

Light efficiency:

64 Lumen/Watt

Output: 1457 lm

Light quality:

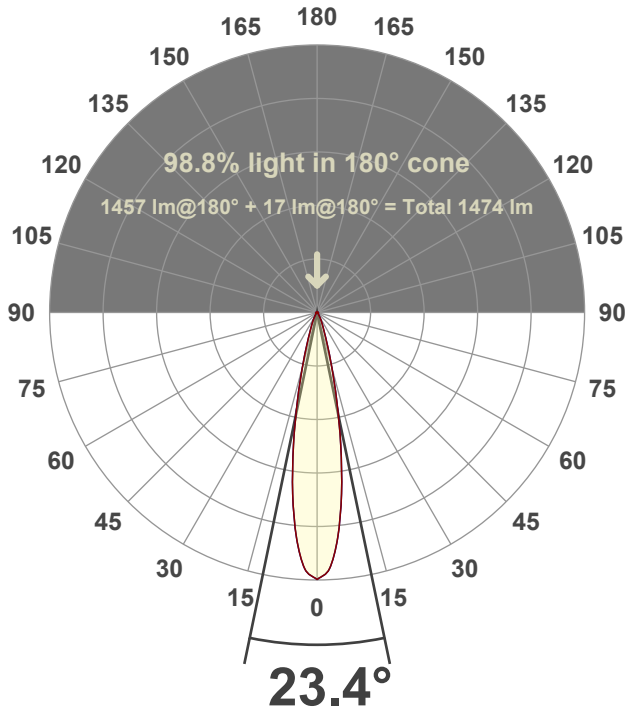
CRI: 92.7

Peak: 8949 cd

Power: 22.7 W



Beam angle



Test number:

CR4D-RA-SH-C20-30K-Narrow Flood

Luminaire Model:

Core 4" Round Deep Regress C20-30k-Narrow Flood

Date and time:

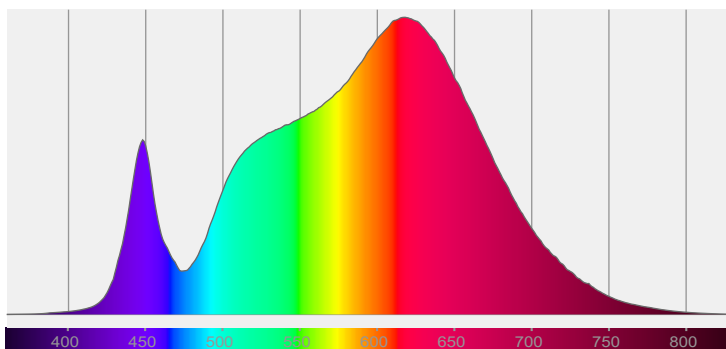
6/2/2025 10:52:43 AM

LUM: 1457

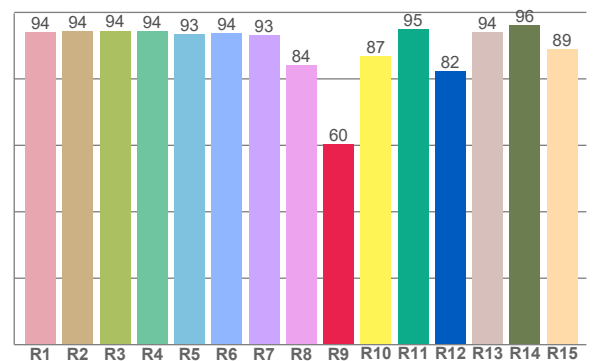
Glare Value: 15.4

3141 K

Spectra



CRI: 92.7 (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 deviation from black body
	CRI	CRI R9	TM30 R _f	TM30 R _g	CQS	x	y	u	v	Δuv
	92.7	60.4	91.3	102.2	90.9	0.429	0.403	0.246	0.346	0.0008

