Light efficiency:

71 Lumen/Watt

Light quality:

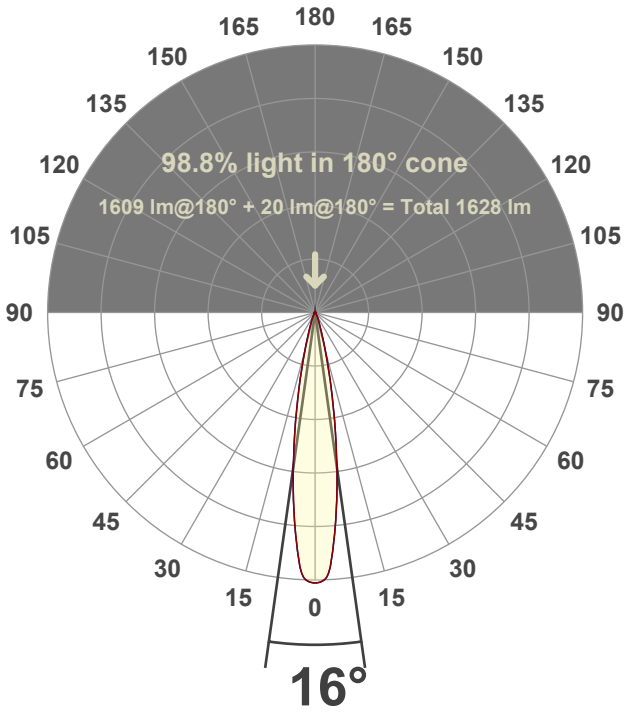
CRI: 92.3

Output: 1609 lm

Peak: 12541 cd

Power: 22.6 W

Beam angle



Test number:

CR4D-RA-SH-C20-30K-Spot

Luminaire Model:

Core 4" Round Deep Regress C20-30k-Spot

Date and time:

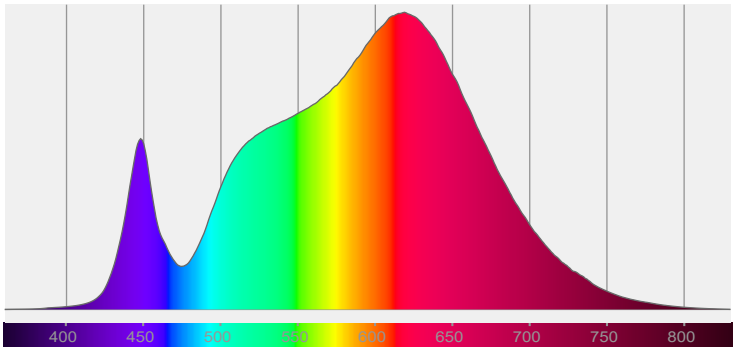
6/2/2025 10:48:29 AM

LUM: 1609

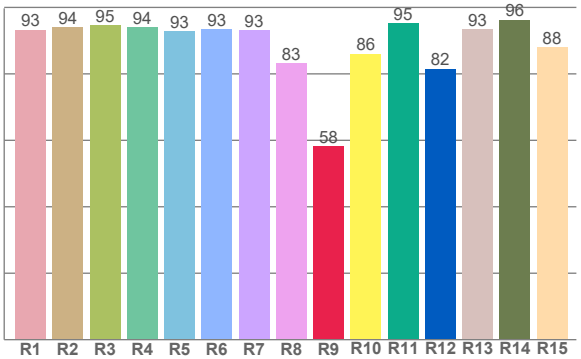
Glare Value: 15.9

3130 K

Spectra



CRI: 92.3 (R1-R8)



Color parameters

	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
	CRI	CRI R9	TM30 R_f	TM30 R_g	CQS	x	y	u	v	Δuv
	92.3	58.3	91.1	101.9	90.7	0.430	0.404	0.246	0.347	0.0011

