

Light efficiency:



Output: 1098 lm

Light quality:

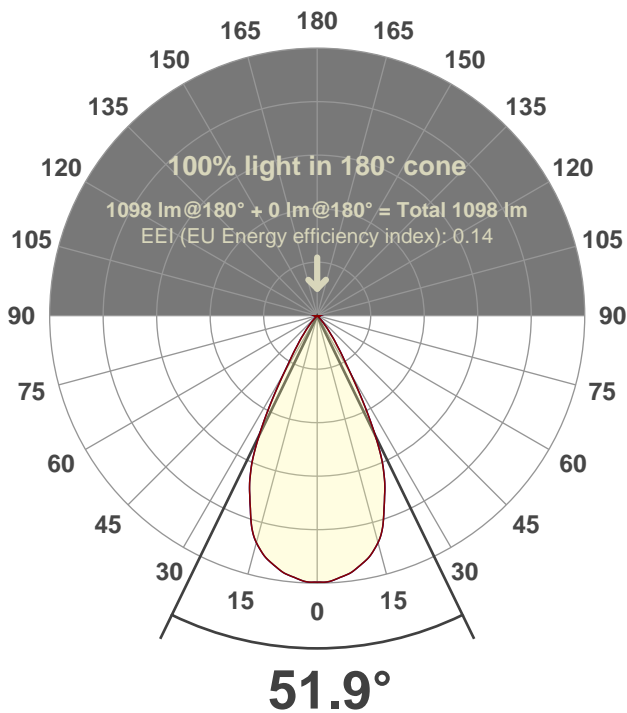


Peak: 1625 cd

Power: 15.0 W



Beam angle



Test number:

CR4D-R-DR-C14-30K-55 (GR-CZ20-WF-RD)

Luminaire Model:

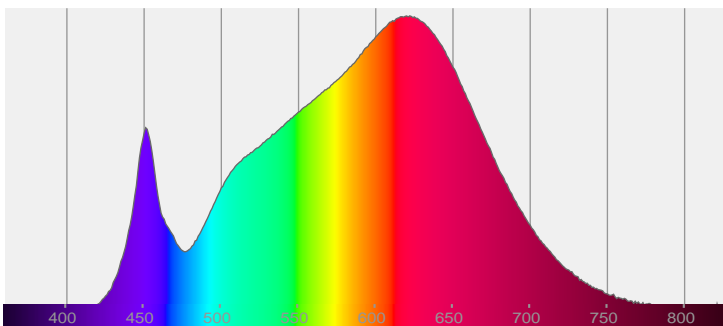
Core 4" Round Deep Regress C14 30K 55 deg

Date and time:

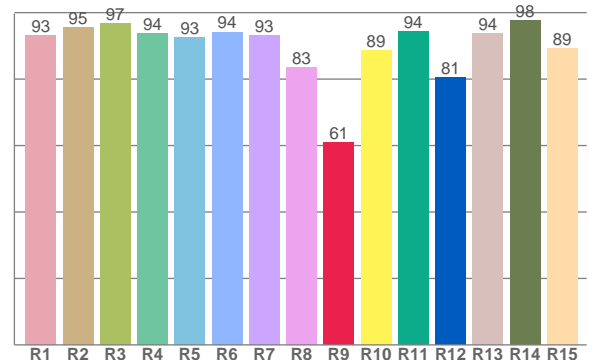
6/14/2017 2:10:56 PM

LUM: 1098

Spectra



CRI: 92.8 (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 <sub>f</sub>	TM30 R <sub>g</sub>	CQS	x	y	u	v	Δuv
	92.8	60.8	91.9	100.3	91.1	0.428	0.401	0.246	0.346	-0.0001

# R<sub>f</sub> 91.9

Fidelity index R<sub>f</sub>

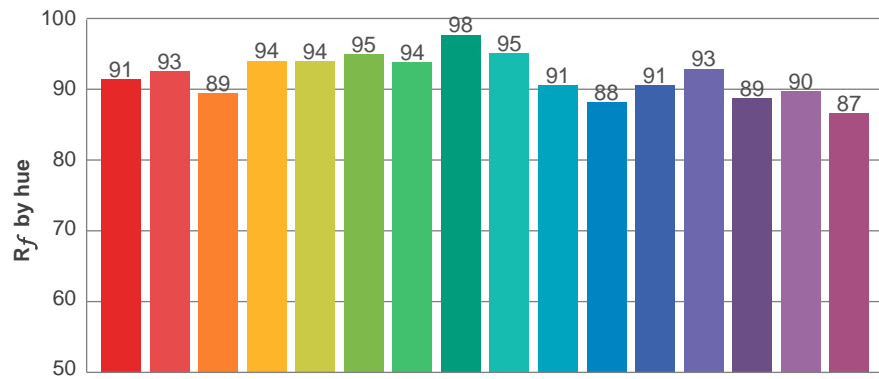
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# R<sub>g</sub> 100.3

