89	87	88	86	84	82
2	98	89	82	76	95	87	81	75	84	78	74	80	76	72	77	73	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	54	79	68	60	53	65	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	32	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

LAMPS (number of lamps)

Luminaire budgetary diagram

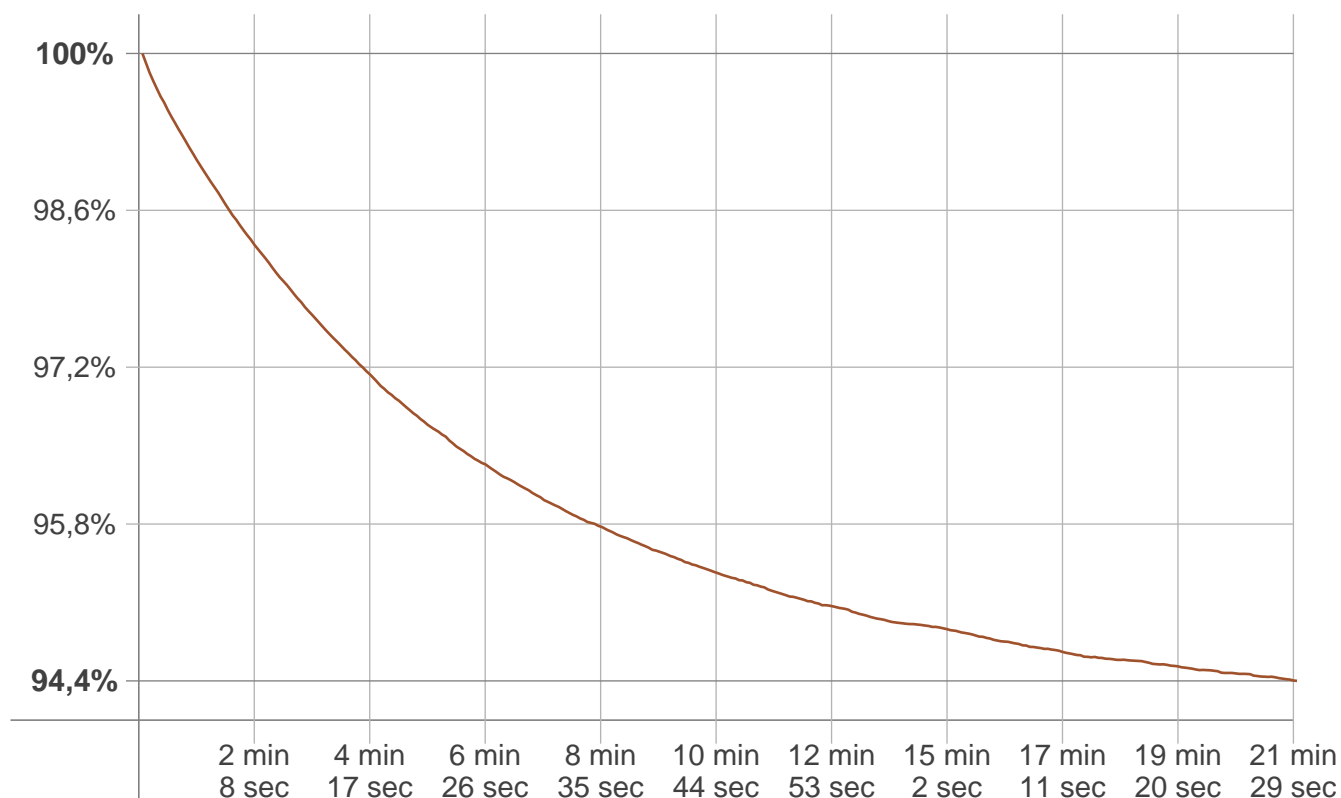


Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
187 lm	525 lm	772 lm	902 lm	911 lm	818 lm	683 lm	446 lm	143 lm
90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
11,7 lm	7,05 lm	6,62 lm	6,50 lm	6,06 lm	5,29 lm	4,15 lm	2,69 lm	0,939 lm

Stabilization

Warmup curve



Warmup result

Warmup time:	21 min 33 sec
Warmup variation	-5,7%

Warmup conditions

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

Color temperature change

CCT start	CCT change	CCT end
4177 K	+27 K	4204 K

Output change

Output start	Output change	Output end
5745 lm	-306 lm	5440 lm