R_f 91.3

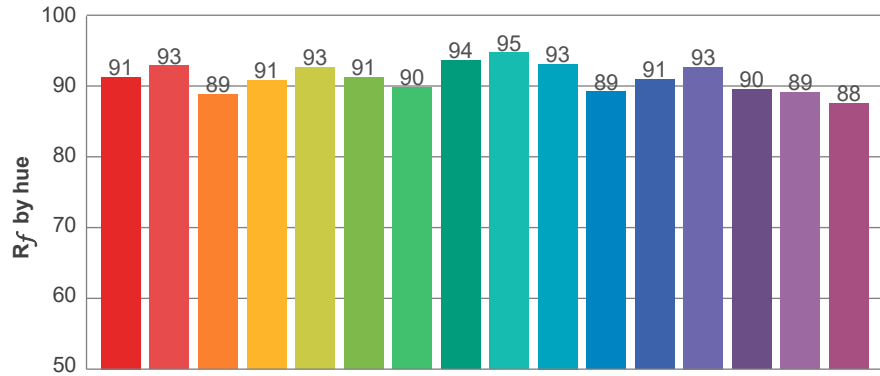
Fidelity index R_f

R_g 102.2

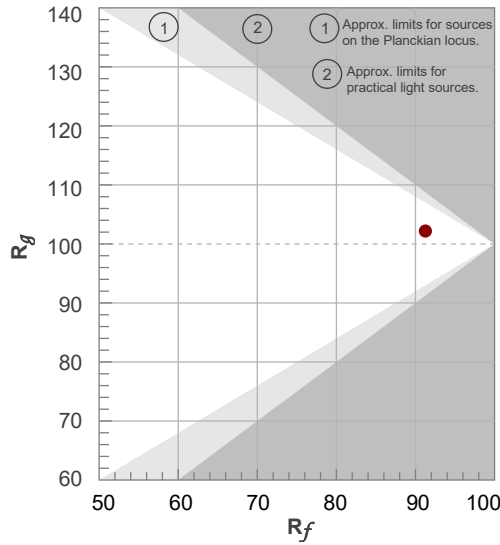
Gammut index R_g

TM30: 91.3

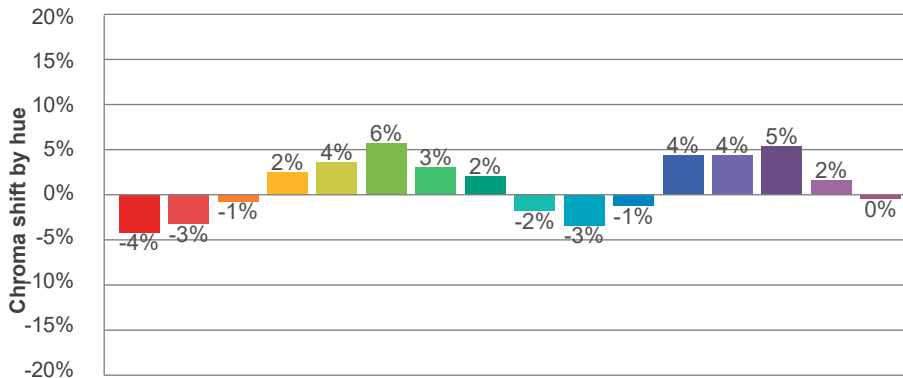
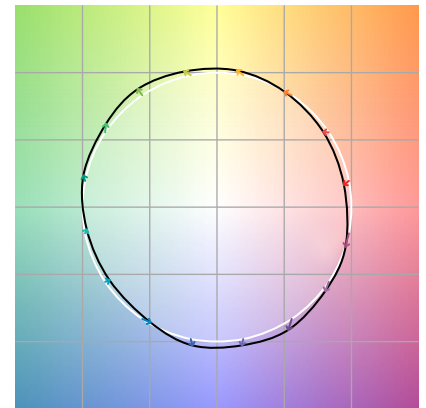
TM-30Color