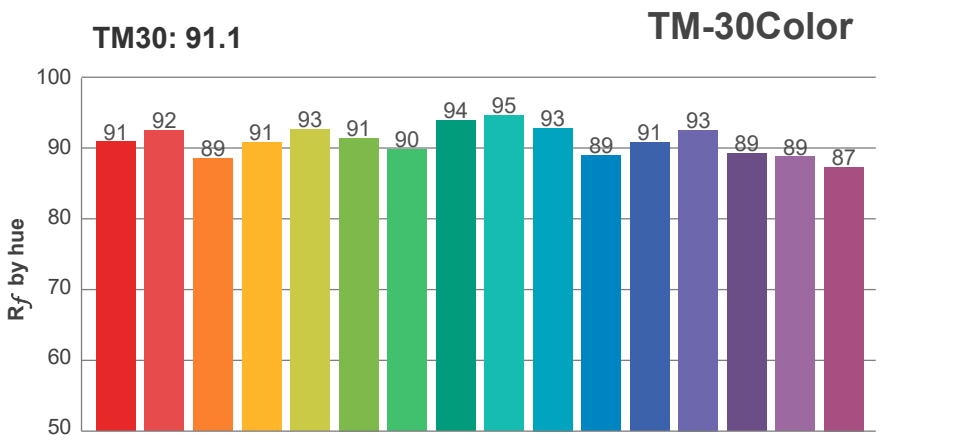
 As a result of our continuous improvement, values are subject to change without notice. These are delivered results and can vary +/- 10% from published source data range.

R_f 91.1

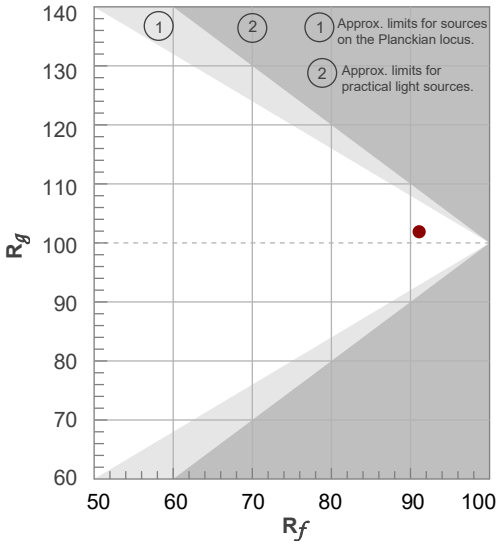
Fidelity index R_f

R_g 101.9

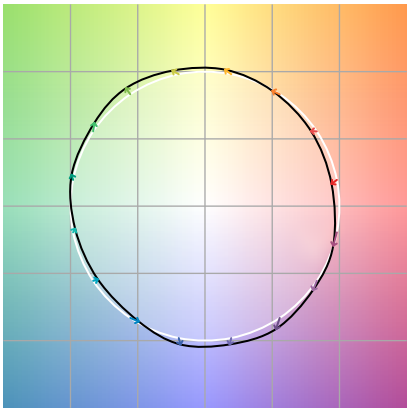
Gammut index R_g

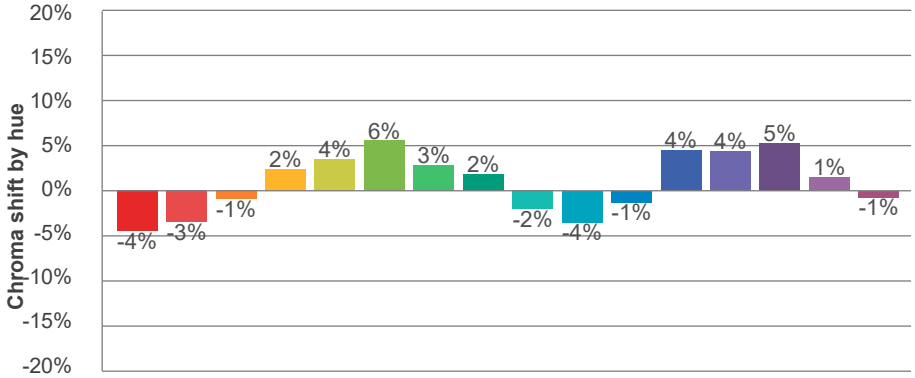


		Graphic shifts (%)	
Hue Bin	R_f	Chroma	Hue
1	91	-4%	-2%
2	92	-3%	3%
3	89	-1%	6%
4	91	2%	5%
5	93	4%	4%
6	91	6%	0%
7	90	3%	-6%
8	94	2%	-4%
9	95	-2%	-2%
10	93	-4%	1%
11	89	-1%	7%
12	91	4%	2%
13	93	4%	-2%
14	89	5%	-7%
15	89	1%	-7%
16	87	-1%	-10%

