

Light efficiency:

42 Lumen/Watt

Output: 623 lm

Light quality:

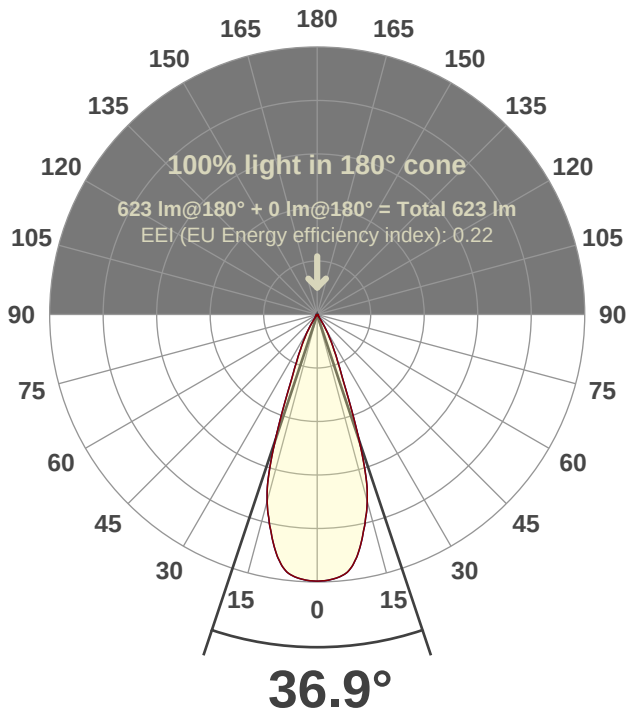
CRI: 92.8

Peak: 1612 cd

Power: 14.7 W



Beam angle



Test number:

CR4D-R-FL-C14-30k-55 (GRF-CZ20-WF-RD)

Luminaire Model:

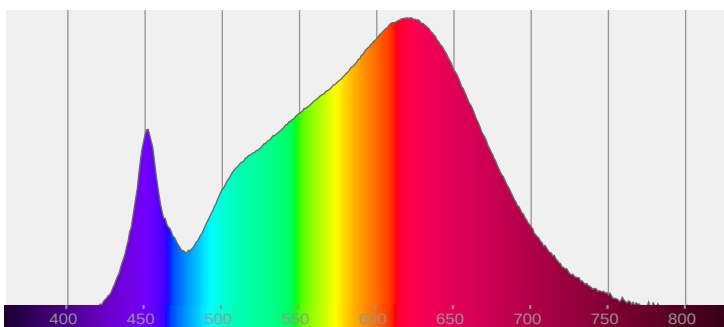
Core 4" Round Flat C14 30K 55°

Date and time:

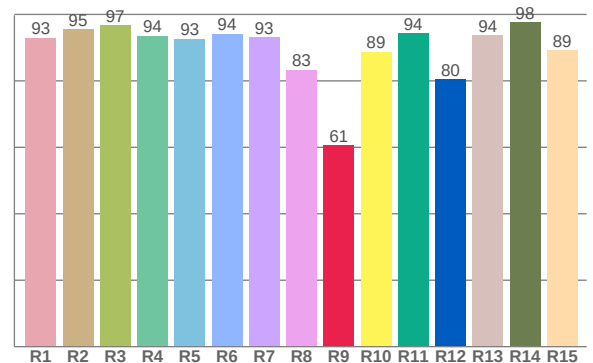
6/14/2017 3:42:26 PM

LUM: 623

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 _f	TM30 R _g	CQS	x	y	u	v	Δuv
	92.8	60.7	91.9	100.2	91.0	0.427	0.400	0.246	0.346	-0.0002