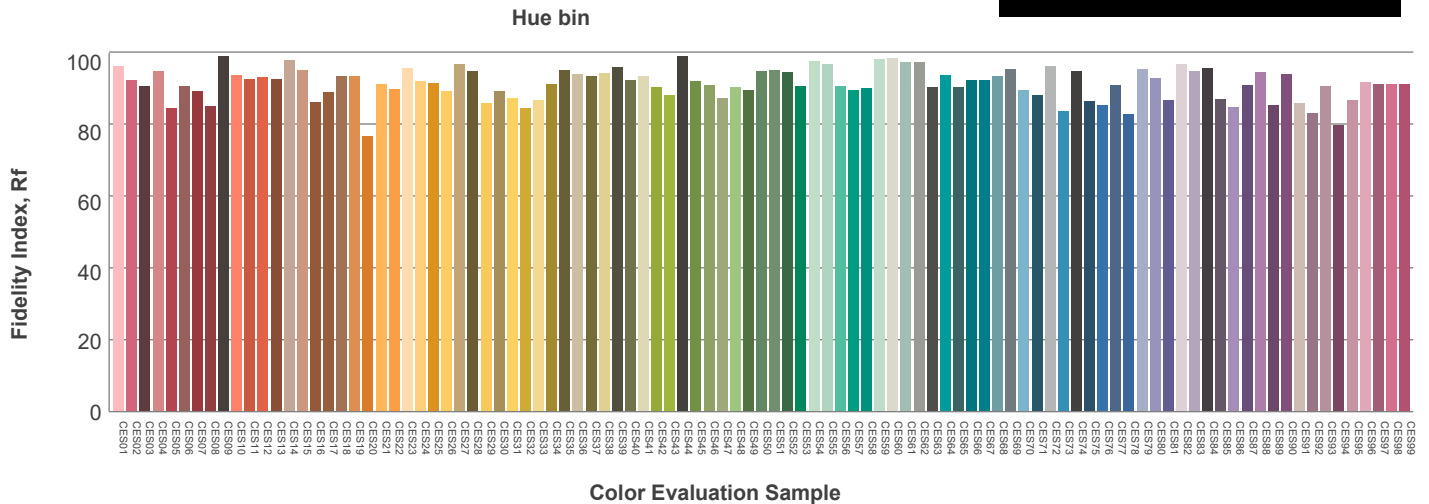
Hue Bin	R_f	Graphic shifts (%)	
		Chroma	Hue
1	91	-4%	-2%
2	93	-3%	2%
3	89	-1%	6%
4	91	2%	5%
5	93	4%	4%
6	91	6%	0%
7	90	3%	-6%
8	94	2%	-4%
9	95	-2%	-2%
10	93	-3%	1%
11	89	-1%	7%
12	91	4%	2%
13	93	4%	-2%
14	90	5%	-7%
15	89	2%	-7%
16	88	0%	-10%