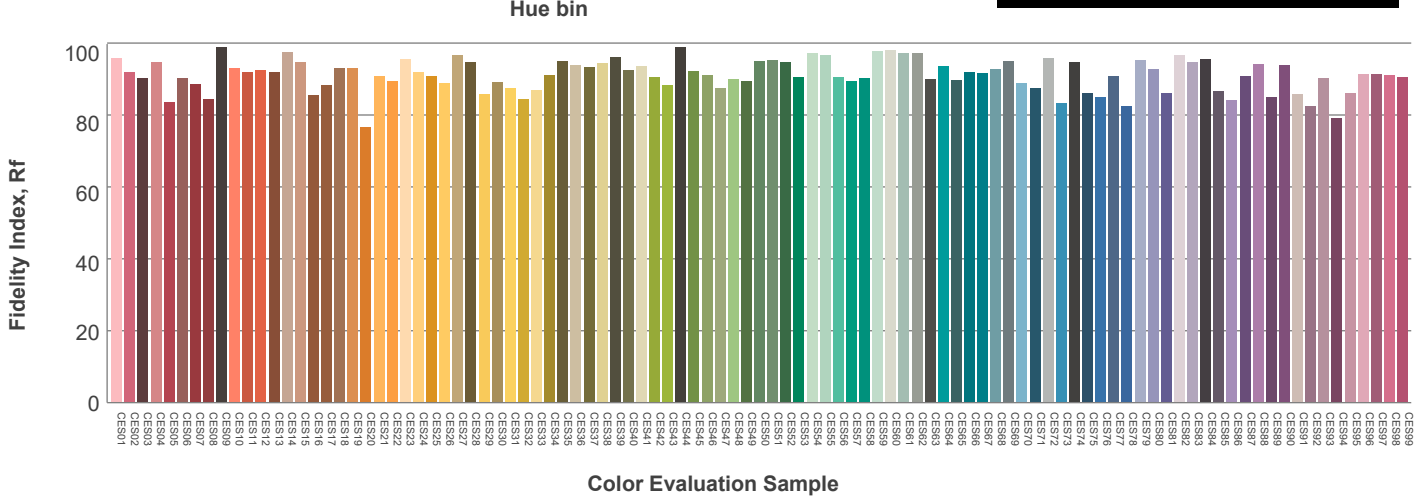


Color vector graphics

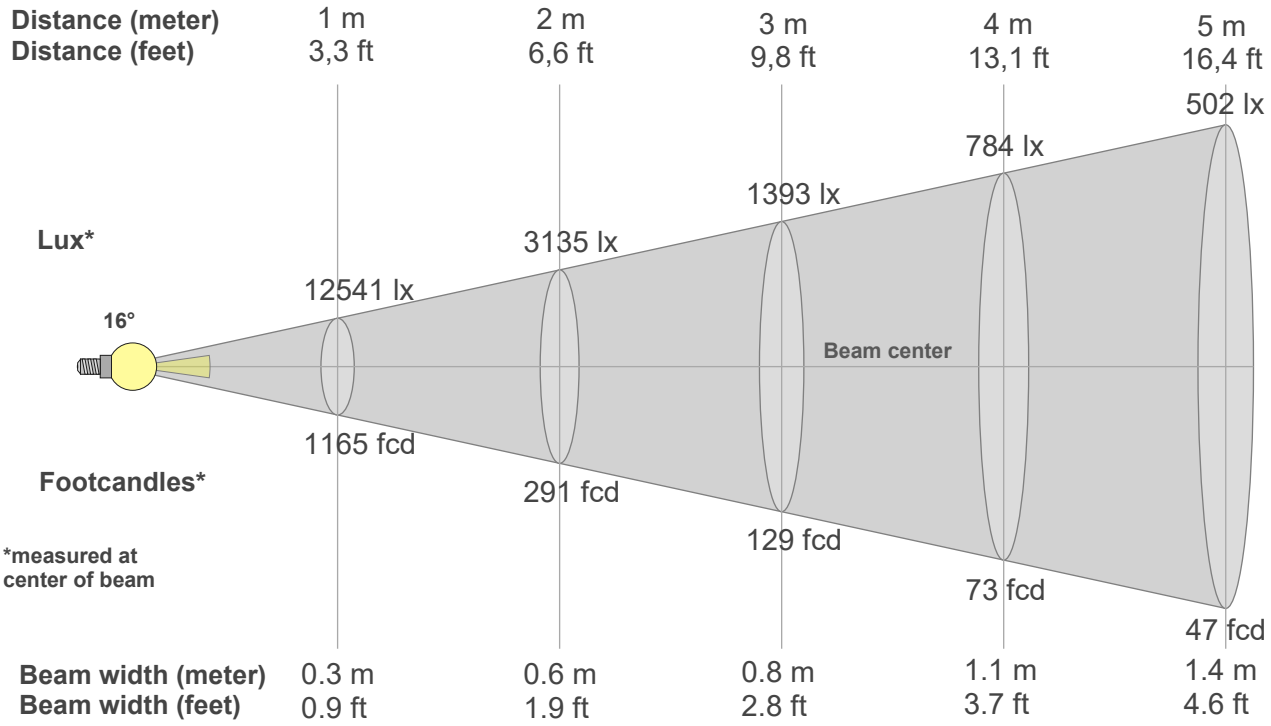




Color distortion



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
12541lx	3135lx	1393lx	784lx	502lx	348lx	256lx	196lx	155lx	125lx	104lx	87lx	74lx	64lx	56lx	49lx	43lx	39lx	35lx	31lx
1165.1f	291.3fc	129.5fc	72.8fcd	46.6fcd	32.4fcd	23.8fcd	18.2fcd	14.4fcd	11.7fcd	9.6fcd	8.1fcd	6.9fcd	5.9fcd	5.2fcd	4.6fcd	4fcd	3.6fcd	3.2fcd	2.9fcd

Intensities in 0° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
12.5K	12.5K	12.5K	12.1K	11.3K	10.5K	9.5K	8.5K	7.4K	6.4K	5.4K	4.5K	3.7K	3.0K	2.4K	1.9K	1.5K	1.2K	1.0K	0.8K
100%	100%	100%	96%	90%	84%	76%	67%	59%	51%	43%	36%	29%	24%	19%	15%	12%	9%	8%	6%

Intensities in 90° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