R_f 91.9

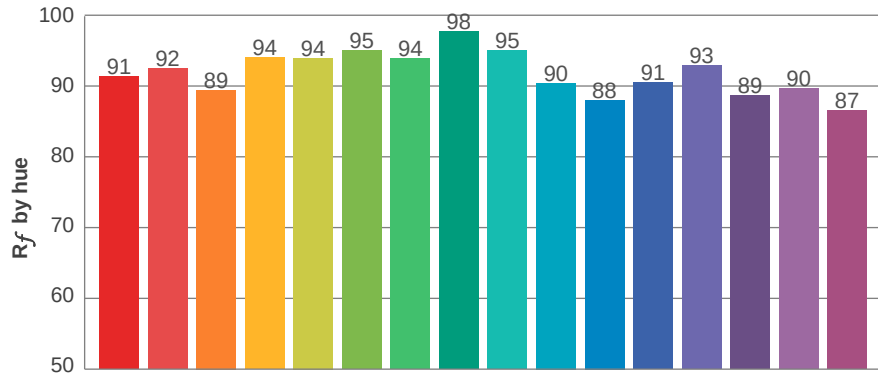
Fidelity index R_f

R_g 100.2

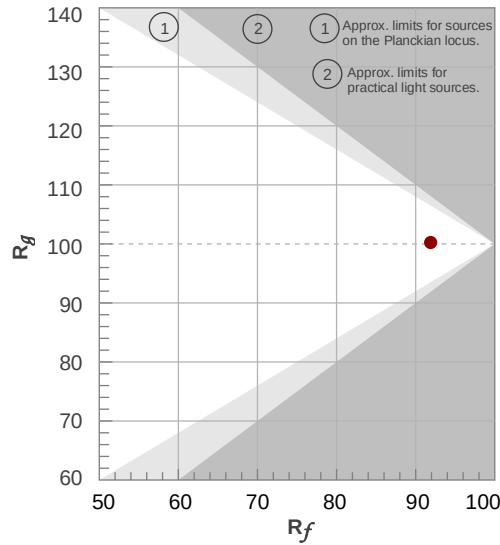
Gamut index R_g

TM30: 91.9

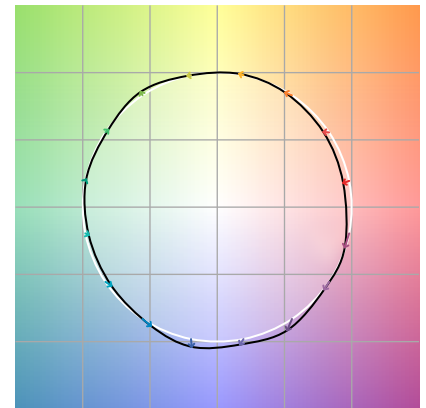
TM-30Color



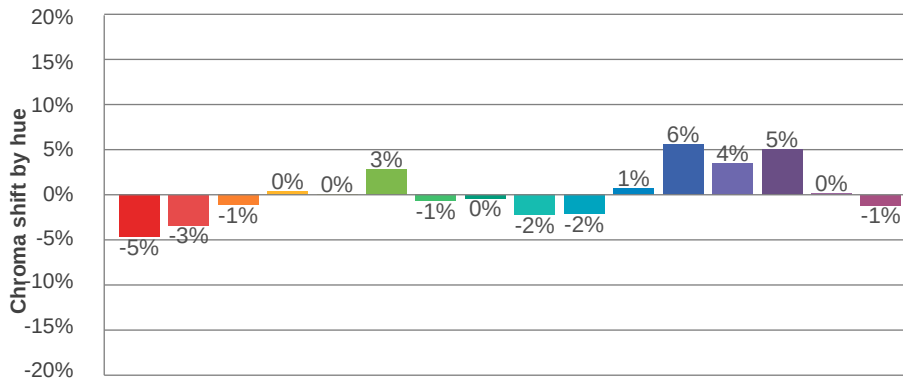
Hue Bin	R_f	Graphic shifts (%)	
		Chroma	Hue
1	91	-5%	-1%
2	92	-3%	3%
3	89	-1%	5%
4	94	0%	3%
5	94	0%	3%
6	95	3%	0%
7	94	-1%	-3%
8	98	0%	-1%
9	95	-2%	2%
10	90	-2%	5%
11	88	1%	8%
12	91	6%	2%
13	93	4%	-3%
14	89	5%	-8%
15	90	0%	-7%
16	87	-1%	-11%