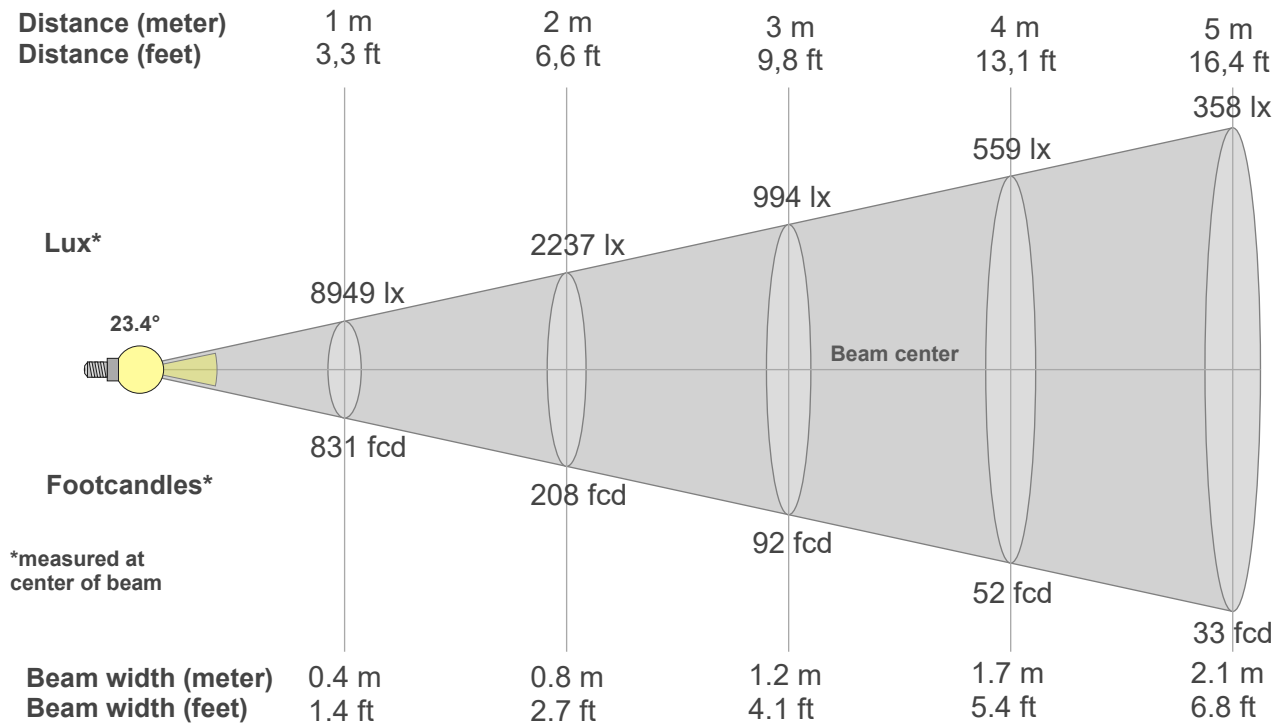
Color vector graphics



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
8949lx	2237lx	994lx	559lx	358lx	249lx	183lx	140lx	110lx	89lx	74lx	62lx	53lx	46lx	40lx	35lx	31lx	28lx	25lx	22lx
831.4fcd	207.8fcd	92.4fcd	52fcd	33.3fcd	23.1fcd	17fcd	13fcd	10.3fcd	8.3fcd	6.9fcd	5.8fcd	4.9fcd	4.2fcd	3.7fcd	3.2fcd	2.9fcd	2.6fcd	2.3fcd	2.1fcd

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°
8949	8862	8732	8539	8123	7707	7153	6558	5940	5271	4602	3987	3379	2834	2372	1909	1605	1302	1067	889
100%	99%	98%	95%	91%	86%	80%	73%	66%	59%	51%	45%	38%	32%	27%	21%	18%	15%	12%	10%

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°
8949	8862	8732	8539	8123	7707	7153	6558	5940	5271	4602	3987	3379	2834	2372	1909	1605	1302	1067	889
100%	99%	98%	95%	91%	86%	80%	73%	66%	59%	51%	45%	38%	32%	27%	21%	18%	15%	12%	10%

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°
8949	8862	8732	8539	8123	7707	7153	6558	5940	5271	4602	3987	3379	2834	2372	1909	1605	1302	1067	889
100%	99%	98%	95%	91%	86%	80%	73%	66%	59%	51%	45%	38%	32%	27%	21%	18%	15%	12%	10%

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°
8949	8862	8732	8539	8123	7707	7153	6558	5940	5271	4602	3987	3379	2834	2372	1909	1605	1302	1067	889
100%	99%	98%	95%	91%	86%	80%	73%	66%	59%	51%	45%	38%	32%	27%	21%	18%	15%	12%	10%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
23.4°	37.9°	57.1°	99.2%	98.7%