12.5K	12.5K	12.5K	12.1K	11.3K	10.5K	9.5K	8.5K	7.4K	6.4K	5.4K	4.5K	3.7K	3.0K	2.4K	1.9K	1.5K	1.2K	1.0K	0.8K
100%	100%	100%	96%	90%	84%	76%	67%	59%	51%	43%	36%	29%	24%	19%	15%	12%	9%	8%	6%

Intensities in 180° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
12.5K	12.5K	12.5K	12.1K	11.3K	10.5K	9.5K	8.5K	7.4K	6.4K	5.4K	4.5K	3.7K	3.0K	2.4K	1.9K	1.5K	1.2K	1.0K	0.8K
100%	100%	100%	96%	90%	84%	76%	67%	59%	51%	43%	36%	29%	24%	19%	15%	12%	9%	8%	6%

Intensities in 270° c-plane

0°	1°	2°	3°	4°	5°	6°	7°	8°	9°	10°	11°	12°	13°	14°	15°	16°	17°	18°	19°
12.5K	12.5K	12.5K	12.1K	11.3K	10.5K	9.5K	8.5K	7.4K	6.4K	5.4K	4.5K	3.7K	3.0K	2.4K	1.9K	1.5K	1.2K	1.0K	0.8K
100%	100%	100%	96%	90%	84%	76%	67%	59%	51%	43%	36%	29%	24%	19%	15%	12%	9%	8%	6%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
16°	33.3°	49.8°	99.2%	98.7%