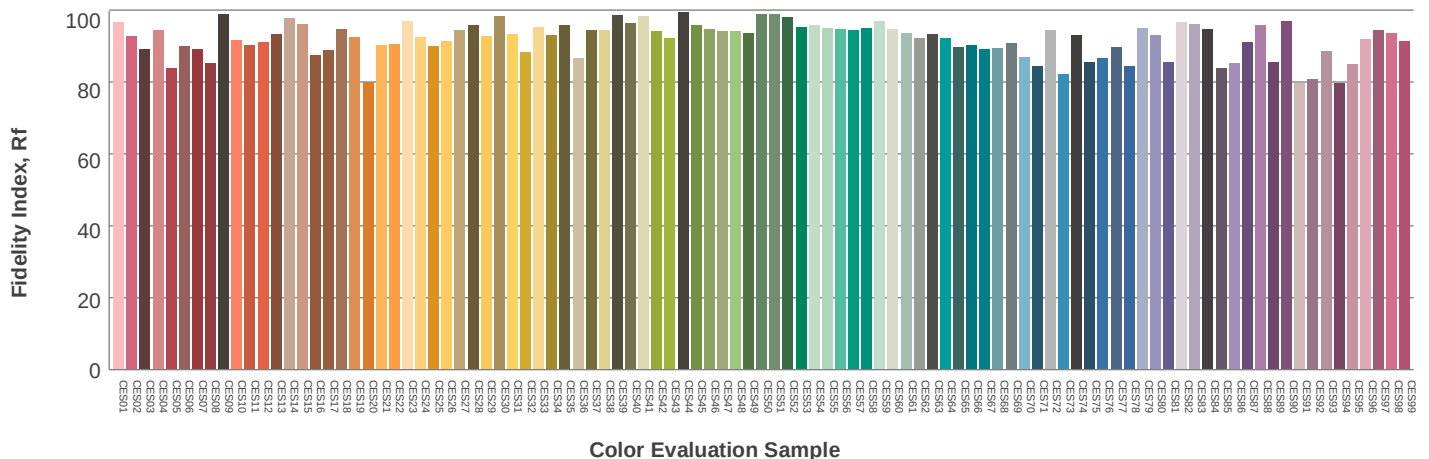
Color vector graphics



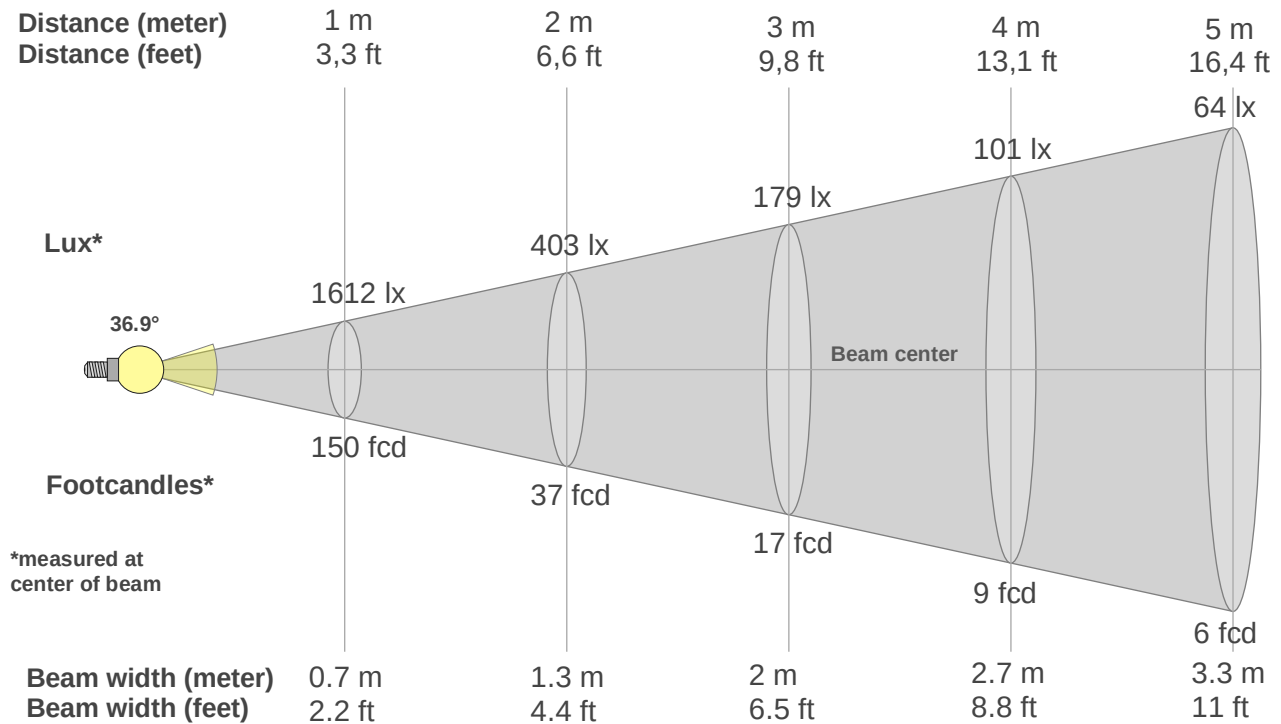
Color distortion



Hue bin



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
1612lx	403lx	179lx	101lx	64lx	45lx	33lx	25lx	20lx	16lx	13lx	11lx	10lx	8lx	7lx	6lx	6lx	5lx	4lx	4lx
149.7fc	37.4fcd	16.6fcd	9.4fcd	6fcd	4.2fcd	3.1fcd	2.3fcd	1.8fcd	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°
1612	1609	1599	1579	1534	1452	1345	1235	1098	871	602	401	298	225	169	125	84	48	29	15
100%	100%	99%	98%	95%	90%	83%	77%	68%	54%	37%	25%	19%	14%	10%	8%	5%	3%	2%	1%