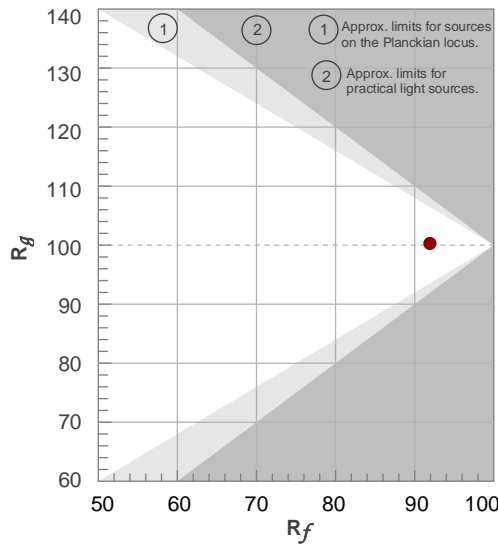
Gammut index R<sub>g</sub>

TM30: 91.9

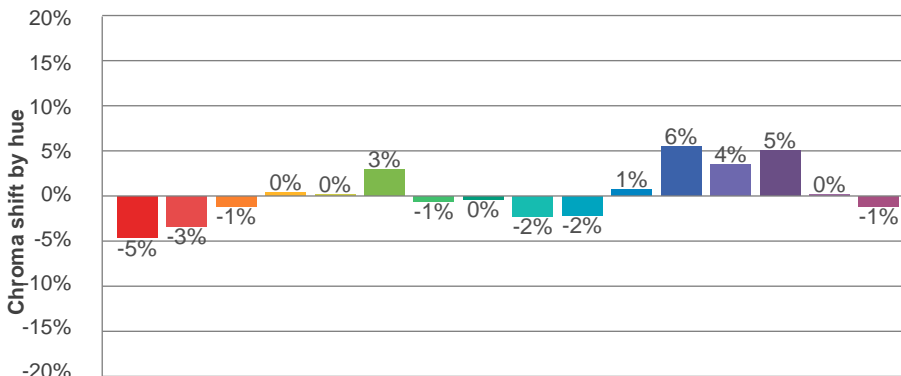
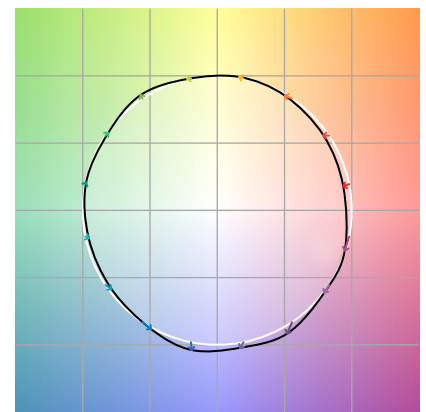
TM-30Color



Hue Bin	R <sub>f</sub>	Graphic shifts (%)	
		Chroma	Hue
1	91	-5%	-1%
2	93	-3%	3%
3	89	-1%	5%
4	94	0%	3%
5	94	0%	3%
6	95	3%	0%
7	94	-1%	-3%
8	98	0%	-1%
9	95	-2%	2%
10	91	-2%	5%
11	88	1%	8%
12	91	6%	2%
13	93	4%	-3%
14	89	5%	-8%
15	90	0%	-7%
16	87	-1%	-11%