Light Planning – UGR table

Uncorrected, comprehensive UGR table according to 117-1995

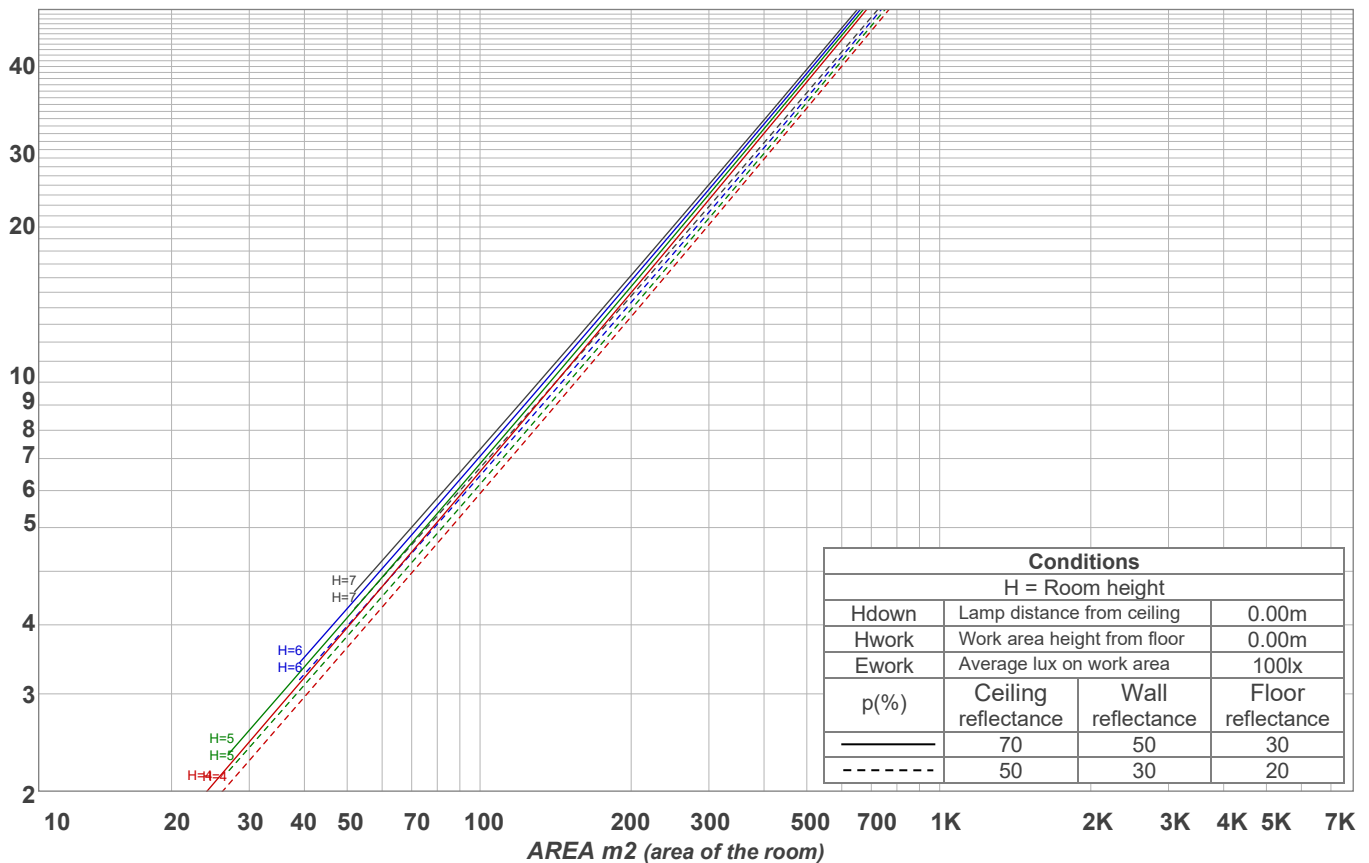
Reflectances		70	70	50	50	30	70	70	50	50	30
ρ Ceiling		70	70	50	50	30	70	70	50	50	30
ρ Walls		50	30	50	30	30	50	30	50	30	30
ρ Floor		20	20	20	20	20	20	20	20	20	20
Room size		Viewed Crosswise					Viewed Endwise				
H = mounting height above eye level		(Viewing direction orthogonal to lamp length axis)					(Viewing direction parallel to lamp length axis)				
X	Y										
2H	2H	12.5	12.9	12.5	13.1	13.2	12.5	12.9	12.5	13.1	13.2
	3H	12.5	13.0	12.8	13.2	13.4	12.5	13.0	12.8	13.2	13.4
	4H	12.7	13.3	13.1	13.5	13.7	12.7	13.3	13.1	13.5	13.7
	6H	13.3	13.7	13.6	14.0	14.4	13.3	13.7	13.6	14.0	14.4
	8H	13.7	14.2	14.0	14.5	14.9	13.7	14.2	14.0	14.5	14.9
	12H	14.4	14.8	14.8	15.2	15.6	14.4	14.8	14.8	15.2	15.6
4H	2H	12.2	12.7	12.6	12.9	13.2	12.2	12.7	12.6	12.9	13.2
	3H	12.6	13.0	12.9	13.3	13.7	12.6	13.0	12.9	13.3	13.7
	4H	12.9	13.3	13.3	13.7	14.2	12.9	13.3	13.3	13.7	14.2
	6H	13.7	14.2	14.2	14.5	14.8	13.7	14.2	14.2	14.5	14.8
	8H	14.4	14.8	14.9	15.1	15.5	14.4	14.8	14.9	15.1	15.5
	12H	15.4	15.7	15.9	16.1	16.5	15.4	15.7	15.9	16.1	16.5
8H	4H	13.1	13.5	13.6	13.8	14.2	13.1	13.5	13.6	13.8	14.2
	6H	14.2	14.5	14.7	14.9	15.5	14.2	14.5	14.7	14.9	15.5
	8H	15.2	15.4	15.7	15.9	16.5	15.2	15.4	15.7	15.9	16.5
	12H	16.5	16.7	17.1	17.2	17.8	16.5	16.7	17.1	17.2	17.8
12H	4H	13.1	13.5	13.6	13.9	14.3	13.1	13.5	13.6	13.9	14.3
	6H	14.5	14.7	15.0	15.2	15.8	14.5	14.7	15.0	15.2	15.8
	8H	15.5	15.7	16.1	16.2	16.8	15.5	15.7	16.1	16.2	16.8
Variations with the observer position for the luminaire spacings, S:											
S = 1.0H		1.3 / -0.6					1.3 / -0.6				
S = 1.5H		2.8 / -0.7					2.8 / -0.7				
S = 2.0H		4.2 / -0.8					4.2 / -0.8				