Light Planning – UGR table

Uncorrected, comprehensive UGR table according to 117-1995

Reflectances											
ρ Ceiling		70	70	50	50	30	70	70	50	50	30
ρ Walls		50	30	50	30	30	50	30	50	30	30
ρ Floor		20	20	20	20	20	20	20	20	20	20
Room size H = mounting height above eye level		**Viewed Crosswise** (Viewing direction orthogonal to lamp length axis)					**Viewed Endwise** (Viewing direction parallel to lamp length axis)				
X	**Y**										
2H	2H	9.3	9.6	9.3	9.8	10.0	9.3	9.6	9.3	9.8	10.0
	3H	9.8	10.4	10.2	10.5	10.7	9.8	10.4	10.2	10.5	10.7
	4H	10.6	11.1	11.0	11.3	11.5	10.6	11.1	11.0	11.3	11.5
	6H	12.0	12.4	12.3	12.7	13.0	12.0	12.4	12.3	12.7	13.0
	8H	13.1	13.5	13.4	13.8	14.2	13.1	13.5	13.4	13.8	14.2
	12H	14.4	14.8	14.8	15.2	15.6	14.4	14.8	14.8	15.2	15.6
4H	2H	9.1	9.7	9.5	9.9	10.1	9.1	9.7	9.5	9.9	10.1
	3H	10.3	10.7	10.6	11.1	11.5	10.3	10.7	10.6	11.1	11.5
	4H	11.3	11.7	11.7	12.1	12.6	11.3	11.7	11.7	12.1	12.6
	6H	13.0	13.5	13.5	13.8	14.1	13.0	13.5	13.5	13.8	14.1
	8H	14.4	14.8	14.9	15.2	15.5	14.4	14.8	14.9	15.2	15.5
	12H	16.0	16.3	16.5	16.7	17.1	16.0	16.3	16.5	16.7	17.1
8H	4H	11.8	12.2	12.3	12.5	12.9	11.8	12.2	12.3	12.5	12.9
	6H	14.0	14.3	14.5	14.7	15.3	14.0	14.3	14.5	14.7	15.3
	8H	15.7	15.9	16.2	16.4	17.0	15.7	15.9	16.2	16.4	17.0
	12H	17.5	17.7	18.1	18.2	18.8	17.5	17.7	18.1	18.2	18.8
12H	4H	12.0	12.3	12.5	12.7	13.2	12.0	12.3	12.5	12.7	13.2
	6H	14.5	14.7	15.0	15.2	15.8	14.5	14.7	15.0	15.2	15.8
	8H	16.2	16.4	16.8	16.9	17.5	16.2	16.4	16.8	16.9	17.5

Variations with the observer position for the luminaire spacings, S:

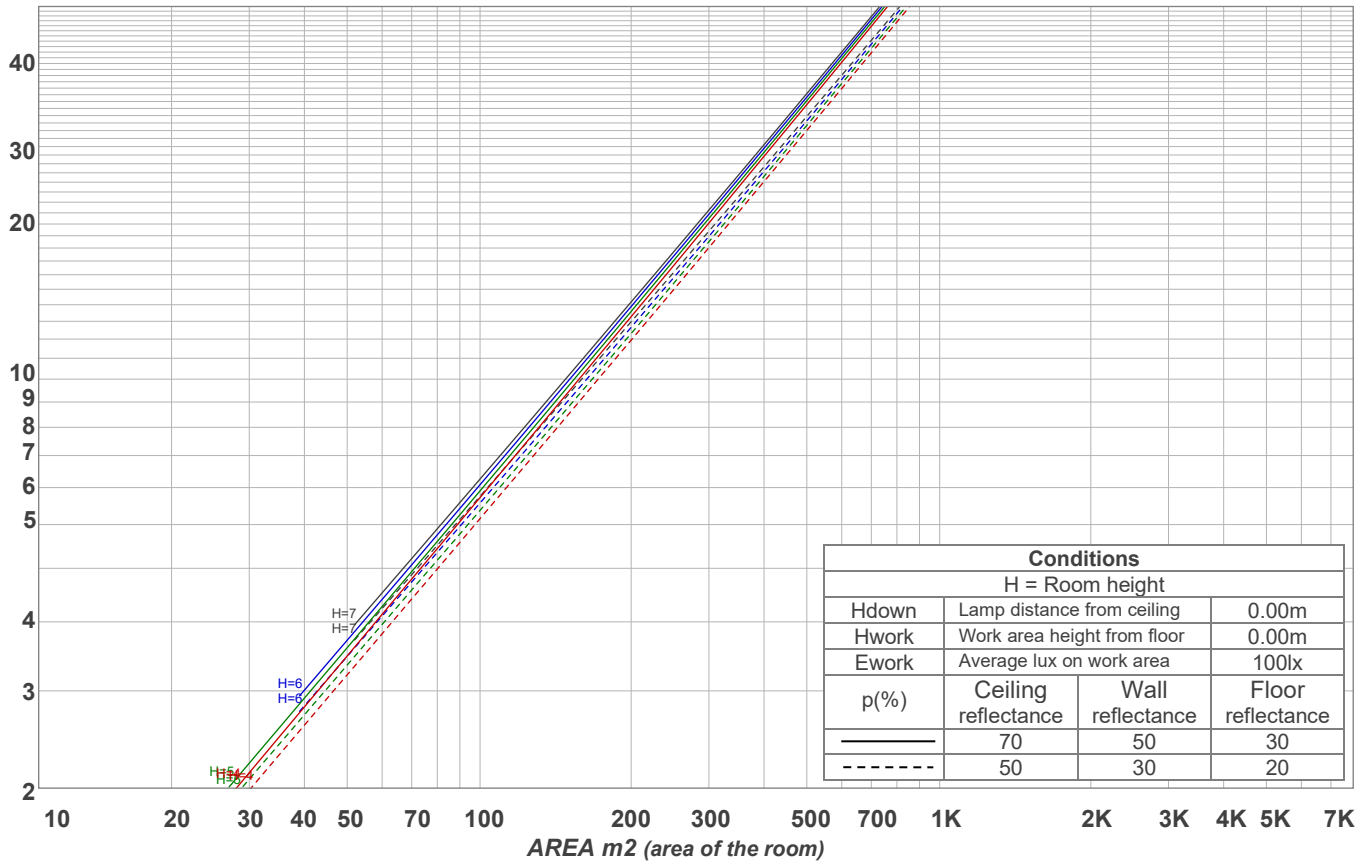
S = 1.0H	0.5 / -0.2	0.5 / -0.2
S = 1.5H	1.1 / -0.3	1.1 / -0.3
S = 2.0H	1.7 / -0.4	1.7 / -0.4