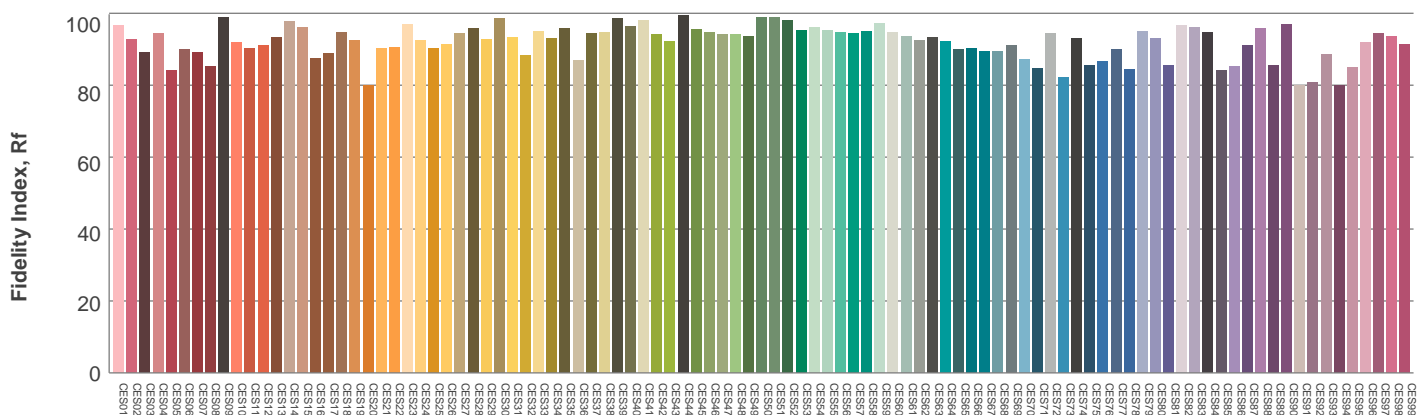
Color vector graphics



Color distortion

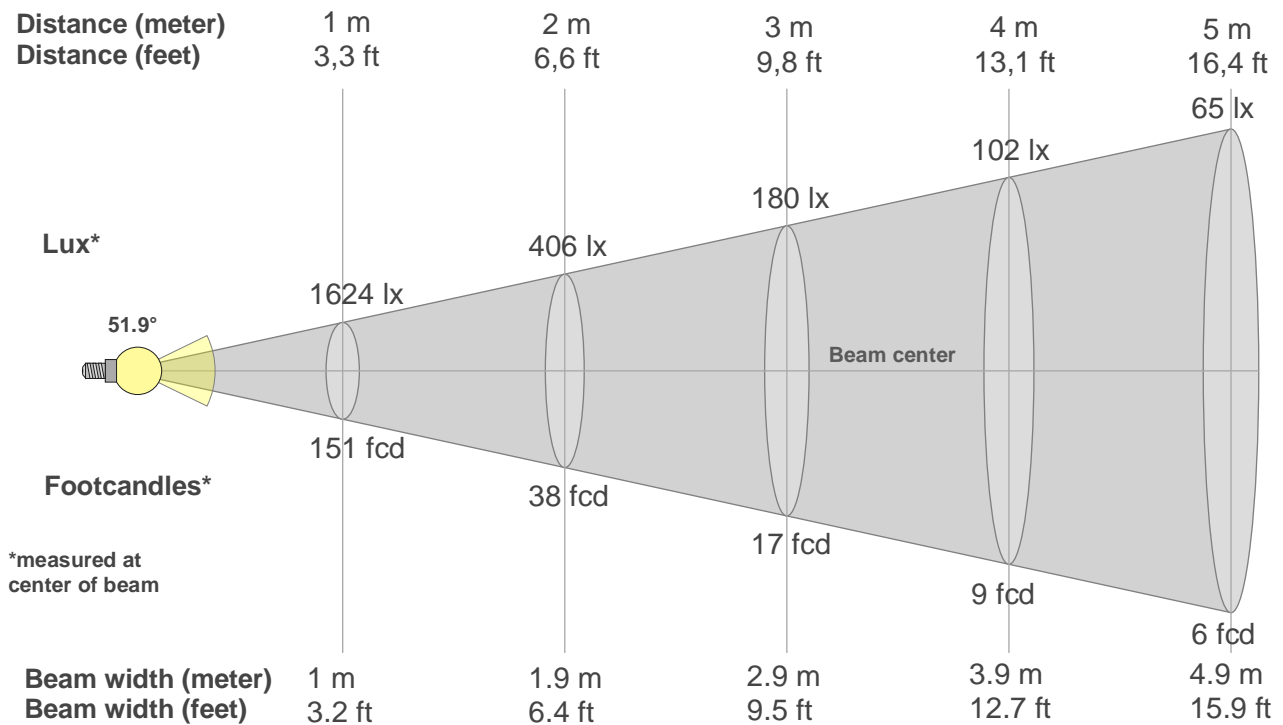


Hue bin



Color Evaluation Sample

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
1624lx	406lx	180lx	102lx	65lx	45lx	33lx	25lx	20lx	16lx	13lx	11lx	10lx	8lx	7lx	6lx	6lx	5lx	4lx	4lx
150.9fcd	37.7fcd	16.8fcd	9.4fcd	6fcd	4.2fcd	3.1fcd	2.4fcd	1.9fcd	1.5fcd	1.2fcd	1fcd	0.9fcd	0.8fcd	0.7fcd	0.6fcd	0.5fcd	0.5fcd	0.4fcd	0.4fcd