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°
1612	1609	1599	1579	1534	1452	1345	1235	1098	871	602	401	298	225	169	125	84	48	29	15
100%	100%	99%	98%	95%	90%	83%	77%	68%	54%	37%	25%	19%	14%	10%	8%	5%	3%	2%	1%

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°
1612	1609	1599	1579	1534	1452	1345	1235	1098	871	602	401	298	225	169	125	84	48	29	15
100%	100%	99%	98%	95%	90%	83%	77%	68%	54%	37%	25%	19%	14%	10%	8%	5%	3%	2%	1%

Intensities in 270° c-plane

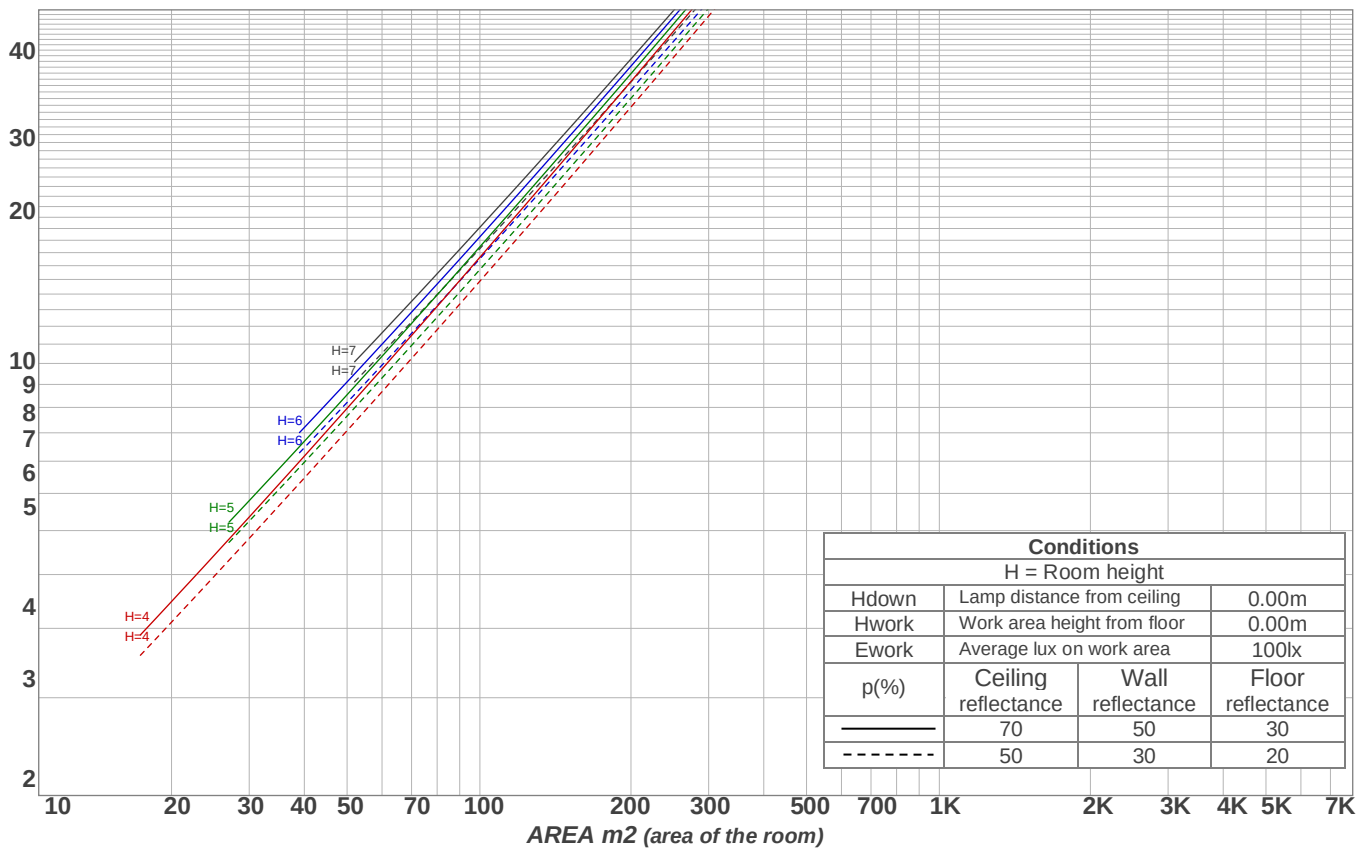
0°	2°	4°	6°	8°	10°	12°	14°	16°	18°	20°	22°	24°	26°	28°	30°	32°	34°	36°	38°
1612	1609	1599	1579	1534	1452	1345	1235	1098	871	602	401	298	225	169	125	84	48	29	15
100%	100%	99%	98%	95%	90%	83%	77%	68%	54%	37%	25%	19%	14%	10%	8%	5%	3%	2%	1%