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 Lumen 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	115	113	111	110	113	111	110	108	107	106	105	104	103	102	100	99	99	97
2	112	109	106	103	110	107	104	102	104	102	100	101	99	98	98	97	96	95
3	109	105	101	99	107	103	100	98	101	98	96	99	97	95	97	95	94	92
4	106	101	98	95	105	100	97	94	98	96	93	96	94	92	95	93	91	90
5	104	98	95	92	102	97	94	91	96	93	91	94	92	90	93	91	89	88
6	101	96	92	89	100	95	92	89	94	91	88	92	90	88	91	89	87	86
7	99	93	90	87	98	93	89	87	92	89	86	91	88	86	90	87	86	85
8	97	91	87	85	96	91	87	85	90	87	85	89	86	84	88	86	84	83
9	95	89	86	83	94	89	85	83	88	85	83	87	85	83	87	84	82	82
10	93	87	84	82	92	87	84	81	86	83	81	86	83	81	85	83	81	80

Light planning

Luminaire budgetary diagram



Luminaire budgetary diagram

AREA m2 (area of the room)

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	115	113	111	110	113	111	110	108	107	106	105	104	103	102	100	99	99	97
2	112	109	106	103	110	107	104	102	104	102	100	101	99	98	98	97	96	95
3	109	105	101	99	107	103	100	98	101	98	96	99	97	95	97	95	94	92
4	106	101	98	95	105	100	97	94	98	96	93	96	94	92	95	93	91	90
5	104	98	95	92	102	97	94	91	96	93	91	94	92	90	93	91	89	88
6	101	96	92	89	100	95	92	89	94	91	88	92	90	88	91	89	87	86
7	99	93	90	87	98	93	89	87	92	89	86	91	88	86	90	87	86	85
8	97	91	87	85	96	91	87	85	90	87	85	89	86	84	88	86	84	83
9	95	89	86	83	94	89	85	83	88	85	83	87	85	83	87	84	82	82
10	93	87	84	82	92	87	84	81	86	83	81	86	83	81	85	83	81	80

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
824 lm	573 lm	146 lm	38.0 lm	10.5 lm	3.92 lm	3.76 lm	4.41 lm	5.46 lm

90°-100°	100°-110°	110°-120°	120°-130°	130°-140°	140°-150°	150°-160°	160°-170°	170°-180°
0.000 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