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°
1624	1624	1611	1594	1573	1541	1508	1460	1402	1310	1202	1102	980	806	609	425	301	219	164	116
100%	100%	99%	98%	97%	95%	93%	90%	86%	81%	74%	68%	60%	50%	37%	26%	19%	14%	10%	7%

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°
1624	1624	1611	1594	1573	1541	1508	1460	1402	1310	1202	1102	980	806	609	425	301	219	164	116
100%	100%	99%	98%	97%	95%	93%	90%	86%	81%	74%	68%	60%	50%	37%	26%	19%	14%	10%	7%

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°
1624	1624	1611	1594	1573	1541	1508	1460	1402	1310	1202	1102	980	806	609	425	301	219	164	116
100%	100%	99%	98%	97%	95%	93%	90%	86%	81%	74%	68%	60%	50%	37%	26%	19%	14%	10%	7%

Intensities in 270° c-plane

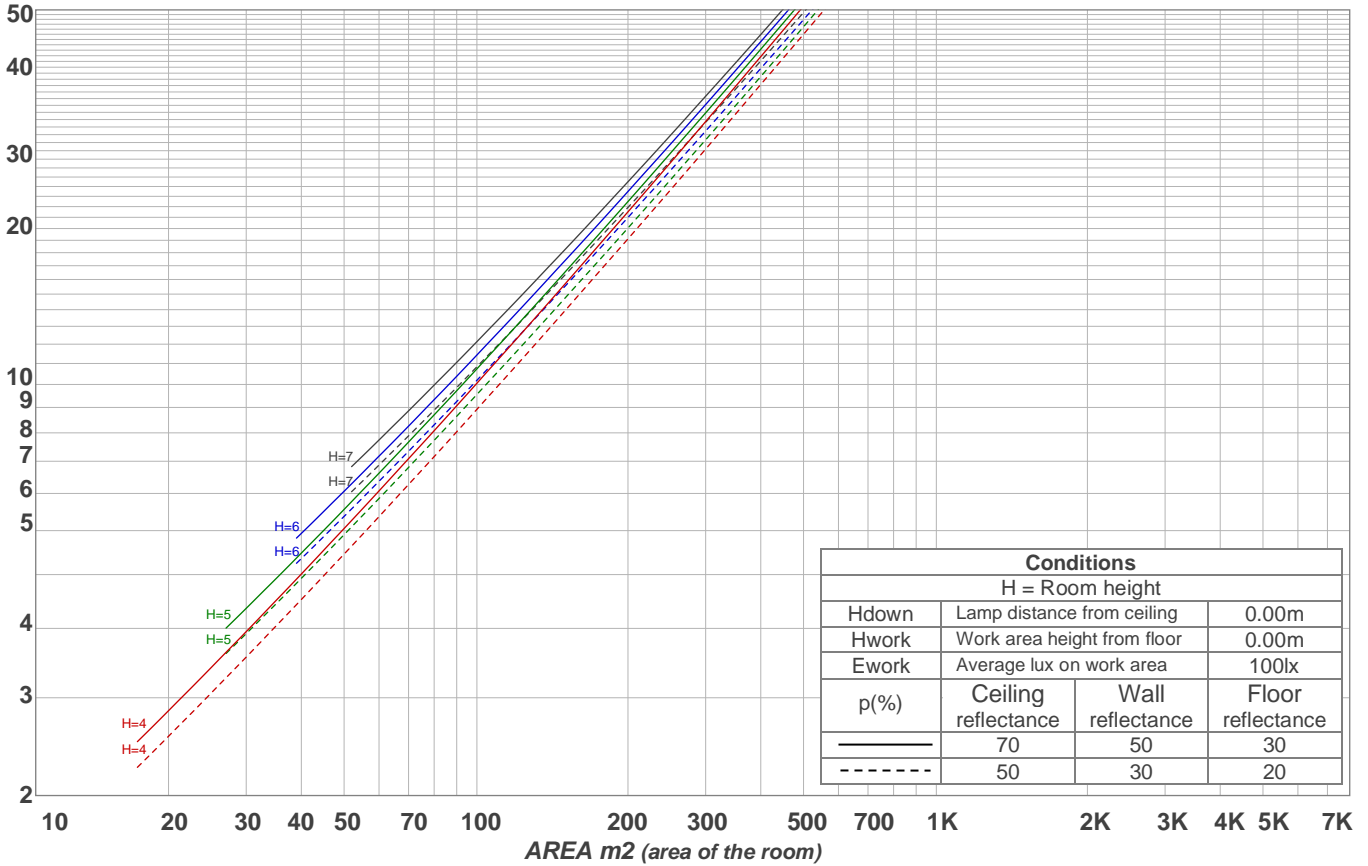
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1624	1624	1611	1594	1573	1541	1508	1460	1402	1310	1202	1102	980	806	609	425	301	219	164	116
100%	100%	99%	98%	97%	95%	93%	90%	86%	81%	74%	68%	60%	50%	37%	26%	19%	14%	10%	7%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
51.9°	72.1°	87.8°	99.7%	98.4%