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	106	106	106	102	102	102	100	
1	115	113	111	109	113	111	109	108	107	105	104	103	102	101	100	99	98	97
2	111	108	105	102	109	106	104	101	103	101	99	100	99	97	98	96	95	94
3	108	103	100	97	106	102	99	96	100	97	95	97	95	93	95	94	92	91
4	105	100	96	93	103	99	95	92	97	94	91	95	92	90	93	91	89	88
5	102	96	92	89	101	95	92	89	94	91	88	92	90	88	91	89	87	86
6	99	93	89	86	98	93	89	86	91	88	86	90	87	85	89	86	85	84
7	97	91	87	84	96	90	86	84	89	86	83	88	85	83	87	84	82	81
8	94	88	84	81	93	88	84	81	87	83	81	86	83	81	85	82	80	80
9	92	86	82	79	91	85	82	79	85	81	79	84	81	79	83	81	79	78
10	90	84	80	77	89	83	80	77	83	79	77	82	79	77	82	79	77	76

LAMPS (number of lamps)
50

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	109	113	111	109	108	107	105	104	103	102	101	100	99	98	97
2	111	108	105	102	109	106	104	101	103	101	99	100	99	97	98	96	95	94
3	108	103	100	97	106	102	99	96	100	97	95	97	95	93	95	94	92	91
4	105	100	96	93	103	99	95	92	97	94	91	95	92	90	93	91	89	88
5	102	96	92	89	101	95	92	89	94	91	88	92	90	88	91	89	87	86
6	99	93	89	86	98	93	89	86	91	88	86	90	87	85	89	86	85	84
7	97	91	87	84	96	90	86	84	89	86	83	88	85	83	87	84	82	81
8	94	88	84	81	93	88	84	81	87	83	81	86	83	81	85	82	80	80
9	92	86	82	79	91	85	82	79	85	81	79	84	81	79	83	81	79	78
10	90	84	80	77	89	83	80	77	83	79	77	82	79	77	82	79	77	76

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
630 lm	561 lm	173 lm	62.9 lm	15.3 lm	3.63 lm	3.54 lm	3.59 lm	4.27 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

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