Beam angle 50%	Field angle 10%	Cutoff angle 2,5%	Intensity ratio in 120° cone	Intensity ratio in 90° cone
36.9°	56.5°	69.6°	98.3%	97.9%

Light planning

Luminaire budgetary diagram

LAMPS (number of lamps)
50



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	114	112	110	108	112	110	108	106	106	104	103	102	101	100	99	98	97	95
2	110	106	103	100	108	104	101	99	101	99	97	98	96	94	96	94	93	91
3	106	101	97	94	104	99	96	93	97	94	91	95	92	90	92	90	89	87
4	102	96	92	89	101	95	91	88	93	90	87	91	88	86	90	87	85	84
5	99	92	88	84	97	91	87	84	90	86	83	88	85	82	87	84	82	81
6	95	89	84	81	94	88	83	80	86	83	80	85	82	79	84	81	79	78
7	92	85	80	77	91	85	80	77	83	79	77	82	79	76	81	78	76	75
8	89	82	77	74	88	81	77	74	81	77	74	80	76	74	79	76	73	72
9	87	79	75	71	86	79	74	71	78	74	71	77	73	71	76	73	71	70
10	84	76	72	69	83	76	72	69	75	71	69	75	71	69	74	71	68	67

Zonal Lumen Summary

0°-10°	10°-20°	20°-30°	30°-40°	40°-50°	50°-60°	60°-70°	70°-80°	80°-90°
148 lm	304 lm	128 lm	28.5 lm	2.62 lm	1.66 lm	2.77 lm	3.88 lm	3.86 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	20.0	20.4	20.1	20.6	20.8	20.0	20.4	20.1	20.6	20.8
	3H	20.7	21.3	21.0	21.5	21.7	20.7	21.3	21.0	21.5	21.7
	4H	21.8	22.4	22.1	22.6	22.8	21.8	22.4	22.1	22.6	22.8
	6H	23.8	24.3	24.1	24.6	24.9	23.8	24.3	24.1	24.6	24.9
	8H	25.1	25.6	25.4	25.9	26.3	25.1	25.6	25.4	25.9	26.3
	12H	26.6	27.1	27.0	27.4	27.8	26.6	27.1	27.0	27.4	27.8
4H	2H	19.9	20.5	20.3	20.7	20.9	19.9	20.5	20.3	20.7	20.9
	3H	21.2	21.7	21.6	22.1	22.5	21.2	21.7	21.6	22.1	22.5
	4H	22.7	23.1	23.1	23.5	24.0	22.7	23.1	23.1	23.5	24.0
	6H	25.1	25.6	25.6	25.9	26.3	25.1	25.6	25.6	25.9	26.3
	8H	26.6	27.1	27.1	27.4	27.8	26.6	27.1	27.1	27.4	27.8
	12H	28.3	28.6	28.8	29.0	29.5	28.3	28.6	28.8	29.0	29.5
8H	4H	23.4	23.9	23.9	24.2	24.6	23.4	23.9	23.9	24.2	24.6
	6H	26.3	26.6	26.8	27.0	27.6	26.3	26.6	26.8	27.0	27.6
	8H	28.0	28.3	28.6	28.8	29.4	28.0	28.3	28.6	28.8	29.4
	12H	29.9	30.1	30.5	30.6	31.2	29.9	30.1	30.5	30.6	31.2
12H	4H	23.7	24.1	24.2	24.5	24.9	23.7	24.1	24.2	24.5	24.9
	6H	26.8	27.0	27.3	27.5	28.1	26.8	27.0	27.3	27.5	28.1
	8H	28.6	28.8	29.2	29.3	29.9	28.6	28.8	29.2	29.3	29.9
Corrected glare indices referring to 623 lm total luminous flux											