### Light planning

### Luminaire budgetary diagram

LAMPS (number of lamps)



### 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
<b>RCR</b>	<b>(RCR: Room Cavity Ratio)</b>																	
	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	114	111	109	107	112	109	107	105	105	104	102	102	100	99	98	97	96	95
2	109	105	101	98	107	103	100	97	100	97	95	97	95	93	94	92	91	89
3	104	98	94	90	102	97	93	90	94	91	88	92	89	87	90	88	86	84
4	100	93	88	84	98	92	87	84	90	86	83	88	84	82	86	83	81	79
5	95	88	83	79	94	87	82	78	85	81	78	84	80	77	82	79	76	75
6	91	83	78	74	90	82	77	74	81	76	73	80	76	73	78	75	72	71
7	87	79	73	70	86	78	73	70	77	72	69	76	72	69	75	71	68	67
8	84	75	70	66	82	74	69	66	73	69	66	72	68	65	72	68	65	64
9	80	71	66	62	79	71	66	62	70	65	62	69	65	62	68	65	62	61
10	77	68	63	59	76	68	63	59	67	62	59	66	62	59	66	62	59	58

### Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
151 lm	395 lm	388 lm	127 lm	27.9 lm	6.15 lm	1.98 lm	0.749 lm	0.418 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

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	28.0	28.6	28.1	28.8	29.0	28.0	28.6	28.1	28.8	29.0
	3H	27.7	28.4	28.1	28.6	28.8	27.7	28.4	28.1	28.6	28.8
	4H	27.6	28.3	28.0	28.5	28.8	27.6	28.3	28.0	28.5	28.8
	6H	27.7	28.2	27.9	28.5	28.8	27.7	28.2	27.9	28.5	28.8
	8H	27.6	28.1	27.9	28.5	28.8	27.6	28.1	27.9	28.5	28.8
	12H	27.5	28.1	27.9	28.4	28.8	27.5	28.1	27.9	28.4	28.8
4H	2H	27.6	28.3	28.0	28.5	28.8	27.6	28.3	28.0	28.5	28.8
	3H	27.6	28.1	27.9	28.4	28.8	27.6	28.1	27.9	28.4	28.8
	4H	27.4	27.9	27.8	28.3	28.8	27.4	27.9	27.8	28.3	28.8
	6H	27.3	27.9	27.8	28.2	28.5	27.3	27.9	27.8	28.2	28.5
	8H	27.3	27.8	27.8	28.1	28.5	27.3	27.8	27.8	28.1	28.5
	12H	27.2	27.6	27.7	28.0	28.5	27.2	27.6	27.7	28.0	28.5
8H	4H	27.3	27.8	27.8	28.1	28.5	27.3	27.8	27.8	28.1	28.5
	6H	27.2	27.5	27.7	28.0	28.5	27.2	27.5	27.7	28.0	28.5
	8H	27.2	27.5	27.7	28.0	28.6	27.2	27.5	27.7	28.0	28.6
	12H	27.2	27.4	27.8	27.9	28.5	27.2	27.4	27.8	27.9	28.5
12H	4H	27.2	27.6	27.7	28.0	28.5	27.2	27.6	27.7	28.0	28.5
	6H	27.2	27.5	27.7	28.0	28.6	27.2	27.5	27.7	28.0	28.6
	8H	27.2	27.4	27.8	27.9	28.5	27.2	27.4	27.8	27.9	28.5

Corrected glare indices referring to 1098 lm total luminous flux